

**Versar**<sub>INC.</sub>

RECEIVED

GENERAL INORGANIC CHEMISTRY SECTION  
ANALYTICAL NARRATIVE

DATE : 15-Dec-88  
PROJECT # : 6016.0.0-283  
CASE # : SH 788  
CLIENT : NYSDEC/COZZY

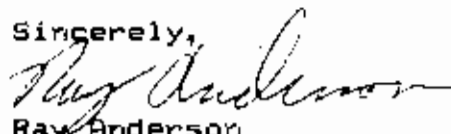
DEC 16 1988  
U.S. DEPARTMENT OF ENVIRONMENTAL PROTECTION  
LABORATORY

This task consisted of 1 waste sample that was analyzed for Total Cyanide. The analysis was performed according to CLP methodology, with the sample result reported on a dry-weight basis.

With the exception of the low Cyanide spike recovery, which can probably be attributed to a sample chemical interference, the overall quality assurance data was good. All calibration and method control standards were within acceptable limits. In addition, all blank results were below method detection limits.

PA'S  
SOIL  
SAMPLE  
11/19/88  
Boring 7A  
near SWW 6

Sincerely,



Ray Anderson  
General Chemistry  
Laboratory Operations



GENERAL INORGANIC CHEMISTRY SECTION  
ANALYSIS REPORT

PROJECT : 6016.0.0-283  
CASE No. : SH 788

QC REPORT  
No. : 283

DATE : 15-Dec-88  
PAGE : 1

LAB #	FIELD #	Total Cyanide (mg/kg)	Total Solids ( % )
61640	001 738001 01	0.59	82.9

  
LABORATORY MANAGER



GENERAL INORGANIC CHEMISTRY  
QUALITY ASSURANCE REPORT

DATE: 15-Dec-88  
PAGE: 1  
# OF SAMPLES: 1

PROJECT: 5016.0.0-283  
CASE No: SH 788  
QC REPORT No: 283

PARAMETER: Total  
Cyanide  
(mg/kg)

I. INITIAL CALIBRATION VERIFICATION	REFERENCE	FOUND	1504. ug/l
	STANDARD		
	SOURCE	TRUE	1500. ug/l
	EPA WP 586		
		% RECOVERY	101%
	METHOD DETECTION	LIMIT	0.50
II. CONTINUING CALIBRATION VERIFICATION	BLANK 1	RESULTS	<10.0 ug/l
	BLANK 2	RESULTS	
		FOUND	491. ug/l
	STANDARD 1	TRUE	500. ug/l
	SOURCE		
	EPA WP 586		
		% RECOVERY	98%
		FOUND	102.
	STANDARD 2	TRUE	100.
	SOURCE		
Versar Std.			
	% RECOVERY	102%	
	FOUND	101.	
STANDARD 3	TRUE	100.	
SOURCE			
	% RECOVERY	101%	
III. DUPLICATE SAMPLE RESULTS		SAMPLE RESULT	<0.59
	DUPLICATE	DUPLICATE RESULT	<0.59
	FIELD #		
001 738001 01			
		RPD %	* NC
IV. SPIKED SAMPLE RESULT		% SAMPLE RESULT	<0.59
	BPIKED	SPIKE RESULT	2.40
	FIELD #		
	009 01	SPIKE ADDED	5.97
		% RECOVERY	40%

\*NC= Not Calculable



GENERAL INORGANIC CHEMISTRY  
QUALITY ASSURANCE REPORT

DATE: 15-Dec-88  
PAGE: 2  
# OF SAMPLES: 1

PROJECT: 6016.0.0-283  
CASE No: SH 788  
QC REPORT No: 283

PARAMETER: Total Solids (%)

I. INITIAL CALIBRATION VERIFICATION	REFERENCE STANDARD SOURCE	1g class "s" wt.	FOUND	1.0000
			TRUE	1.0000
			% RECOVERY	100%
		METHOD DETECTION	LIMIT	
II. CONTINUING CALIBRATION VERIFICATION	BLANK 1		RESULTS	(10. mg/l)
	BLANK 2		RESULTS	
	STANDARD 1 SOURCE EPA Digested Sludge		FOUND	96.2
			TRUE	96.0
			% RECOVERY	100%
	STANDARD 2 SOURCE		FOUND	
			TRUE	
			% RECOVERY	
	STANDARD 3 SOURCE		FOUND	
			TRUE	
		% RECOVERY		
III. DUPLICATE SAMPLE RESULTS	DUPLICATE EPA SAMPLE # 001 738001 01		SAMPLE RESULT	82.9
			DUPLICATE RESULT	84.8
			RPD %	2.3%
IV. SPIKED SAMPLE RESULT	SPIKED EPA SAMPLE #		X SAMPLE RESULT	
			SPIKE RESULT	
			SPIKE ADDED	
			% RECOVERY	

\*NC= Not Calculable





10-13-88

CA

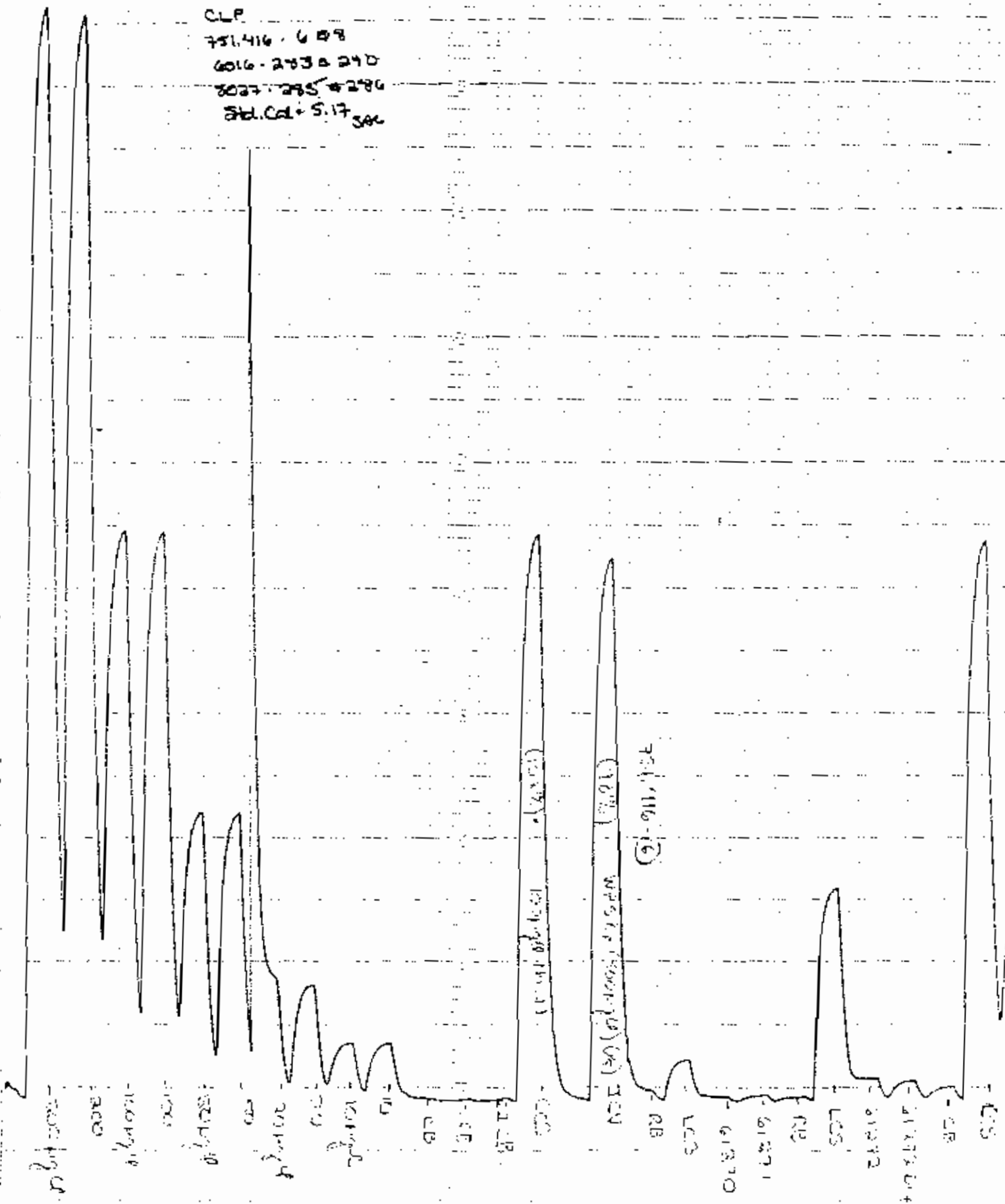
CLP

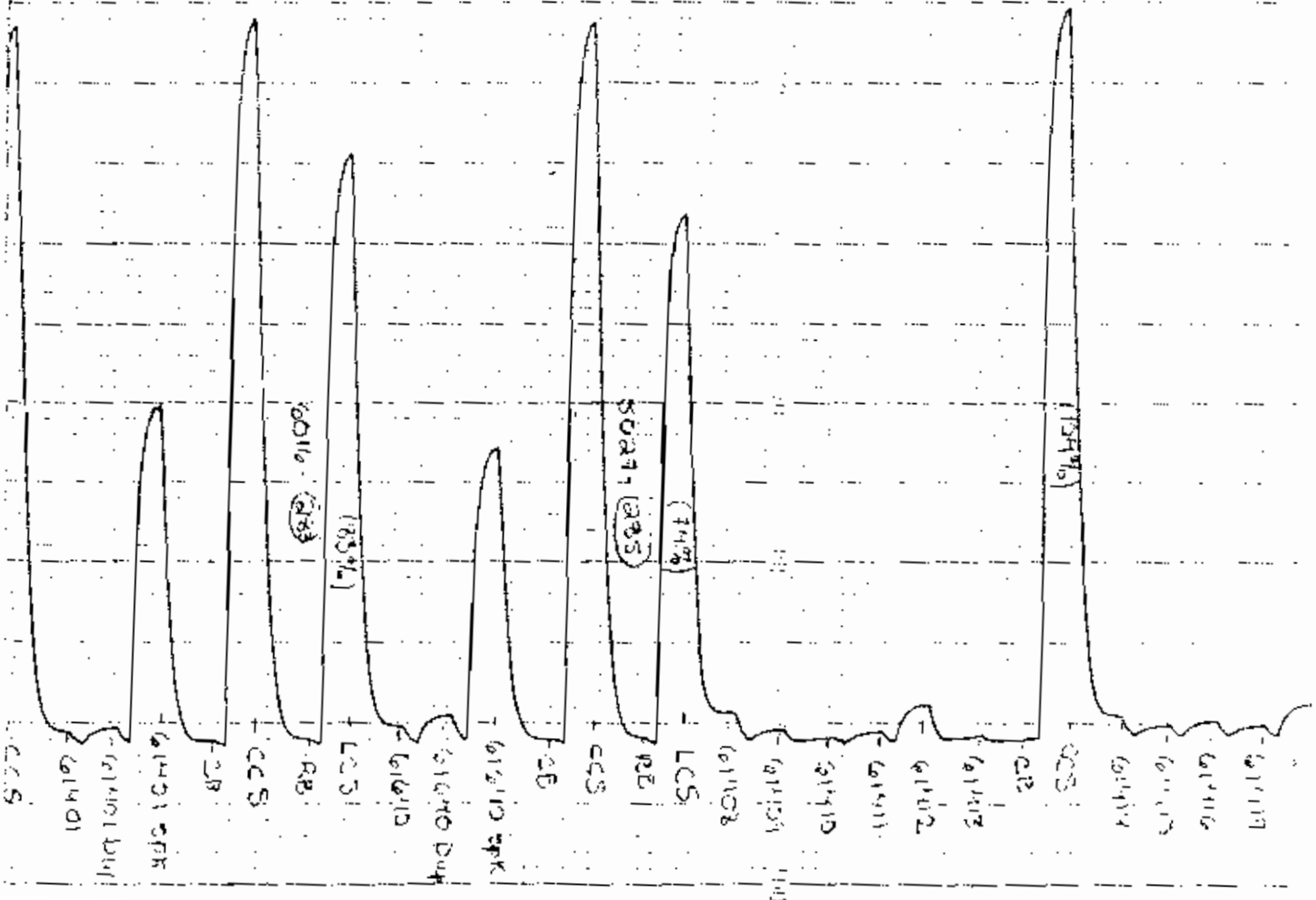
731,416 - 608

6016 - 2030 240

3027 - 295 #280

Std. Cal + 5.17 sec







Date: December 8, 1988

TOTAL SOLIDS

Project No. 6016-283 page: 223

Metler Balance Calibration  
 Zero 0.0000  
 50 mg wt. 0.0500  
 1 gram wt. 1.0000  
 50 gram wt. 50.0000

EPA  
 Municipal Digest Sludge  
 @ 96.0%

Sample #	Crucible Wt. (g)	Crucible + Sample (g)	Dried Cruc. + Sample (g)	% Solids	% H <sub>2</sub> O	Comments
61037	11.8429	36.8584	32.5816	88.4	/	
duplicate 61037	14.3797	42.0064	37.2476	84.8		$\bar{x} = 85.8$ s.d. = 2.49
Blank	13.8269	—	13.8270	< 1.0 mg/L		
EPA	13.8149	13.7487	13.7497	96.2		100.0% accuracy

CC  
 12-13-88

Analyst Cheryl Davis  
 Date December 11, 1988



## ANALYSIS NARRATIVE

Project: 6016 - 283  
Client: New York State  
Site: Cozzy  
Date: December 17, 1988

This project consisted of one waste which was received on November 18, 1988. It was digested on December 8, 1988 following the US EPA Contract Laboratory Program's (CLP) Statement of Work, SOW no. 787, protocol.

The ICP digestates were then analyzed for EPA's Task I elements by ICP on December 9, 1988 following SOW 787 protocol. All blanks were below the contract required detection (CRDL) as identified in the SOW and all calibration verification standards were within the 10 % control windows. Duplicate precision was good with all relative percent differences (RPD) within the 20 % control windows except for calcium. The high RPD was probably due to a non-homogeneous sample. All spike recoveries were within the 75 - 125 % windows except for antimony. The poor spike recovery for antimony was probably matrix related with both matrix interference and losses by volatilization during the hydrochloric acid digestion being the main factors.

The HGA digestates in turn, were analyzed for arsenic, lead, selenium, and thallium by furnace atomic absorption following SOW 787 protocol. All furnace analysis took place between December 2 and 8, 1988. Like the ICP data, all blanks were below the CRDL and the calibration verification standards were within the control limits. The duplicate RPD's were also good except for lead which like the calcium was probably caused by a non-homogeneous sample. The spike recoveries were all within the 75 - 125 % windows except for arsenic, lead and thallium. The poor thallium recovery was probably caused by matrix interference while the arsenic and lead were out of control due to a non-homogeneous sample.

Lastly, the waste was digested and analyzed for mercury on December 9, 1988 by cold vapor mercury following SOW 787 protocol. All blanks and calibration verification standards were within their respective control windows. The duplicate RPD was within the control windows while the spike recovery was low at 67 %. This low recovery was probably the result of matrix interference.

*Penelope Wong*

-----  
Penelope K. Wong  
Laboratory Operations

DATE: 12/16/88

COVER PAGE  
INORGANIC ANALYSES DATA PACKAGE

LAB NAME: VERSAR, INC.  
SDW NO.: 785

Q.C. REPORT: 253  
CASE NO.: SH 788  
PROJECT NO.: 6016.0000

SAMPLE NUMBERS

FIELD NO.	LAB ID NO.	FIELD NO.	LAB ID NO.
001 738001 01	61639		

COMMENTS:

ICP INTERELEMENT AND BACKGROUND CORRECTION APPLIED? YES.  
CORRECTIONS APPLIED BEFORE GENERATION OF RAW DATA.

FOOTNOTES:

NR - NOT REQUIRED BY CONTRACT AT THIS TIME

FORM I:

VALUE - IF THE RESULT IS A VALUE GREATER THAN OR EQUAL TO THE INSTRUMENT DETECTION LIMIT BUT LESS THAN THE CONTRACT REQUIRED DETECTION LIMIT, REPORT THE VALUE IN BRACKETS ( I.E., [10] ). INDICATE THE ANALYTICAL METHOD USED WITH P ( FOR ICP/FLAME AA ) OR F ( FOR FURNACE ).

U - INDICATES ELEMENT WAS ANALYZED FOR BUT NOT DETECTED. REPORT WITH THE DETECTION LIMIT VALUE ( E.G., 100 ).

E - INDICATES A VALUE ESTIMATED OR NOT REPORTED DUE TO THE PRESENCE OF INTERFERENCE. EXPLANATORY NOTE INCLUDED ON COVER PAGE.

S - INDICATES VALUE DETERMINED BY METHOD OF STANDARD ADDITION

N - INDICATES SPIKE SAMPLE RECOVERY IS NOT WITHIN CONTROL LIMITS.

\* - INDICATES DUPLICATE ANALYSIS IS NOT WITHIN CONTROL LIMITS.

+ - INDICATES THE CORRELATION COEFFICIENT FOR METHOD OF STANDARD ADDITION IS LESS THAN 0.995

DF - DILUTION FACTOR

SD - SAMPLE USED FOR ICP SERIAL DILUTION

M - INDICATES DUPLICATE INJECTION RESULTS EXCEED CONTROL LIMITS

INDICATE METHOD USED: P FOR ICP; A FOR FLAME AA; AND F FOR FURNACE.

FORM I

.....  
 : SAMPLE NO. :  
 : 001 738001 01 :  
 : .....

DATE 12/16/88

INORGANIC ANALYSIS DATA SHEET

LAB NAME VENSAR INC.  
 -----  
 SOW. NO. 785  
 -----  
 LAB SAMPLE ID. NO. 61639  
 -----  
 PROJECT-TASK 6016.0000  
 -----

CASE NO. SH788  
 -----  
 LAB RECEIPT DATE 11/18/88  
 -----  
 QC REPORT NO. 283  
 -----  
 BATCH 283  
 -----

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW MEDIUM HIGH  
 -----  
 MATRIX: WATER SOIL WASTE X  
 -----

MG/KG WET WEIGHT

1. ALUMINUM	8000.	P	13. MAGNESIUM	3140.	P
2. ANTIMONY	7.0 UR	P	14. MANGANESE	474.	P
3. ARSENIC	5.9 N	F	15. MERCURY	0.12 UM	
4. BARIUM	52.	P	16. NICKEL	14.	P
5. BERYLLIUM	[ 0.25 ]	P	17. POTASSIUM	[ 799. ]	P
6. CADMIUM	0.96 0	P	18. SELENIUM	1.2 U	F
7. CALCIUM	6910.	* P	19. SILVER	[ 1.6 ]	P
8. CHROMIUM	14.	P	20. SODIUM	[ 118. ]	P
9. COBALT	[ 8.4 ]	P	21. THALLIUM	2.4 UM	F
10. COPPER	37.	P	22. VANADIUM	16.	P
11. IRON	14000.	P	23. ZINC	36.	P
12. LEAD	14. N* F S		PERCENT SOLIDS	82.9	
CYANIDE	NR				

FOOTNOTES: SEE COVER PAGE.

COMMENTS: COLOR - BLACK; TEXTURE - MEDIUM (ROCKS); SD;

TASK MANAGER

*PKW For*

CHRIS PAPPAS

FORM II A  
INITIAL AND CONTINUING CALIBRATION VERIFICATION (3)

Q.C. REPORT: 283

LAB NAME: VERSAR, INC.

CASE NO.: SH 788

DATE: 12/16/88

SOW NO. 785

UNITS: UG/L

COMPOUND	INITIAL CALIB. (1)			CONTINUING CALIB. (2)				
	TRUE	FOUND	%R	TRUE	FOUND	%R	FOUND	%R
1. ALUMINUM	2090.	2020.	97.	500.	534.	107.	468.	94. P
2. ANTIMONY	1010.	1020.	101.	500.	532.	106.	504.	101. P
4. BARIUM	2010.	1990.	99.	500.	501.	100.	499.	100. P
3. ARSENIC	47.0	50.	106.	50.	52.	104.	47.	94. F
5. BERYLLIUM	501.	486.	97.	500.	506.	101.	499.	100. P
6. CADMIUM	492.	499.	101.	500.	513.	103.	508.	102. P
7. CALCIUM	50200.	51000.	102.	20000.	21000.	105.	19700.	98. P
8. CHROMIUM	503.	486.	97.	500.	499.	100.	490.	98. P
9. COBALT	498.	494.	99.	500.	509.	102.	506.	101. P
10. COPPER	520.	527.	101.	500.	511.	102.	512.	102. P
11. IRON	2080.	1980.	95.	500.	477.	95.	492.	98. P
12. LEAD	100.	110.	110.	25.	27.	108.	27.	108. F
15. MERCURY	4.9	4.7	96.	5.06	4.4	87.	---	---
13. MAGNESIUM	25700.	23000.	93.	500.	519.	104.	492.	98. P
14. MANGANESE	504.	498.	99.	500.	505.	101.	506.	101. P
16. NICKEL	485.	458.	94.	500.	481.	96.	478.	96. P
17. POTASSIUM	50200.	49900.	99.	20000.	20500.	102.	19800.	99. P
18. SELENIUM	25.	24.	96.	25.	24.	96.	---	---
19. SILVER	484.	500.	103.	500.	497.	99.	497.	99. P
20. SODIUM	51500.	50600.	98.	20000.	20300.	102.	20000.	100. P
21. THALLIUM	50.	49.	98.	25.	24.	96.	---	---
22. VANADIUM	505.	493.	98.	500.	487.	97.	488.	98. P
23. ZINC	2920.	3010.	103.	500.	546.	109.	499.	100. P
24. CYANIDE	---	---	---	---	---	---	---	---

(1), (2) INITIAL, CONTINUING CALIBRATION SOURCE: EPA, VERSAR, ALFA, NBS

(3) CONTROL LIMITS: MERCURY AND TIN 80-120; OTHER METALS 90-110; CYANIDE 85-115

(4) INDICATE ANALYTICAL METHOD USED: P-ICP; A-FLAME AA; F-FURNACE AA

FORM II B  
INITIAL AND CONTINUING CALIBRATION VERIFICATION(3)

Q.C. REPORT: 283

LAB NAME: VERSAR, INC.

CASE NO.: SH 788

DATE: 12/16/88

SQW NO. 785

UNITS: UG/L

COMPOUND	INITIAL CALIB. (1)			CONTINUING CALIB. (2)			%
	TRUE	FOUND	%R	TRUE	FOUND	%R	
1. ALUMINUM	500.			500.	470.	94.	P
2. ANTIMONY	500.			500.	515.	103.	P
3. ARSENIC	47.0	50.	106.	50.	47.	94.	F
4. BARIUM	500.			500.	500.	100.	P
5. BERYLLIUM	500.			500.	502.	100.	P
6. CADMIUM	500.			500.	513.	103.	P
7. CALCIUM	20000.			20000.	19900.	100.	P
8. CHROMIUM	500.			500.	498.	100.	P
9. COBALT	500.			500.	507.	101.	P
10. COPPER	500.			500.	506.	101.	P
11. IRON	500.			500.	492.	98.	P
12. LEAD	100.	107.	107.	25.	26.	104.	F
13. MAGNESIUM	500.			500.	495.	99.	P
14. MANGANESE	500.			500.	507.	101.	P
15. MERCURY	5.06			---	---	---	
16. NICKEL	500.			500.	475.	95.	P
17. POTASSIUM	20000.			20000.	20200.	101.	P
18. SELENIUM	25.			---	---	---	F
19. SILVER	500.			500.	497.	99.	P
20. SODIUM	20000.			20000.	20100.	100.	P
21. THALLIUM	25.			---	---	---	F
22. VANADIUM	500.			500.	488.	98.	P
23. ZINC	500.			500.	504.	101.	P
24. CYANIDE	---			---	---	---	

(1), (2) INITIAL, CONTINUING CALIBRATION SOURCE: EPA, VERSAR, ALFA, NBS

(3) CONTROL LIMITS: MERCURY AND TIN 80-120; OTHER METALS 90-110; CYANIDE 85-115

(4) INDICATE ANALYTICAL METHOD USED: P-ICP; A-FLAME AA; F-FURNACE AA

FORM III A  
BLANKS

Q.C. REPORT: 283

LAB NAME: VERSAR, INC.  
DATE: 12/16/88

CASE NO.: SH 788  
UNITS: UG/L

COMPOUND	INITIAL CALIB BLANK VALUE	MATRIX HOH CONTINUING CALIB BLANK VALUE				PREP BLANK (1)	
		1	2	3	4	MATRIX 1: SOIL	MATRIX 2:
1. ALUMINUM	20.0	20.0	20.0	20.0	20.0	4.00	
2. ANTIMONY	29.0	29.0	29.0	29.0	29.0	5.80	
3. ARSENIC	2.00	2.00	2.00	---	---	0.400	
4. BARIUM	1.00	1.00	1.00	1.00	1.00	[ 0.293	
5. BERYLLIUM	1.00	1.00	1.00	1.00	1.00	0.200	
6. CADMIUM	4.00	4.00	4.00	4.00	4.00	0.800	
7. CALCIUM	8.00	8.00	[ 11.3	8.00	8.00	[ 2.23	
8. CHROMIUM	4.00	4.00	4.00	4.00	4.00	0.800	
9. COBALT	5.00	5.00	5.00	5.00	5.00	1.00	
10. COPPER	4.00	4.00	4.00	4.00	4.00	0.800	
11. IRON	6.00	6.00	[ 9.03	6.00	6.00	1.20	
12. LEAD	2.00	2.00	2.00	---	---	0.400	
13. MAGNESIUM	2.00	2.00	[ 6.03	[ 3.13	2.00	[ 0.533	
14. MANGANESE	2.00	2.00	2.00	2.00	2.00	0.400	
15. MERCURY	0.20	0.20	---	---	---	0.100	
16. NICKEL	9.00	9.00	9.00	9.00	9.00	1.80	
17. POTASSIUM	553.0	553.0	553.0	553.0	553.0	111.0	
18. SELENIUM	3.00	3.00	---	---	---	0.600	
19. SILVER	4.00	4.00	4.00	[ 5.13	4.00	0.800	
20. SODIUM	28.0	28.0	28.0	28.0	28.0	5.60	
21. THALLIUM	1.00	1.00	---	---	---	0.200	
22. VANADIUM	3.00	3.00	3.00	3.00	3.00	0.600	
23. ZINC	2.00	2.00	2.00	2.00	2.00	0.400	
24. CYANIDE	---	---	---	---	---	---	

(1) REPORTING UNITS: AQUEOUS, UG/L; SOLID, MG/KG

FORM III B  
BLANKS

Q.C. REPORT: 203

LAB NAME: VERSAR, INC.  
DATE: 12/16/88

CASE NO.: SH 788  
UNITS: UG/L

COMPOUND	INITIAL CALIB BLANK VALUE	MATRIX		NON		PREP BLANK (1)	
		1	2	3	4	MATRIX 1:	MATRIX 2:
1. ALUMINUM							
2. ANTIMONY							
3. ARSENIC	2.00	2.00					
4. BARIUM							
5. BERYLLIUM							
6. CADMIUM							
7. CALCIUM							
8. CHROMIUM							
9. COBALT							
10. COPPER							
11. IRON							
12. LEAD	2.00	2.00					
13. MAGNESIUM							
14. MANGANESE							
15. MERCURY							
16. NICKEL							
17. POTASSIUM							
18. SELENIUM							
19. SILVER							
20. SODIUM							
21. THALLIUM							
22. VANADIUM							
23. ZINC							
24. CYANIDE							

(1) REPORTING UNITS: AQUEOUS, UG/L; SOLID, MG/KG



FORM IV A  
ICP INTERFERENCE CHECK SAMPLE

Q.C. REPORT: 283

LAB NAME: VERSAR, INC.  
DATE: 12/16/88

CASE NO.: SH 788  
CHECK SAMPLE I.D.: ICSAB  
CHECK SAMPLE SOURCE: EPA  
UNITS: UG/L

COMPOUND	CONTROL LIMITS(1)		TRUE (2)	INITIAL		FINAL	
	MEAN	2X STD.DEV.		OBSERVED	%R	OBSERVED	%R
1. ALUMINUM	506000.	6930.	508000.	482000.	95.	488000.	96.
2. ANTIMONY	6.	38.	0.0	29.U	0.0	29.U	0.0
3. ARSENIC	100.	112.	---	---	---	---	---
4. BARIUM	491.	9.	483.	465.	96.	470.	97.
5. BERYLLIUM	454.	5.	474.	446.	94.	450.	95.
6. CADMIUM	920.	5.	909.	972.	107.	972.	107.
7. CALCIUM	493000.	4450.	470000.	505000.	107.	509000.	108.
8. CHROMIUM	910.	12.	513.	478.	93.	478.	93.
9. COBALT	457.	3.	476.	448.	94.	454.	95.
10. COPPER	523.	9.	534.	528.	99.	529.	99.
11. IRON	196000.	2580.	211000.	235000.	111.	237000.	112.
12. LEAD	4480.	38.	---	---	---	---	---
13. MAGNESIUM	436000.	442.	513000.	487000.	95.	490000.	96.
14. MANGANESE	524.	4.	470.	466.	99.	467.	99.
15. MERCURY	---	---	---	---	---	---	---
16. NICKEL	856.	17.	916.	822.	90.	842.	92.
17. POTASSIUM	1000.	357.	0.0	553.U	0.0	553.U	0.0
18. SELENIUM	---	---	---	---	---	---	---
19. SILVER	907.	6.	934.	959.	103.	962.	103.
20. SODIUM	489.	20.	0.0	[ 328. ]	0.0	[ 347. ]	0.0
21. THALLIUM	---	---	---	---	---	---	---
22. VANADIUM	439.	6.	475.	450.	95.	453.	95.
23. ZINC	932.	9.	973.	858.	88.	872.	90.

(1) MEAN BASED ON N = 5

(2) TRUE VALUE OF INTERFERENCE CHECK SAMPLE

FORM V A  
SPIKE SAMPLE RECOVERY

Q.C. REPORT: 283

LAB NAME: VERSAR, INC.  
DATE: 12/16/88

CASE NO.: SH 788  
FIELD NO.: 001 738001 91  
LAB SAMPLE ID NO.: 61639  
UNITS: MG/KG

MATRIX: WASTE

COMPOUND	CONTROL LIMIT XR	SPIKED SAMPLE RESULT (SSR)	SAMPLE RESULT (SR)	SPIKED ADDED (SA)	XR (1)	
1. ALUMINUM	75-125	NR	---	---	---	
2. ANTIMONY	75-125	76.	7.0U	121.	63.	N
3. ARSENIC	75-125	12.	5.9	9.7	63.	N
4. BARIUM	75-125	548.	52.	482.	103.	
5. BERYLLIUM	75-125	12.	[ 0.25 ]	12.	98.	
6. CADMIUM	75-125	13.	0.96U	12.	108.	
7. CALCIUM	75-125	NR	---	---	---	
8. CHROMIUM	75-125	62.	14.	48.	100.	
9. COBALT	75-125	126.	[ 8.4 ]	121.	97.	
10. COPPER	75-125	100.	37.	60.	105.	
11. IRON	75-125	NR	---	---	---	
12. LEAD	75-125	34.	14.	12.	167.	N
13. MAGNESIUM	75-125	NR	---	---	---	
14. MANGANESE	75-125	618.	474.	121.	119.	
15. MERCURY	75-125	0.40	0.12U	0.60	67.	N
16. NICKEL	75-125	132.	14.	121.	98.	
17. POTASSIUM	75-125	NR	---	---	---	
18. SELENIUM	75-125	2.3	1.2U	2.4	96.	
19. SILVER	75-125	13.	[ 1.6 ]	12.	95.	
20. SODIUM	75-125	NR	---	---	---	
21. THALLIUM	75-125	8.7	2.4U	12.	72.	N
22. VANADIUM	75-125	134.	16.	121.	98.	
23. ZINC	75-125	152.	36.	121.	96.	
24. CYANIDE	75-125	NR	---	---	---	

(1) XR = [(SSR-SR)/SA] X 100      "N" - OUT OF CONTROL      "NR" - NOT REQUIRED

FORM VI A  
DUPLICATES

R.C. REPORT: 283

LAB NAME: VERSAR, INC.  
DATE: 12/16/88

CASE NO.: SH 788  
FIELD NO.: 001 738001 01  
LAB SAMPLE ID NO.: 61639  
UNITS: MG/KG

MATRIX: WASTE

COMPOUND	CONTROL LIMITS (1)		SAMPLE(S)	DUPLICATE(D)	RPD(2)	
1. ALUMINUM			5000.	8720.	8.6	
2. ANTIMONY			7.0U	7.0U	NC	
3. ARSENIC	+/-	2.4	5.9	4.6	25.	
4. BARIUM	+/-	48.	52.	59.	13.	
5. BERYLLIUM			[ 0.25]	[ 0.32]	NC	
6. CADMIUM			0.97U	[ 1.0]	NC	
7. CALCIUM			6910.	10500.	41.	*
8. CHROMIUM			14.	14.	0.0	
9. COBALT			[ 8.4]	[ 5.6]	NC	
10. COPPER			37.	35.	5.6	
11. IRON			14000.	13700.	2.2	
12. LEAD			14.	19.	30.	*
13. MAGNESIUM	+/-	1210.	3140.	3290.	4.7	
14. MANGANESE			474.	475.	0.21	
15. MERCURY			0.12U	0.12U	NC	
16. NICKEL	+/-	9.7	14.	13.	7.4	
17. POTASSIUM			[ 799.]	[ 696.]	NC	
18. SELENIUM			1.2U	1.2U	NC	
19. SILVER			[ 1.6]	[ 1.1]	NC	
20. SODIUM			[ 118.]	[ 165.]	NC	
21. THALLIUM			2.4U	2.4U	NC	
22. VANADIUM	+/-	12.	16.	16.	0.0	
23. ZINC			36.	38.	5.4	
24. CYANIDE			NR	---	---	

(1) TO BE ADDED AT A LATER DATE (2) RPD = [(S-D)/((S+D)/2)]X100  
 NC - NON CALCULABLE RPD DUE TO VALUE(S) LESS THAN CRDL \* - OUT OF CONTROL

FORM VII A  
INSTRUMENT DETECTION LIMITS AND LABORATORY CONTROL SAMPLE

Q.C. REPORT: 283

LAB NAME: VERSAR, INC.

CASE NO.: SH 788

DATE: 12/16/88

LCS NO.: LCSA  
(WASTE)

COMPOUND	CRDL	IDL (UG/L)		LABORATORY CONTROL SAMPLE		XR
		ICP/AA IDH 4	Furnace IDH 6	TRUE	UNITS: UG/L FOUND	
1. ALUMINUM	200.	20.		2090.	1740.	83.
2. ANTIMONY (1)	60.	29.		1010.	978.	97.
3. ARSENIC	10.		2.	47.0	45.	96.
4. BARIUM	200.	1.		2010.	1940.	96.
5. BERYLLIUM	5.	1.		501.	462.	92.
6. CADMIUM	5.	4.		492.	468.	95.
7. CALCIUM	5000.	8.		50200.	46100.	92.
8. CHROMIUM	10.	4.		505.	467.	93.
9. COBALT	50.	5.		498.	470.	94.
10. COPPER	25.	4.		520.	499.	96.
11. IRON	100.	6.		2080.	1880.	90.
12. LEAD	5.					
13. MAGNESIUM	5000.	2.		25700.	21900.	85.
14. MANGANESE	15.	2.		504.	477.	95.
15. MERCURY	0.2					
16. NICKEL	40.	9.		485.	441.	91.
17. POTASSIUM	5000.	553.		50200.	46200.	92.
18. SELENIUM	5.					
19. SILVER	10.	4.		484.	467.	96.
20. SODIUM	5000.	28.		51500.	48000.	93.
21. THALLIUM (1)	10.		1.	97.3	86.	88.
22. VANADIUM	50.	3.		505.	471.	93.
23. ZINC	20.	2.		2920.	2600.	89.
24. CYANIDE	10.					

NR - NOT REQUIRED  
(1) LCS NO. IS LCSB

IDH 4- JARRELL ASH 1150

IDH 6- PERKIN ELMER 5000

FORM VII B D.C. REPORT: 283  
 INSTRUMENT DETECTION LIMITS AND LABORATORY CONTROL SAMPLE

LAB NAME: VEKSAR, INC.

CASE NO.: SH 788

DATE: 12/16/98  
 LCS NO.: LCSA  
 (WASTE)

COMPOUND	CRDL	IDL (UG/L)		LABORATORY CONTROL SAMPLE		XR
		ICP/AA IDH	Furnace IDH 8	TRUG	UNITS: UG/L FOUND	
1. ALUMINUM	200.					
2. ANTIMONY	60.					
3. ARSENIC	10.					
4. BARIUM	200.					
5. BERYLLIUM	5.					
6. CADMIUM	5.					
7. CALCIUM	5000.					
8. CHROMIUM	10.					
9. COBALT	50.					
10. COPPER	25.					
11. IRON	100.					
12. LEAD	5.					
13. MAGNESIUM	5000.					
14. MANGANESE	15.					
15. MERCURY	0.2					
16. NICKEL	40.					
17. POTASSIUM	5000.					
18. SELENIUM	5.		3.	104.	99.	95.
19. SILVER	10.					
20. SODIUM	5000.					
21. THALLIUM	10.					
22. VANADIUM	50.					
23. ZINC	20.					
24. CYANIDE	10.					

NR - NOT REQUIRED

IDH 8- PERKIN ELMER 3030

FORM VII C  
 INSTRUMENT DETECTION LIMITS AND LABORATORY CONTROL SAMPLE

Q.C. REPORT: 283

LAB NAME: VERSAR, INC.

CASE NO.: SH 788

DATE: 12/16/88

LCS NO.: LCS8

(WASTE)

COMPOUND	CRDL	IDL (UG/L)		LABORATORY CONTROL SAMPLE		
		ICP/AA IDH	Furnace IDH 3	TRUE	UNITS: UG/L FOUND	NR
1. ALUMINUM	200.					
2. ANTIMONY	60.					
3. ARSENIC	10.					
4. BARIUM	200.					
5. BERYLLIUM	5.					
6. CADMIUM	5.					
7. CALCIUM	5000.					
8. CHROMIUM	10.					
9. COBALT	50.					
10. COPPER	25.					
11. IRON	100.					
12. LEAD	5.		2.	97.3	100.	102.
13. MAGNESIUM	5000.					
14. MANGANESE	15.					
15. MERCURY	0.2					
16. NICKEL	40.					
17. POTASSIUM	5000.					
18. SELENIUM	5.					
19. SILVER	10.					
20. SODIUM	5000.					
21. THALLIUM	10.					
22. VANADIUM	50.					
23. ZINC	20.					
24. CYANIDE	10.					

NR - NOT REQUIRED

IDH 3- PERKIN ELMER 2380

FORM VII D  
INSTRUMENT DETECTION LIMITS AND LABORATORY CONTROL SAMPLE

Q.C. REPORT: 283

LAB NAME: VERSAR, INC.

CASE NO.: SH 700

DATE: 12/16/88  
LCS NO.: ICV #5  
(WASTE)

COMPOUND	CRDL	IDL (UG/L)		LABORATORY CONTROL SAMPLE		XR
		ICP/AA IDH	Furnace IDH 1	TRUE	UNITS: UG/L FOUND	
1. ALUMINUM	200.					
2. ANTIMONY	60.					
3. ARSENIC	10.					
4. BARIUM	200.					
5. BERYLLIUM	5.					
6. CADMIUM	5.					
7. CALCIUM	5000.					
8. CHROMIUM	10.					
9. COBALT	50.					
10. COPPER	25.					
11. IRON	100.					
12. LEAD	5.					
13. MAGNESIUM	5000.					
14. MANGANESE	15.					
15. MERCURY	0.2		0.2	4.9	4.7	96.
16. NICKEL	40.					
17. POTASSIUM	5000.					
18. SELENIUM	5.					
19. SILVER	10.					
20. SODIUM	5000.					
21. THALLIUM	10.					
22. VANADIUM	50.					
23. ZINC	20.					
24. CYANIDE	10.					

NR - NOT REQUIRED

IDH 1- PERKIN ELMER 306

FORM VIII A  
STANDARD ADDITION RESULTS

Q.C. REPORT: 283

LAB NAME: VERSAR, INC.  
DATE: 12/16/88

CASE NO.: SH 788  
UNITS: UG/L

FIELD SAMPLE NO.	ELEMENT	MATRIX (1)	0 ADD ADS	1 ADD CON. ABS (2)	2 ADD CON. ABS (2)	3 ADD CON. ABS (2)	FINAL CON. (3)	R (*)
LCSA	AS	---	60.	10./ 79.	20./107.	40./175.	37.	0.9933 +
LCSA	AS	---	58.	10./ 84.	20./104.	40./160.	45.	0.9982

01 738001 01	PB	WAS	39.	5./ 82.	10./113.	20./161.	62.	0.9859 +
01 738001 01	PB	WAS	44.	5./ 65.	10./100.	20./154.	59.	0.9976

(1) MATRIX ABBREVIATIONS: LOW SOLID, LS; MEDIUM SOLID, MS; LOW AQUEOUS, LA;  
MEDIUM AQUEOUS, MA; WASTE, WAS;  
(2) CON IS THE CONCENTRATION ADDED, ABS IS THE INSTRUMENT READOUT IN ABSORBANCE  
OR CONCENTRATION  
(3) CONCENTRATION AS DETERMINED BY MSA  
(\*) "R" IS THE CORRELATION COEFFICIENT  
+ - CORRELATION COEFFICIENT IS OUTSIDE OF CONTROL WINDOW OF 0.995



FORM IX A  
ICP SERIAL DILUTION

Q.C. REPORT: 283

LAB NAME: VERSAR, INC.  
DATE: 12/16/98

CASE NO.: SH 788  
FIELD NO.: 001 738001 01  
LAB SAMPLE ID NO.: 61639  
UNITS: UG/L

MATRIX: WASTE

COMPOUND	INIT. SAMPLE CONC. (1)	SERIAL DIL. (S) (1)	% DIFFERENCE (2)	
1. ALUMINUM	33100.	33000.	0.30	
2. ANTIMONY	29. U	145. U	NR	
3. ARSENIC			NA	
4. BARIUM	219.	219.	0.46	
5. BERYLLIUM	1.0 U	5.0 U	NR	
6. CADMIUM	4.0 U	20. U	NR	
7. CALCIUM	28600.	28400.	0.70	
8. CHROMIUM	60.	56.	6.7	(3)
9. COBALT	[ 35. ]	[ 42. ]	NR	
10. COPPER	153.	142.	7.2	(3)
11. IRON	58100.	58300.	0.34	
12. LEAD			NA	
13. MAGNESIUM	13000.	13300.	2.3	
14. MANGANESE	1960.	1970.	0.51	
15. MERCURY			NA	
16. NICKEL	58.	51.	NR	
17. POTASSIUM	[ 3310. ]	[ 4060. ]	NR	
18. SELENIUM			NA	
19. SILVER	[ 6.51 ]	20. U	NR	
20. SODIUM	[ 489. ]	[ 488. ]	0.20	(3)
21. THALLIUM			NA	
22. VANADIUM	65.	59.	9.2	(3)
23. ZINC	150.	141.	6.0	

(1) DILUTED SAMPLE CONCENTRATION CORRECTED FOR 1:4 DILUTION

(2) PERCENT DIFFERENCE =  $(I-S)/I \times 100$

(3) SERIAL DILUTION IS LESS THAN 10 TIMES IDL; CONTROL LIMITS DO NOT APPLY

NR - NOT REQUIRED, INITIAL SAMPLE CONCENTRATION LESS THAN 10 TIMES IDL

NA - NOT APPLICABLE, ANALYTE NOT DETERMINED BY ICP

FORM X A  
HOLDING TIMES

O.C. REPORT: 283

LAB NAME: VERSAR, INC.  
DATE: 12/16/88

CASE NO.: SH 788

FIELD SAMPLE NO.	MATRIX (1)	DATE RECEIVED	MERCURY PREP DATE	MERCURY HOLDING TIME (DAYS) (2)	CH PREP DATE	CH HOLDING TIME (DAYS) (2)
01 738001 01	WAS	11/18/88	12/09/88	21	NR	

- (1) MATRIX ABBREVIATIONS: LOW SOLID, LS; MEDIUM SOLID, MS; LOW AQUEOUS, LA;  
MEDIUM AQUEOUS, MA; WASTE, WAS;
- (2) HOLDING TIME IS DEFINED AS NUMBER OF DAYS BETWEEN DATE RECEIVED AND THE  
SAMPLE PREPARATION DATE
- NR -- NOT REQUIRED

Verzic Cross Reference Listing for TCAP Data

Sample Name	EPA ID
AR	ICB (initial calibration blank) and CCB (continuing calibration blank)
ICV1	ICV (initial calibration verification) for all elements except antimony
ICV2	ICV (initial calibration verification) for antimony
ICFAB 1, X	ICF (interference check sample) for all elements except aluminum, calcium, iron and magnesium
ICFAB 100	ICF (interference check sample) for aluminum, calcium, iron and magnesium
EPA HM02	ICV (initial calibration verification) and CCV (continuing calibration verification) for silver, cadmium, cobalt, copper, manganese, nickel, lead, selenium, thallium and vanadium
EPA HCL	ICV (initial calibration verification) and CCV (continuing calibration verification) aluminum, arsenic, barium, beryllium, calcium, chromium, iron, potassium, magnesium, sodium, antimony, tin and zinc
DPW, DPS	Preparation Blanks (DPW - waters, DPS - soils)
LCCA	LCC (laboratory control sample) for all elements except antimony and tin
LCSB	LCC (laboratory control sample) for antimony and tin
____DP	Duplicate
____SP	Spike
____SD	Serial Dilution
CRCL VER	CRCL Verification

LIST OF ELEMENTS ON THE CALIBRATION STANDARDS

PLEASE NOTE THE INSTRUMENT WHICH WAS USED TO GENERATE THE DATA. WE USE EITHER A JARRELL ASH 1150 (ID # 4) OR  
 OR A JARRELL ASH ICAP 61 (ID # 3). THE CONTENTS OF THE STANDARDS FOR EACH INSTRUMENT ARE LISTED IN THE TABLE  
 BELOW. WHEN TWO SEPARATE LINES EXIST, THERE ARE NOTATIONS FOR WHICH LINE (LOW OR HIGH) THE STANDARD IS BEING USED.

ELEMENT	DWS 1 (1)	DWS 2 (2)	DWS 3 (2)	DWS 4	DWS 5	DWS 6 (1150) (3)	DWS 6 (ICAP 61) & DWS 7 (1150)	DWS 7 (ICAP 61) (4)	DWS 8 (5)
ALUMINUM			X						
ANTIMONY			X						
ARSENIC				X					
BARIUM			X						
BERYLLIUM			X						
BORON				X					
CADMIUM		X							
CALCIUM		X							
CHROMIUM				X					
COBALT		X							
COPPER		X							
IRON			X			X		X	X
LEAD							X		
LITHIUM			X						
MAGNESIUM		X						X	X
MANGANESE		X							
NIOBYENUM			X						
NICKEL			X						
POTASSIUM					X				
SELENIUM				X					
SILICON							X		
SILVER		X							
SODIUM			X						
STRONTIUM			X						
THALLIUM							X		
TIN			X						
TITANIUM			X						
VANADIUM					X				
ZIRCONIUM					X				
ZINC		X							

- (1) DWS 1 IS A BLANK THAT ESTABLISHES THE BASE LINE
- (2) THE MAGNESIUM AND IRON STANDARDS ARE THE LOW LINE HIGH STANDARDS ON THE JARRELL ASH ICAP 61
- (3) CALIBRATES THE IRON HIGH LINE FOR THE JARRELL ASH 1150 WHICH IS ONLY USED FOR INTER-ELEMENT CORRECTION PURPOSES
- (4) THIS SOLUTION ESTABLISHES THE BASE LINE FOR THE IRON AND MAGNESIUM HIGH LINES ON THE JARRELL ASH ICAP 61
- (5) THIS SOLUTION IS THE HIGH STANDARD FOR THE IRON AND MAGNESIUM HIGH LINES ON THE JARRELL ASH ICAP 61

EFF  
12-9-88

Standardization Rpt.

Fri 12-09-88 09:03:50 AM

page 1

Standard: DWS1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg	-.0015	-.0018	.0298	.0114	-.0002	.0004	.0047
#1	-.0018	-.0018	.0297	.0118	-.0003	.0002	.0046
#2	-.0012	-.0018	.0298	.0112	.0000	.0005	.0048
Elem	Cd3288	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	K_7864
Avg	-.0002	-.0002	-.0005	.0000	.0122	-.0006	3.420
#1	.0000	.0000	-.0002	.0000	.0139	.0000	3.399
#2	-.0004	-.0004	-.0009	.0000	.0105	-.0012	3.441
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na3389	Ni2316	Pb2203
Avg	.0002	.0016	-.0001	-.0005	.0380	.0020	.0002
#1	.0000	.0016	.0000	-.0003	.0574	.0016	.0001
#2	.0004	.0016	-.0002	-.0006	.0586	.0024	.0004
Elem	Sb2175	Se1960	Si2881	Sr1899	Sr4215	Ti2349	Ti1305
Avg	-.0021	.0014	.0201	-.0052	.0004	.0003	.0017
#1	-.0032	.0110	.0204	-.0052	.0004	.0003	.0019
#2	-.0009	.0018	.0196	-.0052	.0004	.0004	.0016
Elem	V_2924	Y_3710	Zn2138				
Avg	.0003	-.0005	.0020				
#1	.0003	-.0004	.0015				
#2	.0004	-.0006	.0024				

Standard: DWS2

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avgc	.5222	-.0024	.0280	.0104	.0000	.0007	.2115
#1	.5224	-.0034	.0310	.0096	.0000	.0008	.2114
#2	.5220	-.0014	.0250	.0111	.0001	.0007	.2116
Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	K_7564
Avgc	.2545	.1516	.0005	.1052	.0037	.0015	3.446
#1	.2542	.1516	.0008	.1050	.0042	.0020	3.451
#2	.2548	.1516	.0002	.1054	.0032	.0010	3.431
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5889	Ni2316	Pb2293
Avgc	.0002	.9620	.3486	.0001	.0560	.0003	-.0023
#1	.0000	.9586	.3474	.0002	.0582	.0046	-.0030
#2	.0004	.9854	.3498	.0001	.0578	-.0040	-.0016
Elem	Sb2175	Se1960	Si2881	Sn1899	Sr4215	Ti3349	Tl1908
Avgc	-.0014	.0092	.0040	.0006	.0003	.0028	.0014
#1	-.0014	.0062	.0046	-.0004	.0003	.0024	.0009
#2	-.0014	.0122	.0034	.0016	.0003	.0032	.0019
Elem	V_2924	Y_3710	Zn2138				
Avgc	.0004	.0001	.3565				
#1	.0004	.0002	.3554				
#2	.0004	.0000	.3576				

Standard: DWS3

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg	.0002	.1130	.0263	.0095	.4733	.8976	.0040
#1	-.0003	.1124	.0253	.0096	.4746	.8968	.0036
#2	.0006	.1136	.0272	.0095	.4720	.8984	.0044
Elem	Cd2268	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	K_7664
Avg	.0016	.0002	.0028	.0002	.6720	.0234	3.430
#1	.0012	.0002	.0028	.0000	.6676	.0228	3.440
#2	.0020	.0002	.0028	.0004	.6764	.0240	3.479
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5889	Ni2316	Pb2203
Avg	.1152	.0020	.0004	.1389	.4676	.6550	.0012
#1	.1160	.0024	.0004	.1384	.4692	.6518	.0012
#2	.1144	.0016	.0004	.1394	.4664	.6688	.0012
Elem	Sb2175	Se1960	Si2881	Sr1899	Sr4215	Ti3349	Tl1902
Avg	.1457	-.0052	.0047	.6170	.5622	.5781	-.0014
#1	.1440	-.0011	.0054	.6156	.5636	.5769	.0009
#2	.1474	-.0092	.0040	.6184	.5607	.5793	-.0037
Elem	V_2924	Y_3710	Zn2138				
Avg	-.0042	.0002	.0055				
#1	-.0046	.0003	.0055				
#2	-.0038	.0000	.0054				

Standard: DWS4

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg	-.0012	.0014	.4347	.3885	.0003	.0009	.0042
#1	-.0014	.0013	.4380	.3874	.0004	.0012	.0048
#2	-.0010	.0016	.4314	.3897	.0002	.0005	.0036
Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2539	Fe2714	K_7664
Avg	.0022	.0002	.6614	.0003	.0046	.0002	3.434
#1	.0020	.0003	.6588	.0006	.0046	-.0002	3.454
#2	.0024	.0000	.6640	.0000	.0044	.0006	3.413
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5289	Ni2316	Pb2203
Avg	.0002	.0026	.0002	.0001	.0592	.0016	.0000
#1	.0000	.0024	.0002	.0002	.0598	-.0002	-.0002
#2	.0004	.0028	.0002	.0000	.0586	.0034	.0002
Elem	Sb2175	Se1960	Si2881	Sn1839	Sr4215	Ti3349	Ti1903
Avg	.0004	.2991	.0039	-.0012	.0005	.0027	-.0001
#1	.0012	.2908	.0044	-.0008	.0004	.0028	+.0018
#2	-.0004	.3075	.0034	-.0016	.0006	.0026	.0012
Elem	V_2924	Y_3710	Zn2138				
Avg	-.0012	-.0001	.0036				
#1	-.0010	-.0001	.0036				
#2	-.0013	-.0002	.0035				



Standard: DWS6

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg	-.0028	-.0015	-.0448	.0247	.0003	.0007	.0048
#1	-.0050	-.0029	-.0491	.0252	.0002	.0008	.0040
#2	-.0006	-.0004	-.0405	.0242	.0004	.0006	.0056
Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2599	Fe2714	K_7664
Avg	-.0004	.0001	.0005	-.0001	32.18	1.092	3.444
#1	-.0004	.0001	.0001	-.0004	32.01	1.084	3.423
#2	-.0004	.0001	.0010	.0002	32.36	1.101	3.485
Elem	Li3707	Mg2795	Mn2576	Mo2023	Na3889	Ni3316	Pb2203
Avg	.0000	.0016	-.0039	-.0109	.0586	.0022	.0028
#1	.0000	.0016	-.0042	-.0110	.0582	.0016	.0019
#2	.0000	.0016	-.0036	-.0108	.0590	.0028	.0036
Elem	Sb2175	Se1960	Si2881	Sn1899	Sr4215	Ti3349	Tl1206
Avg	-.0754	-.1040	.0063	-.0015	.0004	.0004	-.0007
#1	-.0773	-.1075	.0064	-.0058	.0008	-.0002	-.0008
#2	-.0735	-.1004	.0062	.0028	.0001	.0010	-.0022
Elem	V_2924	Y_3710	Zn2138				
Avg	.0028	.0000	.0042				
#1	.0013	.0000	.0040				
#2	.0043	.0000	.0044				

## Standard: DWS5

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg	-.0018	-.0018	.0353	.0138	.0004	.0038	.0218
#1	-.0020	-.0025	.0312	.0136	.0005	.0038	.0214
#2	-.0016	-.0010	.0394	.0140	.0003	.0037	.0218
Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	K_7664
Avg	.0004	.0000	-.0012	.0003	.0215	-.0012	7.319
#1	.0012	.0000	-.0020	.0004	.0251	-.0013	7.332
#2	-.0004	.0000	-.0004	.0003	.0160	-.0010	7.307
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5869	Ni2316	Pb2203
Avg	.0002	.0016	.0000	-.0001	.0586	.0024	.0007
#1	.0004	.0016	-.0002	.0002	.0582	.0000	.0000
#2	.0000	.0016	.0002	-.0004	.0590	.0048	.0013
Elem	Sb2175	Se1960	Si2881	Sn1899	Sr4215	Ti3249	Tl1908
Avg	.0038	-.0017	.0067	-.0016	-.0002	.0005	.0003
#1	.0046	-.0115	.0064	-.0032	-.0007	.0002	-.0027
#2	.0005	.0081	.0070	-.0004	.0002	.0008	.0032
Elem	V_2924	Y_3710	Zn2138				
Avg	.5385	.2201	.0010				
#1	.5345	.2182	.0010				
#2	.5423	.2221	.0010				

Standard: DWS7

Elem	Ag3380	Al3082	As1836	B_2497	Ba4934	Be3130	Ca3179
Avg	-.0005	-.0022	.0311	.0092	.0000	.0003	.0037
#1	-.0008	-.0014	.0310	.0096	.0002	.0002	.0042
#2	-.0002	-.0030	.0311	.0088	-.0002	.0004	.0032
Elem	Cd3388	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	K_7664
Avg	-.0002	.0001	-.0005	.0002	.0072	-.0002	3.483
#1	-.0008	.0000	-.0006	.0004	.0077	-.0002	3.453
#2	.0004	.0002	-.0005	.0001	.0080	-.0002	3.471
Elem	Li8707	Mg2735	Mn2576	Mo2023	Na5882	Ni2316	Pb2203
Avg	.0002	.0032	.0000	.0001	.0590	-.0022	.0419
#1	.0000	.0032	.0000	.0004	.0590	-.0040	.0423
#2	.0004	.0032	.0000	-.0002	.0590	-.0004	.0415
Elem	Sb2175	Se1960	Si2881	Sr1899	Sr4215	Ti3349	Ti1906
Avg	.0000	-.0018	.0101	-.0003	.0003	.0024	.0583
#1	.0008	-.0104	.0102	.0010	.0006	.0023	.0514
#2	-.0002	.0069	.0100	-.0016	.0000	.0024	.0643
Elem	V_2924	Y_3710	Zn2138				
Avg	.0002	-.0001	.0016				
#1	.0006	.0002	.0015				
#2	-.0002	-.0004	.0016				

Method: C Sample Name: AR , 1. X Operator: W  
 Run time: 12/09/88 09:17:34  
 Comment: 6016283  
 Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3175
Avg#	.0017	-.0018	.0010	.0026	.0004	.0001	.0019
#1	.0029	.0052	.0081	.0058	.0005	-.0002	-.0019
#2	.0006	-.0088	-.0060	-.0006	.0003	.0003	.0034
Elem	C62288	Co2286	Cr2677	Cu3247	Fe2599	Fe2719	K_7664
Avg#	.0016	.0020	.0022	.0019	-.0143	.0064	.0009
#1	-.0008	.0013	.0020	.0019	-.0136	.0089	.0061
#2	.0039	.0026	.0023	.0019	-.0150	.0036	.0027
Elem	Li6707	Hg2795	Mn2576	Mo2023	Na3589	Ni2316	Pb2230
Avg#	-.0017	.0004	.0000	.0022	.0244	-.0004	-.0128
#1	-.0017	.0008	.0003	.0025	.0244	-.0012	-.0060
#2	-.0017	.0000	-.0003	.0019	.0244	.0006	-.0075
Elem	Sb2175	Se1960	Si2881	Sr1899	Sr4215	Ti3349	Ti_3995
Avg#	.0124	-.0041	3.591	-.0006	-.0004	.0002	-.0024
#1	.0193	-.0127	3.727	-.0019	.0000	-.0001	-.0065
#2	.0075	.0045	3.455	.0007	-.0007	.0004	-.0131
Elem	V_3924	Y_3710	Zn2138				
Avg#	-.0007	.0023	-.0003				
#1	-.0012	.0023	.0006				
#2	-.0002	.0023	-.0011				

Method: C

Sample Name: EPA

, IDVI

Operator: W

Run Time: 12/09/88 09:20:52

Comments: 6015283

Mode: CONC Conc. Factor: 1

Elem	Hg3280	Al3062	As1936	B_2497	Ba4964	Be3130	Ca3179
Avg	.5002	2.017	.0059	.0038	1.988	.4864	51.92
#1	.4998	2.015	.0039	.0044	1.990	.4858	50.86
#2	.5006	2.019	.0079	.0032	1.987	.4873	51.99
Elem	Co2280	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	K_7664
Avg	.4991	.4940	.4858	.5272	1.875	1.943	49.79
#1	.4991	.4884	.4816	.5203	1.865	1.893	49.74
#2	.4991	.4996	.4900	.5332	1.887	1.993	50.83
Elem	Li6707	Mg2795	Mn2576	Mo2083	Na5589	Ni2316	Pb2703
Avg	-.0017	23.76	.4977	.0014	50.58	.4579	4.004
#1	-.0017	23.66	.4954	-.0005	50.67	.4500	4.785
#2	-.0017	23.85	.5	.0032	50.49	.4591	4.821
Elem	Sb2175	Se1560	Si2881	Sn1899	Sr4215	Ti3342	Tl1240
Avg	.0050	.0000	-.0195	.0195	.0079	-.0010	-.0071
#1	-.0098	-.0171	-.1331	.0109	.0081	-.0010	-.0195
#2	.0198	.0172	.0941	.0283	.0077	-.0003	-.0057
Elem	V_2924	Y_3710	Zn2138				
Avg	.4935	.0023	3.011				
#1	.4913	.0023	3.997				
#2	.4957	.0023	3.024				

Method: C

Sample Name: EPA

,ICV3

Operator: W

Run Time: 12/09/88 09:23:08

Comment: E016203

Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3175
Avg#	.0027	.0009	0.0066	-.0259	.0010	.0003	.0104
#1	.0013	.0000	0-.0029	-.0271	.0012	.0002	.0140
#2	.0040	.0017	0.0160	-.0247	.0007	.0003	.0073
Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	K_7504
Avg#	.0000	.0033	.0028	-.0005	-.0189	.0317	.5042
#1	-.0007	.0013	.0017	-.0028	-.0179	.0425	.6008
#2	.0007	.0053	.0039	.0019	-.0139	.0180	.5075
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5889	Ni2316	Pb2200
Avg#	-.0017	.0067	.0009	.0033	.0220	-.0044	.0022
#1	-.0017	.0083	.0014	.0004	.0244	-.0030	-.0227
#2	-.0017	.0050	.0003	.0061	.0195	-.0008	.0277
Elem	Sb2175	Se1960	Si2881	Sr1899	Sr4215	Ti3349	Ti1500
Avg#	1.018	-.0113	-.7273	0.0049	-.0007	.0034	-.0319
#1	1.015	-.0272	-.7727	0.0011	-.0011	.0029	-.0175
#2	1.020	.0045	-.6819	0.0083	-.0004	.0079	-.0400
Elem	V_2324	Y_3710	Zn2138				
Avg#	.0001	.0023	.0011				
#1	-.0021	.0023	.0011				
#2	.0023	.0023	.0011				

Method: C

Sample Name: AR

.1. X

Operator: W

Run Time: 12/09/88 09:25:19

Comment: 5016283

Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3175
Avg	.0004	-.0158	-.0088	-.0019	.0007	.0005	.0017
#1	.0021	-.0176	-.0239	-.0027	.0012	.0005	-.0006
#2	-.0013	-.0140	.0053	-.0011	.0003	.0005	-.0023
Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	K_7006
Avg	.0000	.0007	.0004	.0014	-.0128	.0456	.4821
#1	-.0007	.0013	-.0004	.0010	-.0111	.0547	.3532
#2	.0008	.0000	.0011	.0019	-.0141	.0364	.4829
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5389	Ni2316	Pb2006
Avg	.0000	.0017	.0006	.0037	.0143	.0006	.0000
#1	.0017	.0017	.0009	.0076	.0049	.0037	.0006
#2	-.0017	.0017	.0003	-.0003	.0244	-.0001	.0000
Elem	Sb2175	Se1960	Si2881	Sr1899	Sr4215	Ti3349	Ti1136
Avg	.0099	.0074	3.523	.0127	-.0005	.0000	-.0100
#1	.0062	-.0083	3.545	.0122	-.0007	.0004	.0100
#2	.0137	.0231	3.500	.0132	-.0004	-.0004	-.0400
Elem	V_2024	Y_3710	Zn2138				
Avg	-.0019	.0023	-.0011				
#1	-.0005	.0023	-.0006				
#2	-.0034	.0023	-.0017				

Method: C

Sample Name: EPA ,HCL

Operator: W

Run Time: 12/09/88 09:27:49

Comment: 8016253

Mode: C06C Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3170
Avg	.0007	.5344	.4928	.5262	.5009	.5037	20.94
#1	-.0016	.5245	.4951	.5245	.5064	.5064	20.84
#2	.0030	.5444	.4906	.5279	.4954	.5050	21.04
Elem	Cd2288	Cd2286	Cr2677	Cu3247	Fe2599	Fe2716	K_1609
Avg	.0031	.0016	.4992	.0070	.4767	.0000	20.49
#1	.0023	-.0001	.4960	.0042	.4763	.5519	20.04
#2	.0039	.0032	.5024	.0099	.4770	.5480	20.94
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5889	Ni2310	Pb2101
Avg	2.000	.5191	.0019	2.004	20.35	-.0020	1.0000
#1	2.120	.5179	.0018	1.992	20.59	-.0034	-.0012
#2	2.040	.5204	.0019	2.017	20.10	-.0004	1.0012
Elem	Sb2175	Se1960	Si2881	Sn1899	Sr4215	Ti3340	Tl1900
Avg	.5318	-.0059	.2050	2.034	2.082	2.027	1.0037
#1	.5020	-.0074	.1713	2.002	2.102	2.037	1.0000
#2	0.5616	-.0044	.3986	2.065	2.061	2.019	1.0064
Elem	V_2924	V_3710	Zn2138				
Avg	.0005	2.086	.5460				
#1	-.0019	2.099	.5455				
#2	.0029	2.073	.5466				



Method: C

Sample Name: EPA

,KNO3

Operator: H

Run Time: 12/09/88 09:31:57

Comment: 6016283

Mode: CGMC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Cs3175
Avg	.4968	.1010	-.0044	.0206	.0006	-.0002	.1100
#1	.4975	.1440	-.0110	.0206	.0005	.0000	.1497
#2	.4962	.0579	.0022	.0206	.0007	-.0004	.0704
Elem	Co2288	Co2288	Cr2677	Cu3247	Fe2599	Fe2714	Li_2509
Avg	.5127	.5088	.0003	.5103	.0405	.0476	.3267
#1	.5128	.5111	-.0013	.5113	.0594	.0246	-.0017
#2	.5127	.5065	.0019	.5104	.0217	.0706	.0433
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5585	Ni4316	Pb2250
Avg	-.0017	.1153	.5050	.0027	.0399	.4813	.0020
#1	-.0017	.1552	.5061	.0062	.0399	.4777	1.013
#2	-.0017	.0754	.5035	-.0009	.0399	.4830	.0017
Elem	Sb2175	Se1980	Si2981	Sn1899	Sr4215	Ti3399	Ti3506
Avg	.0013	1.890	-.1596	.0074	-.0006	.0037	1.932
#1	.0030	1.914	-.2732	.0077	-.0011	.0035	1.917
#2	.0016	1.883	-.0459	.0071	-.0002	.0035	1.947
Elem	V_2924	Y_3710	Zn2138				
Avg	.4869	.0077	.0101				
#1	.4882	.0150	.0119				
#2	.4856	.0005	.0082				

Method: C Sample Name: ICSAB , 1. X Operator: W  
 Run Time: 12/09/88 09:34:36  
 Comment: 5016283  
 Mode: CONC Corr. Factor: 1

Elem	Ag3290	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3175
Avg	.9587	452.6	.0378	-.0731	.4653	.4464	442.7
#1	.9595	451.6	.0266	-.0746	.4614	.4453	442.3
#2	.9579	453.7	.0489	-.0716	.4692	.4475	443.1
Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	K_2604
Avg	.9719	.4483	.4782	.5277	171.0	208.9	10300
#1	.9625	.4476	.4794	.5206	170.9	206.6	10242
#2	.9812	.4489	.4770	.5349	171.1	207.1	10358
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5809	Ni2314	Pb2113
Avg	.0052	63.22	.4660	.0483	.3281	.0320	41.72
#1	.0052	63.19	.4050	.0468	.3281	.0327	41.760
#2	.0052	63.24	.4670	.0507	.3281	.0313	41.704
Elem	Sb2175	Se1960	Si2881	Sr1899	Sr4215	Ti3349	Ti1530
Avg	-.0448	-.0541	-.3607	-.0165	.1174	-.0042	-.4549
#1	-.0584	-.0702	-.1789	-.0326	.1161	-.0039	-.4272
#2	-.0313	-.0299	-.5425	-.0004	.1186	-.0044	-.4826
Elem	V_2924	Y_3710	Zn2138				
Avg	.4495	.0023	.8576				
#1	.4493	.0023	.8567				
#2	.4497	.0023	.8586				

Method: C Sample Name: IC3AB ,/20. Operator: W  
 Run Time: 12/09/88 09:38:52  
 Comment: 6016283  
 Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg	.0518	24.09	.0036	-.0078	.0238	.0248	25.23
#1	.0554	23.94	-.0016	-.0106	.0237	.0245	25.24
#2	.0482	24.23	.0088	-.0050	.0239	.0251	25.23
Elem	Co2288	Cr2277	Cu3247	Fe2590	Fe2714	K_3604	
Avg	.0507	.0240	.0255	.0284	11.76	11.65	13.78
#1	.0517	.0237	.0242	.0274	11.72	11.64	13.87
#2	.0497	.0224	.0269	.0293	11.80	11.66	13.69
Elem	Li0707	Mg2795	Mn2576	Mo2083	Na5889	Ni2316	Pb2205
Avg	.0000	24.33	.0263	.0004	.0399	.0469	1.33
#1	.0017	24.29	.0257	.0108	.0399	.0507	1.24
#2	-.0017	24.37	.0269	.0080	.0399	.0431	1.42
Elem	Sb2175	Se1960	Si2881	Sn1099	Sr4215	Ta3349	Ti1300
Avg	.0169	.0133	2.023	.0042	.0003	.0017	1.00
#1	.0317	.0044	2.132	.0011	.0003	.0016	1.02
#2	.0020	.0213	1.864	.0074	.0003	.0018	1.00
Elem	V_2924	Y_3710	Zn2128				
Avg	.0239	.0005	.0526				
#1	.0222	-.0005	.0522				
#2	.0245	.0014	.0530				

## Analysis Report

FPI 12-09-88 09:41:18 AM

Page 1

Method: C Sample Name: CRDLVR, 1. X Operator: W  
 Run Time: 12/09/88 09:39:26  
 Comment: 6016283  
 Mode: DDMC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg#	.0203	.0092	.0213	-.0010	.0003	.0102	-.0094
#1	.0196	.0191	.0213	.0021	.0003	.0102	-.0093
#2	.0211	-.0008	.0213	-.0058	.0003	.0102	-.0121
Elem	Co2288	Co2286	Cr2677	Cu3247	Fe2559	Fe2714	K_7024
Avg#	.0119	.1021	.0227	.0533	-.0111	.0344	.0573
#1	.0119	.1014	.0231	.0552	-.0092	.0437	.0473
#2	.0119	.1027	.0224	.0514	-.0130	.0250	.0673
Elem	Li3707	Mg2795	Mn2576	Mo2023	Na3889	Rb2316	Ru2205
Avg#	-.0030	.0116	.0313	.0085	-.0081	.0307	-.0040
#1	-.0043	.0144	.0301	.0091	-.0177	.0792	.0004
#2	-.0017	.0088	.0324	.0040	.0015	.0323	.0017
Elem	Sb2175	Se1960	Si2881	Sr1899	Sr4215	Ti3349	Ti1906
Avg#	.1308	.0242	.9547	-.0005	-.0009	.0011	-.0040
#1	.1207	.0315	.9547	.0020	-.0011	.0011	.0103
#2	.1368	.0170	.9547	-.0040	-.0007	.0011	-.0107
Elem	V_2924	Y_3710	Zn2138				
Avg#	.1007	.0023	.0322				
#1	.1024	.0023	.0306				
#2	.0990	.0023	.0337				

Analysis Report

Blank Sample

Fri 12-09-88 09:43:38 AM

Page 1

Method: C                    Sample Name: DBS , /200.                    Operator: B  
 Run Time: 12/09/88 09:41:46  
 Comment: 8018283  
 Mode: CONC    Corr. Factor: 1

Elem	Ag2280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3175
Avg	.0010	.0170	.0016	-.0024	.0013	.0001	.0199
#1	-.0004	.0150	.0026	-.0011	.0022	.0001	.0142
#2	.0023	.0190	.0007	-.0037	.0007	.0001	.0077
Elem	Cd2298	Co2286	Cr2677	Cu3247	Fe2599	Fe2734	K_3604
Avg	.0016	.0020	.0006	-.0028	-.0144	.0134	-.0021
#1	.0023	.0026	.0008	-.0038	-.0144	.0088	-.0069
#2	.0008	.0013	.0004	-.0019	-.0144	.0180	-.0031
Elem	Li5707	Hg2795	Mn2576	Mo2023	Nat289	Ni2316	Pb2703
Avg	-.0009	.0026	.0012	-.0003	.0255	-.0023	-.0143
#1	.0000	.0031	.0009	.0004	.0111	-.0006	-.0106
#2	-.0017	.0021	.0014	-.0010	.0379	-.0050	-.0180
Elem	Sb2175	Se1960	Si2881	Sr1859	Sr4215	Ti2349	Ti1900
Avg	.0148	.0048	5.841	.0290	.0001	-.0006	.0137
#1	.0134	.0148	5.591	.0200	.0004	-.0003	.0108
#2	.0161	-.0052	6.091	.0380	-.0002	-.0010	-.0170
Elem	V_2924	Y_3710	Zn2138				
Avg	-.0020	.0023	-.0044				
#1	-.0018	.0023	-.0051				
#2	-.0021	.0023	-.0036				

Analysis Report

Fri 12-09-88 09:50:44 AM

page 1

Method: C Sample Name: LCSA ,1.X Operator: W  
 Run Time: 12/09/88 09:48:52  
 Comment: 6018283  
 Mode: DDMC Corr. Factor: 1

Elem	Ag3280	Al308E	As1936	B_2497	Ba4934	Be3130	Ca3175
Avg	.4671	1.744	-.0022	-.0132	1.936	.4624	46.09
#1	.4665	1.748	-.0053	-.0122	1.939	.4619	45.99
#2	.4676	1.740	.0009	-.0141	1.933	.4628	46.19
Elem	Cd2286	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	K_2084
Avg	.4678	.4699	.4669	.4937	1.876	1.885	46.09
#1	.4679	.4699	.4632	.4997	1.874	1.865	46.25
#2	.4678	.4699	.4705	.4878	1.878	1.911	46.25
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5889	Ni2316	Pb2205
Avg	-.0026	21.77	.4775	.0038	47.96	.4419	4.012
#1	-.0035	21.73	.4769	.0037	47.93	.4335	4.495
#2	-.0017	21.81	.4781	.0038	48.02	.4493	4.035
Elem	Sb2175	Se1960	Si2081	Sn1899	Sr4215	Ti2345	Tl1500
Avg	-.0063	.0158	3.639	-.0023	.0075	.0113	-.0217
#1	.0009	-.0160	3.775	-.0077	.0078	.0113	-.0112
#2	-.0135	.0475	3.503	.0031	.0071	.0112	-.0497
Elem	V_2924	Y_3710	Zn2138				
Avg	.4712	.0023	2.604				
#1	.4707	.0023	2.600				
#2	.4717	.0023	2.609				

Analysis Report

Fri 12-09-88 09:53:22 AM

page 1

Method: C                    Sample Name: LCSB , L.X                    Operator: W  
 Run Time: 12/09/88 09:51:30  
 Comment: 5016283  
 Mode: DUNC    Corr. Factor: 1

Elem	Hg3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg	.0042	.0150	1.948	.0137	.0022	.0006	.0450
#1	.0029	.0062	1.912	.0122	.0020	.0005	.0434
#2	.0056	.0237	1.984	.0142	.0024	.0007	.0484
Elem	Cd2288	Co2286	Cr2577	Cu3247	Fe2599	Fe2714	Rb7004
Avg	.0043	.0026	.0051	.0029	-.0017	.0821	-.2522
#1	.0021	.0013	.0045	.0034	-.0026	.0254	-.1111
#2	.0065	.0040	.0055	.0019	-.0007	.1276	-.1509
Elem	Li6707	Mg2795	Ni2576	Mn2023	Na5989	Ni2310	PL2200
Avg	-.0017	.0118	.0020	.0012	.0183	-.0015	.0216
#1	.0000	.0124	.0014	.0004	.0015	-.0012	.0230
#2	-.0035	.0112	.0026	.0020	.0351	-.0028	.0206
Elem	Sb2175	Se1950	Si2881	Sn1899	Sr4213	Ti3349	Ti1708
Avg	.9780	.0013	5.761	.0107	.0004	.0003	.0136
#1	.9545	-.0078	5.523	.0205	.0004	-.0006	-.0351
#2	1.001	.0104	6.000	.0010	.0004	.0011	.0817
Elem	V_2924	Y_3710	Zn2138				
Avg	-.0002	.0032	-.0031				
#1	-.0005	.0032	-.0031				
#2	.0001	.0032	-.0031				

## Analysis Report

Fri 12-09-88 09:55:52 AM

PAGE 1

Method: D Sample Name: 1639 ,/200. Operator: S  
 Run Time: 12/09/88 09:53:59  
 Comment: 6016283  
 Mode: QUNC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3370
Avg#	.0065	33.15	.0390	.0011	.2180	.0011	26.64
#1	.0084	33.17	.0471	.0022	.2183	.0008	28.23
#2	.0046	33.13	.0308	.0001	.2177	.0013	26.64
Elem	Cd3288	Co2286	Cr2677	Cu3247	Fe2599	Fe2719	K_3199
Avg#	.0035	.0349	.0599	.1531	58.10	57.13	3.331
#1	.0023	.0356	.0600	.1536	58.17	57.16	3.200
#2	.0047	.0342	.0590	.1526	58.03	57.10	3.339
Elem	Li3707	Mg2795	Mn2576	Mo2023	Na5889	Ni2316	Pb2103
Avg#	.0400	13.00	1.963	.0202	.4090	.0576	.1126
#1	.0400	13.01	1.964	.0235	.5010	.0532	.1031
#2	.0400	12.99	1.962	.0169	.4769	.0620	.1187
Elem	Sb2175	Se1960	Si2881	Sr1899	Sr4216	Ti3349	Ti1906
Avg#	-.0230	-.0046	39.32	.0173	.0457	.6717	-.1369
#1	-.0081	.0113	39.39	.0152	.0456	.6729	-.1406
#2	-.0359	-.0204	39.25	.0189	.0458	.6706	-.1269
Elem	V_292*	Y_3710	Zn2138				
Avg#	.0655	.0344	.1505				
#1	.0664	.0349	.1508				
#2	.0645	.0340	.1503				



Method: C                    Sample Name: 1639DP, 7300.                    Operator: S  
 Run Time: 12/09/88 09:56:35  
 Comment: 6016283  
 Mode: COUN    Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3175
Avg	.0047	36.15	.0318	.0113	.2463	.0014	42.72
#1	.0044	35.91	.0284	.0102	.2438	.0014	43.42
#2	.0050	36.40	.0352	.0125	.2487	.0014	44.02
Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	K_2004
Avg	.0042	.0242	.0576	.1469	56.84	55.04	21.633
#1	.0046	.0242	.0562	.1469	56.43	55.69	21.028
#2	.0038	.0242	.0590	.1469	57.24	55.20	21.731
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na3689	Ni2316	Pb2692
Avg	.0487	13.66	1.969	.0231	.6835	.0539	111.36
#1	.0487	13.58	1.955	.0194	.6546	.0556	111.35
#2	.0487	13.74	1.982	.0268	.7123	.0490	111.83
Elem	Sb2175	Se1960	Si2881	Sn1899	Sr4215	Ti3349	Tl1006
Avg	-.0069	.0011	45.16	.0396	.0583	.7747	11.521
#1	-.0020	-.0059	44.89	.0458	.0578	.7693	11.072
#2	-.0118	.0061	45.43	.0335	.0588	.7802	11.970
Elem	V_2524	Y_3710	Zn2130				
Avg	.0686	.0322	.1577				
#1	.0683	.0322	.1582				
#2	.0689	.0322	.1572				

Method: C Sample Name: 1639SP, 7200. Operator: S  
 Run Time: 12/09/88 09:58:40  
 Comment: 6016282  
 Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca2175
Avg#	.0555	36.24	.0539	.0056	2.269	.0499	30.56
#1	.0545	36.27	.0418	.0119	2.282	.0498	30.48
#2	.0564	36.11	.0660	-.0007	2.257	.0500	30.63
Elem	Co2288	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	K_7664
Avg#	.0552	.5221	.3555	.4153	59.03	58.19	3.925
#1	.0536	.5234	.2562	.4153	59.07	58.11	3.252
#2	.0567	.5208	.3548	.4153	58.99	58.26	3.700
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5869	Ni2315	Pb2061
Avg#	.0448	14.54	2.562	.0218	.5970	.5472	.0937
#1	.0461	14.54	2.565	.0181	.5970	.5452	.0922
#2	.0435	14.53	2.559	.0255	.5970	.5492	.0953
Elem	Sb2175	Se1960	Si2881	Sn1899	Sr4215	Ti3349	Tl1506
Avg#	.3168	-.0080	99.93	.0176	.0461	.8558	-.1171
#1	.3336	-.0129	100.2	.0202	.0461	.8560	-.1140
#2	.3000	-.0031	99.75	.0150	.0461	.8554	-.1202
Elem	V_2924	Y_3710	Zn2138				
Avg#	.5378	.0354	.6289				
#1	.5577	.0358	.6263				
#2	.5579	.0349	.6315				

## Analysis Report

Blank Sample

Fri 12-09-88 10:02:52 AM

page 1

Method: C

Sample Name: AR

, L X

Operator: W

Run Time: 12/09/88 10:00:58

Comment: 6016283

Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3170
Avg	.0023	.0125	-.0010	.0000	.0007	.0005	.0119
#1	.0029	.0173	-.0026	-.0038	.0012	.0005	.0142
#2	.0017	.0078	.0005	.0037	.0003	.0005	.0086
Elem	Cd2288	Cs2286	Cr2677	Cu3247	Fe2599	Fe2714	Hg1600
Avg	.0012	.0025	.0004	.0000	.0090	.0363	.1040
#1	.0016	.0040	.0007	.0000	.0155	.0819	.2000
#2	.0008	.0013	.0001	.0000	.0025	-.0093	-.0040
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5809	Ni2516	Pb1205
Avg	-.0022	.0060	.0014	.0047	.0111	-.0062	.0003
#1	-.0035	.0072	.0020	.0062	.0207	-.0027	.0036
#2	-.0009	.0048	.0009	.0032	.0015	-.0103	.0003
Elem	Sb2175	Se1960	Si2881	Sn1899	Sr4215	Ti3349	Tl1503
Avg	.0195	.0154	3.477	.0097	-.0011	.0004	-.0241
#1	.0155	.0456	3.409	.0184	-.0011	.0008	-.0113
#2	.0236	-.0144	3.545	.0010	-.0011	.0001	-.0366
Elem	V_2524	Y_3710	Zn2138				
Avg	-.0011	.0023	-.0001				
#1	-.0011	.0023	.0000				
#2	-.0010	.0023	-.0002				

Method: C                      Sample Name: 1639SD,71000.                      Operator: b  
 Run Time: 12/09/88 10:08:00  
 Comment: 6018283  
 Mode: CONC    Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg	.0014	6.597	.0039	.0008	.0437	.0003	5.687
#1	-.0004	6.615	.0140	-.0002	.0437	.0004	5.079
#2	.0033	6.579	.0037	.0018	.0437	.0003	5.694
Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	Pb2714	Rb_7100
Avg	.0008	.0083	.0111	.0284	11.66	11.55	.3110
#1	.0023	.0050	.0092	.0275	11.67	11.49	.5629
#2	-.0003	.0116	.0130	.0294	11.65	11.56	1.250
Elem	Li6707	Mg2796	Mn2576	Mo2023	Na5289	Ni2316	Pb2714
Avg	.0037	2.660	.3939	.0063	.0975	.0102	.0147
#1	.0026	2.661	.3950	.0048	.0975	.0103	.0077
#2	.0087	2.658	.3927	.0078	.0975	.0101	.0257
Elem	Sr2175	Se1960	Si2881	Sr1899	Sr4215	Ti3342	Ti_1000
Avg	.0003	-.0219	12.56	.0056	.0086	.1325	.0019
#1	.0099	-.0317	12.54	-.0016	.0086	.1320	-.0156
#2	-.0063	-.0120	12.59	.0132	.0086	.1327	.0090
Elem	V_2924	Y_3710	Zn2138				
Avg	.0118	.0095	.0281				
#1	.0105	.0095	.0278				
#2	.0132	.0095	.0285				

Method: L

Sample Name: EPA ,HCL

Operator: W

Run Time: 12/09/88 10:03:28

Comment: 6916283

Mode: CCNC Corr. Factor: 1

Elem	Ag3280	Al3082	As1935	B_2497	Ba4934	Be3130	Ca3179
Avg	-.0022	.4681	.4872	.5272	.4987	.4992	10.72
#1	-.0012	.4680	.4907	.5325	.5017	.5011	19.79
#2	-.0032	.4681	.4837	.5218	.4958	.4973	19.65
Elem	Cd3288	Co2206	Cr2577	Cu3247	Fe2599	Fe2714	K_7004
Avg	.0039	-.0024	.4897	-.0020	.4918	.5245	19.02
#1	.0023	-.0021	.4911	-.0006	.4950	.5337	19.77
#2	.0054	-.0027	.4884	-.0034	.4886	.5154	13.33
Elem	Li6707	Mg2795	Mn2576	Nb2023	Na5889	Ni2316	Pb2207
Avg	2.090	.4922	.0001	1.983	20.04	-.0019	-.0025
#1	2.108	.4950	-.0005	1.992	20.18	.0002	-.0014
#2	2.071	.4895	.0007	1.973	19.90	-.0041	-.0037
Elem	Sb2175	Se1960	Si2881	Sr1899	Sr4215	Ti2345	Ti1950
Avg	.5045	.0050	.2173	2.006	2.008	2.012	2.002
#1	.5257	-.0223	.2169	2.015	2.101	2.026	.0186
#2	.4823	.0323	.2176	1.998	2.076	1.999	-.0157
Elem	V_2924	Y_3710	Zn2158				
Avg	-.0047	2.081	.4992				
#1	-.0044	2.092	.4982				
#2	-.0051	2.070	.5003				

Method: C                      Sample Name: EPA ,HNO3                      Operator: W  
 Run Time: 12/09/88 10:05:44  
 Comment: 6018283  
 Mode: CONC      Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3170
Avg	.4989	-.0109	.0045	.0212	.0005	.0001	.0084
#1	.4948	-.0109	.0049	.0207	.0007	.0000	.0072
#2	.4990	-.0109	.0041	.0217	.0003	.0002	.0105
Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	Bi_7054
Avg	.5004	.5065	.0009	.5123	-.0142	.0159	.0002
#1	.5166	.5072	.0000	.5132	-.0138	-.0205	.1500
#2	.5002	.5058	.0019	.5113	-.0146	.0226	-.0001
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5809	Ni2011	Pb2705
Avg	.0009	.0010	.5061	.0055	.0639	.4770	.3807
#1	.0035	.0012	.5061	.0062	.0399	.4610	.3501
#2	-.0017	.0008	.5061	.0049	.0879	.4742	.3932
Elem	Sb2175	Se1960	Si2001	Sr1899	Sr4215	Ti3343	Ti1100
Avg	-.0116	1.877	-.2277	.0083	.0002	.0025	1.768
#1	-.0239	1.987	-.2732	-.0007	.0002	.0044	2.015
#2	.0007	1.867	-.1823	.0173	.0002	.0007	1.561
Elem	V_2924	Y_3710	Zn2138				
Avg	.4884	.0023	.0117				
#1	.4871	.0023	.0114				
#2	.4897	.0023	.0119				

Method: C Sample Name: ICSAB .1.X Operator: H  
 Run Time: 12/09/88 10:10:21  
 Comment: 6018283  
 Mode: CONC Corr. Factor: 1

Elem	Hg3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg#	.9620	456.0	.0937	-.0760	.4706	.4504	444.3
#1	.9578	454.7	.0661	-.0757	.4673	.4473	443.4
#2	.9663	457.3	.1213	-.0763	.4739	.4534	445.3
Elem	Co2288	Co2286	Cr2677	Cu3247	Fe2599	Fe2714	Ni_7064
Avg#	.9716	.4542	.4780	.5292	172.1	207.3	1.0000
#1	.9780	.4476	.4734	.5272	171.9	206.4	1.0020
#2	.9653	.4608	.4826	.5312	172.2	208.3	1.0020
Elem	Li5707	Mg3795	Mn2576	Mo2023	Na5889	Ns2315	Pb2205
Avg#	.0087	63.43	.4671	.0634	.3473	.8428	4.307
#1	.0087	63.45	.4618	.0581	.3473	.8370	4.315
#2	.0087	63.40	.4724	.0688	.3473	.8486	4.299
Elem	Sb2175	Se1960	Si2581	Sr1899	Sr4215	Ti3345	Ti1906
Avg#	-.0325	-.0102	-.3603	-.0208	.1198	-.0037	1.5375
#1	.0046	-.0179	-.4517	-.0048	.1189	-.0034	1.4775
#2	-.0697	-.0026	-.2699	-.0368	.1207	-.0041	1.6000
Elem	V_2924	Y_3710	Zn2138				
Avg#	.4530	.0023	.8717				
#1	.4457	.0023	.8649				
#2	.4564	.0023	.8785				

Analysis Report

Fri 12-09-88 10:14:26 AM

page 1

Method: C Sample Name: IC988 , /20.  
 Run Time: 12/09/88 10:12:34  
 Comment: 6016283  
 Mode: CONC Corr. Factor: 1

Operator: W

Elem	Hg3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg	.0530	24.40	.0110	-.0024	.0259	.0249	25.94
#1	.0547	24.35	.0154	-.0019	.0258	.0249	25.87
#2	.0512	24.45	.0067	-.0030	.0260	.0249	26.00
Elem	Co2288	Co2286	Cr2977	Cu3247	Fe2599	Fe2714	K_7664
Avg	.0501	.0253	.0266	.0253	11.83	11.73	.1394
#1	.0509	.0276	.0278	.0236	11.79	11.73	.1226
#2	.0493	.0230	.0254	.0274	11.87	11.72	.1561
Elem	Li8707	Mg2795	Mn2576	Mn2023	Na5089	Ni2310	Pb2100
Avg	-.0035	24.48	.0266	.0056	.0399	.0463	.2710
#1	-.0035	24.45	.0263	.0052	.0399	.0413	.2692
#2	-.0035	24.52	.0269	.0059	.0399	.0520	.2681
Elem	Sb2175	Se1960	Si2881	Sm1899	Sr4215	Ti3349	Ti3905
Avg	.0027	.0237	1.932	-.0063	.0008	.0016	.0170
#1	.0221	.0534	2.045	-.0051	.0008	.0016	.0257
#2	-.0167	-.0061	1.818	-.0116	.0008	.0016	.0012
Elem	V_2924	Y_3710	Zn2138				
Avg	.0235	.0018	.0525				
#1	.0232	.0032	.0533				
#2	.0238	.0005	.0517				



Method: C Sample Name: CRDLVR, I. X Operator: W  
 Run Time: 12/09/88 10:14:53  
 Comment: 6016283  
 Mode: CONC Corr. Factor: 1

Elem	Ag2380	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg	.0229	.0223	.0171	-.0006	.0012	.0102	.0052
#1	.0249	.0383	.0129	.0026	.0012	.0102	.0055
#2	.0209	.0064	.0214	-.0037	.0012	.0102	.0000
Elem	Ca2288	Co2266	Cr2677	Cu3247	Fe2399	Fe2714	K_7564
Avg	.0116	.1047	.0241	.0523	-.0039	.0596	.0983
#1	.0112	.1067	.0243	.0552	-.0031	.0617	.0927
#2	.0119	.1027	.0240	.0495	-.0087	.0572	.0941
Elem	Li3707	Mg2795	Mn2576	Mo2023	Na5089	Ni_3316	Pb2305
Avg	.0009	.0189	.0324	.0048	.0013	.0752	.1340
#1	.0000	.0222	.0336	.0062	.0015	.0801	.1329
#2	.0017	.0156	.0313	.0034	.0013	.0722	.0263
Elem	Sb2175	Se1960	Si2881	Sr1899	Sr4215	Ti3349	Ti1596
Avg	.1461	.0071	1.034	.0097	-.0006	.0023	-.0120
#1	.1286	.0286	1.023	.0190	-.0007	.0020	-.0200
#2	.1635	-.0144	1.046	.0005	-.0005	.0013	-.0080
Elem	V_2924	Y_3710	Zn2138				
Avg	.1036	.0023	.0336				
#1	.1055	.0023	.0330				
#2	.1017	.0023	.0343				

Method: C

Sample Name: AR

, 1. X

Operator: W

Run Time: 12/09/88 10:17:09

Comment: 5016283

Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Ca3179
Avg	.0051	.0141	.0053	-.0006	.0006	.0002	.0034
#1	.0033	.0078	.0016	-.0048	.0003	.0005	-.0034
#2	.0079	.0205	.0091	.0036	.0009	.0002	.0142
Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	Fe2719	B_7664
Avg	.0004	.0040	.0036	.0029	-.0093	.0653	.0390
#1	.0000	.0026	.0017	.0000	-.0115	-.0096	-.0031
#2	.0004	.0053	.0054	.0057	-.0080	.1461	.0402
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5889	Ni2316	Pb2403
Avg	.0036	.0031	.0003	.0051	.0207	-.0046	.0030
#1	.0000	.0031	.0003	.0032	.0015	-.0074	-.0204
#2	.0032	.0031	.0003	.0071	.0399	.0014	.0130
Elem	Sb2175	Se1960	Si2881	Sr1899	Sr4215	Ti3345	Ti1206
Avg	.0166	.0385	3.591	.0047	-.0004	.0010	-.0010
#1	.0054	.0328	3.455	-.0038	-.0005	-.0002	.0040
#2	.0278	.0342	3.727	.0132	-.0004	.0022	-.0021
Elem	V_2924	V_3710	Zn2138				
Avg	.0007	.0014	-.0002				
#1	-.0018	.0005	-.0010				
#2	.0031	.0023	.0005				

Method: C                    Sample Name: EPA ,HCL                    Operator: k  
 Run Time: 12/09/88 10:13:47  
 Comment: G016283  
 Mode: CONU    Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2497	Ba4934	Be3130	Cs3179
Avg	.0010	.4696	.4977	.5313	.4996	.5025	(7.00)
#1	.0010	.4608	.4820	.5355	.5013	.5039	19.54
#2	.0009	.4585	.5133	.5270	.4979	.5010	19.70
Elem	Co2286	Co2286	Cr2677	Cu3247	Fe2599	Fe3714	N_7004
Avg	.0001	.0012	.4980	.0013	.4923	.5318	20.12
#1	-.0012	.0025	.4999	.0013	.4937	.5516	19.99
#2	.0014	-.0001	.4962	.0013	.4909	.5510	20.46
Elem	Li6707	Mg2795	Mn2576	Mo2023	Na5889	Ni2315	Pb6006
Avg	2.086	.4949	.0013	1.998	20.10	-.0077	-.0112
#1	2.087	.4966	.0007	1.998	20.12	-.0087	-.0026
#2	2.084	.4933	.0018	1.991	20.07	-.0067	-.0200
Elem	Sb2175	Se1960	Si2881	Sn1899	Sr4215	Ti3349	Ti3906
Avg	.5152	.0110	.3525	2.047	2.101	2.017	1.9926
#1	.5192	.0520	.1715	2.047	2.109	2.028	-.0101
#2	.5113	-.0299	.3536	2.047	2.093	2.013	1.0122
Elem	V_2984	Y_3710	Zn2138				
Avg	-.0023	2.090	.5036				
#1	-.0031	2.096	.5055				
#2	-.0013	2.084	.5008				

Method: C

Sample Name: EPA

,HNO3

Operator: W

Run Time: 12/09/88 10:22:17

Comment: 6016283

Mode: CONC Corr. Factor: 1

Elem	Aq3280	Al2082	As1936	B_2497	Ba4934	Be3130	Ca3170
Avg	.4972	-.0141	.0070	.0206	.0003	.0000	.0063
#1	.4973	-.0157	.0128	.0206	.0007	.0000	.0077
#2	.4971	-.0125	.0012	.0206	.0003	.0000	.0047
Elem	Cd2288	Cd2286	Cr2677	Cu3247	Fe2599	Fe2714	K_7364
Avg	.5131	.5072	.0013	.5066	-.0144	.0661	.4540
#1	.5142	.5072	.0016	.5075	-.0138	.0707	.2500
#2	.5119	.5072	.0010	.5066	-.0130	.0616	.6117
Elem	Li6707	Mg2795	Mn2576	Mo2041	Na5889	Ni2316	Pb2203
Avg	-.0009	.0010	.5067	.0063	.0687	.4750	.0762
#1	.0000	.0012	.5061	.0072	.0309	.4763	.0713
#2	-.0017	.0008	.5073	.0049	.0975	.4792	.0809
Elem	Sb3175	Se1960	Si2081	Sn1899	Sr4215	Ti3345	V1300
Avg	.0184	1.947	-.1396	.0058	-.0007	.0042	1.971
#1	.0178	1.994	-.1369	.0045	-.0007	.0046	1.904
#2	.0189	1.900	-.1823	.0071	-.0007	.0037	0.990
Elem	V_2924	Y_3710	Zn2138				
Avg	.4885	.0025	.0100				
#1	.4879	.0027	.0093				
#2	.4891	.0023	.0106				

**Versar**

VERSAR INC.  
TRACE METALS SECTION  
FLAMELESS AAS ANALYSIS LOG SHEET

ELEMENT: As DATE: 12/05/88  
PROJECT-BATCH: 6010-286 TRAY NO.: 1

INSTRUMENT: #6  
WAVELENGTH: 192.7 nm SLIT: 0.1  
LIGHT SOURCE: EDL HCL  
CURRENT/POWER: 5  
BACKGROUND CORRECTION: DS

TUBE: LVD REP: 2  
PURGE: 5 AF N<sub>2</sub>  
PIPET VOL: 20 ul

STANDARD PREP. DATE: 12/05/88  
SPIKE = Soil - 40ppm - 8.0 ml/100  
Matrix Modifier Added Y  N

Step	1	2	3	4	5
Temp °C	120	1100	2200	2500	20
Ramp (s)	5	5	0	1	2
Hold (s)	35	15	5	2	10
Boc (s)		14			
Rec (s)					

ICV = 47ppm As (ICV\*2)

CUP	LAB #	AVG. ABS.	UNADJ. CONC.	15/20cc/mls D.F.	CONC. ug/g	CONC. mg/kg <u>wt.</u>	COMMENTS
1.	CB	-5					r=0.9998
2.	10pph	50					
3.	20	43					
4.	50	109					
5.	100	217					
6.	ICV	109	49.7		50		126%
7.	ICB	-4	22.0		22.0		
8.	OAS + B	-2	22.0	0.24%	22.0	20.4	
9.	+20	45	21.6				(100)
10.	LCSFA + A	42	22.4	12			477 Rec. 4%
11.	(soil) +20	101	49.0				(100)
12.	MS	76	35.6	0.24%	36	7.2	407 90%
13.	61639SP	108	50.1		50	10	401 64%
14.	61639 + A	51	24.3		24	4.8	409
15.	+20	93	45.6				(100)

E = Interference  
( ) = % Rec. of MSA spike

INITIALS cf

VERSAR INC.  
TRACE METALS SECTION  
FLAMELESS AAS ANALYSIS LOG SHEET

ELEMENT: As DATE: 12/05/88  
PROJECT-BATCH: 6016-283 TRAY NO.: 1

SLIDE 5022 AS NBS

CUP	LAB #	AVG. ABS.	UNADJ. CONC.	lg/20mLs D.F.	CONC. µg/L	CONC. mg/kg 100µwt.	COMMENTS
16.	61639DR	39	13.9	0.24/16	19.	3.8	RPD=23%
17.	+20	87	40.6				(108)
18.	CCB	0	42.0		42.0		
19.	CC1	112	52.4		52.		104%
20.	LCSFA #2	517	16.9	12	<del>4</del>		r=0.9998
21.	+10	906			Return-		bl: = 50.5
22.	+20	1021			dilution error		m = 3.0
23.	+40	1711			PKD 12-16-88		location
24.	LCSFA #1	607	13.4	12	<del>3</del>		r=0.9939
25.	+10	1191			Return-		bl: 7.9%
26.	+20	1011			bad correlation		bl: 54%
27.	+40	1701			PKD 12-16-88		M=2.7
28.	CCB	2	2.107		2.107		
29.	CCV	101	47.0		47.		04%
30.							
31.							
32.							
33.							
34.							
35.							

INITIALS CP

**Versar** inc.

VERSAR INC.  
TRACE METALS SECTION  
AAS PRINTER TAPES

ELEMENT: As  
PROJECT-BATCH: 6016-283

DATE: 12/05/89

	-0.004			0.052	
	-0.006			0.049	
1	-0.005	AV	14	0.051	AV
	28.23	CV		4.20	CV
	0.021			0.098	
	0.013			0.098	
2	0.020	AV	15	0.094	AV
	10.84	CV		0.00	CV
	0.041			0.039	
	0.045			0.039	
3	0.043	AV	16	0.039	AV
	6.59	CV		0.00	CV
	0.111			0.065	
	0.107			0.089	
4	0.109	AV	17	0.087	AV
	2.60	CV		3.25	CV
	0.217			-0.003	
	0.216			0.000	
5	0.217	AV	18	0.000	AV
	0.33	CV		05	ER
	0.111			0.116	
	0.103			0.111	
6	0.107	AV	19	0.113	AV
	5.29	CV		3.12	CV
	-0.004			0.051	
	-0.005		21	0.060	
7	-0.004	AV	22	0.112	
	15.71	CV	23	0.171	
	-0.001		24	0.060	
	-0.003		25	0.079	
6	-0.002	AV	26	0.107	
	70.71	CV	27	0.175	
	0.044		28	0.002	
	0.046		29	0.101	
9	0.045	AV			
	3.14	CV			
	0.043				
	0.053				
10	0.048	AV			
	14.73	CV			
	0.097				
	0.105				
11	0.101	AV			
	5.60	CV			
	0.072				
	0.070				
12	0.076	AV			
	6.58	CV			
	0.109				
	0.107				
13	0.108	AV			
	0.86	CV			

*Handwritten signature*

VERSAR INC.  
TRACE METALS SECTION  
FLAMELESS AAS ANALYSIS LOG SHEET

ELEMENT: As DATE: 12/08/89  
PROJECT-BATCH: 10914-202 TRAY NO.: 1

INSTRUMENT: #6  
WAVELENGTH: 192.4 nm SLIT: 0.7  
LIGHT SOURCE: ✓ EOL          HCL  
CURRENT/POWER: 5  
BACKGROUND CORRECTION: As

TUBE: LD REP: 2  
PURGE: Ar          N<sub>2</sub>  
PIPET VOL: 20           $\mu$ l

STANDARD PREP. DATE: 12/15/89  
SPIKE = n/a

Matrix Modifier Added Y / N

Step	1	2	3	4	5
Temp °C	120	1120	1200	2500	20
Ramp (s)	5	5	0	1	1
Hold (s)	35	15	5	4	5
Bac (s)		14			
Rec (s)					

TC 102 - 47946 CCV - Scope As NBS

CUP	LAB #	AVG. ABS.	UNADJ. CONC.	D.F.	CONC. $\mu$ g/l	CONC. mg/kg wt.	COMMENTS
1.	A B	3					r=0.999?
2.	1.000	24					
3.	20.00	50					
4.	50	120					
5.	100	240					
6.	100	124	60.8		50.		100%
7.	100	120	60.0		62.0		
8.	LCCFB-P	587	22.6	12	45.		r=0.9999
9.	20	240					bia = 572
10.	100	104					m=2.5
11.	100	160					27 96%
12.	CCB	13	620		62.0		
13.	CCV	117	470		47.		94%
14.							
15.							

( ) = Interference  
( ) = % Rec. of MSA spike

INITIALS CP



**Versar**

VERSAR INC.  
TRACE METALS SECTION  
AAS PRINTER TAPES

ELEMENT: As  
PROJECT-BATCH: 6016-383

DATE: 12/08/99

	0.003	
	0.003	
1	0.003	AV
	0.00	CV
	0.025	
	0.023	
2	0.024	AV
	5.89	CV
	0.053	
	0.052	
3	0.052	AV
	1.35	CV
	0.124	
	0.129	
4	0.125	AV
	2.90	CV
	0.247	
	0.245	
5	0.246	AV
	0.53	CV
	0.125	
	0.123	
6	0.124	AV
	1.14	CV
	-0.001	
	-0.004	
7	-0.002	AV
	84.85	CV
8	0.053	
9	0.064	
10	0.104	
11	0.160	
	-0.001	
	-0.005	
12	-0.003	AV
	94.23	CV
	0.113	
	0.116	
13	0.117	AV
	1.21	CV

6016-282  
AS

12/08/99  
7/27/01

VERSAR INC.  
TRACE METALS SECTION  
FLAMELESS AAS ANALYSIS LOG SHEET

ELEMENT: Pb DATE: 12/3/88  
PROJECT-BATCH: 10016-283 TRAY NO.: 1

INSTRUMENT: #3  
WAVELENGTH: 2833 nm SLIT: 0.7  
LIGHT SOURCE:  EDL  HCL  
CURRENT/POWER: 10 watts  
BACKGROUND CORRECTION: D2

TUBE: Normal REP: 2  
PURGE: 0 Ar            N<sub>2</sub>  
PIPET VOL: 25 ul

STANDARD PREP. DATE: 12/3/88  
SPIKE = 50ppb = 10 mg/kg

Step	1	2	3	4	5
Temp °C	130	250	2300	2500	
Ramp (s)	10	5	1	1	
Hold (s)	20	15	4	4	
Boc (s)		14			
Rec (s)					

Matrix Modifier Added  Y  N

Dilutions based on premun.  
See printer tape page.

CUP	LAB #	AVG. ABS.	UNADJ. CONC.	1g/200ml D.F.	CONC. ug/g	CONC. mg/kg wet wt.	COMMENTS
1.	CB	-5					r=0.9994
2.	5ppb	20					
3.	10ppb	45					
4.	20ppb	105					
5.	50ppb	252					
6.	ICV	138	27.6	14	110.		110%
7.	ICB	-9	<2.0		<2.0		
8.	DRS +R	-1	<2.0	0.24/g	<2.0	<0.40	
9.	+10	48	10.1	↓			(101)
10.	LCSFB +R	125	25.0	14	100.		[97.9] 02%
11.	(50:1) +0	176	34.9				(99)
12.	61639 +R	99	20.0	0.24/g 14	—	—	Min 4 pt
13.	+10	141	28.2				(92) MSA
14.	61639ppb +R	98	19.8	14	79.	16.	RSD = 28%
15.	+10	151	30.1	↓			(103)

E = Interference  
( ) = % Rec. of MSA spike

INITIALS 95

ICV = 100ppb = 100ppb

VERSAR INC.  
TRACE METALS SECTION  
FLAMELESS AAS ANALYSIS LOG SHEET

ELEMENT: Pb DATE: 12/5/88  
PROJECT-BATCH: 60110-283 TRAY NO.: 1

CUP	LAB #	AVG. ABS.	UNADJ. CONC.	131200-2 D.F.	CONC. µg/l	CONC. mg/kg wet wt.	COMMENTS
16.	6011039sp	69	14.2	0.241g / 10	142.	28.	[10] 100%
17.	6011039	127	24.5	↓ / 12	49.	9.8	[50] 98%
18.	CCV	133	26.6		27.		108%
19.	CCB	1	<2.0		<2.0		
20.	6011039 +8	39	7.82	0.241g / 18	42.95	12.2	120 99.9%
21.	+5	82		↓			b = 41.26
22.	+10	113		↓			m = 5.96
23.	+20	161		↓			
24.	CCV	135	27.0		27.		108%
25.	CCB	3	<2.0		<2.0		
26.	6011039 +8	42		0.241g / 18	—	—	versar +
27.	+5	74		↓			return
28.	+10	113		↓			↓
29.	+20	157		↓			↓
30.	CCV	139	27.8		28.		112%
31.	CCB	6	<2.0		<2.0		
32.							
33.							
34.							
35.							

Removal  
CCV  
line 22  
100% 99%

CCV = 25 ppb NBS

INITIALS AS

ELEMENT: PD

DATE: 12/5/88

PROJECT-BATCH: 6016-283

TRAY NO.: 2

CUP	LAB #	AVG. ABS.	UNADJ. CONC.	<sup>1g/200ml</sup> D.F.	CONC. $\mu\text{g/g}$	CONC. $\text{mg/kg}$ wt wt.	COMMENTS
1.	CB	3					$r=0.9983$
2.	5 ppb	14					
3.	10 ppb	49					
4.	20 ppb	105					
5.	50 ppb	264					
6.	ICV	139	26.7	14	107.		107%
7.	ICB	1	<2.0		<2.0		
8.	61639 +B	44	7.40	$\downarrow$ 2.249	59.85	10.	$r=0.9976$
9.	+5	65					$r=0.9976$
10.	+10	100					$r=0.9976$
11.	+20	164					
12.	CCV	136	26.1		26.		104.7%
13.	CCB	1	<2.0		<2.0		
14.							
15.							
16.							
17.							
18.							
19.							
20.							
21.							
22.							
23.							
24.							
25.							
26.							
27.							
28.							
29.							
30.							
31.							
32.							
33.							
34.							
35.							

CCV = 25 ppb NBS  
 CCV = WP 386 = 100 ppb

INITIALS CS





VERSAR INC.  
TRACE METALS SECTION  
AAS PRINTER TAPES

ELEMENT: Pb  
PROJECT-BATCH: 6016-283

DATE: 12/5/58

6016-283 Pb	0.004	
95 12/5/58	-0.002	
95 0.495	0.003	AV
1002	01	EF
	0.000	
	0.001	
	0.005	
1.295	0.003	AV
	01	EF
	0.010	
	0.014	
2.895	0.014	AV
	2.40	CV
	0.048	
	0.050	
3.495	0.047	AV
	2.00	CV
	0.107	
	0.100	
4.895	0.105	AV
	2.50	CV
	0.262	
	0.200	
5.895	0.204	AV
	1.18	CV
	0.139	
	0.138	
6.495	0.139	AV
	0.11	CV
	-0.002	
	0.000	
7.895	0.001	AV
	01	EF
8	0.044	
9	0.005	
10	0.100	
11	0.154	
12	0.130	
13	-0.001	

VERSAR INC.  
TRACE METALS SECTION  
FLAMELESS AAS ANALYSIS LOG SHEET

ELEMENT: Se DATE: 12-7-88  
PROJECT-BATCH: 6016-283 TRAY NO.:           

INSTRUMENT: #8  
WAVELENGTH: 196 nm SLIT: 0.7L  
LIGHT SOURCE:  EDL  HCL  
CURRENT/POWER: 5.5 WATTS  
BACKGROUND CORRECTION: Zeeman

TUBE: L.V.P. (75) REP: 2  
PURGE: 0 Ar            N<sub>2</sub>  
PIPET VOL: 20 uL

STANDARD PREP. DATE: 12-7-88  
SPIKE = 10% 20 µg/L = 2 mg/kg

Matrix Modifier Added   N

Step	1	2	3	4	5
Temp °C	130	1000	2000	2500	20
Ramp (s)	5	6	0	1	1
Hold (s)	30	15	5	3	8
Boc (s)					
Rec (s)					

CUP	LAB #	AVG. ABS.	UNADJ. CONC.	D.F.	CONC. µg/L	CONC. mg/kg wet wt.	COMMENTS
1.	CB	-1					r = 0.9997
2.	5 ppb	11					
3.	10	27					
4.	30	50					
5.	50	128					
6.	10V	60	23.6		24.		96% conc
7.	10B	3	<3.0		<3.0		
8.	10B TB	3	<3.0	1/2 second	<3.0	<0.100	
9.	+10	27	10.8	↓			(108)
10.	LCS A TB	63	24.8	1/4	99.		(104) 99% conc
11.	+10	88	34.5				(97)
12.	61639 TB	2	<3.0	1/2 second	<5.0	<1.0	
13.	+10	25	10.0	1			(100)
14.	61639 <sup>20</sup> TB	4	<3.0	1	<5.0	<1.0	RPD = 100
15.	+10	30	12.0	9			(120)

E = Interference  
( ) = % Rec. of MSA spike

INITIALS

VERSAR INC.  
TRACE METALS SECTION  
FLAMELESS AAS ANALYSIS LOG SHEET

ELEMENT: Se DATE: 12-7-88  
PROJECT-BATCH: 6016-283 TRAY NO.: 1

CUP	LAB #	AVG. ABS.	UNADJ. CONC.	O.F.	CONC. ug/l	CONC. mg/kg wet wt.	COMMENTS
16.	6163A SP	24	9.62	1 1/2 200ml	9.6	1.9	11.2 (10.2) 45% rec
17.	MS-5	27	10.8	↓	11.	2.2	11.2 (10.2) 110% rec
18.	CCB	-1	<3.0		<3.0		
19.	CCV	61	24.0		24.		96% rec
20.							
21.							
22.							
23.							
24.							
25.							
26.							
27.							
28.							
29.							
30.							
31.							
32.							
33.							
34.							
35.							

INITIALS JK

CCV = NBS @ 25 ppb.



(A)

```

SE      -0.001      -0.005
-----
MEAN=  -0.003      STD.DEV.=  0.003      COEF.VAR.=  99.99 %
*****
0.000      AUTOZERO
*****
SE      0001
-0.001      0.000
-----
MEAN=  -0.001      STD.DEV.=  0.001      COEF.VAR.=  99.99 %
*****
SE      0002
0.009      0.013
-----
MEAN=   0.011      STD.DEV.=  0.002      COEF.VAR.=  22.31 %
*****
SE      0003
0.027      0.028
-----
MEAN=   0.027      STD.DEV.=  0.001      COEF.VAR.=   3.77 %
*****
SE      0004
0.051      0.048
-----
MEAN=   0.050      STD.DEV.=  0.002      COEF.VAR.=   4.95 %
*****
SE      0005
0.127      0.128
-----
MEAN=   0.128      STD.DEV.=  0.001      COEF.VAR.=   0.77 %
*****
SE      0006
0.060      0.059
-----
MEAN=   0.060      STD.DEV.=  0.001      COEF.VAR.=   1.63 %
*****
SE      0007
0.004      0.002
-----
MEAN=   0.003      STD.DEV.=  0.001      COEF.VAR.=  49.49 %
*****
SE      0008
0.004      0.001
-----
MEAN=   0.003      STD.DEV.=  0.003      COEF.VAR.=  99.99 %
*****
SE      0009
0.027      0.028
-----
MEAN=   0.027      STD.DEV.=  0.001      COEF.VAR.=  4.51 %
*****
SE      0010
0.061      0.065
-----
MEAN=   0.063      STD.DEV.=  0.003      COEF.VAR.=  4.56 %
*****

```

6016-283

TRAY

12-7-88

```

SE      0011
0.088      0.087
-----
MEAN=   0.088      STD.DEV.=  0.001      COEF.VAR.=   0.82 %
*****
SE      0012
0.004      0.000
-----
MEAN=   0.002      STD.DEV.=  0.003      COEF.VAR.=  99.99 %
*****
SE      0013
0.025      0.026
-----
MEAN=   0.025      STD.DEV.=  0.000      COEF.VAR.=   0.22 %
*****
SE      0014
0.005      0.004
-----

```

```

MEAN= 0.004 STD.DEV.= 0.001 COEF.VAR.= 18.82 %
*****
SE 0015
0.033 0.027
-----
MEAN= 0.030 STD.DEV.= 0.004 COEF.VAR.= 12.90 %
*****
SE 0016
0.022 0.027
-----
MEAN= 0.024 STD.DEV.= 0.003 COEF.VAR.= 14.45 %
*****
SE 0017
0.026 0.028
-----
MEAN= 0.027 STD.DEV.= 0.001 COEF.VAR.= 5.48 %
*****
SE 0018
-0.002 0.000
-----
MEAN= -0.001 STD.DEV.= 0.001 COEF.VAR.= 99.99 %
*****
SE 0019
0.062 0.061
-----
MEAN= 0.061 STD.DEV.= 0.001 COEF.VAR.= 2.15 %
*****

```

3

6016-283

TRAY

HR

12-7-88



VERSAR INC.  
TRACE METALS SECTION  
FLAMELESS AAS ANALYSIS LOG SHEET

ELEMENT: Te DATE: 12-2-88  
PROJECT-BATCH: 6016-283 TRAY NO.: 1

CUP	LAB #	AVG. ABS.	UNADJ. CONC.	D.F.	CONC. $\mu\text{g}/\%$	CONC. $\text{mg}/\text{kg}$ <u>net wt.</u>	COMMENTS
16.	M3-3	111	23.2	$\frac{19}{2000\text{ml}}$ 1/2	46.	9.3	(10.) 939/mcc
17.	PCB	0	<1.0		11.0		
18.	CCV	115	24.0		24.		969/mcc
19.							
20.							
21.							
22.							
23.							
24.							
25.							
26.							
27.							
28.							
29.							
30.							
31.							
32.							
33.							
34.							
35.							

INITIALS HR

CCV = NBS std @ 25ppb

**Versar**<sub>INC.</sub>

VERSAR INC.  
TRACE METALS SECTION  
AAS PRINTER TAPES

ELEMENT: TR  
PROJECT-BATCH: 6016-283

DATE: 12-2-85 3/5

6016-283	0.000				0.196	
	0.002				0.195	
TR 6	0.001	AV		10	0.195	AV
12-2-85	06	ER			0.35	CV
TRAYS	0.000	AZ			-0.001	
AR	-0.002				-0.004	
	0.001			11	-0.002	AV
1	-0.000	AV			84.85	CV
	06	ER			0.077	
	0.049				0.078	
	0.050			12	0.077	AV
2	0.050	AV			0.91	CV
	1.43	CV			-0.000	
	0.094				0.001	
	0.093			13	0.000	AV
3	0.096	AV			06	ER
	2.95	CV			0.078	
	0.237				0.080	
	0.239			14	0.079	AV
4	0.238	AV			1.79	CV
	0.59	CV			0.095	
	0.119				0.083	
	0.116			15	0.087	AV
5	0.117	AV			2.45	CV
	1.81	CV			0.111	
	-0.001				0.111	
	-0.003			16	0.111	AV
6	-0.002	AV			0.00	CV
	70.71	CV			-0.001	
	-0.001				0.000	
	-0.001			17	-0.000	AV
7	-0.001	AV			05	ER
	0.00	CV			0.117	
	0.093				0.114	
	0.095			18	0.115	AV
8	0.094	AV			1.84	CV
	1.50	CV				
	0.102					
	0.103					
9	0.103	AV				
	0.09	CV				

METHODS LABORATORY  
 COLORED VAPOR HQ ANALYSIS SHEET

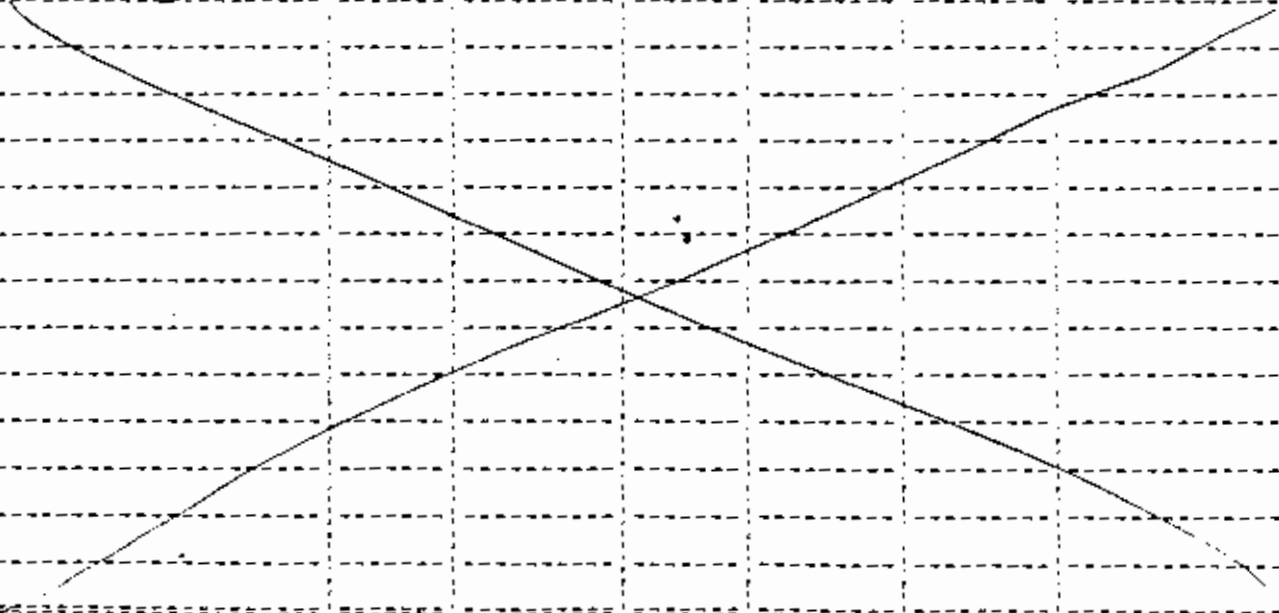
Project/Event: 6016-283  
 Sample No.: 61639

Date: 12/9/88

Instrument: 1 Light Source: EDL  HCL  
 Wavelength: 254 nm. Slit: 0.7 Current/Power: 6 PMA5  
 Background Correction: --- Gas Flow: 3.0

spike = 1 ug/l 5 ug/kg

Sample/ EPA ID No.	Abs.	Unadj. Conc.	<del>0.7 PMA5</del>	Conc. ug/l	Conc. ug/kg wet wt.	Comments
CB	0.000					R=0.9998
C.S. ppt	0.009					
2	0.033					
S	0.081					
10 L	0.166					
ICV	0.078	4.72	<del>0.7 PMA5</del>	4.7		966 [4.9]
ICZOB	0.000	<0.2	<del>0.7 PMA5</del>	<0.2	<0.1	
61639	0.002	<0.2		<0.2	<0.1	
61639Dp	0.002	<0.2		<0.2	<0.1	RPD=NC (5 mg)
61639Sp	0.011	0.669		0.67	0.33	662 [7.7]
CCV	0.073	4.42		4.4		896 [5.06]
CCB	0.000	<0.2		<0.2		



#S ICV = 4.9 ug/l      CCV = 4.4 ug/l  
 anal. wt. JeB      ALC = 5.06 ug/l

2







VEPSOR, INC.  
METALS LABORATORY  
DIGESTION LOG

6016-283

Project-Batch: 6016-283  
Digestion Type: ICP Soil  
Reference: QP 500 205, 0-4

Date: 12/9/98  
Sample #'s: 1

Sample No.	Matrix	Initial ME./Vol.	Final Vol.	Description	Comments
61639	off waste	1g	20mls	See Hga digestion	
61639DP		↓			
61639SP		↓			
MS	water	1ml	↓		
PBS		↓			
LCSA		100mls	100mls		
LCSB		↓	↓		

SPIKE=10 mls of ICP Soil Spiking Solution / 200 mls  
1 ml of 100ppm Sb & 10ppm Ag and  
0.4 ml of 100ppm Cr and 0.2 ml of 1000ppm As / 200 mls.  
ICP Soil Spiking Solution contains 40ppm Ba -  
1ppm Be, Cd - 5ppm Cu - 10ppm Co, Pb, Mn, Ni, V, Zn

Description/Color  
Clarity - Clear, Cloudy or Opaque  
Texture - Fine, Med. or Course

LCS prep date / ICP date  
LCSA 11/23/98 / 12/02/98  
LCSB 12/1/98 / 12/3/98

BALANCE CHECK  
ZERO 0.0000  
5 gram wt. 5.0170

Preparer: JCB GS

Project-Batch: **6016-203**  
 Digestion Type: **DIET SOIL**  
 Reference: **CP 501 205, II 4**

Date: **11-30-88**  
 Sample # **1**

Sample No.	Matrix	Initial (M./Vg)	Final (Mg)	Description	Comments
RBS	H <sub>2</sub> O	1mL	200mL	Colorless & Clear	WATER
MS	"	"	"	"	"
61639	SOIL	15m	"	BLACK W/ROCK	SOIL SAMPLE
61639 DP	"	"	"	BLACK W/ "	"
61639 SPK	"	"	"	" / "	"
LSFA	H <sub>2</sub> O	100mL	100mL	Colorless & Clear	LES
LSFB	"	100mL	100mL	"	LES

SPIKE= 1 ml of MGB Soil Spiking Solution / 200 ml  
 MGB soil spiking solution contains 8ppm Pb -  
 10ppm Pb, 11 - 1ppm Cd - 2ppm Se

LES / Prep date / ID# date  
 LSFA / 11-8-88 # 2 (00897)  
 LSFB / 11-8-88 # 1 (0367)

DESCRIPTION: Color: Clear, Cloudy or Opaque  
 Clarity: Clear, Cloudy or Opaque  
 Texture: Fine, Med. or Coarse

PREPARED BY: **JM**

VERSAAR, INC.  
METALS LABORATORY  
MERCURY DIGESTION LOG

Project-Batch: 6016-283

Date: 12/9/88

Reference: CLP 50M 785; Method: 245.5

No. of Samples: 1

No. of Blanks: 3

Sample No.	Matrix	Initial HE. Vol.	Final Vol.	Description	Comments
61631	Supernatant	10 ml	10 ml	See TCP or HGA digestion log	
61639DP	J	J	J		
61639sp	J	J	J		

SPIKE:  $0.50 \text{ ml} \times 0.1 \text{ ppm Hg} / 100 \text{ ml} = 1 \text{ ppb}$   
 $0.1 \text{ ml} \times 1.013 \text{ ppm Hg} / 100 \text{ ml} = 5.06 \text{ ppb}$   
 $\text{EPR/LCS} = 1 \text{ ml} \times 5.2 \text{ ppm Hg} / 100 \text{ ml} = 5.2 \text{ ppb}$

STANDARDS =  $0.5 \text{ ppb} = 5 \text{ ml} \times 0.01 \text{ ppm Hg} / 100 \text{ ml}$   
 $2.0 \text{ ppb} = 2 \text{ ml} \times 0.1 \text{ ppm Hg} / 100 \text{ ml}$   
 $5.0 \text{ ppb} = 5 \text{ ml} \times 0.1 \text{ ppm Hg} / 100 \text{ ml}$   
 $10.0 \text{ ppb} = 10 \text{ ml} \times 0.1 \text{ ppm Hg} / 100 \text{ ml}$

Description: Color - Clear, Cloudy or Opaque  
 Texture - Fine, Med., Coarse  
 Artifacts

BALANCE CHECK  
 ZERO  0.002g  
 5 GRAIN WT. 5.0002g

Preparer: QCB



ANALYTICAL DATA PACKAGE  
Pesticide Analysis  
Fraction WASTE  
Versar Project 6016  
Batch Number 283  
Client NYS  
Site \_\_\_\_\_  
Date Reported 12-27-88

**Versar**<sub>INC</sub>

I. NARRATIVE

II. QC SUMMARY



**Pesticide Analysis Narrative**

NYS Contract No. C001298; Case No. SN788 Waste

Lab Operations No. 6016 B#293

Site: Conny

December 29, 1988

Please find enclosed the raw analytical data and calculated results for the analysis of the samples received at Versar on 12 November, 1988. The samples were requested for analysis by the US Environmental Protection Agency Contract Laboratory Program (EPA-CLP; or CLP) protocol. The samples were extracted within the holding time prescribed in the requested protocol. The date of extraction was 28 November, 1988 for the following samples:

NYS Field ID#	Lab ID#
*C01 738001 01	*61640

\*Denotes sample chosen for GC extraction (MS/MSD).

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standards were acceptable where required. All data has been reviewed for completeness and validity. The sample chromatography yielded confirmed results for Aroclor 1242 and heptachlor epoxide above the reported detection limits.

Sample extracts were analyzed on both packed and capillary column chromatographic systems. The primary analysis was performed with a full set of multicomponent standards to allow for quantitation of tentatively identified results. The primary analysis of these extracts was completed in a single analytical sequence. Samples requiring further analysis were analyzed on a capillary column analytical system. Since no multicomponent analytes were identified in the primary analysis other than 1242, none of the other multicomponent standards were included in confirmation. The confirmation analysis was also completed in a single analytical sequence.

Linearity criteria were met prior to analysis of calibration standards in both sequences, although current protocol does not require linearity of confirmation analyses.

Degradation checks performed prior to, and during analysis had results well within the contract criteria of 20 percent.

DEO retention time shift was monitored throughout the analysis and remained well within the CLP limit of 0.3 and 2.0% for packed and capillary column analyses, respectively.

Calibration standard comparison results were acceptable where required. Final standard comparison results qualified all data

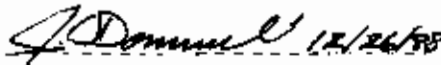


for quantitation of results (30% difference) in the primary analytical sequence, but no confirmed results were observed above the detection limit. In the final standards of the primary analysis, several standard components had responses outside of their established daily retention time windows, therefore no further analyses were allowed to continue. Since no sample analyses were performed after an outlying standard result, no further analyses were required. All confirmation standard comparison results were acceptable (<20% difference), with the exception of four analytes, none of which were identified in the primary analysis. Where standard results were observed outside of their established daily windows, analysts' judgment was relied upon in interpretation of results.

In the sample preparation section of the report are sample comment sheets which detail any difficulties encountered during extraction and analysis, as well as the analyst's discussion of requested protocol and continuing standard results.

In the QC section of the report are included calculated surrogate, matrix spike, and matrix spike duplicate recoveries, as well as precision results and a method blank summary. The results are reported on EPA Forms II, III, and IV, which include advisory QC limits as a set of reference guidelines. Overall, QC results indicate acceptable extraction efficiency with no surrogate recovery results outside of the advisory QC limit window. Matrix spike and matrix spike duplicate recoveries also indicate acceptable extraction efficiency with nine of twelve results in excess of upper QC window limits. Precision for the two spiked extracts, as demonstrated by the relative percent difference (RPD) results, was acceptable with no results in excess of QC limits.

If you have any questions regarding the pesticide analysis or its results as detailed herein, please feel free to call me at your convenience.

  
----- 12/26/88  
John O'Donnell  
QC Data Quality Manager  
Laboratory Operations

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: VERSAR, INC. Contract: C001298

Lab Code: VERSAR Case No.: SH788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Level: (low/med) MBD

	EPA SAMPLE NO.	S1 (DBC) †	OTHER
01	P8LK96	74	
02	00173800101	74	
03	00173800101MS	96	
04	00173800101MSD	83	
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

ADVISORY  
QC LIMITS  
(20-150)

S1 (DBC) = Dibutylchloroendate

† Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogates diluted out

*Judy Amador*  
12-22-88



SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: VERSAR, INC. Contract: C001298  
 Lab Code: VERSAR Case No.: SH 788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Matrix Spike - EPA Sample No.: 00173800101 Level: (low/med) MSD

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Lindane	2794.08	0	5707.29	204*	46-127
Heptachlor	2794.08	0	7234.41	259*	35-130
Aldrin	2794.08	0	6868.72	246*	34-132
Dieldrin	6985.19	0	12726.9	182*	31-134
Endrin	6985.19	0	10513.0	151*	42-139
4,4' DDT	6985.19	0	8739.56	125	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD REC.
Lindane	2794.08	4738.84	170*	18	50 46-127
Heptachlor	2794.08	4784.11	171*	41*	33 35-130
Aldrin	2794.08	4762.05	170*	33	43 34-132
Dieldrin	6985.19	9548.79	137*	28	38 31-134
Endrin	6985.19	9055.42	130	15	45 42-139
4,4' DDT	6985.19	7929.13	114	9	50 23-134

# Column to be used to flag recovery and RPD values with an asterisk  
 MSD RECOVERY FOR DIELDRIN = 136%

\* Values outside of QC limits

*J. Amadio*  
12/21/88

RPD: 1 out of 6 outside limits  
 Spike Recovery: 9 out of 12 outside limits

COMMENTS: Calculations based on primary analysis on Dnet O, SP2250/SP2401

*Judy Amadio*  
12-22-88

PESTICIDE METHOD BLANK SUMMARY

Lab Name: VERSAR, INC. Contract: C001298  
 Lab Code: VERSAR Case No.: SH788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Lab Sample ID: PBLK 4096 Lab File ID: \_\_\_\_\_  
 Matrix: (soil/water) SOIL Level: (low/med) MED  
 Date Extracted: 11-28-88 Extraction: (SepF/Cont/Sonc) SONC  
 Date Analyzed (1): 12-19-88 Date Analyzed (2): 12-22-88  
 Time Analyzed (1): 2250 Time Analyzed (2): 1436  
 Instrument ID (1): 0 Instrument ID (2): M  
 GC Column ID (1): SP2250/SP2401 GC Column ID (2): DB-5

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	00173800101	61640	12-19-88	12-22-88
02	00173800101MS	61640MS	12-19-88	12-22-88
03	00173800101MSD	61640MSD	12-20-88	12-22-88
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

*Judy Amador*  
12-22-88

**Versar**<sub>INC.</sub>

III. SAMPLE DATA PACKAGE

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

00173800101

Lab Name: \_\_\_\_\_ VERSAR, INC. \_\_\_\_\_ Contract: COO1298

Lab Code: VERSAR Case No.: 5H788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water)SOIL Lab Sample ID: \_\_\_61640

Sample wt/vol: 1.0 (g/ml) G Lab File ID: \_\_\_\_\_

Level: (low/med) MED Date Received: \_\_\_11/18/88

X Moisture: not dec. 28 dec. \_\_\_\_\_ Date Extracted: \_\_\_11/28/88

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_SONC Date Analyzed: \_\_\_12/22/88

GPC Cleanup: (Y/N)N pH: \_\_\_7 Dilution Factor: \_ 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)_UG/KG	Q
319-84-6	alpha-BHC	130	U
319-85-7	beta-BHC	130	U
319-86-8	delta-BHC	130	U
58-89-9	gamma-BHC (Lindane)	130	U
76-44-8	Heptachlor	130	U
309-00-2	Aldrin	130	U
1024-57-3	Heptachlor Epoxide	330	U
959-98-8	Endosulfan I	130	U
60-57-1	Dieldrin	270	U
72-55-9	4,4'-DDE	270	U
72-20-8	Endrin	270	U
33213-65-9	Endosulfan II	270	U
72-54-8	4,4'-DDD	270	U
1031-07-B	Endosulfan Sulfate	270	U
50-29-3	4,4'-DDT	270	U
72-43-5	Methoxychlor	270	U
53494-70-5	Endrin Ketone	270	U
5103-71-9	alpha-Chlordane	270	U
5103-74-2	gamma-Chlordane	270	U
8001-35-2	Toxaphene	2700	U
12674-11-2	Aroclor-1016	1300	U
11104-28-2	Aroclor-1221	1300	U
11141-16-5	Aroclor-1232	1300	U
53469-21-9	Aroclor-1242	14000	U
12672-29-6	Aroclor-1248	1300	U
11097-69-1	Aroclor-1254	2700	U
11096-82-5	Aroclor-1260	2700	U

*Judy Amador*  
12-22-88

PERTICTION SAMPLE TABLE

LPP SAMPLE NUMBER \_\_\_\_\_ Lab Name: VERSTAR, INC. Case No.: 9-76  
 Lab Code: VERSTAR Contract: CC3125E  
 Instrument ID: 1 S/S No.:  
 Run Date: 12/15/88 GC Column ID: SP2250/SP2400  
 Matrix IS: SOL Inject Vol: 2.00 (ul) Window Width: 1.0%

ID#	RT WINDOW		SAMPLE		CALIB FACTOR	MG INJECTED	INJECT VOLUME (ul)	INJECT CONC (ug/ml)	X OF	SAMPLE CONC (ug/kg)	DETECTION LIMIT (ug/kg)
	FROM	TO	AT	REP							
Alone-BHC	1.53	1.97	0.00	0	190645E	0.000	2.00	0.000	13299.29	0.00	132.99
Alone-BHC	2.62	2.73	0.00	0	491774	0.000	2.00	0.000	13299.29	0.00	132.99
Alone-INC	3.10	3.16	3.10	20534	1446250	0.014	2.00	0.007	13299.29	94.32	132.99 BDL
Alone-BHC	2.39	2.44	0.00	0	1504050	0.000	2.00	0.000	13299.29	0.00	132.99
Alone-chlor	2.57	2.56	0.00	0	1258420	0.000	2.00	0.000	13299.29	0.00	132.99
Alone	3.43	2.53	3.51	48514	1403480	0.033	2.00	0.017	13299.29	320.38	132.99 HIT
Hept. epoxide	5.06	5.18	5.12	64342	1309225	0.045	2.00	0.025	13299.29	325.72	132.99 HIT
Endosulfan I	6.35	6.48	0.00	0	118331E	0.000	2.00	0.000	13299.29	0.00	132.99
Endosulfan	7.66	7.51	7.78	16252	1320680	0.012	2.00	0.006	13299.29	81.83	265.99 BDL
4,4'-DDE	7.05	7.20	0.00	0	1074260	0.000	2.00	0.000	13299.29	0.00	265.99
Endrin	5.22	5.41	0.00	0	554675	0.000	2.00	0.000	13299.29	0.00	265.99
Endosulfan II	11.06	11.28	11.17	15101	1173885	0.014	2.00	0.007	13299.29	91.21	265.99 BDL
4,4'-DDD	10.61	10.83	0.00	0	887710	0.000	2.00	0.000	13299.29	0.00	265.99
Endosulfate	17.49	17.84	0.00	0	788400	0.000	2.00	0.000	13299.29	0.00	265.99
4,4'-DDT	12.58	12.54	0.00	0	759680	0.000	2.00	0.000	13299.29	0.00	265.99
Imenoxycion	23.11	23.56	0.00	0	348050	0.000	2.00	0.000	13299.29	0.00	265.99
Endrin ketone	23.22	23.59	0.00	0	1164605	0.000	2.00	0.000	13299.29	0.00	265.99
Chlorodane	6.95	6.16	0.00	0	1152020	0.000	2.00	0.000	13299.29	0.00	265.99
Chlorodane	5.55	5.65	0.00	0	1163325	0.000	2.00	0.000	13299.29	0.00	265.99
Toxadane	12.45	12.53	0.00	0	157355	0.000	2.00	0.000	13299.29	0.00	265.99
Arpion-1015	2.31	2.25	0.00	0	245554	0.000	2.00	0.000	13299.29	0.00	1329.99
Arpion-1221	1.50	1.54	0.00	0	47311	0.000	2.00	0.000	13299.29	0.00	1329.99
Arpion-1233	3.52	3.60	0.00	0	62076	0.000	2.00	0.000	13299.29	0.00	1329.99
Arpion-1242	4.80	4.90	4.82	205107	101535	2.055	2.00	1.030	13299.29	13692	1329.99 HIT
Arpion-1248	5.53	5.05	0.00	0	154275	0.000	2.00	0.000	13299.29	0.00	1329.99
Arpion-1254	11.02	11.24	0.00	0	207093	0.000	2.00	0.000	13299.29	0.00	265.99
Arpion-1260	16.87	17.21	0.00	0	283747	0.000	2.00	0.000	13299.29	0.00	265.99
DDT	21.75	22.15	21.50	162113	1107845	0.147	2.00	0.074	13299.29	575.46	265.99 HIT

*C. B. [Signature]*  
12/21/88

PCB SAMPLE TABLE

SAP SAMPLE NUMBER

Lab Name: VERBIA, INC.

Case No.: SP 708

001 702001 01

Lab Code: VERBIA

Contract: CDC1258

VERBIA 6104

Instrument ID: 8

SRE No.:

Run Date: 12/15/88

GC Column ID: SP2250/SP2901

MATRIX IS: SOIL

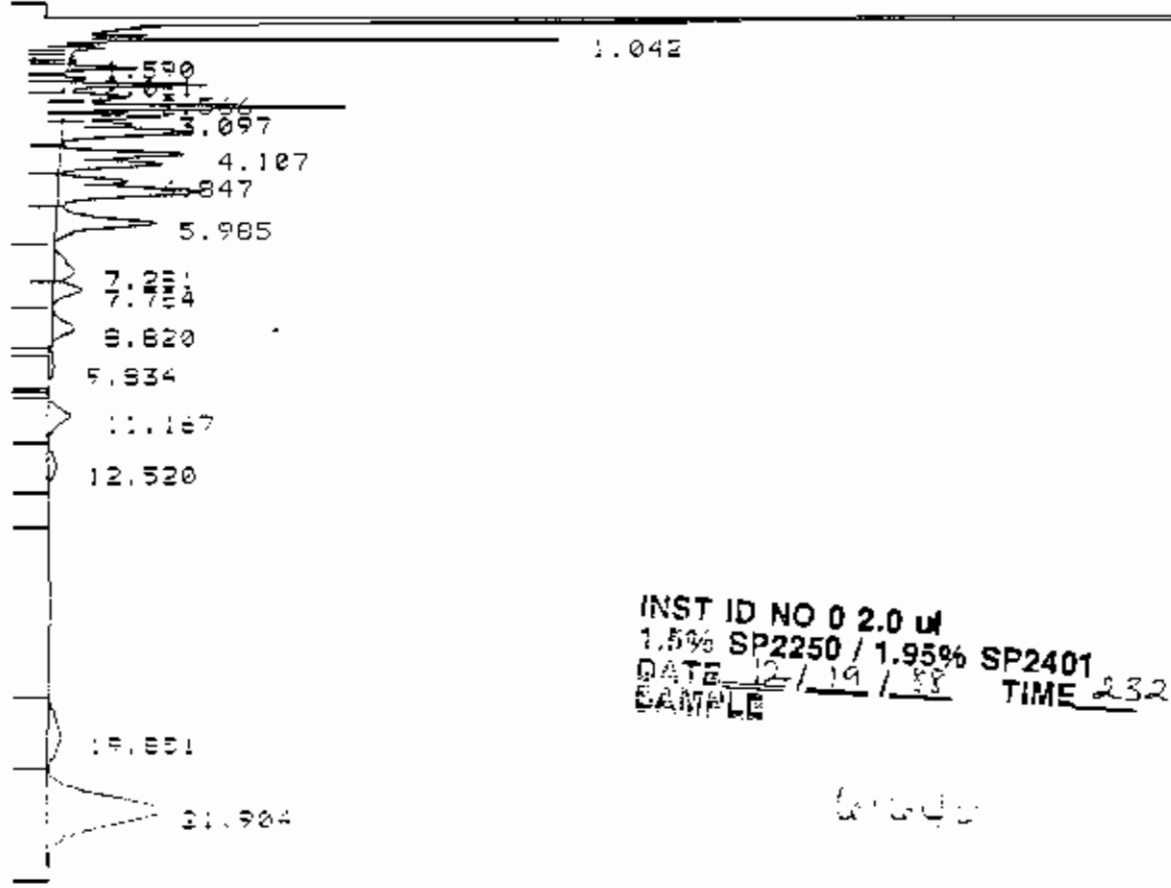
Inject vol: 2.00 (ul)

Window Width: 1.00

MULTI-COMPONENT ANALYTE	RT WINDOW FROM	RT WINDOW TO	SAMPLE RETENTION TIMES	SAMPLE AREA	AREA IDEAL. FAC.	NG INJECTED	VDL (ul)	CONC (ug/ml)	X IF	SAMPLE CONC (ug/l)	DETECTION LIMIT (ug/l)
	4.44	4.53	0.00	0							
	7.55	7.73	0.00	0	0						
Toluene	12.25	12.51	0.00	0		0.0	2.0	0.00	13295.29	0.00	0.00
	13.15	13.48	0.00	0							
	12.54	13.32	0.00	0	187555						
	1.62	1.68	0.00	0							
	1.77	1.80	0.00	0	0						
Propyl-1015	2.21	2.26	0.00	0		0.0	2.0	0.00	13295.29	0.00	0.00
	2.62	2.88	0.00	0							
	3.07	3.13	0.00	0	145554						
	1.13	1.15	0.00	0							
	1.35	1.38	0.00	0	0						
Propyl-1231	1.50	1.53	0.00	0		0.0	2.0	0.00	13295.29	0.00	0.00
	1.52	1.55	0.00	0							
	1.51	1.53	0.00	0	47311						
	2.55	2.64	0.00	0							
	3.31	3.38	0.00	0	0						
Propyl-1233	3.52	3.55	0.00	0		0.0	2.0	0.00	13295.29	0.00	0.00
	4.11	4.30	0.00	0							
	4.38	4.47	0.00	0	53076						
	4.07	4.15	4.13	36521							
	4.34	4.42	4.36	33275	205107						
Propyl-1242	4.80	4.90	4.85	20415		2.1	2.0	1.03	13295.29	13634.66	1325.53
	5.06	5.19	5.13	64342							
	5.52	5.65	5.55	54150	101538						

*C. [Signature]*  
12/15/88

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 uM  
1.5% SP2250 / 1.95% SP2401  
DATE 12/19/88 TIME 2324  
SAMPLE

61640

108

TITLE: CLP PESTICIDES

23:24 19 DEC 88

CHANNEL NO: 3

SAMPLE: 61640

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		24663	1.042		24663	BB	2.20
2		2206	1.235		2206	BB	3.05
3		692	1.465		692	BV	3.50
4		1047	1.590		1047	VV	3.75
5		9954	1.779		9954	VB	4.00
6		2677	2.061		2677	BV	4.30
7		21846	2.231		21846	VV	5.25
8		17053	2.566		17053	VV	11.55
9	HEPTACHLOR <i>oat</i>	53516	2.842	-0.038	53516	VV	6.65
10	D-BAC <i>oat</i>	20514	3.057	0.027	20514	VV	7.65
11		14372	3.309		14372	VV	9.00
12	ALDRIN	46514	3.512	0.032	46514	VV	13.90
13		36921	4.107		36921	VV	11.45
		33275	4.390		33275	VV	13.30
		20419	4.847		20419	VV	11.70
15	HEPT EPOX	64342	5.129	0.019	64342	VV	16.00
17	A-CHLORDAN <i>oat</i>	54150	5.985	-0.055	54150	VV	15.00
18		18396	7.281		18396	VV	30.65
19	DIELDRIN <i>oat</i>	16252	7.784	0.074	16252	VV	19.25
20		16059	8.020		16059	VB	26.05
21		2426	9.854		2426	BB	23.05
22	B-ENDOSULF <i>oat</i>	16101	11.167	0.047	16101	BV	27.45
23	DOT <i>oat</i>	9485	12.509	-0.250	9485	VB	32.70
24		20462	19.851		20462	BV	30.95
25	DBC	163013	21.904	0.104	163013	VB	32.40
TOTALS:		686755		-0.040	686755		

DETECTED PKG: 25 REJECTED PKG: 0

DIVISOR: 1.00000 MULT(PLIER): 1000.0

NOISE: 37.6 OFFSET: -24

RACK: 2 VIAL: 5 INJ: 1

NOTES:

COL: 1.5% SP2250/1.95% SP2401  
 AMT INJ ZUL/INST LETTER 0  
 INJECTION VOLUME 2 UL  
 OAT = OUTSIDE RETENTION TIME WINDOW  
 1981 CASE 12984 BB: PESTICIDE WATERS  
 1981 CASE 14788 BB: PESTICIDE WATERS  
 1980 CASE 13240 BB: PESTICIDE WATERS



PESTICIDE SAMPLE TABLE

EPA SAMPLE NUMBER: 00173800101  
 Lab Name: VERSAR, INC. Case No.: SH788  
 Lab Codes: VERSAR Contracts: C001298  
 Instrument ID: M SAS No.:  
 Run Date: 12/22/88 GC Column ID: DB-5  
 Inject Vol: 2.00 (uL) Window Width: 0.15x

COMPOUND	RT WINDOW		SAMPLE		/ DALIB FACTOR =	NG INJECTED	/ INJECT VOLUME	= INJECT CONC	X DF	SAMPLE DETECTION	
	FROM	TO	RT	AREA						CONC (ug/ml)	CONC (ug/kg)
alpha-BHC	3.30	3.32	0.00	0	4535	0.000	2.00	0.000	13299.29	0.00	132.99
beta-BHC	3.55	3.57	0.00	0	3433	0.000	2.00	0.000	13299.29	0.00	132.99
delta-BHC	3.95	3.97	0.00	0	3845	0.000	2.00	0.000	13299.29	0.00	132.99
gamma-BHC	3.58	3.70	0.00	0	4187	0.000	2.00	0.000	13299.29	0.00	132.99
Heptachlor	4.90	4.92	0.00	0	5360	0.000	2.00	0.000	13299.29	0.00	132.99
Aldrin	5.71	5.73	0.00	0	4599	0.000	2.00	0.000	13299.29	0.00	132.99
Hept. epoxide	6.79	6.81	6.81	381	5148	0.074	2.00	0.037	13299.29	492.43	132.99 HIT
Endosulfan I	8.12	8.14	0.00	0	4760	0.000	2.00	0.000	13299.29	0.00	132.99
Dieldrin	9.23	9.25	0.00	0	4141	0.000	2.00	0.000	13299.29	0.00	265.99
1,4'-DDE	8.98	9.00	0.00	0	3922	0.000	2.00	0.000	13299.29	0.00	265.99
Endrin	10.33	10.37	0.00	0	3502	0.000	2.00	0.000	13299.29	0.00	265.99
Endosulfan II	10.79	10.83	0.00	0	4317	0.000	2.00	0.000	13299.29	0.00	265.99
1,4'-DDD	11.24	11.28	0.00	0	2741	0.000	2.00	0.000	13299.29	0.00	265.99
Endo. sulfate	13.57	13.61	0.00	0	4143	0.000	2.00	0.000	13299.29	0.00	265.99
1,4'-DDT	13.91	13.95	0.00	0	2929	0.000	2.00	0.000	13299.29	0.00	265.99
Methoxychlor	19.79	19.85	0.00	0	1687	0.000	2.00	0.000	13299.29	0.00	265.99
Endrin ketone	17.49	17.55	0.00	0	4091	0.000	2.00	0.000	13299.29	0.00	265.99
1a. Chlordane	8.19	8.21	0.00	0	5911	0.000	2.00	0.000	13299.29	0.00	265.99
1g. Chlordane	7.60	7.62	0.00	0	5851	0.000	2.00	0.000	13299.29	0.00	265.99
Toxaphene	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13299.29	0.00	2659.86
Aroclor-1016	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13299.29	0.00	1329.93
Aroclor-1221	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13299.29	0.00	1329.93
Aroclor-1232	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13299.29	0.00	1329.93
Aroclor-1242	4.05	4.07	4.06	1252	753	1.683	2.00	0.831	13299.29	11056	1329.93 HIT
Aroclor-1248	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13299.29	0.00	1329.93
Aroclor-1254	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13299.29	0.00	2659.86
Aroclor-1260	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13299.29	0.00	2659.86
DBC	24.61	24.69	24.85	647	3854	0.168	2.00	0.084	13299.29	1117.08	265.99 HIT

Judy Amador  
 12-22-88  
 22-Dec-88

PCB SAMPLE TABLE

EPA SAMPLE NUMBER

Lab Name: \_\_\_\_\_ VERSAR, INC.

Case No.: \_\_\_\_\_ SH788

00173800101

Lab Code: \_\_\_\_\_ VERSAR

Contract: \_\_\_\_\_ 0001298

VERSAR ID# 61640

Instrument ID: \_\_\_\_\_ M

SAS No.: \_\_\_\_\_

MATRIX IS: SOIL

Run Date: \_\_\_\_\_ 12/22/88

GC Column ID: \_\_\_\_\_ DB-5

Inject Vol: 2.00 (uL)

Window Width: \_\_\_\_\_ 0.154

MULTI-COMPONENT ANALYTE	RT WINDOW FROM	RT WINDOW TO	SAMPLE RETENTION TIMES	SAMPLE AREA	AREA SUM	DL. FAC.	= NG INJECTED	/ INJ VOL (uL)	= INJECT CONC (ug/ml)	X DF	= SAMPLE CONC (ug/l)	DETECTION LIMIT (ug/l)
	3.26	3.28	3.27	97								
	3.76	3.78	3.77	354	1252							
Nonoclor-1242	4.05	4.07	4.06	220			1.7	2.0	0.83	13970.97	11615.84	1329.93
	5.27	5.29	5.28	232								
	5.68	5.70	5.69	349	753							
	0.00	0.00	0.00	0								
	0.00	0.00	0.00	0	0							
	0.00	0.00	0.00	0			0.0	2.0	0.00	13970.97	0.00	0.00
	0.00	0.00	0.00	0								
	0.00	0.00	0.00	0	0							
	0.00	0.00	0.00	0			0.0	2.0	0.00	12970.97	0.00	0.00
	0.00	0.00	0.00	0								
	0.00	0.00	0.00	0	0							
	0.00	0.00	0.00	0			0.0	2.0	0.00	13970.97	0.00	0.00
	0.00	0.00	0.00	0								
	0.00	0.00	0.00	0	0							
	0.00	0.00	0.00	0			0.0	2.0	0.00	13970.97	0.00	0.00
	0.00	0.00	0.00	0								
	0.00	0.00	0.00	0	0							

Judith Amador  
12-22-88  
22-Dec-88



SAMPLE # 11 CODE 13 61640

REP NOT FOUND  
METHOD ABORTED  
AREA %

RT	AREA	TYPE	WIDTH	HEIGHT	BASELINE	AREA %
0.00						
0.00						
0.00						
0.00						
1.51	2007.24	BY	-----	772.06	297.00	13.295
1.67	1392.08	VV	-----	730.66	296.93	6.226
1.70	2645.14	VV	-----	645.23	296.90	17.518
1.91	76.53	VV	-----	19.15	296.63	0.307
1.95	123.69	VV	-----*	18.72	296.58	0.012
2.12	121.29	VV	-----*	18.70	296.37	0.002
2.19	98.22	VV	-----	16.81	296.27	0.594
2.28	77.43	VV	-----	20.76	296.19	0.513
2.32	97.41	VV	-----	18.77	296.11	0.579
2.42	73.43	VV	-----	16.99	295.99	0.519
2.52	216.73	VV	-----	64.74	295.87	1.435
2.87	35.00	VV	-----	9.39	295.48	0.232
2.90	22.61	VV	-----	6.59	295.41	0.150
3.02	16.25	VP	0.039	4.13	295.16	0.060
3.20	11.64	PV	-----	5.10	295.12	0.077
3.27	96.57	VV	-----	32.76	295.21	0.639
3.35	34.73	VV	-----	10.70	295.30	0.230
3.51	44.48	VV	-----	8.99	295.51	0.295
3.77	754.06	VV	SYM-	77.39	295.94	2.348
3.92	79.83	VV	-----	9.42	296.03	0.264
4.06	219.92	VV	0.033*	59.33	296.28	1.456
4.31	59.51	VV	-----	17.57	296.52	0.797
4.37	70.79	VV	-----	19.57	296.59	0.284
4.50	693.91	VV	-----*	139.57	296.74	4.529
4.69	339.43	VV	0.059	90.06	297.00	2.248
4.85	196.75	VV	-----	51.72	297.20	1.303
4.97	97.76	VV	-----	26.64	297.35	0.647
5.07	55.00	VV	-----	15.66	297.48	0.354
5.17	330.82	VV	-----	99.34	297.60	2.171
5.28	372.29	VV	-----	67.40	297.75	1.538
5.38	217.62	VV	-----	42.01	297.90	1.441
5.69	348.75	VV	-----	96.29	298.27	2.310
5.80	217.67	VV	-----	58.84	298.40	1.442
6.03	361.82	VV	-----*	67.43	298.79	2.396
6.29	101.32	VV	0.062	25.56	299.00	0.671
6.41	16.06	VV	-----	4.13	299.17	0.120
6.59	19.74	VV	-----	4.50	299.39	0.131
6.71	176.35	VV	-----	48.11	299.56	1.160
6.91	381.23	VV	-----	99.10	299.69	2.525
6.95	775.01	VV	-----*	100.00	299.86	4.968
7.20	49.27	VB	-----	3.25	300.18	0.326
7.56	345.22	BY	0.077	69.96	300.09	2.206
7.77	198.36	VV	0.075	41.19	300.04	1.314
8.00	70.76	VB	0.070	17.50	300.01	0.522
8.47	11.71	BB	0.066	2.78	299.34	0.070
8.71	66.39	BY	0.075	13.90	299.43	0.448
8.93	39.48	VV	0.077	20.27	300.19	0.639
9.15	52.93	VB	0.072	11.67	300.26	0.357
9.41	170.44	BB	0.074	36.17	300.46	1.129
10.01	54.26	BB	0.083	10.20	299.60	0.359
10.30	11.04	BY	0.082	2.10	299.40	0.073
10.52	12.06	VV	-----	3.20	299.52	0.090
10.81	150.31	VB	-----*	23.59	299.55	1.055
11.50	4.60	BB	-----	1.10	299.71	0.030
12.23	27.20	BY	0.089	4.62	297.07	0.174
12.49	147.53	VB	0.113	19.82	299.04	0.951
13.14	3.69	BY	-----	1.48	297.56	0.050
13.66	14.29	BP	-----	2.97	296.13	0.121
13.89	19.00	PV	-----	2.07	295.99	0.119
14.29	48.95	BY	0.119	6.42	297.97	0.323
14.51	7.22	VB	-----*	0.94	299.11	0.040
14.93	5.29	BY	-----*	0.05	298.11	0.035
15.04	5.27	VB	-----	1.09	299.00	0.055
15.46	4.94	BB	-----*	0.67	297.95	0.033
15.79	0.97	BB	-----	1.22	297.80	0.033
16.24	1.42	BB	-----	0.30	277.35	0.009
16.71	13.50	BB	-----	1.56	297.53	0.090
17.30	4.01	BB	-----	0.65	297.62	0.027
18.04	2.14	BB	-----	1.15	297.32	0.061
20.37	27.09	BB	0.175	2.50	297.03	0.105
21.33	24.59	BY	0.159	2.43	297.00	0.163
22.46	50.52	BY	0.168	4.70	296.67	0.335
24.15	322.77	VV	-----*	22.54	296.82	2.137
24.65 DBC	647.41	VB	0.102	55.73	296.92	4.288

BASELINE @ START RUN = 296.73  
THRESHOLD @ START RUN = 1  
PEAK WIDTH @ START RUN = 0.04  
PP: REJECT ^ J  
RP: REPORT TBL ^ ON

EXP 58204 SAMPLER INJECTION @ 15:00 DEC 26, 1988

TOTAL AREA = 15099.60  
MULTIPLIER = 1

**Versar<sub>INC.</sub>**

**IV. STANDARDS DATA**

3D  
PESTICIDE EVALUATION STANDARDS SUMMARY

Lab Name: VERSAR Contract: COO1298  
 Lab Code: VERSAR Case No.: SH 788 SAS No.: SDG No.:  
 Instrument ID: 0 GC Column ID: SP2250/SP2401  
 Dates of Analyses: 12/19/88 to 12/20/88

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD ( $\leq 10.0\%$ )
ALDRIN	1196300	1239500	1269180	3.0
ENDRIN	584450	615450	640960	4.6 (1)
4,4'-DDT	603350	662300	705790	8.1
DBC	1113300	1160000	1116820	2.3

(1) If  $> 10.0\%$  RSD, plot a standard curve and determine the ng for each sample in that set from the curve.

Evaluation Check for 4,4'-DDT/Endrin Breakdown  
(percent breakdown expressed as total degradation)

	DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
INITIAL					
01	EVAL MIX B 12/19/88	1636	0.0	0.0	
02	EVAL MIX B 12/20/88	10138	0.0	0.0	
03	EVAL MIX B 12/20/88	10641	0.0	0.0	
04	EVAL MIX B				
05	EVAL MIX B				
06	EVAL MIX B				
07	EVAL MIX B				
08	EVAL MIX B				
09	EVAL MIX B				
10	EVAL MIX B				
11	EVAL MIX B				
12	EVAL MIX B				
13	EVAL MIX B				
14	EVAL MIX B				

(2) See Form instructions.

*C. A. L.*  
12/20/88

BE  
PESTICIDE EVALUATION STANDARDS SUMMARY

Lab Name: VERSAR Contract: CO01298  
 Lab Code: VERSAR Case No.: SH 788 SAS No.: SDG No.:  
 Instrument ID: 0 GC Column ID: SP2250/SP2401  
 Dates of Analyses: 12/19/88 to 12/20/88

	EPA SAMPLE NO.	LAD SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*
01	EVALA	A304	12/19/88	1602	0.000	
02	EVALB	A305	12/19/88	1636	0.055	
03	EVALC	A306	12/19/88	1710	0.059	
04	INDA	A447	12/19/88	1817	0.041	
05	INDB	A370	12/19/88	1851	0.008	
06	TOXAPH	P667	12/19/88	1925	0.164	
07	AR1880	P131	12/19/88	2000	0.141	
08	AR1242	A309	12/19/88	2035	0.173	
09	AR1248	A322	12/19/88	2108	0.209	
10	AR1254	A441	12/19/88	2142	0.173	
11	ZZZZZ	ZZZZZ	12/19/88	2216	0.228	
12	PBLK98	PBLK4096	12/19/88	2250	0.278	
13	61640	61640	12/19/88	2324	0.278	
14	61640MS	61640MS	12/19/88	2358	0.269	
15	61640MSD	61640MSD	12/20/88	0104	0.551	
16	EVALB	A305	12/20/88	0138	0.574	
17	ZZZZZ	ZZZZZ	12/20/88	0211	0.587	
18	ZZZZZ	ZZZZZ	12/20/88	0245	0.646	
19	ZZZZZ	ZZZZZ	12/20/88	0319	0.733	
20	ZZZZZ	ZZZZZ	12/20/88	0353	0.815	
21	ZZZZZ	ZZZZZ	12/20/88	0426	0.860	
22	INDA	A447	12/20/88	0500	0.947	
23	ZZZZZ	ZZZZZ	12/20/88	0534	1.061	
24	ZZZZZ	ZZZZZ	12/20/88	0607	1.111	
25	EVALB	A305	12/20/88	0641	1.125	
26	INDA	A447	12/20/88	0715	1.120	
27	INDB	A370	12/20/88	0749	1.143	
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						

\* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

*C. A. L.*  
*12/21/88*

POP	ALDRIN	ENDRIN	TEMDRIN A	TEMDRIN ?	DDE	DDD	DDC	DDT	DDP	DDM	
SAMPLE NO.	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	AREA	CONC (ug/ml)	
01	EVALP	23526	11625	0	0	12067	0	0	21.365	22156	0.01
02	EVALP	45550	24516	0	0	26432	0	0	21.377	46430	0.02
03	EVALP	125518	54096	0	0	70579	526	0	21.372	111582	0.05
04	INDP								21.574		
05	INDP								21.567		
06	INDP								20.501		
07	AR1240								21.534		
08	AR1242								21.527		
09	AR1248								21.515		
10	AR1254								21.527		
11	INDP								21.515		
12	INDP								21.504		
13	INDP								21.504		
14	INDP								21.505		
15	INDP								21.544		
16	EVALP	45678	26536	0	0	27154	0	0	21.639	47672	0.02
17	INDP								21.636		
18	INDP								21.623		
19	INDP								21.604		
20	INDP								21.786		
21	INDP								21.775		
22	INDP								21.757		
23	INDP								21.732		
24	INDP								21.721		
25	EVALP	45825	25674	0	0	25807	0	0	21.718	42592	0.02
26	INDP								21.715		
27	INDP								21.714		
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											

C. H. L.  
12/21/00



BD  
PESTICIDE EVALUATION STANDARDS SUMMARY

Lab Name: VERSAR Contract: COQ1298  
 Lab Code: VERSAR Case No.: SH788 SAE No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Instrument ID: M GC Column ID: DB-5  
 Dates of Analyses: 12/22/88 to 12/22/88

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD ( $\leq$ 10.0%)
ALDRIN	4299	4137.75	4305.9	2.2
ENDRIN	3060.5	3269	3210.3	3.0 (1)
4,4'-DDT	2710.5	2772.5	2868.6	2.9
D8C	3530.5	3699	3827.7	4.0

(1) If > 10.0% RSD, plot a standard curve and determine the ng for each sample in that set from the curve.

Evaluation Check for 4,4'-DDT/Endrin Breakdown  
(percent breakdown expressed as total degradation)

	DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
INITIAL					
01   EVAL MIX B	12/22/88	1127	6.0	0.0	
02   EVAL MIX B	12/22/88	1724	4.9	0.0	
03   EVAL MIX B					
04   EVAL MIX B					
05   EVAL MIX B					
06   EVAL MIX B					
07   EVAL MIX B					
08   EVAL MIX B					
09   EVAL MIX B					
10   EVAL MIX B					
11   EVAL MIX B					
12   EVAL MIX B					
13   EVAL MIX B					
14   EVAL MIX B					

(2) See Form instructions.

*Judy Amador*  
12-22-88

8E  
PESTICIDE EVALUATION STANDARDS SUMMARY

Lab Name: \_\_\_\_\_ YERSAR \_\_\_\_\_ Contract: CO01298  
 Lab Code: \_\_\_\_\_ VERSAR Case No.: SH788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Instrument ID: \_\_\_\_\_ M GC Column ID: \_\_\_\_\_ DB-5  
 Dates of Analyses: \_\_12/22/88 to \_\_12/22/88

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	% D	*	
01	_EVALA	A454	12/22/88	1056	0.000	
02	_EVALB	A455	12/22/88	1127	0.041	
03	_EVALC	A456	12/22/88	1158	0.000	
04	_INDA	A447	12/22/88	1300	0.000	
05	_INDB	A370	12/22/88	1331	0.000	
06	_AR1242	A305	12/22/88	1403	0.041	
07	_PBLK96	PBLK4096	12/22/88	1436	0.041	
08	_00173800101	61640	12/22/86	1508	0.000	
09	_00173800101MS	61640MS	12/22/88	1542	0.000	
10	_00173600101MSD	61640MSD	12/22/88	1617	0.000	
11	_ZZZZZ	ZZZZZ	12/22/88	1652	0.000	
12	_EVALB	A455	12/22/88	1724	0.000	
13	_ZZZZZ	ZZZZZ	12/22/88	1755	0.000	
14	_ZZZZZ	ZZZZZ	12/22/88	1826	0.000	
15	_ZZZZZ	ZZZZZ	12/22/88	1859	0.000	
16	_ZZZZZ	ZZZZZ	12/22/88	2050	0.041	
17	_AR1242	A309	12/22/88	2124	0.000	
18	_INDA	A447	12/22/88	2158	0.000	
19	_INDB	A370	12/22/88	2229	0.000	
20						
21						
22						
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38						

\* Values outside of QC limits (2.0% for packed columns, 0.3% for capillary columns)

EPA	ALDRIN	ENDRIN	ENDRIN A	ENDRIN H	DDT	DDE	DDD	IBC	IBC	CONC	
SAMPLE NL	AREA	AREA	AREA	AREA	AREA	AREA	AREA	RT	AREA	(ug/ml)	
01	EVALLA	85.98	61.21	0	0	54.21	0	0	24.65	70.61	0.01
02	EVALLB	185.51	129.56	0	8.3	110.9	0	0	24.66	147.96	0.02
03	EVALLC	430.59	321.03	9.1	24.92	286.86	0	0	24.65	382.77	0.05
04	INDA								24.65		
05	INDB								24.65		
06	AR1242								24.66		
07	PBLK95								24.66		
08	00173800101								24.65		
09	00173800101MS								24.65		
10	00173800101MSD								24.65		
11	ZZZZZ								24.65		
12	EVALLB	186.67	150.83	0	7.77	125.17	0	0	24.65	167.16	0.02
13	ZZZZZ								24.65		
14	ZZZZZ								24.65		
15	ZZZZZ								24.65		
16	ZZZZZ								24.64		
17	AR1242								24.65		
18	INDA								24.65		
19	INDB								24.65		
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Judy Amador  
12-22-88

PESTICIDE/PCB STANDARDS ENTRY FORM

Lab Name: \_\_\_\_\_ VERSAR, INC. Case No.: \_\_\_\_\_ SH 788  
 Lab Code: \_\_\_\_\_ VERSAR Contract: \_\_\_\_\_ C001298  
 Instrument ID: \_\_\_\_\_ 0 SAS No.: \_\_\_\_\_  
 Run Date: \_\_\_\_\_ 12/19, 20/88 GC Column ID: \_\_\_\_\_ SP2250/SP2401  
 Inject Vol: \_\_\_\_\_ 2.00 (uL) Window Width: \_\_\_\_\_ 1.0%

COMPOUND	CONC.		FIRST STD		SECOND STD		THIRD STD	
	IN STD (uG/ML)	WINDOW WIDTH	RT	RAW AREA	RT	RAW AREA	RT	RAW AREA
alpha-BHC	0.10	0.02	1.95	381299	0.00	0	0.00	0
beta-BHC	0.10	0.03	2.70	98354	0.00	0	0.00	0
delta-BHC	0.10	0.03	3.13	289252	0.00	0	0.00	0
gamma-BHC	0.10	0.02	2.41	300812	2.40	300602	2.39	291548
Heptachlor	0.10	0.03	2.93	259586	0.00	0	0.00	0
Aldrin	0.10	0.03	3.50	280696	3.47	276977	3.46	270664
Hept. epoxide	0.10	0.05	5.13	261911	5.09	260005	5.08	254697
Endosulfen I	0.10	0.06	6.42	237663	6.36	234759	6.35	234919
Dieldrin	0.10	0.08	7.74	264136	7.67	262365	7.65	257938
,4'-DDE	0.10	0.07	7.13	214852	0.00	0	0.00	0
Endrin	0.10	0.09	9.31	118935	0.00	0	0.00	0
Endosulfan II	0.10	0.11	11.17	234777	11.06	232762	11.05	227426
4,4'-DDD	0.10	0.11	10.72	177542	0.00	0	0.00	0
Endo. sulfate	0.10	0.18	17.67	157680	0.00	0	0.00	0
4,4' DDT	0.10	0.13	12.81	151776	12.68	160568	12.66	149055
Methoxychlor	0.10	0.23	23.35	69618	0.00	0	0.00	0
Endrin ketone	0.10	0.23	23.46	236961	23.23	238933	23.20	234673
alpha-Chlordane	0.10	0.06	6.12	230404	0.00	0	0.00	0
gamma-Chlordane	0.10	0.06	5.64	232705	0.00	0	0.00	0
Toxaphene	2.50	0.12	12.38	937775	0.00	0	0.00	0
Aroclor-1016	1.00	0.02	2.23	299308	0.00	0	0.00	0
Aroclor-1221	5.00	0.02	1.52	473110	0.00	0	0.00	0
Aroclor-1232	2.50	0.04	3.56	315390	0.00	0	0.00	0
Aroclor-1242	2.50	0.05	4.85	507675	0.00	0	0.00	0
Aroclor-1248	1.00	0.06	5.99	328550	0.00	0	0.00	0
Aroclor-1254	1.00	0.11	11.13	414198	0.00	0	0.00	0
Aroclor-1260	1.00	0.17	17.04	567494	0.00	0	0.00	0
DBC	0.10	0.22	21.97	221569	21.76	218326	21.72	211069

PESTICIDE/PCB STANDARDS ENTRY FORM

Lab Name: \_\_\_\_\_ VERSAR, INC. Case No.: \_\_\_\_\_ SH 788  
 Lab Code: \_\_\_\_\_ VERSAR Contract: \_\_\_\_\_ C001298  
 Instrument ID: \_\_\_\_\_ 0 SAS No.: \_\_\_\_\_  
 Run Date: \_\_\_\_\_ 12/19,20/88 GC Column ID: \_\_\_\_\_ SP2250/SP2401  
 Inject Vol: \_\_\_ 2.00 (uL) Window Width: \_\_\_\_\_ 1.0%

COMPOUND	CONC.		FIRST STD		FOURTH SRD		FIFTH STD	
	IN STD (uG/ML)	WINDOW WIDTH	RT	RAW AREA	RT	RAW AREA	RT	RAW AREA
alpha-BHC	0.10	0.02	1.95	381299	1.93	400987	0.00	0
beta-BHC	0.10	0.03	2.70	98354	2.68	100263	0.00	0
delta-BHC	0.10	0.03	3.13	289252	3.10	299867	0.00	0
gamma-BHC	0.10	0.02	2.41	600812	0.00	0	0.00	0
Heptachlor	0.10	0.03	2.53	259686	2.90	262913	0.00	0
Aldrin	0.10	0.03	3.50	280696	0.00	0	0.00	0
Hept. epoxide	0.10	0.05	5.13	261911	0.00	0	0.00	0
Endosulfen I	0.10	0.06	6.42	237663	0.00	0	0.00	0
Dieldrin	0.10	0.08	7.74	264136	0.00	0	0.00	0
4,4'-DDE	0.10	0.07	7.13	214852	7.05	224406	0.00	0
Dieldrin	0.10	0.09	9.01	118935	9.22	120728	0.00	0
Endosulfen II	0.10	0.11	11.17	234777	0.00	0	0.00	0
4,4'-DDD	0.10	0.11	10.72	177542	10.61	182762	0.00	0
Endo. sulfate	0.10	0.18	17.67	157680	17.47	180163	0.00	0
4,4'-DDT	0.10	0.13	12.81	151776	0.00	0	0.00	0
Methoxychlor	0.10	0.23	23.35	69618	23.09	71736	0.00	0
Endrin ketone	0.10	0.23	23.46	236961	0.00	0	0.00	0
alpha-Chlordane	0.10	0.06	6.12	230404	6.06	237073	0.00	0
gamma-Chlbrdane	0.10	0.06	5.64	232705	5.58	239552	0.00	0
Toxaphene	2.50	0.12	12.38	937775	0.00	0	0.00	0
Aroclor-1016	1.00	0.02	2.23	299308	0.00	0	0.00	0
Aroclor-1221	5.00	0.02	1.52	470110	0.00	0	0.00	0
Aroclor-1232	2.50	0.04	3.56	315390	0.00	0	0.00	0
Aroclor-1242	2.50	0.05	4.85	507675	0.00	0	0.00	0
Aroclor-1248	1.00	0.06	5.99	328550	0.00	0	0.00	0
Aroclor-1254	1.00	0.11	11.13	414196	0.00	0	0.00	0
Aroclor-1260	1.00	0.17	17.04	567494	0.00	0	0.00	0
DBO	0.10	0.22	21.97	221569	21.71	221944	0.00	0

9  
PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: \_\_\_\_\_ VERSAR, INC.                      Contract: \_\_\_\_\_ C001298  
 Lab Code: \_\_\_\_\_ VERSAR Case No.: SH 788      SAS No.: \_\_\_\_\_      SDG NO.: \_\_\_\_\_  
 Instrument ID: \_\_\_\_\_ 0                              GC Column ID: \_\_\_\_\_ SP2250/SP2401

DATE(S) OF ANALYSIS	FROM: _____ 12/19/88	DATE OF ANALYSIS	_____ 12/20/88
	TO: _____ 12/19/88	TIME OF ANALYSIS	_____ 0500
TIME(S) OF ANALYSIS	FROM: _____ 1602	EPA SAMPLE NO.	_____
	TO: _____ 2142	(STANDARD)	_____ INDA

COMPOUND	RT	RT WINDOW		CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	XD
		FROM	TO					
alpha-BHC	1.95	1.93	1.97	1906495	0.00	0	Y	0
beta-BHC	2.70	2.68	2.73	491770	0.00	0	Y	0
delta-BHC	3.13	3.10	3.16	1446260	0.00	0	Y	0
gamma-BHC	2.41	2.39	3.44	1504060	2.40	1503010	Y	0
Heptachlor	2.53	2.90	2.96	1298430	0.00	0	Y	0
Aldrin	3.50	3.46	3.53	1403480	3.47	1384885	Y	1
Hept. epoxide	5.13	5.08	5.18	1309555	5.09	1300025	Y	1
Endosulfan I	6.42	6.35	6.46	1188315	6.36	1173795	Y	1
Dieldrin	7.74	7.66	7.81	1320686	7.67	1311825	Y	1
4,4'-DDE	7.13	7.06	7.20	1074260	0.00	0	Y	0
Endrin	9.31	9.22	9.41	594675	0.00	0	Y	0
Endosulfan II	11.17	11.06	11.28	1173885	11.06	1163810	Y	1
4,4'-DDD	10.72	10.61	10.63	887710	0.00	0	Y	0
Endo. sulfate	17.67	17.49	17.84	786403	0.00	0	Y	0
4,4'-DDT	12.81	12.60	12.94	758880	12.68	804840	Y	-6
Methoxychlor	23.35	23.11	23.58	348090	0.00	0	Y	0
Endrin ketone	23.46	23.22	23.69	1184805	23.23	1194665	Y	-1
alpha-Chlordane	6.12	6.06	6.18	1152020	0.00	0	Y	0
gamma-Chlordane	5.64	5.58	5.69	1163525	0.00	0	Y	0
Toxaphene	12.38	12.26	12.50	187555	0.00	0	Y	0
Aroclor-1016	2.23	2.21	2.25	149654	0.00	0	Y	0
Aroclor-1221	1.52	1.50	1.54	47311	0.00	0	Y	0
Aroclor-1232	3.56	3.52	3.60	63078	0.00	0	Y	0
Aroclor-1242	4.85	4.80	4.90	101535	0.00	0	Y	0
Aroclor-1248	5.99	5.93	6.05	164275	0.00	0	Y	0
Aroclor-1254	11.13	11.02	11.24	207099	0.00	0	Y	0
Aroclor-1260	17.04	16.87	17.21	283747	0.00	0	Y	0

Under QNT Y/N: enter Y if quantitation was performed, N if not performed.  
 XD must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for confirmation.

Note: Determining that no compounds were found above the CRQL is a form of quantitation, and therefore at least one column must meet the 15.0% criteria.

For multicomponent analytes, the single largest peak that is characteristic of the component should be used to establish retention time and XD. Identification of such analytes is based primarily on pattern recognition



9  
PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: VERSAR, INC. Contract: CO01298  
 Lab Code: VERSAR Case No.:SH 788 SAS No.:          SDG NO.:           
 Instrument ID:         D GC Column ID: SP2250/SP2401

DATE(S) OF FROM: 12/19/88 DATE OF ANALYSIS 12/20/88  
 ANALYSIS TC: 12/19/80 TIME OF ANALYSIS 0749  
 TIME(S) OF FROM: 1602 EPA SAMPLE NO.  
 ANALYSIS TO: 2142 (STANDARD) INDB

COMPOUND	RT	RT WINDOW		CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	XD
		FROM	TO					
alpha-BHC	1.95	1.93	1.97	1906495	1.93	2004935	Y	-5
beta-BHC	2.70	2.68	2.73	491770	2.66	501315	Y	-2
delta-BHC	3.13	3.10	3.16	1446260	3.10	1499185	Y	-4
gamma-BHC	2.41	2.39	2.44	1504060	0.00	0	Y	0
Heptachlor	2.93	2.90	2.96	1298430	2.90	1314565	Y	-1
Aldrin	3.50	3.46	3.53	1403480	0.00	0	Y	0
Hept. epoxide	5.13	5.08	5.18	1309555	0.00	0	Y	0
Endosulfan I	6.42	6.05	6.48	1188315	0.00	0	Y	0
Dieldrin	7.74	7.66	7.81	1320680	0.00	0	Y	0
4,4'-DDE	7.13	7.06	7.20	1074260	7.05	1122030	Y	-4
Endrin	9.31	9.22	9.41	594675	9.22	603630	Y	-2
Endosulfan II	11.17	11.06	11.28	1173885	0.00	0	Y	0
4,4'-DDD	10.72	10.61	10.83	887710	10.61	913810	Y	-3
Endo. sulfate	17.67	17.49	17.84	788400	17.47	800815	Y	-2
4,4' DDT	12.81	12.68	12.94	758880	0.00	0	Y	0
Methoxychlor	23.35	23.11	23.58	348090	23.09	358680	Y	-3
Endrin ketone	23.46	23.22	23.69	1184805	0.00	0	Y	0
alpha-Chlordane	6.12	6.06	6.18	1152020	6.06	1185365	Y	-3
gamma-Chlordane	5.84	5.58	5.69	1163525	5.58	1197760	Y	-3
Toxaphene	12.38	12.26	12.50	187555	0.00	0	Y	0
Aroclor-1018	2.23	2.21	2.25	149654	0.00	0	Y	0
Aroclor-1221	1.52	1.50	1.54	47311	0.00	0	Y	0
Aroclor-1232	3.56	3.52	3.60	83078	0.00	0	Y	0
Aroclor-1242	4.85	4.80	4.90	101535	0.00	0	Y	0
Aroclor-1248	5.99	5.93	6.05	164275	0.00	0	Y	0
Aroclor-1254	11.13	11.02	11.24	207099	0.00	0	Y	0
Aroclor-1260	17.04	16.87	17.21	283747	0.00	0	Y	0

Under QNT Y/N: enter Y if quantitation was performed, N if not performed.  
 XD must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for confirmation.

Note: Determining that no compounds were found above the CRQL is a form of quantitation, and therefore at least one column must meet the 15.0% criteria.

For multicomponent analytes, the single largest peak that is characteristic of the component should be used to establish retention time and XD. Identification of such analytes is based primarily on pattern recognition



PCB STANDARD TABLE

Lab Name: VERBAR, INC. Case No.: 591788

Lab Code: VERBAR Contract: 000195

Customer ID: D SRS No.:

Run Date: 12/19/88 GC Column ID: SP250/SP240

Inject Vol: 2.00 (ul) Window Width: 1.00

MULTI-COMPONENT ANALYTE	STAND CONC (ug/ml)	PEAK #	BEGINNING STANDARD			FINAL STANDARD			CAL. AD RT	CAL. FACTOR	XC CF
			RT	AREA	CAL. FACTOR	RT	AREA	CAL. FACTOR			
Texasene	2.50	1	4.48	41551	IX	0	100				
		2	7.65	198145	IX	0	100				
		3	13.35	130633	167555 IX	0	0	100	100		
		4	15.31	105982	IX	0	100				
		5	15.13	321255	IX	0	100				
Aroclor-1015	1.00	1	1.04	33531	IX	0	100				
		2	1.79	33754	IX	0	100				
		3	2.33	53362	149554 IX	0	0	100	100		
		4	2.55	129572	IX	0	100				
		5	3.10	49088	IX	0	100				
Aroclor-1221	5.00	1	1.14	53564	IX	0	100				
		2	1.37	14475	IX	0	100				
		3	1.52	22534	47311 IX	0	0	100	100		
		4	1.64	77356	IX	0	100				
		5	1.83	304741	IX	0	100				
Aroclor-1232	2.50	1	2.51	50951	IX	0	100				
		2	3.23	50022	IX	0	100				
		3	3.56	60570	53076 IX	0	0	100	100		
		4	4.15	68521	IX	0	100				
		5	4.42	62528	IX	0	100				
Aroclor-1242	2.50	1	4.11	50947	IX	0	100				
		2	4.38	35455	IX	0	100				
		3	4.85	53610	101535 IX	0	0	100	100		
		4	5.13	152045	IX	0	100				
		5	5.99	125614	IX	0	100				

*C. B. L.*  
12/21/88

SEE STANDARD TABLE

LAB NAME: VETCOR, INC. Case No.: E-723

Lab Code: 08004 Contract: 0001295

Instrument ID: 0 SPS No.:

Run Date: 12/19/88 GC Column ID: 592253/59240

Inject vol: 2.00 (ul) Window Width: 1.0X

MULTI- COMPONENT ANALYTE	STAND COND	PREP #	ESTIMATING			FINAL			CAL. FACTOR	RE RT	AD CAL FACTOR
			STANDARD RT	AREA	CP. FACTOR	STANDARD RT	AREA				
Propion-1245	1.00	1	4.92	48527	IX	0			100		
			2	5.14	122861	IX	0		100		
			3	5.93	55523	154275	IX	0	0	100	100
			4	7.23	27172	IX	0		100		
			5	7.79	30055	IX	0		100		
Propion-1254	1.00	1	6.63	116554	IX	0			100		
			2	9.96	52475	IX	0		100		
			3	11.13	97075	207095	IX	0	0	100	100
			4	12.54	120348	IX	0		100		
			5	13.45	18600	IX	0		100		
Propion-1260	1.00	1	13.92	14788	IX	0			100		
			2	16.21	72503	IX	0		100		
			3	17.04	55865	283747	IX	0	0	100	100
			4	19.26	231012	IX	0		100		
			5	24.74	183522	IX	0		100		
	1.00	1	IX	0	IX	0			0		
			2	IX	0	IX	0		0		
			3	IX	0	0 IX	0	0	0	0	
			4	IX	0	IX	0		0		
			5	IX	0	IX	0		0		
	1.00	1	IX	0	IX	0			0		
			2	IX	0	IX	0		0		
			3	IX	0	0 IX	0	0	0	0	
			4	IX	0	IX	0		0		
			5	IX	0	IX	0		0		

*C-B*  
12/21/88

PESTICIDE/PCB STANDARDS ENTRY FORM

Lab Name: \_\_\_\_\_ VERSAR, INC. Case No.: \_\_\_\_\_ SH788  
 Lab Code: \_\_\_\_\_ VERSAR Contract: \_\_\_\_\_ COO1298  
 Instrument ID: \_\_\_\_\_ M SAS No.: \_\_\_\_\_  
 Run Date: \_\_\_\_\_ 12/22/88 GC Column ID: \_\_\_\_\_ DB-5  
 Inject Vol: \_\_\_ 2.00 (uL) Window Width: \_\_\_\_\_ 0.15x

COMPOUND	CONC.	FIRST STD		SECOND STD		THIRD STD		
	IN STD (uG/ML)	WINDOW WIDTH	RT	RAW AREA	RT	RAW AREA	RT	RAW AREA
alpha-BHC	0.10	0.01	3.31	907	0.00	0	3.31	852
beta-BHC	0.10	0.01	3.56	687	0.00	0	3.56	852
delta-BHC	0.10	0.01	3.96	769	0.00	0	3.96	734
gamma-BHC	0.10	0.01	3.89	837	3.69	871	0.00	0
Heptachlor	0.10	0.01	4.91	1072	0.00	0	4.90	1059
Aldrin	0.10	0.01	5.72	912	5.72	930	0.00	0
Hept. epoxide	0.10	0.01	6.80	1030	6.80	1091	0.00	0
Endosulfan I	0.10	0.01	6.13	952	8.13	1006	0.00	0
Dieldrin	0.10	0.01	9.24	828	9.24	689	0.00	0
4,4'-DDE	0.10	0.01	6.99	784	0.00	0	8.98	775
Aldrin	0.10	0.02	10.35	700	0.00	0	10.35	738
Endosulfan II	0.10	0.02	10.81	863	10.81	919	0.00	0
4,4'-DDD	0.10	0.02	11.26	548	0.00	0	11.25	562
Endo.sulfate	0.10	0.02	13.59	829	0.00	0	13.58	850
4,4' DDT	0.10	0.02	13.93	586	13.92	604	0.00	0
Methoxychlor	0.10	0.03	19.82	337	0.00	0	19.82	357
Endrin ketone	0.10	0.03	17.52	818	17.52	875	0.00	0
alpha. Chlordane	0.10	0.01	8.20	1182	0.00	0	8.20	1146
gamma. Chlordane	0.10	0.01	7.61	1170	0.00	0	7.61	1147
Toxaphene	2.50	0.00	0.00	0	0.00	0	0.00	0
Aroclor-1016	1.00	0.00	0.00	0	0.00	0	0.00	0
Aroclor-1221	5.00	0.00	0.00	0	0.00	0	0.00	0
Aroclor-1232	2.50	0.00	0.00	0	0.00	0	0.00	0
Aroclor-1242	2.50	0.01	4.06	3765	4.06	3725	0.00	0
Aroclor-1248	1.00	0.00	0.00	0	0.00	0	0.00	0
Aroclor-1254	1.00	0.00	0.00	0	0.00	0	0.00	0
Aroclor-1260	1.00	0.00	0.00	0	0.00	0	0.00	0
DBC	0.10	0.04	24.65	771	24.65	847	24.65	835

22-Dec-88

*Judy Amador*  
12-22-88

9  
PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: \_\_\_\_\_ VERSAR, INC.                      Contract: \_\_\_\_\_ COO1298  
 Lab Code: \_\_\_\_\_ VERSAR Case No.: SH788            SAS No.: \_\_\_\_\_            SDG NO.: \_\_\_\_\_  
 Instrument ID: \_\_\_\_\_ M                              GC Column ID: \_\_\_\_\_ DB-5

DATE(S) OF FROM: _____ 12/22/88	DATE OF ANALYSIS _____ 12/22/88
ANALYSIS TO: _____ 12/22/88	TIME OF ANALYSIS _____ 2158
TIME(S) OF FROM: _____ 1300	EPA SAMPLE NO.
ANALYSIS TO: _____ 1331	(STANDARD) _____ INDA

COMPOUND	RT	RT WINDOW		CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	XD
		FROM	TO					
alpha-BHC	3.31	3.30	3.32	4535	0.00	0	N	0
beta-BHC	3.58	3.55	3.57	3433	0.00	0	N	0
delta-BHC	3.96	3.95	3.97	3845	0.00	0	N	0
gamma-BHC	3.69	3.68	3.70	4187	3.69	4353	N	-4
Heptachlor	4.91	4.90	4.92	5360	0.00	0	N	0
Aldrin	5.72	5.71	5.73	4559	5.72	4650	N	-2
Hept. epoxide	6.80	8.79	6.81	5148	6.80	5453	N	-6
Endosulfen I	8.13	8.12	8.14	4760	8.13	5032	N	-6
Dieldrin	9.24	9.23	9.25	4141	9.24	4443	N	-7
4,4'-DDE	8.99	8.98	9.00	3922	0.00	0	N	0
Endrin	10.35	10.33	10.37	3502	0.00	0	N	0
Endosulfen II	10.81	10.79	10.83	4317	10.81	4595	N	-8
4,4'-DDO	11.26	11.24	11.28	2741	0.00	0	N	0
Endo. sulfate	13.59	13.57	13.61	4143	0.00	0	N	0
4,4'-ODT	13.93	13.91	13.95	2929	13.92	3018	N	-3
Methoxychlor	19.82	19.79	19.85	1687	0.00	0	N	0
Endrin ketone	17.52	17.49	17.55	4091	17.52	4373	N	-7
alpha-Chlordane	8.20	8.19	8.21	5911	0.00	0	N	0
gamma-Chlordane	7.61	7.60	7.62	5851	0.00	0	N	0
Toxaphene	0.00	0.00	0.00	0	0.00	0	N	0
Aroclor-1016	0.00	0.00	0.00	0	0.00	0	N	0
Aroclor-1221	0.00	0.00	0.00	0	0.00	0	N	0
Aroclor-1232	0.00	0.00	0.00	0	0.00	0	N	0
Aroclor-1242	4.06	4.05	4.07	753	4.08	745	N	1
Aroclor-1248	0.00	0.00	0.00	0	0.00	0	N	0
Aroclor-1254	0.00	0.00	0.00	0	0.00	0	N	0
Aroclor-1260	0.00	0.00	0.00	0	0.00	0	N	0

Under QNT Y/N: enter Y if quantitation was performed, N if not performed.  
 XD must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for nonconfirmation.

Note: Determining that no compounds were found above the CRQL is a form of quantitation, and therefore at least one column must meet the 15.0% criteria.

For multicomponent analytes, the single largest peak that is characteristic of the component should be used to establish retention time and XD. Identification of such analytes is based primarily on pattern recognition

*Judy Amador*  
12-22-88

9  
PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: VERSAR, INC. Contract: COO1298  
 Lab Code: VERSAR Case No.: SH788 SAS No.:          SDG NO.:           
 Instrument ID:         M GC Column ID:         DB-5

DATE(S) OF FROM: <u>12/22/88</u>	DATE OF ANALYSIS <u>12/22/88</u>
ANALYSIS TO: <u>12/22/88</u>	TIME OF ANALYSIS <u>2229</u>
TIME(S) OF FROM: <u>1300</u>	EPA SAMPLE NO.
ANALYSIS TO: <u>1331</u>	(STANDARD) <u>IND8</u>

COMPOUND	RT	RT WINDOW		CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT T/N	XD
		FROM	TO					
alpha-BNC	3.31	3.30	3.32	4535	3.31	4262	IN	6
beta-BNC	3.58	3.55	3.57	3433	3.56	3260	IN	5
delta-BNC	3.96	3.95	3.97	3845	3.98	3672	IN	4
gamma-BNC	3.69	3.68	3.70	4187	0.00	0	IN	0
Heptachlor	4.91	4.90	4.92	5360	4.90	5295	IN	1
Aldrin	5.72	5.71	5.73	4559	0.00	0	IN	0
Hept. epoxide	8.60	6.79	6.81	5148	0.00	0	IN	0
Endosulfen I	8.13	8.12	8.14	4780	0.00	0	IN	0
Dieldrin	9.24	9.23	9.25	4141	0.00	0	IN	0
4,4'-DDE	8.99	8.96	9.00	3922	8.98	3876	IN	1
Endrin	10.35	10.33	10.37	3502	10.35	3689	IN	-5
Endosulfen II	10.81	10.79	10.83	4317	0.00	0	IN	0
4,4'-DDD	11.26	11.24	11.28	2741	11.25	2811	IN	-3
Endo. sulfate	13.59	13.57	13.81	4143	13.58	4251	IN	-3
4,4'-DDT	13.93	13.91	13.95	2929	0.00	0	IN	0
Methoxychlor	19.82	19.79	19.85	1887	19.82	1783	IN	-6
Endrin ketone	17.52	17.49	17.55	4091	0.00	0	IN	0
o. Chlordane	8.20	8.19	8.21	5911	8.20	5732	IN	3
p. Chlordane	7.61	7.80	7.62	5851	7.81	5733	IN	2
Toxaphene	0.00	0.00	0.00	0	0.00	0	IN	0
Aroclor-1016	0.00	0.00	0.00	0	0.00	0	IN	0
Aroclor-1221	0.00	0.00	0.00	0	0.00	0	IN	0
Aroclor-1232	0.00	0.00	0.00	0	0.00	0	IN	0
Aroclor-1242	4.06	4.05	4.07	793	0.00	0	IN	0
Aroclor-1248	0.00	0.00	0.00	0	0.00	0	IN	0
Aroclor-1254	0.00	0.00	0.00	0	0.00	0	IN	0
Aroclor-1260	0.00	0.00	0.00	0	0.00	0	IN	0

Under QNT Y/N: enter Y if quantitation was performed, N if not performed.  
 XD must be less than or equal to 15.0% for quantitation, and less than or equal to 20.0% for confirmation.

Note: Determining that no compounds were found above the CRQL is a form of quantitation, and therefore at least one column must meet the 15.0% criteria.

For multicomponent analytes, the single largest peak that is characteristic of the component should be used to establish retention time and XD.  
 Identification of such analytes is based primarily on pattern recognition

*Judy Amador*  
12-22-88

PCB STANDARD TABLE

Lab Name: \_\_\_\_\_ VERSAR, INC. Case No.: \_\_\_\_\_ SH788  
 Lab Code: \_\_\_\_\_ VERSAR Contract: \_\_\_\_\_ C001298  
 Instrument ID: \_\_\_\_\_ M SRS No.: \_\_\_\_\_  
 Run Date: \_\_\_\_\_ 12/22/88 GC Column ID: \_\_\_\_\_ DB-5  
 Inject Vol: \_\_\_\_\_ 2.00 (uL) Window Width: \_\_\_\_\_ 0.15%

MULTI-COMPONENT ANALYTE	STAND CONC (ug/ml)	PEAK #	BEGINNING STANDARD			CAL. FACTOR	FINAL STANDARD			CAL. FACTOR	KD	FD CAL FACTOR
			RT	AREA			RT	AREA				
Aroclor-1242	2.50	1	3.27	699		3.27	685		0			
		2	3.77	1162		3.77	1155		0			
		3	4.06	691	753	4.06	680	745	0			
		4	5.28	508		5.28	504		0			
		5	5.69	704		5.69	700		0			
	1.00	1	IX	0		IX	0		0			
		2	IX	0		IX	0		0			
		3	IX	0	0	IX	0	0	0	0		
		4	IX	0		IX	0		0			
		5	IX	0		IX	0		0			
	1.00	1	IX	0		IX	0		0			
		2	IX	0		IX	0		0			
		3	IX	0	0	IX	0	0	0	0		
		4	IX	0		IX	0		0			
		5	IX	0		IX	0		0			
	1.00	1	IX	0		IX	0		0			
		2	IX	0		IX	0		0			
		3	IX	0	0	IX	0	0	0	0		
		4	IX	0		IX	0		0			
		5	IX	0		IX	0		0			

*Judy Amador*  
 12-22-88  
 22-Dec-88

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: VERSAR, INC. Contract: C001298 00173800101  
 Lab Code: VERSAR Case No.: SH788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 GC Column ID (1): SP2250/SP2401 GC Column ID (2): DB-5  
 Instrument ID (1): 0 Instrument ID (2): m  
 Lab Sample ID: 61640  
 Lab File ID: \_\_\_\_\_ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD		QUANT? (Y/N)	GC/MS? (Y/N)
		FROM	TO		
01 <u>Hght. Epoxide</u>	Column 1 <u>5.13</u>	<u>5.08</u>	<u>5.18</u>	<u>Y</u>	<u>Y</u>
02	Column 2 <u>6.81</u>	<u>6.79</u>	<u>6.81</u>	<u>Y</u>	<u>Y</u>
03 <u>AR1242</u>	Column 1 <u>4.85</u>	<u>4.80</u>	<u>4.90</u>	<u>Y</u>	<u>Y</u>
04	Column 2 <u>4.06</u>	<u>4.05</u>	<u>4.07</u>	<u>Y</u>	<u>Y</u>
05 _____	Column 1 _____	_____	_____	-	-
06 _____	Column 2 _____	_____	_____	-	-
07 _____	Column 1 _____	_____	_____	-	-
08 _____	Column 2 _____	_____	_____	-	-
09 _____	Column 1 _____	_____	_____	-	-
10 _____	Column 2 _____	_____	_____	-	-
11 _____	Column 1 _____	_____	_____	-	-
12 _____	Column 2 _____	_____	_____	-	-

Comments: \_\_\_\_\_

*Judy Amador*  
12-22-88

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: VERSAR, INC Contract: CO01298 00173800101MS  
 Lab Code: VERSAR Case No.: SH788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 GC Column ID (1): SP2250/SP2401 GC Column ID (2): DB-5  
 Instrument ID (1): 0 Instrument ID (2): 7  
 Lab Sample ID: 61640MS  
 Lab File ID: \_\_\_\_\_ (only if confirmed by GC/MS)

	PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD		QUANT? (Y/N)	GC/MS? (Y/N)
			FROM	TO		
01	<u>Lindane</u>	Column 1 <u>2.41</u>	<u>2.39</u>	<u>2.44</u>	Y	Y
02		Column 2 <u>3.69</u>	<u>3.68</u>	<u>3.70</u>	Y	Y
03	<u>Hyptachlor</u>	Column 1 <u>2.92</u>	<u>2.90</u>	<u>2.96</u>	Y	Y
04		Column 2 <u>4.91</u>	<u>4.90</u>	<u>4.92</u>	Y	Y
05	<u>Aldrin</u>	Column 1 <u>3.50</u>	<u>3.46</u>	<u>3.53</u>	Y	Y
06		Column 2 <u>5.72</u>	<u>5.71</u>	<u>5.73</u>	Y	Y
07	<u>Biochlorin</u>	Column 1 <u>7.73</u>	<u>7.66</u>	<u>7.81</u>	Y	Y
08		Column 2 <u>9.25</u>	<u>9.23</u>	<u>9.25</u>	Y	Y
09	<u>Endrin</u>	Column 1 <u>9.29</u>	<u>9.22</u>	<u>9.41</u>	Y	Y
10		Column 2 <u>10.35</u>	<u>10.33</u>	<u>10.37</u>	Y	Y
11	<u>4,4-DOT</u>	Column 1 <u>12.77</u>	<u>12.68</u>	<u>12.94</u>	Y	Y
12		Column 2 <u>13.93</u>	<u>13.91</u>	<u>13.95</u>	Y	Y

Comments: \_\_\_\_\_

Judy Amador  
12-22-88



PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: VERSAR, INC. Contract: CO01298 00173800101MS  
 Lab Code: VERSAR Case No.: SH788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 GC Column ID (1): SP2250/SP2401 GC Column ID (2): DB-5  
 Instrument ID (1): 0 Instrument ID (2): M  
 Lab Sample ID: 61640MS  
 Lab File ID: \_\_\_\_\_ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD		QUANT? (Y/N)	GC/MS? (Y/N)
		FROM	TO		
01 <u>Hpt. Epoxide</u>	Column 1 <u>5.13</u>	<u>5.08</u>	<u>5.18</u>	<u>Y</u>	<u>N</u>
02	Column 2 <u>6.81</u>	<u>6.79</u>	<u>6.81</u>	<u>N</u>	<u>N</u>
03 <u>Endosulfon II</u>	Column 1 <u>11.16</u>	<u>11.06</u>	<u>11.28</u>	<u>Y</u>	<u>N</u>
04	Column 2 <u>10.81</u>	<u>10.79</u>	<u>10.83</u>	<u>Y</u>	<u>Y</u>
05 <u>AR 1242</u>	Column 1 <u>4.85</u>	<u>4.80</u>	<u>4.90</u>	<u>Y</u>	<u>N</u>
06	Column 2 <u>4.06</u>	<u>4.05</u>	<u>4.07</u>	<u>Y</u>	<u>Y</u>
07 _____	Column 1 _____	_____	_____	-	-
08 _____	Column 2 _____	_____	_____	-	-
09 _____	Column 1 _____	_____	_____	-	-
10 _____	Column 2 _____	_____	_____	-	-
11 _____	Column 1 _____	_____	_____	-	-
12 _____	Column 2 _____	_____	_____	-	-

Comments: \_\_\_\_\_

*Judy Amador*  
12-22-88

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: VERSAR, INC. Contract: C001298 0017380001 MSD  
 Lab Code: VERSAR Case No.: SH788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 GC Column ID (1): SP2250/SP2401 GC Column ID (2): DB-5  
 Instrument ID (1): 0 Instrument ID (2): m  
 Lab Sample ID: 61640 MSD  
 Lab File ID: \_\_\_\_\_ (only if confirmed by GC/MS)

PESTICIDE/PCB	RETENTION TIME	RT WINDOW OF STANDARD		QUANT? (Y/N)	GC/MS? (Y/N)
		FROM	TO		
01 <u>Lindane</u>	Column 1 <u>2.41</u>	<u>2.39</u>	<u>2.44</u>	Y	Y
02	Column 2 <u>3.69</u>	<u>3.68</u>	<u>3.70</u>	Y	Y
03 <u>Heptachlor</u>	Column 1 <u>2.92</u>	<u>2.90</u>	<u>2.96</u>	Y	Y
04	Column 2 <u>4.90</u>	<u>4.90</u>	<u>4.92</u>	Y	Y
05 <u>Aldrin</u>	Column 1 <u>3.49</u>	<u>3.46</u>	<u>3.53</u>	Y	Y
06	Column 2 <u>5.72</u>	<u>5.71</u>	<u>5.73</u>	Y	Y
07 <u>Dieldrin</u>	Column 1 <u>7.71</u>	<u>7.66</u>	<u>7.81</u>	Y	Y
08	Column 2 <u>9.24</u>	<u>9.23</u>	<u>9.25</u>	Y	Y
09 <u>Endrin</u>	Column 1 <u>9.27</u>	<u>9.22</u>	<u>9.41</u>	Y	Y
10	Column 2 <u>10.35</u>	<u>10.33</u>	<u>10.37</u>	Y	Y
11 <u>4,4-DDT</u>	Column 1 <u>12.74</u>	<u>12.68</u>	<u>12.94</u>	Y	Y
12	Column 2 <u>13.93</u>	<u>13.91</u>	<u>13.95</u>	Y	Y

Comments: \_\_\_\_\_

Judy Amadi  
12-22-88

PESTICIDE/PCB IDENTIFICATION

EPA SAMPLE NO.

Lab Name: VERSAR, INC. Contract: C001298 00193800101MSD  
 Lab Code: VERSAR Case No.: SH788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 GC Column ID (1): SP2250/SP2401 GC Column ID (2): D8-5  
 Instrument ID (1): 0 Instrument ID (2): 3  
 Lab Sample ID: 61640MSD  
 Lab File ID: \_\_\_\_\_ (only if confirmed by GC/MS)

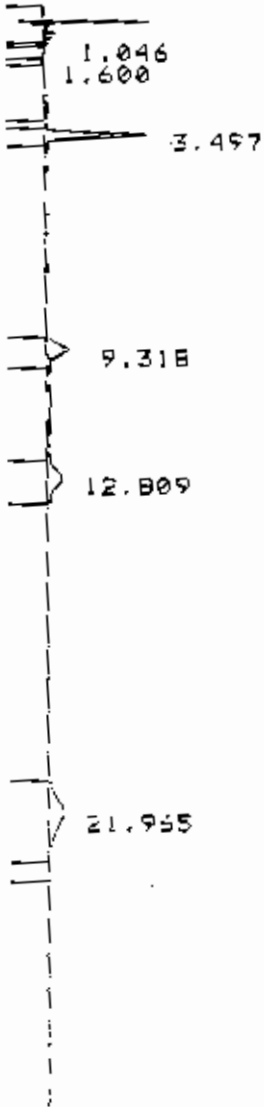
	PESTICIDS/PCB	RETENTION TIME	RT WINDOW OF STANDARD		QUANT? (Y/N)	GC/MS? (Y/N)
			FROM	TO		
01	<u>Hept. Epoxide</u>	Column 1 <u>5.12</u>	<u>5.08</u>	<u>5.18</u>	<u>Y</u>	<u>Y</u>
02		Column 2 <u>6.81</u>	<u>6.79</u>	<u>6.81</u>	<u>Y</u>	<u>Y</u>
03	<u>Endosulfan II</u>	Column 1 <u>11.12</u>	<u>11.06</u>	<u>11.28</u>	<u>Y</u>	<u>Y</u>
04		Column 2 <u>10.80</u>	<u>10.79</u>	<u>10.83</u>	<u>Y</u>	<u>Y</u>
05	<u>AR 1242</u>	Column 1 <u>4.84</u>	<u>4.80</u>	<u>4.90</u>	<u>Y</u>	<u>Y</u>
06		Column 2 <u>4.06</u>	<u>4.05</u>	<u>4.07</u>	<u>Y</u>	<u>Y</u>
07	_____	Column 1 _____	_____	_____	-	-
08		Column 2 _____	_____	_____	-	-
09	_____	Column 1 _____	_____	_____	-	-
10		Column 2 _____	_____	_____	-	-
11	_____	Column 1 _____	_____	_____	-	-
12		Column 2 _____	_____	_____	-	-

Comments: \_\_\_\_\_

*Judy Amador*  
12-22-88

6201

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO D 2.0 W  
1.5% SP2250 / 1.95% SP2401  
DATE 12/19/88 TIME 16:02  
SAMPLE

A304 EVAL. 01 (6.02 ng)  
EVALA

71

TITLE: CLP PESTICIDES

16:02 19 DEC 88

CHANNEL NO: 3

SAMPLE: A304 EVAL.01

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	ALDRIN	23926	3.497	0.017	23926	BB ?	8.40
2	ENDRIN	11689	9.318	0.138	11689	BB ?	22.50
3	DDT	12067	12.609	0.039	12067	BB ?	29.40
4	DDE	22266	21.965	0.165	22266	BB	53.05

TOTALS: 69948 0.359 69948

DETECTED PKS: 4 REJECTED PKS: 2

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 37.6 OFFSET: -15

RPM: 1 VIAL: 1 INJ: 1

NOISE:

CCL: 1.5% SP2250/1.95% SF2401

AMT INJ 2UL/INST LETTER 0

INJECTION VOLUME 2 UL

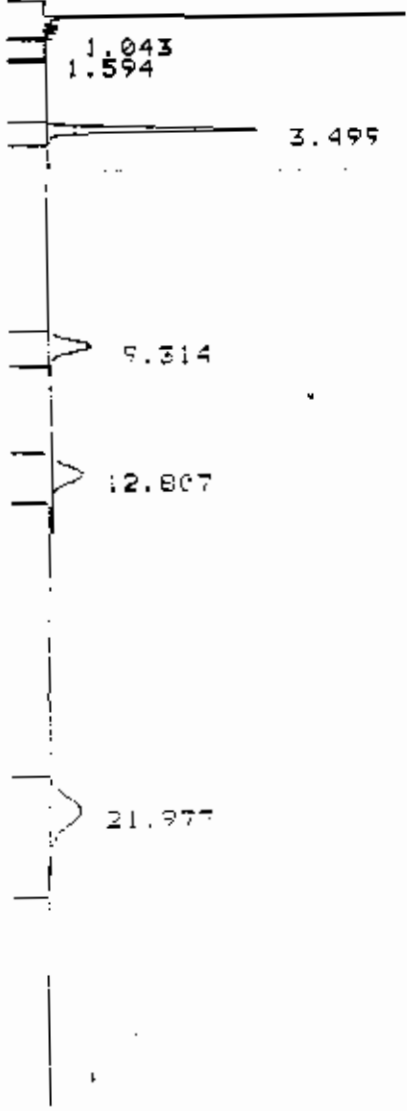
ORT= OUTSIDE RETENTION TIME WINDOW

965.63 CASE 10984 S#1 PESTICIDE W11301L

9016 CASE 3-786 S#288 PESTICIDE W11301L

965.60 CASE 11043 S#1 PESTICIDE WATERS

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 u  
1.5% SP2250 / 1.95% SP2401  
DATE 12/10/88 TIME 16:36  
SAMPLE

EVALB  
A.SOS EVAL.02 (0.040g)

TITLE: CLP PESTICIDES

16:36 19 DEC 88

CHANNEL NO: 3

SAMPLE: A305 EVAL.02

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	ALDRIN	49580	3.499	0.219	49580	BB	8.40
2	ENDRIN	24618	9.314	0.134	24618	BB	? 22.65
3	DDT	26492	12.807	0.037	26492	BB	? 29.30
4	DIC	46400	21.977	0.177	46400	BB	52.50

TOTALS: 147090 0.367 147090

DETECTED PKS: 4 REJECTED PKS: 2

DIVISOR: 1.00000 MULTIPLIER: 10000.0

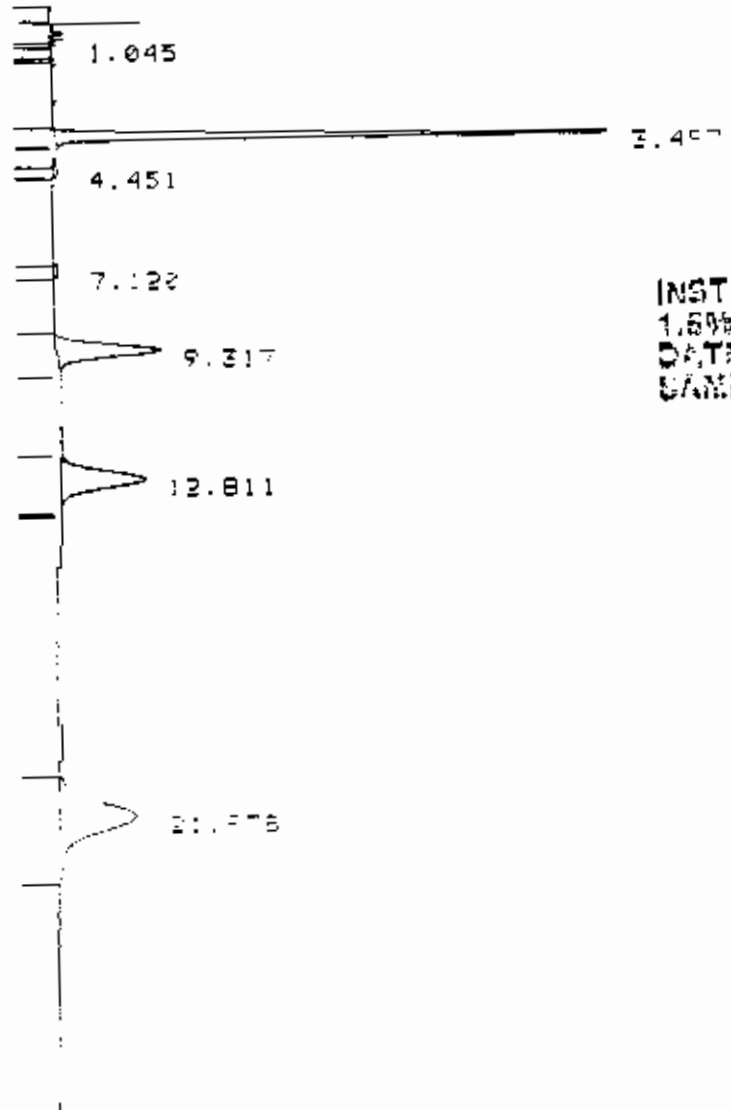
NOISE: 37.6 OFFSET: -18

R# 1 VIAL: 2 INJ: 1

NOTES:

COL: 1.5% SP2250/0.95% SP2401  
4MT INJ 20UL/INST LETTER Q  
INJECTION VOLUME 2 UL  
CR \* OUTSIDE RETENTION TIME WINDOW  
605.65 CASE 10954 BB: PESTICIDE MIDSOIL  
605.66 CASE 84755 BB: PESTICIDE MIDSOIL  
605.60 CASE 11040 BB: PESTICIDE W-TERR

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 W  
1.5% SP2250 / 1.95% SP2401  
DATE 12/19/88 TIME 1710  
SAMPLE

EVALC  
A306 EVAL-05 (0.10mg)



TITLE: CLP PESTICIDES

17:10 19 DEC 88

CHANNEL NO: 3

SAMPLE: A306 EVAL.05

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	*TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	ALDRIN	126918	3.497	0.017	126918	BB ?	8.15
2		887	4.451		887	BB ?	9.95
3	PP DDE	828	7.120	0.080	828	BB ?	6.50
4	ENDRIN	64096	9.517	0.137	64096	BB ?	14.50
5	DDE	70979	12.811	0.051	70979	BB	29.75
6	DDO	111692	21.878	0.178	111692	BB	32.55
TOTALS:		375390		0.453	375390		

DETECTED PKG: 9 REJECTED PKG: 3

DISCOR: 1.00000 MULTIPLIER: 10000.0

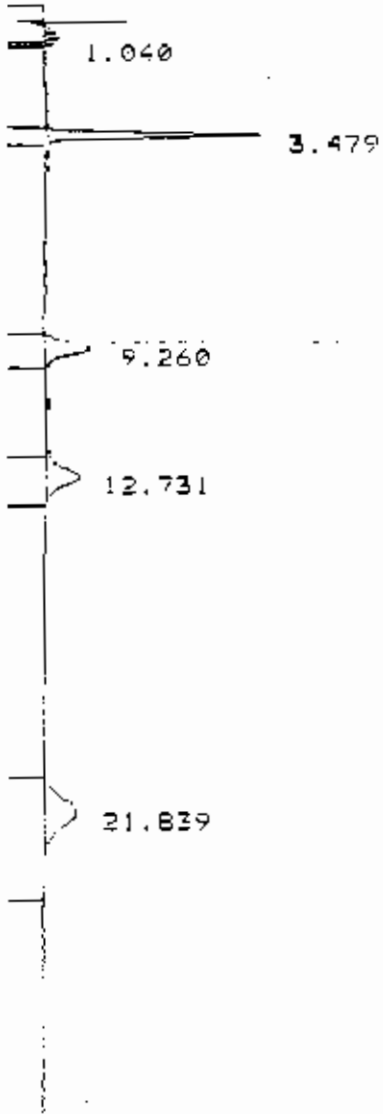
NOISE: 37.6 OFFSET: -18

PACK: 1 VIAL: 4 INJ: 1

NOTES:

COL: 1.5% SP2250/1.95% SP240  
AMT INJ DEL INST LETTER 0  
INJECTION VOLUME 2.0  
ORT\* OUTSIDE RETENTION TIME WINDOW  
955.53 CASE 10984 BB: PESTICIDE MIC801  
6016 CASE 94788 BB: PESTICIDE MIC801  
955.60 CASE 11040 BB: PESTICIDE MIC801

CHART SPEED 2.5 CM/MIN  
ATTEN: 32 ZERO: 10%



1.19

INST ID NO 0 2.0 u  
1.5% SP2250 / 1.95% SP2401  
DATE 12/20/88 TIME 0138  
SAMPLE

EVAL B

A305 EVAL.02 (0.04ng)

TITLE: CLP PESTICIDES

1138 20 DEC 88

CHANNEL NO: 3

SAMPLE: EVAL

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	ALDRIN	49676	3.479	-0.001	49676	BB ?	8.35
2	ENDRIN	26558	9.250	0.000	26558	BB ?	22.10
3	DDT	27164	12.731	-0.039	27164	BB ?	29.75
4	DBC	47872	21.639	0.039	47872	BB	52.45
TOTALS:		151270		0.079	151270		

DETECTED PKS: 5 REJECTED PKS: 1

DIVISOR: 1.00000 MULTIPLIER: 10000.0

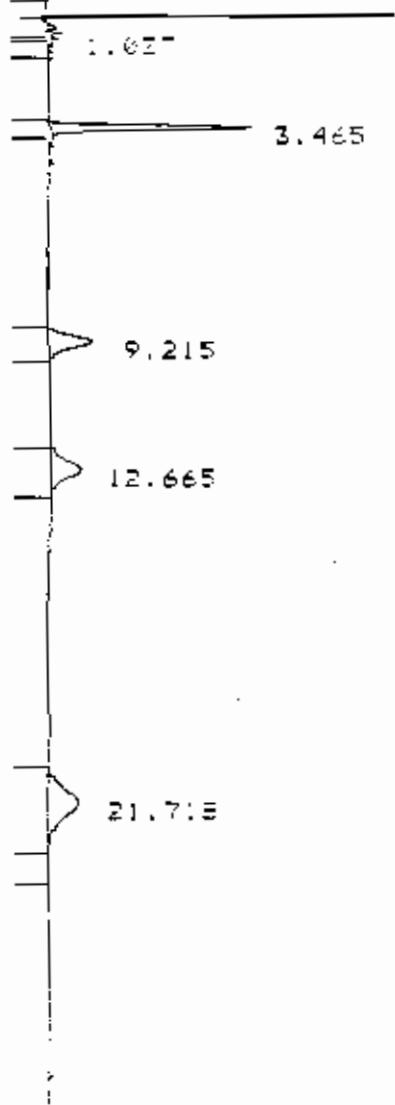
NOISE: 37.6 OFFSET: -21

RACK: 2 VIAL: 10 INJ: 1

NOTES:

COL: 1.5% SP2250/1.95% SP2401  
AMT INJ 2UL/INST LETTER 0  
INJECTION VOLUME .2 UL  
ORT= OUTSIDE RETENTION TIME WINDOW  
965.63 CASE 10984 B#1 PESTICIDE MIDSOIL  
116 CASE 5H788 B=283 PESTICIDE MIDSOIL  
3.60 CASE 11040 B#1 PESTICIDE WATERS

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 u  
1.5% SP2250 / 1.95% SP2401  
DATE 12/20/88 TIME 0641  
SAMPLE EVAL B

A305 EVAL-02 (6.04 mg)

141

TITLE: CLF PESTICIDES

6:41 20 DEC 88

CHANNEL NO: 3

SAMPLES: EVALS

METHOD: CLF-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	RT (2 DEC)
1	ALDRIN	46686	3.465	-0.015	46686	BB	3.40
2	ENDRIN	25674	3.215	0.035	25674	BB	22.15
3	DDT	25907	12.665	-0.105	25907	BB	26.75
4	DDE	42592	21.718	-0.082	42592	BB	52.60
TOTALS:		140959		-0.167	140959		

DETECTED PKS: 5 REJECTED PKS: 1

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 37.6 OFFSET: -20

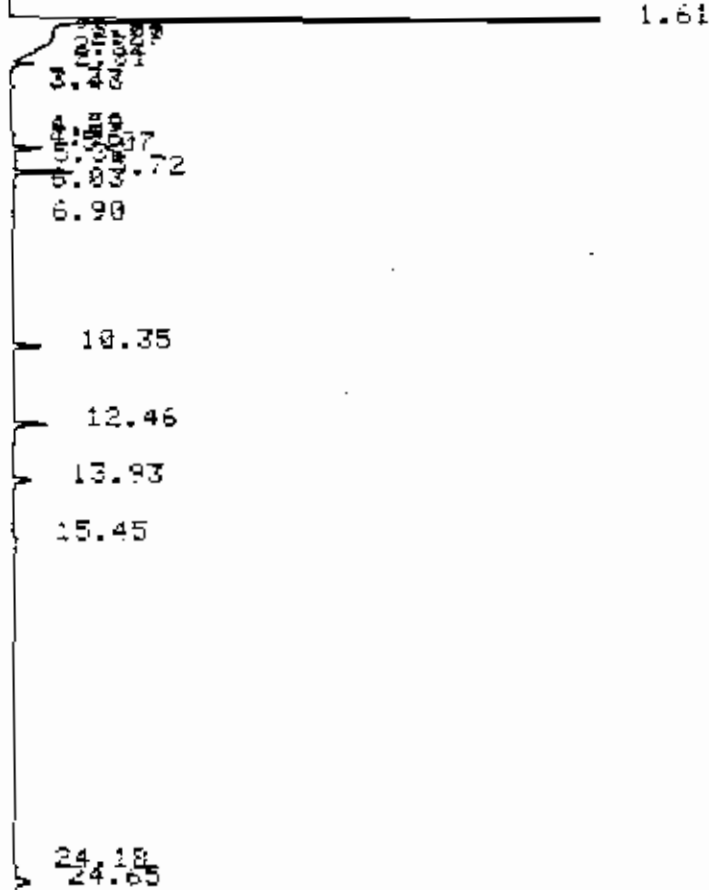
RACK: 3 VIAL: 8 INC: 1

NOTES:

COL: 1.5% SP2250/1.95% SP2401  
 AMT INJ 2UL/INST LETTER 0  
 INJECTION VOLUME 2 UL  
 \* = OUTSIDE RETENTION TIME WINDOW  
 3.63 CASE 10984 B#1 PESTICIDE MIDSOIL  
 60.14 CASE 54788 B#283 PESTICIDE MIDSOIL  
 965.60 CASE 11040 B#1 PESTICIDE WATERS

STOP PRGM  
STOP PROGRAM AT LINE 465  
STOP AUTO SEQ  
START PRGM 435

RT: 10:56 DEC 22, 1988  
RT: ATTN = 275



RT: SIGNAL OFF + DEVICES 1

INST ID NO 420 W  
DB-5 CAPILLARY  
DATE 12/22/88 TIME 1056  
SAMPLE  
A454 EVAL-01 (0.02ug)  
EVAL A

[HP] 5880A SAMPLER INJECTION @ 18:56 DEC 22, 1988

SAMPLE # : ID CODE :

3 A454 EVAL.01

REF NOT FOUND

METHOD ABORTED

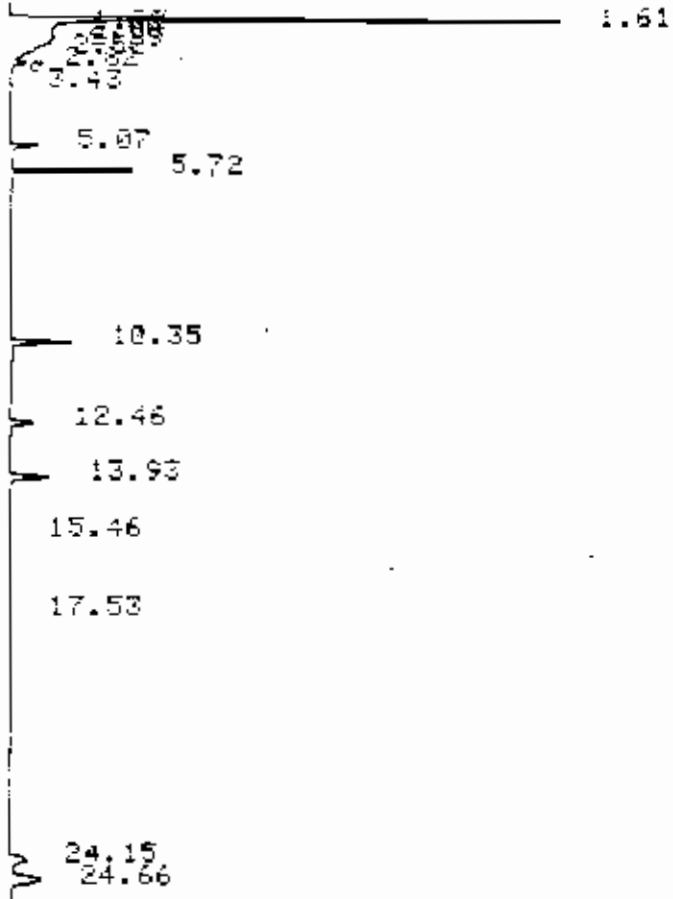
AREA %

RT	AREA	TYPE	WIDTH	HEIGHT	BASELINE	AREA %
0.00					BASELINE @ START RUN = 301.99	
0.00					THRESHOLD @ START RUN = 1	
0.00					PEAK WIDTH @ START RUN = 0.04	
0.00					RP: REJECT + 1	
0.00					RP: REPORT TOL + ON	
1.51	991.41	PV	0.06 *	250.36	303.20	66.003
2.00	4.80	PB	-----*	1.56	319.83	0.319
2.27	15.43	BY	-----*	2.41	318.00	1.027
2.52	6.37	VP	-----	2.24	311.18	0.424
2.81	35.92	PP	0.06	9.69	303.93	2.392
3.37	1.66	BY	-----	0.60	302.20	0.111
3.43	4.70	VB	-----	1.26	302.36	0.319
5.07	53.94	BY	0.062	13.50	303.17	3.591
5.36	3.54	BP	-----	0.99	303.38	0.236
5.72 Alder	85.98	BB	0.052	25.99	303.35	5.724
6.90	2.06	BB	-----	0.76	303.19	0.191
10.35 Alder	61.21	BB	0.076	12.55	303.11	4.075
12.46	88.47	BB	0.093	14.02	302.90	5.898
13.93 BOT	54.21	BB	0.099	9.54	302.74	3.609
15.45	10.83	BB	0.103	1.64	302.76	0.721
24.18	10.04	BB	-----	1.00	302.93	0.669
24.85 OOL	70.61	BB	0.168	6.58	302.94	4.701

TOTAL AREA = 1502.07

MULTIPLIER = 1

RT: 11:27 DEC 22, 1988  
RT: 517H = 215



RT: SIGNAL OFF + DEVICE# 1

INST ID NO H 2.0 ul  
DB-5 CAPILLARY  
DATE 12/22/88 TIME 11:27  
SAMPLE AY55 EVAL.02  
(0.02ul)

EVAL B



HP 5880A SAMPLER INJECTION @ 11:27 DEC 22, 1988

SAMPLE # : ID CODE :

4 A455 EVAL.02

REF NOT FOUND

METHOD ABORTED

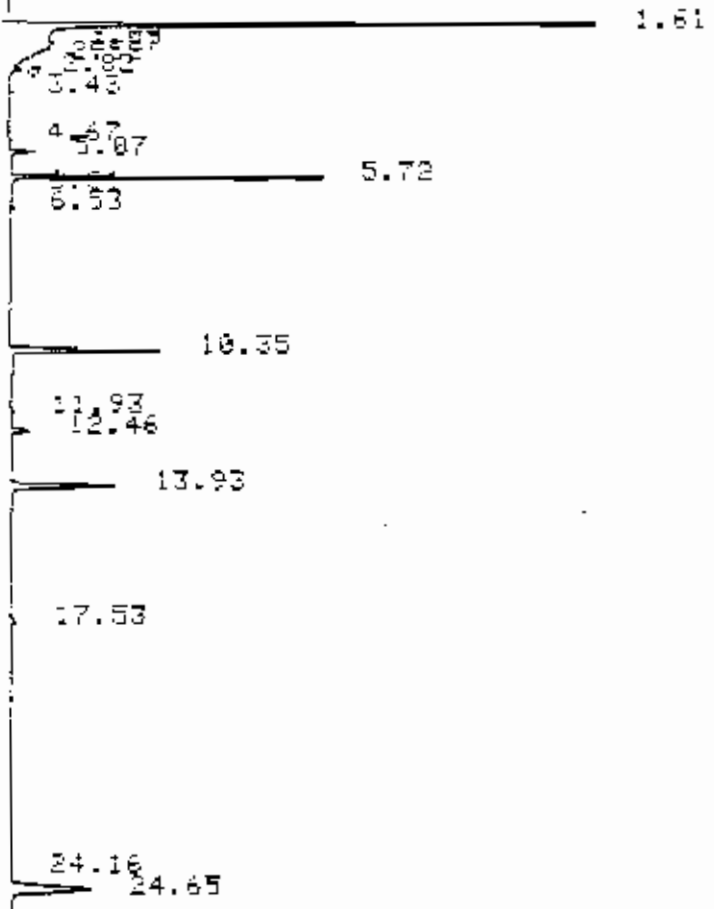
AREA %

RT	AREA	TYPE	WIDTH	HEIGHT	BASELINE	AREA %
0.00					BASELINE @ START RUN = 303.92	
0.00					THRESHOLD @ START RUN = VI	
0.00					PEAK WIDTH @ START RUN = 0.04	
0.00					RP: REJECT = 1	
0.00					RP: REPORT TBL + DN	
1.61	878.55	BY	0.06 *	231.72	305.29	48.147
1.82	18.66	VB	-----	5.80	316.56	1.022
2.00	2.94	BY	-----	0.96	319.91	0.161
2.08	46.42	VV	-----*	3.49	318.37	2.544
2.20	65.38	VV	-----*	6.73	314.71	3.579
2.52	19.57	VP	-----	3.00	310.14	1.673
2.82	22.14	PP	-----	6.45	305.07	1.214
3.43	1.63	BB	-----	0.57	303.49	0.090
5.07	47.34	BB	0.061	12.24	304.13	2.594
5.72 <i>Melan</i>	165.51	BB	0.050	51.47	304.26	9.071
10.35 <i>Endron</i>	109.56	BB	0.077	26.46	304.19	7.100
12.46	70.64	BB	0.095	11.67	303.75	3.871
13.93 <i>DOT</i>	110.90	BB	0.097	17.83	303.78	6.078
15.46	7.02	BB	0.107	1.15	303.70	0.428
17.53 <i>Baker-Kelco</i>	9.30	BB	-----	1.04	304.02	0.455
24.15	81.42	BB	0.176	7.25	304.02	4.465
24.66 <i>ox</i>	147.96	BB	0.173	13.36	304.91	8.109

TOTAL AREA = 1824.73

MULTIPLIER = 1

RT: 11:53 DEC 22, 1988  
RT: ATTN = 275



RT: SIGNAL OFF → DEVICE# 1

INST ID NO M 2.0 ul  
DB-5 CAPILLARY  
DATE 12/22/88 TIME 11:58  
SAMPLE 9456 EVALIOS (0.10mg)  
EVAL C

HP 59899 SAMPLER INJECTION @ 11:59 DEC 22, 1988

SAMPLE # : ID CODE :

5 A456 EVAL.05

REF NOT FOUND

METHOD ABORTED

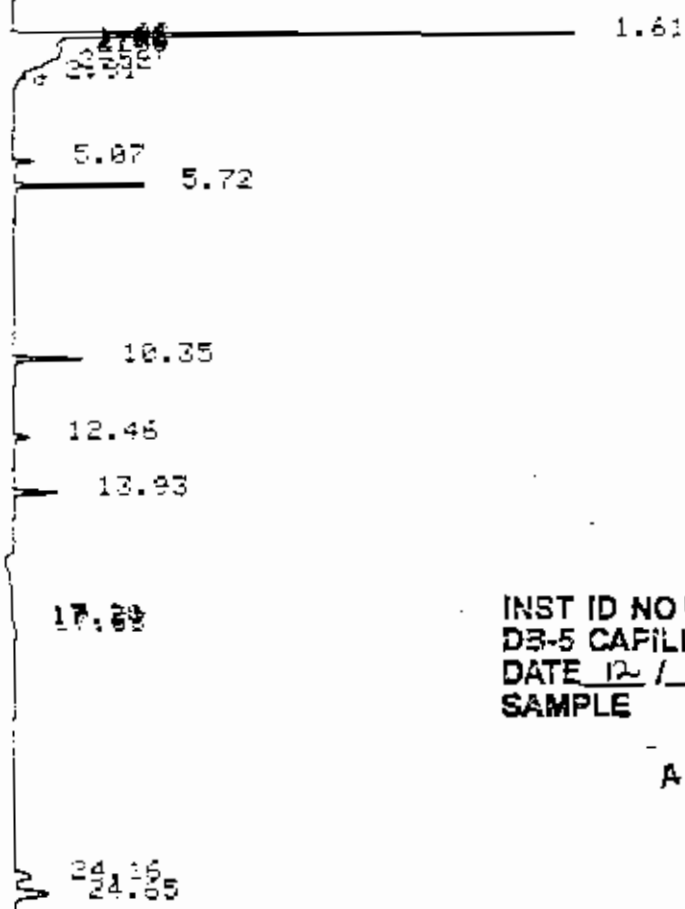
AREA %

RT	AREA	TYPE	WIDTH	HEIGHT	BASLINE	AREA %
0.00						
0.00						
0.00						
0.00						
0.00						
1.61	1013.77	BV	0.06 *	251.67	304.93	37.397
2.00	31.65	BV	-----*	2.93	319.99	1.168
2.27	54.33	VV	-----*	6.19	315.99	2.004
2.52	16.53	VP	-----	3.45	310.90	0.610
2.82	18.93	PP	-----	5.28	305.33	0.698
3.43	3.01	BP	-----	1.00	303.72	0.111
4.67	1.29	BP	-----	0.32	304.26	0.047
5.07	46.30	BV	0.063	11.46	304.19	1.700
5.72 Aldon	430.59	BB	0.051	132.97	304.66	15.884
6.53	4.23	BB	-----	1.18	304.52	0.156
10.55 Sulfon	321.03	BB	0.078	64.22	304.76	11.842
11.93 Sulfon Aid	9.10	BB	0.083	1.72	304.52	0.338
12.46	51.95	BB	0.094	8.62	304.61	1.916
13.93 DOT	206.86	BB	0.100	44.96	304.62	10.582
17.53 Sulfon Aid	24.92	BB	0.120	3.64	304.23	0.919
24.16	13.57	BB	-----	1.24	304.60	0.501
24.65 OBC	302.77	BB	0.175	34.29	304.77	14.120

TOTAL AREA = 2710.92

MULTIPLIER = 1

RT: 17:24 DEC 22, 1988  
RT: RTH = 215



INST ID NO<sup>m</sup> 2.0 ul  
DB-5 CAPILLARY  
DATE 12/22/88 TIME 1724  
SAMPLE

EVAL B

A455 EVAL.02 (0.04 ng)

RT: SIGNAL OFF + DEVICE# 1

【HP】 5890A SAMPLER INJECTION @ 17:24 DEC 22, 1988

SAMPLE # : ID CODE :

19 EVALS

REF NOT FOUND

METHOD ASSORTED

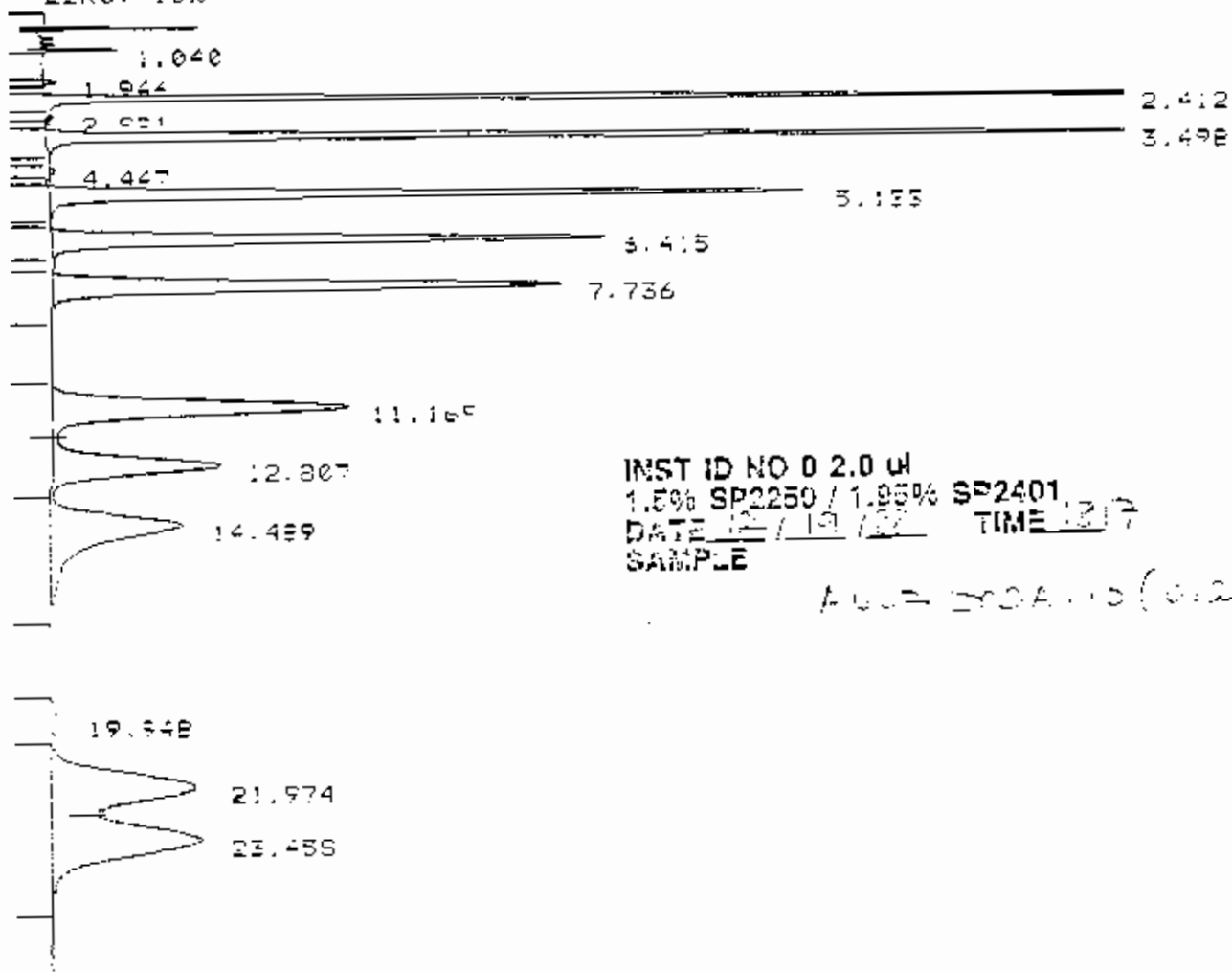
AREA %

RT	AREA	TYPE	WIDTH	HEIGHT	BASELINE	AREA %
0.00						
0.00						
0.00						
0.00						
0.00						
1.61	923.87	BV	0.06 *	238.38	297.98	47.963
1.62	19.10	VB	-----	6.05	311.02	0.992
2.00	2.77	BV	-----	0.99	315.06	0.144
2.08	49.98	VV	-----*	3.45	313.47	2.595
2.27	75.23	VV	-----*	7.65	309.75	3.906
2.52	35.09	VP	-----	4.29	305.06	1.303
2.91	12.82	FP	-----	3.58	299.76	0.666
5.07	37.04	BB	0.062	9.42	297.23	1.923
5.72	186.67	BB	0.053	55.56	297.22	9.691
10.35	158.83	BB	0.079	29.92	296.81	7.838
12.46	43.53	BV	0.096	7.08	296.45	2.268
13.93	125.17	BB	0.100	19.57	296.46	6.488
17.53	7.77	BB	←-----	1.01	296.66	0.403
24.16	99.16	BB	0.181	8.56	296.34	5.148
24.65	167.16	BB	0.172	15.10	296.60	8.678

TOTAL AREA = 1926.22

MULTIPLIER = 1

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 W  
1.5% SP2250 / 1.95% SP2401  
DATE 12/19/57 TIME 12:17  
SAMPLE

AGU-200A-10 (0.200)

79

TITLE: CLP PESTICIDES

18:17 19 DEC 88

CHANNEL NO: 3

SAMPLE: A447 INDA.10

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		3535	1.040		3535	BB	2.10
2	<del>A-BHC</del>	1625	1.946	0.026	1625	BE	4.70
3	G-BHC	300812	2.412	0.241	300812	BV	5.00
4	<del>W-BHC</del>	890	2.921	0.041	890	T	5.30
5	ALDRIN	280696	3.498	0.018	280696	BE	7.20
6		1599	4.447		1599	BE	7.95
7	HEPT EPOX	261911	5.133	0.023	261911	BE	11.65
8	A-ENDOSULF	237643	6.413	0.023	237643	BE	11.80
	DIELDRIN	264136	7.736	0.026	264136	BE	17.80
	B-ENDOSULF	234777	11.169	0.049	234777	BV	26.45
11	DDT	151776	12.807	0.037	151776	VV	39.95
12	ENDRIN ALD	178947	14.489	0.099	178947	VB	41.35
13		5518	19.948		5518	BV	47.35
14	DBP	221569	21.974	0.174	221569	VV	54.10
15	END KETONE	236961	23.458	0.233	236961	VB	55.55

TOTALS: 2382420 0.508 2382420

DETECTED PK# 15 REJECTED PK# 0

DIVISOR: 1.00000 MULTIPLIER: 10000.0

OFFSET: 37.5 OFFSET: -13

PACK# 1 VIAL# 7 INJ# 1

STES:

COL: 1.5% SP2250/1.95% SP2401

AMT INJ 2UL/INJ LETTER 0

INJECTION VOLUME 2 UL

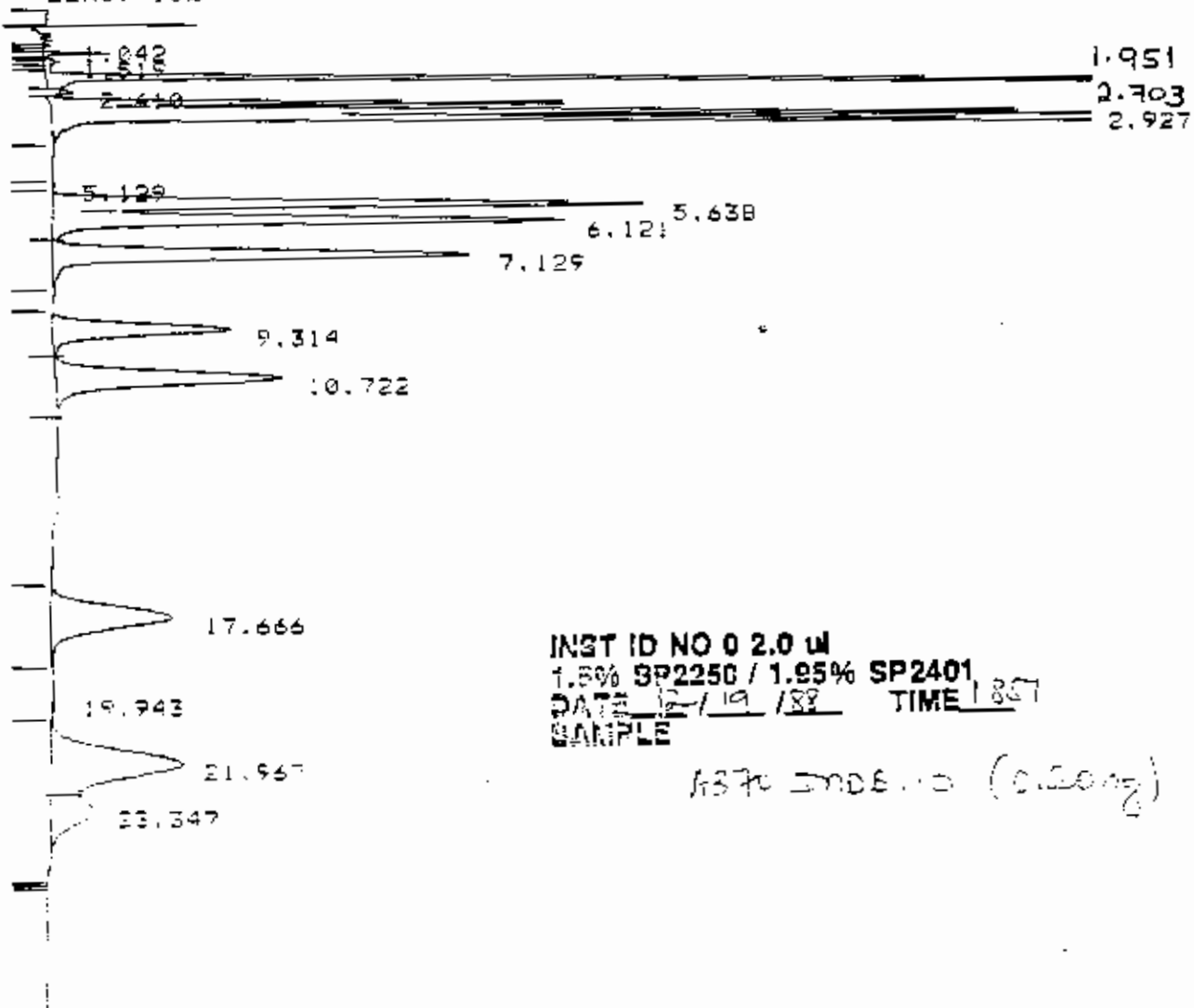
OPT\* OUTSIDE RETENTION TIME WINDOW

965.28 G48E 10984 351 PESTICIDE MITSOIL

9616 148E 36766 3233 PESTICIDE MITSOIL

965.80 G48E 11040 351 PESTICIDE MITSOIL

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 u  
1.5% SP2250 / 1.95% SP2401  
DATE 12/19/88 TIME 1857  
SAMPLE

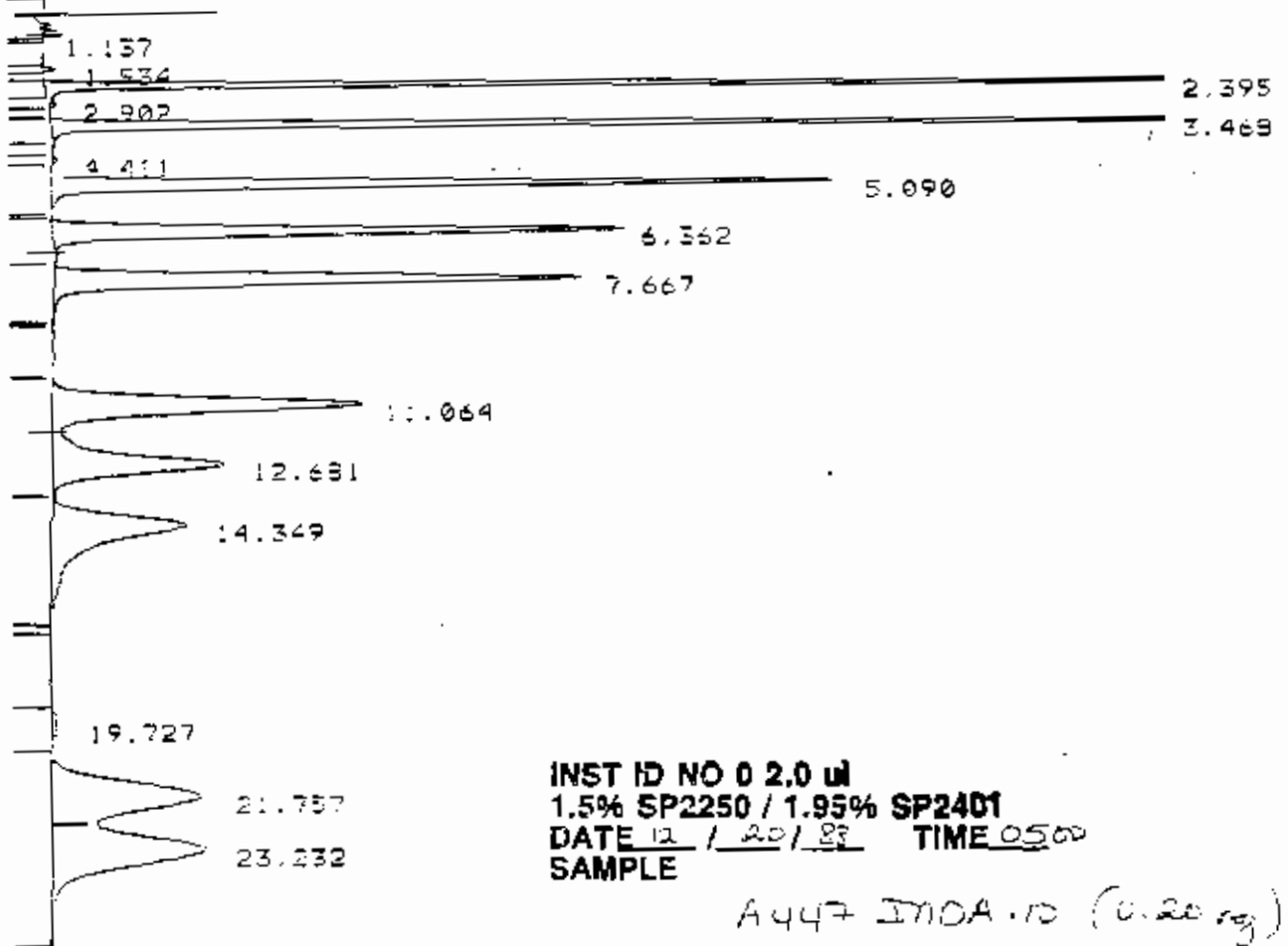
11370 INDS. 10 (0.200g)

12/19/88 1857





CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



133

001 2010 0011

TITLE: CLP PESTICIDES

5:00 20 DEC 88

CHANNEL NO: 3

SAMPLE: A447 LINDA.10

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	<del>A-BHC</del>	1606	1.934	0.024	1606	BB	4.60
2	G-BHC	300602	2.355	0.025	300602	BV	4.95
3	<del>HEPT EPOX</del>	839	2.902	0.022	839	T	? 12.30
4	ALDRIN	276977	3.468	-0.012	276977	BB	? 7.70
5		1366	4.411		1366	BB	9.60
6	HEPT EPOX	260005	5.090	-0.020	260005	BB	11.55
7	A-ENDOSULF	234759	6.362	-0.028	234759	BB	14.70
8	DIELDRIN	262365	7.667	-0.043	262365	BB	17.55
9	B-ENDOSULF	232762	11.064	-0.056	232762	BV	26.20
10	DDT	160968	12.681	-0.089	160968	VV	? 30.40
11	ENDRIN ALD	180140	14.349	-0.041	180140	VB	40.65
12		4122	19.727		4122	BV	44.00
13	DBC	218326	21.757	-0.043	218326	VV	53.05
14	END KETONE	238933	23.232	0.012	238933	VB	55.00

TOTALS: 2373770 -0.249 2373770

DE TED PKGS: 15 REJECTED PKGS: 1

DIVISOR: 1.00000 MULTIPLIER: 10000.0

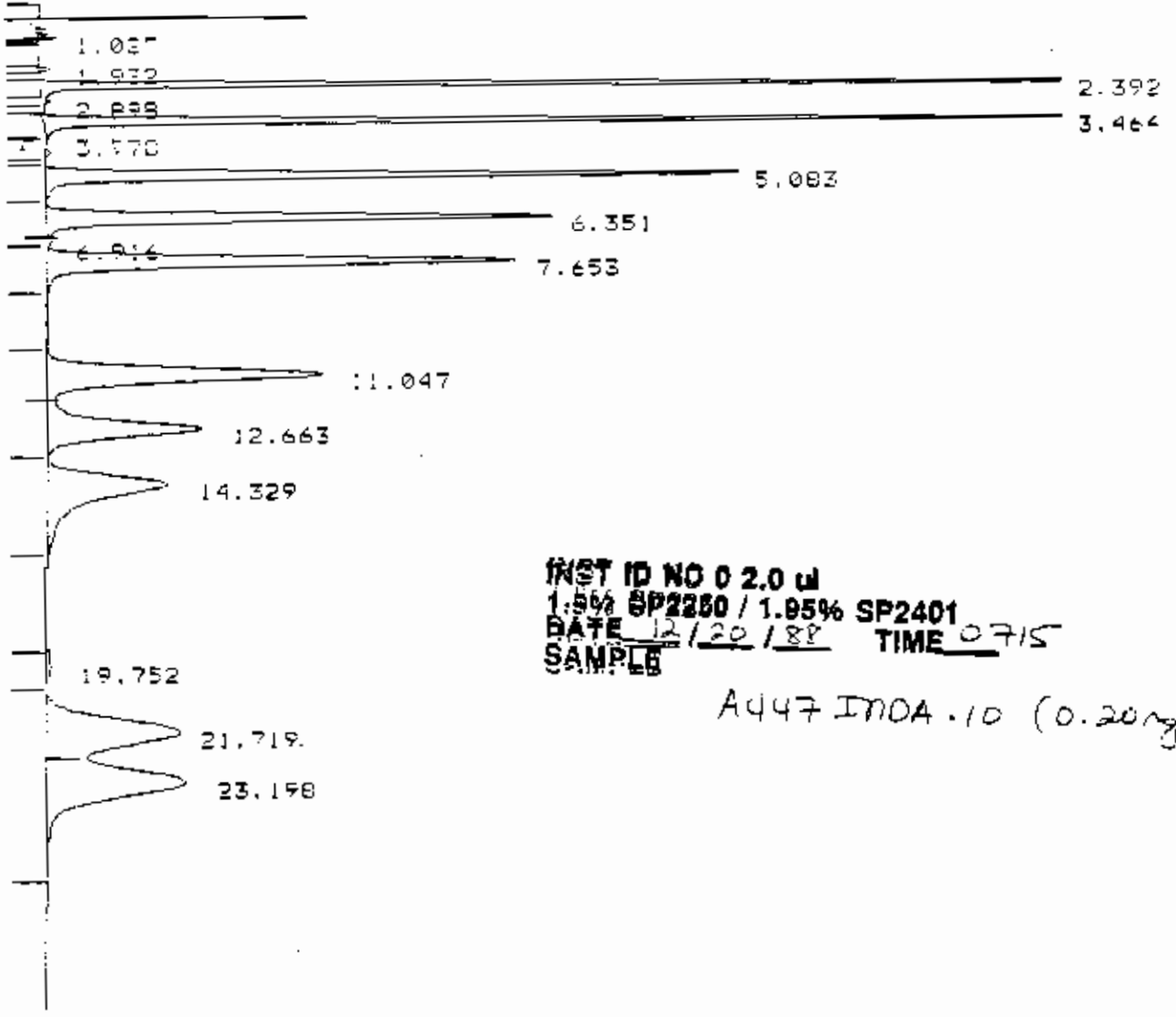
NOISE: 37.6 OFFSET: -18

RACK: 3 VIAL: 4 INJ: 1

NOTES:

13A  
 COL: 1.5% SP2250/1.95% SP240  
 AMT INJ 2UL/INST LETTER O  
 INJECTION VOLUME 2 UL  
 ORT= OUTSIDE RETENTION TIME WINDOW  
 965.63 CASE 10984 B#1 PESTICIDE MIDSOIL  
 601.6 CASE 5HT88 B#283 PESTICIDE MIDSOIL  
 965.60 CASE 11240 B#1 PESTICIDE WATERS

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INSTR ID NO 0 2.0 ul  
1.5% SP2280 / 1.95% SP2401  
DATE 12/20/88 TIME 0715  
SAMPLE

A447 INDA.10 (0.20ug)

1A3

TITLE: CLP PESTICIDES

7:15 20 DEC 88

CHANNEL NO: 3

SAMPLE: 4447 INDA.10

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	<del>DBP</del>	1626	1.932	0.022	1626	BE	4.90
2	G-BHC	291648	2.372	0.022	291648	BV	5.00
3	<del>HEPTACHLOR</del>	785	2.853	0.018	785	T	13.20
4	ALDRIN	270664	3.464	-0.016	270664	BV	7.75
5		1575	4.404		1575	BB	9.60
6	HEPT EPOX	254697	5.083	-0.027	254697	BV	11.60
7	A-ENDOSULF	234919	6.351	-0.039	234919	VV	14.60
8	DIELDRIN	257938	7.653	-0.057	257938	VB	17.85
9	B-ENDOSULF	227426	11.047	-0.075	227426	BV	26.40
10	DDT	149055	12.663	-0.107	149055	VV	30.05
11	ENDRIN ALD	168212	14.329	-0.061	168212	VB	41.00
12		4418	19.752		4418	BV	43.20
13	DBC	211069	21.719	-0.091	211069	VV	53.05
14	END KETONE	234673	23.158	-0.022	234673	VE	55.85

TOTALS: 2309710 -0.421 2308710

DETECTED PKS: 12 REJECTED PKS: 4

DIVISOR: 1.00000 MULTIPLIER: 10000.0

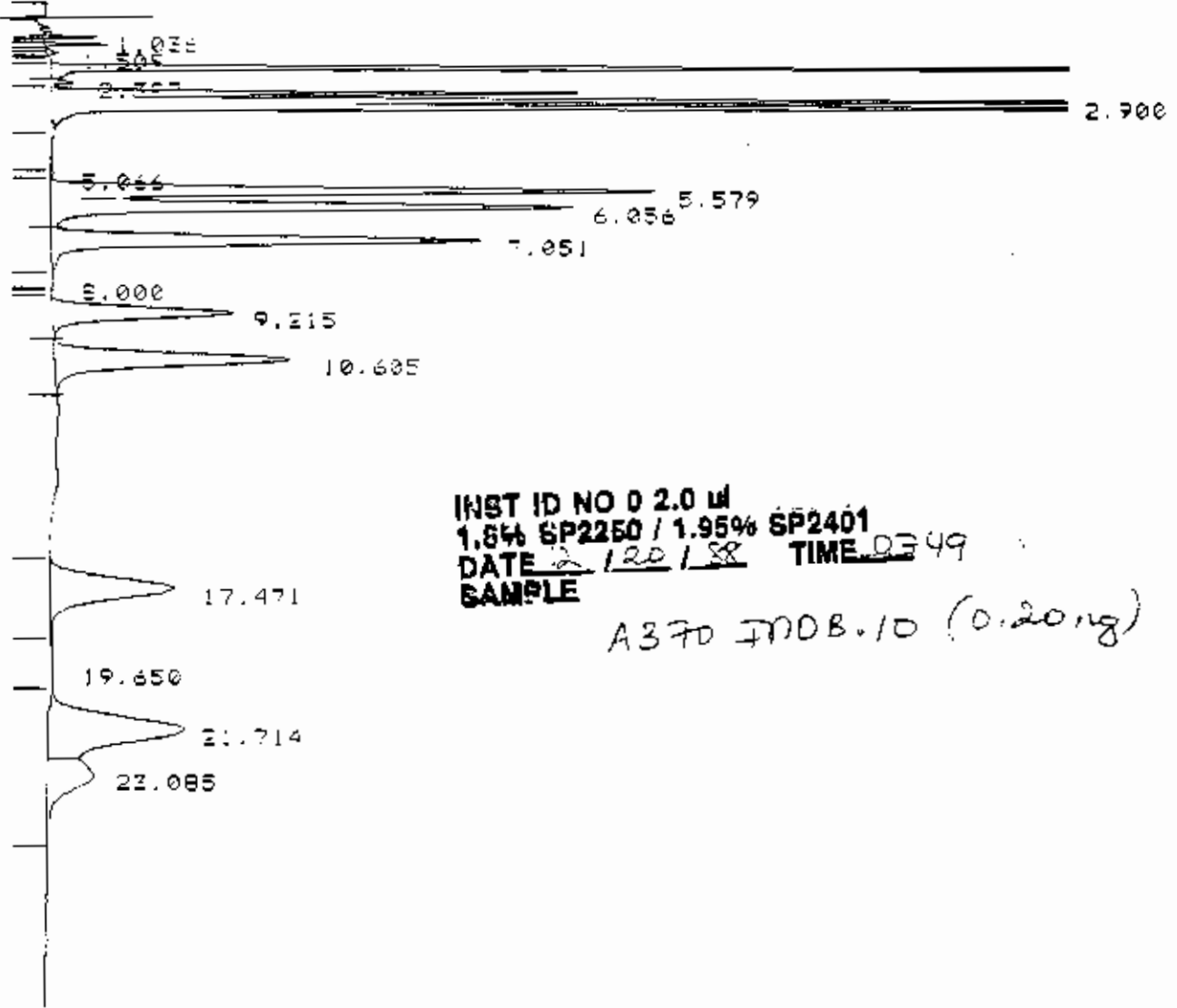
NOISE: 37.6 OFFSET: -12

RACK: 3 VIAL: 10 INJ: 1

NOTES:

COL: 1.5% SP2250/1.95% SP240:  
 1 1/4 AMT INJ 20L/INST LETTER C  
 INJECTION VOLUME 2 U  
 CRT: OUTSIDE RETENTION TIME WINDOW  
 965.63 CASE 10984 B#1 PESTICIDE MIDSOIL  
 6018 CASE SH788 2#223 PESTICIDE MIDSOIL  
 965.62 CASE 11040 B#1 PESTICIDE WATERS

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 ml  
1.6% SP2250 / 1.95% SP2401  
DATE 2/20/88 TIME 0349  
SAMPLE

A370 INDB.10 (0.20mg)

11

TITLE: CLP PESTICIDES

7:45 20 DEC 88

CHANNEL NO: 3

SAMPLE: A370 INDB.10

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		2433	1.036		2433	SB	1.95
2		6403	1.257		6403	BV	3.25
3		563	1.437		563	VV	5.70
4		1469	1.509		1469	VV	6.35
5	A-BHC	400957	1.933	0.025	400957	BV	3.30
6	G-BHC	2542	2.387	0.017	2542	T	7.50
7	B-BHC	100263	2.676	0.026	100263	VV	6.30
8	HEPTACHLOR	262913	2.908	0.020	262913	VV	6.50
9	D-BHC	295837	3.100	0.030	295837	VB	6.90
10	<del>HEPTACHLOR</del>	713	5.056	-0.044	713	BV	10.60
11	G-CHLORDAN	239552	5.579	0.019	239552	VV	13.00
12	A-CHLORDAN	237073	6.056	0.016	237073	VV	14.30
13	PP DDE	224406	7.051	0.011	224406	VV	15.45
14	ENDRIN	120726	9.215	0.035	120726	BV	21.05
15	DDB	192762	10.605	0.015	192762	VB	25.50
16	DDB	160163	17.471	0.071	160163	BV	40.95
17		3510	19.650		3510	T	57.60
18	DBC	221944	21.714	-0.086	221944	VV	53.25
19	METHOXYCHL	71736	23.005	0.005	71736	VB	64.60

TOTALS: 2539990 0.158 2539990

DETECTED PKS: 21 REJECTED PKS: 2

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 37.6 OFFSET: -17

RACK: 3 VIAL: 11 INS: 1

NOTES:

COL: 1.5% SP2250/1.95% SP2401

AMT INJ 2UL/INST LETTER O

INJECTION VOLUME 2 UL

ORT= OUTSIDE RETENTION TIME WINDOW

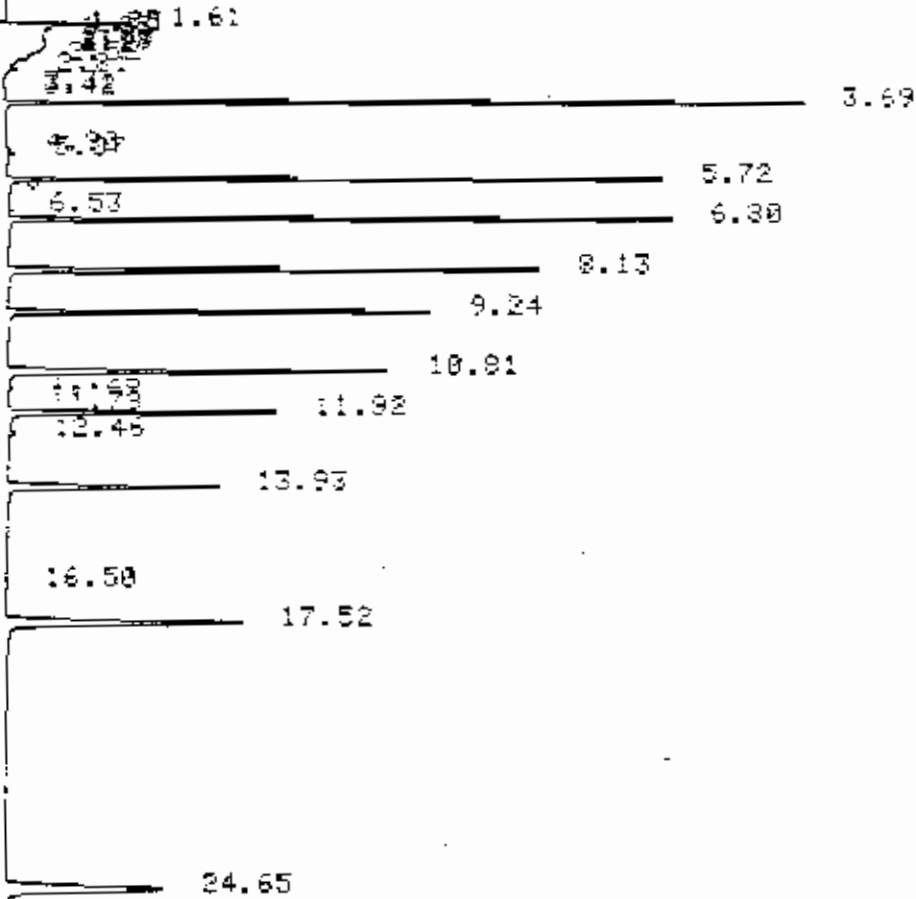
965.63 CASE 10984 B#1 PESTICIDE MIDSOIL

6016 CASE SH788 B=283 PESTICIDE MIDSOIL

965.60 CASE 11042 B=1 PESTICIDE WATERS

R-1:3:00 DEC 22, 1988

RT: ATTN = 205



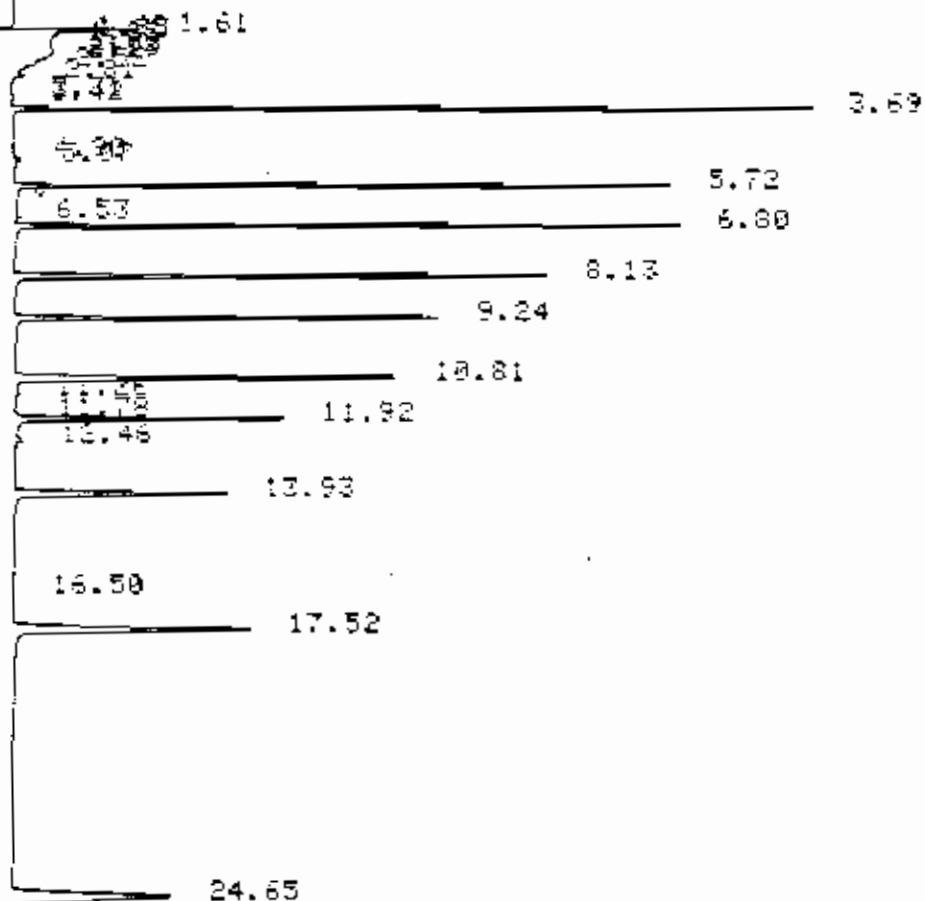
RT: SIGNAL OFF + DEVICE# 1

INST ID NO 4 2.0 ul  
DB-5 CAPILLARY  
DATE 12/23/88 TIME 1300  
SAMPLE A447 INDA.10  
(0.20 ul)



RT: 13:00 DEC 22, 1988

RT: ATEN = 245



RT: SIGNAL OFF + DEVICE# 1

INST ID NO. 4 2.0 ul  
DB-5 CAPILLARY  
DATE 12/22/88 TIME 1300  
SAMPLE A447 INDA.10  
(0.20 ug)

HP 5820A SAMPLER INJECTION @ 13:00 DEC 22, 1988

SAMPLE # : ID CODE :

8 A447 INDR.10

REF NOT FOUND

METHOD ABORTED

AREA %

RT	AREA	TYPE	WIDTH	HEIGHT	BASELINE	AREA %
0.00						
0.00						
0.00						
0.00						
0.00						
1.61	199.00	PV	-----	59.09	302.53	2.330
1.68	41.48	VV	-----	16.85	307.61	0.475
1.75	63.42	VV	-----	14.69	312.63	0.727
1.83	15.82	VB	-----*	4.46	318.47	0.181
2.08	8.22	BV	-----*	1.36	322.27	0.094
2.18	6.98	VV	-----	1.51	321.67	0.079
2.27	5.03	VB	-----	1.99	321.11	0.058
2.52	2.31	BP	-----	2.52	314.95	0.028
2.81	18.85	PB	-----	5.17	307.58	0.216
3.31	3.71	BV	-----	1.78	305.75	0.043
3.42	2.99	BP	-----	0.94	308.85	0.034
3.68 <i>g-BK</i>	337.32	BB	0.038	348.86	306.31	9.593
4.98	5.20	BV	0.048	1.71	306.74	0.056
5.07	17.68	BB	0.063	4.38	306.86	0.203
5.72 <i>Adm</i>	911.88	BV	0.051	279.78	307.84	10.447
6.53	8.34	BV	0.057	2.31	307.14	0.096
6.88 <i>Hydrolysis prod.</i>	1029.58	BB	0.057	283.58	307.32	11.798
8.13 <i>Endo I</i>	951.95	BB	0.066	226.78	307.25	10.986
9.24 <i>Dieldrin</i>	828.28	BB	0.072	188.37	307.16	9.489
10.81 <i>Endo II</i>	863.38	BB	0.083*	162.15	307.92	9.891
11.26	9.46	BB	-----	1.79	307.81	0.108
11.78	9.48	BV	-----	2.48	306.87	0.108
11.92 <i>Endo Mol</i>	685.24	VB	0.093*	115.83	307.18	7.851
12.46	28.82	BB	0.093	3.58	307.87	0.239
13.93 <i>DOT</i>	585.76	BB	0.101	90.59	306.78	6.711
15.50	7.57	BB	-----	8.99	305.79	0.087
17.52 <i>Endrin</i>	819.12	BB	0.126	101.48	306.84	9.373
24.65 <i>OC</i>	778.77	BB	0.178	67.73	305.89	8.631

BASELINE @ START RUN = 306.51

THRESHOLD @ START RUN = 1

PEAK WIDTH @ START RUN = 0.04

RP: REJECT + N

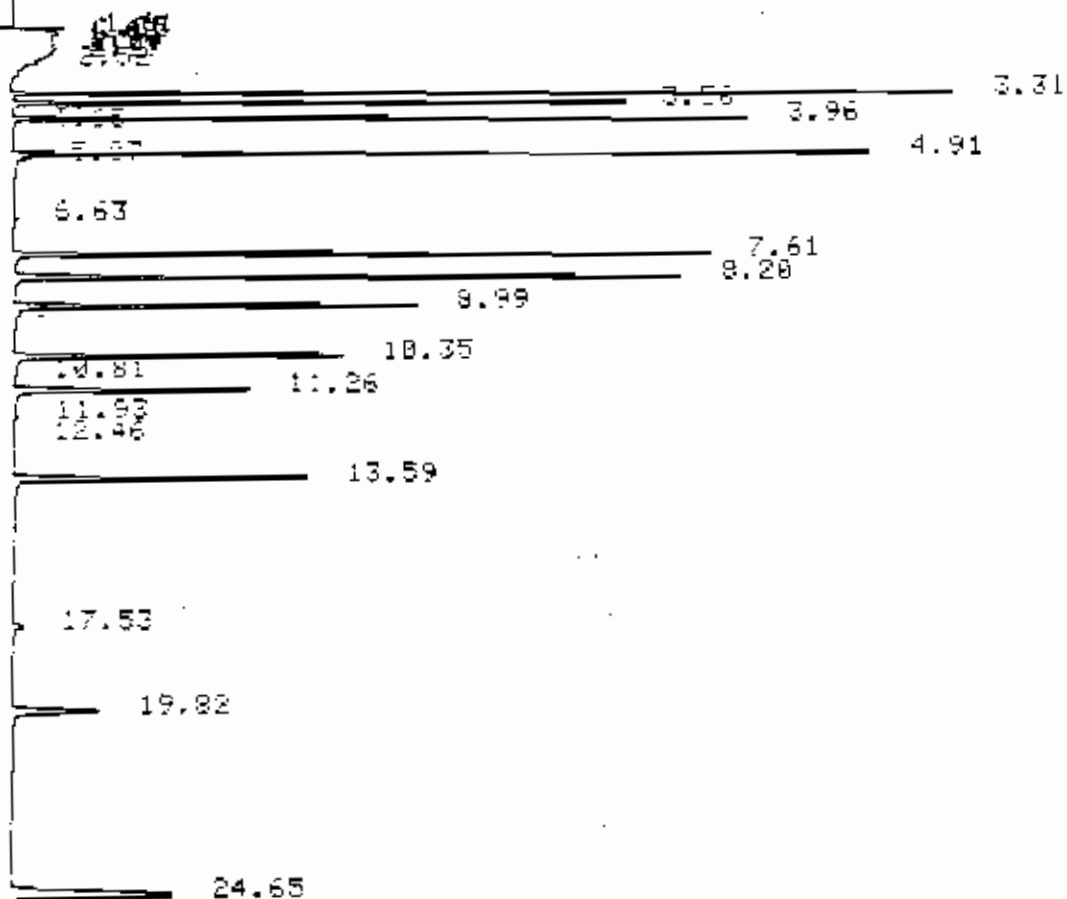
RP: REPORT: TBL + ON

TOTAL AREA = 8728.33

MULTIPLIER = 1

RT: 13:31 DEC 22, 1988

RT: ATIN = 215



RT: SIGNAL OFF → DEVICES 1

INST ID NO 4 20 ul  
DB-5 CAPILLARY  
DATE 12/22/88 TIME 1331  
SAMPLE A370 IN08.10  
(0.20ug)

【HP】 5880A SAMPLER INJECTION @ 13:31 DEC 22, 1980

SAMPLE # : 10 CODE :

9 A370 INDB.10

REF NOT FOUND

METHOD ABORTED

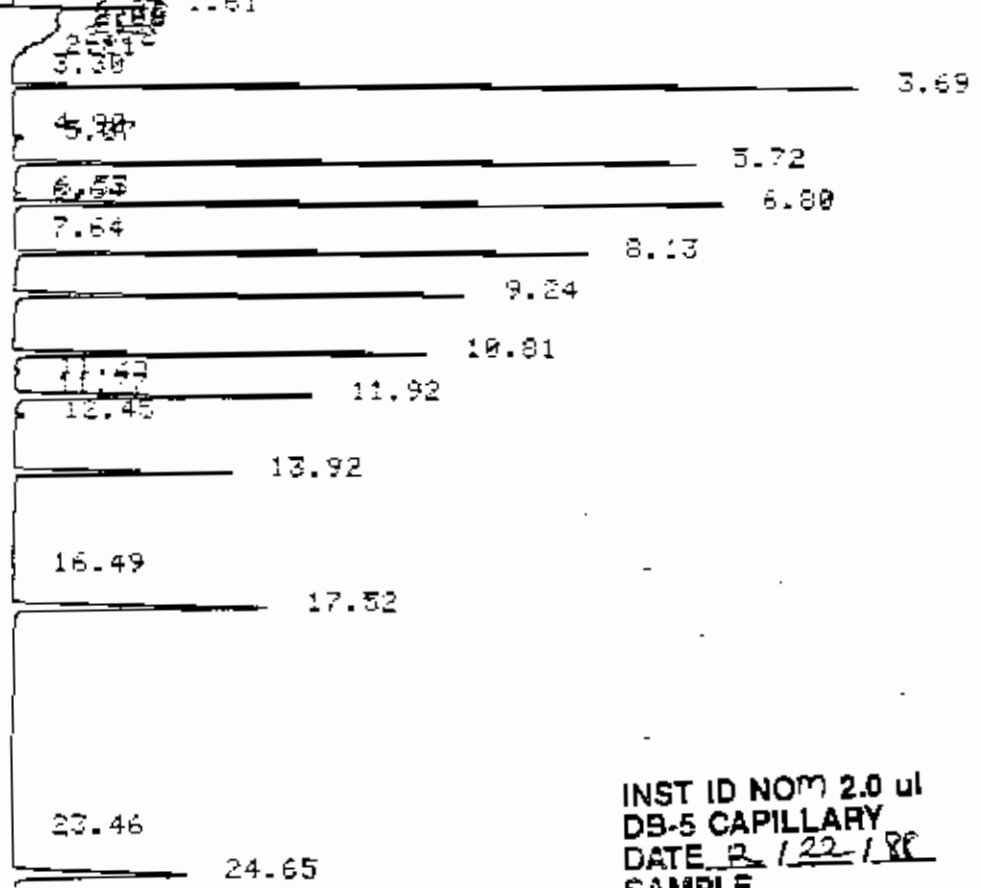
AREA %

RT	AREA	TYPE	WIDTH	HEIGHT	BASELINE	AREA %
0.00						
0.00						
0.00						
0.00						
0.00						
1.61	87.24	PV	-----	28.11	307.56	0.056
1.69	72.79	VV	-----	19.51	303.70	0.714
1.75	70.30	VV	-----	16.07	307.85	0.690
1.83	25.29	VV	-----	6.51	313.59	0.248
1.96	1.47	BY	-----	0.63	319.77	0.014
2.09	4.57	PB	-----	1.34	320.23	0.045
2.27	13.17	BY	-----*	1.94	318.69	0.129
2.52	11.10	VP	-----	3.82	311.62	0.109
3.31 <i>OK</i>	907.04	BY	0.035	403.01	302.11	0.900
3.56 <i>OK</i>	606.56	VV	0.041	261.95	302.44	6.736
3.68	8.97	VV	-----	2.58	302.60	0.008
3.96 <i>OK</i>	769.01	VV	0.036	315.02	302.97	7.545
4.15	3.32	VB	-----	1.62	303.22	0.052
4.91 <i>duplication</i>	1071.99	PV	0.046	367.01	303.46	10.518
5.07	35.05	VB	-----	0.41	303.95	0.352
6.62	7.05	BB	0.060	1.04	303.43	0.069
7.61 <i>at baseline</i>	1170.14	PB	0.062+	296.97	303.55	11.481
8.20 <i>at baseline</i>	1102.24	BB	0.055	284.02	303.72	11.680
8.99 <i>POE</i>	784.48	BY	0.071	172.93	303.25	7.697
10.35 <i>Endo</i>	700.06	BB	0.078	140.44	303.57	6.872
10.81	7.22	BB	-----	1.55	303.33	0.071
11.26 <i>POO</i>	549.19	BB	0.085	100.52	303.37	5.379
11.93	14.30	BB	0.087	2.56	302.96	0.140
12.46	9.63	BB	0.082	1.64	302.73	0.094
13.59 <i>POO</i>	828.67	BB	0.103	125.52	302.64	8.131
17.53	42.22	BB	0.125	5.31	302.02	0.414
19.82 <i>retention</i>	337.37	BB	0.139	37.97	301.59	3.310
24.65 <i>POC</i>	709.48	BB	0.177	69.91	300.44	7.746

TOTAL AREA = 10192.10

MULTIPLIER = 1

RT: 21.58 RTEN 20.01588



INST ID NOM 2.0 ul  
 DB-5 CAPILLARY  
 DATE R 122/88 TIME 2158  
 SAMPLE A447 INDA.10 (0.20ng)

RT: SIGNAL OFF + DEVICE# 1

[MP] 5830A SAMPLER INJECTION @ 21:58 DEC 22, 1988

SAMPLE # : ID CODE :  
27 8447 INDR.10

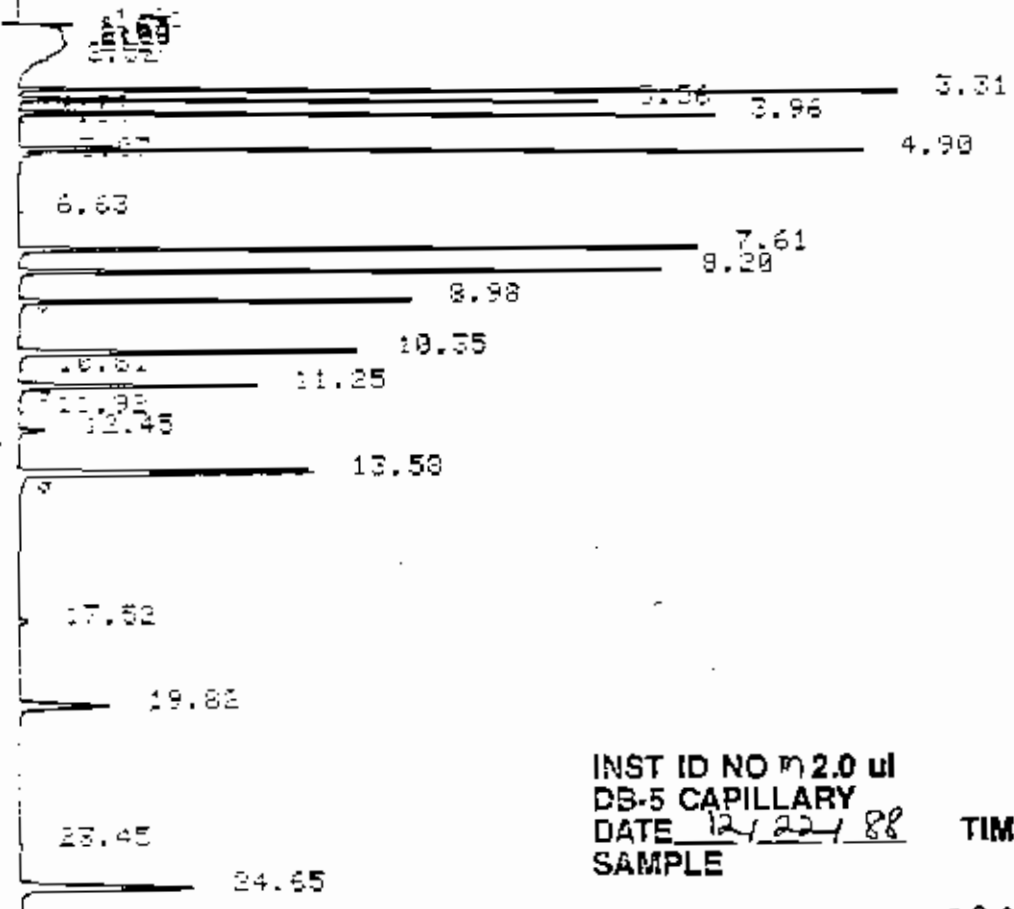
REF NOT FOUND  
METHOD ABORTED  
28 %

RT	AREA	TYPE	WIDTH	HEIGHT	BASELINE	AREA %
0.00					BASELINE @ START RUN = 301.28	
0.00					THRESHOLD @ START RUN = 1	
0.00					PEAK WIDTH @ START RUN = 0.04	
0.00					RP: REJECT + 1	
0.00					RP: REPORT TBL + ON	
1.61	246.25	BY	-----*	62.73	296.71	2.650
1.75	61.93	VV	-----	13.06	309.52	0.667
1.83	19.50	VB	-----	4.77	314.50	0.210
2.01	1.66	BY	-----	0.60	318.52	0.010
2.08	17.70	VV	-----*	1.65	318.26	0.191
2.27	5.36	VB	-----	2.18	317.51	0.058
2.52	3.77	BP	-----	3.41	311.49	0.041
2.81	9.16	PS	-----	3.44	303.56	0.099
3.30	3.97	BB	-----	1.75	300.17	0.043
3.69	<i>G-BHC</i> 870.51	BB	0.038	361.62	300.55	9.370
4.90	5.24	BB	0.045	1.34	300.78	0.056
5.07	24.08	BB	0.062	6.12	300.78	0.259
5.72	<i>Aldrin</i> 930.08	BB	0.050	289.82	301.28	10.011
6.53	7.23	BB	0.052	2.19	300.99	0.078
6.80	<i>Hept. Epoxide</i> 1090.64	BB	0.056*	302.61	301.04	11.739
7.64	3.19	BB	-----	0.84	300.77	0.034
8.13	<i>Endosulfan I</i> 1006.31	BB	0.065	243.58	301.40	10.031
9.24	<i>Chlordane</i> 888.60	BB	0.072	192.79	300.90	9.564
10.81	<i>Endosulfan II</i> 918.94	BB	0.082	175.76	300.75	9.091
11.25	17.54	BB	0.086	3.19	300.03	0.189
11.77	9.05	BY	-----	2.59	300.60	0.097
11.92	<i>Endrin Ald.</i> 764.74	VV	0.09	127.22	300.58	8.231
12.45	57.96	VV	0.108	5.50	300.51	0.499
13.92	<i>DOT</i> 603.54	BB	0.101	93.43	300.39	6.496
16.49	8.79	BB	-----	1.19	300.07	0.095
17.52	<i>Carbin Ketone</i> 874.68	BB	0.126	108.89	300.20	9.414
23.46	13.09	BB	0.153	1.34	299.59	0.141
24.65	<i>PBC</i> 847.38	BB	0.170	74.72	299.60	9.121

TOTAL AREA = 9298.90  
MULTIPLIER = 1

RT: 22:29 DEC 22, 1988

RT: RTIN = 215



INST ID NO m 2.0 ul  
 DB-5 CAPILLARY  
 DATE 12/22/88 TIME 2229  
 SAMPLE

A370 MOB.10 (0.20 ng)

RT: SIGNAL OFF + DEVICE# 1

HP1 5888A SAMPLER INJECTION @ 22:29 DEC 22, 1988

SAMPLE # : ID CODE :

26 A370 INDS.10

REF NOT FOUND

METHOD ABORTED

EA %

RT	AREA	TYPE	WIDTH	HEIGHT	BASLINE	AREA %
0.00					BASLINE @ START RUN = 299.24	
0.00					THRESHOLD @ START RUN = 1	
0.00					PEAK WIDTH @ START RUN = 0.04	
0.00					RP: REJECT + 1	
0.00					RP: REPORT TBL + ON	
1.61	89.86	PV	-----	30.01	295.21	0.377
1.75	112.56	VV	*-----	12.36	307.98	1.109
1.83	12.27	VB	-----	3.36	315.23	0.121
2.00	1.11	BV	*-----	0.29	318.96	0.011
2.06	3.16	VB	-----*	0.83	319.35	0.031
2.27	13.44	BV	-----*	1.48	318.87	0.132
2.32	6.52	VP	-----	2.88	318.79	0.064
3.31 A-BHC	852.45	BV	0.035	376.38	299.12	8.395
3.56 B-BHC	651.99	VV	0.041	249.64	299.31	6.421
3.68	6.62	VB	-----	2.22	299.48	0.065
3.96 D-BHC	734.41	PV	0.039	297.25	299.49	7.232
4.14	4.15	VB	-----	1.58	299.61	0.041
4.96 <i>Hyphachlor</i>	1059.02	BV	0.046	368.48	299.72	10.429
5.07	48.54	VB	-----	11.18	300.13	0.478
6.63	6.60	BB	0.057	1.86	299.78	0.065
7.51 <i>G-Chlorone</i>	1146.66	BB	0.062	290.64	299.87	11.292
8.28 <i>A-Chlorone</i>	1146.43	BB	0.065	275.31	300.06	11.290
8.98 DDE	775.18	BV	0.072*	168.22	299.49	7.633
10.25 <i>Endrin</i>	757.87	BB	0.088*	145.23	299.78	7.267
10.81	7.85	BP	0.079	1.55	299.68	0.077
11.25 DDD	562.12	VV	0.086	181.84	299.66	5.536
11.92	7.73	BB	-----	1.29	299.69	0.077
12.45	74.68	BB	0.095	12.38	299.68	0.735
13.58 BSS	858.25	BV	0.106	126.13	299.28	8.373
17.52	37.97	BP	0.138	4.59	299.18	0.374
19.82 <i>Methoxychlor</i>	356.65	BB	0.141	39.69	299.88	3.512
23.45	14.88	BB	-----	1.46	299.16	0.138
24.65 DBC	835.86	BB	0.174	75.13	299.33	8.224

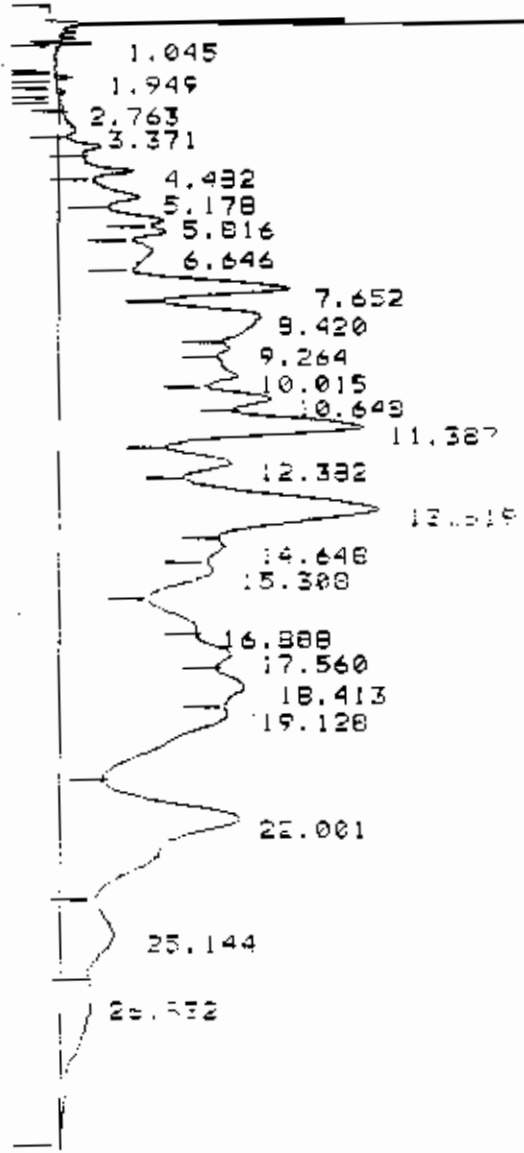
TOTAL AREA = 10154.48

MULTIPLIER = 1



30

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 W  
 1.5% SP2250 / 1.95% SP2401  
 DATE 12 / 19 / 38 TIME 19.25  
 SAMPLE

PL667 TOXAPH (5.0mg)

TITLE: CLP PESTICIDES

19:25 19 DEC 88

CHANNEL NO: 3

SAMPLE: P667 TOXAPH

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	K1/2 (SEC)
1		1911	1.045		1911	BB	2.35
2	A-BHC	1914	1.949	0.039	1914	BB	4.70
3	G-BHC	1563	2.327	-0.043	1563	BB	6.65
4		1229	2.763		1229	BV	? 8.00
5		11193	3.371		11193	VV	? 13.70
6		20754	3.812		20754	VV	? 12.70
7		41551	4.482		41551	VV	? 15.60
8	HEPT EPOX	63630	5.178	0.068	63630	VV	? 29.80
9		63126	5.816		63126	VV	? 29.60
10	A-CHLORDAN	57826	6.125	0.025	57826	VV	? 15.40
11		198149	6.646		198149	VV	? 41.50
12	DIELDRIN	198149	7.652	-0.058	198149	VV	? 33.65
13		297430	8.420		297430	VV	? 44.50
14	ENDRIN	97001	9.264	0.084	97001	VV	? 14.50
15		203860	10.015		203860	VV	? 38.40
16	DDD	185154	10.848	0.058	185154	VV	? 36.60
17	B-ENDOSULF	352675	11.387	0.267	352675	VV	? 49.80
18		198032	12.382		198032	VV	? 46.50
19		581614	13.617		581614	VV	? 81.50
20	ENDRIN ALD	152293	14.848	0.259	152293	VV	? 26.60
21		148740	15.328		148740	VV	? 21.65
22		176403	16.638		176403	VV	? 55.80
23	ESS	221691	17.560	0.160	221691	VV	? 59.70
24		273274	18.413		273274	VV	? 50.10
25		321259	19.128		321259	VV	? 109.15
26	DBC	478872	22.001	0.201	478872	VV	101.00
27		157038	25.144		157038	VV	? 96.20
28		95117	29.932		95117	VB	? 42.25

TOTALS: 446860 1.119 446860

DETECTED PKGS: 28 REJECTED PKGS: 0

THRESHOLD: 1.00000 MULTIPLIER: 10000.0

MODE: SLS OFFSET: 419

PACK: 1 SALT: 10 INJ: 1

STES:

10.1 1.5% SPIRIT/1.05% SP240:

EXT INJ 2UL/INST LETTER C

INJECTION VOLUME 2 UL

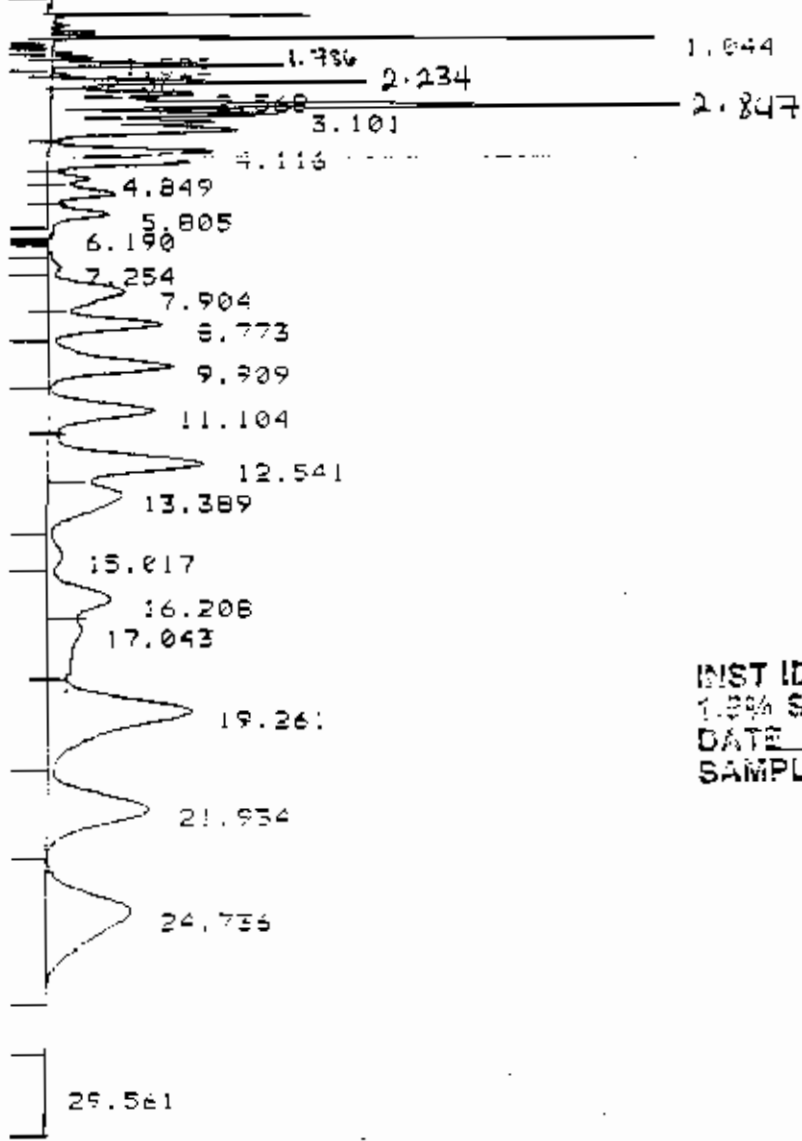
INSTR. OUTSIDE RETENTION TIME WINDOW

RES. 43 CASE 10994 B11 PESTICIDE MIXSOIL

RES. 45 CASE 84788 B4BBS PESTICIDE MIXSOIL

RES. 60 CASE 11040 B11 PESTICIDE WATERS

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 W  
1.3% SP2250 / 1.95% SP2401  
DATE 12/19/88 TIME 2000  
SAMPLE

FISH AR1600 (2.0mg)

86

TITLE: CLP PESTICIDES

20:00 19 DEC 88

CHANNEL NO: 3

SAMPLE: P13: AR1660

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		33531	1.044		33531	BB	2.20
2		2281	1.475		2281	BB	3.95
3		4861	1.552		4861	VV	3.85
4		33754	1.786		33754	VV	4.85
5		2603	2.063		2603	VV	4.70
6		53362	2.234		53362	VV	5.40
7		37675	2.568		37675	VV	7.40
8	HEPTACHLOR	129572	2.847	-0.033	129572	VV	4.20
9	D-BNC	49088	3.101	0.031	49088	VV	8.20
10		36130	3.307		36130	VV	7.30
11	ALDRIN	68870	3.523	0.043	68870	VV	16.00
12		51723	4.116		51723	VV	12.55
13		46815	4.392		46815	VV	14.50
14		13744	4.849		13744	VV	12.20
15	HEPT EPOX	30747	5.255	0.145	30747	VV	16.40
16		28266	5.805		28266	VV	14.85
17		5347	7.234		5347	BB	17.55
18	DELDRIN	67874	7.934	0.154	67874	VV	35.90
19		68452	8.713		68452	VV	21.65
20		93274	9.909		93274	VV	23.20
21	B-ENDOSULF	83234	11.101	-0.016	83234	VV	27.80
22	DDT	142353	12.541	-0.229	142353	VV	32.15
23		89302	13.389		89302	VV	32.50
24		14788	15.017		14788	VV	33.30
25		72903	16.288		72903	VV	44.25
26	ESS	65268	17.045	-0.357	65268	VV	39.80
27		231012	19.261		231012	VV	80.35
28	DBC	150451	21.534	0.134	150451	VV	51.50
29		183522	24.736		183522	VE	77.60
30		6023	29.581		6023	BB	34.00
TOTALS:		1836620		-0.089	1836620		

DETECTED PKS: 32 REJECTED PKS: 0

DIVISOR: 1.00000 MULTIPLIER: 10000.0

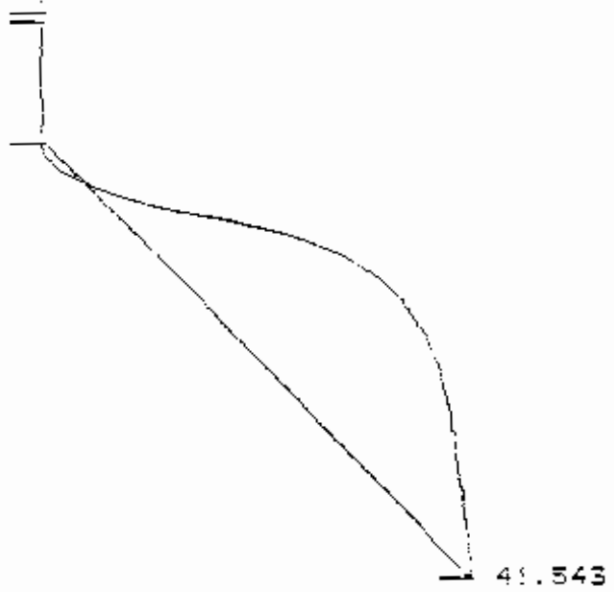
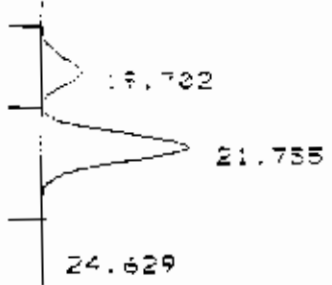
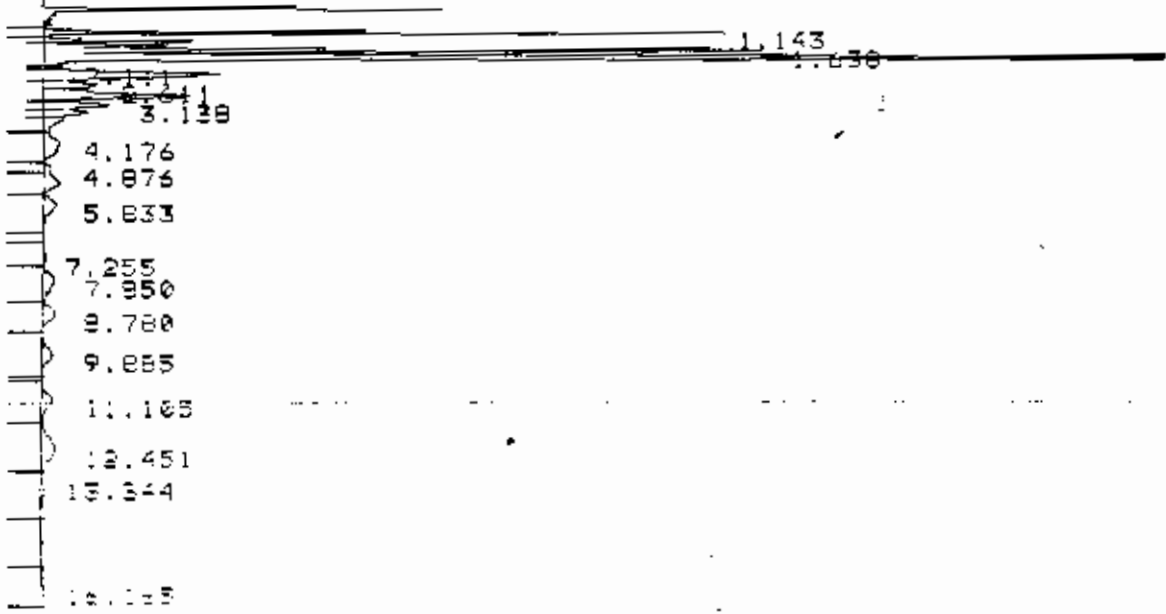
NOISE: 37.6 OFFSET: 6

PACK: 1 VIAL: 1 INJ: 1

NOTES:

COL: 1.5% SP2252/1.95% SP2401  
 AMT INJ 2UL/INST LETTER O  
 INJECTION VOLUME 2 UL  
 ORT\* OUTSIDE RETENTION TIME WINDOW  
 965.63 CASE 10954 B#: PESTICIDE MIDSOIL  
 6018 CASE 98788 B#:263 PESTICIDE MIDSOIL  
 965.60 CASE 11940 B#: PESTICIDE WATERS

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 W  
 1.5% SP2250 / 1.95% SP2401  
 DATE 12/15/88 TIME 6:15 P  
 SAMPLE AR 1221 P073  
 (5.0 ppm) (10 ng)

17

12/15/88 6:15 PM

CHANNEL NO: 3

SAMPLE: P073 AR1221

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		53964	1.143		53964	BV	2.80
		14475	1.368		14475	VV	3.45
		22534	1.519		22534	VV	4.25
4		77398	1.638		77398	VV	3.85
5		304741	-1.833		304741	VV	4.45
6		48496	-2.280		48496	VV	10.70
7		13352	-2.611		13352	VV	? 7.30
8		35509	-2.885		35509	VV	? 4.80
9	D-BHC	15325	-3.138	-0.032	15325	VV	9.05
10		10983	3.542		10983	VV	? 11.45
11	ALDRIN	7052	2.520	-0.040	7052	VV	? 18.50
12		11693	4.176		11693	VV	? 27.25
13		2230	4.876		2230	VV	? 14.40
14	HEPT EPOX	9179	5.257	0.087	9179	VV	19.90
15	G-CHLORDAN	8658	5.833	0.163	8658	VB	21.80
16	PP DDE	1666	7.255	0.085	1666	BV	17.65
17	DIELDRIN	6759	7.850	0.090	6759	VV	26.20
18		7951	8.780		7951	VV	19.80
19		7808	9.085		7808	VB	24.45
20	Σ-HEXACHLOROCYCLOHEPTADIENE	7811	11.105	-0.285	7811	VB	110.00
21	DDT	14305	12.481	-0.540	14305	VV	58.00
22		4533	13.344		4533	VB	? 46.80
23		1938	18.185		1938	VB	51.60
24		54927	19.702		54927	VB	49.60
25	DBC	207722	21.785	-0.185	207722	VV	71.25
26		5557	24.859		5557	VV	51.60
27		2031880	41.546		2031880	VB	? 18.60
TOTALS:		2990500		-0.186	2990500		

DETECTED PMS: 28 REJECTED PMS: 1

DI OR: 1.00000 MULTIPLIER: 10000.0

NOISE: 20.6 DRIFT: 1 OFFSET: -34

RACK: 1 VIAL: 13 INJ: 1

NOTES:

CO.: 1.5% SP2250/1.5% SP240:

AMT INJ BULK INST LETTER C

INJECTION VOLUME 2 UL

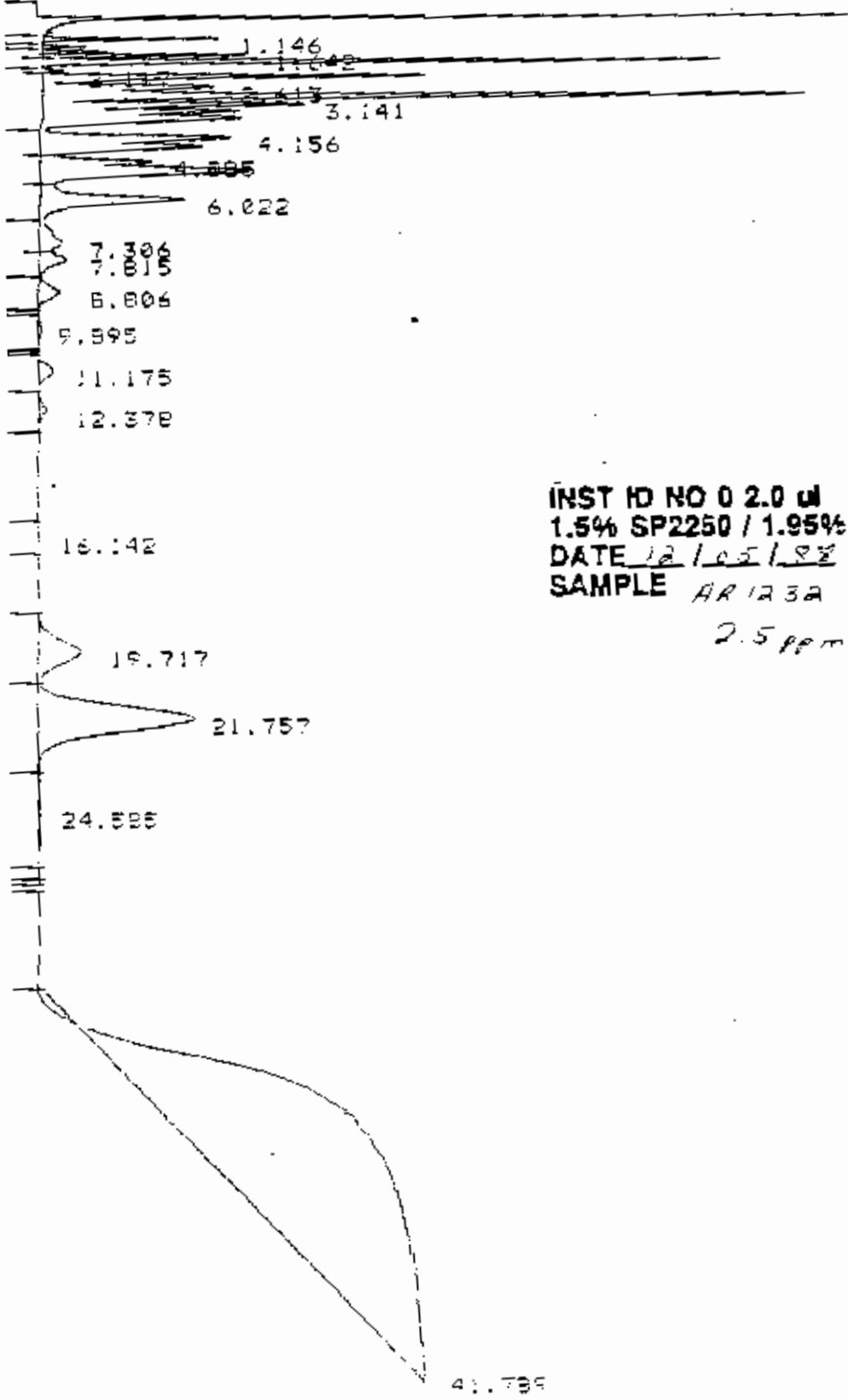
ORT: OUTSIDE RETENTION TIME WINDOW

5070 0810809 PESTICIDE LOK SOILS & WATERS

AR

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%

7/27/88, call 1, per 03 540743.01



INST ID NO 0 2.0 ul  
1.5% SP2250 / 1.95% SP2401  
DATE 12/05/88 TIME 0203  
SAMPLE AR123A P087  
2.5 ppm (5.07%)

TITLE: CLP PESTICIDES

2:03 5 DEC 88

CHANNEL NO: 3

SAMPLE: P0B7 AR1232

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SECS)
1		17043	1.146		17043	BV	2.95
2		4656	1.372		4656	VV	3.35
3		8169	1.524		8169	VV	4.20
4		24712	1.642		24712	VV	3.95
5		112416	1.835		112416	VV	5.00
6		1320	2.117		1320	T	2.20
7		79850	2.282		79850	VV	3.00
8		52951	2.613		52951	VV	3.20
9		176592	2.887		176592	VV	4.35
10	D-BAC	55503	3.141	-0.023	55503	VV	3.60
11		50022	3.346		50022	VV	7.50
12	ALDRIN	83970	3.537	-0.003	83970	VV	16.40
13		68921	4.156		68921	VV	11.00
14		62528	4.421		62528	VV	15.70
15		37834	4.885		37834	VV	12.90
16	HEPT EPOX	186347	5.160	-0.010	186347	VV	17.55
17	P-CHLORDAN	84059	6.022	-0.120	84059	VV	15.65
18	DDT	21827	7.300	0.150	21827	VV	21.00
19	DIELEPHIN	15607	7.815	0.255	15607	VV	19.25
20		15924	8.836		15924	VB	23.75
21		3302	9.895		3302	BB	26.00
22	B-ENDOSULF	12716	11.175	0.015	12716	BV	27.35
23		6299	12.378		6299	VB	37.35
24		1491	15.142		1491	BB	39.45
25		63172	19.717		63172	BV	47.90
26	D80	252300	21.757	-0.133	252300	VV	51.15
27		6156	24.585		6156	T	61.70
28		2067360	41.788		2067360	BE	91.6.10
TOTALS:		3503340		-0.097	3503330		

DETECTED PKS: 28 REJECTED PKS: 0

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 20.6 DRIFT: 0 OFFSET: -21

RACK: 1 VIAL: 14 INJ: 1

NOTES:

COL: 1.5% SP2250/1.95% SP2401

EXT INJ 20/1987 LETTER 1

INJECTION VOLUME 2 U

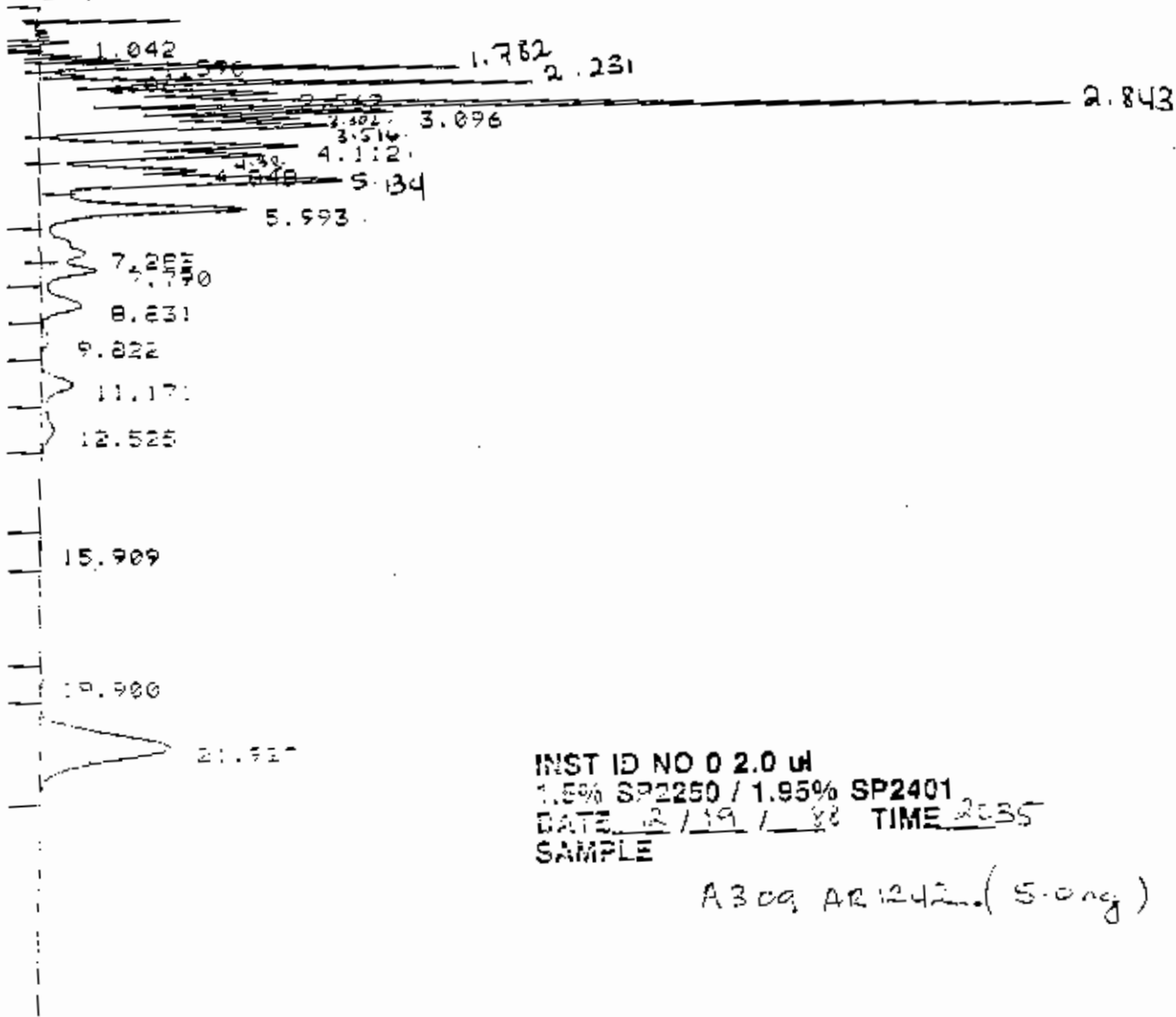
\* OUTSIDE RETENTION TIME WINDOW

0.70 06.10809 PESTICIDE LOW BOILS & WATER



3 906362-01

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 ul  
 1.5% SP2250 / 1.95% SP2401  
 DATE 2/19/88 TIME 2035  
 SAMPLE

A309 AR1242 (5.0ng)

96

TITLE: CLP PESTICIDES

20:35 19 DEC 88

CHANNEL NO: 3

SAMPLE: A309 AR:242

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		2345	1.042		2345	BB	2.50
2		5274	1.472		5274	VV	4.25
3		11031	1.590		11031	VV	4.05
4		67504	1.782		67504	VV	4.85
5		8678	2.063		8678	VV	7.20
6		97765	2.231		97765	VV	5.50
7		70016	2.562		70016	VV	7.10
8	HEPTACHLOR	230453	2.843	-0.037	230453	VV	4.10
9	D-BHC	86017	3.096	0.026	86017	VV	8.50
10		63544	3.302		63544	VV	7.50
11	ALDRIN	116438	3.516	0.036	116438	VV	16.30
12		90947	4.112		90947	VV	10.90
13		85455	4.381		85455	VV	15.50
14		53610	4.648		53610	VV	12.00
15	HEPT EPOX	152049	5.134	0.024	152049	VV	17.30
16	P-CHLORDAN	125614	5.995	-0.047	125614	VV	10.65
17		45525	7.283		45525	VV	29.60
18	DIELDRIN	35801	7.790	0.080	35801	VV	21.80
19		35752	8.831		35752	VV	29.00
20		6781	9.822		6781	VV	18.80
21	B-ENDOSULF	28451	11.171	0.051	28451	VV	28.65
22	DDT	13358	12.525	-0.245	13358	VB	42.70
23		2013	15.909		2013	BB	27.75
24		4175	19.900		4175	BV	44.40
25	DBC	206500	21.927	0.127	206500	VB	52.65
TOTALS:		1645020		0.015	1645020		

DETECTED PKS: 26 REJECTED PKS: 0

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 37.6 OFFSET: -53

PACK: 1 VIAL: 03 INJ: 1

NOTES:

0113 1.5% SP2250 1.75% SP240:

PKT INJ 20/INST LETTER 0

INJECTION VOLUME 2 UL

GRY \* OUTSIDE RETENTION TIME WINDOW

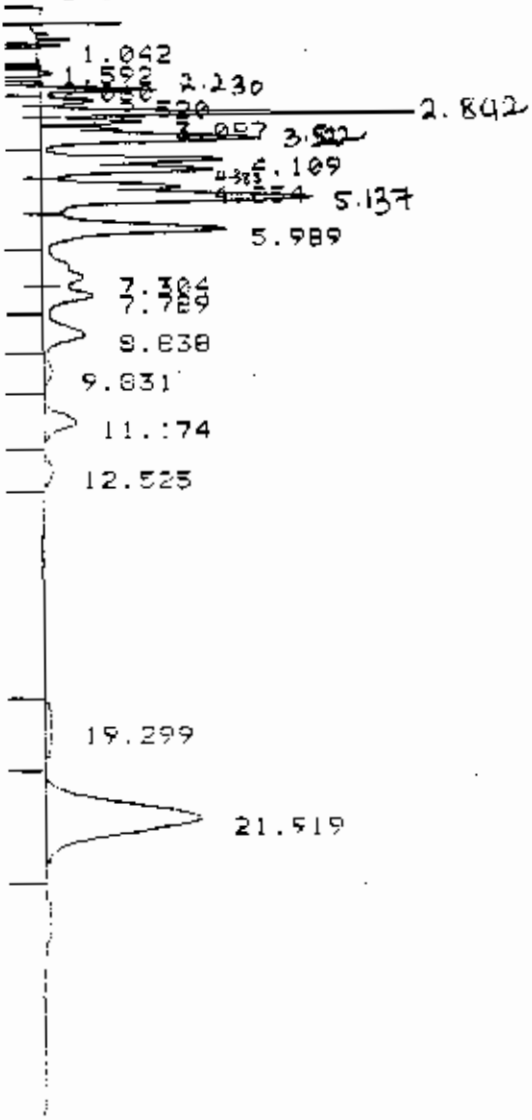
965.63 CASE 10984 B#1 PESTICIDE MIDSOIL

6016 CASE SH788 B#283 PESTICIDE MIDSOIL

965.60 CASE 11040 B#1 PESTICIDE WATEFS

97

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 ul  
1.5% SP2250 / 1.95% SP2401  
DATE 12/19/88 TIME 2108  
SAMPLE

A322 A R1248 (2.0 ug)

TITLE: CLP PESTICIDES

21:00 19 DEC 88

CHANNEL NO: 3

SAMPLE: 9322 PR1248

METHOD: CLP-34

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		1304	1.042		1304	BB	2.25
2		1792	1.782		1792	VB	? 2.85
3		17937	2.230		17937	VV	5.40
4		14061	2.520		14061	VV	? 10.25
5	HEPTACHLOR	71948	2.842	-0.038	71948	VV	6.80
6	D-BHC	21952	3.097	0.027	21952	VV	8.40
7		14083	3.312		14083	VV	? 11.50
8	ALDRIN	79163	3.522	0.042	79163	VV	13.80
9		54588	4.109		54588	VV	12.50
10		56971	4.383		56971	VV	? 13.45
11		42527	4.354		42527	VV	? 13.60
12	HEPT EPOX	122862	5.157	0.027	122862	VV	17.05
13	4-CHLORDAN	95983	5.989	-0.051	95983	VV	16.55
14		37172	7.304		37172	VV	? 28.90
15	DIELDRIN	30055	7.789	0.079	30055	VV	? 23.15
16		31808	8.838		31808	VV	? 27.40
17		6425	9.831		6425	VV	? 40.20
18	B-ENDOSULF	24183	11.174	0.054	24183	VV	28.35
19	DDT	6000	12.525	-0.245	6000	VB	39.00
20		10275	19.299		10275	BV	? 74.30
21	DBC	225277	21.919	0.119	225277	VB	52.50

TOTALS: 966316 0.014 966316

DETECTED PKBS: 23 REJECTED PKBS: 2

DIVISOR: 1.00000 MULTIPLIER: 10000.0

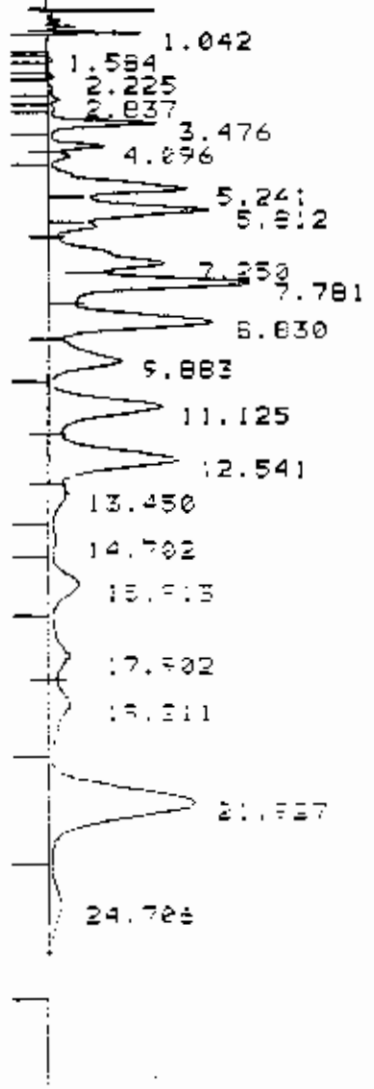
NOISE: 37.6 OFFSET: -14

PACK: 1 VIAL: 14 INJ: 1

NOTES:  
 COL: 1.5% SP2253 1.95% SP2401  
 AKT INJ 2UL/INST LETTER Q  
 INJECTION VOLUME 2 UL  
 CRT= OUTSIDE RETENTION TIME WINDOW  
 935.65 CASE 10984 B#1 PESTICIDE MIDSOIL  
 6216 CASE 5H786 B=283 PESTICIDE MIDSOIL  
 935.60 CASE 11040 B#1 PESTICIDE WATERS

86

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INSTR ID NO 0 2.0 ul  
1.50% SP2050 / 1.95% SP2401  
DATE 12/19/82 TIME 2:42  
SAMPLE

A441 AR1254 (2.0mg)

TITLE: CLP PESTICIDES

21:42 19 DEC 88

CHANNEL NO: 3

SAMPLE: A441 AR1254

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		4793	1.042		4793	BB	2.20
2		723	2.225		723	BB	5.30
3	HEPTACHLOR	1708	2.837	-0.043	1708	BV	6.30
4	D-BHC	867	3.113	0.043	867	VV ?	9.80
5	ALDRIN	26397	3.476	-0.004	26397	VV	9.35
6		15237	4.096		15237	VV	10.15
7		5900	4.376		5900	VV ?	12.45
8	HEPT EPOX	78985	5.241	0.131	78985	VV ?	19.35
9		92724	5.812		92724	VV	20.35
10	A-ENDOSULF	18019	6.256	-0.134	18019	VV ?	19.20
11	PP DDE	86787	7.250	0.210	86787	VV ?	28.70
12	DIELDRIN	120587	7.781	0.071	120587	VV	20.83
13		118694	8.830		118694	VV	25.85
14		59479	9.883		59479	VV ?	28.50
15	B-ENDOSULF	97076	11.125	0.005	97076	VV	29.20
16	DDT	120348	12.541	-0.229	120348	VV	32.25
		18600	13.450		18600	VV ?	51.60
	ENDRIN ALD	6407	14.782	0.312	6407	VV ?	42.20
17		35025	15.913		35025	VV	42.00
20	ESS	28207	17.902	0.502	28207	VV	49.10
21		33488	19.211		33488	VV	58.10
22	D8C	214498	21.927	0.127	214498	VV	52.40
23		24396	24.786		24396	VB	60.50
TOTALS:		1210950		0.99:	1210950		

DETECTED PKG: 25 REJECTED PKG: 2

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 37.6 OFFSET: -23

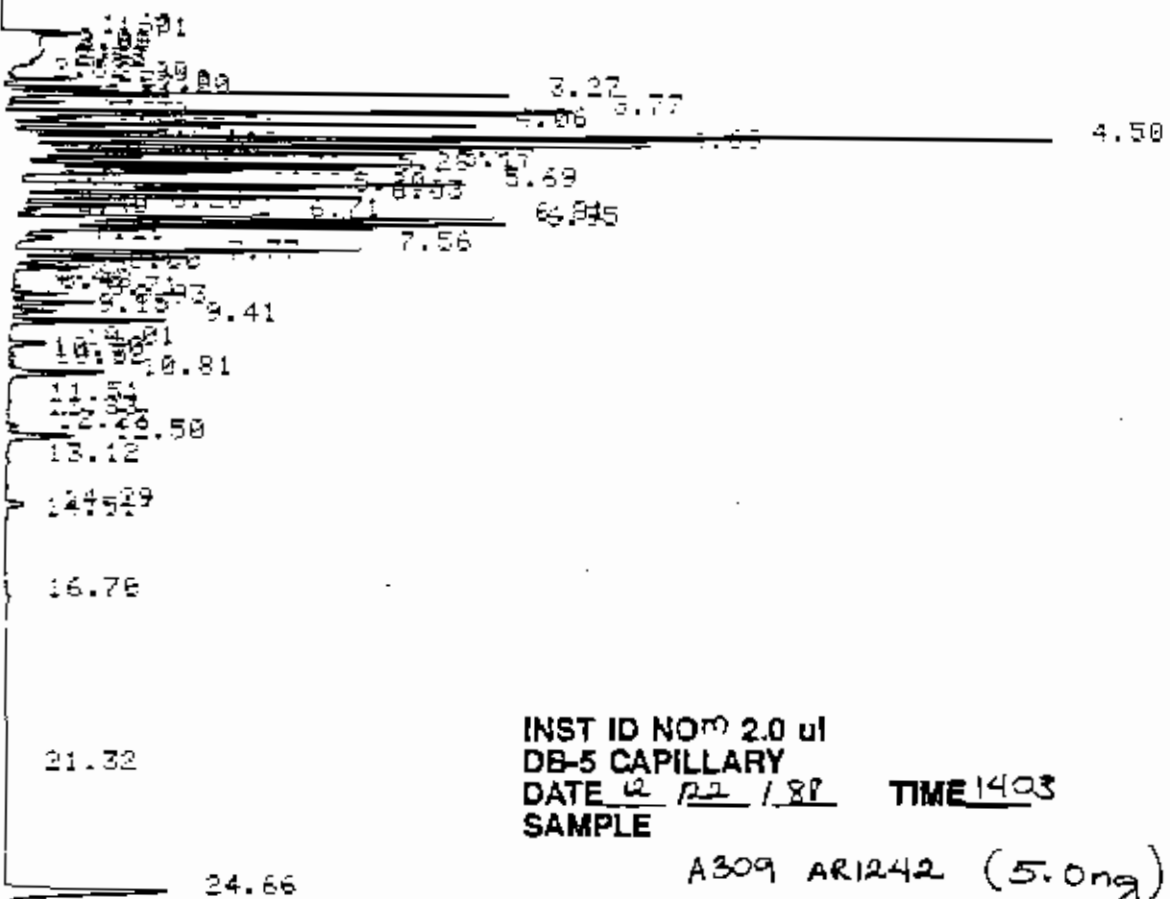
RACK: 2 VIAL: : INC: :

NOTES:

COL: 1.5% SP2250/1.95% SP2401  
AMT INJ 2UL/INST LETTER C  
INJECTION VOLUME 2 UL  
ORTAL OUTSIDE RETENTION TIME WINDOW  
1 965.63 CASE 10984 B#1 PESTICIDE MIDSOIL  
1 6016 CASE 54788 B#2EE PESTICIDE MIDSOIL  
1 965.60 CASE 11040 B#1 PESTICIDE WATERS

RT: 16:03 DEC 22, 1990

RT: R.T.H = 215



INST ID NOM 2.0 ul  
 DB-5 CAPILLARY  
 DATE 12/22/88 TIME 1403  
 SAMPLE

A309 AR1242 (5.0ng)

RT: SIGNAL OFF + DEVICES# 1

1001

027

[4] 00000 SAMPLER INJECTION @ 14:03 DEC 22, 1988

SAMPLE # 1 ID CODE :

11 0009 AR1242

REF NOT FOUND

METHOD ABORTED

APER %

RT	AREA	TYPE	WIDTH	HEIGHT	BASELINE	AREA %
0.00					BASELINE @ START RUN = 299.65	
0.00					THRESHOLD @ START RUN = 1	
0.00					PEAK WIDTH @ START RUN = 0.04	
0.00					RP: REJECT + 1	
0.00					FP: REPORT TBL + ON	
1.60	61.13	BV	-----	23.00	302.91	0.344
1.71	115.17	VB	-----*	24.25	309.20	0.649
2.27	9.85	BV	-----*	1.78	315.09	0.055
2.46	12.43	VV	-----	4.66	309.85	0.070
2.52	14.29	VP	-----	6.46	308.30	0.080
2.82	12.25	PV	-----	4.55	301.63	0.069
2.90	102.20	VP	0.05	31.83	300.96	0.578
3.10	125.12	PV	0.046	42.77	299.89	0.705
3.20	124.03	VV	-----	50.55	300.17	0.699
3.27	690.81	VV	0.05	215.09	300.35	5.936
3.51	81.36	VB	0.049	26.11	301.00	0.458
3.77	1161.54	BV	-----*	241.31	301.10	6.542
3.92	119.15	VV	-----	31.20	301.19	0.671
4.06	690.78	VV	0.054*	200.09	301.26	3.890
4.31	222.45	VV	+-----	69.25	301.40	1.253
4.37	130.73	VV	-----	47.47	301.42	0.781
4.50	2160.92	VV	+-----	445.91	301.49	12.170
4.69	945.22	VV	0.054	274.01	301.60	5.323
4.85	630.32	VV	0.057	174.40	301.60	3.553
4.97	222.60	VV	-----	59.21	301.74	1.254
5.17	657.06	VV	0.050	176.96	301.85	3.700
5.23	500.20	VV	-----	149.40	301.91	2.862
5.32	403.54	VV	-----	95.71	301.96	2.723
5.59	29.33	VV	-----	7.41	302.08	0.160
5.69	703.93	VV	-----	194.03	302.17	3.254
5.80	567.09	VV	-----	130.53	302.20	3.174
6.03	792.32	VV	+-----	146.19	302.32	4.462
6.20	214.56	VV	0.063	52.92	302.44	1.200
6.40	66.27	VV	-----	12.99	302.52	0.373
6.58	50.06	VV	-----	12.13	302.61	0.290
6.71	410.24	VV	-----	111.56	302.60	2.310
6.81	037.45	VV	-----	206.52	302.74	4.716
6.95	1000.06	VV	0.075	211.47	302.81	5.677
7.20	143.69	VV	-----*	19.58	302.94	0.809
7.56	764.22	VV	0.080	149.15	303.14	4.304
7.77	379.53	VV	0.070	76.45	303.25	2.137
8.00	159.56	VV	0.074	33.93	303.30	0.299
8.27	7.78	VB	-----	1.83	303.52	0.044
8.40	22.50	BP	0.965	5.46	303.25	0.127
8.71	124.11	PV	0.076	25.69	302.74	0.699
8.93	106.00	VV	0.070	37.20	302.60	1.040
9.15	96.96	VV	0.072	21.11	302.61	0.546
9.41	339.77	VB	0.079	67.14	302.54	1.913
10.01	87.44	BB	0.081	16.94	301.75	0.492
10.30	19.62	PS	0.095	3.62	301.44	0.110
10.52	19.25	BV	0.077	4.00	301.31	0.112
10.81	272.05	VB	*0.103	41.47	301.36	1.532
11.51	11.16	VV	-----	2.24	300.97	0.063
11.93	6.84	PS	0.084	1.27	300.64	0.039
12.23	36.14	BY	0.080	6.42	300.36	0.204
12.50	207.46	VB	0.100	29.96	300.53	1.160
13.12	11.40	BY	-----	1.94	300.05	0.065
14.29	64.50	BV	0.113	8.93	299.57	0.364
14.51	9.93	VB	-----	1.40	299.56	0.056
16.70	15.62	BB	0.123	1.99	299.59	0.080
21.32	8.26	BB	-----	0.99	296.00	0.047
24.66	785.41	BB	0.177	69.23	299.45	4.423

TOTAL AREA = 17756.40

MULTIPLIER = 1

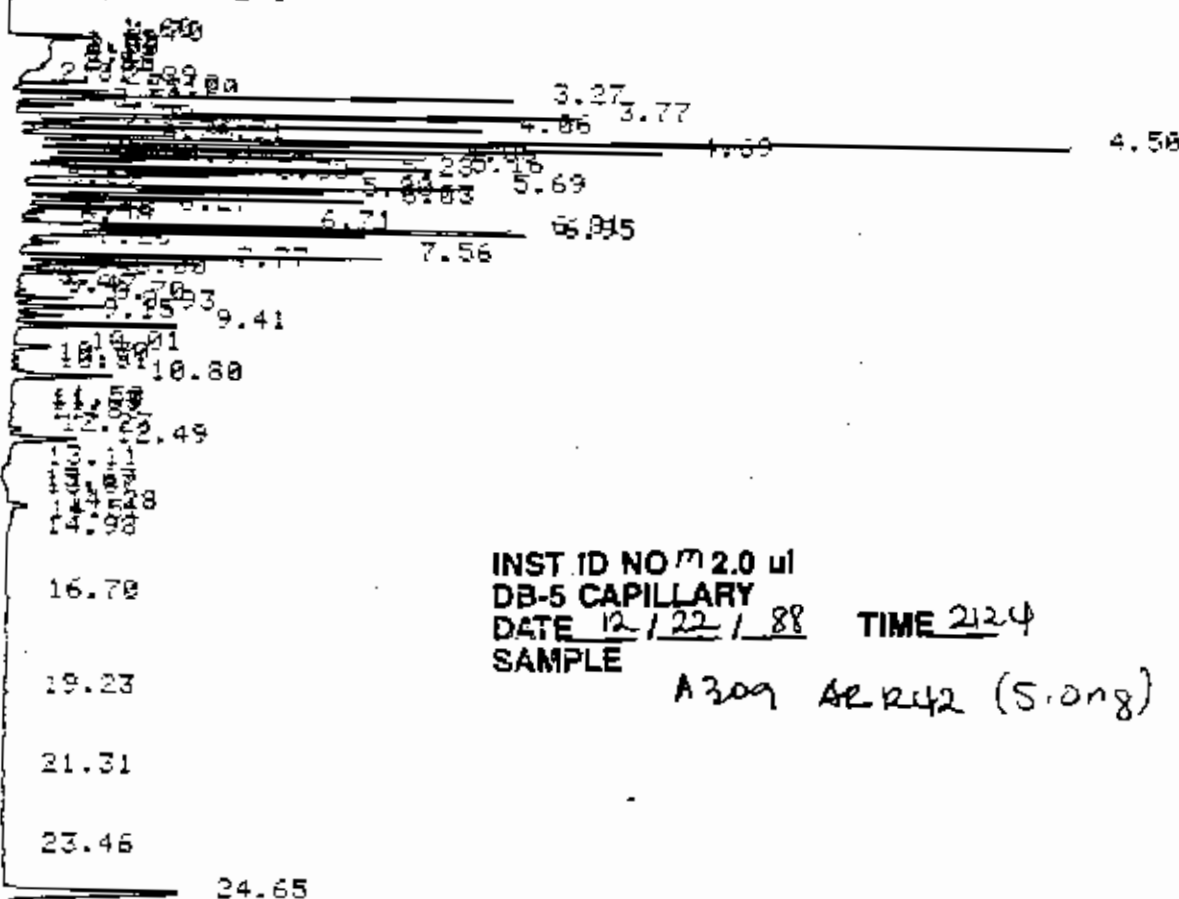
DEAN, C. W. 11/22/88

CC OF 11/22/88



RT: 21:24 DEC 22, 1988

RT: ATTN = 215



INST ID NO <sup>m</sup> 2.0 ul  
 DB-5 CAPILLARY  
 DATE 12/22/88 TIME 2124  
 SAMPLE A309 AC R42 (5.0ng)

RT: SIGNAL OFF + DEVICE# 1

GC GC WAT 7 LUIS: 9270 D023

SAMPLE # 1 ID CODE :

25 A589 AR1243

REF NOT FOUND  
METHOD REPORTED  
AREA %

RT	AREP	TYPE	WIDTH	HEIGHT	BASELINE	AREA %
0.00					BASELINE @ START RUN = 306.18	
0.00					THRESHOLD @ START RUN = 1	
0.00					PEAK WIDTH @ START RUN = 0.04	
0.00					RP: REJECT → 1	
0.00					RP: REPORT TBL → ON	
1.60	77.00	BV	-----	29.62	309.25	0.436
1.70	116.35	VB	-----→	25.74	315.82	0.458
1.92	1.15	BP	-----	0.41	321.92	0.006
2.09	1.42	BP	-----	0.65	322.64	0.009
2.27	0.96	BV	-----*	1.52	321.27	0.058
2.46	13.62	VV	-----	4.96	316.72	0.077
2.52	14.61	VF	-----	5.92	315.39	0.093
2.61	5.23	PV	-----	1.97	309.42	0.030
2.89	94.64	VP	0.05	30.52	308.51	0.575
3.19	120.16	PV	0.043	41.63	306.89	0.680
3.29	121.56	VV	-----	49.65	306.96	0.688
3.27	625.42	VV	0.05	214.11	307.01	3.077
3.51	87.33	VV	0.052	26.48	307.17	0.494
3.77	1155.33	VV	-----*	241.54	307.33	6.535
3.92	112.75	VV	-----	38.42	307.43	0.638
4.06	698.09	VV	0.054	198.93	307.52	3.847
4.31	217.73	VV	-----	68.95	307.60	1.232
4.56	134.69	VV	-----	46.98	307.72	0.762
4.58	2169.67	VV	-----*	451.55	307.81	12.273
4.69	941.27	VV	0.053	276.06	307.93	5.325
4.95	622.39	VV	0.056	175.43	308.03	3.521
4.97	223.99	VV	-----	56.52	309.11	1.267
5.16	646.88	VV	0.057	178.17	308.24	3.655
5.29	504.17	VV	-----	149.51	308.31	2.852
5.38	461.27	VV	-----	94.99	308.37	2.609
5.59	21.15	VV	-----	5.82	308.52	0.120
5.69	700.04	VV	-----	195.11	308.58	3.960
5.90	554.34	VV	-----	130.75	308.65	3.136
6.03	781.20	VV	-----*	147.77	308.80	4.419
6.27	206.72	VV	0.062	52.61	308.96	1.169
6.48	51.29	VV	-----	11.86	309.04	0.290
6.58	37.87	VV	-----	10.50	309.16	0.214
6.71	407.05	VV	-----	112.36	309.24	2.382
6.81	641.87	VV	-----	210.44	309.31	4.762
6.95	993.02	VV	0.072	215.61	309.40	5.617
7.20	104.01	VB	-----*	17.67	309.56	0.593
7.56	761.36	BV	0.077	155.02	309.35	4.307
7.77	365.00	VV	0.075	76.59	309.16	2.069
8.00	145.97	VB	0.069	33.57	308.94	0.826
8.27	5.26	BB	-----	1.46	308.62	0.030
8.47	23.41	BP	0.066	5.32	308.05	0.132
8.79	127.48	PV	0.076	26.23	307.51	0.721
9.93	190.06	VV	0.077	39.52	307.58	1.075
9.15	97.75	VV	0.071	21.49	307.65	0.553
9.41	346.01	VB	0.070	69.39	307.73	1.962
10.01	98.15	BP	0.081	17.45	306.64	0.510
10.30	22.64	VV	0.087	4.05	306.32	0.129
10.51	20.76	VV	0.078	4.15	306.24	0.117
10.80	272.96	VB	0.099	43.30	306.13	1.544
11.50	14.65	VV	-----	2.60	305.52	0.083
11.63	8.90	VV	-----	1.61	305.36	0.050
11.83	8.66	VB	-----	1.50	305.13	0.049
12.23	36.07	BV	0.088	6.45	305.01	0.204
12.49	203.33	VB	0.100	29.49	305.24	1.150
13.11	9.70	BP	-----	2.03	303.93	0.055
13.67	0.38	PB	-----	1.11	303.60	0.047
13.87	6.69	BB	-----	0.97	304.44	0.030
14.20	69.11	BV	0.116	9.36	304.55	0.391
14.51	21.76	VV	-----*	2.57	304.53	0.188
14.98	9.63	VB	-----*	1.00	304.47	0.049
16.70	18.33	BB	0.137	2.19	303.74	0.184
19.23	6.10	BB	-----	0.90	303.32	0.034
21.31	7.13	BB	-----	0.92	302.57	0.040
23.46	11.63	BB	0.148	1.23	302.45	0.066
24.65	842.96	BE	0.176	75.08	302.51	4.760

TOTAL AREA = 17670.78  
MULTIPLIER = 1

**Versar**<sub>INC</sub>

REAGENT BLANK DATA

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK96

Lab Name: \_\_\_\_\_ VERSAR, INC. \_\_\_\_\_ Contract: COO1298

Code: VERSAR Case No.: SH788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water)SOIL Lab Sample ID: RB4096

Sample wt/vol: 1.0 (g/ml) G Lab File ID: \_\_\_\_\_

Level: (low/med) MED Date Received: 11/18/88

% Moisture: not dec. 0 dec. \_\_\_\_\_ Date Extracted: 11/28/88

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_SONC Date Analyzed: 12/22/88

GPC Cleanup: (Y/N)N pH: \_\_\_\_\_ Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)_UG/KG	Q
319-84-6	alpha-BHC	100	U
319-85-7	beta-BHC	100	U
319-86-8	delta-BHC	100	U
58-89-9	gamma-BHC (Lindane)	100	U
76-44-8	Heptachlor	100	U
309-00-2	Aldrin	100	U
1024-57-3	Heptachlor Epoxide	100	U
959-98-8	Endosulfan I	100	U
60-57-1	Dieldrin	200	U
72-55-9	4,4'-DDE	200	U
72-20-8	Endrin	200	U
33213-65-9	Endosulfan II	200	U
72-54-6	4,4'-DDD	200	U
1031-07-6	Endosulfan Sulfate	200	U
50-29-3	4,4'-DDT	200	U
72-43-5	Methoxychlor	200	U
53494-70-5	Endrin Ketone	200	U
5103-71-9	alpha-Chlordane	200	U
5103-74-2	gamma-Chlordane	200	U
8001-35-2	Toxaphene	2000	U
12674-11-2	Aroclor-1016	1000	U
11104-28-2	Aroclor-1221	1000	U
11141-16-5	Aroclor-1232	1000	U
53469-21-9	Aroclor-1242	1000	U
12672-29-6	Aroclor-1248	1000	U
11097-69-1	Aroclor-1254	2000	U
11096-82-5	Aroclor-1260	2000	U

*Judy Amador*  
12-22-88

PESTICIDE SAMPLE TABLE

EPA SAMPLE NUMBER

Lab Name: \_\_\_\_\_ VERSAR, INC.

Case No.: \_\_\_\_\_ SH 768

\_\_\_\_\_ PBLR95 \_\_\_\_\_

Lab Codes: \_\_\_\_\_ VERSAR

Contract: \_\_\_\_\_ C001296

Instrument ID: \_\_\_\_\_ 0

SRS No.: \_\_\_\_\_

Run Date: \_\_\_\_\_ 12/19/86

GC Column ID: \_\_\_\_\_ SA2250/SF2401

MATRIX IS: SOIL

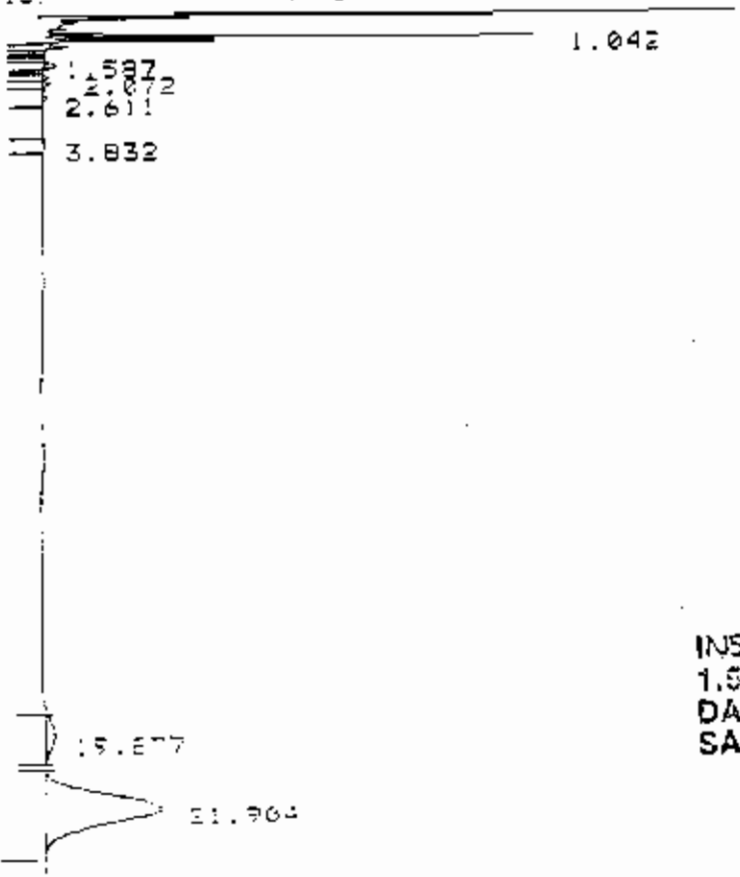
Inject Vol 2.00 (uL)

Window Width: \_\_\_\_\_ 1.0%

COMPOUND	RT WINDOW		SAMPLE		CALIB FACTOR =	NG INJECTED	INJECT VOLUME (uL)	INJECT CONC (ug/ml)	X DF	SAMPLE DETECTION	
	FROM	TO	RT	AREA						CONC (ug/kg)	LIMIT (ug/kg)
alpha-BHC	1.53	1.97	0.00	0	1905495	0.000	2.00	0.000	10000.00	0.00	100.00
beta-BHC	2.68	2.73	0.00	0	491770	0.000	2.00	0.000	10000.00	0.00	100.00
delta-BHC	3.10	3.16	0.00	0	1446260	0.000	2.00	0.000	10000.00	0.00	100.00
gamma-BHC	2.39	2.44	0.00	0	1504060	0.000	2.00	0.000	10000.00	0.00	100.00
Heptachlor	2.90	2.96	0.00	0	1298430	0.000	2.00	0.000	10000.00	0.00	100.00
Aldrin	3.46	3.53	0.00	0	1403480	0.000	2.00	0.000	10000.00	0.00	100.00
Hept. epoxide	5.08	5.18	0.00	0	1309555	0.000	2.00	0.000	10000.00	0.00	100.00
Endosulfan I	6.35	6.48	0.00	0	1188315	0.000	2.00	0.000	10000.00	0.00	100.00
Dieldrin	7.86	7.81	0.00	0	1320680	0.000	2.00	0.000	10000.00	0.00	200.00
1,4'-DDE	7.06	7.20	0.00	0	1074260	0.000	2.00	0.000	10000.00	0.00	200.00
Endrin	9.22	9.41	0.00	0	594675	0.000	2.00	0.000	10000.00	0.00	200.00
Endosulfan II	11.06	11.28	0.00	0	1173685	0.000	2.00	0.000	10000.00	0.00	200.00
1,4'-DDD	10.61	10.83	0.00	0	687710	0.000	2.00	0.000	10000.00	0.00	200.00
Endo. sulfate	17.49	17.84	0.00	0	788400	0.000	2.00	0.000	10000.00	0.00	200.00
1,4'-DDT	12.68	12.94	0.00	0	756880	0.000	2.00	0.000	10000.00	0.00	200.00
Methoxychlor	23.11	23.58	0.00	0	348099	0.000	2.00	0.000	10000.00	0.00	200.00
Endrin ketone	23.22	23.69	0.00	0	1184805	0.000	2.00	0.000	10000.00	0.00	200.00
alpha-Chlordane	6.06	6.18	0.00	0	1152020	0.000	2.00	0.000	10000.00	0.00	200.00
gamma-Chlordane	5.58	5.69	0.00	0	1163525	0.000	2.00	0.000	10000.00	0.00	200.00
Toxachene	12.26	12.50	0.00	0	187555	0.000	2.00	0.000	10000.00	0.00	2000.00
Aroclor-1015	2.21	2.25	0.00	0	149654	0.000	2.00	0.000	10000.00	0.00	1000.00
Aroclor-1221	1.50	1.54	0.00	0	47311	0.000	2.00	0.000	10000.00	0.00	1000.00
Aroclor-1232	3.52	3.60	0.00	0	63078	0.000	2.00	0.000	10000.00	0.00	1000.00
Aroclor-1242	4.07	4.15	0.00	0	95400	0.000	2.00	0.000	10000.00	0.00	1000.00
Aroclor-1246	5.93	6.05	0.00	0	164275	0.000	2.00	0.000	10000.00	0.00	1000.00
Aroclor-1254	11.02	11.24	0.00	0	207099	0.000	2.00	0.000	10000.00	0.00	2000.00
Aroclor-1260	16.87	17.21	0.00	0	283747	0.000	2.00	0.000	10000.00	0.00	2000.00
DGC	21.75	22.19	21.90	164278	1107845	0.148	2.00	0.074	10000.00	741.43	200.00

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%

105



INST ID NO 020 01  
1.5% SP2250 / 1.95% SP2401  
DATE 12/19/88 TIME 2250  
SAMPLE

PBLK96

TITLE: CLP PESTICIDES

22:50 19 DEC 88

CHANNEL NO: 3

SAMPLE: PBLK96

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	HI/2 (SEC)
1		25951	1.042		25951	BB	2.20
2		1645	1.233		1645	BB	2.90
3		2419	1.755		2419	VB	6.35
4		922	2.072		922	BV	5.50
5		1196	2.236		1196	VV	6.70
6	B-340 <i>off</i>	1413	2.611	-0.039	1413	VB	7.00
7		1046	3.832		1046	BB	? 11.95
8		12768	19.877		12768	BB	? 26.95
9	DEC	164278	21.964	0.104	164278	BB	? 51.85
TOTALS:		211638		0.065	211638		

DETECTED PKS: 11 REJECTED PKS: 2

DR: 1.00000 MULTIPLIER: 10000.0

NOISE: 37.6 OFFSET: -44

RACK: 2 VIAL: 4 INJ: 1

NOTES:

COL: 1.5% SP2250/1.75% SP240!  
AMT INJ 2UL/INST LETTER C  
INJECTION VOLUME 2 UL  
ORT: OUTSIDE RETENTION TIME WINDOW  
985.63 CASE 10984 B#: PESTICIDE MIDSOIL  
6015 CASE 94788 B#222 PESTICIDE MIDSOIL  
963.50 CASE 11060 B#: PESTICIDE WATERS

PESTICIDE SAMPLE TABLE

EPA SAMPLE NUMBER

Lab Name: \_\_\_\_\_ VERSAR, INC.

Case No.: \_\_\_\_\_ SH788

PLK96

Lab Code: \_\_\_\_\_ VERSAR

Contract: \_\_\_\_\_ C001298

Instrument ID: \_\_\_\_\_ M

SAS No.: \_\_\_\_\_

Run Date: \_\_\_\_\_ 12/22/88

GC Column ID: \_\_\_\_\_ DB-5

MATRIX IS: SOIL

Inject Vol 2.00 (uL)

Window Width: \_\_\_\_\_ 0.15%

COMPOUND	RT WINDOW		SAMPLE		CALIB FACTOR =	NG INJECTED	INJECT VOLUME (uL)	INJECT CONC (ug/ml)	X DF	SAMPLE DETECTION	
	FROM	TO	RT	AREA						CONC (ug/kg)	LIMIT (ug/kg)
alpha-BHC	3.30	3.32	0.00	0	4535	0.000	2.00	0.000	10000.00	0.00	100.00
beta-BHC	3.55	3.57	0.00	0	3433	0.000	2.00	0.000	10000.00	0.00	100.00
delta-BHC	3.95	3.97	0.00	0	3845	0.000	2.00	0.000	10000.00	0.00	100.00
gamma-BHC	3.68	3.70	0.00	0	4187	0.000	2.00	0.000	10000.00	0.00	100.00
Heptachlor	4.90	4.92	0.00	0	5360	0.000	2.00	0.000	10000.00	0.00	100.00
Aldrin	5.71	5.73	0.00	0	4559	0.000	2.00	0.000	10000.00	0.00	100.00
Hept. epoxide	6.79	6.81	0.00	0	5148	0.000	2.00	0.000	10000.00	0.00	100.00
Endosulfan I	8.12	8.14	0.00	0	4760	0.000	2.00	0.000	10000.00	0.00	100.00
Bieldrin	9.23	9.25	0.00	0	4141	0.000	2.00	0.000	10000.00	0.00	200.00
1,4'-DDE	8.98	9.00	0.00	0	3922	0.000	2.00	0.000	10000.00	0.00	200.00
Endrin	10.33	10.37	0.00	0	3502	0.000	2.00	0.000	10000.00	0.00	200.00
Endosulfan II	10.79	10.83	0.00	0	4317	0.000	2.00	0.000	10000.00	0.00	200.00
1,4'-DDD	11.24	11.28	0.00	0	2741	0.000	2.00	0.000	10000.00	0.00	200.00
Endo. sulfate	13.57	13.61	0.00	0	4143	0.000	2.00	0.000	10000.00	0.00	200.00
1,4'-DDT	13.91	13.95	0.00	0	2929	0.000	2.00	0.000	10000.00	0.00	200.00
Methoxychlor	19.79	19.85	0.00	0	1687	0.000	2.00	0.000	10000.00	0.00	200.00
Endrin ketone	17.49	17.55	0.00	0	4091	0.000	2.00	0.000	10000.00	0.00	200.00
1a. Chlordane	8.19	8.21	0.00	0	5911	0.000	2.00	0.000	10000.00	0.00	200.00
1g. Chlordane	7.60	7.62	0.00	0	5851	0.000	2.00	0.000	10000.00	0.00	200.00
Toxaphene	0.00	0.00	0.00	0	0	ERR	2.00	ERR	10000.00	0.00	2000.00
Aroclor-1016	0.00	0.00	0.00	0	0	ERR	2.00	ERR	10000.00	0.00	1000.00
Aroclor-1221	0.00	0.00	0.00	0	0	ERR	2.00	ERR	10000.00	0.00	1000.00
Aroclor-1232	0.00	0.00	0.00	0	0	ERR	2.00	ERR	10000.00	0.00	1000.00
Aroclor-1242	4.05	4.07	0.00	0	753	0.000	2.00	0.000	10000.00	0.00	1000.00
Aroclor-1248	0.00	0.00	0.00	0	0	ERR	2.00	ERR	10000.00	0.00	1000.00
Aroclor-1254	0.00	0.00	0.00	0	0	ERR	2.00	ERR	10000.00	0.00	2000.00
Aroclor-1260	0.00	0.00	0.00	0	0	ERR	2.00	ERR	10000.00	0.00	2000.00
DBC	24.61	24.69	24.66	684	3854	0.178	2.00	0.089	10000.00	887.62	200.00 HIT

Judy Amador  
12-22-88

22-Dec-88



RT: 14:36 DEC 22, 1988

RT: RTIN = 215

1.61

2.52  
3.08  
4.08  
5.08

6.90

12.46

20.38

23.46

24.15

24.66

INST ID NO<sup>m</sup> 2.0 ul  
DB-5 CAPILLARY  
DATE 12 / 22 / 88  
SAMPLE

TIME 1436

PBLK 96

RT: SIGNAL OFF → DEVICE# 1

HP 5890A SAMPLER INJECTION @ 14:36 DEC 22, 1988

SAMPLE # : ID CODE :

13 PBLK96

REF NOT FOUND

METHOD ABORTED

AREA %

RT	AREA	TYPE	WIDTH	HEIGHT	BASELINE	AREA %
0.00					BASELINE @ START RUN = 297.92	
0.00					THRESHOLD @ START RUN = 1	
0.00					PEAK WIDTH @ START RUN = 0.04	
0.00					RP: REJECT + 1	
0.00					RP: REPORT TOL + ON	
1.61	1475.78	BV	0.060*	388.02	308.74	45.308
1.82	26.82	VV	-----	10.59	307.75	0.823
1.86	39.58	VV	-----*	8.63	309.34	1.213
2.00	6.96	VB	-----	1.53	313.98	0.214
2.08	5.65	PB	-----*	1.69	315.35	0.173
2.19	2.21	VV	-----	0.69	315.12	0.068
2.28	10.51	VV	-----	7.61	313.11	0.566
2.34	16.42	VV	-----	2.86	311.65	0.584
2.52	151.43	VB	0.04	59.68	307.33	4.649
2.83	42.51	BP	0.067	10.00	299.91	1.385
3.09	3.38	BB	-----	1.59	298.28	0.101
3.25	22.69	PB	0.041	8.63	298.37	0.697
3.87	10.13	BB	-----	2.81	297.88	0.311
4.16	2.28	BB	-----	0.86	298.19	0.078
4.67	26.97	BB	0.048	8.83	298.68	0.828
5.00	58.92	BB	0.061	15.22	288.46	1.889
6.98	7.85	BB	0.057	2.15	298.88	0.241
12.46	63.43	BB	0.093	10.78	297.64	1.948
20.38	11.92	BB	0.128	1.46	297.31	0.366
23.46	48.13	BB	0.164	4.68	297.17	1.478
24.16	531.64	BV	0.206	40.34	297.42	16.322
24.66 DBC	584.15	VB	0.182	58.77	297.62	21.084

TOTAL AREA = 3257.21

MULTIPLIER = 1

**Versar<sub>INC</sub>**

MATRIX SPIKE DATA

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

100173800101MS

Lab Name: \_\_\_\_\_ VERSAR, INC. \_\_\_\_\_ Contract: C001298

Lab Code: VERSAR Case No.: SH788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) SOIL Lab Sample ID: \_\_\_61640MS

Sample wt/vol: 0.99 (g/ml) G Lab File ID: \_\_\_\_\_

Level: (low/med) MED Date Received: \_\_\_11/18/88

% Moisture: not dec. 28 dec. \_\_\_\_\_ Date Extracted: \_\_\_11/28/88

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_SONC Date Analyzed: \_\_\_12/22/88

GPC Cleanup: (Y/N)N pH: \_\_\_7 Dilution Factor: \_ 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	140	U
319-85-7	beta-BHC	140	U
319-86-8	delta-BHC	140	U
56-89-9	gamma-BHC (Lindane)	140	U
76-44-8	Heptachlor	140	U
309-00-2	Aldrin	140	U
1024-57-3	Heptachlor Epoxide	1100	
959-98-8	Endosulfan I	140	U
60-57-1	Dieldrin	280	U
72-55-9	4,4'-DDE	280	U
72-20-8	Endrin	280	U
33213-65-9	Endosulfan II	860	
72-54-8	4,4'-DDD	280	U
1031-07-8	Endosulfan Sulfate	280	U
50-29-3	4,4'-DDT	280	U
72-43-5	Methoxychlor	280	U
53494-70-5	Endrin Ketone	280	U
5103-71-9	alpha-Chlordane	280	U
5103-74-2	gamma-Chlordane	280	U
8001-35-2	Toxaphene	2800	U
12674-11-2	Aroclor-1016	1400	U
11104-28-2	Aroclor-1221	1400	U
11141-16-5	Aroclor-1232	1400	U
53469-21-9	Aroclor-1242	49000	
12672-29-6	Aroclor-1248	1400	U
11097-69-1	Aroclor-1254	2800	U
11096-82-5	Aroclor-1260	2800	U

*Judy Amador*

12-22-88

PESTICIDE SAMPLE TABLE

SAR SAMPLE NUMBER: \_\_\_\_\_ Lab Name: \_\_\_\_\_ VERBA, J.A. Case No.: \_\_\_\_\_ Sh 762  
 Lab Code: \_\_\_\_\_ VERBA Contract: \_\_\_\_\_ D031255  
 Instrument ID: \_\_\_\_\_ SAS No.: \_\_\_\_\_  
 Run Date: \_\_\_\_\_ 12/15/88 EC Label ID: \_\_\_\_\_ SP2250/SP2401  
 MATR: IS: 5001 Inject Vol: 2.00 (ul) Window Width: 1.00

COMPOUND	RT WINDOW		SAMPLE		CALIB FACTOR	NO INJECTED	INJECT VOLUME (ul)	INJECT CONC (ug/ml)	X DF	SAMPLE DETECTION	
	FROM	TO	RT	AREA						CONC (ug/kg)	LIMIT (ug/kg)
alpha-BHC	1.53	1.57	0.00	0	1906498	0.000	2.00	0.000	13970.97	0.00	139.71
beta-BHC	2.58	2.72	0.00	0	491770	0.000	2.00	0.000	13970.97	0.00	139.71
gamma-BHC	3.10	3.18	0.00	0	1446260	0.000	2.00	0.000	13970.97	0.00	139.71
delta-BHC	2.35	2.44	2.41	1228850	1504060	0.817	2.00	0.405	13970.97	15707.29	139.71 (HIT)
Heptachlor	2.50	2.56	2.92	1344700	1258430	1.036	2.00	0.516	13970.97	17234.41	139.71 (HIT)
Aldrin	3.45	3.52	3.50	1380020	1403480	0.983	2.00	0.492	13970.97	16856.72	139.71 (HIT)
Hept. epoxide	5.08	5.16	5.13	214183	1399555	0.164	2.00	0.062	13970.97	1142.30	139.71 (HIT)
Endosulfan I	6.35	6.45	0.00	0	1186315	0.000	2.00	0.000	13970.97	0.00	139.71
Dieldrin	7.66	7.81	7.73	2405150	1320580	1.822	2.00	0.911	13970.97	112726.5	279.42 (HIT)
4,4'-DDE	7.06	7.20	0.00	0	1074260	0.000	2.00	0.000	13970.97	0.00	279.42
Endrin	9.23	9.41	9.29	694575	594675	1.505	2.00	0.752	13970.97	10513.0	279.42 (HIT)
Endosulfan II	11.06	11.38	11.15	145075	1173685	0.124	2.00	0.062	13970.97	863.33	279.42 (HIT)
4,4'-DDD	10.61	10.83	0.00	0	867710	0.000	2.00	0.000	13970.97	0.00	279.42
Endo. sulfate	17.49	17.84	0.00	0	788400	0.000	2.00	0.000	13970.97	0.00	279.42
4,4'-DDT	12.68	12.94	12.77	949437	756880	1.251	2.00	0.626	13970.97	8733.56	279.42 (HIT)
Methoxychlor	23.11	23.56	0.00	0	348090	0.000	2.00	0.000	13970.97	0.00	279.42
Endrin ketone	23.22	23.69	23.27	21240	1134805	0.018	2.00	0.009	13970.97	125.23	279.42 (HIT)
alpha-Chlorobenzene	6.05	6.16	0.00	0	1152020	0.000	2.00	0.000	13970.97	0.00	279.42
gamma-Chlorobenzene	5.58	5.65	0.00	0	1163225	0.000	2.00	0.000	13970.97	0.00	279.42
Gamma-hexachlorocyclopentadiene	12.35	12.50	0.00	0	187555	0.000	2.00	0.000	13970.97	0.00	2794.15
Aroclor-1016	2.21	2.25	0.00	0	145654	0.000	2.00	0.000	13970.97	0.00	1397.10
Aroclor-1221	1.50	1.54	0.00	0	47311	0.000	2.00	0.000	13970.97	0.00	1397.10
Aroclor-1236	3.32	3.60	0.00	0	63078	0.000	2.00	0.000	13970.97	0.00	1397.10
Aroclor-1242	4.81	4.90	4.83	718577	191535	7.078	2.00	3.529	13970.97	49444	1397.10 (HIT)
Aroclor-1248	5.90	6.05	0.00	0	164275	0.000	2.00	0.000	13970.97	0.00	1397.10
Aroclor-1254	11.05	11.24	0.00	0	207095	0.000	2.00	0.000	13970.97	0.00	2794.15
Aroclor-1260	16.87	17.21	0.00	0	283747	0.000	2.00	0.000	13970.97	0.00	2794.15
DEED	21.75	22.15	21.91	191055	1107845	0.172	2.00	0.086	13970.97	11204.63	279.42 (HIT)

*A. B. ...*  
 12/15/88

PCP SAMPLE TABLE

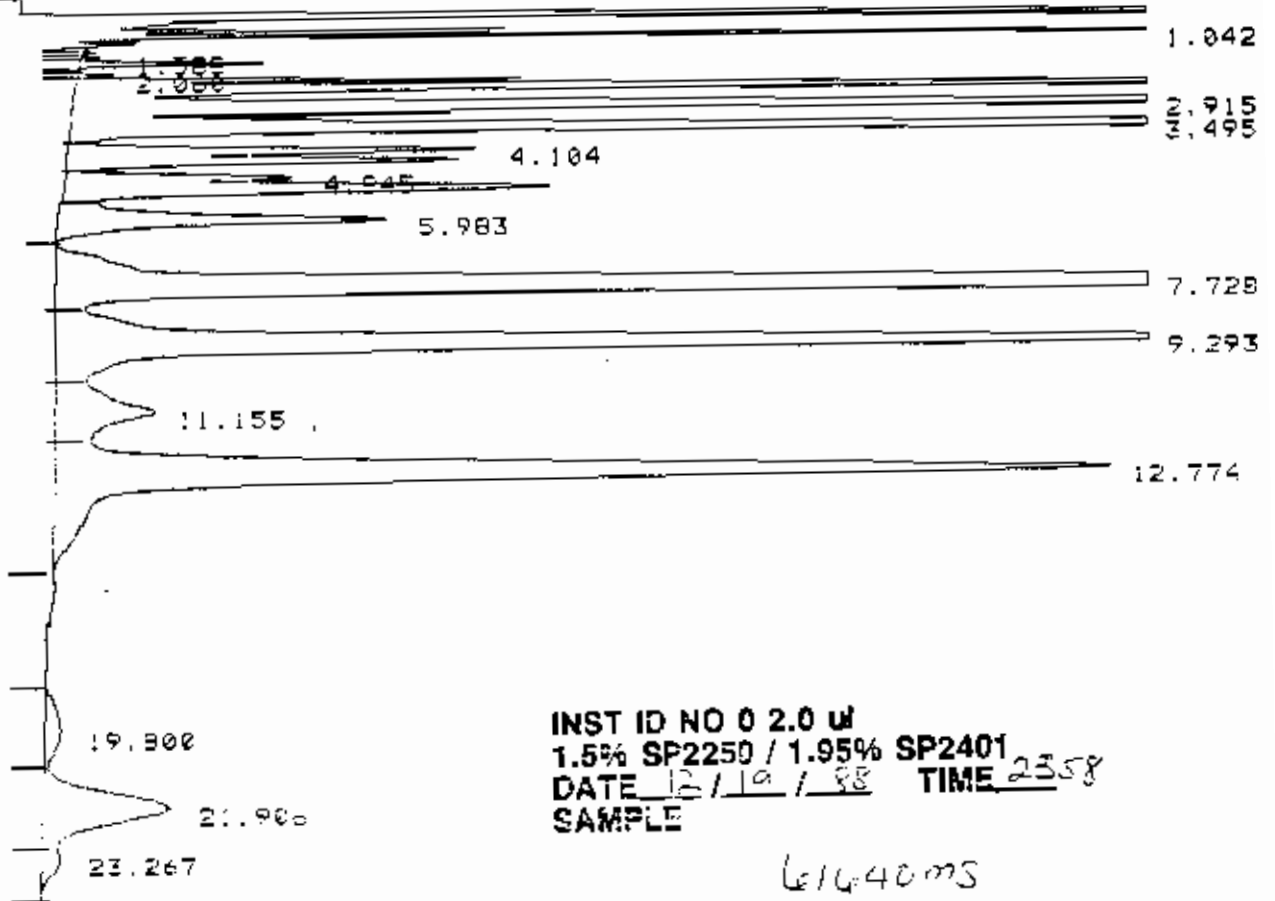
EPA SAMPLE NUMBER: \_\_\_\_\_ Lab Name: \_\_\_\_\_ VERBAAK, LTD. Case No.: \_\_\_\_\_ 54-703  
 \_\_\_\_\_ Lab Code: \_\_\_\_\_ VERBAAK Contract: \_\_\_\_\_ CDD01256  
 \_\_\_\_\_ Instrument ID: \_\_\_\_\_ 0 SAG No.: \_\_\_\_\_  
 VERSAAR 8164000 Run Date: \_\_\_\_\_ 12/15/88 GC Column ID: \_\_\_\_\_ SRE25/S02401  
 MATRX IS-501 Inject Vol: \_\_\_\_\_ 5.00 (uL) Window Width: \_\_\_\_\_ 1.0%

MULTI-COMPONENT ANALYTE	RT WINDOW FROM TO	SAMPLE RETENTION TIMES	SAMPLE AREA	AREA SUM	CP. FAC.	INJECTED	INJECT VOL (uL)	INJECT CONC (ug/ml)	x DF	SAMPLE CONC (ug/l)	DETECTION LIMIT (ug/l)
	4.44 : 4.53	0.00	0								
	7.55 : 7.73	0.00	0	0							
Toxaphene	11.55 : 12.50	0.00	0			0.0	2.0	0.00	13370.97	0.00	0.00
	12.15 : 13.40	0.00	0								
	12.54 : 13.32	0.00	0	137335							
	1.93 : 1.95	0.00	0								
	1.77 : 1.80	0.00	0	0							
Propolon-1015	2.20 : 2.26	0.00	0			0.0	2.0	0.00	13370.97	0.00	0.00
	2.52 : 2.55	0.00	0								
	3.07 : 3.13	0.00	0	145654							
	1.13 : 1.15	0.00	0								
	1.35 : 1.36	0.00	0	0							
Propolon-1221	1.50 : 1.53	0.00	0			0.0	2.0	0.00	13370.97	0.00	0.00
	1.62 : 1.65	0.00	0								
	1.81 : 1.82	0.00	0	47311							
	2.55 : 2.64	0.00	0								
	3.31 : 3.38	0.00	0	0							
Propolon-1232	3.52 : 3.55	0.00	0			0.0	2.0	0.00	13370.97	0.00	0.00
	4.11 : 4.20	0.00	0								
	4.38 : 4.47	0.00	0	53078							
	4.07 : 4.15	4.10	103844								
	4.34 : 4.42	4.39	131047	715577							
Propolon-1242	4.60 : 4.90	4.85	58421			7.1	2.0	3.54	13370.97	49444.10	1357.10
	5.00 : 5.10	5.13	214182								
	5.53 : 6.05	5.58	181182	101535							

*C. [Signature]*  
12/21/88

110

CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



39

TITLE: CLP PESTICIDES

23:58 19 DEC 88

CHANNEL NO: 3

SAMPLE: 6:640MS

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W: (SEC)
1		140161	1.042		140161	BB	2.60
2		2823	1.233		2823	BB	2.65
3		1263	1.465		1263	BV	3.65
4		1945	1.538		1945	VV	3.55
5		25578	1.779		25578	VV	4.70
6		4217	2.060		4217	VV	4.20
7		61978	2.228		61978	VV	5.25
8	G-BHC	1228850	2.412	0.042	1228850	VV	4.60
9	HEPTACHLOR	1344700	2.915	0.035	1344700	VV	5.35
10	B-BHC <i>GLT</i>	5109	3.079	0.009	5109	T	9.80
11	ALDRIN	1380020	3.495	0.015	1380020	VV	5.65
12		123844	4.104		123844	VV	? 11.95
13		131047	4.388		131047	VV	? 12.35
14		68421	4.845		68421	VV	? 11.70
15	HEPT EPOX	214183	5.127	0.017	214183	VV	? 15.85
16	P-CHLORDAN <i>GLT</i>	181182	5.983	-0.057	181182	VV	? 15.70
17	DIELDRIN	2406150	7.728	0.018	2406150	VV	10.55
18	ENDRIN	894975	9.293	0.113	894975	VV	20.25
19	B-ENDOSULF	145079	11.155	0.235	145079	VV	? 43.55
20	DDT	949437	12.774	0.004	949437	VB	26.35
		32505	19.800		32505	BV	? 78.45
	DBC	191055	21.906	0.106	191055	VV	52.40
25	END KETONE	21240	23.267	0.047	21240	VB	? 47.75

TOTALS: 9555760 0.384 9555760

DETECTED PKS: 24 REJECTED PKS: 1

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 37.6 OFFSET: -25

RACK: 2 VIAL: 7 INJ: 1

NOTES:  
 COL: 1.5% SP2250/1.5% SP2401  
 ANT AND BUL INLET LETTER C  
 INJECTION VOLUME 2 L  
 ORT= OUTSIDE RETENTION TIME WINDOW  
 965.88 CASE 10584 B#1 PESTICIDE MIDSOIL  
 8016 CASE 84786 B#283 PESTICIDE MIDSOIL  
 965.80 CASE 11040 B#1 PESTICIDE WATERS

111



PESTICIDE SAMPLE TABLE

EPA SAMPLE NUMBER

Lab Name: \_\_\_\_\_ VERSAR, INC.

Case No.: \_\_\_\_\_ SH788

00173900101MS

Lab Code: \_\_\_\_\_ VERSAR

Contract: \_\_\_\_\_ D001298

VERSAR ID# 61640MS

Instrument ID: \_\_\_\_\_ M

SAS No.: \_\_\_\_\_

MATRIX IS: SOIL

Run Date: \_\_\_\_\_ 12/22/88

GC Column ID: \_\_\_\_\_ BR-5

Inject Vol 2.00 (uL)

Window Width: \_\_\_\_\_ 0.15%

COMPOUND	RT WINDOW		SAMPLE		/ CALIB FACTOR =	NG INJECTED	INJECT VOLUME (uL)	INJECT CONC (ug/ml)	X DF	I= SAMPLE CONC (ug/kg)	DETECTION LIMIT (ug/kg)
	FROM	TO	RT	AREA							
alpha-BHC	3.30	3.32	0.00	0	4525	0.000	2.00	0.000	13970.97	0.00	139.71
beta-BHC	3.55	3.57	0.00	0	3433	0.000	2.00	0.000	13970.97	0.00	139.71
delta-BHC	3.95	3.97	0.00	0	3845	0.000	2.00	0.000	13970.97	0.00	139.71
gamma-BHC	3.68	3.70	3.69	1751	4187	0.418	2.00	0.209	13970.97	2922.40	139.71 HIT
Heptachlor	4.90	4.92	4.91	2854	5360	0.533	2.00	0.266	13970.97	3719.97	139.71 HIT
Aldrin	5.71	5.73	5.72	3555	4559	0.780	2.00	0.390	13970.97	15446.32	139.71 HIT
Hept. epoxide	6.79	6.81	6.81	1077	5148	0.209	2.00	0.105	13970.97	11462.07	139.71 HIT
Endosulfan I	8.12	8.14	0.00	0	4760	0.000	2.00	0.000	13970.97	0.00	139.71
Dieldrin	9.23	9.25	9.25	4611	4141	1.113	2.00	0.557	13970.97	17778.11	279.42 HIT
1,4'-DDE	8.98	9.00	0.00	0	3922	0.000	2.00	0.000	13970.97	0.00	279.42
Endrin	10.33	10.37	10.35	4222	3502	1.206	2.00	0.603	13970.97	18421.60	279.42 HIT
Endosulfan II	10.79	10.83	10.81	600	4317	0.139	2.00	0.070	13970.97	971.41	279.42 HIT
1,4'-DDD	11.24	11.28	0.00	0	2741	0.000	2.00	0.000	13970.97	0.00	279.42
Endo. sulfate	13.57	13.61	0.00	0	4143	0.000	2.00	0.000	13970.97	0.00	279.42
1,4'-DDT	13.91	13.95	13.93	3431	2929	1.171	2.00	0.586	13970.97	18182.52	279.42 HIT
Methoxychlor	19.79	19.85	0.00	0	1687	0.000	2.00	0.000	13970.97	0.00	279.42
Endrin ketone	17.49	17.55	0.00	0	4091	0.000	2.00	0.000	13970.97	0.00	279.42
1a. Chlordane	8.19	8.21	0.00	0	5911	0.000	2.00	0.000	13970.97	0.00	279.42
1p. Chlordane	7.60	7.62	0.00	0	5851	0.000	2.00	0.000	13970.97	0.00	279.42
Toxaphene	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	2794.19
Aroclor-1016	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	1397.10
Aroclor-1221	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	1397.10
Aroclor-1232	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	1397.10
Aroclor-1242	4.05	4.07	4.06	5897	753	7.831	2.00	3.916	13970.97	54706	1397.10 HIT
Aroclor-1248	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	1397.10
Aroclor-1254	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	2794.19
Aroclor-1260	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	2794.19
DBC	24.61	24.69	24.65	729	3854	0.189	2.00	0.095	13970.97	11321.49	279.42 HIT

Judy Amador  
12-22-88  
22-Dec-88

PCB SAMPLE TABLE

EPA SAMPLE NUMBER

Lab Name: \_\_\_\_\_ VERSAR, INC.

Case No.: \_\_\_\_\_ 51788

00173800101MS

Lab Code: \_\_\_\_\_ VERSAR

Contract: \_\_\_\_\_ C001298

VERSAR ID# 61640MS

Instrument ID: \_\_\_\_\_ M

SAS No.: \_\_\_\_\_

MATRIX IS:SDIL

Run Date: \_\_\_\_\_ 12/22/88

GC Column ID: \_\_\_\_\_ DB-5

Inject Vol: 2.00 (uL)

Window Width: \_\_\_\_\_ 0.15X

MULTI-COMPONENT ANALYTE	RT WINDOW FROM	RT WINDOW TO	SAMPLE RETENTION TIMES	SAMPLE AREA	AREA SUM	% INJECTED	INJ VOL (uL)	INJECT CONC (ug/ml)	X DF	SAMPLE CONC (ug/l)	DETECTION LIMIT (ug/l)
	3.26	3.28	3.27	244							
	3.76	3.78	3.77	896	5897						
Aroclor-1242	4.05	4.07	4.06	551		7.8	2.0	3.92	13970.97	154729.61	1397.10
	5.27	5.29	5.28	649							
	5.68	5.70	* 5.72	3555	753						
	0.00	0.00	0.00	0							
	0.00	0.00	0.00	0	0						
	0.00	0.00	0.00	0		0.0	2.0	0.00	13970.97	0.00	0.00
	0.00	0.00	0.00	0	0						
	0.00	0.00	0.00	0	0						
	0.00	0.00	0.00	0		0.0	2.0	0.00	13970.97	0.00	0.00
	0.00	0.00	0.00	0	0						
	0.00	0.00	0.00	0	0						
	0.00	0.00	0.00	0		0.0	2.0	0.00	13970.97	0.00	0.00
	0.00	0.00	0.00	0	0						
	0.00	0.00	0.00	0	0						
	0.00	0.00	0.00	0		0.0	2.0	0.00	13970.97	0.00	0.00
	0.00	0.00	0.00	0	0						
	0.00	0.00	0.00	0	0						
	0.00	0.00	0.00	0		0.0	2.0	0.00	13970.97	0.00	0.00
	0.00	0.00	0.00	0	0						
	0.00	0.00	0.00	0	0						

\* - Outside Rt Window

Judy Amador  
12-22-88  
22-Dec-88

RT: 15:42 DEC 22, 1988  
RT: RITH = 275

1.67
2.53
3.27
3.69
4.50
4.91
5.72
6.71
6.91
7.57
8.71
8.94
9.25
10.35
12.50
13.92

20.57  
21.53  
22.30  
23.46  
34.16  
24.65  
25.42  
26.94  
RT: SIGNAL OFF → DEVICE# 1

INST ID NO<sup>m</sup> 2.0 ul  
DB-5 CAPILLARY  
DATE 12/22/88 TIME 1542  
SAMPLE 61640ms

100

DOWELL & SONS LTD  
 6164840  
 217, 218, 219, 220  
 METHOD ADAPTED  
 AREA 1

FF	DEPT	TYPE	WIDTH	HEIGHT	BASELINE	OPER 2
0.00					BASELINE 9 DEPT RUN = 295.93	
0.00					THRESHOLD & CLIP WIDTH = 1	
0.00					PERF WIDTH & START RUN = 0.94	
0.00					PERF HEIGHT = 1	
0.00					PERF OFFSET IN = 0.00	
1.51	1802.87	BY	-----	167.72	295.17	3.483
1.77	1477.41	VV	-----	128.97	294.86	3.333
1.87	2011.47	VV	-----	170.17	295.82	3.921
1.95	1.00	VV	-----	28.04	295.85	0.147
1.97	144.18	VV	-----	14.17	295.59	0.290
2.17	104.74	VV	-----	18.25	297.09	0.790
2.17	41.30	VV	-----	20.35	297.17	0.191
2.29	130.77	VV	-----	45.03	295.02	0.787
2.76	57.30	VV	-----	21.94	294.82	0.211
2.82	21.75	VV	-----	23.65	294.77	0.194
2.92	700.90	VV	0.841	299.82	294.98	1.953
2.94	44.87	VV	-----	18.77	294.29	0.138
2.97	170.74	VV	-----	25.87	294.94	0.279
2.99	474.21	VV	-----	37.14	297.36	0.171
3.09	21.90	VV	0.840	4.03	297.67	0.940
3.28	31.27	VV	-----	13.73	293.74	0.463
3.47	741.64	VV	-----	91.82	294.16	0.450
3.74	53.23	VV	-----	18.79	294.63	0.186
3.84	58.75	VV	0.845	13.11	292.66	0.113
4.07 G-BMC	1751.00	VV	0.437	745.12	295.11	3.928
4.17	493.20	VV	-----	116.06	295.71	1.905
4.90	70.63	VV	-----	29.87	295.69	0.174
4.8a	571.28	VV	0.857	158.79	296.03	1.199
4.71	145.84	VV	-----	49.77	296.96	0.281
4.77	74.29	VV	-----	27.58	296.78	0.153
4.89	1674.80	VV	-----	171.75	297.11	2.588
4.93	821.79	VV	0.847	224.84	297.79	1.652
4.91	2904.23	VV	0.862	725.41	298.12	5.778
5.17	71.00	VV	-----	21.52	298.53	0.142
5.17	993.88	VV	0.859	794.17	298.76	1.782
5.24	649.94	VV	-----	186.05	297.85	1.284
5.29	997.44	VV	-----	117.85	298.25	1.201
5.38	10.74	VV	-----	5.44	298.82	0.040
5.40	3751.27	VV	0.873	743.52	300.14	7.244
6.03	1051.79	VV	-----	194.71	300.91	2.114
6.16	33.29	VV	-----	9.42	301.27	0.067
6.28	280.81	VV	0.861	71.58	301.51	0.764
6.41	52.31	VV	-----	12.48	301.82	0.186
6.54	137.87	VV	-----	25.67	302.16	0.275
6.71	511.67	VV	-----	147.07	302.58	1.860
6.81	1877.46	VV	-----	277.91	302.91	2.162
6.71	745.30	VV	-----	426.29	303.06	5.980
7.24	157.97	VV	-----	25.55	302.90	0.317
7.97	1852.31	VV	0.872	209.44	304.14	2.123
7.77	695.55	VV	0.877	123.83	303.81	1.237
8.80	247.42	VV	0.871	55.85	303.48	0.301
8.27	12.19	VV	-----	9.84	303.13	0.074
9.44	36.87	VV	0.864	4.85	302.74	0.141
9.71	214.38	VV	0.876	44.14	302.27	0.431
9.84	275.55	VV	0.880	51.68	302.64	0.334
11.29	4616.07	VV	0.871	1022.72	303.16	3.267
11.41	638.19	VV	-----	119.19	303.42	1.283
11.97	12.81	VV	-----	2.92	303.36	0.024
10.01	167.28	VV	0.893	11.33	302.79	0.336
10.35	4221.77	VV	0.874	832.29	301.89	4.494
10.81	600.75	VV	-----	75.57	301.27	1.296
11.27	85.41	VV	-----	6.25	300.62	0.111
11.51	56.78	VV	-----	10.59	300.31	0.174
11.63	21.94	VV	-----	3.62	300.15	0.044
11.89	28.14	VV	-----	4.10	299.96	0.057
11.93	23.64	VV	-----	3.95	299.74	0.049
12.27	194.91	VV	-----	15.98	299.33	0.213
12.99	470.77	VV	0.13	57.15	299.96	0.444
13.13	32.94	VV	-----	3.16	299.08	0.061
13.29	14.49	VV	-----	2.49	299.53	0.032
13.69	43.72	VV	-----	6.99	299.38	0.082
13.92	2458.88	VV	0.899	845.97	299.91	3.895
14.27	708.94	VV	-----	24.71	299.51	0.781
14.51	54.91	VV	-----	5.71	299.72	0.118
14.76	2.25	VV	-----	0.68	300.79	0.005
14.94	44.84	VV	-----	4.81	301.18	0.098
15.28	7.73	VV	-----	0.93	300.49	0.030
15.37	38.47	VV	0.117	4.71	300.52	0.071
16.24	77.71	VV	-----	2.71	300.24	0.069
16.42	9.42	VV	-----	0.76	300.14	0.009
16.74	48.17	VV	0.139	5.14	300.07	0.071
17.07	7.41	VV	-----	0.81	299.93	0.013
17.92	116.94	VV	0.174	14.72	299.62	0.274
18.07	12.74	VV	0.112	3.89	299.74	0.056
18.61	14.08	VV	-----	1.70	299.49	0.029
19.80	9.08	VV	-----	1.14	299.18	0.019
19.25	71.15	VV	-----	2.95	299.07	0.067
20.37	40.40	VV	0.194	5.77	298.89	0.137
21.39	78.76	VV	0.131	7.52	299.16	0.146
21.64	14.12	VV	-----	1.64	299.85	0.028
21.90	15.32	VV	-----	1.74	299.75	0.027
21.48	5.122	VV	0.190	5.57	299.39	0.113
21.16	327.59	VV	-----	23.11	298.36	0.478
21.65	723.86	VV	0.194	62.86	298.22	1.465
22.42	71.81	VV	-----	3.41	298.20	0.144
26.97	58.36	VV	-----	1.66	297.52	0.036
27.14	31.98	VV	-----	2.78	297.97	0.078
27.76	27.84	VV	-----	2.45	297.95	0.058

TOTAL DEPT = 49758.29  
 MIN THRESHOLD = 1

**Versar**<sub>INC.</sub>

MATRIX SPIKE DUPLICATE DATA

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

100173800101MSD

Lab Name: \_\_\_\_\_ VEH SAR, INC. \_\_\_\_\_ Contract: COO1298

Lab Code: VERSAR Case No.: SH788 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water)SOIL Lab Sample ID: \_\_\_61840MSD

Sample wt/vol: 0.99 (g/ml) G Lab File ID: \_\_\_\_\_

Level: (low/med) MED Date Received: \_\_\_11/18/88

% Moisture: not dec. 28 dec. \_\_\_\_\_ Date Extracted: \_\_\_11/28/88

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_SONC Date Analyzed: \_\_\_12/22/88

GPC Cleanup: (Y/R)N pH: \_\_\_7 Dilution Factor: \_ 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)_UG/KG	Q
319-84-6	alpha-BHC	140	U
319-85-7	beta-BHC	140	U
319-86-8	delta-BHC	140	U
58-89-9	gamma-BHC (Lindane)	140	U
76-44-8	Heptachlor	140	U
309-00-2	Aldrin	140	U
1024-57-3	Heptachlor Epoxide	650	
959-98-8	Endosulfan I	140	U
60-57-1	Dieldrin	280	U
72-55-9	4,4'-DOE	280	U
72-20-8	Endrin	280	U
33213-65-9	Endosulfan II	720	
72-54-8	4,4'-DDD	280	U
1031-07-8	Endosulfan Sulfate	280	U
50-29-3	4,4'-DDT	280	U
72-43-5	Methoxychlor	280	U
53494-70-5	Endrin Ketone	280	U
5103-71-9	alpha-Chlordane	280	U
5103-74-2	gamma-Chlordane	280	U
8001-35-2	Toxaphene	2800	U
12674-11-2	Aroclor-1016	1400	U
11104-28-2	Aroclor-1221	1400	U
11141-16-5	Aroclor-1232	1400	U
53469-21-9	Aroclor-1242	26000	
12672-29-6	Aroclor-1248	1400	U
11097-69-1	Aroclor-1254	2800	U
11096-82-5	Aroclor-1260	2800	U

*Judy Amador*  
12-22-88

PESTICIDE SAMPLE TABLE

ERR SAMPLE NUMBER: \_\_\_\_\_ Lab Name: \_\_\_\_\_ VERBA, Inc. Case No.: \_\_\_\_\_ Sh 706  
 Lab Code: \_\_\_\_\_ VERBA Contract: \_\_\_\_\_ 1001258  
 Instrument ID: \_\_\_\_\_ 2 S/N No.: \_\_\_\_\_  
 Run Date: \_\_\_\_\_ 12/21/02 GC Column ID: \_\_\_\_\_ 502250/502401  
 Inject Vol: \_\_\_\_\_ 2.00 µL Window Width: \_\_\_\_\_ 1.00

COMPOUND	RT WINDOW		SAMPLE		/ ORTR FACTOR =	NG INJECTED	INJECT VOLUME (µL)	INJECT CONC (µg/µL)	X OF	SAMPLE DETECTION	
	FROM	TO	RT	AREA						CONC (µg/kg)	LIMIT (µg/kg)
alpha-BHC	1.95	1.97	0.00	0	1955495	0.000	2.00	0.000	13970.97	0.00	139.71
beta-BHC	2.68	2.73	0.00	0	491779	0.000	2.00	0.000	13970.97	0.00	139.71
gamma-BHC	3.10	3.16	0.00	0	1446260	0.000	2.00	0.000	13970.97	0.00	139.71
delta-BHC	2.35	2.44	2.41	1020330	1504650	0.576	2.00	0.339	13970.97	14756.84	139.71
Mentachlor	2.90	2.95	2.92	869245	1236430	0.665	2.00	0.341	13970.97	14764.11	139.71
linalyl acetate	3.46	3.53	3.45	956765	1403460	0.662	2.00	0.341	13970.97	14762.05	139.71
Hexachlorocyclopentadiene	5.06	5.16	5.12	121335	130355	0.053	2.00	0.045	13970.97	847.51	139.71
Endosulfan I	6.35	6.46	6.40	0	1188315	0.000	2.00	0.000	13970.97	0.00	139.71
Dieldrin	7.55	7.81	7.71	1605300	1320680	1.367	2.00	0.683	13970.97	19546.79	279.42
4,4'-DDE	7.05	7.20	7.10	0	1074260	0.000	2.00	0.000	13970.97	0.00	279.42
Endrin	9.22	9.41	9.27	770685	594672	1.295	2.00	0.648	13970.97	19055.42	279.42
Endosulfan II	11.06	11.26	11.12	121510	1173825	0.104	2.00	0.052	13970.97	724.85	279.42
4,4'-DDD	10.51	10.82	10.60	0	687710	0.000	2.00	0.000	13970.97	0.00	279.42
Endosulfate	17.45	17.84	17.60	0	762400	0.000	2.00	0.000	13970.97	0.00	279.42
4,4'-DDT	18.62	18.94	18.74	851355	758880	1.132	2.00	0.568	13970.97	7929.13	279.42
Methoxychlor	23.11	23.58	23.30	0	346090	0.000	2.00	0.000	13970.97	0.00	279.42
Endrin ketone	23.22	23.65	23.22	21625	1164805	0.018	2.00	0.009	13970.97	127.85	279.42
o, p, DDT	5.55	5.15	5.00	0	1152030	0.000	2.00	0.000	13970.97	0.00	279.42
p, p' DDT	3.58	3.89	3.70	0	1153225	0.000	2.00	0.000	13970.97	0.00	279.42
Toxaphene	12.25	12.50	12.30	0	187555	0.000	2.00	0.000	13970.97	0.00	279.42
Prochloraz	2.21	2.25	2.23	0	145654	0.000	2.00	0.000	13970.97	0.00	1397.10
Prochloraz	1.50	1.54	1.52	0	47311	0.000	2.00	0.000	13970.97	0.00	1397.10
Prochloraz	3.52	3.60	3.56	0	62078	0.000	2.00	0.000	13970.97	0.00	1397.10
Prochloraz	4.89	4.90	4.84	374303	101535	3.585	2.00	1.648	13970.97	25752	1397.10
Prochloraz	5.53	5.05	5.20	0	154275	0.000	2.00	0.000	13970.97	0.00	1397.10
Prochloraz	11.02	11.24	11.10	0	207055	0.000	2.00	0.000	13970.97	0.00	2794.19
Prochloraz	16.67	17.21	16.90	0	263747	0.000	2.00	0.000	13970.97	0.00	2794.19
DDT	21.75	22.19	21.84	183233	1107945	0.163	2.00	0.063	13970.97	11155.37	279.42

*C. Smith*  
12/21/02

SEE SAMPLE TABLE

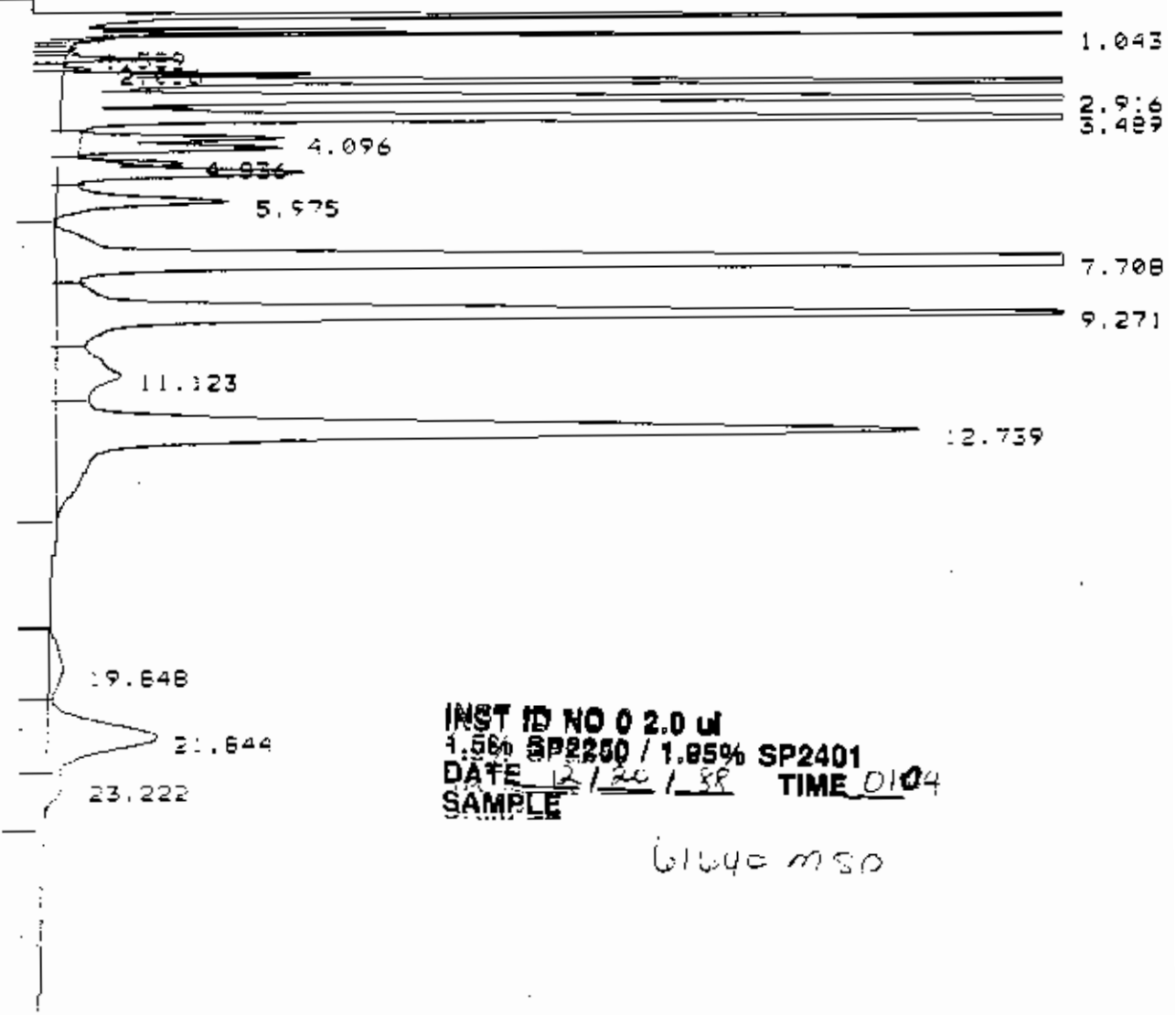
EPA SAMPLE NUMBER: \_\_\_\_\_ Lab Name: \_\_\_\_\_ VERSAR, INC. Case No.: \_\_\_\_\_ S# 752  
 \_\_\_\_\_ Lab Code: \_\_\_\_\_ VERSAR Contract: \_\_\_\_\_ D001256  
 ID: 73890 0156 Instrument ID: \_\_\_\_\_ SRS No.: \_\_\_\_\_  
 VERSAR# 2154053 Run Date: \_\_\_\_\_ 12/20/88 GC Column ID: \_\_\_\_\_ SP2250/SP2401  
 MATRIX IS: SOIL Inject Vol: 2.00 (ul) Window Width: \_\_\_\_\_ 1.00

MULTI- COMPONENT ANALYTE	RT WINDOW FROM TO	SAMPLE RETENTION TIMES	AREA SUM SAMPLE AREA	% CAL. FAC.	INJ NO INJECTED	INJ VOL (ul)	INJECT CONC (ug/ml)	DF	SAMPLE CONC (ug/l)	DETECTION LIMIT (ug/l)
	4.44 : 4.53	0.00	0							
	7.58 : 7.73	0.00	0	0						
Toxaphene	12.16 : 12.31	0.00	0		0.0	2.0	0.00	13970.97	0.00	0.00
	13.18 : 13.36	0.00	0							
	15.84 : 15.92	0.00	0	187553						
	1.03 : 1.11	0.00	0							
	1.77 : 1.81	0.00	0	0						
Proclor-1015	2.27 : 2.36	0.00	0		0.0	2.0	0.00	13970.97	0.00	0.00
	2.62 : 2.65	0.00	0							
	3.07 : 3.13	0.00	0	149674						
	1.13 : 1.15	0.00	0							
	1.35 : 1.36	0.00	0	0						
Proclor-1221	1.50 : 1.53	0.00	0		0.0	2.0	0.00	13970.97	0.00	0.00
	1.62 : 1.65	0.00	0							
	1.81 : 1.85	0.00	0	47311						
	2.25 : 2.34	0.00	0							
	3.31 : 3.36	0.00	0	0						
Proclor-1232	3.52 : 3.55	0.00	0		0.0	2.0	0.00	13970.97	0.00	0.00
	4.11 : 4.20	0.00	0							
	4.3E : 4.47	0.00	0	63078						
	4.07 : 4.15	4.10	63582							
	4.34 : 4.42	4.38	71471	374303						
Proclor-1242	4.80 : 4.90	4.84	10565		3.7	2.0	1.84	13970.97	125751.55	1397.10
	5.02 : 5.15	5.12	121358							
	5.53 : 6.05	5.98	107197	101535						

*C. Bush*  
 12/20/88



CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



INST ID NO 0 2.0 u  
1.56% SP2250 / 1.85% SP2401  
DATE 12/20/88 TIME 0104  
SAMPLE

61640 mso

Waters  
Sample  
Injection  
10/1/88

TITLE: CLP PESTICIDES

1:04 20 DEC 88

CHANNEL NO: 3

SAMPLE: 6:640MSD

METHOD: CLP-3A

117

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		138232	1.043		138232	BB	2.00
2		1728	1.235		1728	BB	2.45
3		852	1.461		852	BV	3.70
4		1357	1.589		1357	VV	3.65
5		17192	1.778		17192	VB	4.85
6		4029	2.056		4029	BV	4.65
7		38125	2.226		38125	VV	5.40
8	G-BHC	1020330	2.409	0.039	1020330	VV	4.05
9	HEPTACHLOR	889248	2.916	0.036	889248	VV	4.60
10	ALDRIN	956762	3.429	0.009	956762	VV	5.40
11		63682	4.096		63682	T	? 12.85
12		71471	4.384		71471	T	? 12.75
13		10565	4.836		10565	T	? 12.10
14	HEPT EPOX	121388	5.117	0.007	121388	VV	? 16.35
15	A-CHLORDAN	107197	5.975	-0.065	107197	VV	16.40
16	DIELDRIN	1805300	7.708	-0.002	1805300	VV	11.20
17	ENDRIN	770889	9.271	0.091	770889	VV	20.45
18	E-ENDOSULF	121810	11.123	0.003	121810	VV	? 29.20
19	DDT	861395	12.739	-0.031	861395	VB	? 30.65
		30166	19.848		30166	BV	? 72.75
21	DBC	183233	21.844	0.044	183233	VV	52.05
22	END KETONE	21685	23.222	0.002	21685	VB	? 50.50

TOTALS: 7236640 0.133 7236640

DETECTED PKS: 22 REJECTED PKS: 0

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 37.6 OFFSET: -11

PACK: 2 VIAL: 8 INJ: 1

NOTES:

COL: 1.5% SP2250, 1.05% SP240:

AMT INJ 20L/INST LETTER C

INJECTION VOLUME 2.0

ORT\* OUTSIDE RETENTION TIME WINDOW

965.63 CASE 10964 B#1 PESTICIDE MIDSOIL

6016 CASE SH788 B=283 PESTICIDE MIDSOIL

965.60 CASE 11040 B#1 PESTICIDE WATERS

PESTICIDE SAMPLE TABLE

EPA SAMPLE NUMBER

Lab Name: \_\_\_\_\_ VERSAR, INC.

Case No.: \_\_\_\_\_ SH788

00173800101MSD

Lab Code: \_\_\_\_\_ VERSAR

Contract: \_\_\_\_\_ D001298

VERSAR ID#61540MSD

Instrument ID: \_\_\_\_\_ M

SRS No.: \_\_\_\_\_

MATRIX IS: SOIL

Run Date: \_\_\_\_\_ 12/22/88

GC Column ID: \_\_\_\_\_ BB-5

Inject Vol 2.00 (uL)

Window Width: \_\_\_\_\_ 0.15%

COMPOUND	RT WINDOW		SAMPLE		/ DALIB	NG INJECTED	INJECT VOLUME (uL)	INJECT CONC (ug/ml)	X DF	= SAMPLE CONC (ug/kg)	DETECTION LIMIT (ug/kg)	
	FROM	TO	RT	AREA								FACTOR =
alpha-BHC	3.30	3.32	0.00	0	4535	0.000	2.00	0.000	13970.97	0.00	139.71	
beta-BHC	3.55	3.57	0.00	0	3433	0.000	2.00	0.000	13970.97	0.00	139.71	
delta-BHC	3.95	3.97	0.00	0	3845	0.000	2.00	0.000	13970.97	0.00	139.71	
gamma-BHC	3.68	3.70	3.69	1832	4187	0.438	2.00	0.219	13970.97	13056.59	139.71	HIT
Heptachlor	4.90	4.92	4.90	2679	5360	0.500	2.00	0.250	13970.97	13491.58	139.71	HIT
Aldrin	5.71	5.73	5.72	3091	4559	0.678	2.00	0.339	13970.97	14725.48	139.71	HIT
Hept. epoxide	6.79	6.81	6.81	726	5148	0.141	2.00	0.070	13970.97	984.91	139.71	HIT
Endosulfan I	8.12	8.14	0.00	0	4760	0.000	2.00	0.000	13970.97	0.00	139.71	
Dieldrin	9.23	9.25	9.24	4658	4141	1.125	2.00	0.562	13970.97	17857.55	279.42	HIT
1,4'-DDE	8.98	9.00	0.00	0	3922	0.000	2.00	0.000	13970.97	0.00	279.42	
Endrin	10.33	10.37	10.35	4254	3502	1.215	2.00	0.607	13970.97	18486.27	279.42	HIT
Endosulfan II	10.79	10.83	10.80	416	4317	0.096	2.00	0.048	13970.97	673.95	279.42	HIT
1,4'-DDD	11.24	11.28	0.00	0	2741	0.000	2.00	0.000	13970.97	0.00	279.42	
Endo. sulfate	13.57	13.61	0.00	0	4143	0.000	2.00	0.000	13970.97	0.00	279.42	
1,4'-DDT	13.91	13.95	13.93	3425	2929	1.169	2.00	0.585	13970.97	18169.21	279.42	HIT
Methoxychlor	19.79	19.85	0.00	0	1687	0.000	2.00	0.000	13970.97	0.00	279.42	
Endrin ketone	17.49	17.55	0.00	0	4091	0.000	2.00	0.000	13970.97	0.00	279.42	
1a. Chlordane	8.19	8.21	0.00	0	5911	0.000	2.00	0.000	13970.97	0.00	279.42	
1g. Chlordane	7.60	7.62	0.00	0	5851	0.000	2.00	0.000	13970.97	0.00	279.42	
Toxaphene	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	2794.19	
Aroclor-1015	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	1397.10	
Aroclor-1221	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	1397.10	
Aroclor-1232	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	1397.10	
Aroclor-1242	4.05	4.07	4.06	4743	753	6.299	2.00	3.149	13970.97	44000	1397.10	HIT
Aroclor-1248	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	1397.10	
Aroclor-1254	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	2794.19	
Aroclor-1260	0.00	0.00	0.00	0	0	ERR	2.00	ERR	13970.97	0.00	2794.19	
BBC	24.61	24.69	24.65	758	3854	0.197	2.00	0.098	13970.97	11374.11	279.42	HIT

Judy Amador  
12-22-88  
22-Dec-88

PCB SAMPLE TABLE

EPA SAMPLE NUMBER

Lab Name: \_\_\_\_\_ VERSAR, INC.

Case No.: \_\_\_\_\_ SH788

00173800101MSD

Lab Code: \_\_\_\_\_ VERSAR

Contract: \_\_\_\_\_ 0001296

VERSAR ID# 61640MSD

Instrument ID: \_\_\_\_\_ M

SAS No.: \_\_\_\_\_

MATRIX IS: SOIL

Run Date: \_\_\_\_\_ 12/22/88

GC Column ID: \_\_\_\_\_ BB-5

Inject Vol: 2.00 (uL)

Window Width: \_\_\_\_\_ 0.15%

MULTI-COMPONENT ANALYTE	RT WINDOW FROM	RT WINDOW TO	SAMPLE RETENTION TIMES	SAMPLE AREA	AREA SUM	CAL. FAC.	= NG INJECTED	/ INJ VOL (uL)	= INJECT CONC (ug/ml)	X DF	= SAMPLE CONC (ug/l)	DETECTION LIMIT (ug/l)
	3.26	3.28	3.27	173								
	3.76	3.78	3.77	644	4743							
Aroclor-1242	4.05	4.07	4.06	399			6.3	2.0	3.15	13970.97	144022.59	1397.10
	5.27	5.29	5.28	437								
	5.68	5.70	* 5.72	3091	753							
	0.00	0.00	0.00	0								
	0.00	0.00	0.00	0	0							
	0.00	0.00	0.00	0			0.0	2.0	0.00	13970.97	0.00	0.00
	0.00	0.00	0.00	0								
	0.00	0.00	0.00	0	0							
	0.00	0.00	0.00	0			0.0	2.0	0.00	13970.97	0.00	0.00
	0.00	0.00	0.00	0								
	0.00	0.00	0.00	0	0							
	0.00	0.00	0.00	0			0.0	2.0	0.00	13970.97	0.00	0.00
	0.00	0.00	0.00	0								
	0.00	0.00	0.00	0	0							
	0.00	0.00	0.00	0			0.0	2.0	0.00	13970.97	0.00	0.00
	0.00	0.00	0.00	0								
	0.00	0.00	0.00	0	0							

\* - Outside RT Window

Judy Amador  
12-22-88  
22-Dec-88

RT: 16:17 DEC 22, 1988

RT: RTIN = 215

1.61	1.69
2.52	
3.27	3.69
4.26	
4.50	4.90
5.72	
6.81	
6.95	
7.56	
9.24	
10.35	
11.50	
13.93	

20.33  
 21.33  
 21.66  
 23.46  
 24.16  
 24.65  
 25.42

INST ID NO m2.0 ml  
 DB-5 CAPILLARY  
 DATE 12/22/88 TIME 1617  
 SAMPLE 61640msD

RT: SIGNAL OFF + DEVICE# 1

SAMPLE # 16 41440MSD

SEP NOT COUNTED  
 HELIUM ADJUSTED  
 APCR %

FT	APCR	TYPE	WIDTH	HEIGHT	BASELINE	AREA %
0.00					BASELINE # START RUN = 297.42	
0.00					PHASE # # START RUN = 1	
0.00					PLATE WIDTH @ START RUN = 0.04	
0.00					PP1 REJECT = 1	
0.00					PP1 REPORT TEL = 00	
1.03	897.32	BY	-----	774.49	297.75	2.322
1.09	7004.17	VV	-----	1000.42	277.88	12.137
1.31	69.79	VV	-----	22.75	287.91	0.165
1.33	141.49	VV	-----	25.05	287.93	0.342
2.02	121.21	VV	-----	12.17	276.87	0.294
2.19	87.22	VV	-----	19.53	276.86	0.216
2.23	122.04	VV	-----	43.67	288.11	0.443
2.35	42.36	VV	-----	21.45	278.15	0.147
2.42	39.15	VV	-----	21.57	288.19	0.216
2.52	523.17	VV	0.046	227.83	288.24	1.414
2.54	171.20	VV	-----	22.31	289.38	0.318
2.79	375.24	VV	-----	69.83	279.37	0.619
2.89	80.54	VV	-----	21.72	245.44	0.195
2.92	27.65	VV	-----	7.75	278.75	0.055
2.99	27.14	VV	-----	9.96	276.60	0.056
2.27	172.90	VV	-----	50.53	278.64	0.419
2.34	66.31	VV	-----	20.44	278.68	0.161
2.51	44.37	VV	0.048	14.43	278.77	0.100
2.59 G-BNC	1931.70	FF	0.036	790.34	279.92	4.443
2.77	643.52	VV	-----	142.37	277.02	1.561
2.92	77.34	VV	-----	14.95	279.22	0.127
3.07	271.67	VV	0.056	119.68	279.48	0.967
4.31	97.49	VV	-----	31.43	279.72	0.236
4.34	51.17	VV	-----	18.47	279.98	0.124
4.52	1258.93	VV	-----	284.18	290.96	3.034
4.62	588.28	VV	0.053	163.08	300.22	1.452
4.69 Hypackler	2479.88	FF	0.076	745.85	280.50	6.498
5.07	30.54	VV	-----	7.53	303.71	0.241
5.17	510.09	VV	-----	164.14	306.84	1.583
5.29	457.38	VV	-----	107.29	308.99	1.061
5.38	731.31	VV	-----	72.75	301.11	0.968
5.77 Haldex	7003.93	VV	0.057	725.12	282.56	7.476
5.87	781.99	VV	-----	172.54	301.96	1.712
5.12	38.88	VV	-----	4.23	302.16	0.053
6.27	135.14	VV	0.061	50.44	302.29	0.176
6.40	51.92	VV	-----	9.15	302.44	0.085
6.54	128.19	VV	-----	14.75	302.62	0.281
6.71	314.91	VV	-----	93.66	302.84	0.937
6.81 Hyp. Epoxide	727.92	VV	-----	137.74	302.99	1.768
6.75	1478.47	VV	-----	292.21	303.16	3.118
7.20	183.94	VB	-----	19.85	303.45	0.250
7.56	396.03	RV	0.279	138.92	303.68	1.698
7.77	732.73	VV	0.076	88.73	303.71	0.953
2.90	155.21	VV	0.071	34.43	302.98	0.378
3.47	26.13	BF	0.067	7.90	302.28	0.065
3.71	174.88	BY	0.075	25.37	302.81	0.173
4.23	104.83	VV	0.070	41.19	302.79	0.507
3.24 Dialwin	4557.96	VV	0.369	1851.44	302.63	11.297
4.41	438.49	VB	-----	73.94	302.29	1.063
5.87	52.47	BF	-----	7.93	303.03	0.038
10.81	188.84	FF	0.003	22.44	302.48	0.254
10.15 Dialwin	4254.14	FF	0.078	872.32	301.57	10.318
10.84 Entomology II	416.45	VV	-----	49.68	303.93	1.018
11.26	67.70	VV	-----	7.52	308.09	0.163
11.55	71.81	VV	-----	9.94	299.68	0.223
12.01	51.67	RV	-----	9.15	299.95	0.138
12.52	245.66	VE	0.108	94.21	301.59	0.771
13.13	18.27	BY	-----	7.14	300.39	0.045
13.29	9.27	VB	-----	1.58	308.55	0.022
13.60	33.41	BF	-----	5.20	297.29	0.081
13.72 H.L. BUT	1425.10	RV	0.078	549.87	276.86	0.387
14.28	163.97	VV	-----	16.76	278.84	0.388
14.50	27.79	VE	-----	3.30	290.55	0.067
15.04	24.83	BY	-----	3.38	301.66	0.068
15.44	18.92	BF	-----	1.34	301.27	0.026
15.77	19.79	FB	0.114	2.71	301.14	0.049
16.29	9.36	BY	-----	0.97	301.54	0.021
16.48	4.21	VV	-----	0.62	301.27	0.010
16.79	33.75	VB	-----	2.77	301.82	0.075
17.23	5.49	BY	-----	0.33	300.43	0.013
17.52	132.75	VR	0.124	16.75	306.28	0.321
18.03	18.37	RR	0.129	2.73	308.91	0.045
18.65	6.21	BB	-----	0.78	289.21	0.013
19.22	16.95	BB	0.164	1.53	299.61	0.039
20.34	51.36	BF	0.172	4.68	293.44	0.175
21.27	48.65	BB	-----	4.78	293.47	0.099
21.56	8.83	BB	-----	1.95	294.85	0.019
23.46	52.92	RR	0.163	5.88	299.98	0.126
24.16	288.21	BY	-----	19.90	299.85	0.688
24.65 PCC	753.97	VV	0.183	64.78	298.93	1.839
25.42	46.69	VR	-----	2.82	298.76	0.113
26.99	9.44	BY	-----	0.72	293.68	0.023
27.15	16.65	VR	-----	1.78	293.63	0.040
27.78	15.12	R BH	-----	1.45	278.68	0.037

TOTAL APCR = 41721.00  
 MULTIPLEP = 1

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

PARAMETER REQUEST SHEET

DELIVER TO : DATA PROCESSING

DATE PRINTED : 11/18/88

JOB NAME : NYSDEC  
 PR#/TASK# : 6016 .0 .0  
 BATCH# : 283  
 CASE# : SH 788  
 SITS : COZZY ✓

QUOTE# :  
 BANK# :  
 LO RESPONSABLE : BERNARDING  
 LOGGERS INITIALS : BH

DUE DATE : 12/13/88

RECEIPT DATE : 11/18/88

BATCH COMMENTS : QA/QC ON #738 001 01; PEST=CLP PEST/PCB

T T C T B P V . . . . .  
 1 2 N S N E D  
 M M - A S A  
 T L T L

LAB # X	FIELD #	COM	MATRIX	LOCATION	
61639	001 738001 01		WASTE	R 34	T T C T
61640	001 738001 01		WASTE	R 34	B (P)
61641	001 738001 01		WASTE	A 34	V

1

SAMPLE COMMENTS

(1) NOT RECEIVED (2) RECEIVED BROKEN (3) LEAKING (4) MISLABELED (5) BLANK  
 VOA'S IN GCMS (7) SEE LO MGR. (8) HANDLE IN HOOD (9) SEE BATCH COMMENTS



VERSAR INC.

SAMPLE PREPARATION COMMENT SHEET

PROJECT 6716

BATCH 283

CASE SA 288

MATRIX M. Soil

PREPARATION PARAMETER Pest

VERSAR SAMPLE NUMBER	For the extracts MST11944 61640MS and 61640MS.D there was a total extraction volume of 11.0 ml. To maintain a 1:10 (1:10) <sup>low detector</sup> proportion for pest cleanup, 1.10 ml of the extracts was taken for alumina cleanup.
FIELD SAMPLE NUMBER	
SOIL SAMPLE pH	<u>ca 11/20/88</u>
VERSAR SAMPLE NUMBER	
FIELD SAMPLE NUMBER	
SOIL SAMPLE pH	
VERSAR SAMPLE NUMBER	
FIELD SAMPLE NUMBER	
SOIL SAMPLE pH	

VERSAR INC.

SAMPLE PREPARATION COMMENT SHEET

PROJECT 6016

BATCH 283

CASE 54738

MATRIX Soil/Waste

PREPARATION PARAMETER DNAL, PEST

VERSAR SAMPLE NUMBER 61640	Two (2) phase waste sample; soil-like solid covered by dark - black/purple - liquid (R) 11-22-00
FIELD SAMPLE NUMBER 001 73300101	
SOIL SAMPLE pH 6.75	
VERSAR SAMPLE NUMBER	
FIELD SAMPLE NUMBER	
SOIL SAMPLE pH	
VERSAR SAMPLE NUMBER	
FIELD SAMPLE NUMBER	
SOIL SAMPLE pH	

## SAMPLE COMMENTS (PESTICIDES)

CASE SH 783

Primary analysis on dust @ 502250/502201 12/19/87

EPA #	COMMENTS
	80% for the initial eval compounds $\leq 10\%$
	20% for the mid evals was $\leq 20\%$
	DRC shift remained $\leq 2\%$ for all samples.
	30% for the mid TADA check std was $\leq 15\%$ for all compounds. All compounds were within their RT window.
	20% for the final dual A & R was $\leq 15\%$ for all compounds. All compounds were within their RT windows except for Dieldrin, Endosulfan <sup>100%</sup> II, <sup>100%</sup> ESS, DDT, Endinbutone, DDE, ESS, methoxyfenos.

Christy S. Bush 12/24/87  
Signature Date





EXTRACTS READY FOR ANALYSIS

DATE 11/30/88

PROJECT 6016

INCLUDE TASK AND SUBTASK

CASE 54 787

BATCH 283

DATE RECEIVED 11/17/88

DATE EXTRACTED 11/22/88

HOLDING TIME MET ? YES  NO

NUMBER OF EXTRACTS 6

NUMBER OF SAMPLES 1

RE-DONE EXTRACTION YES  NO

RE-EXTRACTION YES  NO  MATRIX mid soil

LOCATION OF EXTRACTS FRIG 5 PARAMETER Pest

COPY OF EXTRACTION SHEETS ON FILE IN EXTRACTION LABORATORY YES  NO

ORIGINAL EXTRACTION SHEETS IN GC LAB YES  NO

ORIGINAL EXTRACTION SHEETS IN GC/MS LAB YES  NO

TECHNICIAN J. G. Gorman FIRST INITIAL AND FULL LAST NAME

EXTRACTION SHEETS REVIEWED BY SUPERVISOR Magill

SAMPLE LABORATORY NUMBERS 616.40 + Full Q.C.

COMMENTS \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





PESTICIDES DILUTION FACTOR TABLE

Lab Name: \_\_\_\_\_ VERSAR, INC. Case No.: \_\_\_\_\_ SH788  
 Lab Code: \_\_\_\_\_ VERSAR Contract: \_\_\_\_\_ CDD1298  
 Instrument ID: \_\_\_\_\_ 0 SRS No.: \_\_\_\_\_  
 Run Date: \_\_\_\_\_ 12/19,20/88 GC Column ID: \_\_\_\_\_ SP2250/SP2401  
 Inject 2.00 (uL) Window Width: \_\_\_\_\_ 1.0x  
 Extraction Date: \_\_\_\_\_ 11/28/88 Extraction Chemist: \_\_\_\_\_ DN

DILUTION FACTOR (DF) = (NG INJECTED)/(UL INJECTED)\*DF = CONC (UG/KG OR UG/L)

		EPA	LAB			INITIAL EXT	ALICUOT	FINAL	DILUTION	DILUTION
	MATRIX:	SAMPLE	SAMPLE	WT (g)	% MOISTURE	FINAL VOL	TO PEST	PEST VOL	AT	FACTOR
		#	ID #	OF SAMPLE		(ML)	(ML)	(ML)	INSTRUMENT	(ug/Kg)
1	SOIL	IPBLK95	IRB4095	1.00	0	10.00	1.00	1.00	1.0	10000.00
2	SOIL	IPBLK96	IRB4096	1.00	0	10.00	1.00	1.00	1.0	10000.00
3	SOIL	INSTD1944	INSTD1944	1.00	0	11.00	1.10	1.00	1.0	10000.00
4	SOIL	100173800101	161640	1.04	28	10.00	1.00	1.00	1.0	13299.29
5	SOIL	100173800101MS	161640MS	0.99	28	11.00	1.10	1.00	1.0	13970.97
6	SOIL	100173800101MSD	161640MSD	0.99	28	11.00	1.10	1.00	1.0	13970.97
7	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
8	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
9	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
10	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
11	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
12	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
13	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
14	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
15	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
16	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
17	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
18	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
19	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
20	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
21	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
22	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
23	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
24	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
25	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
26	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
27	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
28	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
29	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR
30	SOIL	IX	IX	IX	IX	10.00	1.00	1.00	1.0	ERR

Judy Amador  
 12-22-88  
 22-Dec-88



DATE 12/19/88 SUBJECT *Injection Soy O*

PROJECT NO.

Ver. *Kenn Eddin* Date *12/19/88*  
 det. *FCD* Temp. *300* °C  
 Column *6 x 4 mm* Type *SP250/SP2401*  
 Carrier Gas *N2* at \_\_\_\_\_ ml/min  
 Oven *205* °C for *30* min to \_\_\_\_\_ °C  
 for \_\_\_\_\_ min at \_\_\_\_\_ °C/min  
 Inst. ID *0* Baseline \_\_\_\_\_  
 Project *96543 B. 1. 10924* Parameter *Att. 32*  
*10-10 00. 54728 B. 293 imm. on the page*  
*10-10 00. 54728 B. 293 imm. on the page*

PAGE 2

SAMP#	RACK/VIAL	TYPE	SAMPLE ID
1	1/1	A304	EVAL.01
2	1/2	A305	EVAL.02
3	1/3	A306	EVAL.05
4	1/4	A307	EVAL.10
5	1/5	A447	INDA.10
6	1/6	A370	INDB.10
7	1/7	P667	TOXAPH
8	1/8	P131	ARI660
9	1/9	A309	ARI242
10	1/10	A322	ARI248
11	2/1	A441	ARI254
12	2/2	FJ187MSD	
13	2/3	PELK96	
14	2/4	61640	
15	2/5	61640MS	
16	2/6	61640MSD	
17	2/7	EVAL9	
18	2/8	PELK91	
19	2/9	ECU65	
20	2/10	ECU65MS	
21	3/1	ECU65MSD	
22	3/2	ECU66	
23	3/3	A447	INDA.10
24	3/4	ECU70	
25	3/5	FJ187	1/10
26	3/6	EVALB	
27	3/7	A447	INDA.10
28	3/8	A370	INDB.10
29	3/9	MSTD1958	
30	3/10	MSTD1963	
31	4/1	MSTD1944	
32	4/2	MSTD1974	

*Retention number by*

*1/10) 100 ml of 10 ml of sample*

*Kenn Eddin*

65

WITNESSED AND UNDERSTOOD

SIGNED

DATE

SIGNED

*Kenn Eddin*

SIGNED

DATE

DATE

*12/19/88*

20

DATE 12/22/98

Injection Log Book M

PROJECT NO.

Changed capstan  
and spinger  
-USS, 12/22/98

Oper: Chris Bunker Date: 12/22/98  
 Date: ECN Temp: 300 °C  
 Column: 30m Type: 995  
 Carrier Gas: He at 1.08 ml/min  
 Oven: 215 °C to 26 min to 200 °C  
 for      min at      °C  
 Inlet ID: M Pressure: 304.77  
 Project: 96563 RFI Best. Injection Parameter: 14.275  
6014 85 273 LMSH

SAMPLE ID  
LINE # : IZ CODE :

- 2 R
- 3 A454 EVAL.01
- 4 A455 EVAL.02
- 5 A456 EVAL.05
- 6 R
- 7 A457 EVAL.10
- 8 A447 INDR.10
- 9 A370 INDB.10
- 10 R
- 11 A309 AR1242
- 12 PSLK96
- 13 61640
- 14 R
- 15 61640MS
- 16 61640MSD
- 17 PSLK51
- 18 P
- 19 EVALB
- 20 FJ191
- 21 FJ191MS
- 22 R
- 23 FJ191MS2
- 24 FJ190
- 25 A309 AR1242
- 26 R
- 27 A447 INDR.10
- 28 A370 INDB.10
- 29 MSTD1959

12/22/98

WITNESSED AND UNDERSTOOD

SIGNED  
SIGNED

DATE  
DATE

SIGNED  
DATE

*Chris Bunker*  
12/22/98

SINGLE CHANNEL METHOD: CLP-3A

9:46 19 DEC 88

SECTION 1: BASIC

PAGE 1

ANALYSIS PARAMETERS

CHANNEL: 3  
CALCULATION: ES  
AREA/HT: A  
STOP TIME: 30.00  
NUMB EXPECTED PKS: 300  
EQUILIBRATION TIME: 10  
UNRETAINED PK TIME: 0.00  
UNIDENT PK FACTOR: 1.000000  
SLICE WIDTH: 10

PAGE 2

SAMPLE PARAMETERS

RUN TYPE: A  
SAMPLE ID: A370 INDB.10  
DIVISOR: 1.000000  
AMT STD: 1.000000  
MLTPLR: 10000.00

PAGE 3

REPORT INSTRUCTIONS

WHERE TO REPORT: L  
COPIES: 1  
TITLE: CLP PESTICIDES  
FORMAT: E  
DECIMAL PLACE: 0  
RESULT UNITS: AREA  
REPORT UNIDENT PKS: Y  
REPORT INSTRUMENT CONDITIONS: N

PAGE 4

PLOT INSTRUCTIONS

PLOT: N  
ZERO OFFSET: 10  
ANNOTATION  
RETENTION TIME: ✓  
PLOT CONTROL: N  
TIME TICKS: N  
TIME EVENTS: N  
PK START/END: Y

PAGE 5

CHART SPEED

PAGES OR CM/MIN: 0  
INIT VALUE: 0.5

PAGE 6

PLOT ATTEN

INIT PLOT ATTEN: 32

SECTION 2: TIME EVENTS

PAGE :

MIST NO 02.0 W  
1.5% SP2250 / 1.95% SP2400  
DATE 1/1 TIME  
SAMPLE

*Method*

LINE#	TIME	EVENT	VALUE
1	0.00	PR	500
2	0.00	SN	2
3	0.00	T%	5.0
4	0.00	WI	4
5	0.00	II	1.00

SECTION 3: PEAK TABLE

PAGE 1

STD PK#: 0  
 RELATIVE RETEN PK#: 0  
 RESOLUTION PK#: 0  
 RESOLUTION MINIMUM: 0.0  
 FACT%: 0.0  
 IDENTIFICATION TIME WINDOWS +/-  
 REF  
 %: 10  
 MIN: 0.00  
 NON REF  
 %: 3  
 MIN: 0.00

PAGE 2

PK#	TIME	NAME	FACTOR	AMOUNT	REF	GR#	MUST LO	MUST HI
1	1.91	A-BHC	1.000000	1.000000			0.000000	0.000000
2	2.37	G-BHC	1.000000	1.000000			0.000000	0.000000
3	2.65	B-BHC	1.000000	1.000000			0.000000	0.000000
4	2.88	HEPTACHLOR	1.000000	1.000000			0.000000	0.000000
5	3.07	D-BHC	1.000000	1.000000			0.000000	0.000000
6	3.48	ALDRIN	1.000000	1.000000			0.000000	0.000000
7	5.11	HEPT EPOX	1.000000	1.000000			0.000000	0.000000
8	5.56	G-CHLORDAN	1.000000	1.000000			0.000000	0.000000
9	6.04	A-CHLORDAN	1.000000	1.000000			0.000000	0.000000
10	6.39	A-ENDOSULF	1.000000	1.000000			0.000000	0.000000
11	7.04	PP DDE	1.000000	1.000000			0.000000	0.000000
12	7.71	DIELDRIN	1.000000	1.000000			0.000000	0.000000
13	9.18	ENDRIN	1.000000	1.000000			0.000000	0.000000
14	10.59	DDD	1.000000	1.000000			0.000000	0.000000
15	11.12	E-ENDOSULF	1.000000	1.000000			0.000000	0.000000
16	12.77	DDT	1.000000	1.000000			0.000000	0.000000
17	14.39	ENDRIN ALD	1.000000	1.000000			0.000000	0.000000
18	17.40	ESS	1.000000	1.000000			0.000000	0.000000
19	21.80	DBC	1.000000	1.000000			0.000000	0.000000
20	23.08	METHOXYCHL	1.000000	1.000000			0.000000	0.000000
21	23.22	END KETONE	1.000000	1.000000			0.000000	0.000000

SECTION 4: GC INSTRUMENT CONTROL

PAGE 1

COL TEMP  
 ISC/INIT COL TEMP: 205  
 INIT HOLD TIME: 30.00

PAGE 2

DETECTORS  
 DET A TYPE: ECD  
 DET B TYPE:  
 LN# TIME SIDE ATT. RANGE ZERO  
 1 0.00 A 32 10 Y  
 2 0.00 B

INST ID NO 0 2.0 ul  
 1.5% SP2250 / 1.95% SP2401  
 DATE      /      /      TIME       
 SAMPLE     

*Method*

PAGE 3

TEMP/FLOW  
 INJ A TEMP: 240  
 INJ B TEMP: 240  
 ION TEMP: 300  
 TCD TEMP:  
 TCD FIL TEMP:  
 AUX TEMP:  
 COL A FLOW:  
 COL B FLOW:

PAGE 4

SECTION 7: POST RUN

PAGE 1

TYPE:  
 WHERE TO SAVE: M  
 TRANSMIT/RELOT INSTRUCTIONS  
 TRANSMIT RAW DATA: N  
 RELOT WITH BASELINES: Y  
 RAW DATA LOCATION: L  
 TRANSMIT REPORT: N

PAGE 2  
 METHOD LINKING INSTRUCTIONS  
 METHOD:  
 LINK CALC RESULTS: N  
 PROGRAM EXECUTION  
 PROGRAM:  
 PARAMETERS:  
 RESERVE PRINTER: N

SECTION 9: SAMPLE LIST+A/S CONTROL

PAGE 1  
 AUTOSAMPLER CONTROL  
 INJECT/CALIBRATION: 1  
 INJECT/ANALYSIS: 1  
 SAMP VOLUME: 1  
 VISTA AUTOSAMPLER ONLY  
 A/S MODE: MR  
 PURGE PULSES: 2  
 INJECT TIME: 0.03

PAGE 2

SAMP#	RACK/VIAL	TYPE	SAMPLE ID	DIVISOR	AMT STD	MLTPLR
1	1/1		A304 EVAL.01			
2	1/2		A305 EVAL.02			
3	1/4		A306 EVAL.05			
4	1/5		A307 EVAL.10			
5	1/7		A447 INDA.10			
6	1/8		A370 INDB.10			
7	1/10		B667 TOXAPH			
8	1/11		F131 AR1660			
9	1/13		A309 AR1242			
10	1/14		A322 AR1248			
11	2/1		A441 AR1254			
12	2/2		FJ197MSD			
13	2/4		PBLK96			
14	2/5		61640			
15	2/7		61640MS			
16	2/8		61640MSD			
17	2/10		EVALS			
18	2/11		PBLK91			
19	3/3		EOL65			
20	3/4		EOL65MS			
21	3/1		EOL65MSD			
22	3/2		EOL66			
23	3/4		A447 INDA.10			
24	3/5		EOL66			
25	3/7		EVALS			
26	3/8		A447 INDA.10			
27	3/10		A370 INDB.10			
28	3/11		KSTD1958			
29	3/13		KSTD1963			
30	3/14		KSTD1964			
31	4/1		KSTD1974			

INST ID NO 020 W  
 1.5% SP2250 / 1.95% SP2401  
 DATE \_\_\_\_\_  
 SAMPLE \_\_\_\_\_  
*Method*

SECTION 10: NOTE PAD

PAGE 1

PARAM	VALUE
COL1	1.5% SP2250
COL2	1.95% SP2401
INJECT	1
ANALYSIS	1
VOLUME	1
MODE	MR
PURGE	2
INJECT TIME	0.03
...	...

L15

OVEN TEMP=215°C SETPT=215°C LIMIT=235°C  
EQUILB TIME = 4.00 MIN

OVEN TEMP PROFILE:

INITIAL VALUE = 215°C  
INITIAL TIME = 29.00 MIN  
POST VALUE = ???  
POST TIME = ???

DET 1 TEMP=300°C SETPT=300°C LIMIT=350°C  
DET 2 TEMP=0°C SETPT=50°C(OFF) LIMIT=350°C  
INJ 1 TEMP=240°C SETPT=240°C LIMIT=280°C  
INJ 2 TEMP=240°C SETPT=240°C LIMIT=280°C  
AUX 1 TEMP=0°C SETPT=50°C(OFF) LIMIT=350°C  
AUX 2 TEMP=0°C SETPT=50°C(OFF) LIMIT=405°C

DEVICE 2: GC TERMINAL 1  
SIGNAL = B  
PLOT = ???  
CHART SPEED = 0.50 CM/MIN  
ATTN = 2+5  
%OFFSET = 10  
ZERO = 304.77

DEVICE 5: [hp] LOOP 1  
SIGNAL = ???  
PLOT = ???  
ATTN = 2+0  
%OFFSET = 0  
ZERO = 0.00 (OFF)

INST ID NO 2.0 ul  
DB-5 CAPILLARY  
DATE \_\_\_/\_\_\_/\_\_\_ TIME \_\_\_  
SAMPLE

*Method*

DEVICE 6: CARTRIDGE TAPE 1

DEVICE 22: GC TERMINAL 2 (OWNED BY CHNL 2)  
SIGNAL = A  
PLOT = ???  
CHART SPEED = 1.00 CM/MIN  
ATTN = 2+0  
%OFFSET = 10  
ZERO = 0.00

DETECTOR A (OFF): NICKEL 63 ECD  
CALIBRATION: H=1668390 LI=1602250 L2=1602250

DETECTOR B: NICKEL 63 ECD  
CALIBRATION: H=1634180 LI=1560520 L2=1560510

VALVES:

VALVE 1 = OFF  
VALVE 2 = OFF  
VALVE 3 = OFF  
VALVE 4 = OFF  
VALVE 5 = OFF  
VALVE 6 = OFF  
VALVE 7 = OFF  
VALVE 8 = OFF  
VALVE 9 = OFF  
VALVE 10 = OFF  
VALVE 11 = OFF  
VALVE 12 = OFF

THRESHOLD = 1  
PEAK WIDTH = 0.04

AVAILABLE MEMORY (BYTES): 14720

GRAPHIC TERMINALS CORPORATION ASTORIA NEW YORK

GC MODEL 7400 92701633

## LIST SAMPLE TBL

SAMPLE # : ID CODE :

2		R
3	A454	EVAL.01
4	A455	EVAL.02
5	A456	EVAL.05
6		R
7	A457	EVAL.10
8	A447	INDA.10
9	A370	INDB.10
10		R
11	A309	AR1242
12		PBLK96
13		61640
14		R
15		61640MS
16		61640MSD
17		PBLK51
18		R
19		EVALB
20		FJ191
21		FJ191MS
22		R
23		FJ191MSD
24		FJ190
25	A309	AR1242
26		R
27	A447	INDA.10
28	A370	INDB.10
29		MSTD1959

INST ID NO 2.0 ul  
DB-5 CAPILLARY  
DATE \_\_\_/\_\_\_/\_\_\_ TIME \_\_\_  
SAMPLE

*Method*

AVAILABLE MEMORY (BYTES): 14680

PESTICIDE SAMPLE TABLE

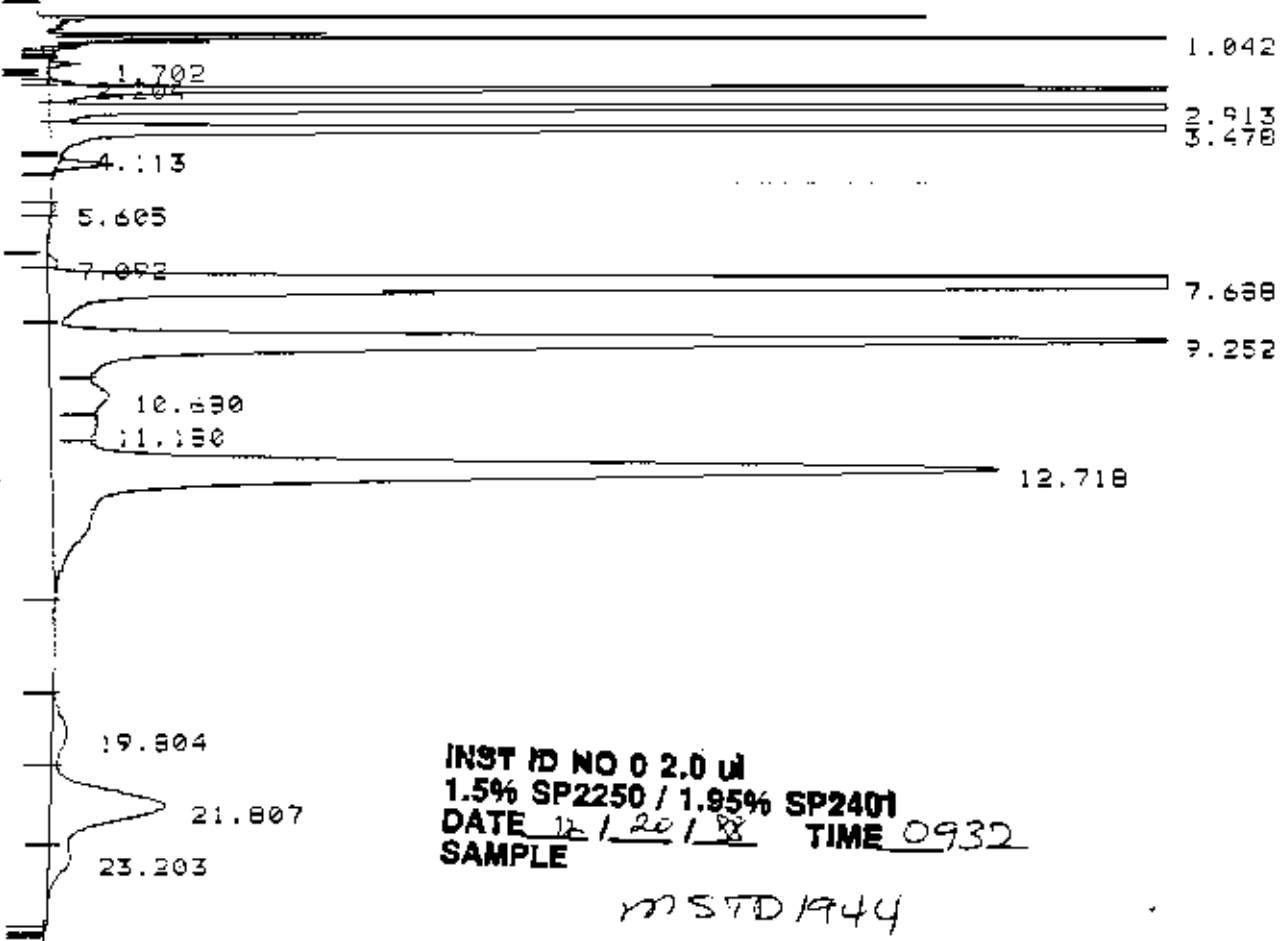
DON SAMPLE NUMBER: MST1944  
 Lab Name: VERBA, INC.  
 Lab Code: VESB-  
 Instrument ID: C  
 Ref Date: 11/20/66  
 Inject Vol: 2.00 (ul)  
 Case No.: D-768  
 Contract: C051386  
 SRS No.:  
 GC Label II: S-2370/S-2341  
 MINIMUM WEIGHT: 1.00

COMPOUND	RT		SAMPLE		CALIB	NO	INJECTED	INJECT VOLUME (ul)	INJECT CONC (ug/ml)	X	SAMPLE/DETECTION	
	FROM	TO	RT	AREA							FACTOR	CONC
alpha-BHC	1.93	1.57	0.00	0	1926455	0.000	2.00	0.000	10000.00	0.00	100.00	
beta-BHC	2.58	2.73	0.00	0	451772	0.000	2.00	0.000	10000.00	0.00	100.00	
gamma-BHC	3.10	3.16	0.00	0	1445280	0.000	2.00	0.000	10000.00	0.00	100.00	
delta-BHC	2.39	2.44	2.40	532664	1304050	0.520	2.00	0.260	10000.00	12101.52	100.00 HIT	
Heptachlor	2.90	2.96	2.91	655254	1298430	0.505	2.00	0.253	10000.00	12527.14	100.00 HIT	
Aldrin	3.46	3.51	3.48	663226	1403480	0.472	2.00	0.236	10000.00	12355.23	100.00 HIT	
Hept. epoxide	5.06	5.18	0.00	0	1305533	0.000	2.00	0.000	10000.00	0.00	100.00	
Endosulfan I	5.32	5.48	0.00	0	1188315	0.000	2.00	0.000	10000.00	0.00	100.00	
Dieldrin	7.66	7.61	7.69	1509850	1320680	1.215	2.00	0.609	10000.00	16054.93	200.00 HIT	
14,14-DDE	7.06	7.20	0.00	0	1074260	0.000	2.00	0.000	10000.00	0.00	200.00	
Endrin	5.82	5.41	5.25	715025	594673	1.205	2.00	0.603	10000.00	15045.53	200.00 HIT	
Endosulfan II	11.05	11.28	0.00	0	1173225	0.000	2.00	0.000	10000.00	0.00	200.00	
14,14-DDD	10.51	10.63	0.00	0	887710	0.000	2.00	0.000	10000.00	0.00	200.00	
Endosulfate	17.49	17.89	0.00	0	768400	0.000	2.00	0.000	10000.00	0.00	200.00	
14,14-DDT	12.63	12.54	12.72	853355	756860	1.176	2.00	0.589	10000.00	15685.32	200.00 HIT	
Methoxychlor	23.11	23.56	0.00	0	348090	0.000	2.00	0.000	10000.00	0.00	200.00	
Endrin ketone	23.22	23.59	0.00	0	1184305	0.000	2.00	0.000	10000.00	0.00	200.00	
o-Chloroane	5.06	5.16	0.00	0	1132020	0.000	2.00	0.000	10000.00	0.00	200.00	
p-Chloroane	5.58	5.59	0.00	0	1153525	0.000	2.00	0.000	10000.00	0.00	200.00	
Toxaphene	12.86	12.50	0.00	0	187555	0.000	2.00	0.000	10000.00	0.00	200.00	
Aroclor-1035	2.21	2.25	0.00	0	145654	0.000	2.00	0.000	10000.00	0.00	1000.00	
Aroclor-1221	1.50	1.54	0.00	0	47311	0.000	2.00	0.000	10000.00	0.00	1000.00	
Aroclor-1222	3.32	3.50	0.00	0	63078	0.000	2.00	0.000	10000.00	0.00	1000.00	
Aroclor-1242	4.60	4.50	0.00	0	101535	0.000	2.00	0.000	10000.00	0.00	1000.00	
Aroclor-1243	5.53	5.05	0.00	0	154275	0.000	2.00	0.000	10000.00	0.00	1000.00	
Aroclor-1254	11.02	11.24	0.00	0	207035	0.000	2.00	0.000	10000.00	0.00	2000.00	
Aroclor-1260	16.87	17.21	0.00	0	262747	0.000	2.00	0.000	10000.00	0.00	2000.00	
DBP	21.73	22.19	21.81	183354	1197845	0.156	2.00	0.083	10000.00	827.53	200.00 HIT	

*C. L. H.*  
12/21/66



CHART SPEED 0.5 CM/MIN  
ATTEN: 32 ZERO: 10%



TITLE: CLP PESTICIDES

9:32 20 DEC 88

CHANNEL NO: 3

SAMPLE: MSTDI944

METHOD: CLP-3A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W: / 2 (SEC)
1		116040	1.042		116040	BB	2.00
2		1117	1.232		1117	BB	2.35
3		5134	1.702		5134	BB	5.45
4		559	2.051		559	VV ?	3.45
5		3739	2.204		3739	VV ?	5.40
6	G-BHC	932884	2.404	0.034	932884	VV	3.85
7	HEPTACHLOR	656264	2.913	0.033	656264	VV	4.65
8	ALDRIN	662226	3.478	-0.002	662226	VV	6.50
9		15977	4.419		15977	T ?	11.60
10	G-CHLORDAN	2431	5.605	0.045	2431	BB ?	13.30
11	PP DDE	4954	7.092	0.052	4954	BV ?	13.90
12	D:ELDRIN	1609890	7.688	-0.022	1609890	VV	12.55
13	ENDRIN	719025	9.252	0.072	719025	VV	20.60
14	DDD	76670	10.680	0.090	76670	VV ?	27.60
15	B-ENDOSULF	49506	11.180	0.060	49506	VV ?	
16	DDT	893859	12.718	-0.052	893859	VB ?	31.00
17		29847	19.804		29847	BV ?	65.30
18	DBC	183354	21.807	0.007	183354	VV	53.30
19	END KETONE	29023	23.203	-0.017	29023	VB ?	59.55

TOTALS: 5992500 0.300 5992500

DETECTED PKS: 22 REJECTED PKS: 3

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 37.6 OFFSET: -23

RACK: 4 VIAL: 1 INJ: 1

NOTES:

COL: 1.5% SP2250/1.95% SP2401  
 AMT INJ 2UL/INST LETTER 0  
 INJECTION VOLUME 2 UL  
 ORT= OUTSIDE RETENTION TIME WINDOW  
 965.63 CASE 10984 B#1 PESTICIDE MIDSOIL  
 6016 CASE SH788 B#203 PESTICIDE MIDSOIL  
 965.60 CASE 11040 B#1 PESTICIDE WATERS



ANALYTICAL REPORT  
FOR

PROJECT #6016 - Batch 283

DATE 12/16/88

CLIENT New York State

GC/MS Organic Analysis

## DELIVERABLES INDEX

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### I. CASE NARRATIVE

The Case Narrative must contain: Case number, Contract number, summary of any QC, sample, shipment and analytical problems, and documentation of all internal decision tree processes used. Outline problems encountered and final solutions. Be as specific and detailed as necessary.

---

### II. QC SUMMARY

- A. Surrogate Percent Recovery Summary (Form II)
  - B. Matrix Spike/Matrix Spike Duplicate Summary (Form III)
  - C. Method Blank Summary (Form IV)  
(If more than a single form is necessary, it must be arranged in chronological order.)
  - D. GC/MS Tuning and Calibration Standard (Form V)
    1. DFTFP in chronological order: by instrument
    2. BFB in chronological order: by instrument
- 

### III. SAMPLE DATA

- A. Samples should be arranged in packets with the Traffic Report, the Organic Analysis Data Sheet (Form I), followed by the raw data for volatile, semi-volatile and pesticide sample fractions. These sample packets should then be placed in increasing SMO number order.
  1. Copy of Sample Traffic Report
  2. ESL Results- Organic Analysis Data Sheet (Form I)
  3. Tentatively Identified Compounds (Form I, Part B) - Must be included even if no compounds are found; if so, indicate on form: "no volatile compounds found" and/or "no semi-volatile compounds found."
  4. Raw data- in order: VOA, BMA, Pesticide
    - a. Reconstructed ion chromatogram(s) (GC/MS), Chromatogram(s) (GC)
    - b. Data System Printouts
      - Quantitation report or legible facsimile (GC/MS)
      - Integration report of data system printout (GC)
      - Calibration plots (area vs. concentration) for 4,4'-DDT, 4,4'-DDE, 4,4'-DDE or toxaphene (where appropriate)
    - c. Raw ESL mass spectra and the background subtracted ESL mass spectra with lab generated ESL standard spectra (Dual Display)
      - data systems incapable of dual display shall provide spectra in order:
        - raw ESL compound spectra
        - enhanced or background subtracted spectra
        - laboratory generated ESL standard spectra
    - d. GC/MS library search spectra for Tentatively Identified Compound(s) (TIC)
    - e. Quantitation/Calculation of tentative ID concentration(s)
    - f. Manual work sheets
    - g. GPC Chromatograms (if appropriate)

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## IV. STANDARDS DATA

- A. Current list of laboratory calculated instrument detection limits for all HSL compounds.
- B. Initial Calibration Data (Form VI)-in order: VOA, BMA; by instrument of more than one instrument used.
  1. When more than one initial calibration is performed, the data must be put in chronological order. All initial calibration data must be included even for a specific Case.
- C. Continuing Calibration (Form VII)- in order: VOA, BMA; by instrument if more than one instrument used.
  1. When more than one Continuing Calibration is performed, forms must be in chronological order.
- D. Pesticide forms in the following order:
  1. Form VIII - Pesticide Evaluation Standards Summary (all GC columns)
  2. Form IX - Pesticide/PCB Standards Summary (all GC columns)
  3. Form X - Pesticide/PCB Identification (only required for positive results)
- E. VOA standard(s) reconstructed ion chromatograms and quantitation reports (or legible facsimile) for both the initial (five point) and all continuing (12 hour) calibrations. Spectra are not required.
- F. BMA standard(s) reconstructed ion chromatograms and quantitation reports (or legible facsimile) for both initial (five point) and all continuing (12 hour) calibrations. Spectra are not required.
- G. All Pesticide Evaluation Standard(s) (A, B, and C) chromatograms and data system printouts in chronological order by GC column type.
- H. All pesticide Individual Standard Mix (A or B) chromatograms and data system printouts in chronological order by GC column type.
- I. Pesticide Quantitation standard(s) chromatograms and data system printouts.

## V. RAW QC DATA

- A. DFTFP (For each 12-hour period, for each GC/MS system utilized)
  1. Bar graph spectrum
  2. Mass listing
- B. EFT (For each 12-hour period, for each GC/MS system utilized)
  1. Bar graph spectrum
  2. Mass listing
- C. Blank Data
  1. Tabulated results (Form I)
  2. Tentatively Identified Compounds (TIC) (Form I, Part B) even if none found.
  3. Raw Data - in order: VOA, BMA, Pesticide
    - a. Reconstructed ion chromatogram(s) and quantitation report(s) or legible facsimile (GC/MS).
    - b. Chromatogram(s) and data system printout(s) (GC)
    - c. HSL spectra with lab generated standard (dual display)
      - data systems which are incapable of dual display shall provide spectra in order:
        - raw HSL compound spectra
        - enhanced or background subtracted spectra
        - laboratory generated HSL standard spectra

# Versar

- d. GC/MS library search spectra for Tentatively Identified Compound(s) (TIC)
- e. Quantitation/Calculation of Tentatively Identified Compound(s) (TIC) concentrations
- D. Matrix Spike Data
  1. Tabulated results (Form I) of non-spiked ESL compounds - Form I, Part B not required
  2. Raw Data - in order: VOA, BHA, Pesticide
    - a. Reconstructed ion chromatogram(s) and quantitation report(s) or legible facsimile (GC/MS)  
- Spectra NOT required
    - b. Chromatogram(s) and data system printout(s) (GC)
      1. Both primary and confirmation column data is required.
- E. Matrix Spike Duplicate Data
  1. Tabulated results (Form I) of non-spiked ESL compounds  
- Form I, Part B not required
  2. Raw Data - in order: VOA, BHA, Pesticide
    - a. Reconstructed ion chromatogram(s) and quantitation report(s) or legible facsimile (GC/MS)  
- Spectra NOT required
    - b. Chromatogram(s) and data system printout(s) (GC)
      1. Both primary and confirmation column data is required.

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## VI. SAMPLE PREPARATION

1. Parameter Request Sheet
2. Screening Data Summary (soil only)
3.
  - a. Extraction Sample Comments
  - b. VOA Sample Comments
  - c. BHA Sample Comments
  - d. Pesticide Sample Comments
4. Extraction Worksheets (soil, water)
  - a. Chronicle
  - b. Soils, Dry Weight Factor
  - c. Dilution Factor Worksheet
5. Injection Sequence Logs
6. Chain of Custody

**Versar<sub>INC</sub>**

I. NARRATIVE

II. QC SUMMARY

December 18, 1988

Narrative - New York State  
Organic Analysis - EPA CLP Protocol  
Case: SH788  
Sample: 001 738001 01  
Client: Cozzy  
Contract C001298  
Versar Project 6016 - Batch 283

This report contains the analytical data for the analysis of one waste sample which arrived at Versar on November 18, 1988. The sample listed above was analyzed for both volatile (VOA) and semivolatile (SVA) compounds following EPA CLP procedures. Pesticide results and results of other requested parameters are reported separately.

GC/MS instrument calibrations using BFB and DFTPP met method requirements for volatile and semivolatile analyses, respectively. All samples were analyzed during the twelve hour period following daily instrument calibration. SPCC and CCC criteria were met for both volatile and semivolatile initial calibration curves and continuing calibration check standards.

All surrogate standard materials met recovery limits specified by the EPA for volatile and semivolatile analyses in the solid sample. These recovery limits were developed for environmental soil samples and may not be emenable to industrial wastes.

Matrix spike and matrix spike duplicate (MS/MSD) QC analyses were performed for the volatile and the semivolatile fractions of the solid waste sample. Most volatile MS and MSD recovery and all relative percent difference (RPD) values met limits specified for environmental soil samples. The MS and MSD recovery values for the semivolatile QC analyses met acceptable limits specified for environmental soil samples with the exception of 2,4-dinitrotoluene in the MS aliquot. All RPD values met specified QC limits. EPA CLP protocol does not require corrective action for MS or MSD recovery or RPD outlier values.

The volatile fraction of this sample contained numerous chlorinated solvent target analytes in addition to nontarget compounds. The nontarget compounds were tentatively identified using the EPA/NBS mass spectral database library. The sample required dilution by a factor of 100 prior to analysis in order to quantify the majority of the target compounds within the established linear range of the standard calibration curve. The dilution was also required in order to prevent instrument saturation. Further dilution and reanalysis of this sample was required for the sole purpose of quantifying xylenes.



Narrative - Page 2  
New York State - Cozzy  
Versar 6016 - Batch 283

Target analytes that exceeded the linear range of the standard calibration curve were reported on individual data summary pages with an "E" flag; target compounds that were quantified from sample reanalyses performed using an appropriate dilution factor were flagged with a "D". If all mass spectral identification criteria were not met, the compound was flagged with an "X" on the individual data summary pages. This flag indicates that the presence of the compound is suspected.

The solid waste sample was characterized by the extraction chemist as a "two phase, soil-like solid covered by dark, black/purple liquid." The GC/FID screen indicated that procedures used for extracting medium concentration samples were applicable.

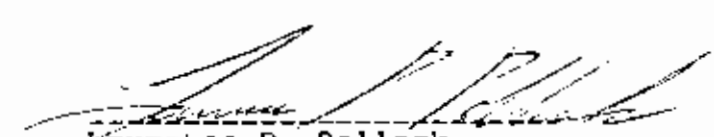
No semivolatile target analytes were confirmed present in this sample; nontarget compounds were detected and tentatively identified.

Due to the nature of this sample, no percent moisture content was determined; percent moisture determinations are typically performed on soil or ash samples. Therefore, all detection limits and concentrations of compounds confirmed present are reported on a "wet weight" basis.

Data qualifier flags used on the individual sample summary pages are defined in the listing which immediately follows this case narrative.

Please contact either Jay Bernarding, Laboratory Project Manager, or me, should you require any additional information or have any questions pertaining to the analysis of this sample.

Data Release Approved by:



Lawrence P. Pollack  
GC/MS Data Quality Manager  
Laboratory Operations



### Data Qualifiers Flags

- J - For Tentatively Identified Compounds: Estimated value. This flag is used when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed.  
  
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 greater than zero.
- B - This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- X or T - This flag states that the mass spectrum does not meet criteria for confirmation, but does indicate compound presence.
- u - This flag states that the compound was analyzed for but was not detected. The number is the unique attainable detection limit for the sample.

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

2B  
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: VERSAR INC. Contract: NYSDEC 001298  
 Lab Code: VERSAR Case No.: SH788 SAS No.: 6016 SDG No.: 283  
 Level: (low/med) MED

EPA	S1	S2	S3	OTHER	TOT
SAMPLE NO.	(TOL)#	(BFB)#	(DCE)#		OUT
01:00173800101	95	101	96		0
D2:00173800101M5	97	100	90		0
D3:001738001D1M5P	99	101	91		0
04:VBLK99	96	96	95		0
05:VBLK09	98	95	96		0
06:COIT380010.DL	98	92	94		0

GC 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 GC limits

D Surrogates diluted out

6016 B 283

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. S41788 Contract Laboratory Versar Inc. Contract No. 0001298

Low Medium

SWS SAMPLER NO.	VOLATILE					SEMI-VOLATILE					PESTICIDE LIMITS CONCENTRATION								
	100 mg/l - 00 (101-111)	100 (102-112)	1-1,000,000 CLASSIC-00 (100-120)	MTR0 METHYL 00 (103-120)	1-1,000,000 METHYL 00 (100-110)	100 mg/l - MTR 00 (103-120)	100 mg/l - MTR 00 (103-120)	100 mg/l - MTR 00 (103-120)	100 mg/l - MTR 00 (103-120)	100 mg/l - MTR 00 (103-120)									
73800101				60	76	66													
73800101 <sup>MS</sup>				71	76	77													
73800101 <sup>50</sup>				60	71	83													
SRK 91				47	61	78													

VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS  
ADVISORY LIMITS ONLY

Validates: NR out of NR outside of QC limits  
Semi-Validates: NR out of NR outside of QC limits  
Passes: NR out of NR outside of QC limits

Comments: For Semivolatiles Analyzed Only

NR - Not Required as Permitted Separately

FORM #

## SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: VERSAR INC.Contract: NYSDECCO01298Lab Code: VERSAR Case No.: SH788SAS No.: 6016SDG No.: 283Matrix Spike - EPA Sample No.: 00173S00101Level: (low/med) med

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	GC LIMITS REC.
1,1-Dichloroethene	6850	0	6270	92	59-172
Trichloroethene	6850	3300	11000	112	62-137
Benzene	6850	0	6490	95	66-142
Toluene	6850	20000	30300	150 *	59-139
Chlorobenzene	6850	0	7670	112	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	GC LIMITS RPD REC.
1,1-Dichloroethene	6850	6530	95	-3	22 59-172
Trichloroethene	6850	11600	121	-8	24 62-137
Benzene	6850	6730	98	-3	21 66-142
Toluene	6850	30500	153 *	-2	21 59-139
Chlorobenzene	6850	8010	117	-4	21 60-133

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

\* Values outside of GC limits

RPD: 0 out of 5 outside limitsSpike Recovery: 2 out of 10 outside limits

COMMENTS: CLP, 6016, 283, 00173S00101, M, S, 61641, V, , SML, 1/100  
 INSTRUMENT Y: SP-1D00 COLUMN 45C(2MIN) TO 225C@80EG/MIN

**SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY**

Case No. SI1788 Contractor Versar Inc. Contract No. 001298

Low Level \_\_\_\_\_ Medium Level ✓

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	RPD	OC LIMITS RECOVERY
VOA SMO SAMPLE NO. <u>NR</u>	1,1-Dichloro ethene									
	Trichloroethene									
	Chlorobenzene									
	Toluene									
B/N SMO SAMPLE NO. <u>NR</u>	Benzene									
	1,2,4-Trichlorobenzene	100	0	76	76	67	67	13	23	38-107
	Acenaphthene	100	0	83	83	80	80	4	18	31-137
	2,4-Dinitrofluorene	100	0	85	85	93	93*	9	47	28-89
7380010 ACID SMO SAMPLE NO. <u>NR</u>	Pyrene	100	0	100	100	108	108	8	28	35-142
	N-Nitrosodimethylamine	100	0	80	80	71	71	12	38	41-128
	1,4-Dichlorobenzene	100	0	11	11	65	65	17	27	28-104
	Perchlorophenol	200	0	195	98	198	99	2	47	17-109
1380010 PEST SMO SAMPLE NO. <u>NR</u>	Phenol	200	0	159	79	136	68	16	35	28-90
	2-Chlorophenol	200	0	155	76	132	66	16	50	25-102
	4-Chloro-3-Methylphenol	200	0	176	88	168	83	0	33	28-103
	4-Nitrophenol	200	0	190	95	193	97	2	50	11-114
PEST SMO SAMPLE NO. <u>NR</u>	Lindane								50	48-127
	Heptachlor								31	35-130
	Aldrin								43	34-132
	Dieldrin								38	31-134
	Endrin								45	42-139
	4,4'-DDT								50	23-134

\*ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

RECOVERY: VOA: NR out of NR; outside OC limits  
 B/N: 0 out of 6; outside OC limits  
 ACID: 0 out of 5; outside OC limits  
 PEST: NR out of NR; outside OC limits

Comments: Semivolatile Analytes Only

NR - Not Reported as Requested Separately

4A  
VOLATILE METHOD BLANK SUMMARY

Lab Name: VERSAR INC. Contract: NYSDEC CC01298  
 Lab Code: VERSAR Case No.: SH788 BAS No.: 60/6 SDG No.: 283  
 Lab File ID: Y3599 Lab Sample ID: VBLK99  
 Date Analyzed: 11/29/88 Time Analyzed: 0106  
 Matrix: (soil/water) SOIL Level: (low/med) MED  
 Instrument ID: Y

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

EPA	LAB	LAB	TIME
SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
100173800101	61641	Y3601	0250
100173800101 DL	61641	Y3601	0153

COMMENTS: CLP, , VBLK99, M, S, VBLK99, V, BLANK, , 5ML, 100UL METH ADDED  
 INSTRUMENT Y: SP-1000 COLUMN 45C(2MIN) TO 225C@8DEG/MIN

4A  
VOLATILE METHOD BLANK SUMMARY

Lab Name: VERSAR INC. Contract: NYSDEC 1001298  
 Lab Code: VERSAR Case No.: SH798 SAB No.: 6016 SDG No.: 283  
 Lab File ID: Y3609 Lab Sample ID: VBLKD9  
 Date Analyzed: 11/29/88 Time Analyzed: 1306  
 Matrix: (soil/water) SOIL 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
01:00173B00101MS	61641MS	Y3610	1412
02:00173B0D101MSD	61641MSD	Y3611	1508

COMMENTS: CLP, , , VBLK09, M, B, VBLK09, V, BLANK, 5ML, 100UL METH ADDED  
 INSTRUMENT Y: SP-1000 COLUMN 45C(2MIN) TO 225C&BDEG/MIN











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

Lab Name: VERSAR INC. Contract: NYSDEC 0001298  
 Lab Code: VERSAR Case No.: SH788 SAS No.: 6016 SDG No.: 283  
 Lab File ID: Y3592 BFB Injection Date: 11/28/88  
 Instrument ID: Y BFB Injection Time: 1815  
 Matrix: (soil/water) WATER Level: (low/med) MED Column: (pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.9
75	30.0 - 60.0% of mass 95	43.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 ( 0.0)1
174	Greater than 50.0% of mass 95	82.6
175	5.0 - 9.0% of mass 174	4.8 ( 5.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	81.4 ( 98.6)1
177	5.0 - 9.0% of mass 176	5.5 ( 6.8)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 VSTD50	STD16325	Y3593	11/28/88	1840
02 VSTD200	STD16426	Y3594	11/28/88	2057
03 VSTD150	STD16427	Y3595	11/28/88	2152
04 VSTD100	STD16428	Y3596	11/28/88	2240
05 VSTD20	STD16429	Y3597	11/28/88	2328
06 VBLK99	VBLK99	Y3599	11/29/88	0106
07 00173800101	61641	Y3600	11/29/88	0153
00173800101	61641	Y3601	11/29/88	0230

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

Lab Name: VERSAR INC. Contract: NYSDEC 0001298  
 Lab Code: VERSAR Case No.: SH788 SAS No.: 6016 SDG No.: 283  
 Lab File ID: Y3606 BFB Injection Date: 11/29/88  
 Instrument ID: Y BFB Injection Time: 1041  
 Matrix: (soil/water) WATER Level: (low/med) MED Column: (pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.8
75	30.0 - 60.0% of mass 95	41.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 ( 0.0)1
174	Greater than 50.0% of mass 95	99.2
175	5.0 - 9.0% of mass 174	6.5 ( 6.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	97.2 ( 98.0)1
177	5.0 - 9.0% of mass 176	6.0 ( 6.2)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	VSTD50	STD16437	Y3607	11/29/88 1105
02	VBLK09	VBLK09	Y3609	11/29/88 1306
03	00173800101MS	61641MS	Y3610	11/29/88 1412
04	00173800101MSD	61641MSD	Y3611	11/29/88 1508

**Versar<sub>INC.</sub>**

III. SAMPLE DATA PACKAGE

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE #

Lab Name: VERSAR INC. Contract: NYSDEC 00173800101

Lab Code: VERSAR Case No.: SH785 SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) SOIL Lab Sample ID: 61641

Sample wt/vol: 5.0 (g/mL) g Lab File ID: Y3601

Level: (low/med) MED Date Received: 11/18/88

% Moisture: not dec. 27 Date Analyzed: 11/29/88

Column: (pack/cap) PACK Dilution Factor: 100

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) <u>UG/KG</u>	G
74-87-3	Chloromethane	1400	U
74-83-9	Bromomethane	1400	U
75-01-4	Vinyl Chloride	1400	U
75-00-3	Chloroethane	1400	U
75-09-2	Methylene Chloride	690	U
67-64-1	Acetone	1400	U
75-15-0	Carbon Disulfide	690	U
75-35-4	1,1-Dichloroethene	690	U
75-35-3	1,1-Dichloroethane	690	U
540-59-0	1,2-Dichloroethene (total)	2000	U
67-66-3	Chloroform	690	U
107-06-2	1,2-Dichloroethane	690	U
78-93-3	2-Butanone	1400	U
71-55-6	1,1,1-Trichloroethane	690	U
56-23-5	Carbon Tetrachloride	690	U
108-05-4	Vinyl Acetate	1400	U
75-27-4	Bromodichloromethane	690	U
78-87-5	1,2-Dichloropropane	690	U
10061-01-5	cis-1,3-Dichloropropene	690	U
79-01-6	Trichloroethene	3300	X
124-48-1	Dibromochloromethane	690	U
79-00-5	1,1,2-Trichloroethane	690	U
71-43-2	Benzene	690	U
10061-02-6	Trans-1,3-Dichloropropene	690	U
75-25-2	Bromoform	690	U
108-10-1	4-Methyl-2-Pentanone	2000	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	4600	X
79-34-5	1,1,2,2-Tetrachloroethane	7300	U
108-88-3	Toluene	20000	U
108-90-7	Chlorobenzene	690	U
100-41-4	Ethylbenzene	14000	U
100-42-5	Styrene	690	U
1330-20-7	Total-Xylenes	61000	E



ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR  
 Lab Sample ID No: 61641  
 Sample Matrix: SOIL  
 Data Release Authorized By: \_\_\_\_\_

Case No: 6016 BR283 (SM78 6)  
 GC Report No: 6016 BR283 (SM78 6)  
 Contract No: C001298  
 Date Sample Received: 11/18/88

VOLATILE COMPOUNDS

Concentration: NID  
 Date Extracted/Prepared: 11/29/88  
 Date Analyzed: 11/29/88  
 Conc/Std Factor: 5000 pH NA  
 Percent Moisture: 27.7

CAS Number	Compound	ug/Kg	CAS Number	Compound	ug/Kg
174-87-3	Chloroethane	69000 u	178-87-5	1,2-Dichloropropane	35000 u
174-83-9	Bromoethane	69000 u	110061-02-6	Trans-1,3-Dichloropropene	35000 u
175-01-4	Vinyl Chloride	69000 u	179-01-6	Trichloroethene	35000 u
175-00-3	Chloroethane	69000 u	1124-48-1	Dibromochloromethane	35000 u
175-09-2	Methylene Chloride	35000 u	179-00-5	1,1,2-Trichloroethane	35000 u
167-64-1	Acetone	69000 u	171-43-2	Benzene	35000 u
175-15-0	Carbon Disulfide	35000 u	110061-01-5	Cis-1,3-Dichloropropene	35000 u
175-35-4	1,1-Dichloroethene	35000 u	1110-75-8	12-chloroethylvinylether	69000 u
175-34-3	1,1-Dichloroethane	35000 u	175-25-2	Bromoform	35000 u
1156-60-5	Trans-1,2-Dichloroethene	35000 u	1108-10-1	14-Methyl-2-Pentanone	69000 u
167-66-3	Chloroform	35000 u	1591-78-6	12-Hexanone	69000 u
1107-06-2	1,2-Dichloroethane	35000 u	1127-16-4	Tetrachloroethene	35000 u
178-93-3	12-butanone	69000 u	179-34-5	1,1,1,2-Tetrachloroethane	35000 u
171-55-6	1,1,1-Trichloroethane	35000 u	1108-88-3	Toluene	35000 u
156-83-5	Carbon Tetrachloride	35000 u	1108-90-7	Chlorobenzene	35000 u
1108-05-4	Vinyl Acetate	69000 u	1100-41-4	Ethylbenzene	35000 u
175-27-4	Bromodichloromethane	35000 u	1100-42-5	Styrene	35000 u
				Metal Xylenes	37000 u

Data Reporting Qualifiers

- Value If the result is a value greater than or equal to the detection limit, report the value.
- u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)
- C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- T Spectrum does not meet criteria for confirmation but does indicate compound presence.
- NA Compound present in both matrix spike standard and unspiked sample.

Case No. 9016 P4363

ORGANICS ANALYSIS DATA SHEET (Page 2)  
 Semivolatile Compounds

Concentration(s):

Date Extracted/Prepared: 11/28/88

GPC Cleanup : Yes (X)No

Date Analyzed: 12/05/88

Separatory Funnel Extraction : Yes

Conc/Dil Factor: 1

Continuous Liquid-Liquid Extraction : Yes

ORG Number		ug/kg	ORG Number		ug/kg
103-95-2	Benzol	28000 u	183-32-9	Acenaphthene	28000 u
111-44-4	bis(2-Chloroethyl)Ether	28000 u	151-28-5	1,2,4-Dinitrophenol	138000 u
101-77-2	1,2-Dichlorobenzol	28000 u	1100-09-7	1,4-Nitrophenol	138000 u
341-73-1	1,3-Dichlorobenzene	28000 u	1132-64-9	1,2-Benzofuran	28000 u
105-46-7	1,4-Dichlorobenzene	28000 u	1121-14-2	1,2,4-Dinitrotoluene	28000 u
100-71-6	Benzyl Alcohol	28000 u	1606-20-2	2,6-Dinitrotoluene	28000 u
105-50-1	1,2-Dichloroethane	28000 u	18-68-6	Diethylphthalate	28000 u
91-41-7	1,2-Dichloroethene	28000 u	17005-22-3	4-Chlorophenyl-phenylether	28000 u
109336-32-9	bis(2-chloroisopropoxy)ether	28000 u	184-77-7	Fluorene	28000 u
102-46-5	4-methylphenol	28000 u	1100-01-6	4-nitroaniline	138000 u
103-106-1	1-Nitroso-Ni-n-propylamine	28000 u	1514-52-1	4,6-dinitro-2-methylphenol	138000 u
167-72-1	Hexachlorocyclohexane	28000 u	186-30-6	1-Nitrosophenylamine (1)	28000 u
105-95-3	1-Nitrobenzene	28000 u	1101-55-7	1,4-Dimethylphenyl-phenylether	28000 u
70-84-1	Isobutanol	28000 u	1116-74-1	Hexachlorobenzene	28000 u
56-75-0	1,2-Nitrophenol	28000 u	187-86-5	1-Pentachloropropenol	138000 u
105-67-9	1,2,4-trimethylphenol	28000 u	185-01-8	1-Phenanthrene	28000 u
105-85-0	Benzoic Acid	138000 u	1120-12-7	Anthracene	28000 u
111-49-1	bis(2-chloroethoxy)methane	28000 u	184-74-2	1,1-di-n-butylphthalate	28000 u
1120-63-2	1,2,4-trichlorophenol	28000 u	1206-44-0	1-Fluoranthene	28000 u
1120-62-1	1,1,2,4-tetrachlorobenzene	28000 u	1129-00-0	1-Pyrene	28000 u
191-20-3	1-Phthalene	28000 u	185-68-7	1-Butylbenzylphthalate	28000 u
1106-47-8	1,4-Dichlorobenzene	28000 u	191-94-1	1,3,3'-Dichlorobenzidine	56000 u
187-68-3	Hexachlorobutadiene	28000 u	156-55-3	1-Benzo(a)anthracene	28000 u
155-70-7	1,4-dichloro-3-methylphenol	28000 u	1117-81-7	bis(2-Ethylhexyl)Phthalate	28000 u
191-57-5	1,2-methylnaphthalene	28000 u	1218-01-9	1-Chrysene	28000 u
177-47-4	1,hexachlorocyclopentadiene	28000 u	1117-84-0	1,1-di-n-butylphthalate	28000 u
188-06-2	1,2,4,6-Trichlorophenol	28000 u	1205-22-2	1-Benzo(b)fluoranthene	28000 u
175-95-4	1,2,4,5-Trichlorophenol	138000 u	1207-08-9	1-Benzo(k)fluoranthene	28000 u
191-58-7	1,8-Chloronaphthalene	28000 u	150-32-8	1-Benzo(a)pyrene	28000 u
188-74-4	1,2-Nitroaniline	138000 u	1193-37-5	1-Indeno(1,2,3-cd)pyrene	28000 u
1131-11-3	1,Dimethyl Phthalate	28000 u	153-70-3	1-Dibenz(a,h)Anthracene	28000 u
180-96-8	1-Acenaphthylene	28000 u	1191-24-2	1-Benzo(g,h,i)Perylene	28000 u
105-09-2	1,3-Nitroaniline	138000 u			

(1)-Cannot be separated from diphenylamine

Organics Analysis Data Sheet  
 (Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan	Estimated Concentration (ug/kg or ug/l)
1	96-37-7	LCYCLOPENTANE, METHYL-	100A	338	940 J
2	79-29-8	IBUTANE, 2,3-DIMETHYL-	100A	392	1,300 J
3	96-14-0	IPENTANE, 3-METHYL-	100A	428	1,400 J
4		UNKNOWN	100A	501	2,400 J
5		UNKNOWN HYDROCARBON	100A	530	6,700 J
6		UNKNOWN HYDROCARBON	100A	579	1,100 J
7		UNKNOWN HYDROCARBON	100A	591	1,400 J
8		UNKNOWN TRIMETHYL HEXANE	100A	637	930 J
9		UNKNOWN	100A	668	1,100 J
10	103-65-1	IBENZENE, PROPYL-	100A	787	1,200 J
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Organics Analysis Data Sheet  
 (Page 4)

Tentatively Identified Compounds

DAS Number	Compound Name	Fraction	RT or Scan	Estimated Concentration (ug/Kg or ug/l)
1	UNKNOWN	1BNA	267	34,000 J
2	UNKNOWN BENZENE	1BNA	384	15,000 J
3	UNKNOWN DIMETHYL BENZENE	1BNA	425	15,000 J
4 556-87-2	ICYCLOTETRASILOXANE, OCTAMETHYL	1BNA	537	150,000 J
5	UNKNOWN	1BNA	545	42,000 J
6	UNKNOWN	1BNA	629	27,000 J
7	UNKNOWN	1BNA	647	470,000 J
8 541-02-6	ICYCLOPENTASILOXANE, DECAMETHYL	1BNA	652	47,000 J
9	UNKNOWN	1BNA	900	22,000 J
10	UNKNOWN HYDROCARBON	1BNA	973	63,000 J
11	UNKNOWN HYDROCARBON	1BNA	1042	150,000 J
12	UNKNOWN PHENOL	1BNA	1058	30,000 J
13	UNKNOWN HYDROCARBON	1BNA	1075	48,000 J
14	UNKNOWN HYDROCARBON	1BNA	1107	200,000 J
15	UNKNOWN HYDROCARBON	1BNA	1112	70,000 J
16	UNKNOWN HYDROCARBON	1BNA	1169	140,000 J
17	UNKNOWN HYDROCARBON	1BNA	1176	31,000 J
18	UNKNOWN HYDROCARBON	1BNA	1228	59,000 J
19	UNKNOWN ORGANIC ACID	1BNA	1262	41,000 J
20	UNKNOWN HYDROCARBON	1BNA	1264	26,000 J
21	UNKNOWN HYDROCARBON	1BNA	1338	21,000 J
22	UNKNOWN	1BNA	1466	95,000 J
23	UNKNOWN	1BNA	1975	170,000 J
24				
25				
26				
27				
28				
29				
30				



Quantitation Report File: Y3601

Date: Y3601.T1

1/29/88 2:50:00

Sample: CLP, 8016, 283 00170800101, M. S., 61641, V., 5ML, 1/100

Cond: INSTRUMENT Y SP-1000 COLUMN 450(2MIN) TO 2250@2DEG/MIN

Formula

Instrument: Y

Weight: 0.001

Submitted by: VERSAR

Analyst: JP

Acct. No.: 8016

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac from Library Entry

No	Name
1	C101 BROMOCHLOROMETHANE****INTERNAL STANDARD#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	C046 TRICHLOROFLUOROMETHANE
11	C050 1,1-DICHLOROETHANE
12	C055 1,2-DICHLOROETHENE (TOTAL)
13	C060 CHLOROFORM
14	C065 1,1,1-DICHLOROETHANE
15	C070 1,1-DICHLOROETHANE-D****SURROGATE#1****
16	C110 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
17	C085 1,1,1-TRICHLOROETHANE
18	C115 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMOCHLOROMETHANE
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-CHLOROETHYL VINYLETHER
30	C180 BROMOFORM
31	C120 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
32	C210 2-HEXANONE
33	C205 4-METHYL-2-PENTANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 TOTAL XYLENES
41	C505 TOLUENE-D8****SURROGATE#2****
42	C510 4-BROMOFLUOROBENZENE****SURROGATE#3****
43	C250 TOTAL XYLENES

No	m/z	Scan	Time	Ref	RT	Meth	Area(Hght)	Amount	Ratio
1	128	211	9:34	1	1.000	A BB	68370	50.000 UG/L*	4.38
2		NOT FOUND							
3		NOT FOUND							
4		NOT FOUND							
5		NOT FOUND							
6		NOT FOUND							
7	43	164	7:06	1	0.743	A BV	4292	<del>11.330 UG/L</del> NL	1.00
8	76	164	7:58	1	0.923	A BB	795	<del>0.153 UG/L</del> ND	0.02
9		NOT FOUND							
10		NOT FOUND							
11	63	209	10:20	1	1.052	A BB	377	<del>2.193 UG/L</del> ND	0.01
12	96	204	10:56	1	1.150	A BB	28294	14.352 UG/L	1.26
13	83	268	11:36	1	1.213	A BB	195	<del>2.281 UG/L</del> ND	0.01
14		NOT FOUND							
15	85	291	12:09	1	1.272	A BB	129312	45.152 UG/L*	4.22 96%
16	114	453	19:36	16	1.000	A BB	297408	50.000 UG/L*	4.38
17	97	314	13:35	16	0.694	A BB	5627	<del>1.630 UG/L</del> ND	0.15
18		NOT FOUND							
19		NOT FOUND							
20	43	384	14:01	16	0.716	A BB	2240	<del>2.578 UG/L</del> ND	0.06
21		NOT FOUND							
22		NOT FOUND							
23		NOT FOUND							
24	130	311	15:34	16	0.841	A BB	59175	24.180 UG/L	2.12
25		NOT FOUND							
26	87	411	17:01	16	0.766	A BB	2589	<del>1.230 UG/L</del> ND	0.11
27	73	334	17:03	16	0.870	A BB	14129	<del>2.412 UG/L</del> ND	0.22
28		NOT FOUND							
29		NOT FOUND							
30		NOT FOUND							
31	101	541	24:34	31	1.000	A BB	275252	50.000 UG/L*	4.38
32		NOT FOUND							
33	40	472	20:05	31	0.831	A BV	47894	14.275 UG/L	1.25
34	514	514	22:14	31	0.905	A BB	69667	33.355 UG/L	2.92
35	515	515	22:17	31	0.907	A BB	225492	52.425 UG/L	4.68
36	51	544	23:32	31	0.958	A BB	764579	145.539 UG/L	13.75
37	112	572	24:45	31	1.008	A BB	14076	<del>2.512 UG/L</del> ND	0.26
38	104	618	26:44	31	1.087	A BB	295949	103.521 UG/L	9.07
39		NOT FOUND							
40	106	744	32:11	31	1.310	A BB	659436	150.841 UG/L	13.01
41	76	529	23:19	31	0.949	A BB	252336	47.613 UG/L*	4.17 95%
42	95	680	29:25	31	1.193	A BB	192690	50.156 UG/L*	4.41 101%
43	106	720	31:09	31	1.262	A BB	917550	254.435 UG/L	22.27

No	Ret(L)	Ratio	RT(L)	Ratio	Amnt	Amnt(L)	R Fac	R Fac(L)	Ratio
1	1.00	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1.54		0.199						
3	2.57		0.311						
4	2.43		0.368						
5	4.38		0.482						
6	6.27		0.690						
7	7.06	1.00	0.739	1.01	11.39	50.00	0.023	0.275	0.23
8	7.58	1.00	0.823	1.01	0.16	50.00	0.012	0.800	0.01
9	9.08		0.946						
10	8.27		0.983						
11	10.20	1.00	1.077	1.01	0.11	50.00	0.002	2.677	0.01

VJ601

Rs	Ret(L)	Ratio	RET(L)	Ratio	Amnt	Amnt(L)	R	Fac	R. Fac(L)	Ratio
12	10.55	1.00	1.145	1.01	14.36	50.00	0.450	1.452	0.29	
13	11.36	1.00	1.209	1.01	0.05	50.00	0.000	2.882	0.01	
14	12.20		1.284							
15	12.12	1.00	1.271	1.01	45.16	50.00	1.291	1.964	0.97	
16	13.38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00	
17	15.38	1.00	0.874	1.00	1.64	50.00	0.019	0.580	0.04	
18	12.09		0.619							
19	12.52		0.712							
20	14.11	1.00	0.714	1.01	0.58	50.00	0.012	0.943	0.02	
21	14.30		0.735							
22	15.50		0.807							
23	16.06		0.820							
24	16.24	1.00	0.844	1.01	24.12	50.00	0.199	0.413	0.49	
25	17.18		0.862							
26	17.24	1.00	0.866	1.00	1.25	50.00	0.005	0.349	0.03	
27	17.03	1.00	0.871	1.00	2.52	50.00	0.049	0.545	0.05	
28	17.23		0.884							
29	18.23		0.937							
30	20.02		1.020							
31	24.37	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00	
32	21.59		0.890							
33	20.25	1.00	0.830	1.01	14.26	50.00	1.174	0.608	0.29	
34	22.17	1.00	0.911	1.00	23.36	50.00	1.250	0.379	0.27	
35	22.11	1.00	0.917	1.00	53.43	50.00	0.917	0.754	1.07	
36	22.25	1.00	0.956	1.00	145.64	50.00	2.768	0.951	2.92	
37	24.17	1.00	1.005	1.01	2.92	50.00	0.131	0.374	0.06	
38	26.47	1.00	1.086	1.01	103.63	50.00	1.073	0.519	2.08	
39	21.04		0.857							
40	22.14	1.00	1.310	1.01	162.87	50.00	2.322	0.653	3.65	
41	22.22	1.00	0.950	1.00	47.62	50.00	0.914	0.960	0.96	
42	19.16	1.00	1.157	1.01	50.37	50.00	0.898	0.693	1.01	
43	21.14	1.00	1.310	0.97	254.44	50.00	0.322	0.650	6.09	

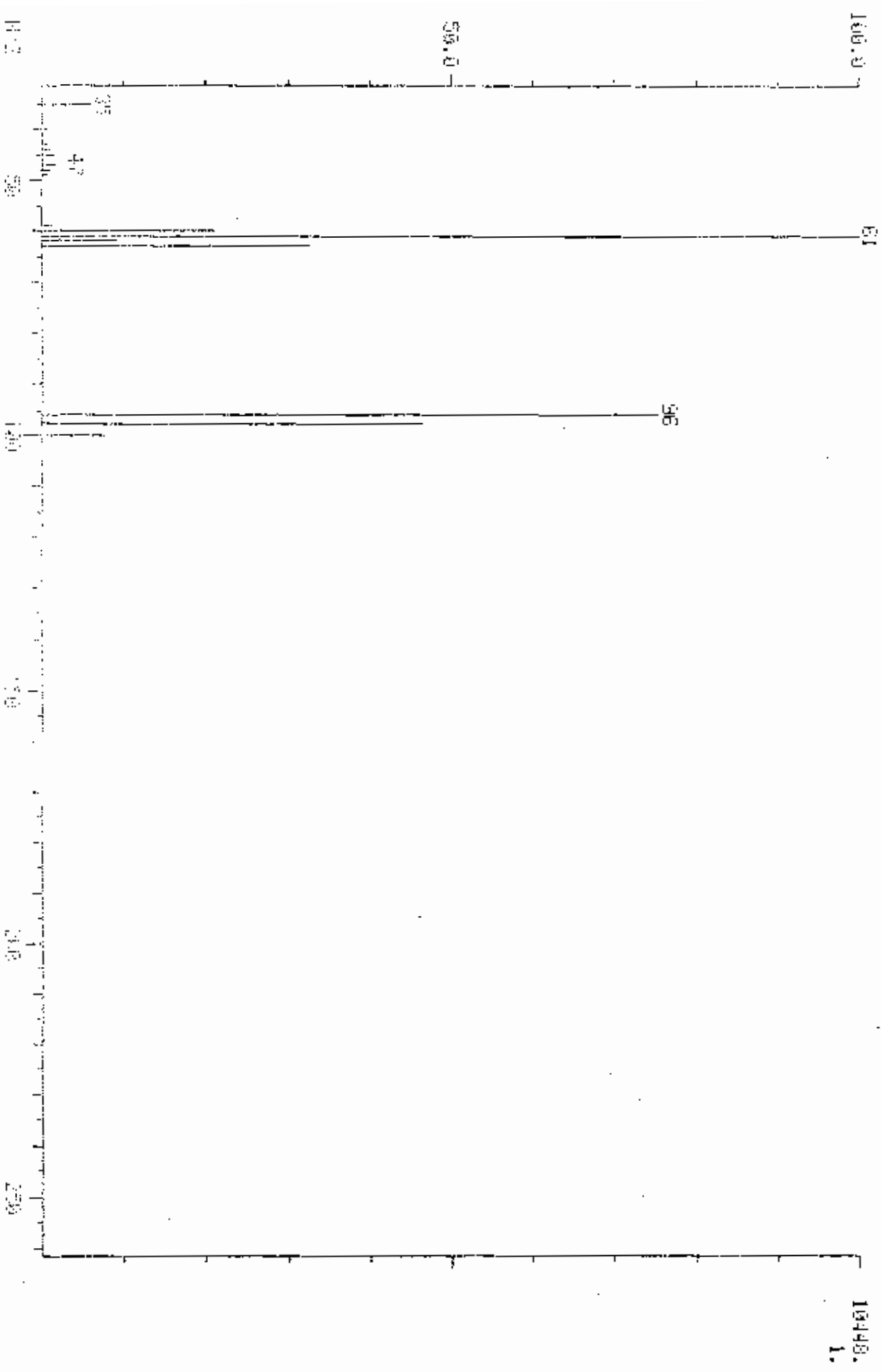
Y3601



MSD MASS SPECTROM  
11/23/88 2:50:00 + 10:53  
SAMPLE: CLP, K01G, 283.90173000101.M, S, 61541.0, 5M, 1.0180  
COND: INSTRUMENT 719F-1000 COLUMN 450.02MHD TO 225080DEC/88  
TEMP: 491.00 C  
NAME: 005 1-2-01CHLOROBENZENE (TOTAL)

DATA: Y0601 0254  
FILE: Y0601 43

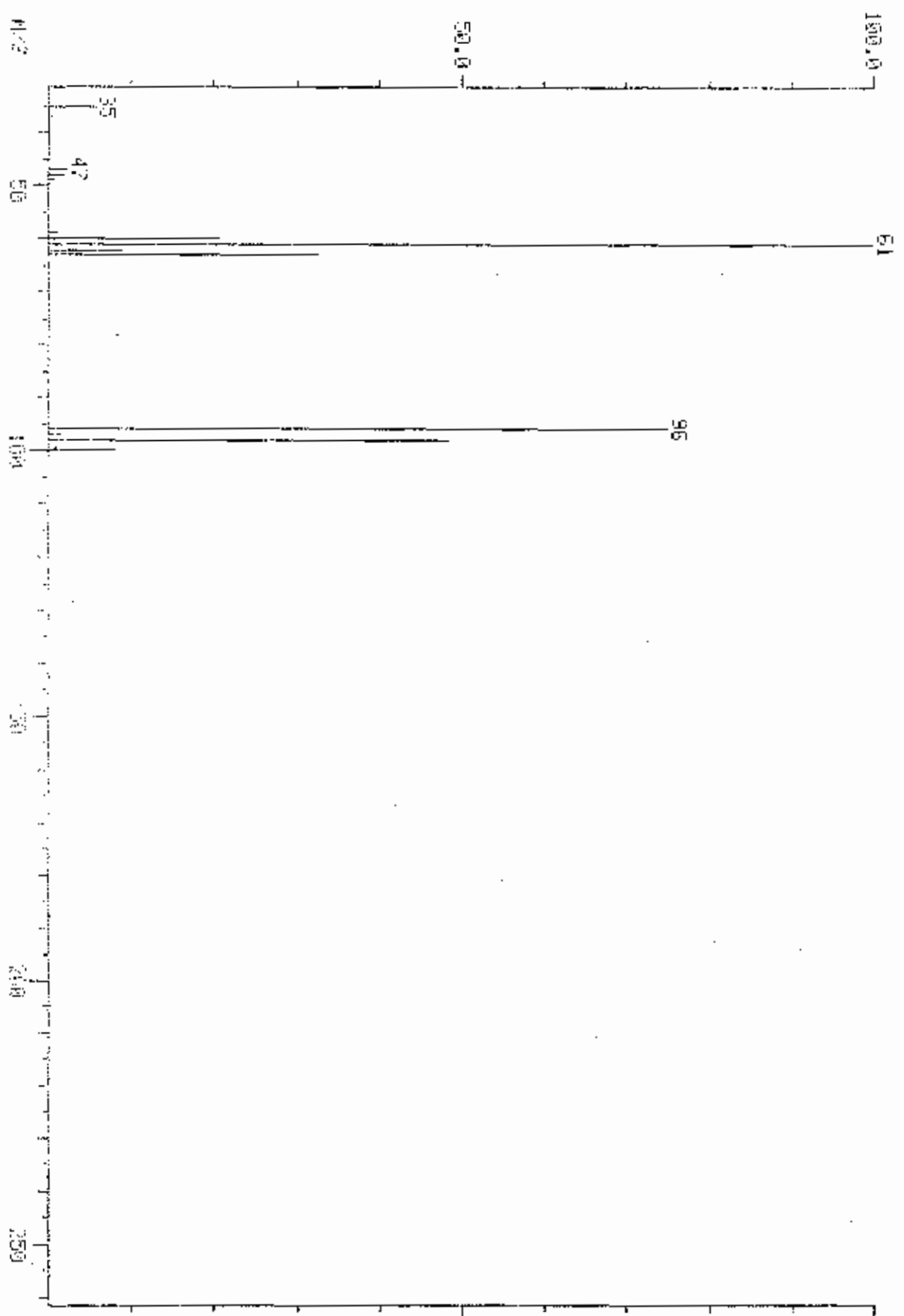
BASE P/2: 61  
RICH: 32129.



MS MASS SPECTRUM  
11/29/88 21:50:00 + 18:00  
SAMPLE: CLP-6015-283-Q017300101-11-5-81041-01-SM-1-1-00  
COUNTS: INSTRUMENT V15P-1000 COLUMN: 40M-20M TO 2000000000  
GC TEMP: 491 DEG. C  
ENHANCED (S 158 21 01)NAME: C055 1,2-DICHLOROPETHERE (TOTAL)

DATA: 10601 8254  
FILE: 10601 #3

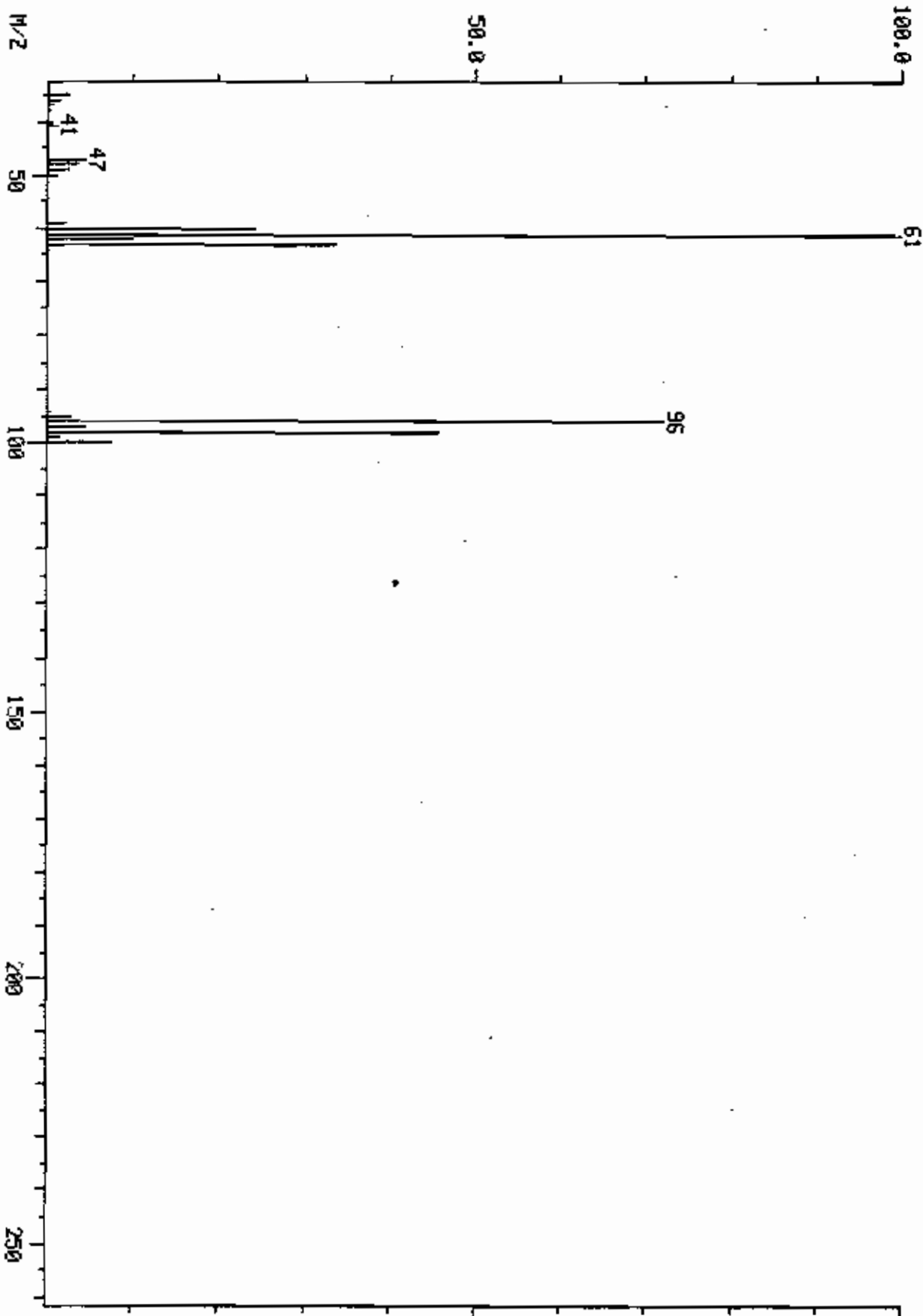
BASE 11/29: 61  
FILE: 10601



MID MASS SPECTRUM  
11/28/88 18:40:00 + 10:59  
SAMPLE: CLP,,,USTD50,L,S,STD16325,U,CC-050,5ML  
COND5.: INSTRUMENT Y:SP-1000 COLUMN# 45C(2MIN) TO 225C(80DEC/MIN)  
GC TEMP:-491 DEG. C  
ENHANCED (5 150 24 0T)

DATA: Y3593 #254  
CALL: Y3593 #3

BASE M/Z: 61  
RIC: 125312.

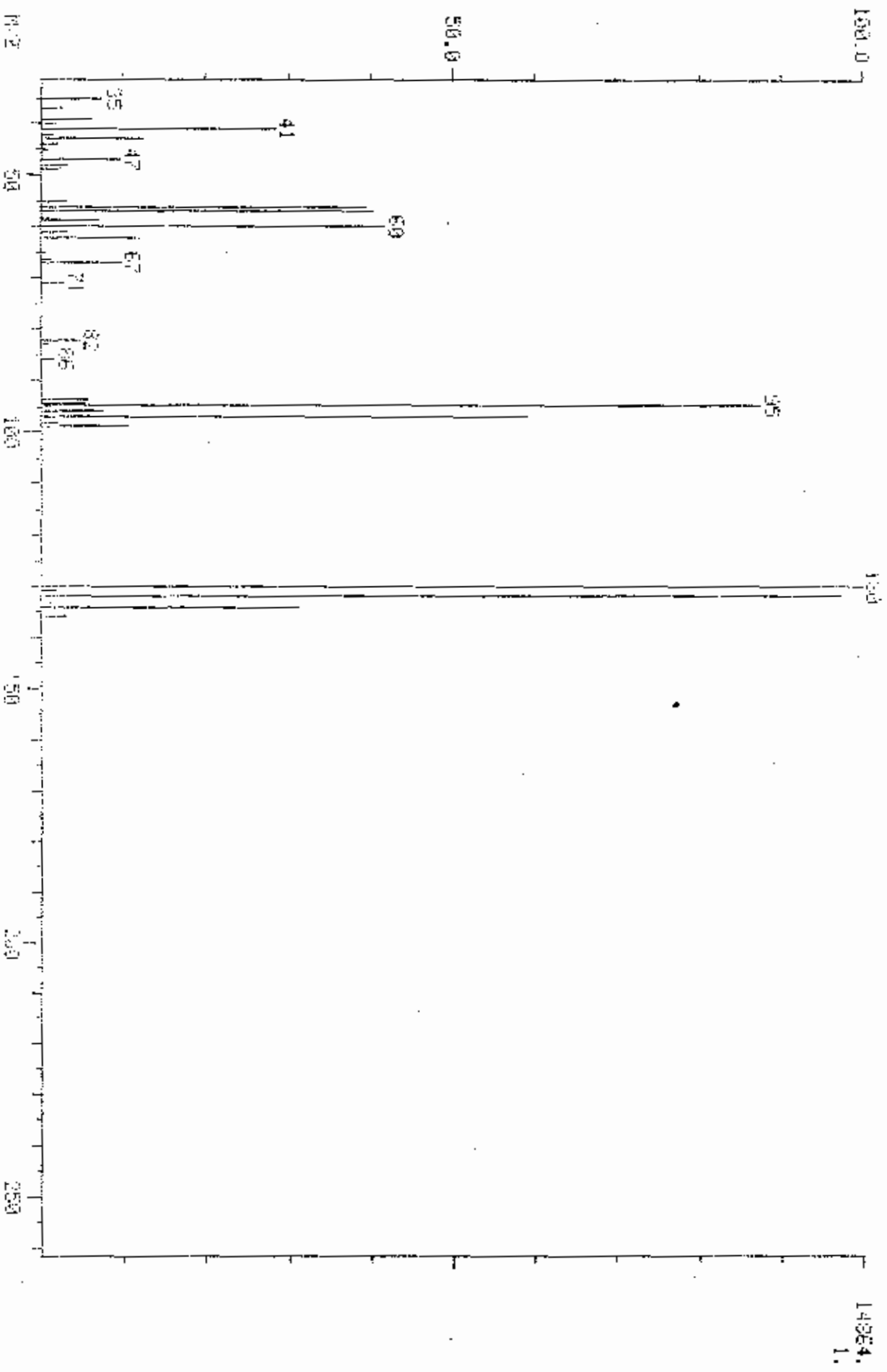


38948.  
1.

MS MASS SPECTRUM  
11/23/88 2:50:00 + 16:34  
SAMPLE: CLP/6016/283/60173880101.M/SIGNAL 9, SML 1 103  
COND.: INSTRUMENT 9:58-1003 COLUMN 43021010 TO 25078000/HR  
GC TEMP: 451 DEG. C  
NAME: C150 TRICHLOROETHENE

DATA: V3601 H393  
CALI: 13001 13

BASE M/Z: 130  
PID: 98560.

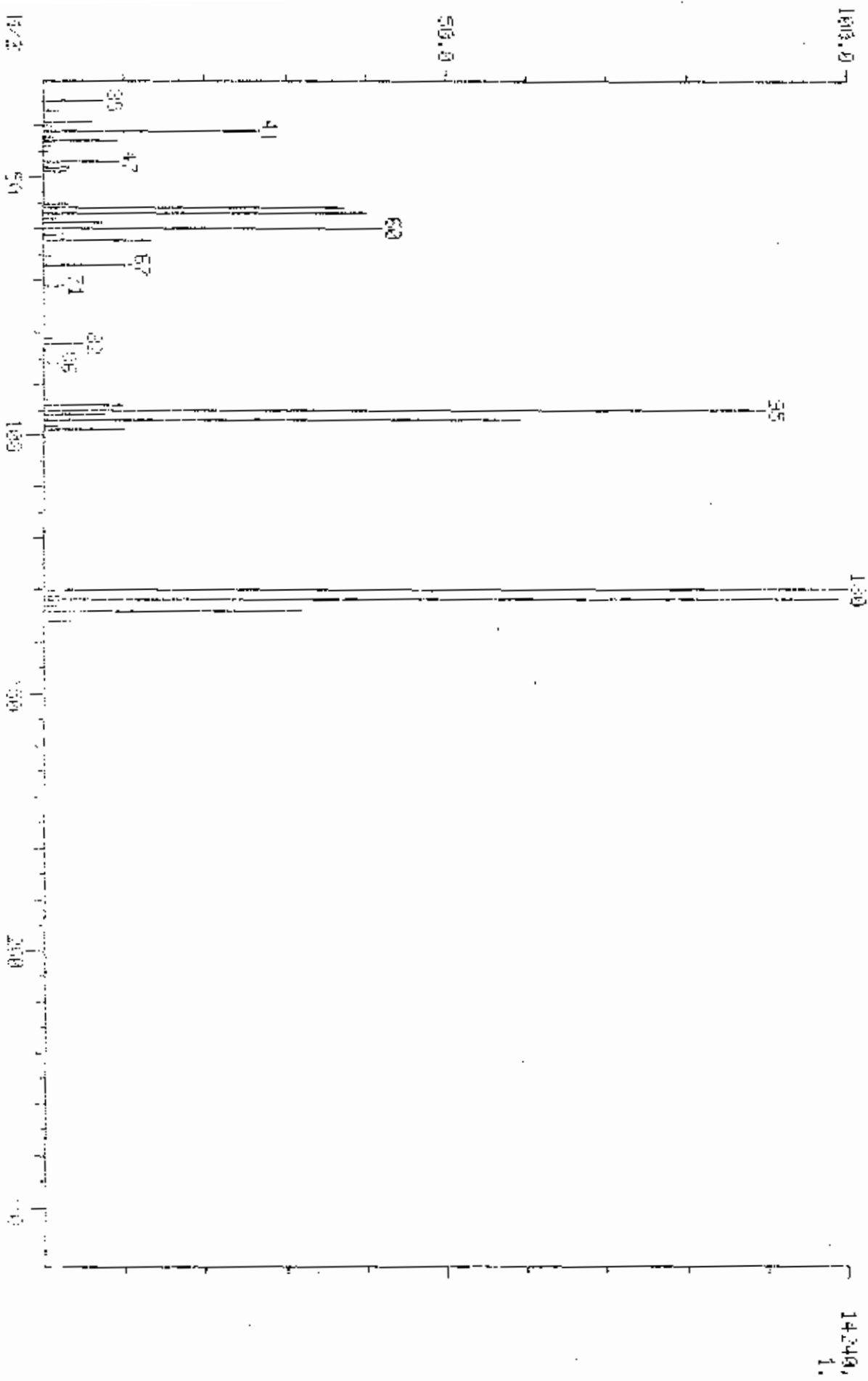


14924.  
1.

MSD MASS SPECTRUM  
11/29/88 2:50:00 + 16:34  
SAMPLE: CLP, 6016, 289, 00173950101, M/S: 61041-01, SOL: 1:100  
COLID: INSTRUMENT V: SP-1600 COLUMN: 450.2MMID TO 250DEGDEG/MIN  
GC TEMP: -431 DEG. C  
ENHANCED X5 150 2M 0TNAME: 0150 TRICHLOROETHENE

DATA: Y3601 #383  
CALI: Y3601 #3

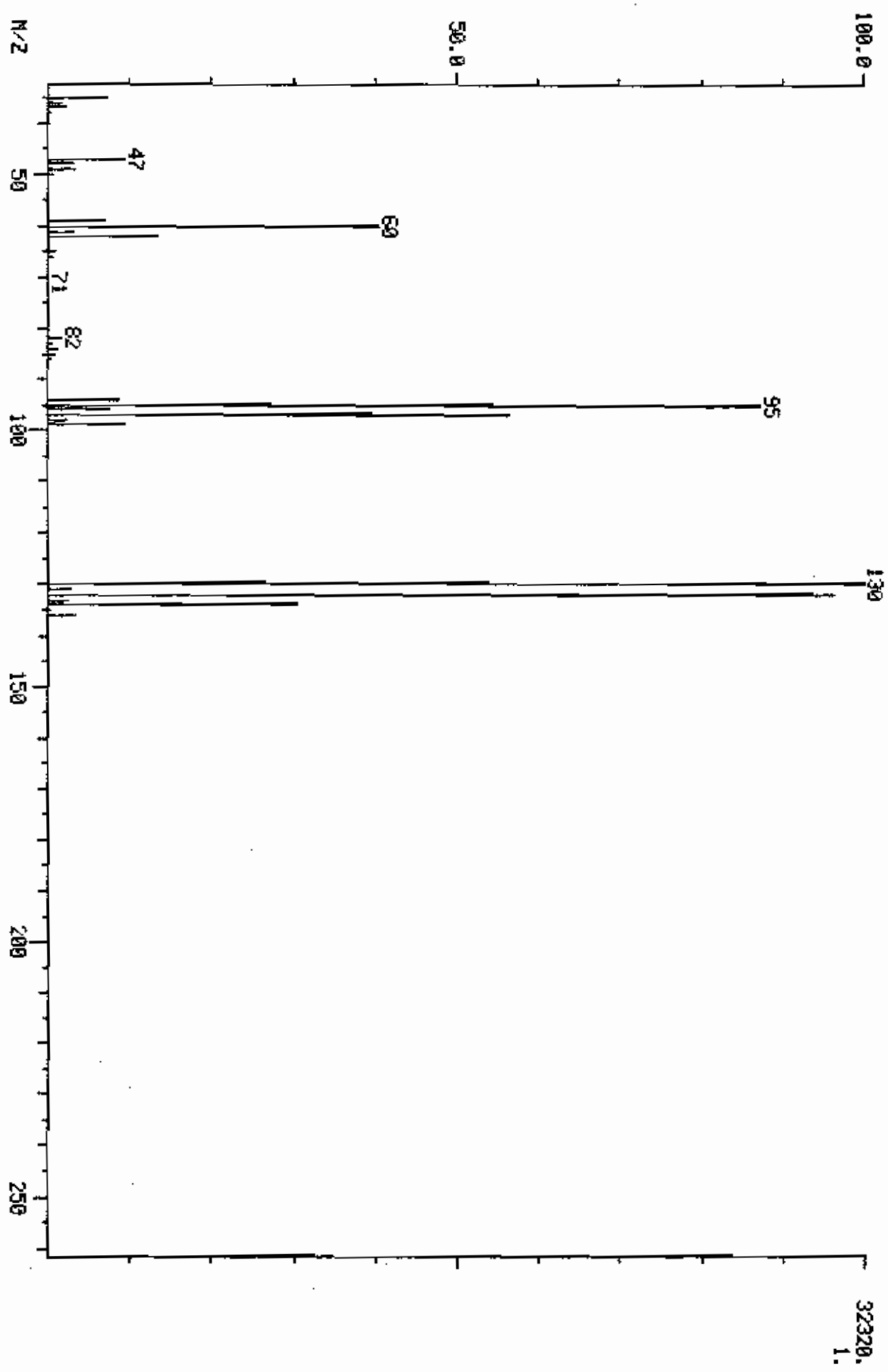
BASE M/Z: 130  
R10: 33415



MID MASS SPECTRUM  
11/28/88 18:40:00 + 16:34  
SAMPLE: CLP,,,VSTD50,L,S,STD16325,U,CC-050,5ML  
COND.: INSTRUMENT Y15P-1000 COLUMN 450(2MIN) TO 2250(8DEC/MIN)  
GC TEMP: -491 DEG. C  
ENHANCED (S 15B 2N 0T)

DATA: Y3593 #383  
CALL: Y3593 #3

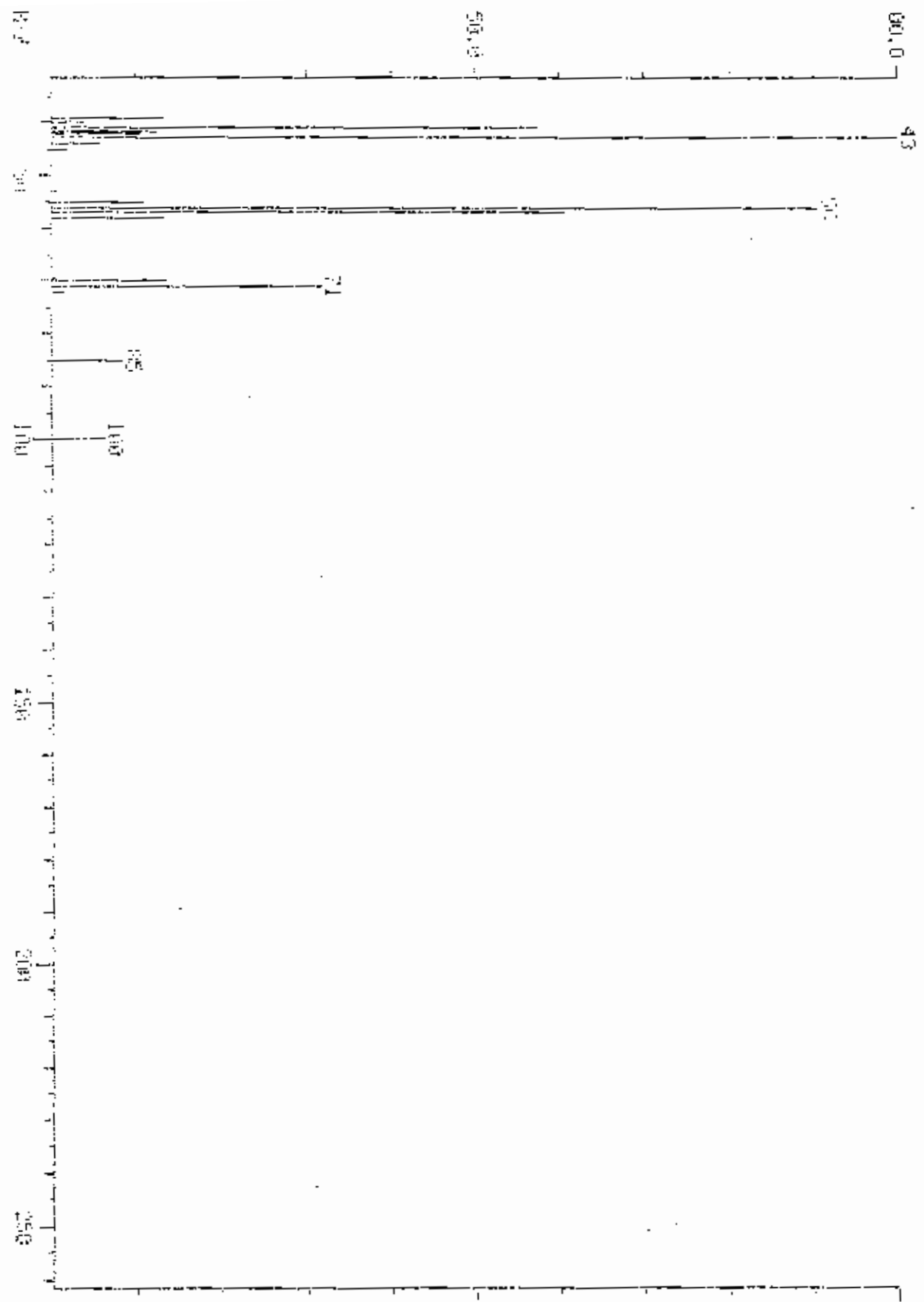
BASE M/Z: 130  
RIC: 162560.



MSD MASS SPECTROM  
11-29-78 21:50:00 + 20125  
SAMPLE: LLDPE 6015-289.001733001614165-161116-526-1-1305  
CONDS.: INSTRUMENT 1450-1000 COLUMN 100 (0.010) 10-250-180000-0111  
GC TEMP: 191 DEG. C

DATA: 00001 43  
FILE: 0001 43

BASE PZ: 43  
RIG: 49792.

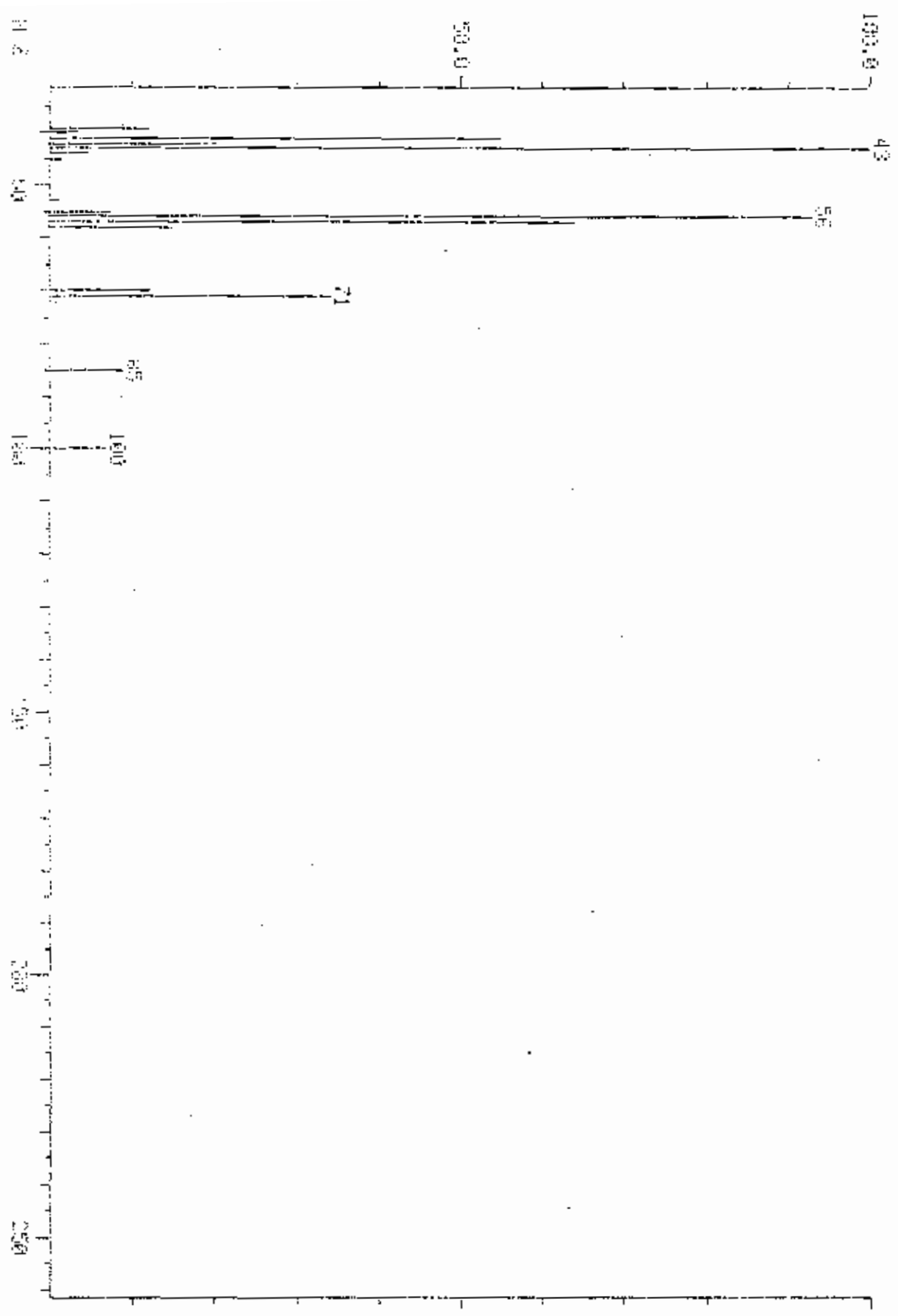


11282  
L

MID MASS SPECTRUM  
 11/25/82 2156:00 + 20125  
 SAMPLE: UPL 6015.263.DBT3896131-01-01-941-01-59-1-100  
 COND: INSTRUMENT 915P-1000 COLUMN 451.07M TO 200.0000-11M  
 GC TEMP: 491 DEG. C  
 FINISHED ON 158.211 BT/BALE: 0205 A FORTHEX PRODUCTION

INLET: 13500 1472  
 FID1: 13500 413

BASE 1472: 43  
 FID: 44800.



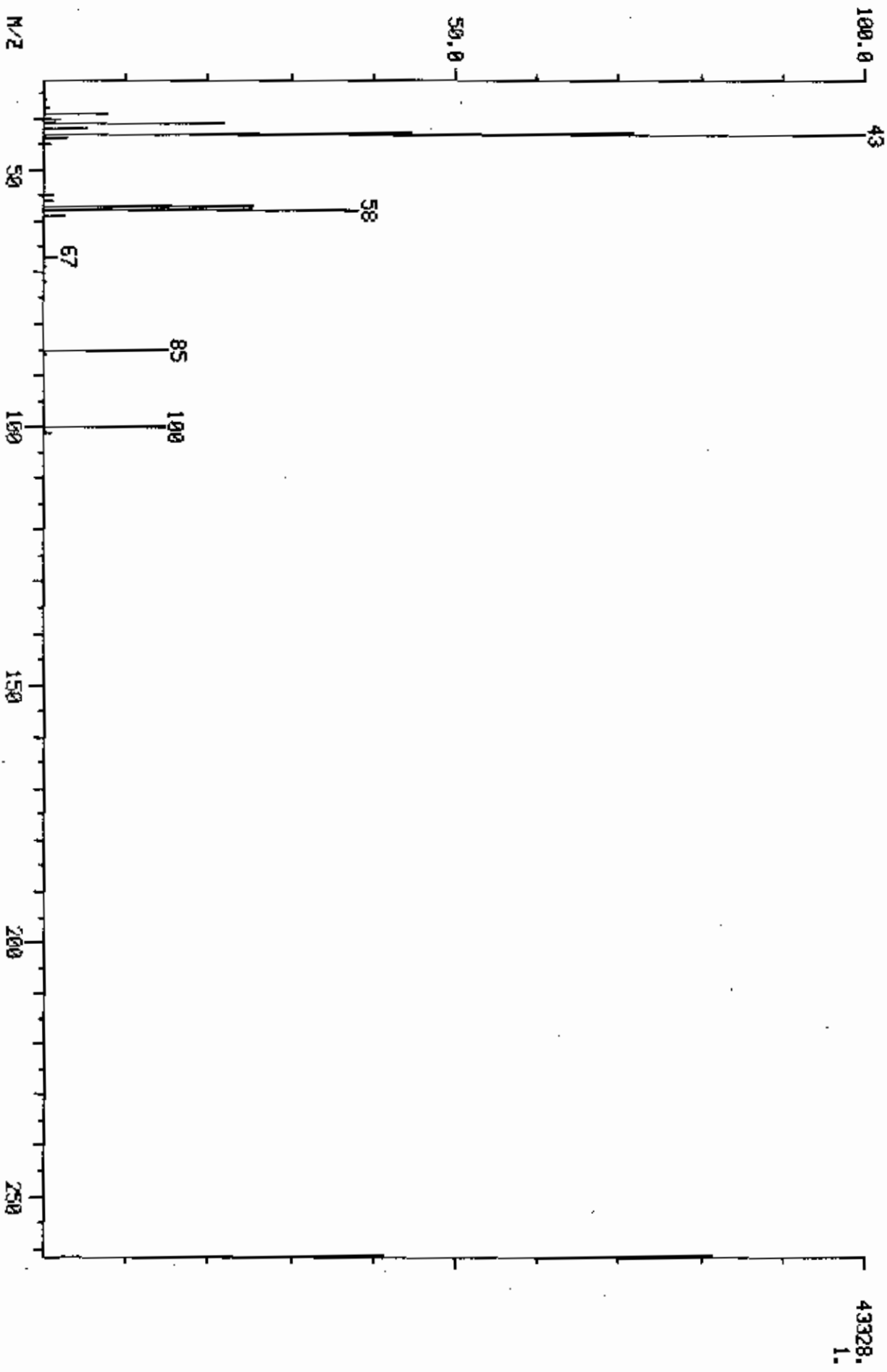
INLET:  
 1.



MID MASS SPECTRUM  
11/28/88 18:40:00 + 20:25  
SAMPLE: CLP,,,USTDS0,L,5,STD16325,U,CC-050,5ML  
COND5.: INSTRUMENT Y:SP-1000 COLUMN 45C(2MIN) TO 225C(30DEG/MIN)  
GC TEMP:-491 DEG. C  
ENHANCED (5 158 2H 8T)

DATA: Y3593 #472  
CALL: Y3593 #3

BASE M/Z: 43  
R1C: 105088.

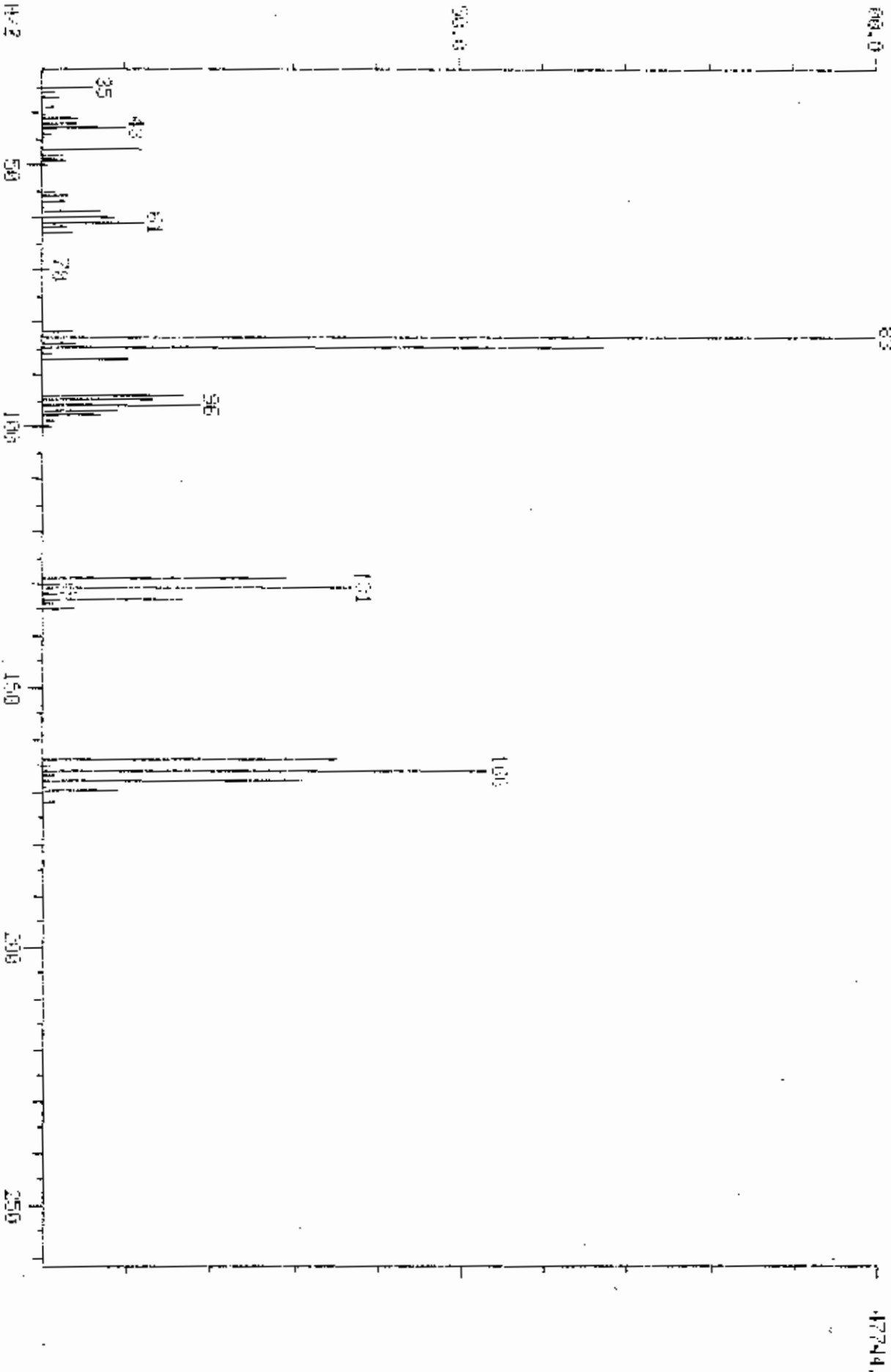


43328.  
1.

MLP MASS SPECTRUM  
11/22/88 2:54:00 + 20.14  
SAMPLE: CLP 6016/283/0017309001/1/541/021/1/0/5ML/1/100  
COMB.: INSTRUMENT 115P-1000 COLUMN 9502/HTP TO 25000000.MLH  
GC TEMP: -491 DEG. C  
FILE: 0220 TETRACHLOROETHENE

DATA: Y3601 MS14  
CELL: Y3601 #3

RISE W: 2: 83  
PIC: 274432.



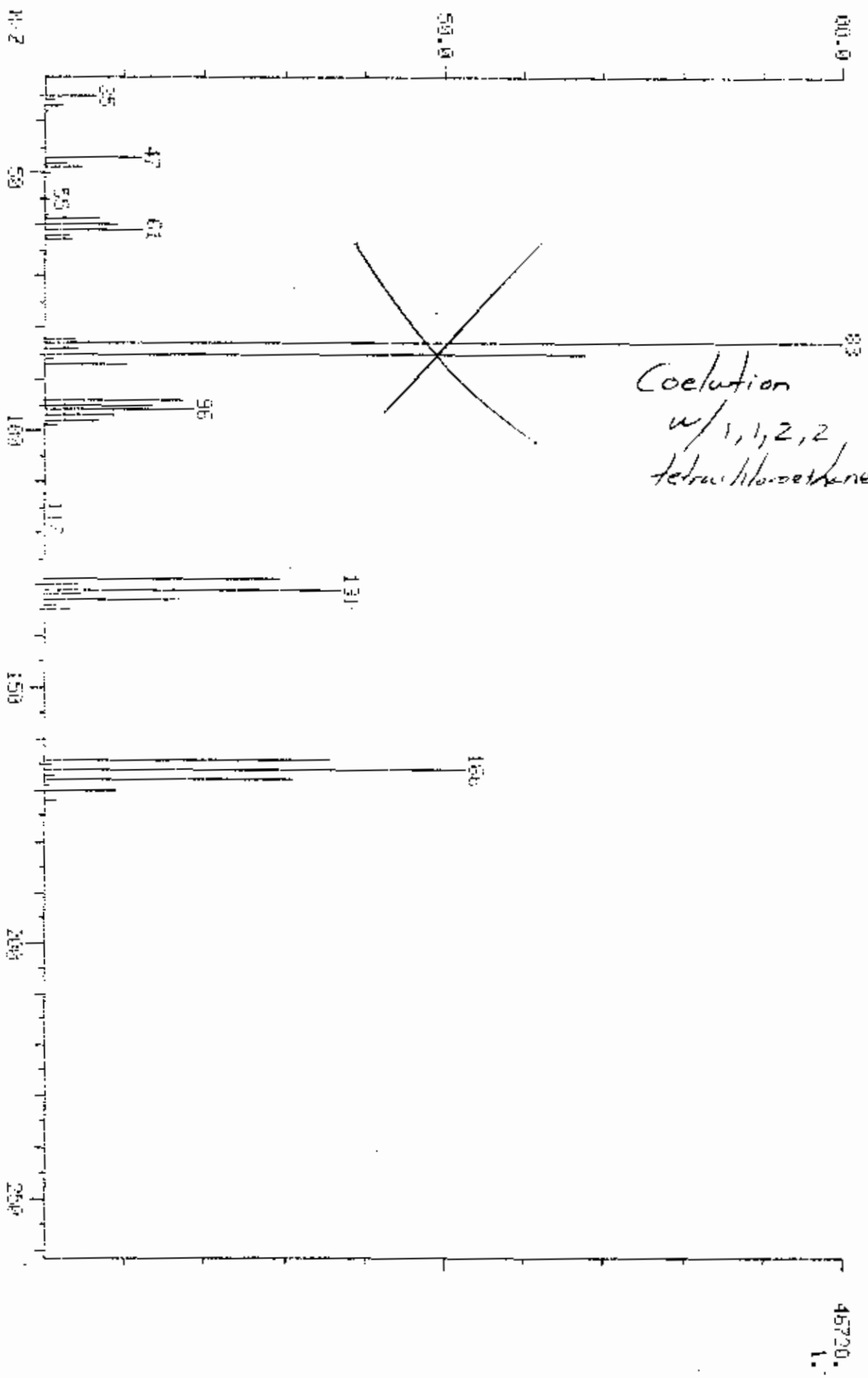
47744.

MSD MASS SPECTRUM  
11/29/88 2:50:00 + 22:14  
SAMPLE: CLP-8816-283.00173800101.U.S. RISELL, N. 491.1 109  
CONDOS.: INSTRUMENT 1: SP-1009 COLUMN 450231110 TO 250000000-NHM  
GC TEMP: -491 DEG. C  
ENHANCED US 158 2H 0T.MINE: C200 TETRAFLUOROETHYLENE

DATA: Y3501 H514  
CALL: Y3501 #3

BASE #12: 83  
R10: 255488.

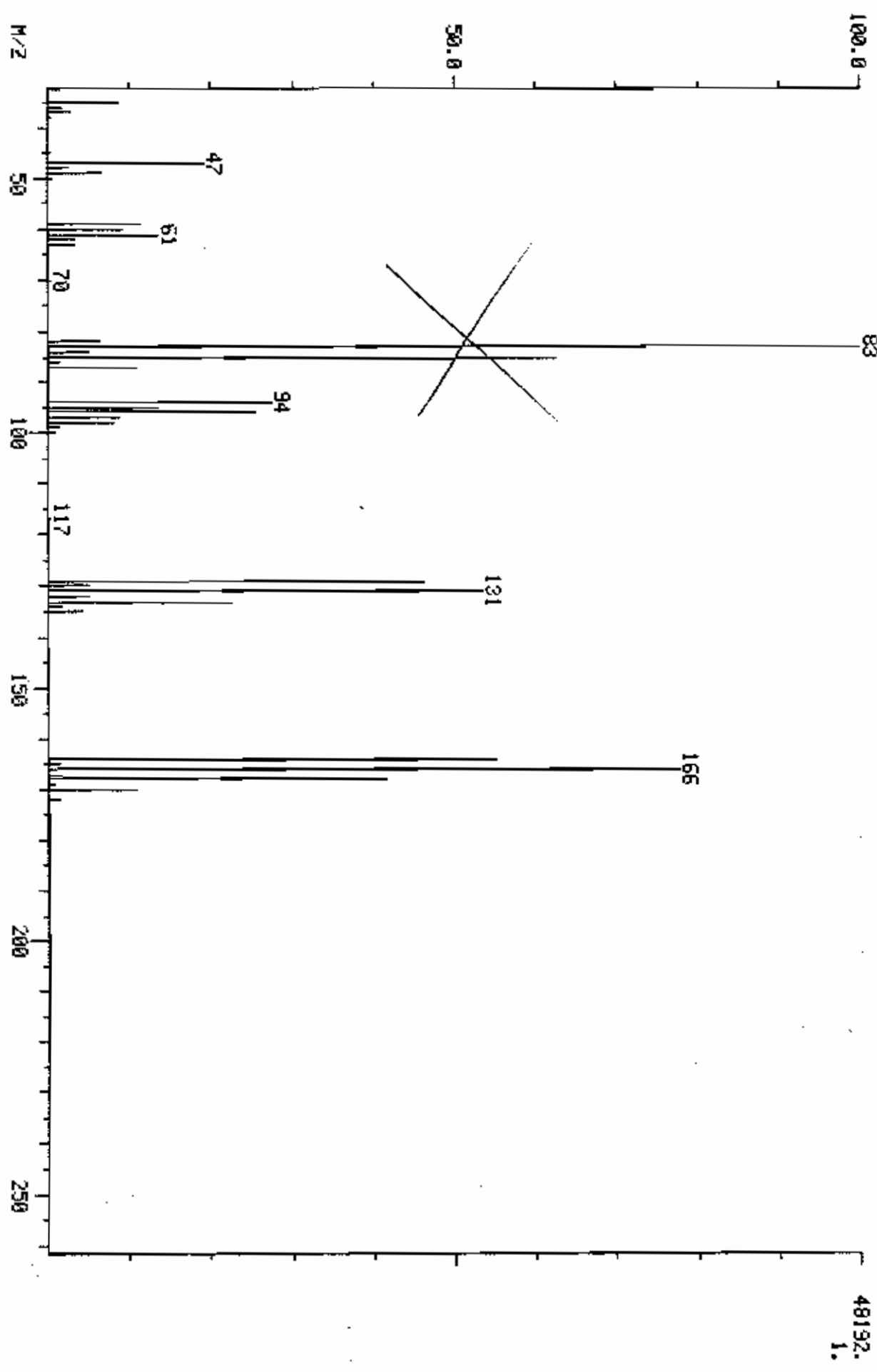
*Coelution  
w/ 1,1,2,2  
tetrachloroethane*



MID MASS SPECTRUM  
11/28/88 18:40:00 + 22:17  
SAMPLE: CLP,,, (STD50, L.S, STD16325, U, CC-050, 5ML  
COND. 1 INSTRUMENT Y:SP-1000 COLUMN 45C(2MIN) TO Z250080EG/MIN  
GC TEMP:-491 DEG. C  
ENHANCED (S 158 2N 0T)

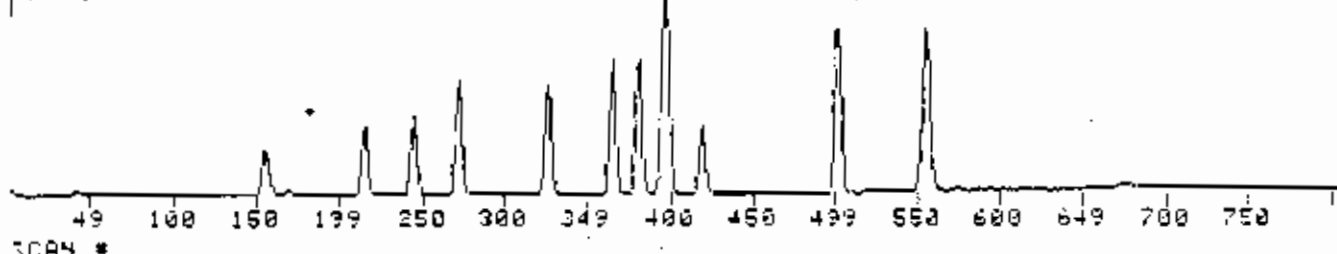
DATA: Y3593 #515  
CALI: Y3593 #3

BASE M/Z: 83  
R1C: 328704.

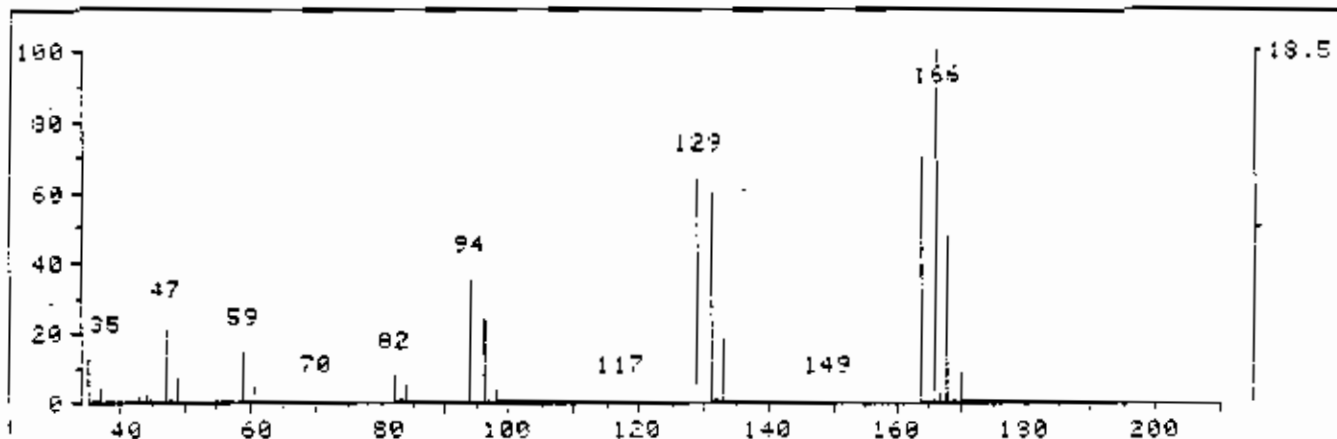


48192.  
1.

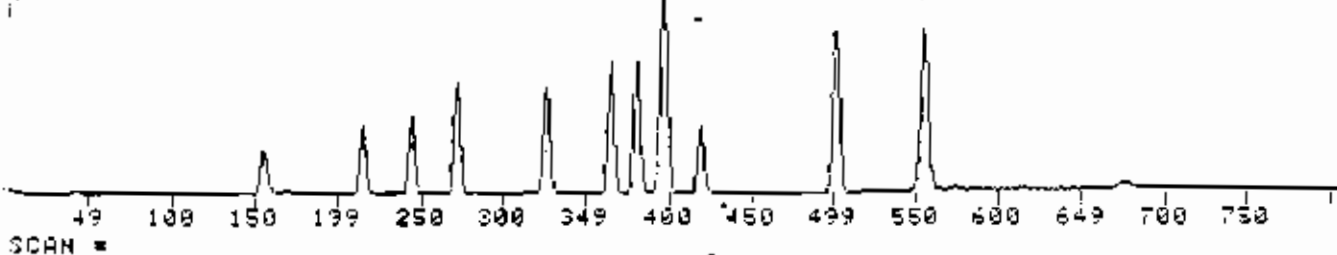
HP VOA STANDARD#2533 1/2000 5ML PURGE A 100PPB. FRN 28484, GRN 129  
28484 129 10023 1810 11/10/84 WTD 608 SCANS ( 608 SCANS, 30.78 MIN)  
x 1.0 MASS RANGE: 33.0, 211.9 TOTAL ABUND= 1475594.



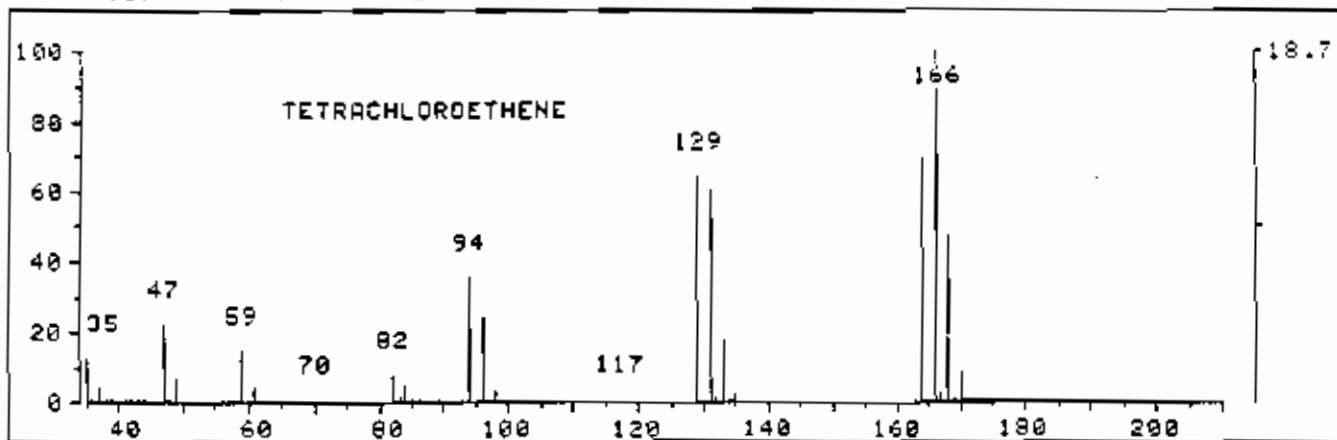
\* 501 RET. TIME: 20.28 TOT ABUND= 28852. BASE PK/ABUND: 165.9/ 5326.



HP VOA STANDARD#2533 1/2000 5ML PURGE A 100PPB. FRN 28484, GRN 129  
28484 129 10023 1810 11/10/84 WTD 608 SCANS ( 608 SCANS, 30.78 MIN)  
x 1.0 MASS RANGE: 33.0, 211.9 TOTAL ABUND= 1475594.



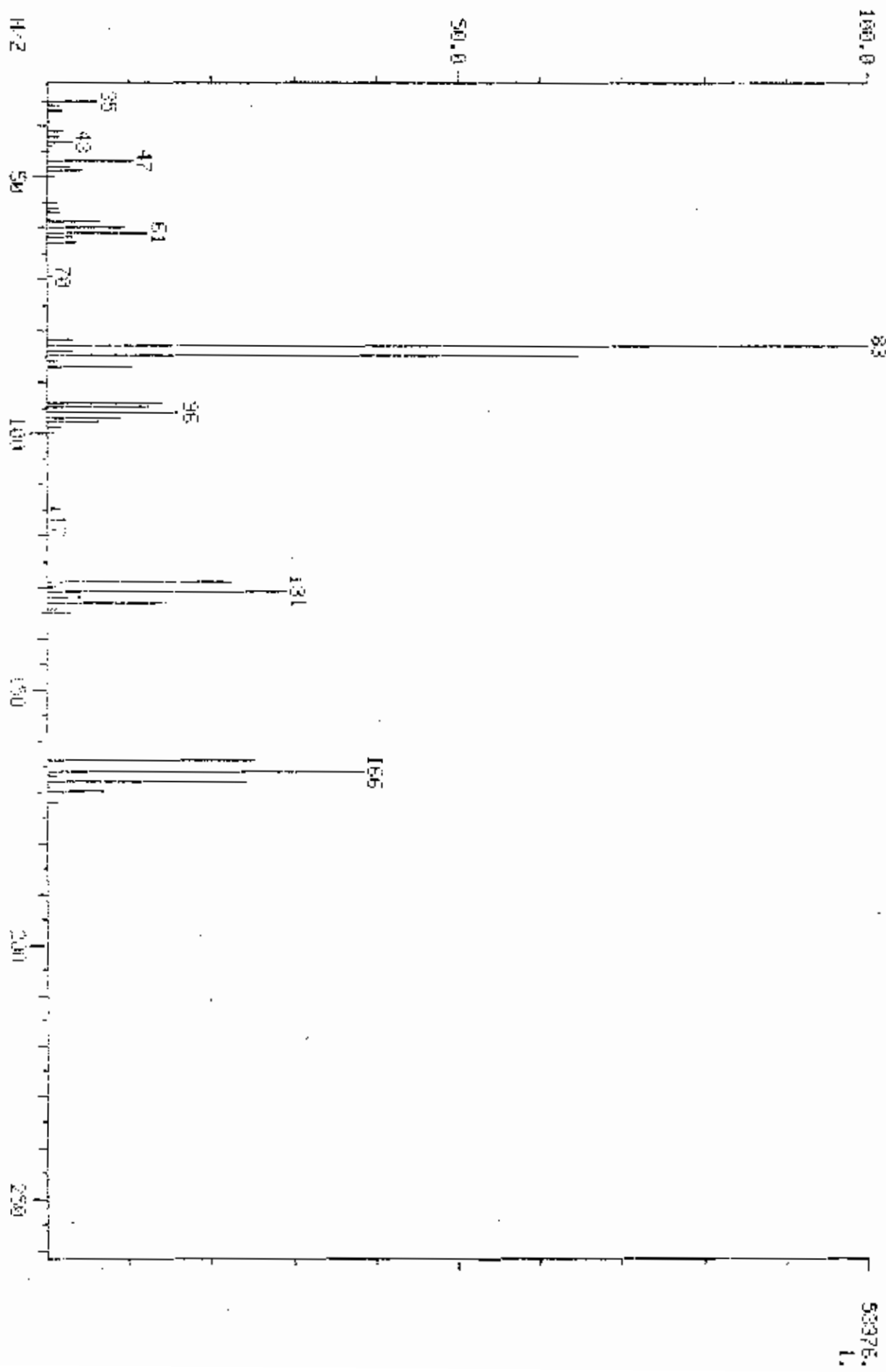
AVERAGED SPECTRUM + BASE PK/ABUND: 165.9/ 32000. + 501 -500



HID MASS SPECTRUM  
11/29/82 2:58:00 + 22.17  
SAMPLE: CLP-6016-283160178900101.P15-61641.UJ.SML1-100  
CONDOS.: INSTRUMENT Y+SP-1000 COLUMN #50X2MIN) TO 235DEG/MIN  
GC TEMP:-491.DEG.F  
NAME: 0205 1,1,2,2-TETRACHLOROETHANE

DATA: Y3001 #515  
CALL: Y3691 #3

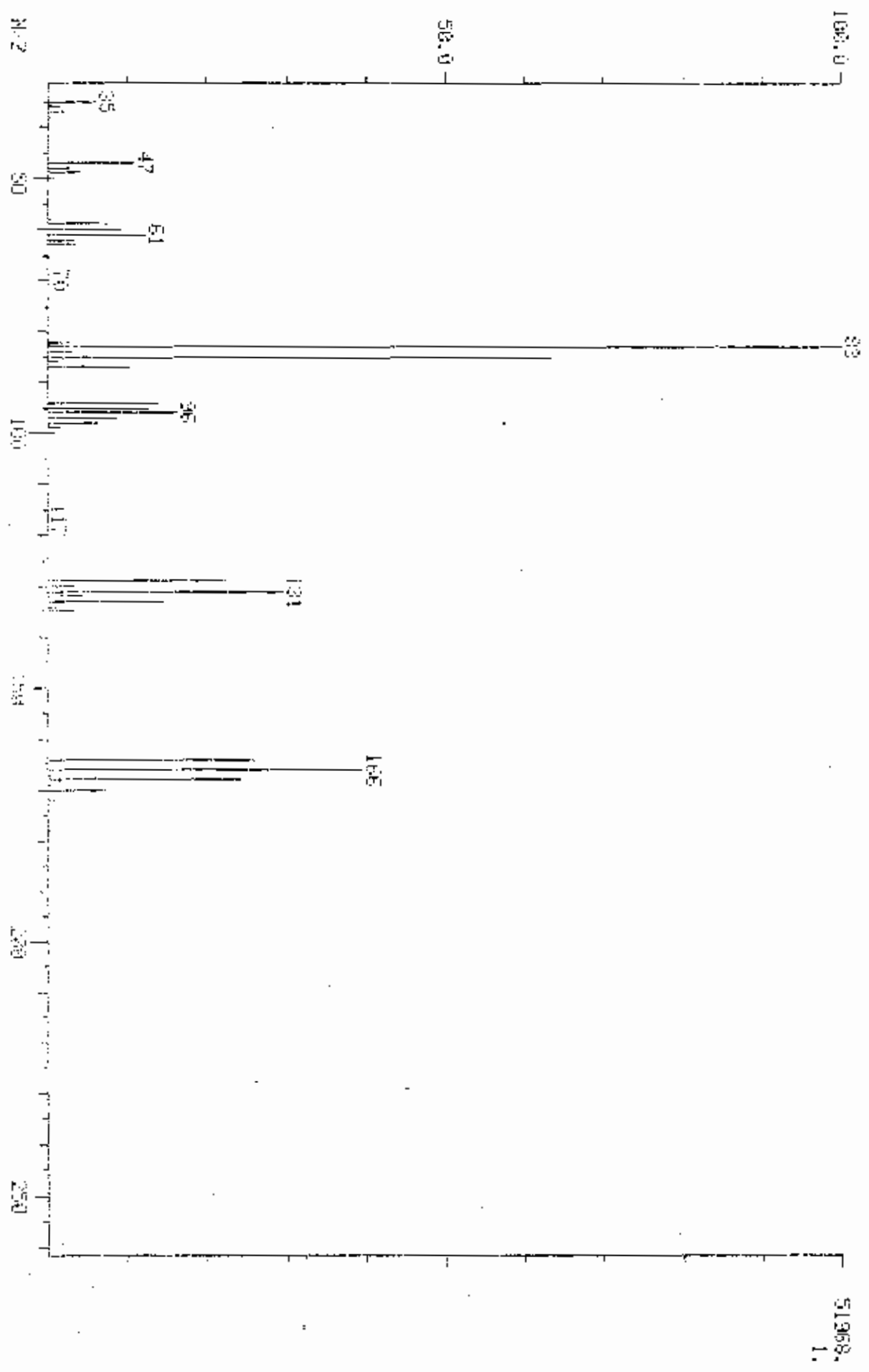
EMSE M/Z: 83  
RIS: 262144.



58376.  
1.

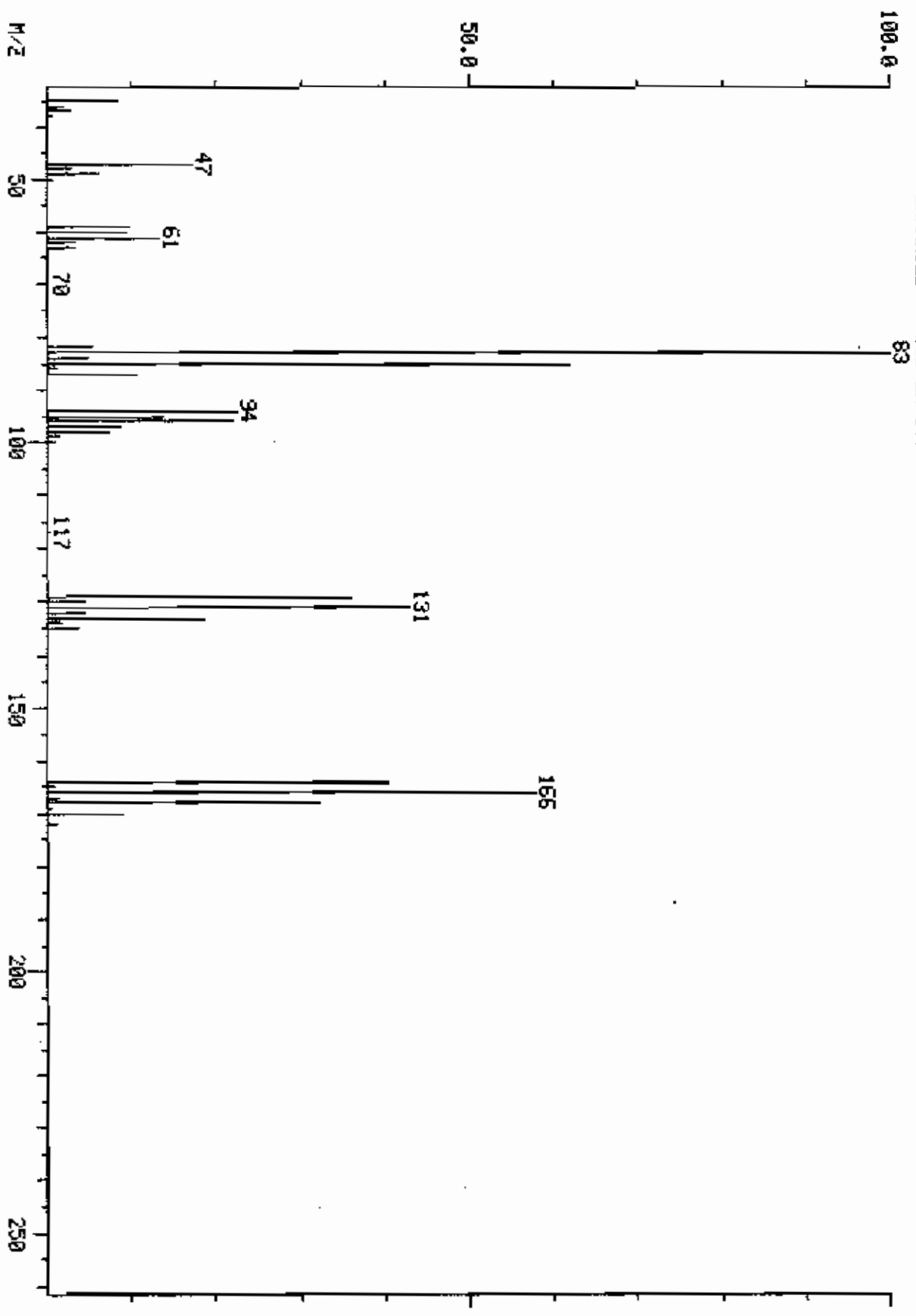
MSD MASS SPECTROM  
11/29/88 2:58:00 + 22:17  
SAMPLE: CLP,EA16,283,0017880101.M,5.61641.U,SHL,1/100  
COND.: INSTRUMENT Y:SP-1000 COLUMN 450(2)MHD TO 2250(2)DEG/MIN  
GC TEMP:+151 DEG. C  
EINHAUDED 05 158 ZR BTOHANE: 0225 1,1,2,2-TETRACHLOROETHANE

DATA: V0501 4515  
CALL: 13601 43  
BASE P/2: 83  
R10: 249856.



MID MASS SPECTRUM  
11/28/88 18:40:00 + 22:19  
SAMPLE: CLP,,J51D50.L/S,STD16325,U,CC-050,SHL  
CONDS.: INSTRUMENT Y:5P-1000 COLUMN 45C(2MIN) TO 225C(8DEC/MIN)  
GC TEMP: -491 DEG. C  
ENHANCED (5 158 2N 0T)

DATA: Y3593 #516  
CALL: Y3593 #3  
BASE M/Z: 83  
R1C: 309249.

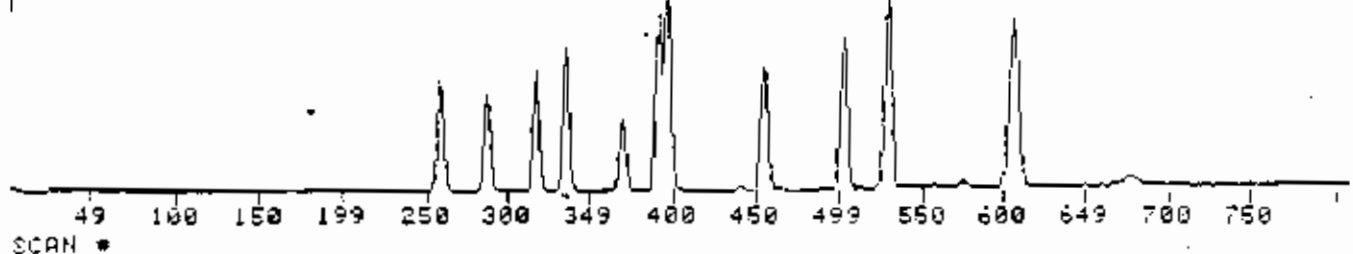


52032.  
1.

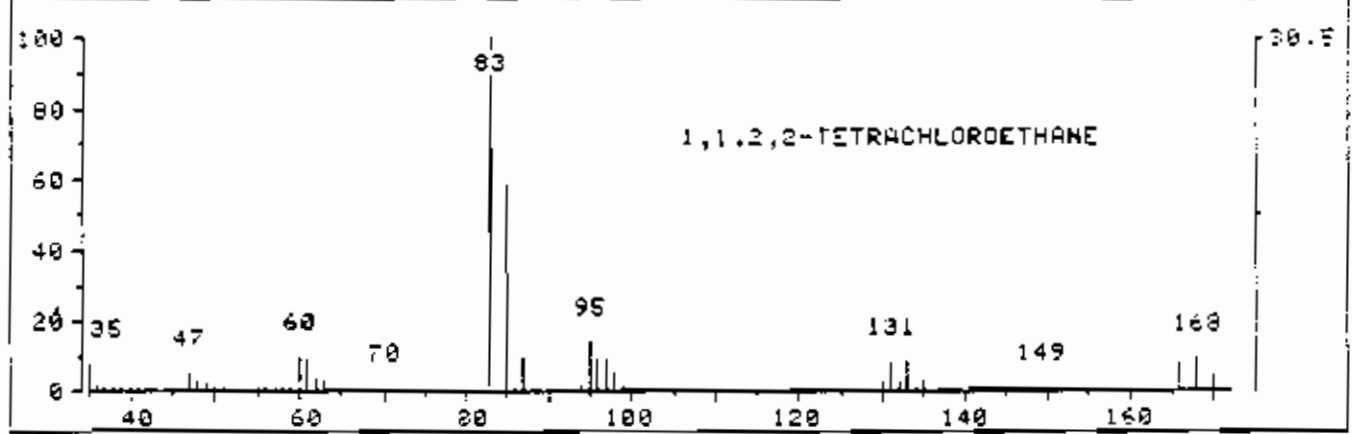


34

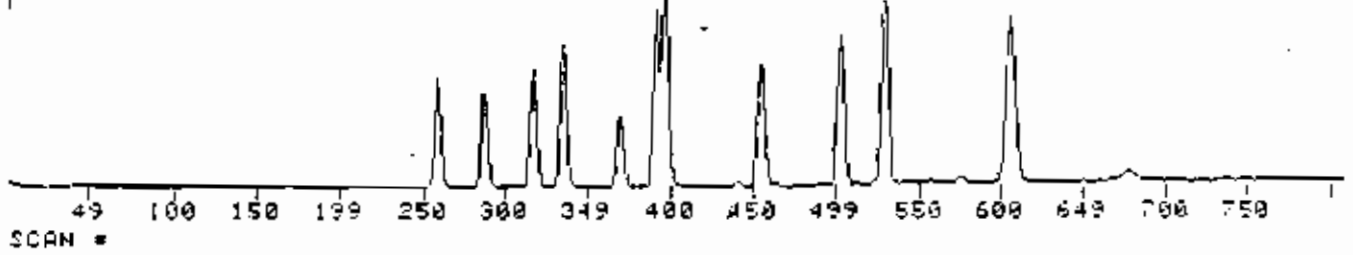
HP VOA STANDARD#2537 1/2000 5ML PURGE B 100PPB. FRN 28485, CRN 129  
28485 129 10023 1910 11/10/84 WTD 800 SCANS ( 800 SCANS, 30.30 MIN)  
x 1.0 MASS RANGE: 33.0, 255.8 TOTAL ABUND= 1556694.



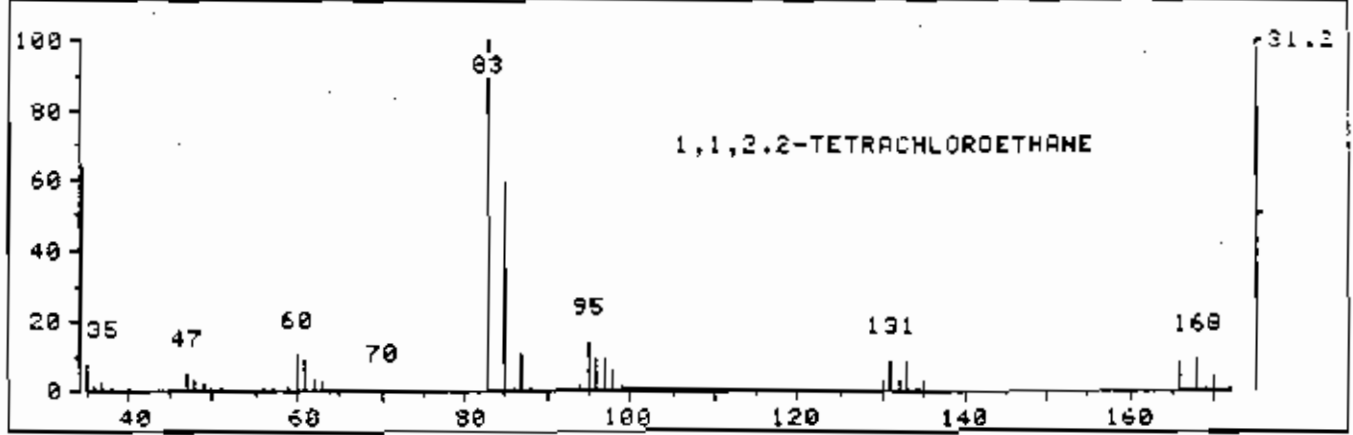
\* 502 RET. TIME: 20.33 TOT ABUND= 23128. BASE PK/ABUND: 83.0/ 6741.



HP VOA STANDARD#2537 1/2000 5ML PURGE B 100PPB. FRN 28485, CRN 129  
28485 129 10023 1910 11/10/84 WTD 800 SCANS ( 800 SCANS, 30.30 MIN)  
x 1.0 MASS RANGE: 33.0, 255.8 TOTAL ABUND= 1556694.



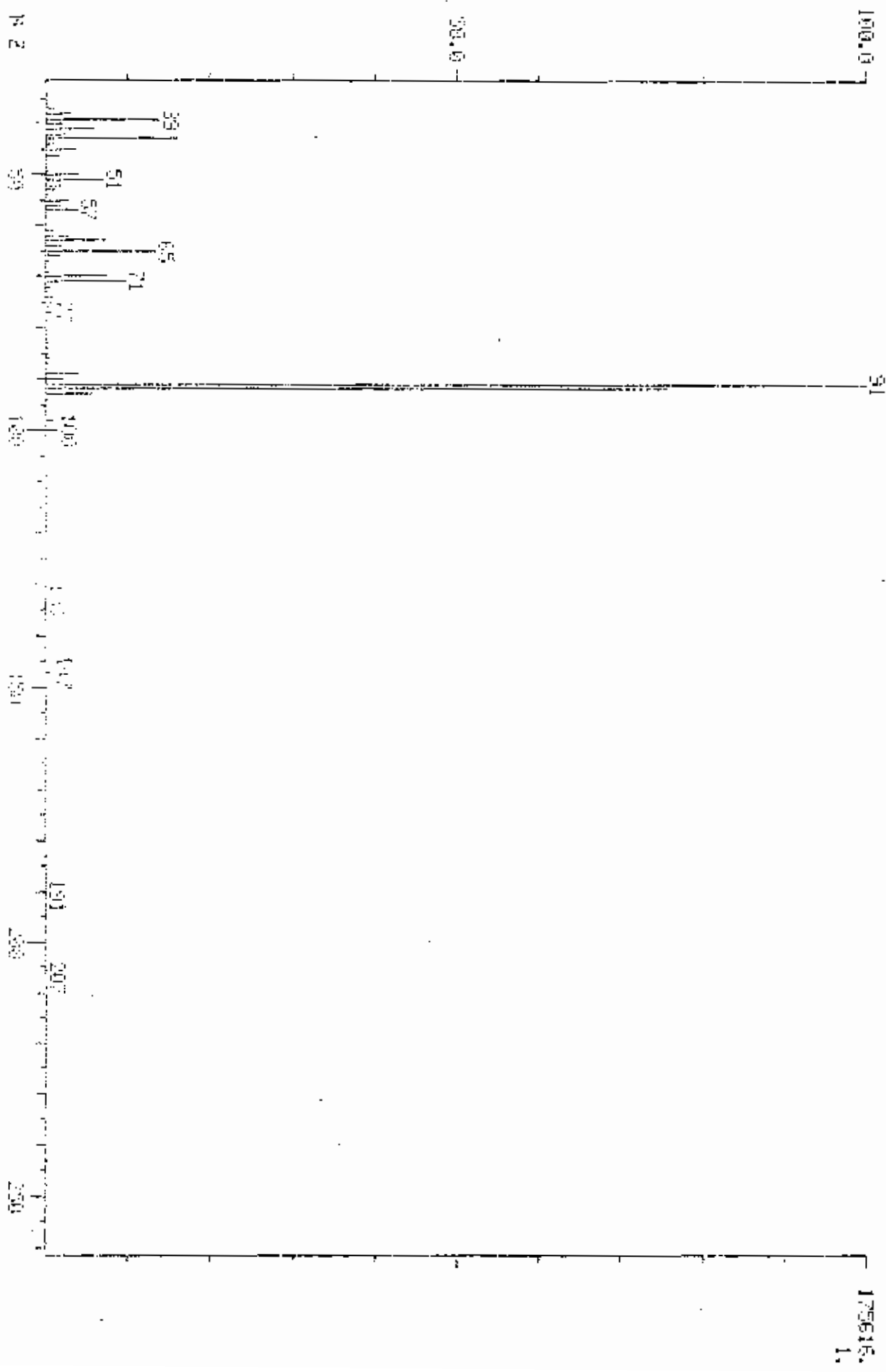
AVERAGED SPECTRUM \* BASE PK/ABUND: 83.0/ 32000. + 502 -510



MSD MASS SPECTRUM  
11/29/88 2:58:08 \* 201.92  
SAMPLE: CUP 6016, 283.001738010101M.S, 61641.00, SML 1, 100  
CONDS.: INSTRUMENT 715F-1000 COLUMN 49002MHX TO 2250080DEG/HR  
GC TEMP: 491 DEG. C  
ANAL: 0230 TOLLENE

DATA 13601 8544  
CALL: 13601 43

BASE 1126 91  
PIC: 543803.



MS MASS SPECTRUM

11-29-88 2:54:08 + 23:32

SAMPLE CUP: 0016 283.D\F00151.D\SUBSET1.D.SM 1.00

COND: MISOUREN TSP-1000 COLUM: 40.0MIN TO 220.0MIN

GC TEMP: -191 DEG. C

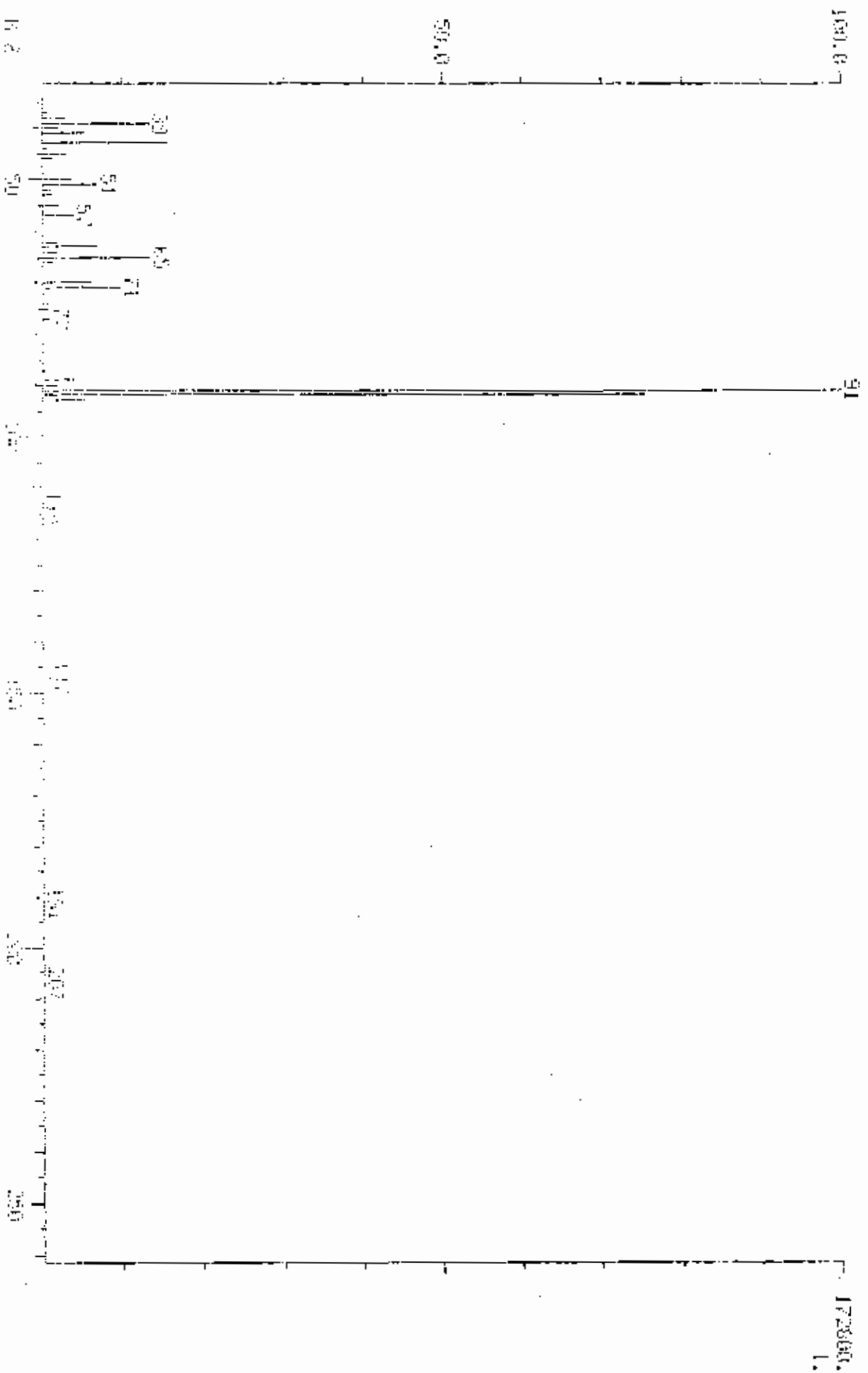
EXHAUSTED OR 150.01 OF WATE 0204 TOLUENE

INTEGR: 0000 834

CHL: 0001 81

DATE: 11-29-88

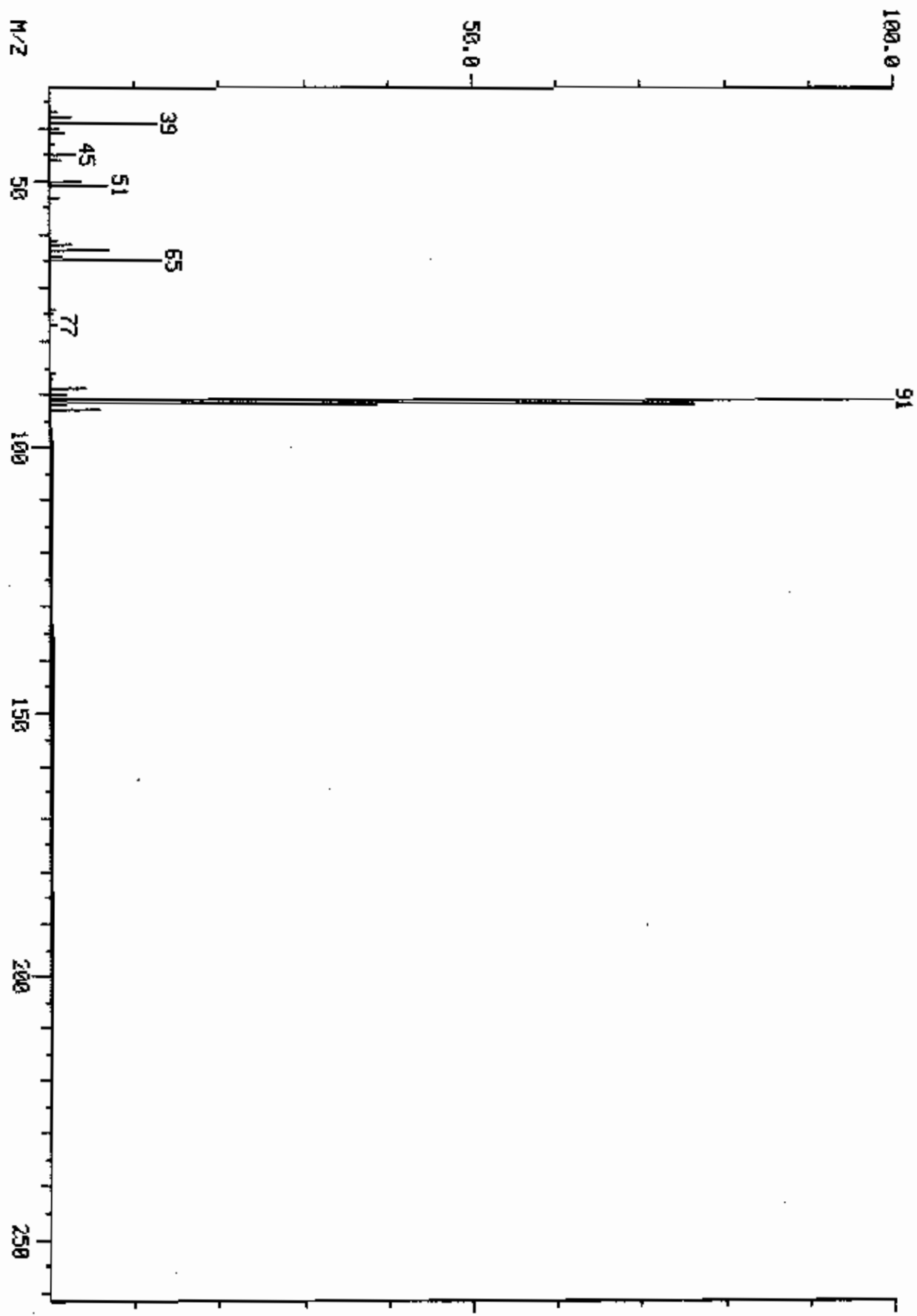
TIME: 5:17:20



MID MASS SPECTRUM  
11/28/98 18:40:00 + 23:35  
SAMPLE: CLP, VST050, L.S. STD16325.U, CC-050, 5ML  
COND.: INSTRUMENT Y: SP-1000 COLUMN 45C(2MIN) TO 225C(80DEC/MIN)  
GC TEMP: -491 DEG. C  
ENHANCED (5 158 2N 0T)

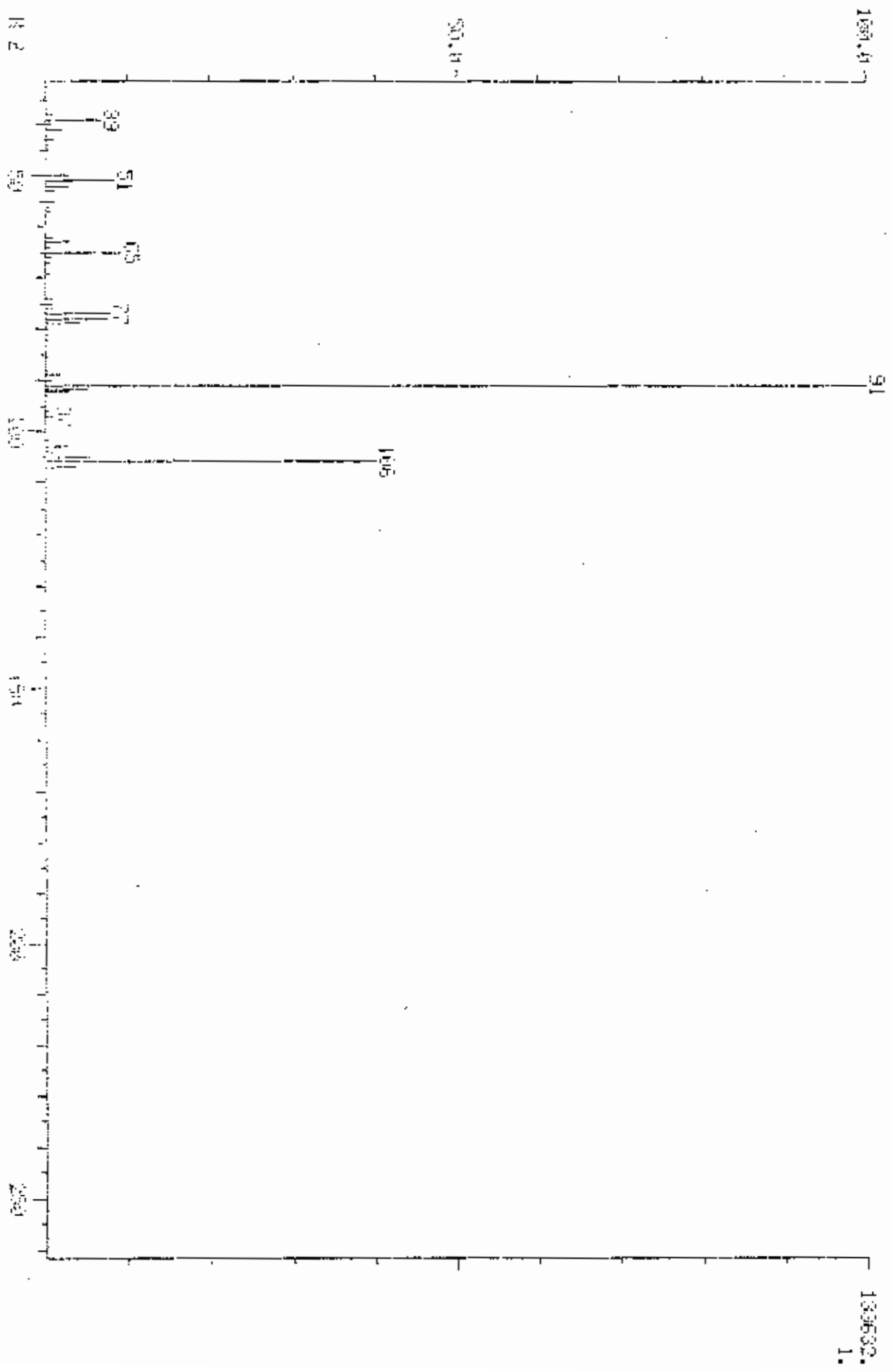
DATA: Y3593 #545  
CALL: Y3593 #3

BASE M/Z: 91  
R1C: 164352.

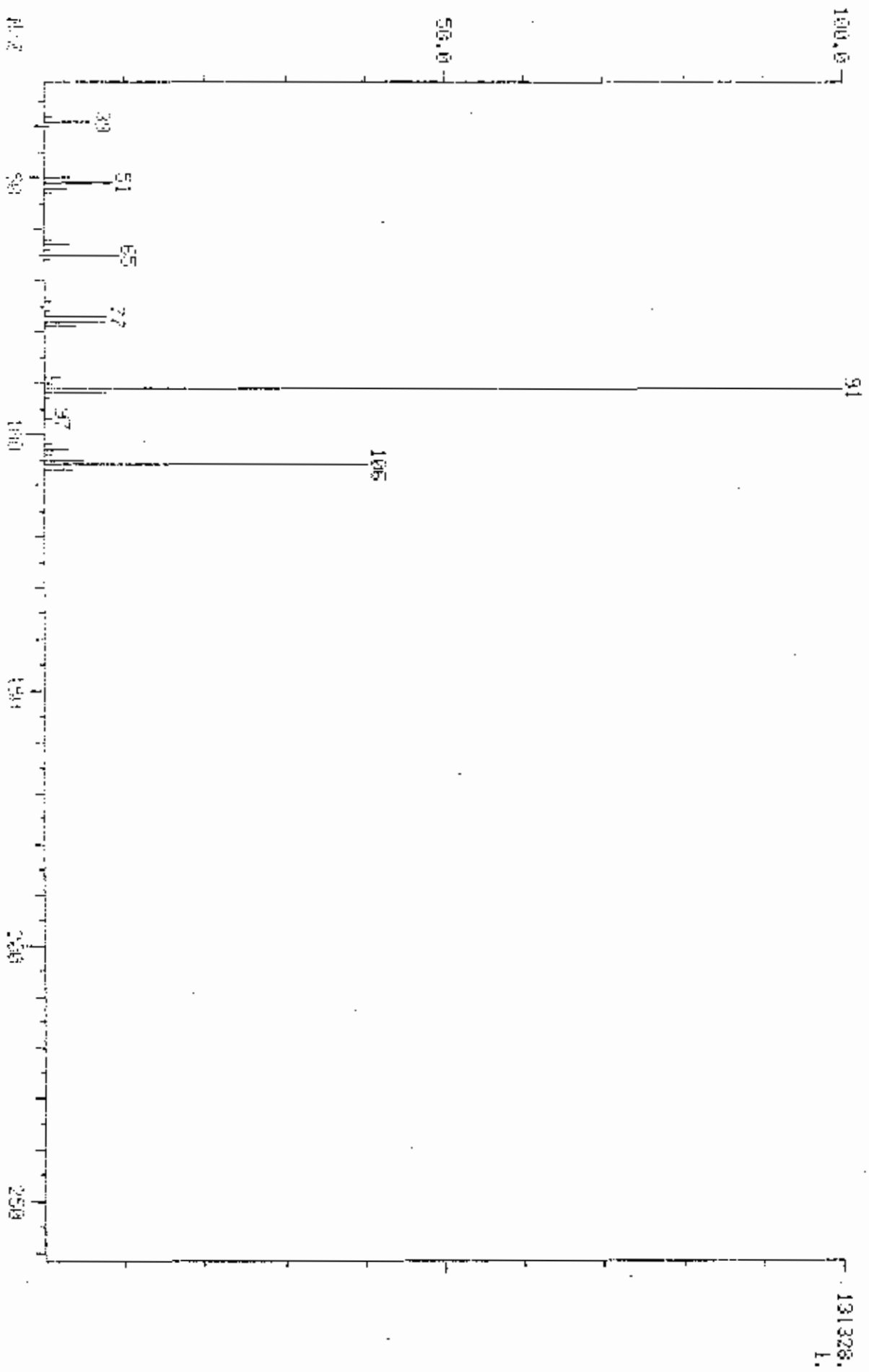


65408.  
1.

NIST MASS SPECTRUM  
 11-29-82 21501005 + 76144  
 SAMPLE: C11-6016-283-6017-800001 N-3-61041 (V) 500 U.L. 100  
 COMPS.: INSTRUMENT: MSF-1000 CALIBRI: 19720010) TO: 225000000/MIN  
 SC. TEMP.: 491 DEG. C  
 NAME: 0218 ETHYLENEBIP  
 DATE: 73601 #618  
 CHLT: 73601 #3  
 INSE N/2: 91  
 FILE: 011296.



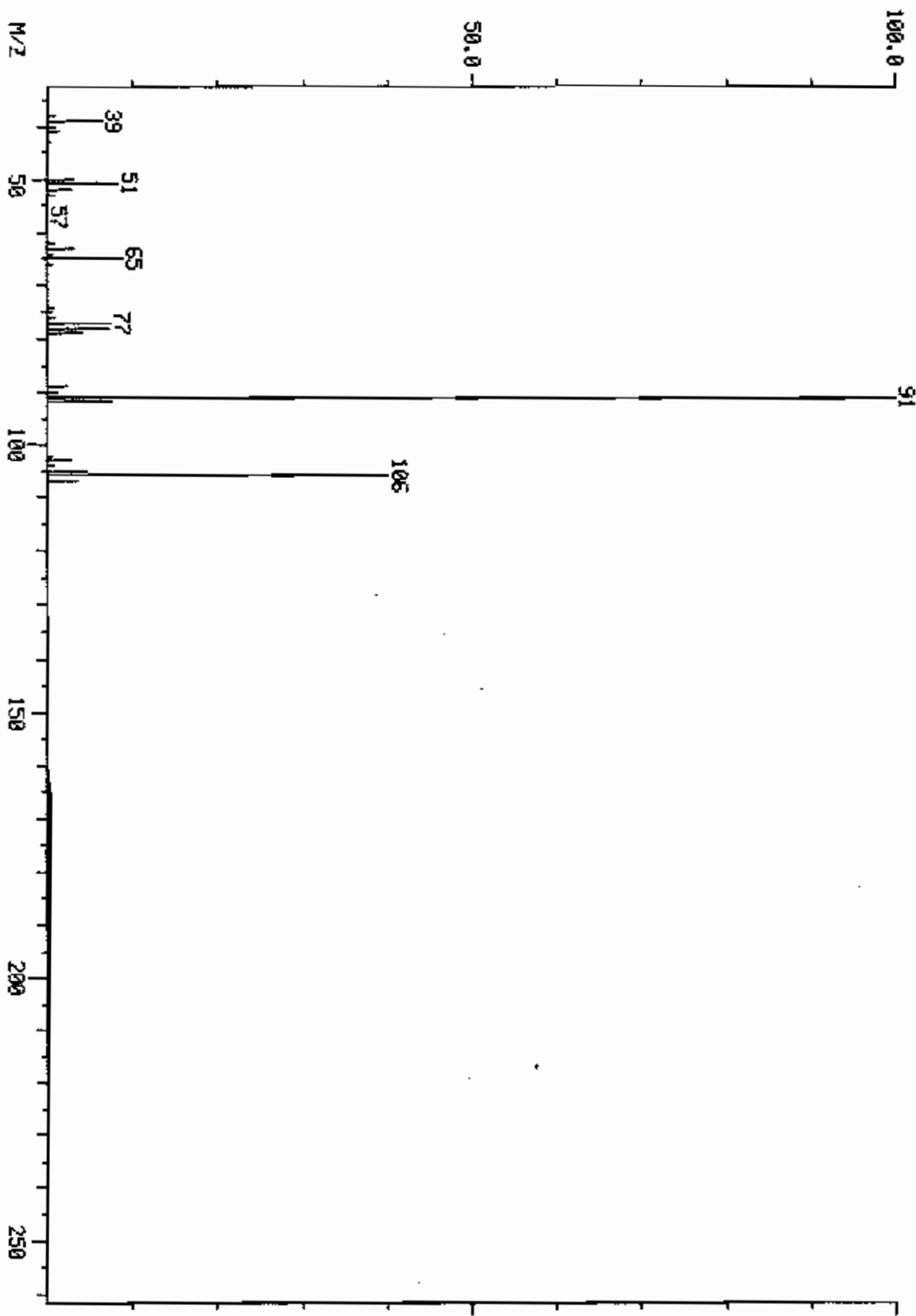
MID MASS SPECTRUM  
11/29/88 2:50:00 + 26:44 DATA: 13601 MS18 BASE M/Z: 91  
SAMPLE: 14.9.6015.283.00173000101.M.5.01E41.01.S01.1.100 CHL1: 13601 B3 R10: 294400.  
CONC.: INSTRUMENT 1151-1000 COLUMN 450(2M11) TO 25000000-1114  
GC TEMP: 191 DEG. C  
ENHANCED VS 158 20 BT/INCH: 0200 ENH/LEN/PEAK



MID MASS SPECTRUM  
11/28/89 18:40:00 + 26:47  
SAMPLE: CLP,,,UST050,L,5,STD16325,U,GC-050,5ML  
COND5.: INSTRUMENT Y:SP-1000 COLUMN 45C(2MIN) TO 225C@8DEG/MIN  
GC TEMP: -491 DEG. C  
ENHANCED (S 158 2N 0T)

DATA: Y3593 #619  
CALL: Y3593 #3

BASE M/Z: 91  
RIC: 155136.

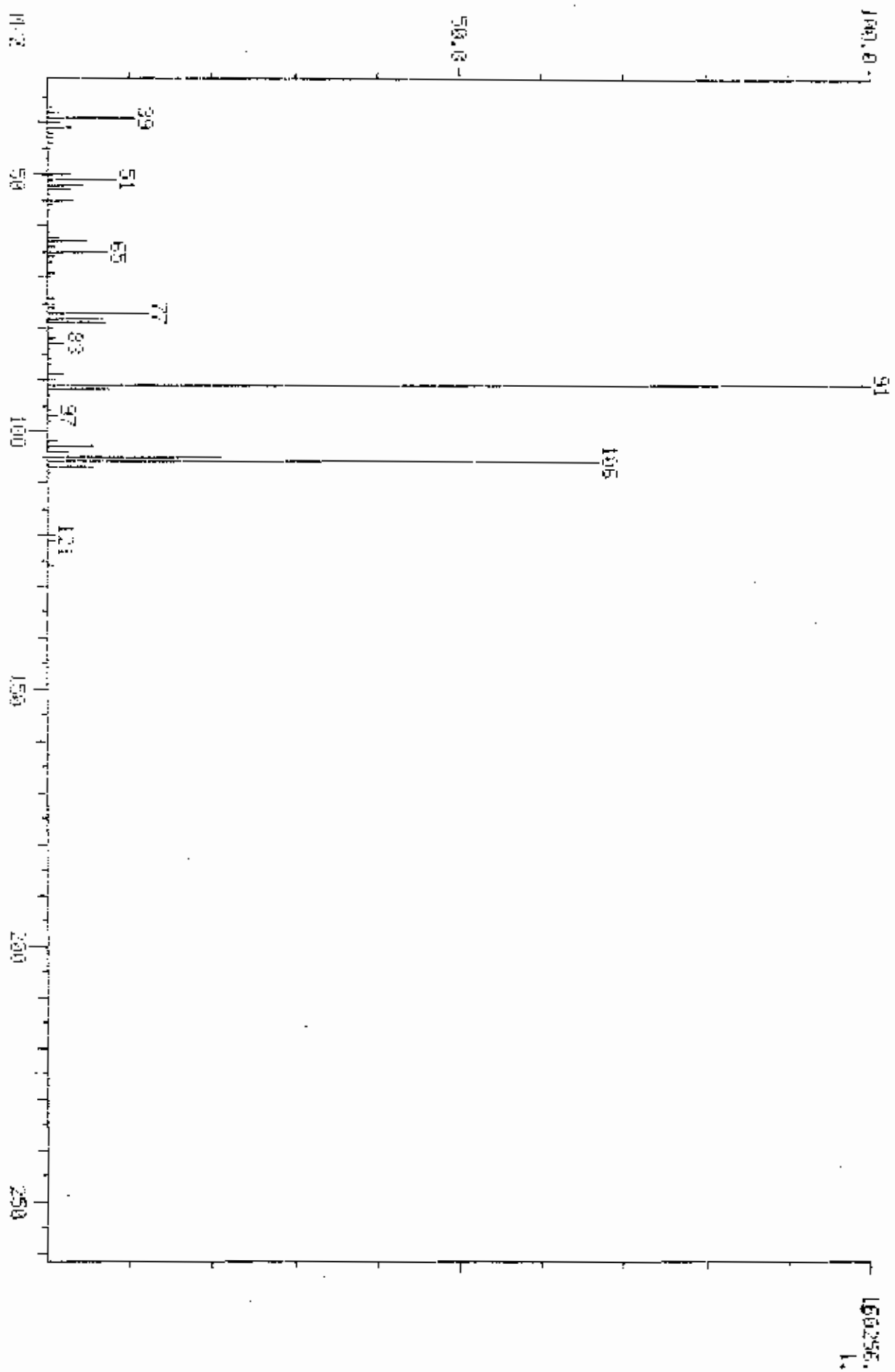


69584.  
1.

MSD MASS SPECTRUM  
11/29/88 2:50:00 + 31.49  
SAMPLE: CUP, 6015, 283, 00173000101.N, 5.61041.0, SIGNAL 100  
COND: INSTRUMENT V15F-1000 COLUMN PROGRAM TO 2200000000.MIN  
DR TEMP: 491 DEG. C  
HHE: 0.500 TOTAL VOLTAGES

DATA: 73601 #729  
CALL: 73601 #3

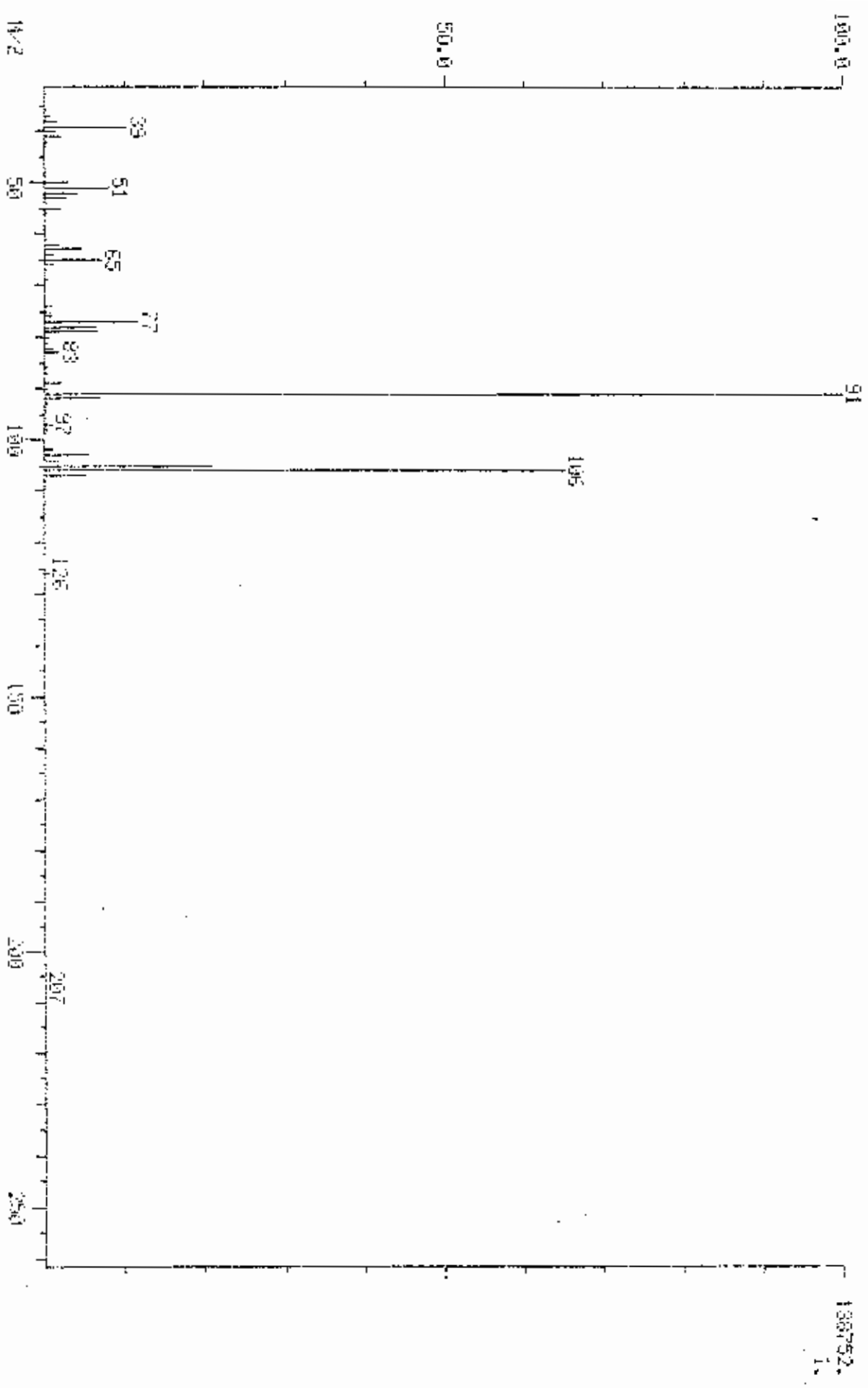
BASE: M/Z: 91  
PIC: 495816.





MSD MASS SPECTRUM  
11/29/08 2:50:00 + 31:09  
SAMPLE: CLP-0016-203-A0173800101.H.S. (1641.H) SP# 1/100  
CONC: 1 INSTRUMENT Y: SP-1000 CALIB: 450 (ZINTD) TO 2250 (RDEB/HTN)  
GC TEMP: 491 DEFS: 0  
ENHANCED (S 150 21 0) NAME: 0250 TOTAL SPLINES

DATE: Y0601 #720  
CALL: Y0601 #3  
PAGE #/Z: 91  
R/O: 408576.



MID MASS SPECTRUM

11/28/88 18:40:08 + 32:14

SAMPLE: CLP,,VST050,L,S,STD16325,U,CC-050,SHL

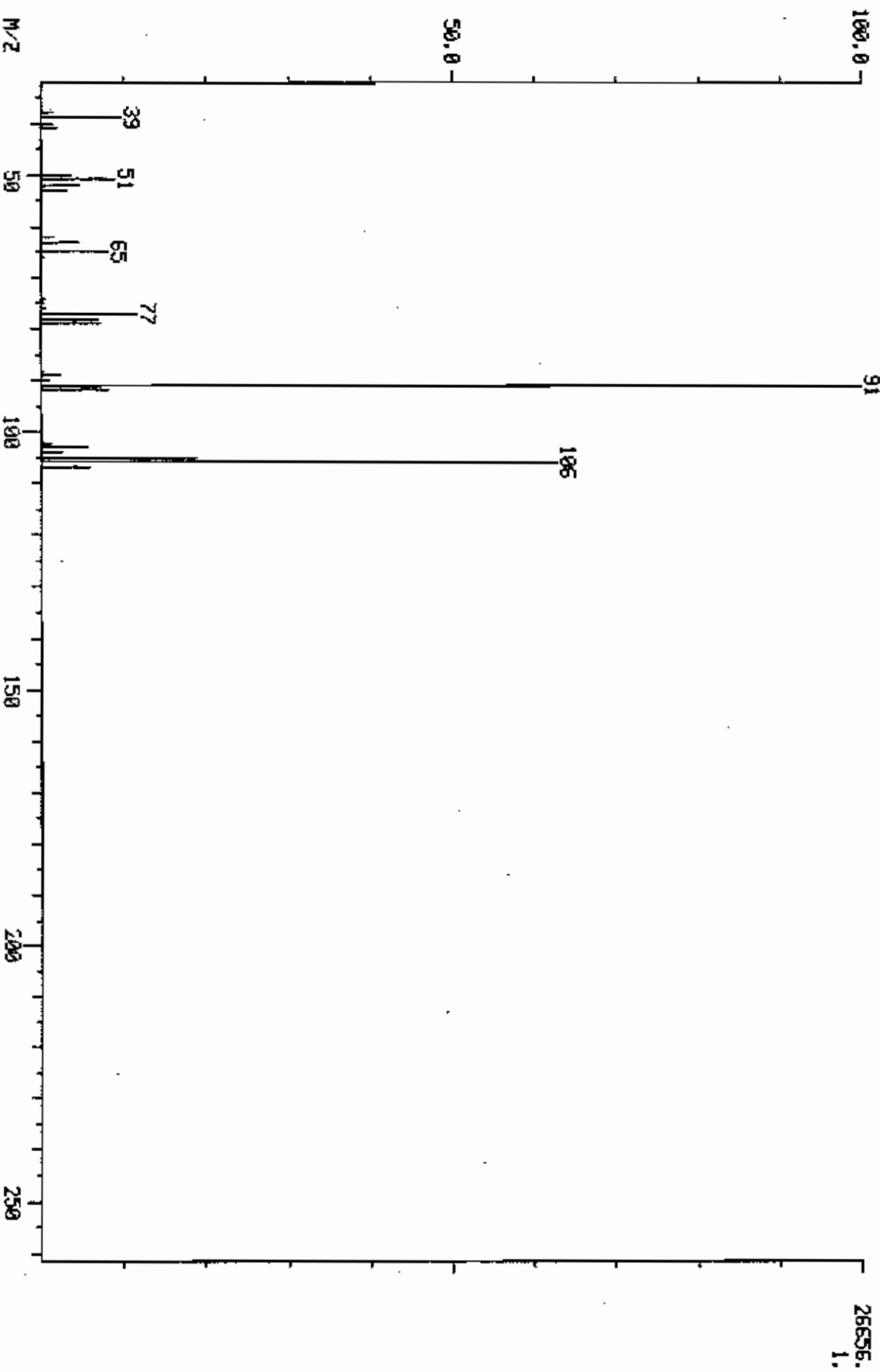
CONDOS.: INSTRUMENT Y15P-1800 COLUMN 450(2MIN) TO 2250(80EC/MIN

GC TEMP: -491 DEG. C

ENHANCED (S 158 2N 0T)

DATA: Y3593 #745  
CALL: Y3593 #3

BASE M/Z: 91  
RIC: 75648.



26656.  
1.

MSD MASS SPECTRUM

11/29/88 2:50:00 + 82:11

SAMPLE: CLP, 6016, 283, 0017, 2000101, R. S. 61641, U. S. 541, 1-1190

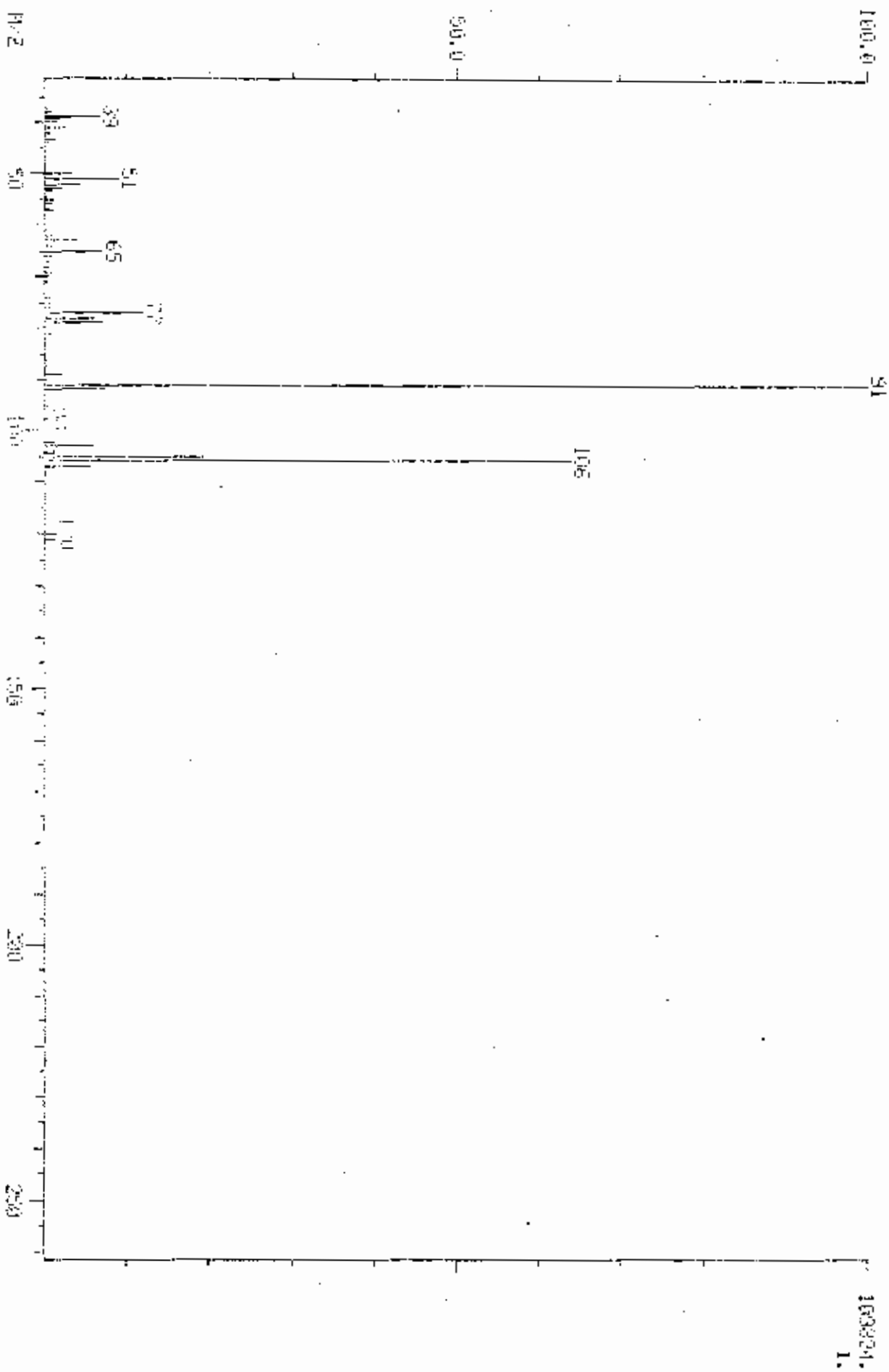
COND: 1. INSTRUMENT 745P-1090 ON LINE 450720110 TO 225688883 WITH

GC TEMP: -491 DEG. C

NAME: C250 TOTAL ION CHROM

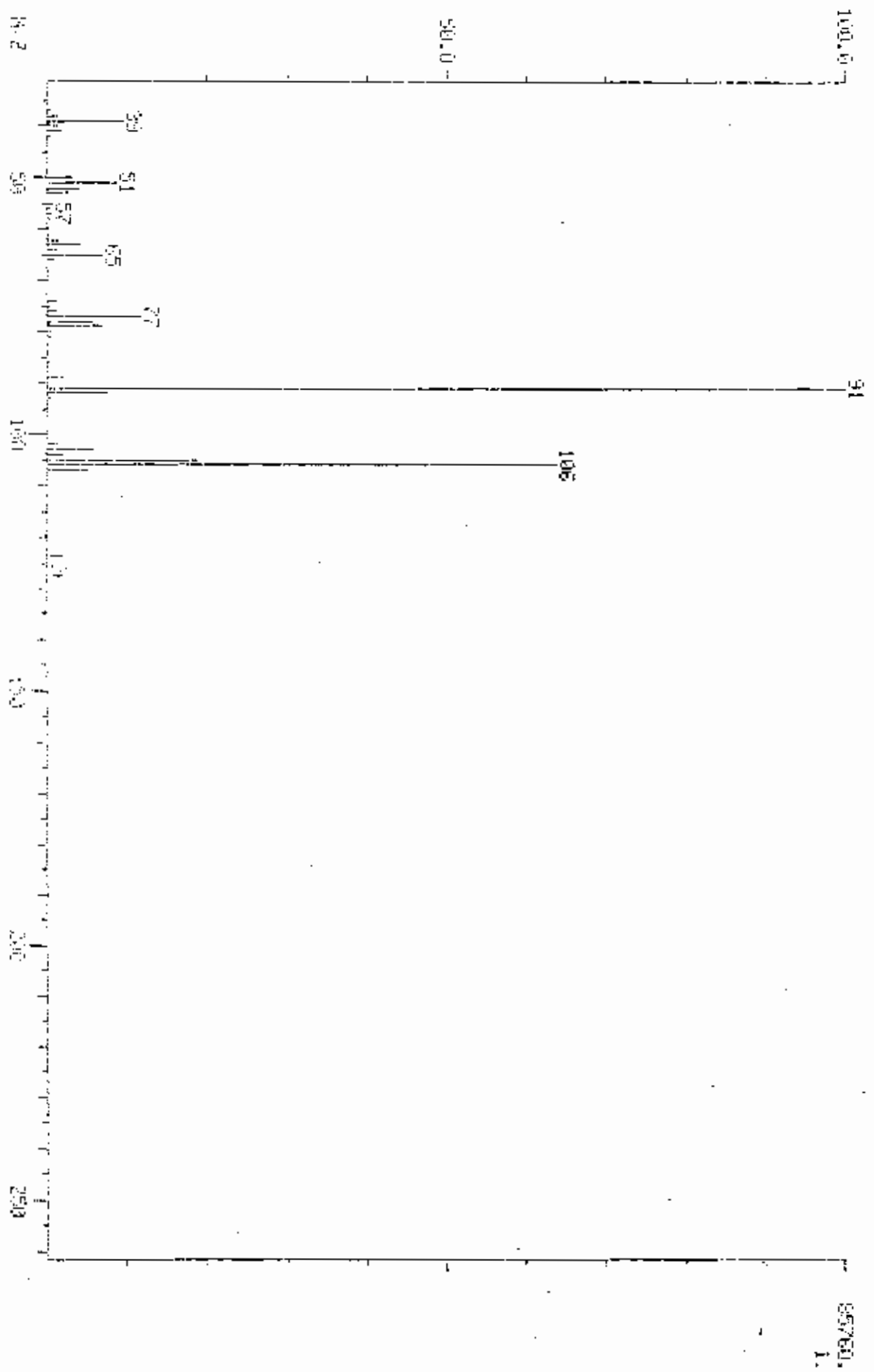
(DATE: 10601 1744  
CALL: 10601 83

BASE (V2): 91  
PID: 328764.



MRB MASS SPECTRUM  
11-23-88 2:50:08 + 37:11  
SAMPLE: CIPROLOX, 283.00173800101, R-5, (1001) (U) 5ML, 3/1/88  
CALIB.: INSTRUMENT V/SIP-1000 COLIMM 450.02000 IN 283800000.RTM  
GC TEMP: -491 DEG. C  
ENRANGED 15 158 211 91.00000 0.2500 TOTAL SCALES

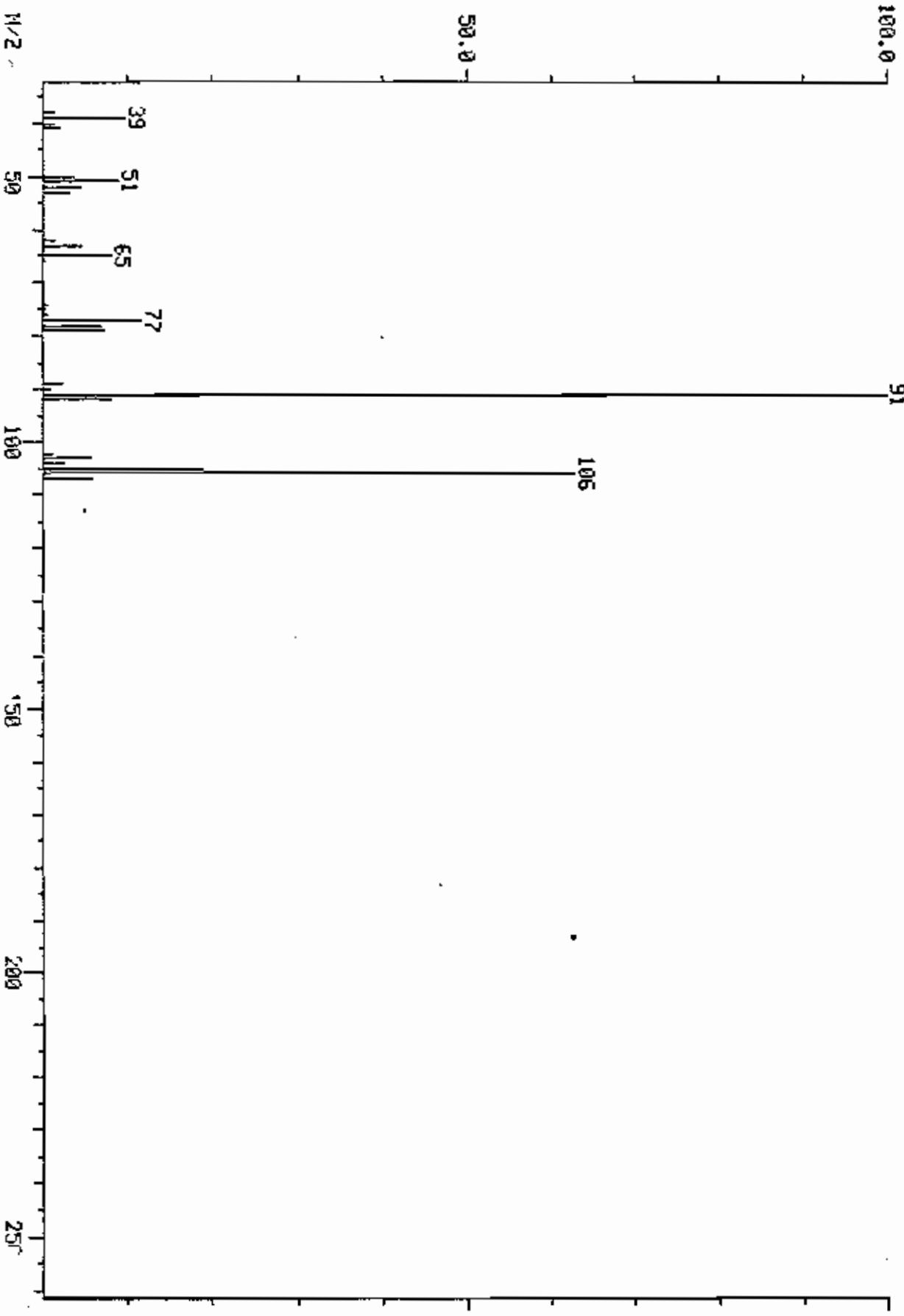
DATA: 93601 #244  
FILE: 93601 #2  
PAGE: 1/21 91  
RUC: 244224



MID MASS SPECTRUM  
11/28/88 18:40:00 + 32:14  
SAMPLE: CLP,,,USID50,L,5,STD16325,U,CC-D50,5ML  
COND5.: INSTRUMENT Y:SP-1000 COLUMN#1 45C(2MIN) TO 225C(8DEG/MIN  
GC TEMP:-491 DEG. C  
ENHANCED (5 158 2H 0T)

DATA: Y3593 W745  
CALI: Y3593 #3

BASE W/2: 91  
RIC: 75648.



26656.  
1.

MID Library Search                      Data: Y3601 # 335                      Base m/z:    36  
 11/29/88 2:50:00 + 14:37              Cell: Y3601 #    3                      PIC            33078  
 Sample: CLP, 6016, 293.00179900101, M.S., 61641, V., 5ML, 1/100  
 Mode: INSTRUMENT Y: 8F-1000 COLUMN 450(2MIN) TO 2250@25DEG/MIN  
 Enhanced (S 15B 2N OT)

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

Rank in                      Name  
 1    533 CYCLOPENTANE, METHYL-  
 2    543 CYCLOPROPANE, PROPYL-  
 3    599 1-PENTENE, 2-METHYL-  
 4    540 CYCLOPROPANE, (1-METHYLETHYL)-  
 5    7215 CYCLOPENTANE, BROMO-

Rank	Formula	M. Wt	E. Pk	Purity	Fit	RFit
1	C6 H12	84	56	976	987	976
2	C6 H12	84	56	927	953	931
3	C6 H12	84	56	913	941	929
4	C6 H12	84	56	908	931	916
5	C5 H9 BR	148	41	956	924	933

Rank	Ref. Comp	S. P. Int	US. Pat. 1	US. Pat. 2	C.A.S. #
1	---	---	---	---	2215-72-7
2	---	---	---	---	763-29-1
3	---	---	---	---	3838-05-5
4	---	---	---	---	137-43-9

MID LEVELS: SAMPLE: COLLOPHANE  
 11/29/88 2:58:00 + 14137  
 SAMPLE: J.P. 8015 283.00173309101 M.S. 61611 U.S.M. 12/100  
 COND.: INSTRUMENT: V93P-1000 COLUMN: 4M QWINT TO 225°C/500G/MIN  
 ENHANCED (5.198 2H RT)

DATE: 11/29/88  
 CALL: 19301 1 3

PAGE 1/2: 55  
 RIG: 23072

SAMPLE  
 1000

COLLOPHANE, METHYL-

06.112  
 1000  
 H MT 84  
 D PK 56

PEAK 1  
 H 525  
 FIT 987

COLLOPHANE, PROPYL-

06.112  
 1000  
 H MT 84  
 D PK 56

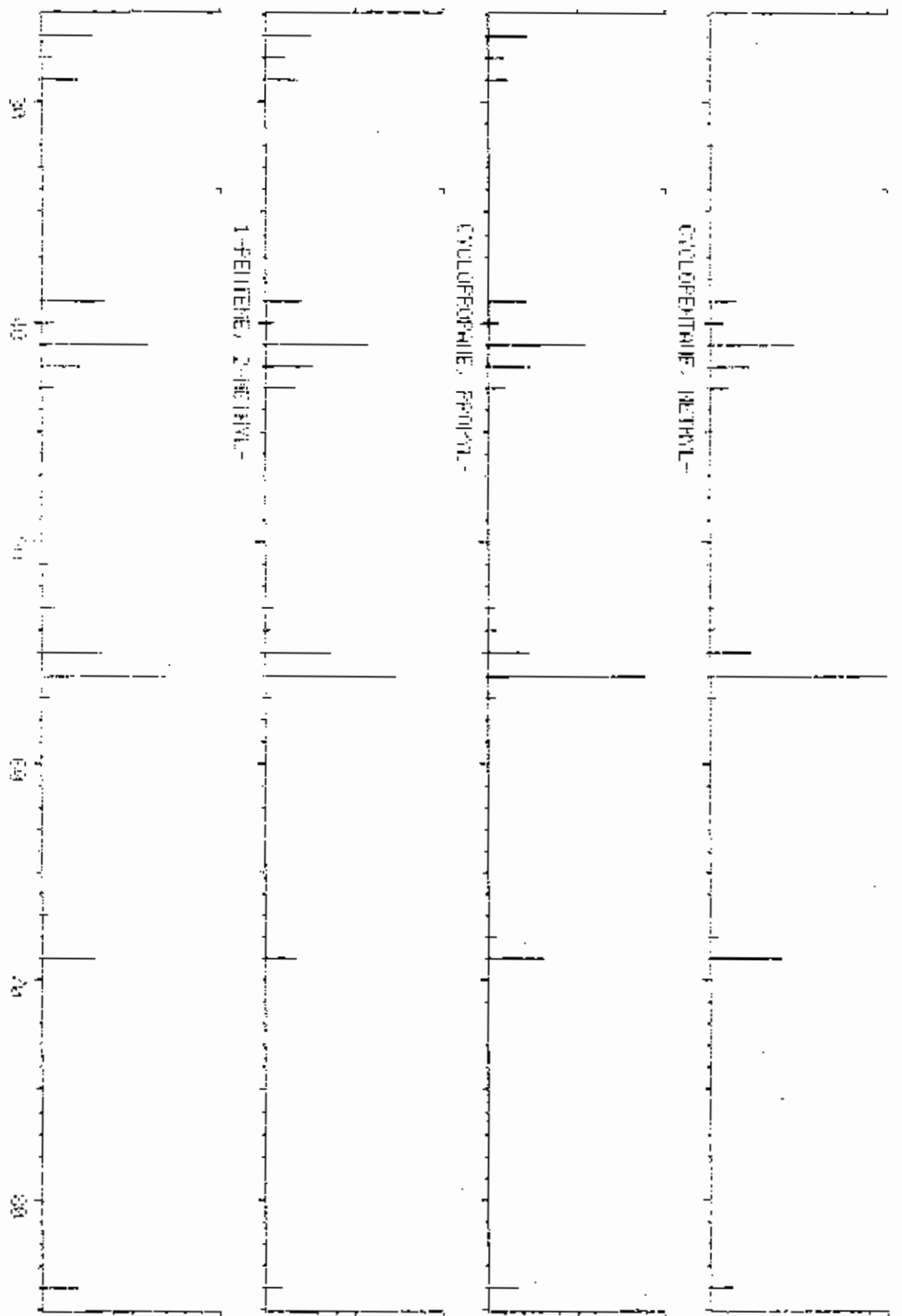
PEAK 2  
 H 541  
 FIT 963

1-ETHENE, 2-METHYL-

06.112  
 1000  
 H MT 84  
 D PK 56

PEAK 3  
 H 539  
 FIT 941

M/Z



MIT Library Search                      Data: Y3601 # 392                      Base #/c:        43  
 11/27/86 2:50:00 + 16.58              Call: Y3601 #    3                      R10:            30784  
 Sample: CLP.6016.283.00173800101.M.8.61641.U. SML.1/100  
 200s : INSTRUMENT Y.SP-1000 COLUMN 450(2MIN) TO 225098066/KMIN  
 Enhanced (S 15B 2M OT)

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

Rank in                      Name  
 1        661 BUTANE, 2,3-DIMETHYL-  
 2        93 PROPANE, 2-METHYL-  
 3        1477 2-FURANOL, TETRAHYDRO-2-METHYL-  
 4        623 FURAN, TETRAHYDRO-2-METHYL-  
 5        5327 2-HEPTEN-3-OL, 4,5-DIMETHYL-

Rank	Formula	M. Wt	S Pk	Points	Fit	RFit
1	C8 H14	86	40	291	941	902
2	C4 H10	58	43	672	931	679
3	C8 H10 O2	102	43	545	890	857
4	C5 H10 O	86	43	755	867	828
5	C9 H18 O	142	43	646	866	693

Rank	Ret Time	S P. Int	US Par 1	US Par 2	Library #
1	---	---	---	---	79-29-3
2	---	---	---	---	75-28-5
3	---	---	---	---	7326-46-7
4	---	---	---	---	96-47-9
5	---	---	---	---	55956-37-1



HIT LIBRARY SEARCH (LIBRARY) DATA: 13801 # 302  
 11-29-88 21:50:06 + 16:58 CALL: 13801 # 3  
 SAMPLE: CLP, 6015, 283, 00173800101, U.S. 51641, U.S. 5HL, L/100 RISE N/2: 43  
 CONDS.: INSTRUMENT 7-SP-1600 COLUMN# 450 (2MHD) TO 225086800.M111 PIC: 30784.  
 ELUATED (S 156 21 07)

1073  
SAMPLE

05.H14  
M RT 1073  
B PK 43

BUTANE, 2,3-DIMETHYL-

05.H14  
M RT 1073  
B PK 43

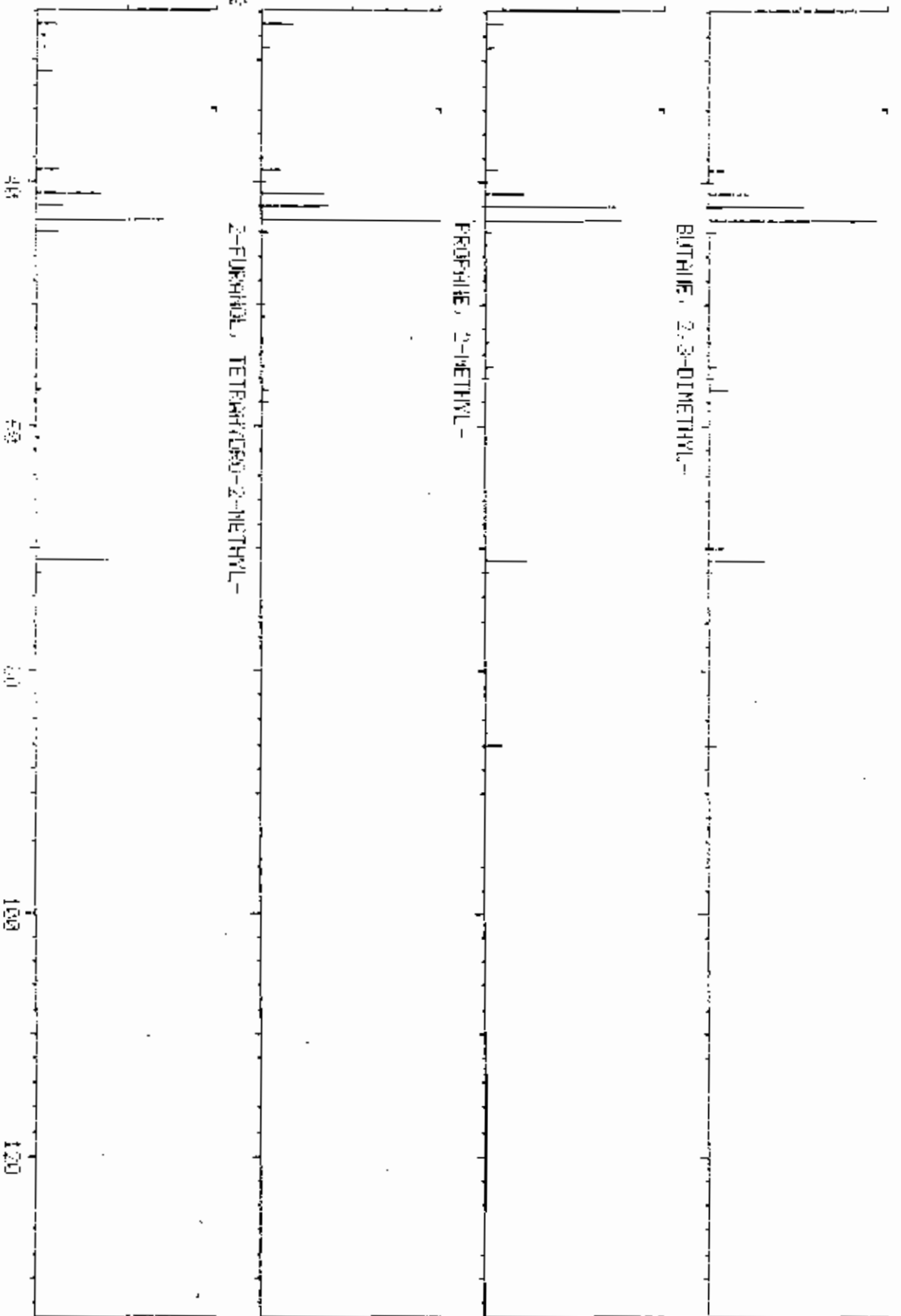
PROPANE, 2-METHYL-

05.H14  
M RT 1073  
B PK 43

2-FURFURAL, TETRAHYDRO-2-METHYL-

05.H14  
M RT 1073  
B PK 43

M 2



MID Library Search                      Date: Y3601 # 423                      Base m/z: 57  
 11/29/88 2:50:00 + 18:31              Cal: Y3601 # 3                      500                      35106  
 Sample: CLP, 6016, 283, 00172800101, M. S. 61641, V., 5ML, 1/100  
 Mode: INSTRUMENT Y, SP-1000 COLUMN 450(2MIN) TO 2250@2DEG/MIN  
 Enhanced (S 15B 2N OT)

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

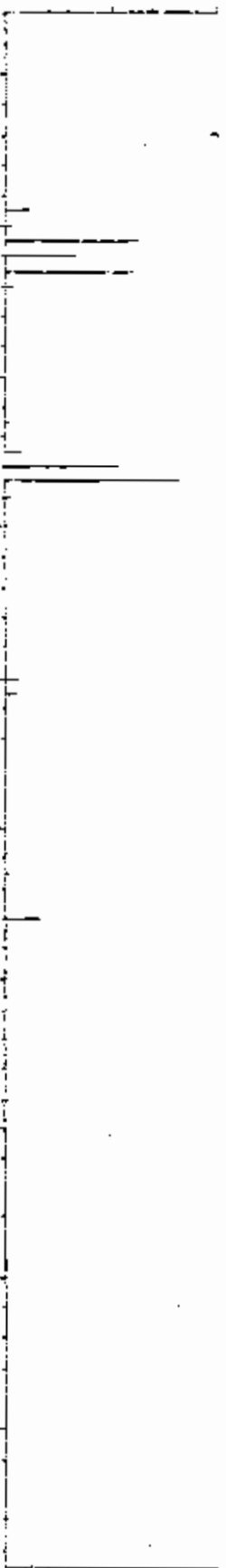
- | Rank In. | Name                                |
|----------|-------------------------------------|
| 1        | 662 PENTANE, 3-METHYL-              |
| 2        | 4149 PENTANE, 3-ETHYL-2,2-DIMETHYL- |
| 3        | 4129 PENTANE, 2,2,3,4-TETRAMETHYL-  |
| 4        | 4144 HEXANE, 2,2,3-TRIMETHYL-       |
| 5        | 1548 PROPANE, 2-METHYL-1-NITRO-     |

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C6 H14	86	57	946	961	958
2	C9 H20	128	57	814	897	831
3	C9 H20	128	57	807	890	851
4	C9 H20	128	57	804	887	831
5	C4 H9 O2 N	103	41	744	869	750

Peak	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	L. A. E. #
1	---	---	---	---	96-14-0
2	---	---	---	---	16747-32-3
3	---	---	---	---	1186-53-4
4	---	---	---	---	16747-25-4
5	---	---	---	---	625-74-1

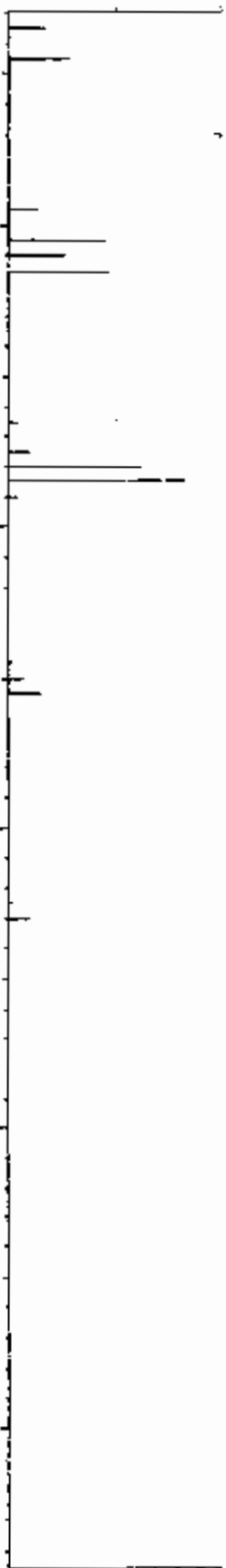
NID LIBRARY SEARCH (LIBRARY) DATA: Y9501 # 428  
 11/23/88 2:50:00 + 18:31 CALL: Y9501 # 3  
 SAMPLE: CLP.6016.283.00173000101.N.5.61641.U.SNL.11/190 BASE M/Z: 57  
 COND: INSTRUMENT Y95P-1009 COLUMN 490 (MID) TG 225068000/MIN RICH: 25135.  
 ENHANCED (S 158 21 97)

1220  
SAMPLE



05.H14  
M HT 1220  
B PK 57

PK# 1  
# 652  
FIT 951



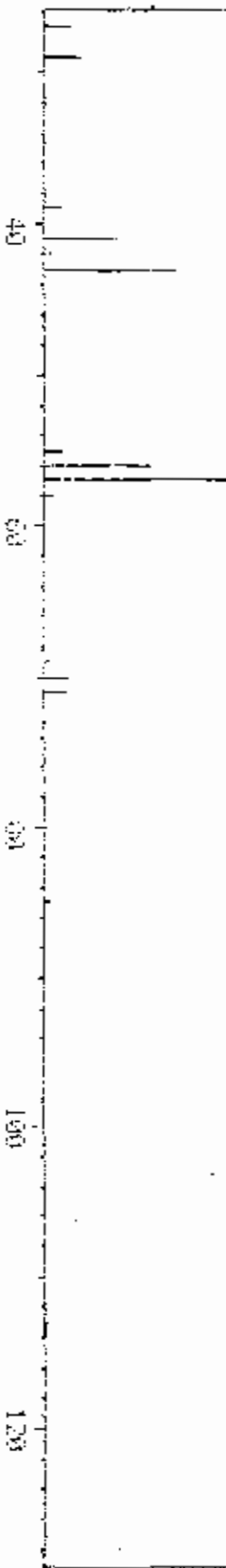
09.H20  
M HT 1220  
B PK 57

PK# 2  
# 4149  
FIT 937



09.H20  
M HT 1220  
B PK 57

PK# 3  
# 4129  
FIT 890



M/Z

40

60

80

100

120

MID Library Search                      Data Y3601 # 501                      Base m/z     43  
 11/29/88    2 50.00 + 21:40              Call: Y3601 #    3                      RIC            59008.  
 Sample: CLP. 6016, ZB3, 00173B00101, M. S. 61641, V. 5ML, 1/100  
 Cond.: INSTRUMENT Y SP-1000 COLUMN 450(2MIN) TO 225132DEG:MIN  
 Enhanced (S 15B 2N 0T)

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

- Rank In                      Name  
 1    2790 1-PENTANOL, 3,4-DIMETHYL-  
 2    794 HYDROXYLAMINE, O-(2-METHYLPROPYL)-  
 3    2562 PENTANE, 2-ETHYL-2-METHYL-  
 4    3911 ETHANETHIOIC ACID, S-(2-METHYLBUTYL) ESTER  
 5    2515 HEXANAL, 3-METHYL-

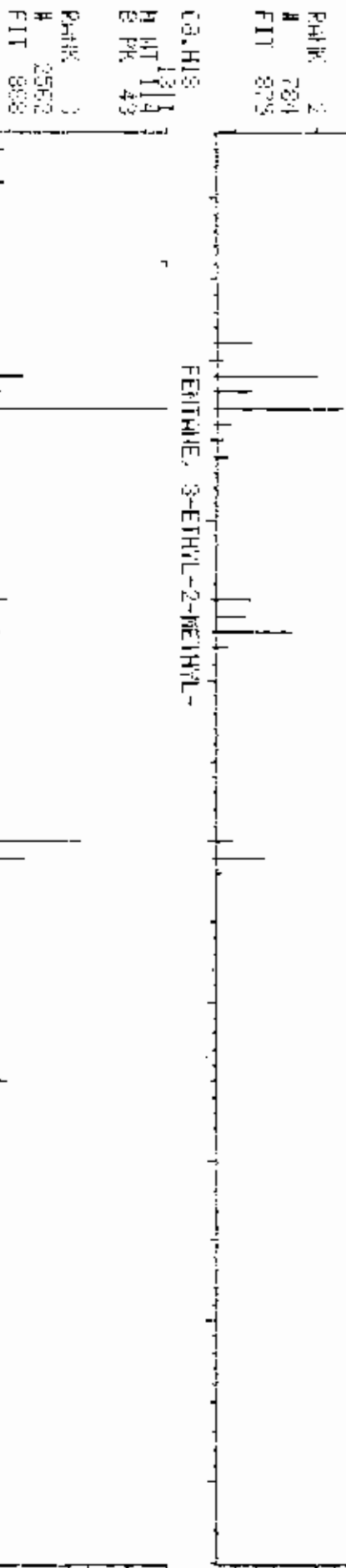
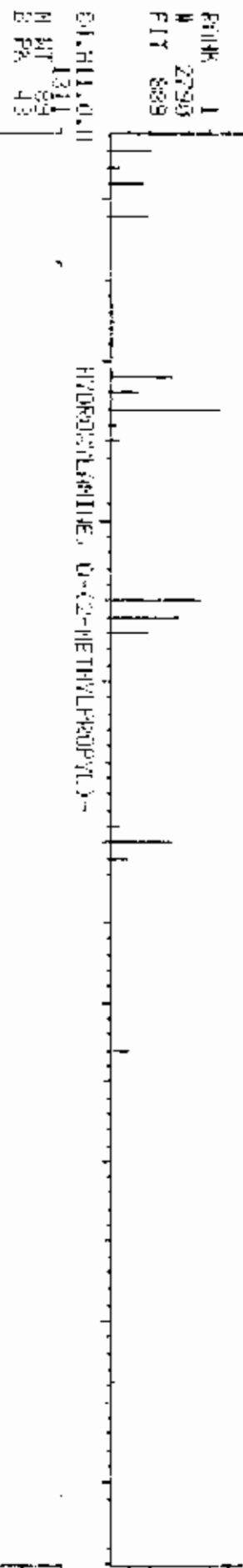
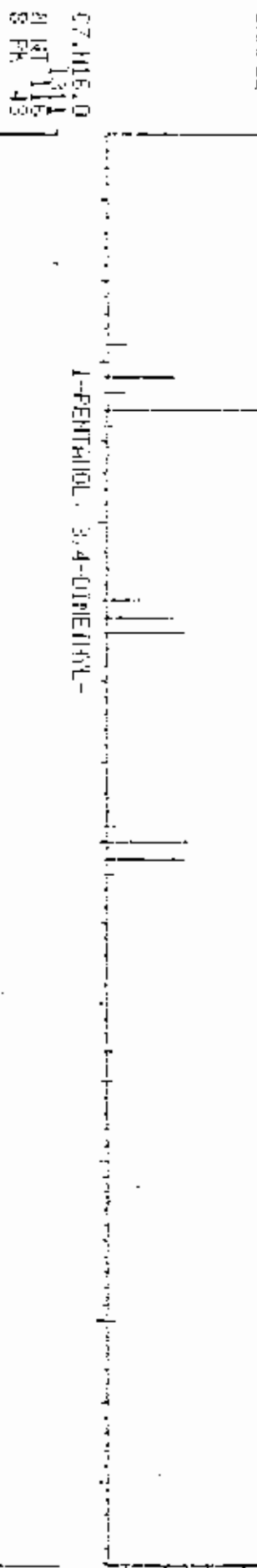
Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C7 H16 O	116	43	316	889	826
2	C4 H11 O N	89	43	906	875	642
3	C6 H12	114	43	316	868	825
4	C7 H14 O S	146	43	377	865	688
5	C7 H14 O	114	70	714	861	739

Rank	Ret Time	B. P. Int.	US. Par. 1	US Par. 2	C A S. #
1	---	---	---	---	5570-87-2
2	---	---	---	---	5518-62-2
3	---	---	---	---	509-26-7
4	---	---	---	---	59078-60-4
5	---	---	---	---	19269-28-4

MID LITERARY SECTION (LITERATURE)  
 11-29-88 14:58:00 + 21:48  
 SAMPLE: CUP-6016, 203-6017, 303-6018, 401-6019, 501-6020, 601-6021, 701-6022, 801-6023, 901-6024, 1001-6025, 1101-6026  
 COMPS.: INSTRUMENT 715F-1000 COLUMN #5002(HT) TO 2250(EE)EG-MIN  
 EMPLOYEE (S 158 24 01)

DATA: 19881 # 501  
 CH1: 19881 # 3  
 BASE N-2: 43  
 P10: 59008

1011  
 SAMPLE



M/Z 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000 1100

MID Library Search                      Data: YG501 # 500                      Base m/z: 57  
 11/29/99 2:50.00 + 22.56              Cell: YG501 # 2                      RIC: 168912  
 Sample: CLP.6016.283 00173800101.M.S.61641.V. 5ML.1/100  
 COND: INSTRUMENT Y 5P-1000 COLUMN ASC(2MIN) TO 2250322637MIN  
 Enhanced (S 15B 2N 0T)

42220 spectra in LIBRARYND searched for maximum FIT  
 193 matched at least 6 of the 16 largest peaks in the unknown

*Hyd*

Rank In.	Name
1	4129 PENTANE, 2, 2, 3, 4-TETRAMETHYL-
2	8727 OCTANE, 2, 5, 6-TRIMETHYL-
3	6015 BUTANE, 2-AZIDO-2, 3, 3-TRIMETHYL-
4	8733 OCTANE, 2, 4, 6-TRIMETHYL-
5	6090 HEXANE, 2, 2, 3, 3-TETRAMETHYL-

Rank	Formula	M. Wt	B	Pk	Purity	Fit	RFit
1	C9 H20	128		57	925	985	930
2	C11 H24	156		57	932	961	943
3	C7 H15. N3	141		57	742	952	782
4	C11 H24	156		57	897	925	910
5	C10 H22	142		57	956	910	856

Rank	Ret. Time	B P. Int.	US. Par 1	US Par 2	C A S. #
1	---	---	---	---	1186-53-4
2	---	---	---	---	62016-14-2
3	---	---	---	---	51677-41-9
4	---	---	---	---	62016-37-9
5	---	---	---	---	13475-01-5

MID LIBRARY SEARCH (LIBRARY) DATE: 198614 538  
 11/29/88 2:58:00 + 22:56 CALL: 198614 3  
 SAMPLE: CLP.6016.283.60173800101.H.S.616410.5HL.1.100 BASE N/2: 57  
 CONDS.: INSTRUMENT V15P-1000 COLUMN 45x0.2MMID TO 250C90DEG/MIN R/C: 165912.  
 ENRICHED (5 150 2N 0T)

1055  
SAMPLE

09.1036

H AT 1055  
B PK 57

RANK 1  
M 41.29  
FIT 985

011.1024

H AT 1055  
B PK 57

RANK 2  
M 87.27  
FIT 961

07.115.103

H AT 1055  
B PK 57

RANK 3  
M 60.15  
FIT 952

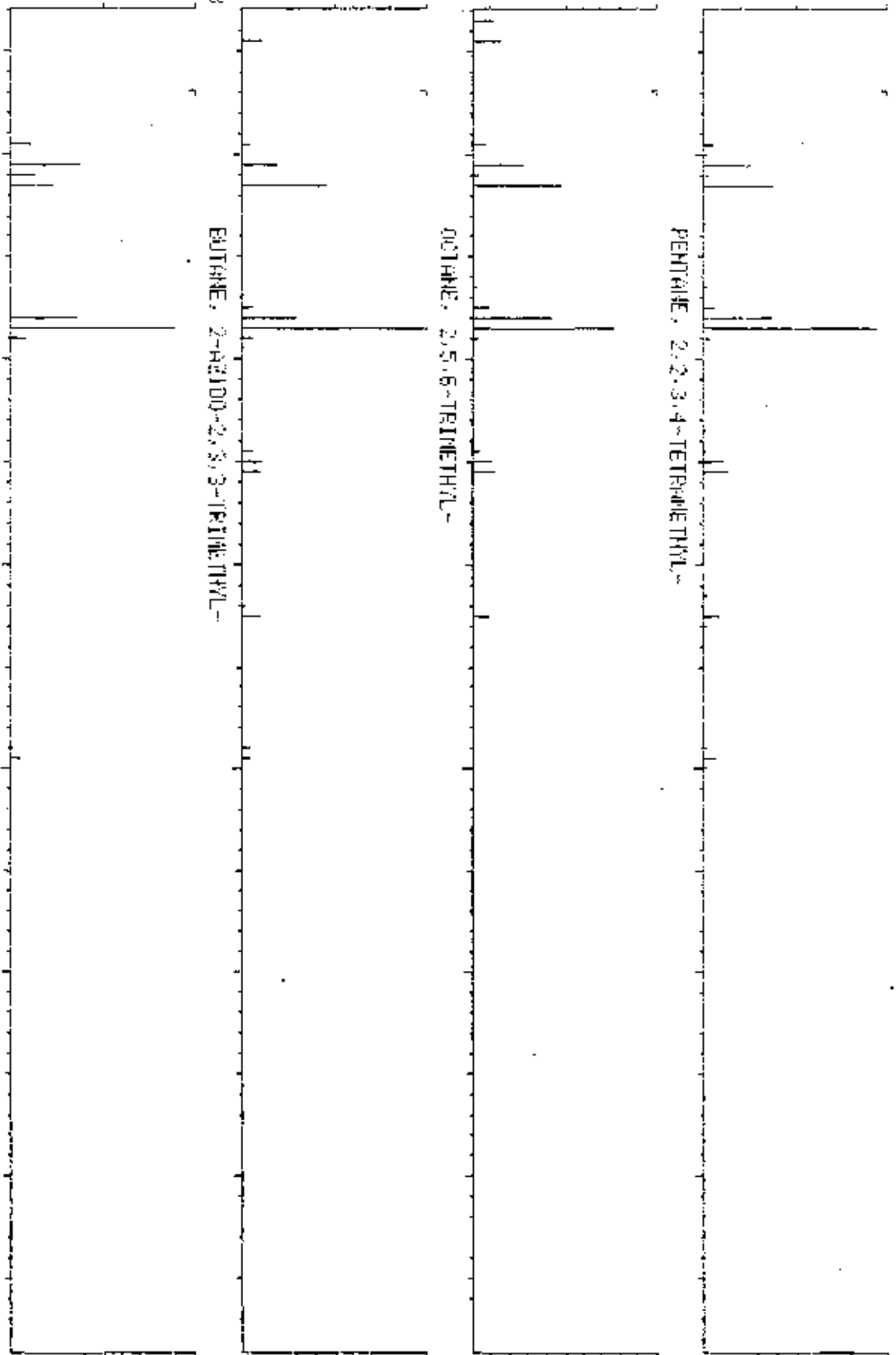
PENTANE, 2,2,3,4-TETRAMETHYL-

OCTANE, 2,5,6-TRIMETHYL-

BUTANE, 2-(2,1,0)-2,3,3-TRIMETHYL-

M/Z

40 60 80 100 120 140



MID Library Search                      Date: Y3601 # 579                      Base m/z: 43  
 11/29/88 2:50:00 + 25:03              Call: Y3601 # 3                      RIC: 26880.  
 Sample: CLP, 6016, 283, 00173800101, M. S. 61641, V. 5ML, 1/100  
 ends : INSTRUMENT Y: SP-1000 COLUMN 450(2MIN) TO 2250GEDEG/MIN  
 Enhanced (S 15E 2N 0T)

42222 spectra in LIBRARYNE searched for maximum FIT  
 107 matched at least 7 of the 16 largest peaks in the Unknown

- Rank In              Name  
 1 2554 HEXANE, 2,3-DIMETHYL-  
 2 2385 BUTANOIC ACID, ETHENYL ESTER  
 3 6911 ETHANETHIOIC ACID, S-(2-METHYLBUTYL) ESTER  
 4 6102 HEPTANE, 3,3,4-TRIMETHYL-  
 5 13910 DECANE, 3,3,4-TRIMETHYL-

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C8.H18	114	43	978	986	986
2	C6.H10.O2	114	43	691	931	600
3	C7.H14.O.S	146	43	678	925	686
4	C10.H22	142	43	662	921	921
5	C13.H28	184	43	385	914	933

Rank	Ret. Time	B. P Int.	US. Par. 1	US Par 2	C. A. S. #
1	---	---	---	---	584-94-1
2	---	---	---	---	123-20-6
3	---	---	---	---	29078-80-4
4	---	---	---	---	20278-87-9
5	---	---	---	---	49622-18-6



NID LIBRARY SEARCH (LIBRARY) INSTR: Y3061 # 579  
 11/29/88 21:50:00 + 25:03 CALIB: Y3501 # 3  
 SAMPLE: CLP.6016.288.00173869101 (I.S. 61641 (I.S. 58) F.109) BASE H/2: 43  
 CONDS.: INSTRUMENT Y35F-1909 COLUMN 450 (ZINID) TO 220 (80000) MIN RID: 26890.  
 ENHANCED (S ISB 24 07)

1291  
SAMPLE

06.H18  
M WT 114  
B PK 43

HEXANE, 2,3-DIMETHYL-

RANK 1  
M 2554  
FIT 986

06.H10.02  
M WT 114  
B PK 43

BUTANOIC ACID, ETHYL ESTER

RANK 2  
M 2385  
FIT 981

07.H14.0.5  
M WT 129  
B PK 43

ETHANETHIOIC ACID, S-(2-METHYLBUTYL) ESTER

RANK 3  
M 9411  
FIT 925

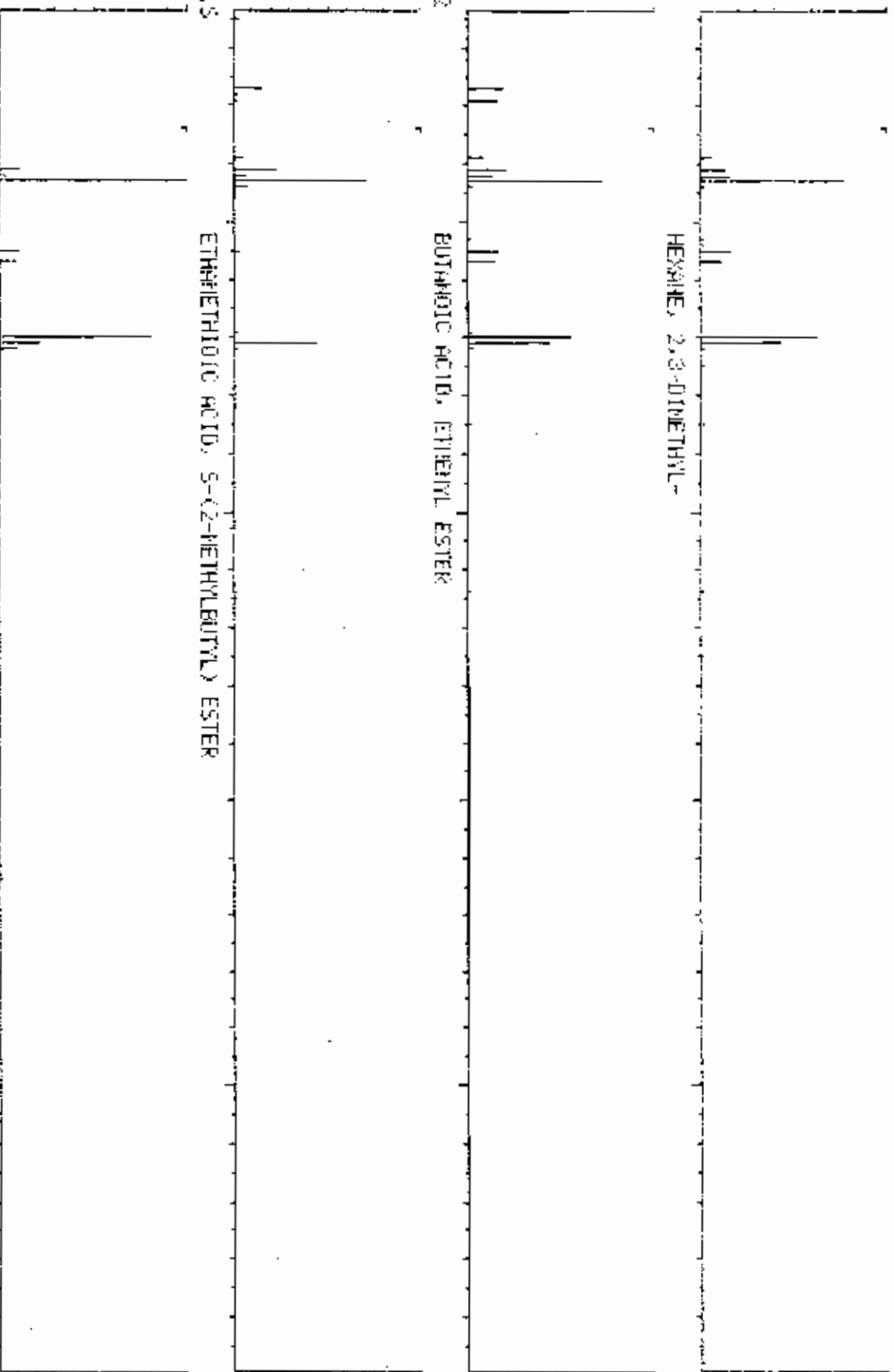
M/2

50

100

150

200



MID Library Search Data: Y3601 # 591 Base m/z 42  
 11/28/88 2:50:00 + 25:34 Call: Y3601 # 3 RIC 34112.  
 Sample: CLP, 6016, 293, 00173900101, M. S. 61641, V. 7 SML, 1/100  
 Pres.: INSTRUMENT Y. SP-1000 COLUMN 450(2MIN) TO 2250@EDEC/MIN  
 Enhanced (S 15B 2N OT)

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

Rank In. Name

- 1 2560 HEPTANE, 2-METHYL-
- 2 2559 HEXANE, 2, 5-DIMETHYL-
- 3 5097 OCTANE, 3, 5-DIMETHYL-
- 4 4142 PENTANE, 2, 2, 3, 3-TETRAMETHYL-
- 5 5076 OCTANE, 2, 7-DIMETHYL-

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C8 H18	114	43	844	970	844
2	C8 H18	114	57	959	959	975
3	C10 H22	142	42	785	946	803
4	C9 H20	126	57	741	937	769
5	C10 H22	142	43	785	935	811

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. B. #
1	---	---	---	---	392-27-2
2	---	---	---	---	392-13-2
3	---	---	---	---	15869-93-9
4	---	---	---	---	7154-79-2
5	---	---	---	---	1072-16-8



NIS Library Search                      Data: Y3601 # 607                      Page #/of:    57  
 11/29/88 2:50:00 + 27.34              Call: Y3601 #    3                      #11                      23072  
 Sample: CLP, 2015, 283-00173800101, M.S. 61641, V., SML, 1/100  
 Cond. INSTRUMENT Y. SP-1000 COLUMN 45C(2MIN) TO 225°C(5DEG MIN  
 Expanded (5 15R 2N 0T)

42222 spectra in LIBRARYNS searched for maximum FIT  
 21 matched at least 7 of the 14 largest peaks in the

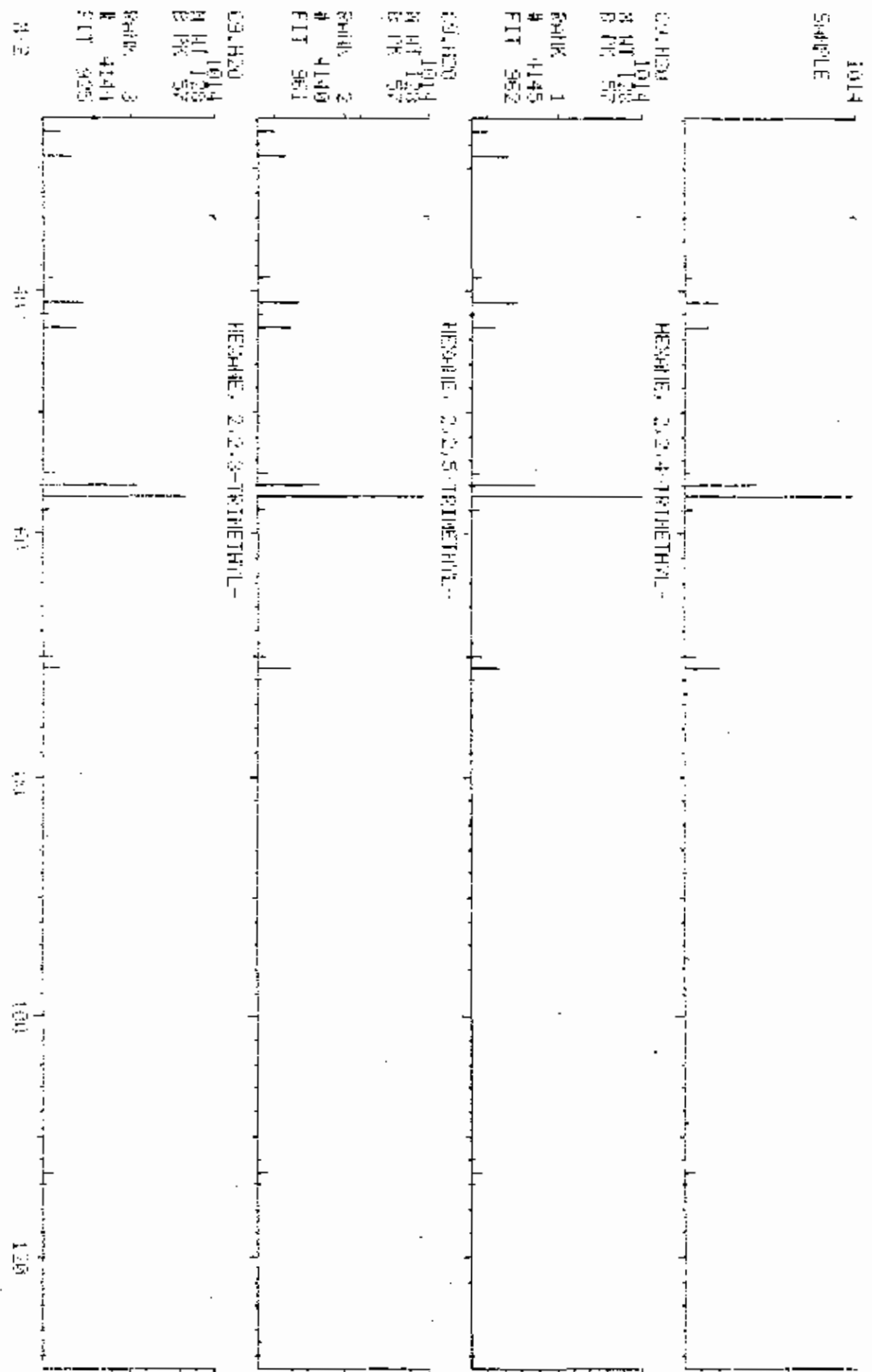
*Unknown  
 Trimethyl  
 Hexane*

Rank	In.	Name
1	4145	HEXANE, 2,2,4-TRIMETHYL-
2	4140	HEXANE, 2,2,5-TRIMETHYL-
3	4144	HEXANE, 2,2,3-TRIMETHYL-
4	4149	PENTANE, 3-ETHYL-2,2-DIMETHYL-
5	4156	PENTANE, 2,2,4,4-TETRAMETHYL-

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C9 H20	128	57	948	962	980
2	C9 H20	128	57	947	961	980
3	C9 H20	128	57	912	925	962
4	C9 H20	128	57	905	922	945
5	C9 H20	128	57	895	901	915

Rank	Ret. Time	E. P. Int.	US Par. 1	US Par. 2	C. A. S. #
1	---	---	---	---	16747-26-5
2	---	---	---	---	3522-94-9
3	---	---	---	---	16747-25-4
4	---	---	---	---	16747-28-3
5	---	---	---	---	1070-87-7

MID LIBRARY SEARCH (LIBRARY) 4070: 73600 H 637  
 11-29-88 2:50:00 + 27.31 CALL: 73600 H 3  
 SAMPLE: (P.E.C.S. 253.6017) CONTAINING SUSPECTEDLY SUI. 01.100  
 CONDENS. INSTRUMENT (7.50-1000) ON (MILLI SEC. INTG) TO 253.6017  
 ENHANCED (5 158.24 01)



MID Library Search                      Data: Y3601 # 898                      Base m/z        62  
 11/29/88 2:50:00 + 28:54              Cal: Y3601 #     3                      RIC              25400  
 Sample    CLP-8016, 289.00;78800101, M.S. 61641, V. 5ML, 1/107  
 Cond      INSTRUMENT Y SP-1000 COLUMN 450(2MIN) TO 2250(35259)MIN  
 Enhanced (S 15B 2N 0T)

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

Rank In            Name  
 1    4119    HEXANE, 2,3,4-TRIMETHYL-  
 2    14246    HEXANE, 1,1'-DXYBIS-  
 3    4125    HEXANE, 2,3,5-TRIMETHYL-  
 4    1502    1-PENTANOL, 2-METHYL-  
 5    2563    HEXANE, 3-ETHYL-

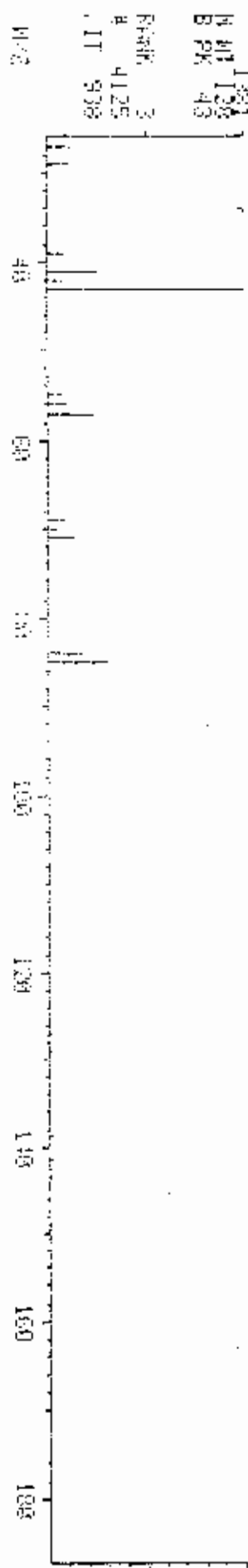
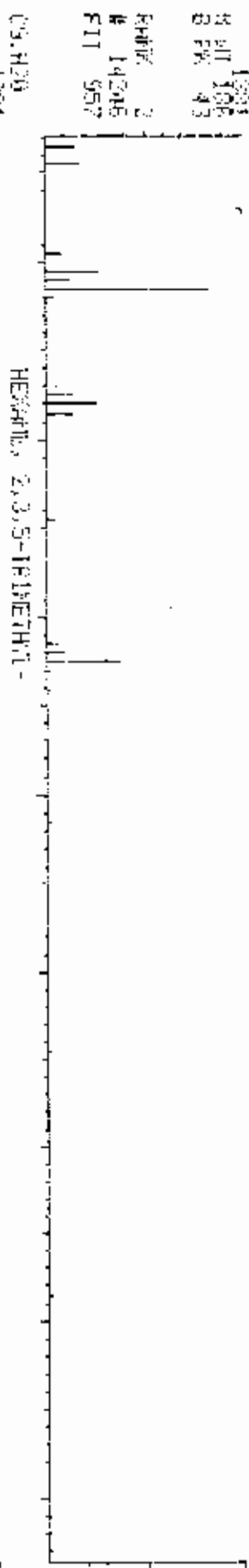
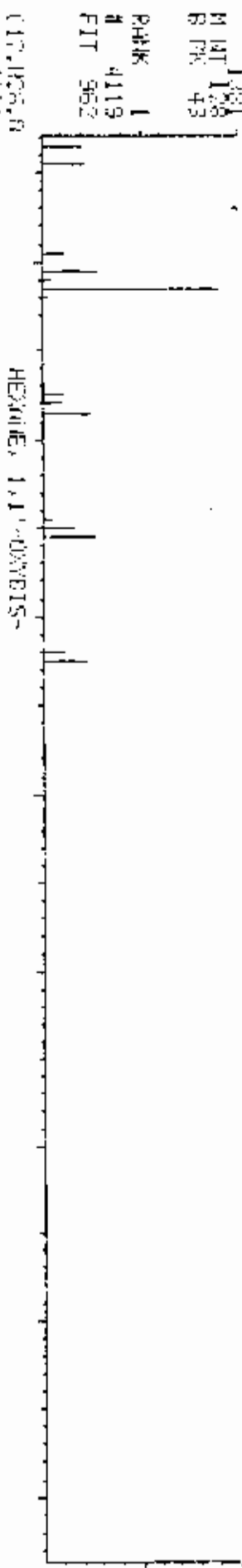
Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C9 H20	128	43	783	962	754
2	C12 H26 O	186	43	695	957	709
3	C9 H20	128	43	785	938	735
4	C6 H14 O	102	43	582	938	598
5	C8 H18	114	43	782	937	782

Rank	Ret. Time	R. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	---	---	---	---	921-47-1
2	---	---	---	---	112-58-3
3	---	---	---	---	1069-53-0
4	---	---	---	---	105-30-6
5	---	---	---	---	519-99-8

MID LIBRARY SEARCH (LIBRARY) DATE: 7/30/01 # 668  
 11/29/88 2:56:00 + 28:54 QM1: 73601 # 3  
 SAMPLE: CLP-GM05-288-001 (3899191) (M.S. 616) (L.M. 591) (1/199)  
 COMES: 1 (INSTRUMENT: VISE-1000 COLUMN: 450X2MM) TO 2200900604111  
 CHANNEL: (5 150 21 BT)

BASE M/Z: 43  
 PIC: 26400.

1361  
 SAMPLE



MID Library Search      Data: Y3601 # 787      Page m/z: 91  
 11/29/88 2:50:00 + 34:03      Call: Y3601 # 3      PIC      23608  
 Sample: CLP, 4016, 223, 00173800131, M, S, 61641, U, 5ML, 17100  
 Cond.: INSTRUMENT Y: SP-1000 COLUMN 45C(2MIN) TO 225089056(MIN)  
 Expanded (5 15B 2N 0T)

43322 spectra in LIBRARYNB searched for maximum FIT  
 93 matched at least 7 of the 16 largest peaks in the spectrum

- Rank In.      Name
- 1 3092 BENZENE, PROPYL
  - 2 4920 BICYCLO[6.1.0]NONA-5,8-DIEN-4-ONE
  - 3 369 BENZENE (ACN) (DOT)
  - 4 23560 IRON, TRICARBONYL(2,3,4,5-ETA)-2,4-CYCLOHEPTADIEN-1-OL-3-
  - 5 4971 AZOCINE, 2-METHOXY-

Rank	Formula	M. Wt	B	Pk	Purity	Fit	RFit
1	C9.H12	120	91		902	946	935
2	C9.H10.O	134	91		860	911	889
3	C6.H6	78	78		46	826	75
4	C10.H10 O4.FE	250	91		601	817	687
5	C8.H9 O N	135	120		339	809	407

Rank	Ret. Time	B. P. Int.	US Par. 1	US Par. 2	C. A. S. #
1	---	---	---	---	103-65-1
2	---	---	---	---	8266-74-1
3	---	---	---	---	71-43-2
4	---	---	---	---	32716-70-4
5	---	---	---	---	20205-50-9



NID LIBRARY SEARCH (LIBRARY)

11/29/88 2:50:00 + 04:03

SAMPLE: CLP.GALE.283.00170800101.N.5.61641.0.5ML.1/100

COND.: INSTRUMENT 7:SP-1000 COLUMN 450(2M1H) TO 225088DEG/MIN

EMPHASED (5.158 211 01)

DATA: Y3601 # 707

CALL: Y3601 # 3

BASE N/2: 91

RT0: 28608.

1034

SAMPLE

09.H12

BENZENE, PROPYL-

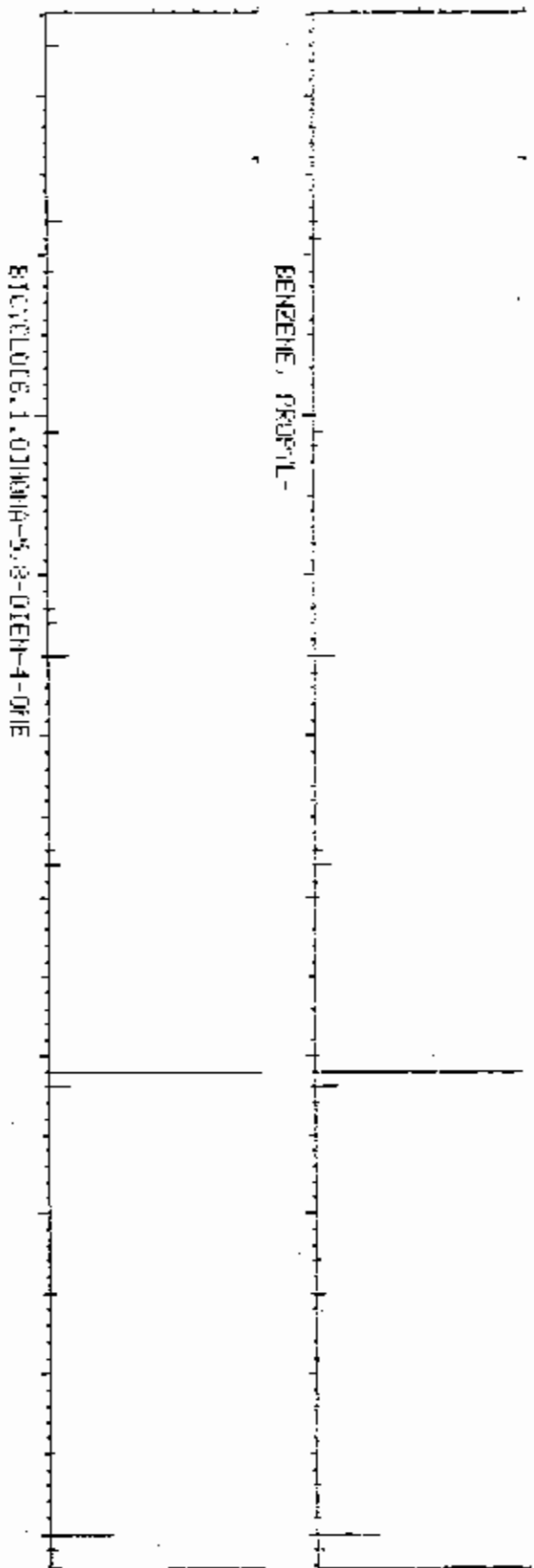
H MT 1034

B PK 91

PKPK 1

A 3092

FIT 945



09.H10.0

BICYCLO[6.1.0]NONA-5,8-DIEN-4-ONE

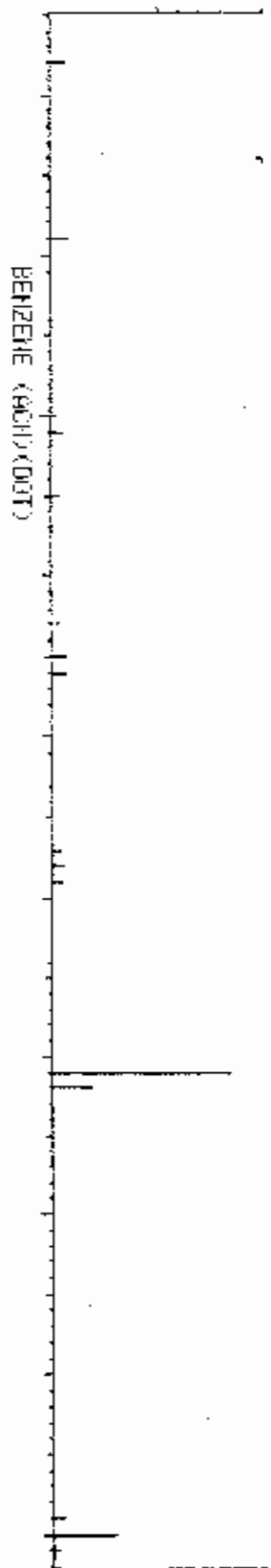
H MT 1034

B PK 91

PKPK 2

A 4928

FIT 911



06.H6

BENZENE (AQUA)(DIST)

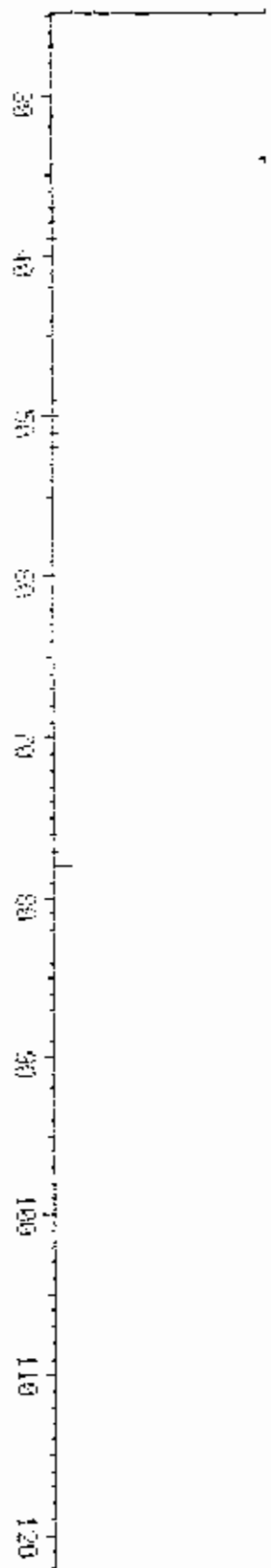
H MT 1034

B PK 78

PKPK 3

A 3059

FIT 826



H/2

30 40 50 60 70 80 90 100 110 120

\*\*\*INTERNAL STANDARD RIC REPORT\*\*\*

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

MID Mass List Data: Y3601 # 221 Base m/z: 49  
11/29/88 2:50:00 + 9:34 Cali: Y3601 # 3 RIC: 130688  
Sample: CLP, 6016, 283, 00173800101, M, S, 61641, V, 5ML, 1/100  
Conds.: INSTRUMENT Y: SP-1000 COLUMN 450(2MIN) TB 2250@8DEG/MIN  
Enhanced (S 15B 2N OT)

35	0.00	1.	Minima	Min Inten:	1
30			Maxima	#	0

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

MID Mass List Data: Y3601 # 453 Base m/z: 114  
11/29/88 2:50:00 + 19:36 Cali: Y3601 # 3 RIC: 171264  
Sample: CLP, 6016, 283, 00173800101, M, S, 61641, V, 5ML, 1/100  
Conds.: INSTRUMENT Y: SP-1000 COLUMN 450(2MIN) TB 2250@8DEG/MIN  
Enhanced (S 15B 2N OT)

37	0.00	1.	Minima	Min Inten:	1.
30			Maxima	#	0

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

MID Mass List Data: Y3601 # 568 Base m/z: 117  
11/29/88 2:50:00 + 24:34 Cali: Y3601 # 3 RIC: 173568  
Sample: CLP, 6016, 283, 00173800101, M, S, 61641, V, 5ML, 1/100  
Conds.: INSTRUMENT Y: SP-1000 COLUMN 450(2MIN) TB 2250@8DEG/MIN  
Enhanced (S 15B 2N OT)

35	0.00	1.	Minima	Min Inten:	1.
30			Maxima	#	0

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

Sample Number 00173800101

Analysis Date 11/29/88

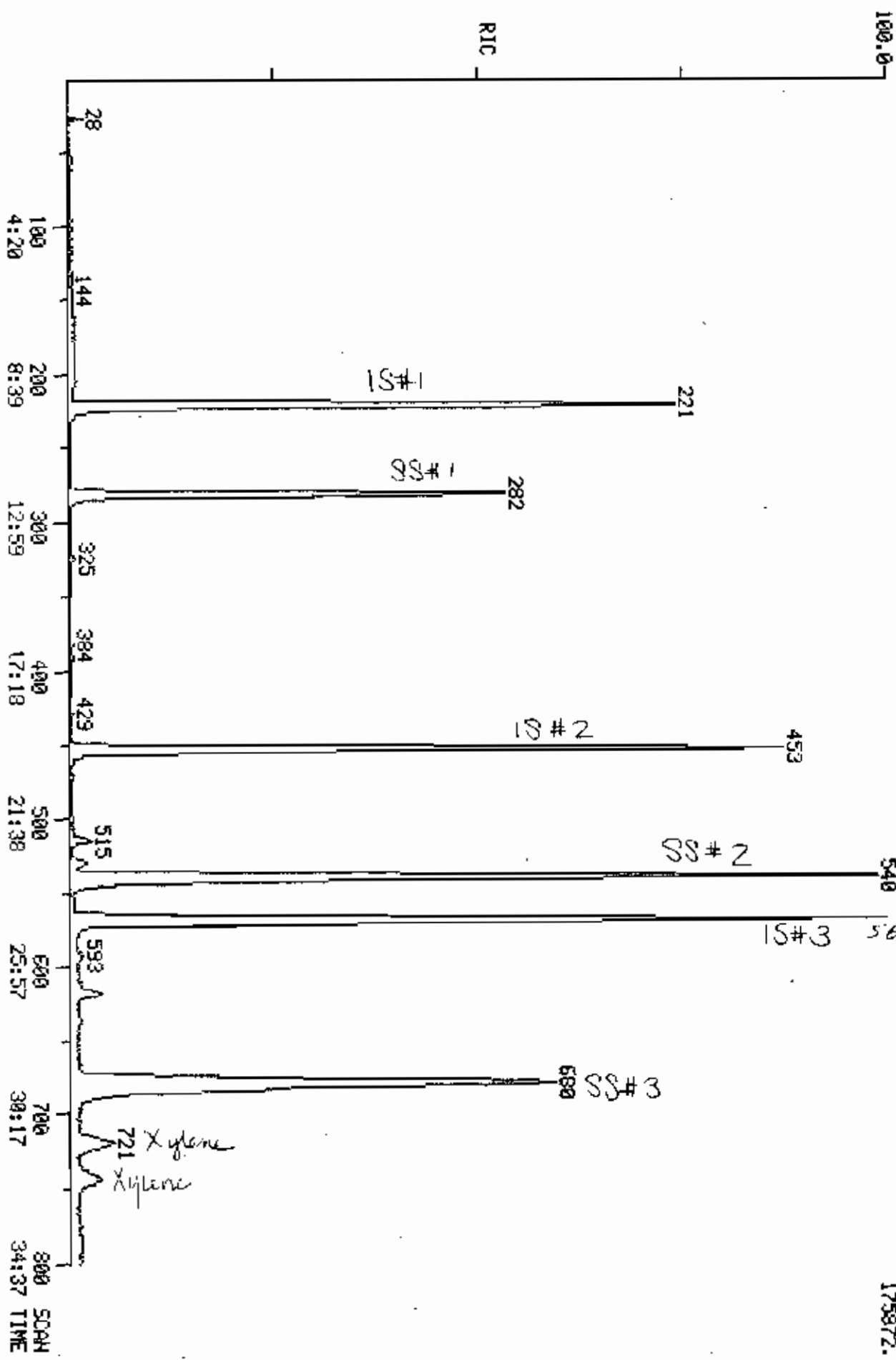
Instrument ID Y

Analyst JP

Fraction V08

PK #	SCAN #	TIC OR AREA	PK HT	IS OR RIC	IS CONC	P	ug/l OR ug/kg	FRACTION
1	338	23,072	171264	50	140	943	V08	
2	392	30,784	171264	50	140	1258	V08	
3	428	35,136	171264	50	140	1436	V08	
4	501	59,008	171264	50	140	2412	V08	
5	530	166,912	173568	50	140	6732	V08	
6	579	26,880	173568	50	140	1084	V08	
7	591	34,112	173568	50	140	1376	V08	
8	637	23,072	173568	50	140	930	V08	
9	668	26,400	173568	50	140	1065	V08	
10	787	28,608	173568	50	140	1154	V08	
11								
12								
13								
14								
15								
16								
17								
18								
19								
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38								
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40								

MID RIC 11/29/89 1:53:00 DATA: Y3698 #1 SCANS 1 TO 800  
 CALL: Y3698 #3  
 SAMPLE: CLP, 6016, 283, 00173800101, N, S, 51641, U, .5ML, 1/5000  
 COND.S.: INSTRUMENT Y: SP-1000 COLUMN 45C(2MIN) TO 225080806/MIN  
 RANGE: C 1, 000 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 30



175872.

Quantitation Report File: Y3600

Date: Y3600.TI

11/29/88 1:53:00

Sample: CLP, 6016, 283.00173800101, M, S, 61641, V, 5ML, 1/5000

Conds.: INSTRUMENT Y: SP-1000 COLUMN 45C(2MIN) TO 225C@8DEG/MIN

Formula: Instrument: Y Weight: 0.001

Submitted by: VERSAR Analyst: JP Acct. No.: 6016

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	C101 BROMOCHLOROMETHANE****INTERNAL STANDARD#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	C043 TRICHLOROFLUOROMETHANE
11	C050 1,1-DICHLOROETHANE
12	C053 1,2-DICHLOROETHENE (TOTAL)
13	C060 CHLOROFORM
14	C065 1,2-DICHLOROETHANE
15	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
16	C110 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
17	C115 1,1,1-TRICHLOROETHANE
18	C11D 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-CHLOROETHYLVINYLEETHER
30	C180 BROMOFORM
31	C120 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
32	C210 2-HEXANONE
33	C2D5 4-METHYL-2-PENTANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 TOTAL XYLENES
41	CS05 TOLUENE-D8***SURROGATE#2***
42	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
43	C250 TOTAL XYLENES

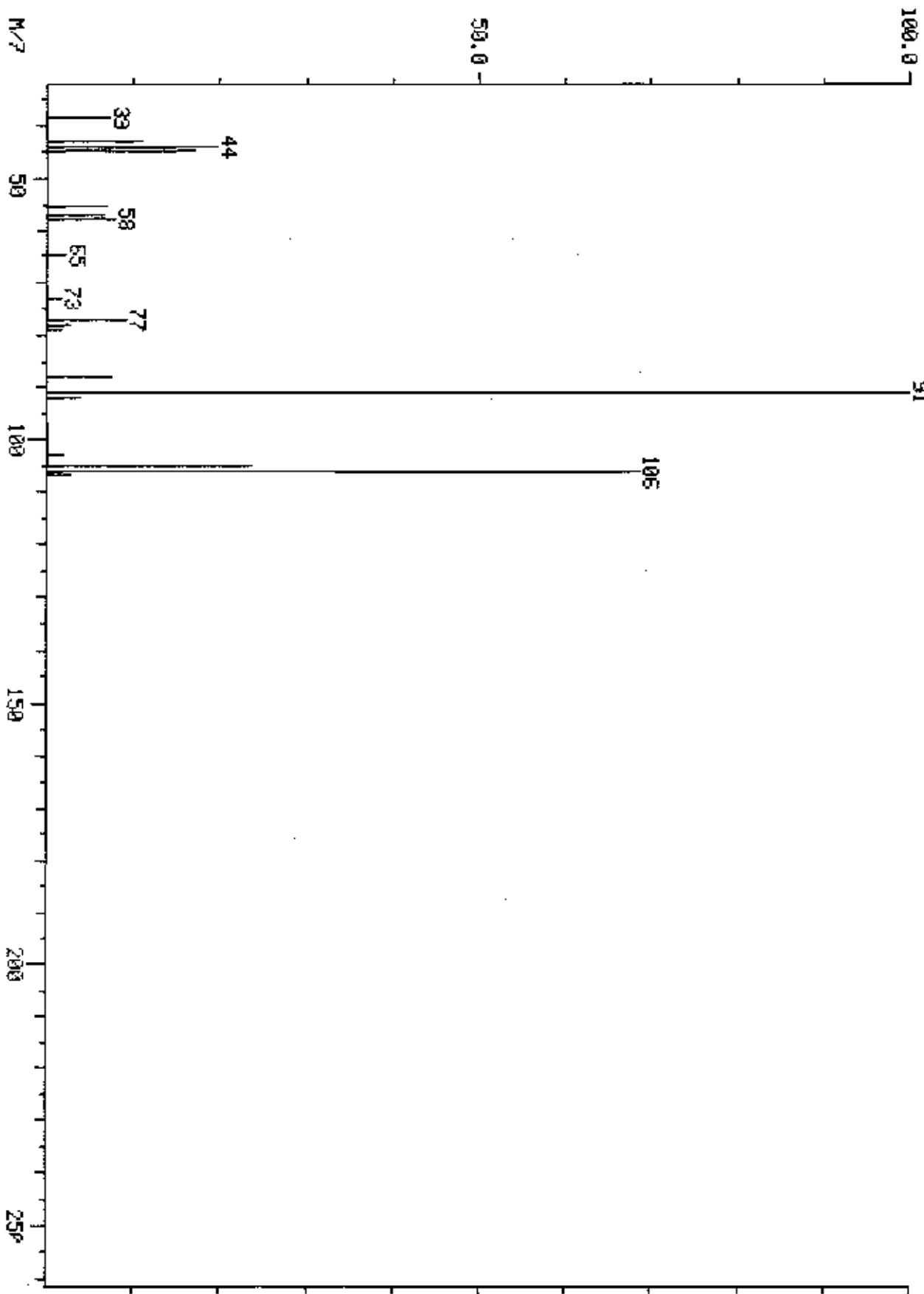
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	221	9:34	1	1.000	A BB	69556.	50.000 UG/L*	15.99
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	43	165	7:08	1	0.747	A BV	1706.	<del>4.462 UG/L</del>	1.43
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	65	282	12:12	1	1.277	A BB	128201.	46.938 UG/L*	15.01 94
16	114	453	19:36	16	1.000	A BB	310365.	50.000 UG/L*	15.99
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	43	322	13:56	16	0.711	A BB	159.	<del>6.028 UG/L</del>	0.01
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	130	383	16:34	16	0.846	A BB	493.	<del>0.193 UG/L</del>	0.07
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	117	569	24:37	31	1.000	A BB	280868.	50.000 UG/L*	15.99
32	43	507	21:56	31	0.892	A VV	912.	<del>0.639 UG/L</del>	0.21
33	43	471	20:23	31	0.828	A BB	2193.	<del>0.644 UG/L</del>	0.21
34	164	515	22:17	31	0.906	A BB	1366.	<del>0.644 UG/L</del>	0.21
35	83	515	22:17	31	0.906	A BB	4604.	<del>1.073 UG/L</del>	0.35
36	91	544	23:32	31	0.957	A BB	16161.	<del>3.028 UG/L</del>	0.97
37	112	571	24:42	31	1.004	A BB	585.	<del>0.128 UG/L</del>	0.04
38	106	618	26:44	31	1.087	A BB	5978.	<del>2.052 UG/L</del>	0.66
39	NOT FOUND								
40	106	745	32:14	31	1.310	A BB	12575.	④ 3.430 UG/L	1.10
41	98	540	23:22	31	0.950	A BB	263009.	48.812 UG/L*	15.61 98
42	95	680	29:25	31	1.196	A BB	178770.	45.962 UG/L*	14.70 92
43	106	720	31:09	31	1.266	A BB	17394.	④ 4.745 UG/L	1.52

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:54		0.199						
3	2:59		0.311						
4	3:43		0.388						
5	4:38		0.482						
6	6:37		0.690						
7	7:06	1.01	0.739	1.02	4.47	50.00	0.025	0.275	0.09
8	7:58		0.829						
9	9:05		0.946						
10	8:29		0.883						
11	10:20		1.077						

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
12	10:59		1.145						
13	11:36		1.208						
14	12:20		1.284						
15	12:12	1.00	1.271	1.01	46.94	50.00	1.844	1.964	0.94
16	19:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:38		0.694						
18	12:09		0.619						
19	13:58		0.712						
20	14:01	1.00	0.714	1.00	0.03	50.00	0.001	0.943	0.01
21	14:30		0.738						
22	15:50		0.807						
23	16:06		0.820						
24	16:34	1.00	0.844	1.01	0.20	50.00	0.002	0.413	0.01
25	17:18		0.882						
26	17:24		0.886						
27	17:05		0.871						
28	17:21		0.884						
29	18:23		0.937						
30	20:02		1.020						
31	24:37	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:59	1.00	0.893	1.00	0.64	50.00	0.004	0.255	0.02
33	20:25	1.00	0.830	1.00	0.65	50.00	0.008	0.608	0.02
34	22:17	1.00	0.906	1.00	0.65	50.00	0.005	0.379	0.02
35	22:19	1.00	0.907	1.00	1.08	50.00	0.017	0.764	0.03
36	23:35	1.00	0.958	1.00	3.03	50.00	0.058	0.951	0.07
37	24:45	1.00	1.006	1.00	0.12	50.00	0.003	0.874	0.01
38	26:47	1.00	1.088	1.00	2.06	50.00	0.022	0.519	0.05
39	30:56		1.257						
40	32:14	1.00	1.310	1.00	3.43	50.00	0.045	0.653	0.07
41	23:22	1.00	0.950	1.00	48.82	50.00	0.937	0.960	0.98
42	29:28	1.00	1.197	1.00	45.97	50.00	0.637	0.693	0.92
43	32:14	0.97	1.310	0.97	4.75	50.00	0.062	0.653	0.10

MID MASS SPECTRUM  
11/29/88 1:53:00 + 31:09  
SAMPLE: CLP,6015,283,00173000101,M,S,61641,U,SM,1/5000  
CONDS.: INSTRUMENT Y:SP-1000 COLUMN 450(ZHIN) TO 2250(830EG/MIN)  
GC TEMP:-491 DEG. C

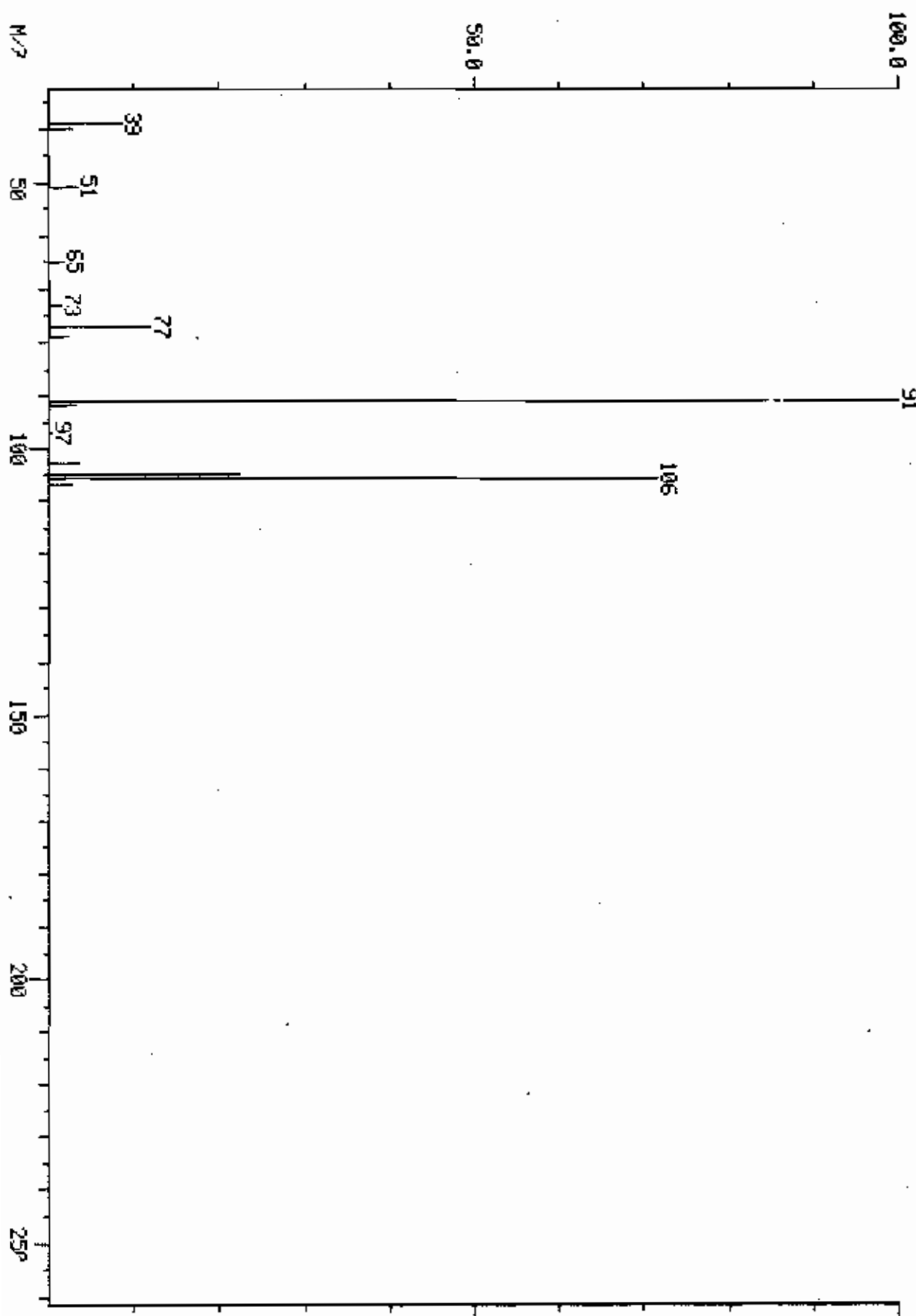
DATA: Y3600 #720  
CALL: Y3600 #3  
BASE M/Z: 91  
RIC: 9152.





MID MASS SPECTRUM  
11/29/88 1:53:00 + 31:09  
SAMPLE: CLP,6016,283,00173800101,N,S,61641,U,5ML,1/5000  
COMDS.: INSTRUMENT Y:5P-1000 COLUMN 45C(2MIN) TO 225C(9DEG/MIN)  
GC TEMP:-491 DEG. C  
ENHANCED (S 158 2N 0T)

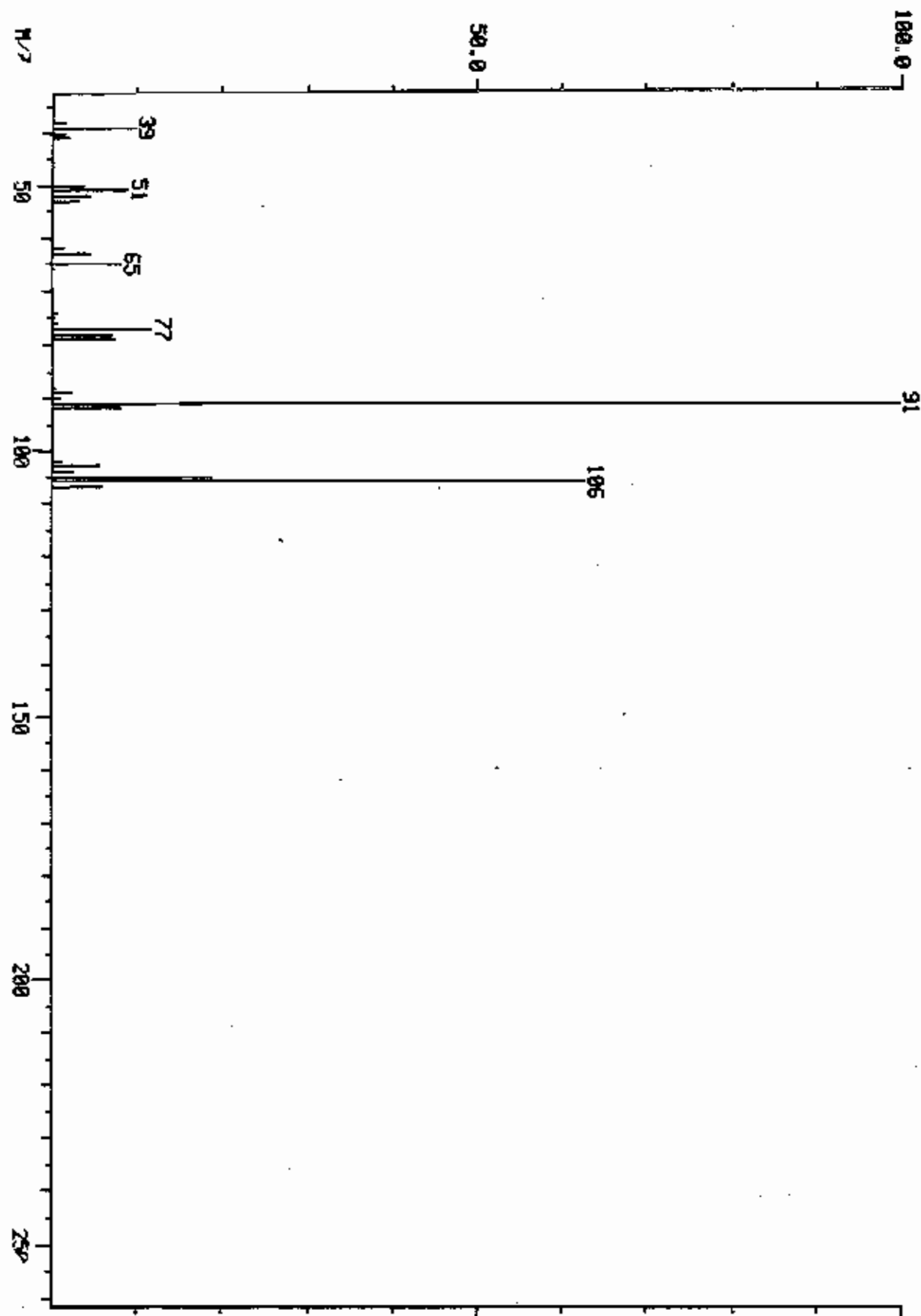
DATA: Y3600 #720  
CALL: Y3600 #3  
BASE M/Z: 91  
RIC: 6272.



2664.  
1.

MID MASS SPECTRUM  
11/28/89 18:40:00 + 32:14  
SAMPLE: CLP,,,U51050,L,S,STD16325,U,CC-050,5ML  
COND5.: INSTRUMENT Y:SP-1000 COLUMN 45C(2MIN) TO 225C@0DEG/MIN  
GC TEMP: -491 DEG. C  
ENHANCED (S 158 2N 0T)

DATA: Y3593 #745  
CALL: Y3593 #3  
BASE M/Z: 91  
RIC: 75648.



26656.  
1.

MID MASS SPECTRUM

11/29/68 1:53:00 + 32:14

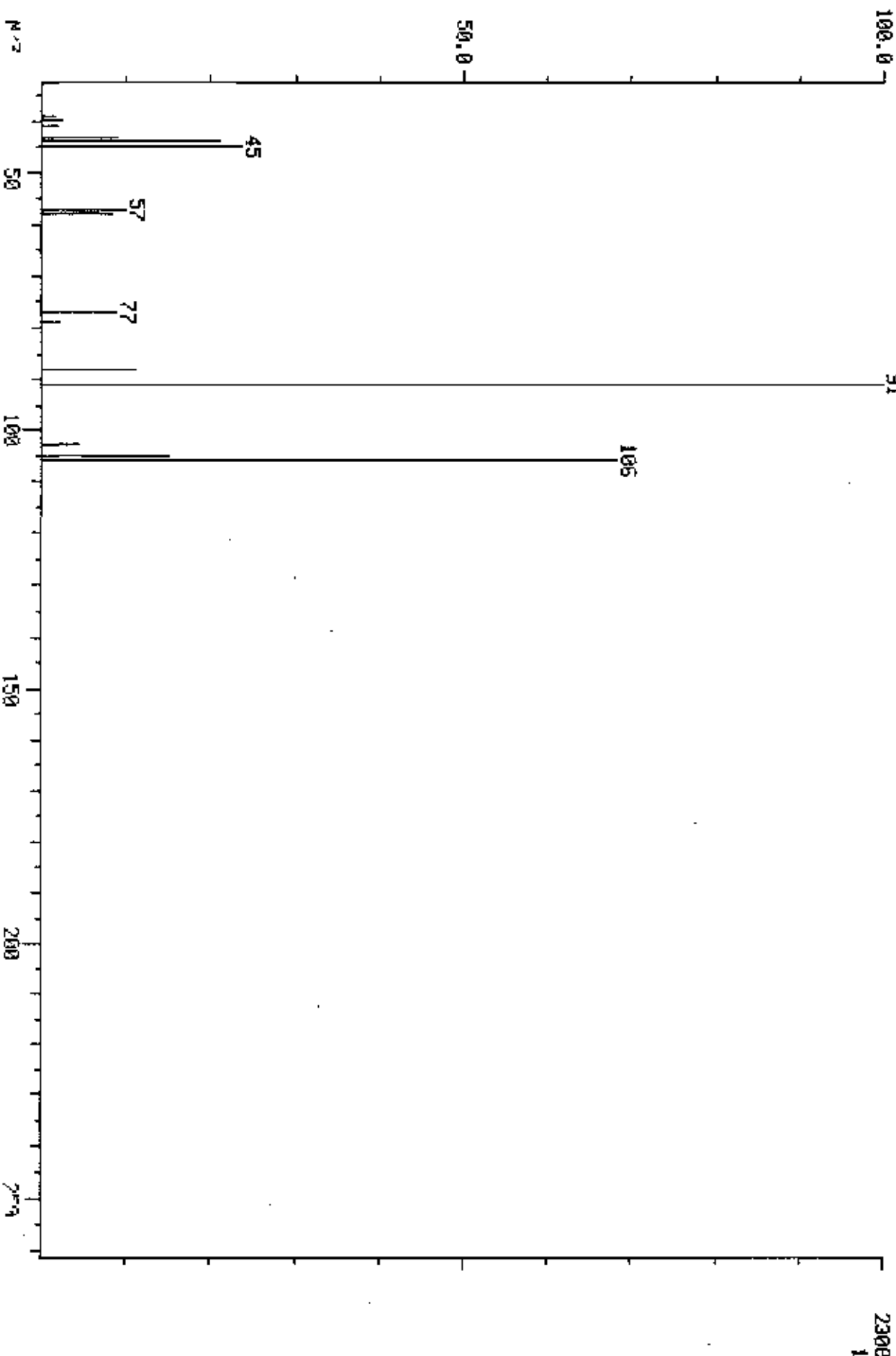
SAMPLE: CLP, 6016, 283, 00173880101, N.S, 61641.0, 5ML, 1/5000

COND.S.: INSTRUMENT Y:SP-1000 COLUMN 45C(2MIN) TO 225C(80EC)/MIN

GC TEMP:-491 DEG. C

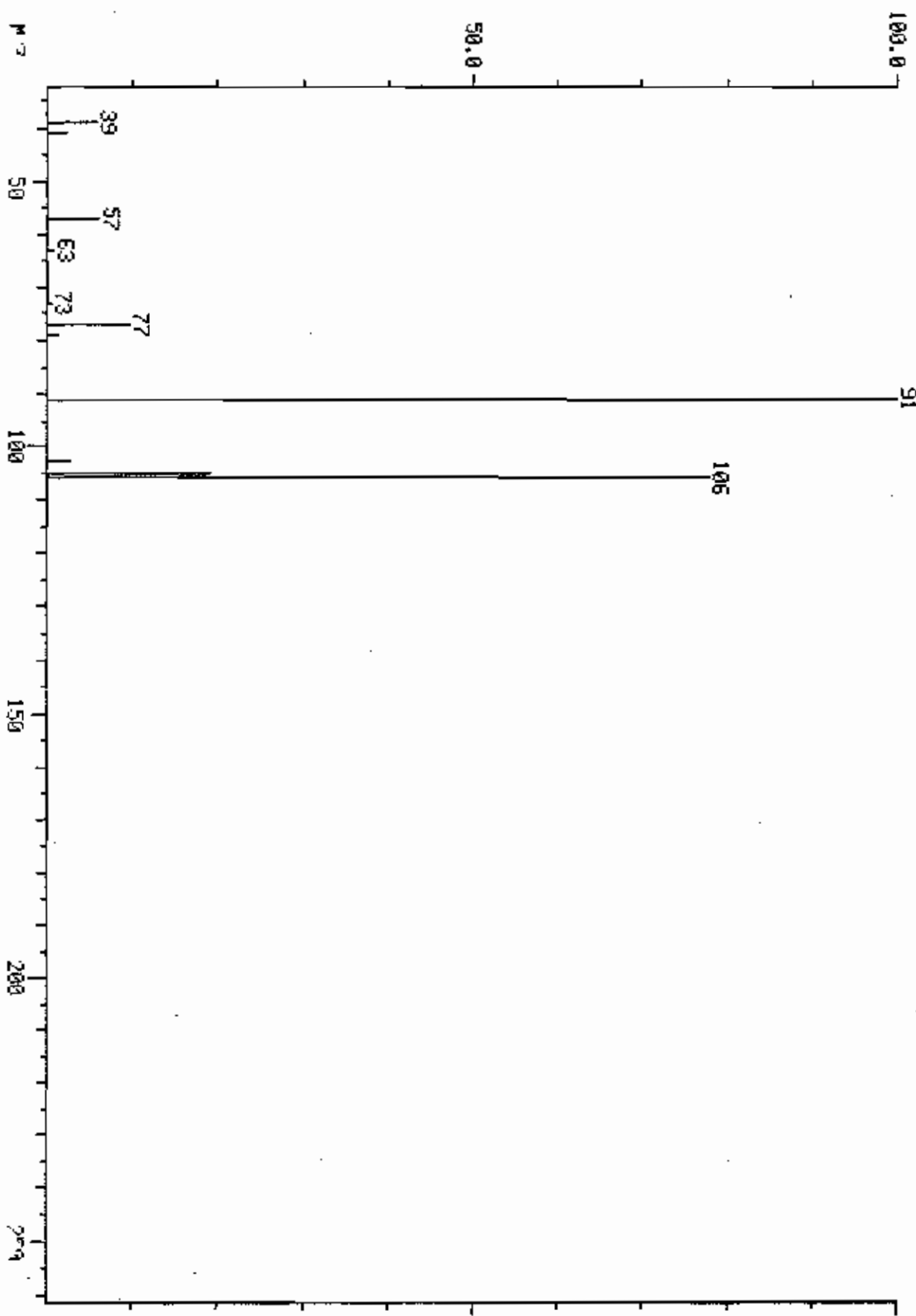
DATA: Y3600 #745  
CALL: Y3600 #3

BASE M/Z: 91  
R1C: 6640.



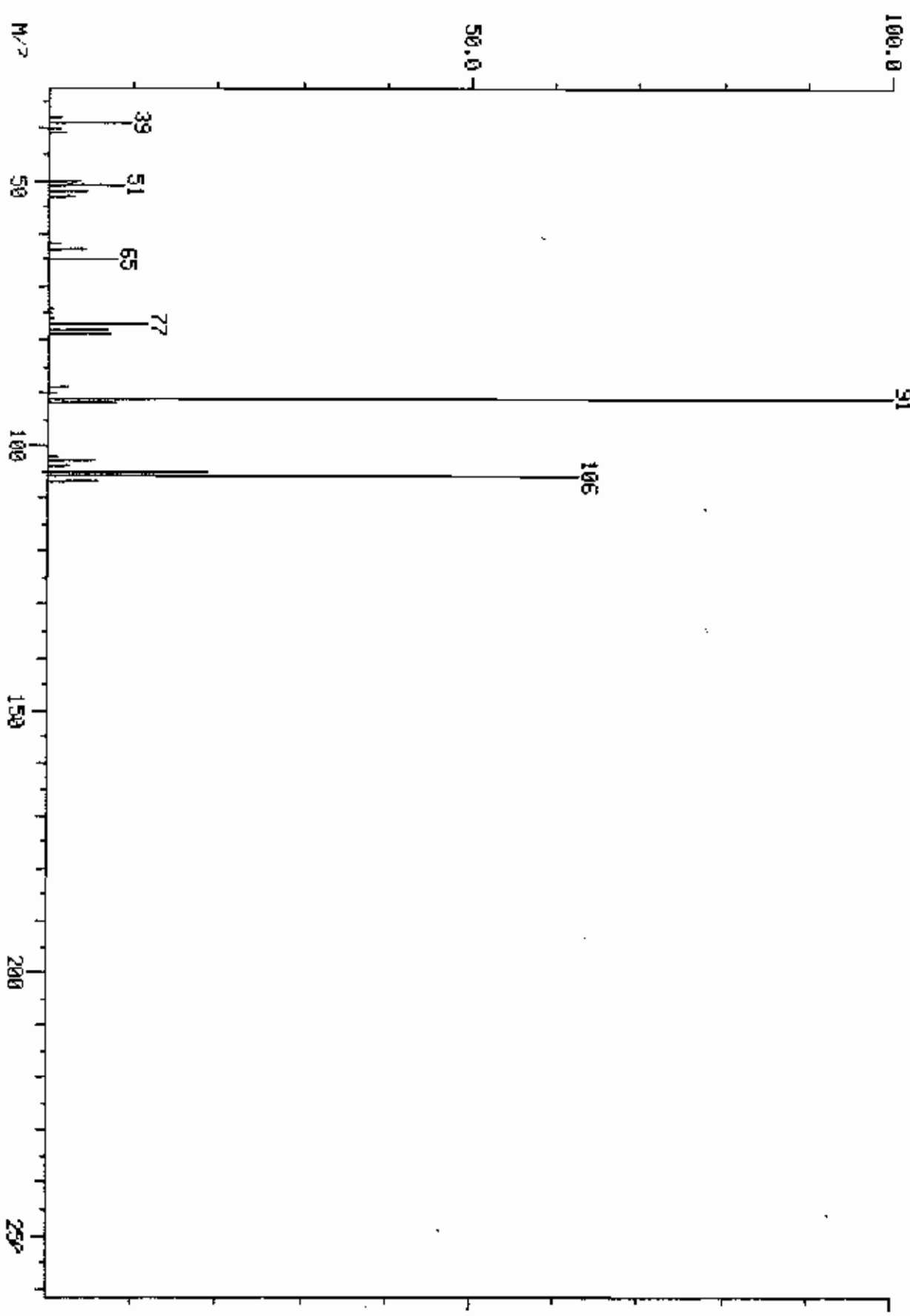
MID MASS SPECTRUM  
11/29/88 1:53:08 + 32:14  
SAMPLE: CLP,6016,283,00173880101,H,S,61641,U,SML,1/5000  
COND.S.: INSTRUMENT Y:SP-1000 COLUMN 45C(2HIN) TO 225C@80DEG/MIN  
GC TEMP:-491 DEG. C  
ENHANCED (S 158 2N 0T)

DATA: Y3600 #745  
CALL: Y3600 #3  
BASE M/Z: 91  
RIC: 3920.



MSD MASS SPECTRUM  
11/28/88 18:40:06 + 32:14  
SAMPLE: CLP,,,V5T050.L,5,STD16325,U,CC-050,5ML  
COND.: INSTRUMENT Y:SP-1000 COLUMN 45C(2MIN) TO 225C@8DEG/MIN  
GC TEMP:-49) DEG. C  
ENHANCED (S 158 2N 0T)

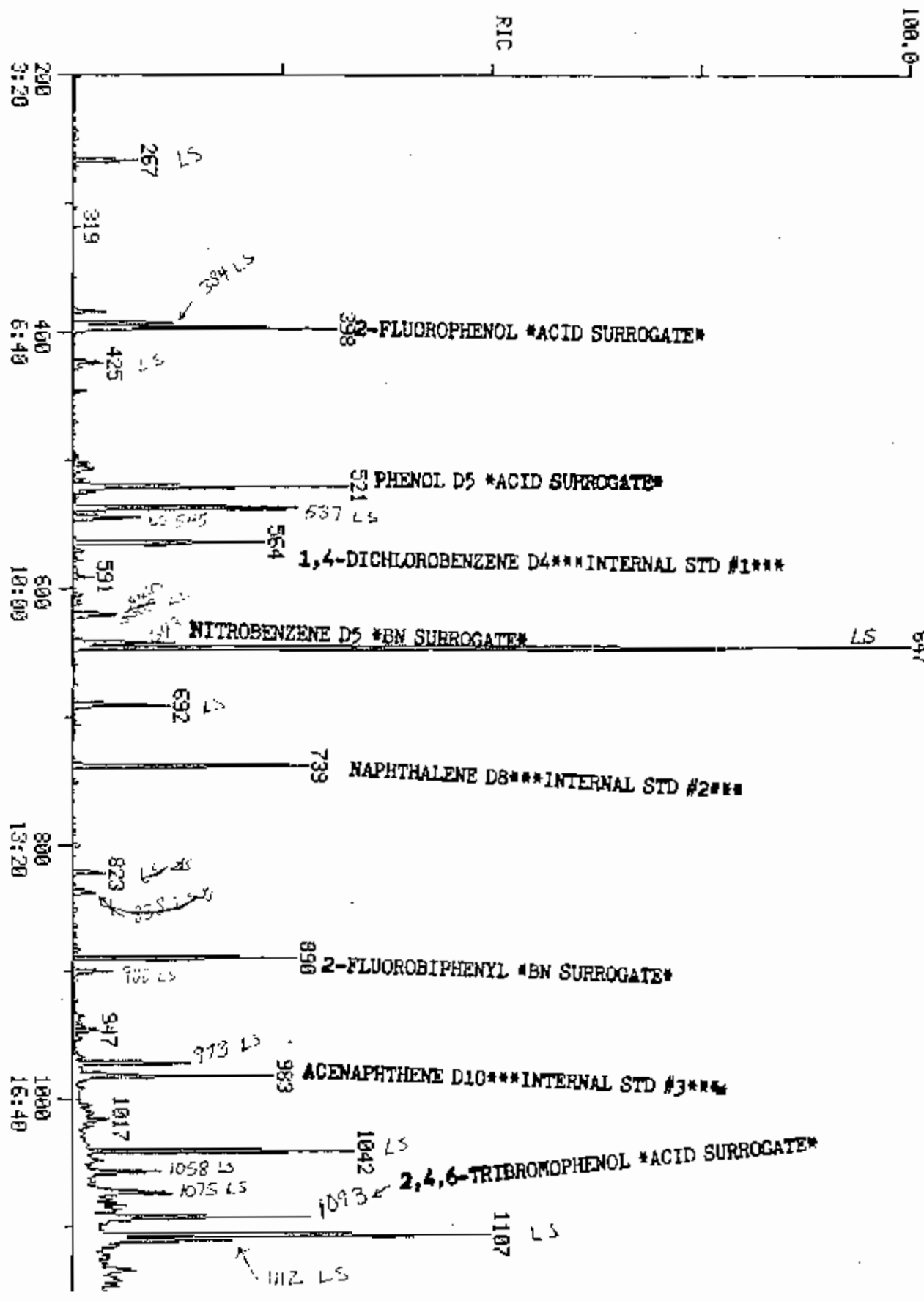
DATA: Y3593 #745  
CALL: Y3593 #3  
BASE M/Z: 91  
RIC: 75648.



RIC  
 12/06/88 21:23:00  
 SAMPLE: CLP, 6016, 283, 00173800101, M, S, 61540, B, 6016 B#283, IUL,  
 COMPOS.: INST V: RESTEK RTX-5/30M, 4MIN@45-8507/MIN-3000@10/MIN  
 RANGE: C 1, 2000 LABEL: N 0, 4.0 QUANT: A 0, 1.0 J 0 BASE: U 20, 3

DATA: U2344 #1  
 CALL: U2344 #2  
 SCANS 200 TO 1150

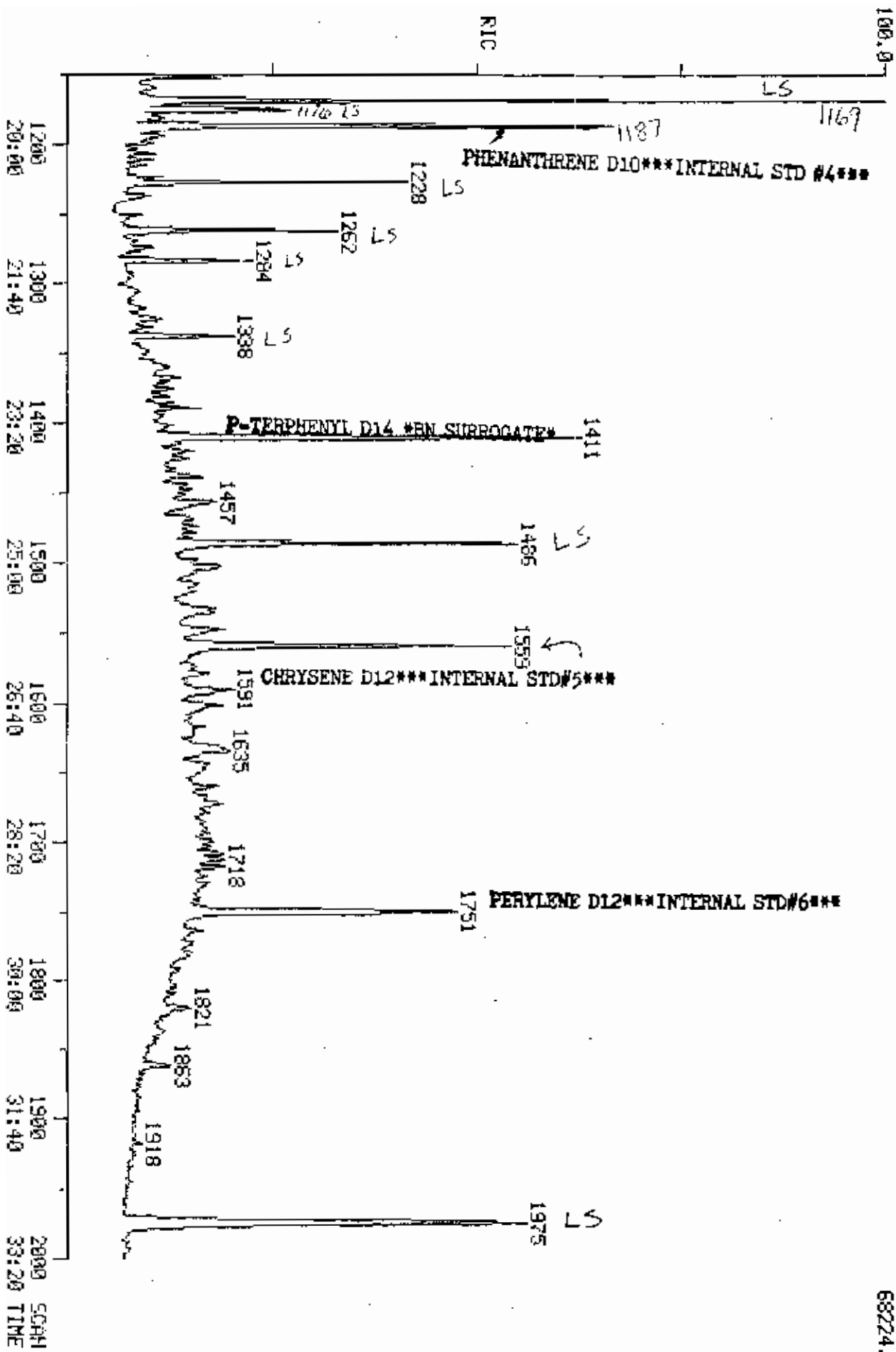
1704956.



200 3:20  
 400 6:48  
 600 10:09  
 800 13:20  
 1000 16:40  
 SCAN TIME

R1C  
 12/05/88 21:23:00  
 SAMPLE: CLP, 6016, 203, 60173800101, N, S, 61640, B, 6016 B#283, IUL  
 COND5: INST V: RESTEK RTX-5/30ML 4HINE45-8527/MIN-300010/MIN  
 RANGE: C 1, 2000 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3  
 DATA: U2344 #1  
 CALL: U2344 #2  
 SCANS 1150 TO 2000

68224.



Quantitation Report File: V2344

Data: V2344.TI

12/06/88 21:23:00

Sample: CLP.6016.283.00173800101.M.5.61640.B.6016.88288.1UL.

Conds.: INST V:RESTEK RTX-5/30M.4MIN@45-8587/MIN 000810/MIN

Formula:

Instrument: V

Weight: 0.000

Submitted by: VERSAR

Analyst: TS

Acct. No.: 6016

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	C130 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	C330 2-CHLOROPHENOL
3	C315 PHENOL
4	C325 BIS (2-CHLOROETHYL) ETHER
5	C335 1,3-DICHLOROBENZENE
6	C340 1,4-DICHLOROBENZENE
7	C350 1,2-DICHLOROBENZENE
8	C345 BENZYL ALCOHOL
9	C360 BIS (2-CHLOROISOPROPYL) ETHER
10	C355 2-METHYLPHENOL
11	C375 HEXACHLOROETHANE
12	C365 4-METHYLPHENOL
13	C370 N-NITROSO-DI-N-PROPYLAMINE
14	C604 4-METHYL-BENZALDEHYDE
15	C845 PHENOL-D5**ACID SURR.**
16	C850 2-FLUOROPHENOL**ACID SURR.**
17	C140 NAPHTHALENE-D8**INT. STD. #2**
18	C410 NITROBENZENE
19	C415 ISOPHORONE
20	C420 2-NITROPHENOL
21	C425 2,4-DIMETHYLPHENOL
22	C435 BIS (2-CHLOROETHOXY) METHANE
23	C440 2,4-DICHLOROPHENOL
24	C445 1,2,4-TRICHLOROBENZENE
25	C450 NAPHTHALENE
26	C430 BENZOIC ACID
27	C455 4-CHLORANILINE
28	C460 HEXACHLOROBUTADIENE
29	C465 4-CHLORO-3-METHYLPHENOL
30	C470 2-METHYLNAPHTHALENE
31	C920 NITROBENZENE-D5**BN SURR.**
32	C150 ACENAPHTHENE-D10**INT. STD. #3**
33	C910 HEXACHLOROCYCLOPENTADIENE
34	C515 2,4,6-TRICHLOROPHENOL
35	C520 2,4,5-TRICHLOROPHENOL
36	C525 2-CHLORONAPHTHALENE
37	C530 2-NITROANILINE
38	C540 ACENAPHTHYLENE
39	C535 DIMETHYL PHTHALATE
40	C575 2,6-DINITROTOLUENE
41	C550 ACENAPHTHENE
42	C545 3-NITROANILINE
43	C555 2,4-DINITROPHENOL
44	C565 DIBENZOFURAN
45	C560 4-NITROPHENOL
46	C544 2,4-DINITROTOLUENE
47	C590 FLUORENE

*✓* 12/15/88  
READY FOR FORMS  
*TS*



No Name  
 48 C585 4-CHLOROPHENYL-PHENYLETHER  
 49 C580 DIETHYLPHTHALATE  
 50 C595 4-NITROANILINE

No	m/z	Scan	Time	Ref	RRT	Math	Area (Height)	Amount	%Tot
1	152	564	9:24	1	1.000	A SE	9788.	40.000 NG/UL	6.04
2	NOT FOUND								
3	94	522	8:42	1	0.926	A SE	635.	<del>1.288 NG</del>	0.17
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	146	591	9:51	1	1.048	A SE	1614.	<del>4.015 NG</del>	0.51
8	NOT FOUND								
9	NOT FOUND								
10	108	622	10:22	1	1.103	A SE	1148.	<del>2.985 NG</del>	0.51
11	NOT FOUND								
12	108	622	10:22	1	1.103	A SE	1148.	<del>2.982 NG</del>	0.51
13	NOT FOUND								
14	NOT FOUND								
15	99	521	8:41	1	0.924	A SE	27981.	65.009 NG	9.52
16	112	398	6:38	1	0.706	A SE	22825.	64.807 NG	9.74
17	136	738	12:18	17	1.000	A SE	27988.	40.000 NG/UL	6.04
18	77	647	10:47	17	0.877	A SE	27938.	<del>62.255 NG</del>	7.40
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	122	647	10:47	17	<u>0.877</u>	A SE	4304.	<del>21.619 NG</del>	3.25
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	142	836	13:56	17	1.133	A SE	1146.	<del>2.915 NG</del>	0.35
31	82	643	10:43	17	0.871	A SE	12922.	30.152 NG	4.55
32	164	983	16:23	32	1.000	A SE	14135.	40.000 NG/UL	6.04
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	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								

V2344

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:25	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	9:00		0.956						
3	8:43	1.00	0.926	1.00	1.27	50.00	0.054	2.078	0.03
4	8:55		0.947						
5	9:20		0.991						
6	9:27		1.004						
7	9:52	1.00	1.048	1.00	4.02	50.00	0.132	1.342	0.08
8	9:46		1.037						
9	10:08		1.076						
10	10:03	1.03	1.067	1.03	3.09	50.00	0.094	1.365	0.07
11	10:34		1.122						
12	10:23	1.00	1.103	1.00	3.35	50.00	0.094	1.397	0.07
13	10:27		1.110						
14	10:25		1.106						
15	8:42	1.00	0.924	1.00	65.01	50.00	2.254	1.734	1.00
16	8:38	1.00	0.704	1.00	64.51	50.00	1.865	1.446	1.27
17	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
18	10:46	1.00	0.874	1.00	62.26	50.00	0.798	0.641	1.25
19	11:18		0.917						
20	11:30		0.934						
21	11:35		0.940						
22	11:49		0.959						
23	12:01		0.976						
24	12:13		0.992						
25	12:22		1.004						
26	11:51	0.91	0.962	0.91	21.61	50.00	0.123	0.258	0.43
27	12:32		1.016						
28	12:47		1.038						
29	13:38		1.107						
30	13:57	1.00	1.133	1.00	2.02	50.00	0.033	0.513	0.04
31	10:44	1.00	0.871	1.00	30.15	50.00	0.367	0.513	0.60
32	16:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
33	14:28		0.882						
34	14:39		0.893						
35	14:44		0.898						
36	15:04		0.919						
37	15:23		0.938						
38	16:03		0.979						
39	15:53		0.968						
40	16:02		0.978						
41	16:29		1.009						
42	16:20		0.996						
43	16:35		1.011						
44	16:50		1.026						
45	16:41		1.017						
46	16:56		1.033						
47	17:38		1.075						
48	17:38		1.075						
49	17:30		1.067						
50	17:48		1.085						

V2344

Quantitation Report File: V2344

Data: V2344.TI

12/06/88 21:23:00

Sample: CLP, 6016, 283, 00173800101, M. S. 61640, B. 6016 B#383, IUL,

Conds.: INST V: PESTEK RTX-5/30M, 4MIN@45-85@7/MIN @30@10/MIN

Formula: Instrument: V Weight: 0.000

Submitted by: VERSAR Analyst: TS Acc# No.: 6916

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

- No Name
- 51 C610 4,6-DINITRO-2-METHYLPHENOL
- 52 C615 N-NITROSODIPHENYLAMINE
- 53 C629 4-BROMOPHENYL-PHENYLETHER
- 54 C630 HEXACHLOROBENZENE
- 55 C625 2-FLUOROBIPHENYL\*\*BN SURR.\*\*
- 56 C160 PHENANTHRENE-D10\*\*INT. STD. #4\*\*
- 57 C639 PENTACHLOROPHENOL
- 58 C640 PHENANTHRENE
- 59 C645 ANTHRACENE
- 60 C650 DI-N-BUTYLPHTHALATE
- 61 C655 FLUORANTHENE
- 62 C715 PYRENE
- 63 C655 2,4,6-TRIBROMOPHENOL\*\*ACID SURR.\*\*
- 64 C170 CHRYSENE-D12\*\*INT. STD. #5\*\*
- 65 C720 BUTYLBENZYLPHTHALATE
- 66 C730 BENZO(A)ANTHRACENE
- 67 C740 CHRYSENE
- 68 C725 3,3'-DICHLOROBENZIDINE
- 69 C741 BIS(2-ETHYLHEXYL)PHTHALATE
- 70 C630 P-TERPHENYL-014\*\*BN SURR.\*\*
- 71 C179 PERYLENE-D12\*\*INT. STD. #6\*\*
- 72 C760 DI-N-OCTYL PHTHALATE
- 73 C765 BENZO(B)FLUORANTHENE
- 74 C770 BENZO(K)FLUORANTHENE
- 75 C775 BENZO(A)PYRENE
- 76 C780 INDENO(1,2,3-CD)PYRENE
- 77 C785 DIBENZ(A,H)ANTHRACENE
- 78 C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Math	Area (Height)	Amount	XTot
51	NOT FOUND								
52	169	1074	17:54	32	1.093	A BB	395	<del>1.405 NG</del>	0.21
53	NOT FOUND								
54	NOT FOUND								
55	172	690	14:50	32	0.905	A BB	22368	37.915 NG*	5.73
56	188	1187	19:47	56	1.000	A BB	29048	40.000 NG/UL	6.04
57	NOT FOUND								
58	178	1190	19:50	56	1.003	A BB	811	<del>6.955 NG</del>	0.14
59	NOT FOUND								
60	149	1273	21:13	56	1.072	A BB	562	<del>0.482 NG</del>	0.07
61	202	1358	22:38	56	1.144	A BB	190	<del>0.233 NG</del>	0.04
62	202	1389	23:09	56	1.170	A BB	209	<del>0.231 NG</del>	0.04
63	330	1093	18:13	56	0.921	A BB	7507	89.436 NG*	13.80
64	240	1559	25:59	64	1.000	A BB	19400	40.000 NG/UL	6.04
65	NOT FOUND								

V2344

No	m/z	Scan	Time	Ref	RRT	Math	Area(Hght)	Amount	RTot
66	NOT FOUND								
67	NOT FOUND								
68	NOT FOUND								
69	149	1562	26:02	64	1.002	A BE	654.	<del>20.635 NG</del>	0.13
70	244	1411	23:31	64	0.905	A BE	18151.	32.635 NG*	4.96
71	264	1750	29:10	71	1.000	A BE	18336.	40.000 NG/UL	6.04
72	149	1644	27:24	71	0.939	A BE	774.	<del>20.635 NG</del>	0.13
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								
76	NOT FOUND								
77	NOT FOUND								
78	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
51	17:52		1.089						
52	17:55	1.00	1.092	1.00	1.41	50.00	0.022	0.798	0.03
53	18:45		1.143						
54	19:06		1.165						
55	14:50	1.00	0.904	1.00	37.92	50.00	1.266	1.669	0.76
56	19:48	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
57	19:30		0.985						
58	19:52	1.00	1.003	1.00	0.96	50.00	0.022	1.167	0.02
59	19:58		1.008						
60	21:14	1.00	1.072	1.00	0.45	50.00	0.015	1.710	0.01
61	22:39	1.00	1.144	1.00	0.24	50.00	0.009	1.100	0.00
62	23:10	1.00	1.170	1.00	0.25	50.00	0.006	1.146	0.01
63	18:14	1.00	0.921	1.00	89.44	50.00	0.207	0.115	1.79
64	26:00	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
65	24:43		0.951						
66	25:58		0.999						
67	26:04		1.003						
68	25:54		0.996						
69	26:04	1.00	1.003	1.00	0.64	50.00	0.027	1.510	0.02
70	23:31	1.00	0.904	1.00	32.64	50.00	0.748	1.140	0.66
71	29:11	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
72	27:24	1.00	0.939	1.00	0.44	50.00	0.035	2.727	0.01
73	28:23		0.973						
74	28:26		0.974						
75	29:04		0.996						
76	31:37		1.083						
77	31:37		1.083						
78	32:19		1.107						

V2344

Quantitation Report File: SSRECOVERY

Date: V2344.TI

12/06/88 21:23:00

Sample: CLP, 6016, 283, 00173800101, M, S, 61640, B, 6016 B#283, 1UL

Conds.: INST V: RESTEK RTX-5/30M, 4MIN@43-85@7/MIN @100@10/MIN

Formula:

Instrument: V

Weight: 0.000

Submitted by: VERSAR

Analyst: JS

Acct. No.: 6016

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. Fac. from Library Entry

No	Name
1	CI40 NAPHTHALENE-D8**INT. STD. #2**
2	CS20 NITROBENZENE-D5**BN SURR.**
3	CI50 ACENAPHTHENE-D10**INT. STD. #3**
4	CS25 2-FLUOROBIPHENYL**BN SURR.**
5	CI70 CHRYSENE-D12**INT. STD. #5**
6	CS30 P-TERPHEYL-D14**BN SURR.**
7	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
8	CS45 PHENOL-D5**ACID SURR.**
9	CS50 2-FLUOROPHENOL**ACID SURR.**
10	CI60 PHENANTHRENE-D10**INT. STD. #4**
11	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
12	CI75 PERYLENE-D12**INT. STD. #6**

No	m/z	Scan	Time	Ref	RRT	Math	Area(Hgh.)	Amount	XTot
1	136	738	12:18	1	1.000	A BE	27965.	40.000 NG/UL	7.14
2	82	643	10:43	1	0.871	A BE	12922.	30.152 NG*	5.37 60
3	164	983	16:23	3	1.000	A BE	14135.	40.000 NG/UL	7.14
4	172	890	14:50	3	0.904	A BE	22368.	37.918 NG*	6.77 76
5	240	1589	25:39	5	1.000	A BE	19403.	40.000 NG/UL	7.14
6	244	1411	23:31	5	0.904	A BE	18151.	32.838 NG*	6.53 66
7	152	364	9:24	7	1.000	A BE	9788.	40.000 NG/UL	7.14
8	99	321	8:41	7	0.924	A BE	27851.	65.007 NG*	11.61 65
9	112	398	6:38	7	0.704	A BE	22925.	64.507 NG*	11.52 65
10	188	1187	19:47	10	1.000	A BE	27045.	40.000 NG/UL	7.14
11	330	1093	18:13	10	0.921	A BE	7509.	89.436 NG*	16.77 89
12	264	1750	27:10	12	1.000	A BE	18336.	40.000 NG/UL	7.14

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	10:44	1.00	0.871	1.00	30.15	50.00	0.367	0.813	0.60
3	16:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	14:50	1.00	0.904	1.00	37.92	50.00	1.266	1.569	0.76
5	26:00	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	23:31	1.00	0.904	1.00	32.84	50.00	0.748	1.140	0.66
7	9:25	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
8	8:42	1.00	0.924	1.00	65.01	50.00	2.254	1.734	1.30
9	6:38	1.00	0.704	1.00	64.51	50.00	1.866	1.446	1.27
10	19:48	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
11	18:14	1.00	0.921	1.00	89.44	50.00	0.207	0.116	1.79
12	27:11	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00

Library Search                      Data: V2344 # 267                      Base m/z: 91  
 12/06/88 21:23:00 + 4:27              Cali: V2344 # 2                      R10: 9119.  
 Sample: CLP, 6016, 283, 00173800101, M, S, 61640, B, , 6016 2#283, 1UL.  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-25@7/MIN 300@10/MIN  
 Enhanced (S 158 2N 0T)

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

Rank In.	Name
1	890 BENZENE, METHYL-
2	853 1,3,5-CYCLOHEPTADIENE
3	858 CYCLOBUTENE, 2-PROPENYLIDENE-
4	857 SPIRO[3.3]HEPTA-1,9-DIENE
5	856 1,5-HEPTADIEN-3-YNE

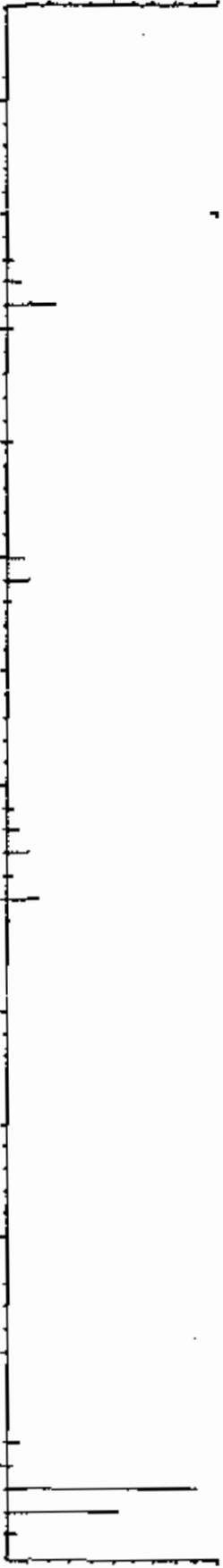
Rank	Formula	M. Wt	S. Pt	Purity	Fit	RFit
1	C7.H8	92	91	937	994	967
2	C7.H8	92	91	936	987	966
3	C7.H8	92	91	931	970	967
4	C7.H8	92	91	899	952	906
5	C7.H8	92	91	856	918	900

Rank	Ret. Time	B. P. Int.	US. Pat. 1	US. Pat. 2	C. A. S. #
1	---	---	---	---	108-88-9
2	---	---	---	---	844-28-2
3	---	---	---	---	52097-85-3
4	---	---	---	---	22636-75-8
5	---	---	---	---	3811-27-1

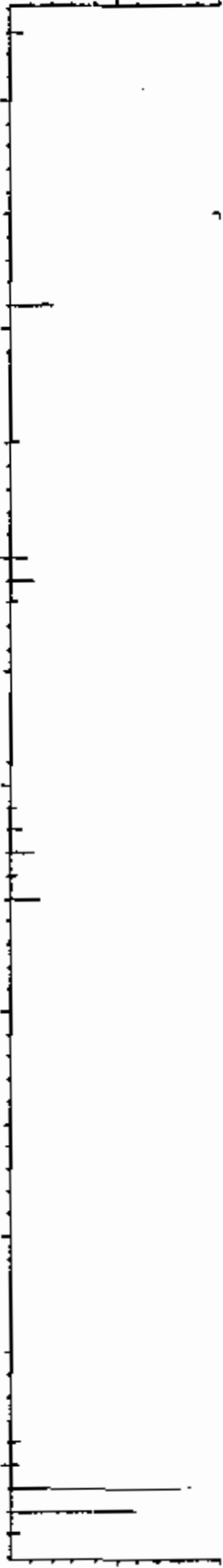
LIBRARY SEARCH  
 12/05/98 21:23:00 + 4:27  
 SAMPLE: OLP, 6016, 283, 00173809101, N.S, 61646, B, 6016, B#283, IUL,  
 COMDS.: INST U:RESTERK RIX-5/30M, 4MIN@45-85@7/MIN-300@19/MIN  
 ENHANCED (S 158 24 0T)

DATA: U2344 # 267  
 CALL: U2344 # 2  
 BASE M/Z: 91  
 RIC: 9119.

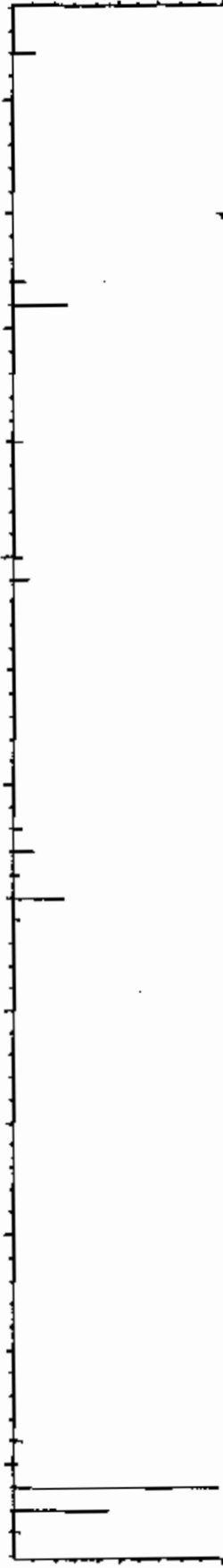
1124  
 SAMPLE



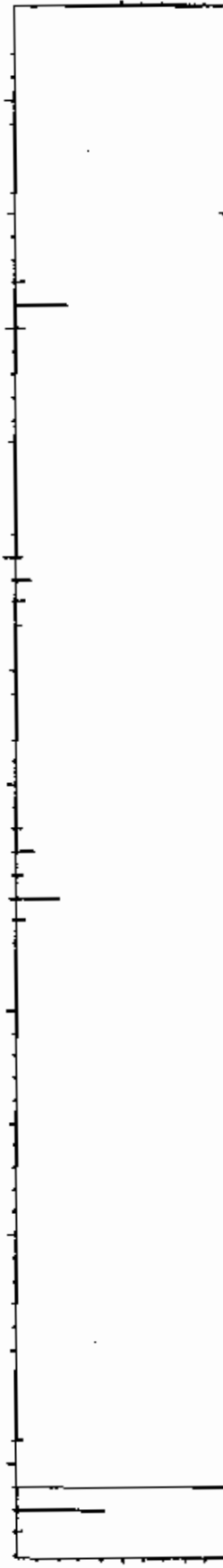
C7.H9  
 M WT 1124  
 B PK 91  
 RANK 1  
 # 850  
 PUR 957



C7.H9  
 M WT 1124  
 B PK 91  
 RANK 2  
 # 853  
 PUR 956



C7.H9  
 M WT 1124  
 B PK 91  
 RANK 3  
 # 858  
 PUR 931



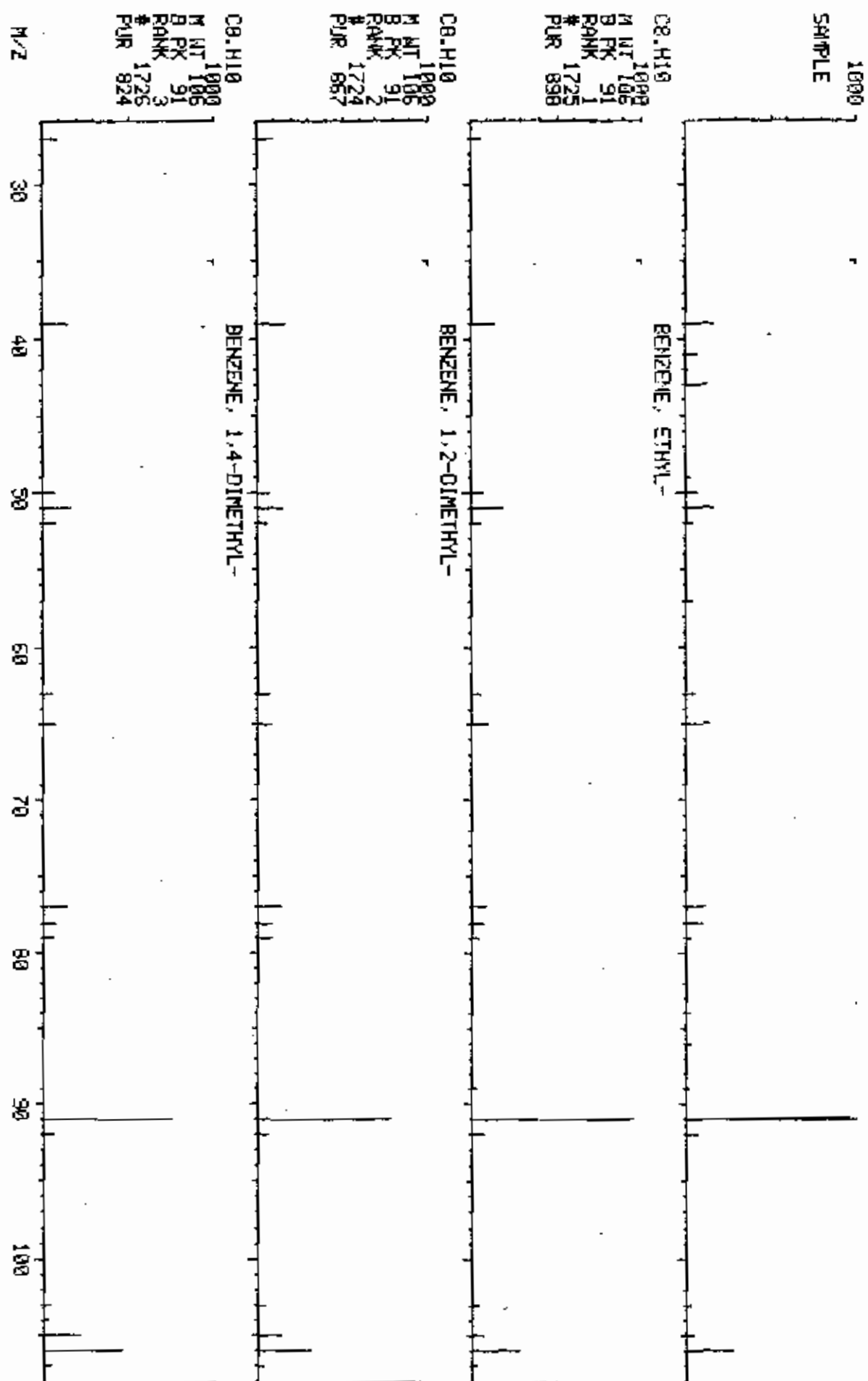
M/Z





LIBRARY SEARCH  
 12/05/88 21:23:00 + 6:24  
 SAMPLE: OLP, 6016, 283, 00173880101, H, S, 61640, B, 6016, 64283, LUL,  
 COMD5.: INST U; RESTEK RTX-5/30M, 4MINE45-8507/MIN-396210/MIN  
 ENHANCED (S 158 2N 0T)

DATA: V2344 # 384  
 CALL: 02344 # 2  
 BASE M/Z: 91  
 RIC: 5127.



Library Search Data: V2344 # 425 Base m/z: 91  
 12/06/88 21:23:00 + 7:05 Call: V2344 # 2 RIC: 4092  
 Sample: CLP.6016.283.00173800101.M.S.61640.B.6016 B#253.15L.  
 Conds.: INST V:RESTEK RTX-5/30M.4MIN@45-55@7/MIN.300@10/MIN  
 Enhanced (S 158 2N 0T)

42222 spectra in LIBRARYNS searched for maximum PURITY  
 107 matched at least 7 of the 16 largest peaks in the unknown

Rank In. Name  
 1 1724 BENZENE, 1,2-DIMETHYL-  
 2 1727 BENZENE, 1,3-DIMETHYL-  
 3 1726 BENZENE, 1,4-DIMETHYL-  
 4 1725 BENZENE, ETHYL-  
 5 1731 CYCLOPENTENE, 1-ETHENYL-3-METHYLENE-

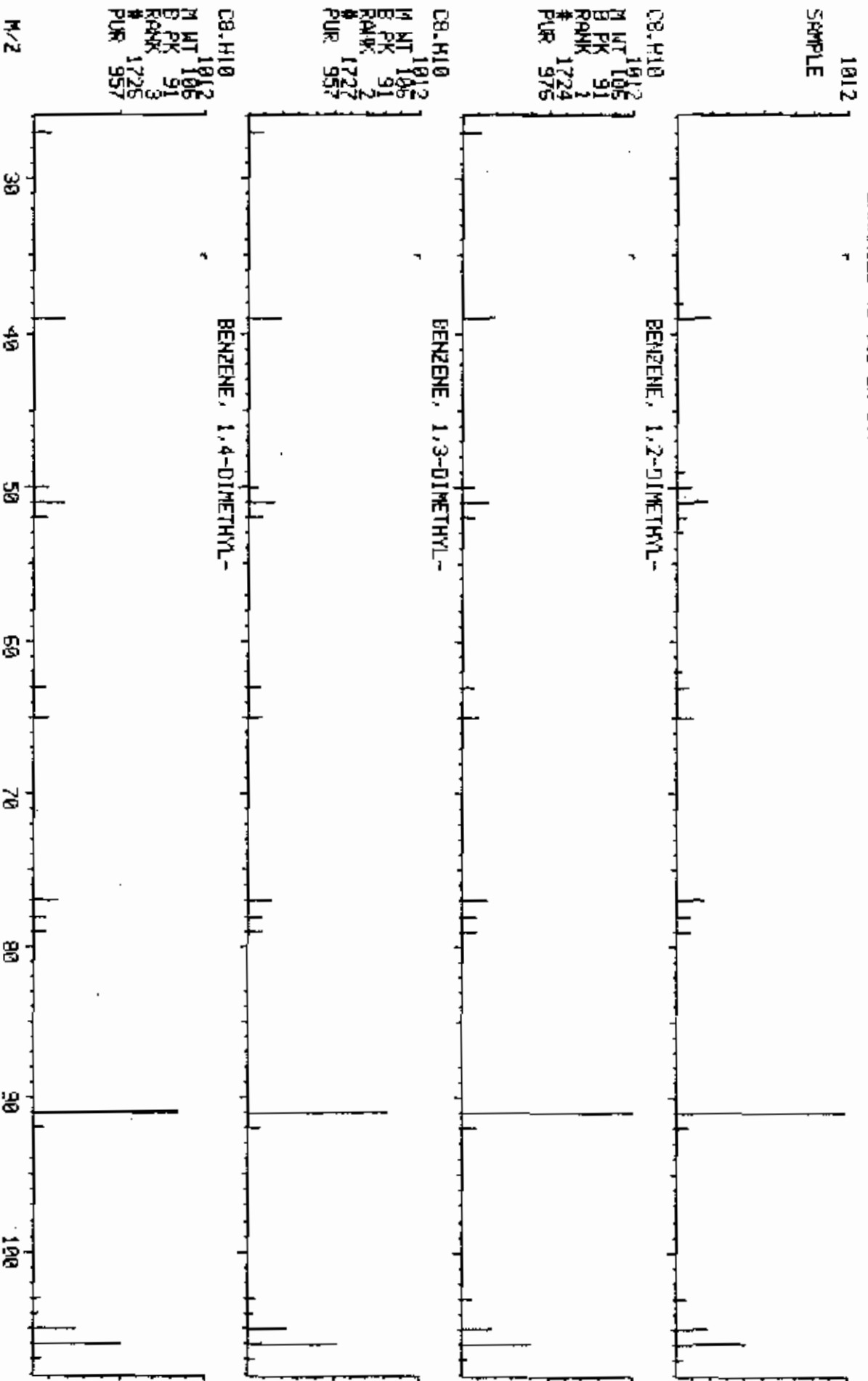
*dimethyl benzene*

Rank	Formula	M. Wt	B. Pt	Purity	Fit	RF16
1	C8.H10	106	91	976	999	976
2	C8.H10	106	91	957	950	957
3	C8.H10	106	91	957	950	955
4	C8.H10	106	91	943	955	957
5	C8.H10	106	91	935	951	955

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. E. #
1	---	---	---	---	93-47-6
2	---	---	---	---	105-35-3
3	---	---	---	---	106-42-3
4	---	---	---	---	100-41-4
5	---	---	---	---	61143-07-2

LIBRARY SEARCH  
 12/06/88 21:23:00 + 7:05  
 SAMPLE: OLP.6015.283.00173900101.M, 5, 61640.B, 5015 B#283, 1UL,  
 COND.: INST VARESTERK RTX-S/30H, 4HLINE45-8507/MTH-3000E10/MIN  
 ENHANCED (< 5 158 2N 0T)

DATA: 02344 # 425  
 CALL: 02344 # 2  
 BASE M/Z: 51  
 RIC: 4895.





LIBRARY SEARCH  
 12/05/88 21:23:00 + 8:57  
 SAMPLE: QLP, 6015, 283.00173800101, M, 5, 61640, B, 6016 B#283, 10L,  
 CONDOS.; INST 0:PESTEK RTX-5/30H, ANIMH45-85027/MIN-300210/MIN  
 ENHANCED (S 150 2N 0T)

DATA: 02344 # 507  
 CALL: 02344 # 2  
 BASE M/Z: 291  
 RIC: 40255.

1847  
 SAMPLE

08.H24.04.S14

M WT 1847  
 B PK 296  
 RANK 281  
 # 28953  
 PUR 908

CYCLOTETrasiloxane, OCTAMETHYL-

C12.H36.04.S15

M WT 1847  
 B PK 384  
 RANK 281  
 # 35381  
 PUR 614

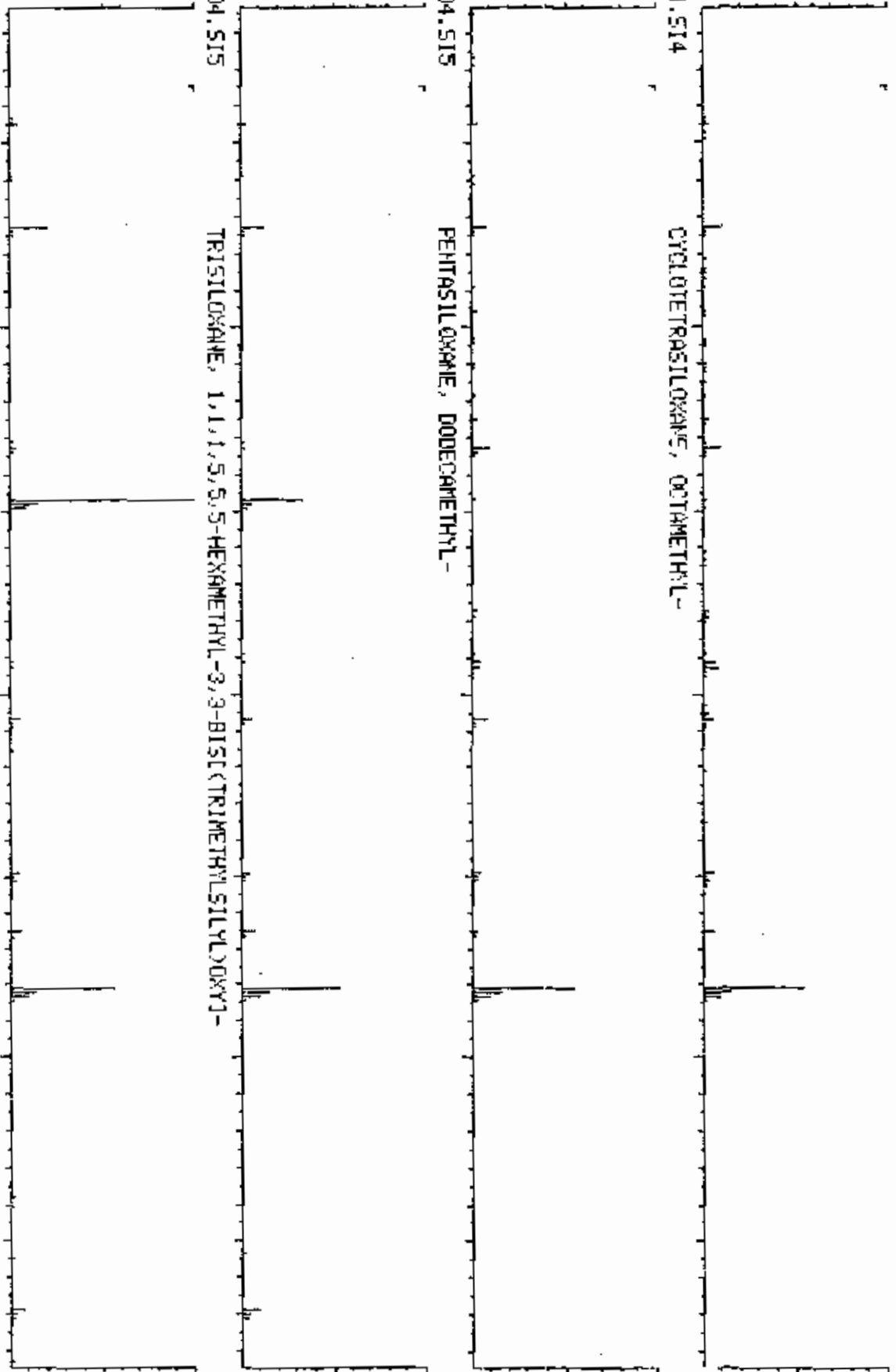
PENTASILoxane, DODECAMETHYL-

C12.H36.04.S15

M WT 1847  
 B PK 384  
 RANK 147  
 # 35382  
 PUR 537

TRISILOxane, 1,1,1,5,5,5-HEXAMETHYL-3,3-BIS(trimethylsilyloxy)-

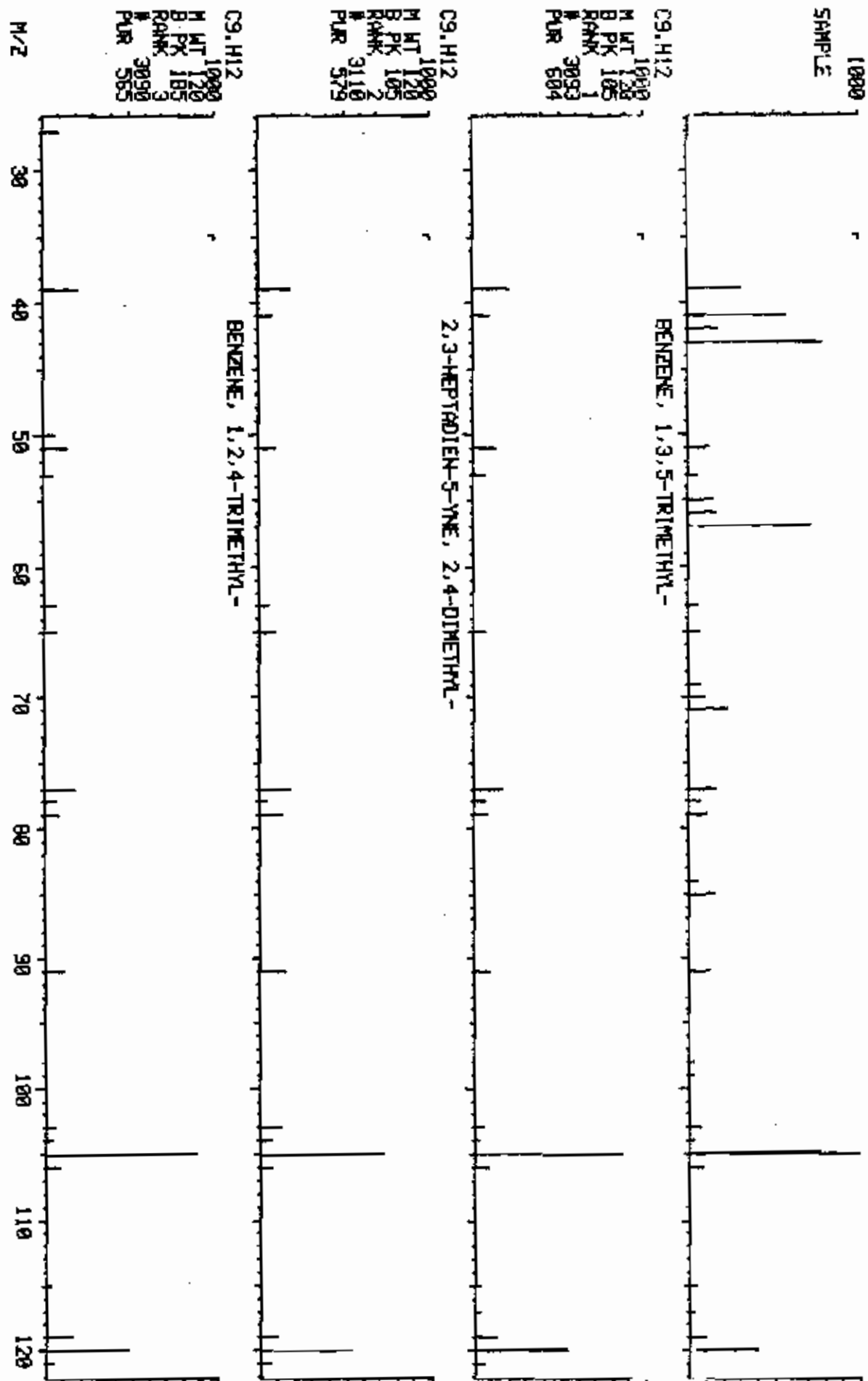
M/Z 50 100 150 200 250 300 350





LIBRARY SEARCH  
 12/05/88 21:23:00 + 9:05  
 SAMPLE: CLP, 6016, 283, 00173800101, M, 5, 61640, B, 6016 B#283, 1UL,  
 COND5.: INST V:RESTERK RTX-5/30M, 4MIN645-8507/MIN-300010/MIN  
 ENHANCED (S 159 2N 0T)

DATA: U2344 # 545  
 CALL: U2344 # 2  
 BASE M/Z: 105  
 RIC: 11263.



Library Search                      Data: V2344 # 620                      Base m/r: 106  
 12/06/88 21:23:00 + 10:20              Call: V2344 # 2                      RIC: 7179.  
 Sample: CLP, 6016, 283, C0173800101, M, S, 61640, B, , 6016 R#283, 10L,  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-85@7/MIN 300@10/MIN  
 Enhanced (S 1SB 2M 0T)

42222 spectra in LIBRARYNS searched for maximum PURITY  
 52 matched at least 7 of the 16 largest peaks in the unknown

Rank In.              Name  
 1 1742 BENZENAMINE, N-METHYL-  
 2 7370 1-TRIAZENE, 1-METHYL-3-(4-METHYLPHENYL)-  
 3 7722 BENZOIC ACID, 2-(METHYLAMINO)-  
 4 1743 PYRIDINE, 2-ETHYL-  
 5 5165 BENZENAMINE, N-METHYL-N-NITROSO-

Rank	Formula	M. Wt	B. Pt	Purity	File	RP16
1	C7. H9. N	107	106	882	934	923
2	C8. H11. N3	149	106	840	923	893
3	C8. H9. O2. N	151	106	840	932	883
4	C7. H9. N	107	106	805	887	840
5	C7. H8. O. N2	136	106	752	847	851

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	---	---	---	---	100-61-6
2	---	---	---	---	21124-13-0
3	---	---	---	---	117-68-6
4	---	---	---	---	100-71-0
5	---	---	---	---	614-00-6



LIBRARY SEARCH  
 12/06/88 21:23:00 + 10:20  
 SAMPLE: CLP, 6915, 283, 00173990101, M, S, 61640, B, 5916 B#283, JUL,  
 COMDS.: INST U: RESTEK RTX-5/30M, 4MIN@45-85@27/MIN-300@10/MIN  
 ENHANCED (5 158 2N 0T)

DATA: U2344 # 620  
 CALL: U2344 # 2  
 BASE M/Z: 106  
 RIC: 7139.

1062  
 SAMPLE

07.H9.N  
 M WT 1062  
 B PK 106  
 RANK 1  
 # 1742  
 PUR 882

BENZAMINE, N-METHYL-

08.H11.N3

M WT 1062  
 B PK 106  
 RANK 2  
 # 7370  
 PUR 840

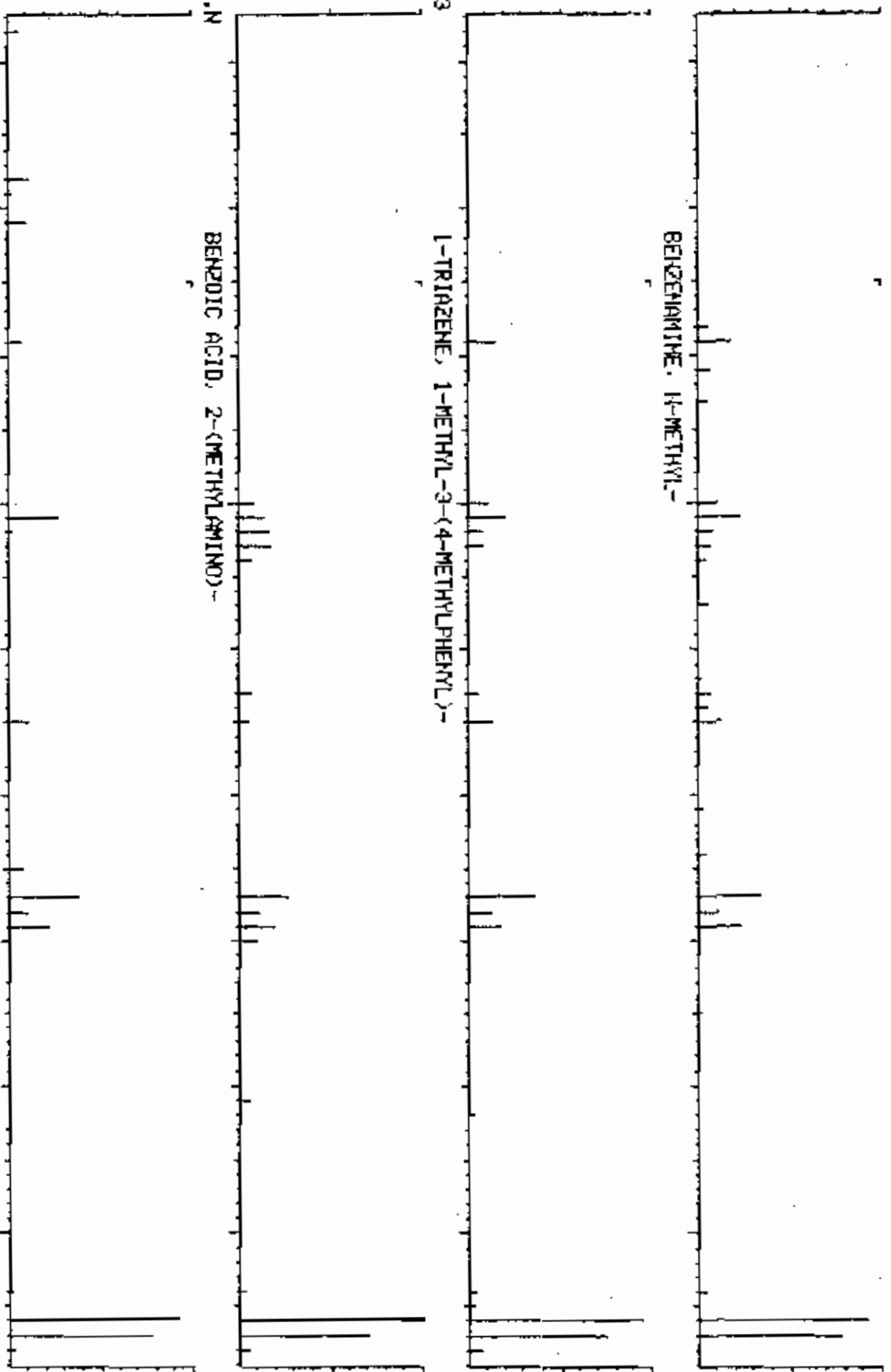
1-TRIAZENE, 1-METHYL-3-(4-METHYLPHENYL)-

09.H9.02.N

M WT 1062  
 B PK 106  
 RANK 3  
 # 7722  
 PUR 840

BENZOIC ACID, 2-(METHYLAMINO)-

M/Z 20 30 40 50 60 70 80 90 100

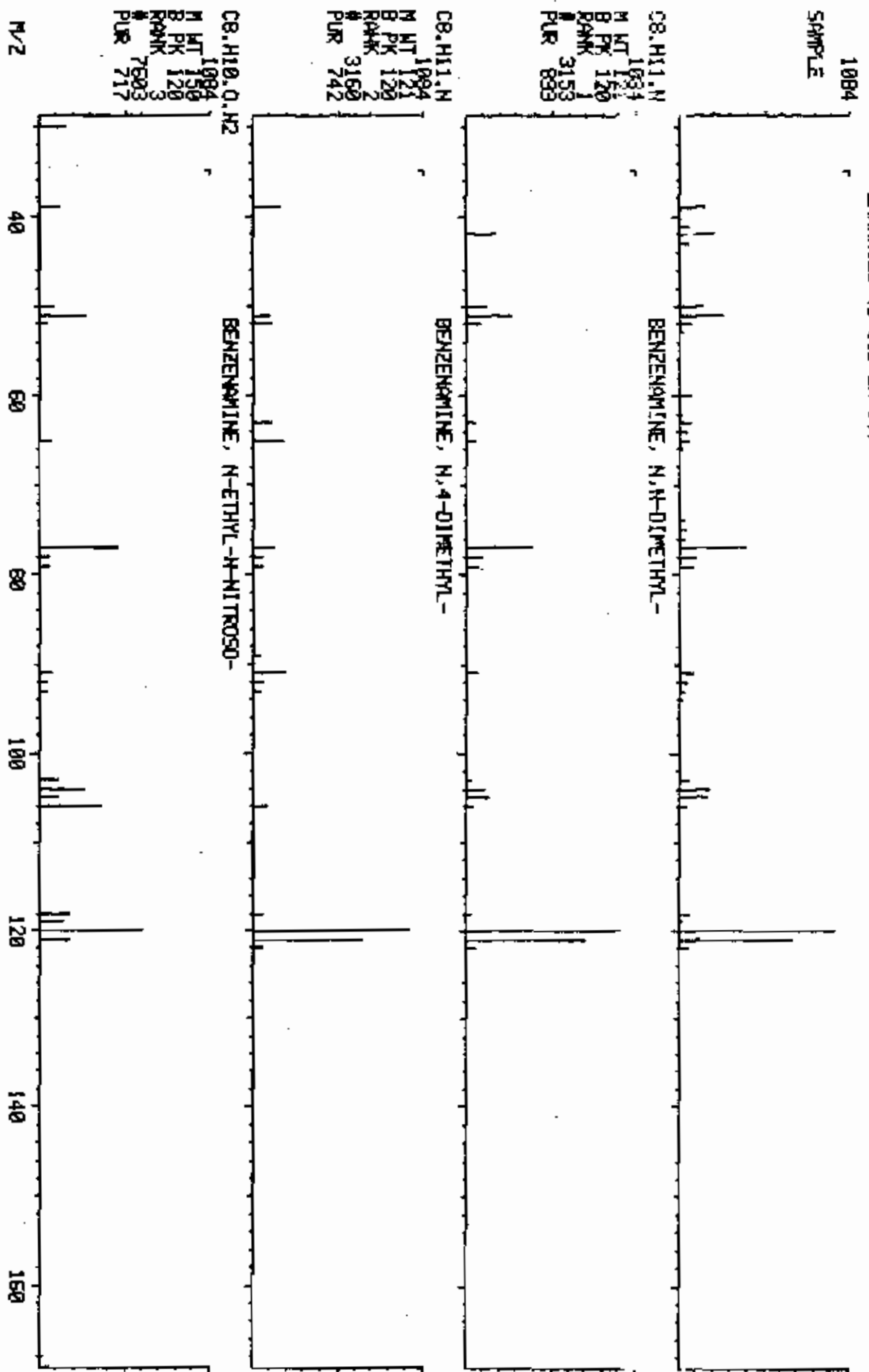




LIBRARY SEARCH  
 12/06/88 21:23:00 + 10:47  
 SAMPLE: CLP,6016,283,00173800101,N,5,61540,8,6016,00283,1UL,  
 CONDOS.: INST VIRESTEK RTX-5/30M, 4MINE45-8507/MIN-300010/MIN  
 ENHANCED (S 158 2N 0T)

DATA: U2344 # 647  
 CALI: U2344 # 2

BASE M/Z: 120  
 RIC: 125055.



CB.H11.N  
 M WT 1094  
 B PK 120  
 RANK 1  
 # 3153  
 PUR 899

CB.H11.N  
 M WT 1094  
 B PK 120  
 RANK 2  
 # 3160  
 PUR 742

CB.H10.0.H2  
 M WT 1094  
 B PK 120  
 RANK 3  
 # 7503  
 PUR 717

BENZENAMINE, N,N-DIMETHYL-

BENZENAMINE, N,4-DIMETHYL-

BENZENAMINE, N-ETHYL-N-NITROSO-

M/Z

40 60 80 100 120 140 160

Library Search Data: V2344 # 692 Base m/z: 73  
 12/06/88 21:23:00 + 11:32 Call: V2344 # 2 RIC: 15620  
 Sample: GLP, 6016, 283, 0017380G101, M. S. 61640, B., 6016 B#283, 10L,  
 Conds.: INST V: REBTEK RTX-5/30M, 4MIN@45-55@7/MIN 300@10/MIN  
 Enhanced (S 15B 2N OT)

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

- Rank In. Name  
 1 34650 CYCLOPENTASILOXANE, DECAMETHYL-  
 2 34666 BENZOIC ACID, 2,5-BIS(TRIMETHYLSILOXY)-, TRIMETHYLSILYL ESTER  
 3 34667 BENZOIC ACID, 2,4-BIS((TRIMETHYLSILYL)OXY)-, TRIMETHYLSILYL ESTER  
 4 34633 BENZENEMETHANOL, .ALPHA.-(AMINOMETHYL)-4-HYDROXY-, TRIS(TRIMETHYLSILOXY)-  
 5 27260 BENZALDEHYDE, 2,5-BIS((TRIMETHYLSILYL)OXY)-

Rank	Formula	M. Wt	B. Pt	Purity	Fit	RF15
1	C10.H30.O5.S15	370	73	942	978	953 ✓
2	C16.H30.O4.S13	370	73	647	696	757
3	C16.H30.O4.S13	370	73	613	690	720
4	C17.H35.O2.N.S13	369	73	536	630	728
5	C13.H22.O3.S12	282	73	521	744	622

Rank	Ret. Time	B. R. Int.	US. Pat. 1	US. Pat. 2	C. A. S. #
1	---	---	---	---	541-02-6 ✓
2	---	---	---	---	3618-20-0
3	---	---	---	---	10586-16-0
4	---	---	---	---	53149-05-8
5	---	---	---	---	56114-69-3

LIBRARY SEARCH  
 12/05/88 21:23:00 + 11:32  
 SAMPLE: CLP, 6015, 283, 00173600101, N, 5, 61640, B, 6016 B#289, 1UL,  
 COND5.: INST U:RESTERK RTX-5/30M, 4MIN@45-85@7/MIN-300@10/MIN  
 ENHANCED (S 1SB 2H 0T)

DATA: U2344 # E92  
 CALL: U2344 # 2

BASE M/Z: 73  
 RIC: 15823.

1000  
 SAMPLE

C10.H30.05.S15

CYCLOPENTASILOXANE, DECANETHYL-

M WT 1000  
 B PK 370  
 RANK 73  
 # 34550  
 PUR 942

C16.H30.04.S13

BENZOIC ACID, 2,5-BIS(TRIMETHYLSILOXY)-, TRIMETHYLSIYL ESTER

M WT 1000  
 B PK 370  
 RANK 73  
 # 34555  
 PUR 647

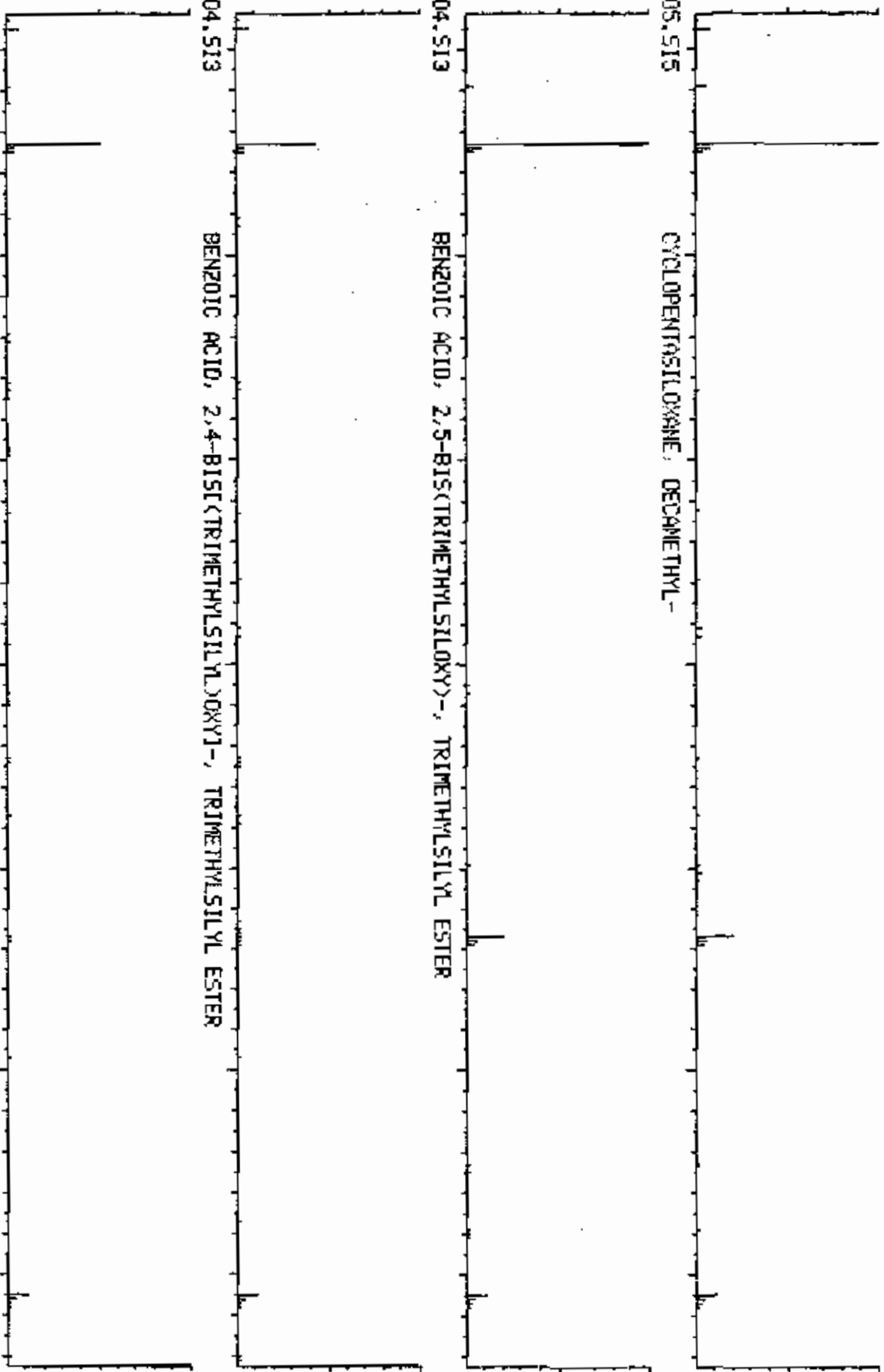
C16.H30.04.S13

BENZOIC ACID, 2,4-BIS(TRIMETHYLSILOXY)-, TRIMETHYLSIYL ESTER

M WT 1000  
 B PK 370  
 RANK 73  
 # 34567  
 PUR 613

M/Z

50 100 150 200 250 300 350



Library Search                      Data: V2344 # 700                      Base #/z:    37  
 12/06/88 21:23:00 + 15:00          Cali: V2344 #    2                      RIC:            6359.  
 Sample: CLP, 6016, 283, 00173800101, M, S, 61649, B, , 6016, 58283, 1UL,  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-55@7/MIN @50@10/MIN  
 Enhanced (S 158 2M QT)

42222 spectra in LIBRARYNS searched for maximum PURITY  
 317 matched at least 8 of the 16 largest peaks in the unknown

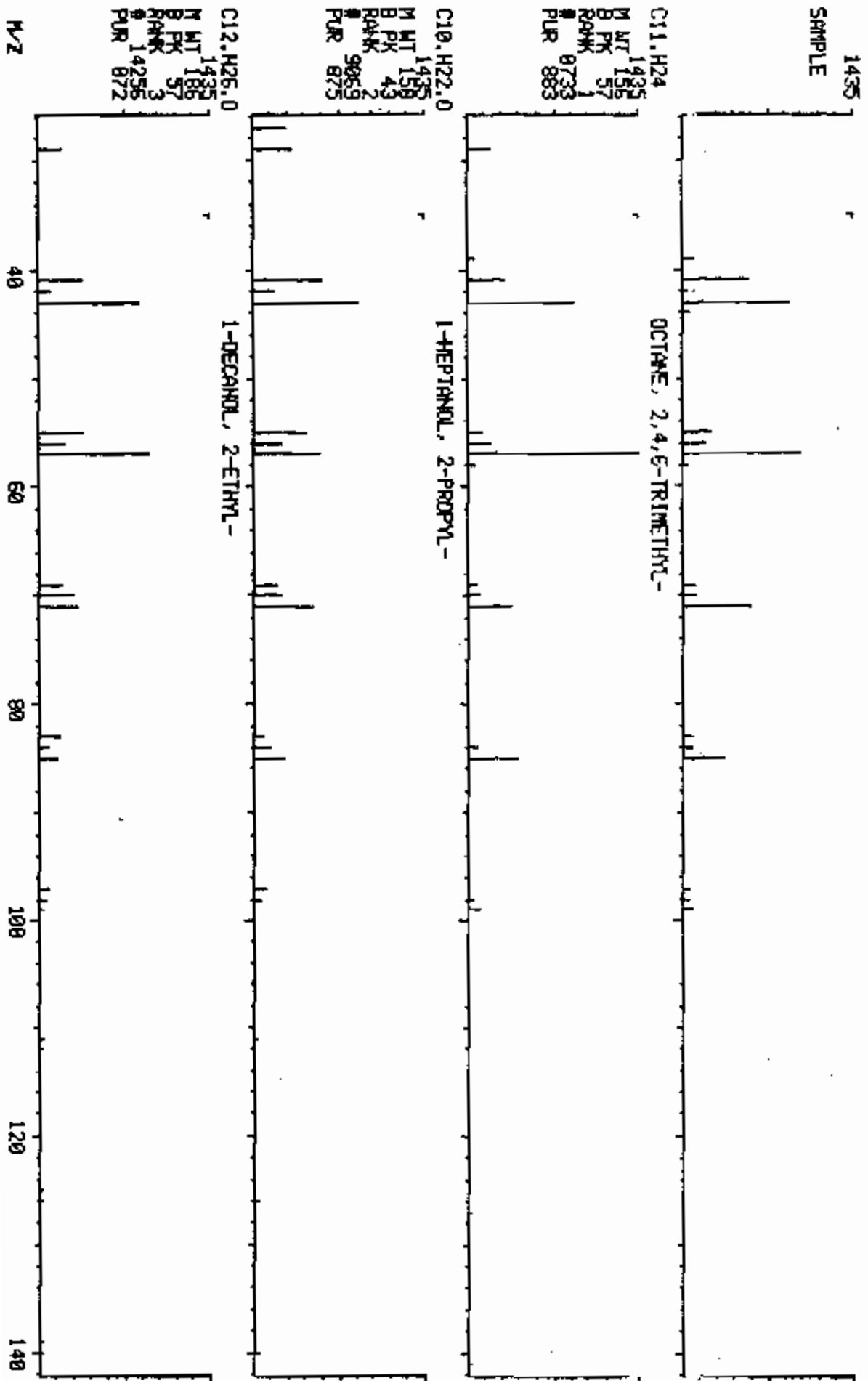
Rank In.                      Name  
 1 8733 OCTANE, 2,4,6-TRIMETHYL-  
 2 9069 1-HEPTANOL, 2-PROPYL-  
 3 14236 1-DECANOL, 2-ETHYL-  
 4 13913 DECANE, 2,9,6-TRIMETHYL-  
 5 16561 1-TRIDECANOL

Rank	Formula	M. Wt	B. Pt	Purity	Fit	RFit
1	C11. H24	156	57	883	953	896
2	C10. H22. O	158	43	875	928	910
3	C12. H26. O	186	57	872	899	923
4	C13. H28	184	57	859	918	885
5	C13. H28. O	200	57	891	877	911

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	---	---	---	---	62016-37-9
2	---	---	---	---	10042-59-6
3	---	---	---	---	21078-65-9
4	---	---	---	---	62109-23-0
5	---	---	---	---	112-70-9

LIBRARY SEARCH  
 12/05/88 21:23:00 + 15:00  
 SAMPLE: CLP, 6016, 283, 00173800101, M, 5, 61648, B, 6016 BM283, IUL,  
 COND5.: INST V:RESTERK RTX-5/30M, 4MIN045-05e7/NIH-300e18/NIH  
 ENHANCED (S 158 2N 0T)

DATA: U2344 # 300  
 CALL: U2344 # 2  
 BASE M/Z: 57  
 RIC: 6359.







LIBRARY SEARCH  
 12/06/88 21:23:00 + 16:13  
 SAMPLE: CLP, 6016, 283, 00173800101, M, S, 61640, 0, 6016 BA283, 1UL,  
 COND.S.: INST V:RESTERX RTX-5/30M, 4MIN245-0587/MIN-300010/MIN  
 ENHANCED (S 150 2M 0T)

DATA: V2344 # 973  
 CRI: V2344 # 2

BASE M/Z: 57  
 RIC: 18383.

1265  
 SAMPLE

C13.H28  
 M WT 1263  
 B PK 184  
 RANK 43  
 # 13082  
 PUR 971

UNDECANE, 4,7-DIMETHYL-

C10.H23.O.N

M WT 1265  
 B PK 43  
 RANK 2  
 # 11940  
 PUR 860

HYDROXYLAMINE, O-DECYL-

C19.H40

M WT 1268  
 B PK 57  
 RANK 3  
 # 25863  
 PUR 845

HEPTADECANE, 2,6-DIMETHYL-

M/Z

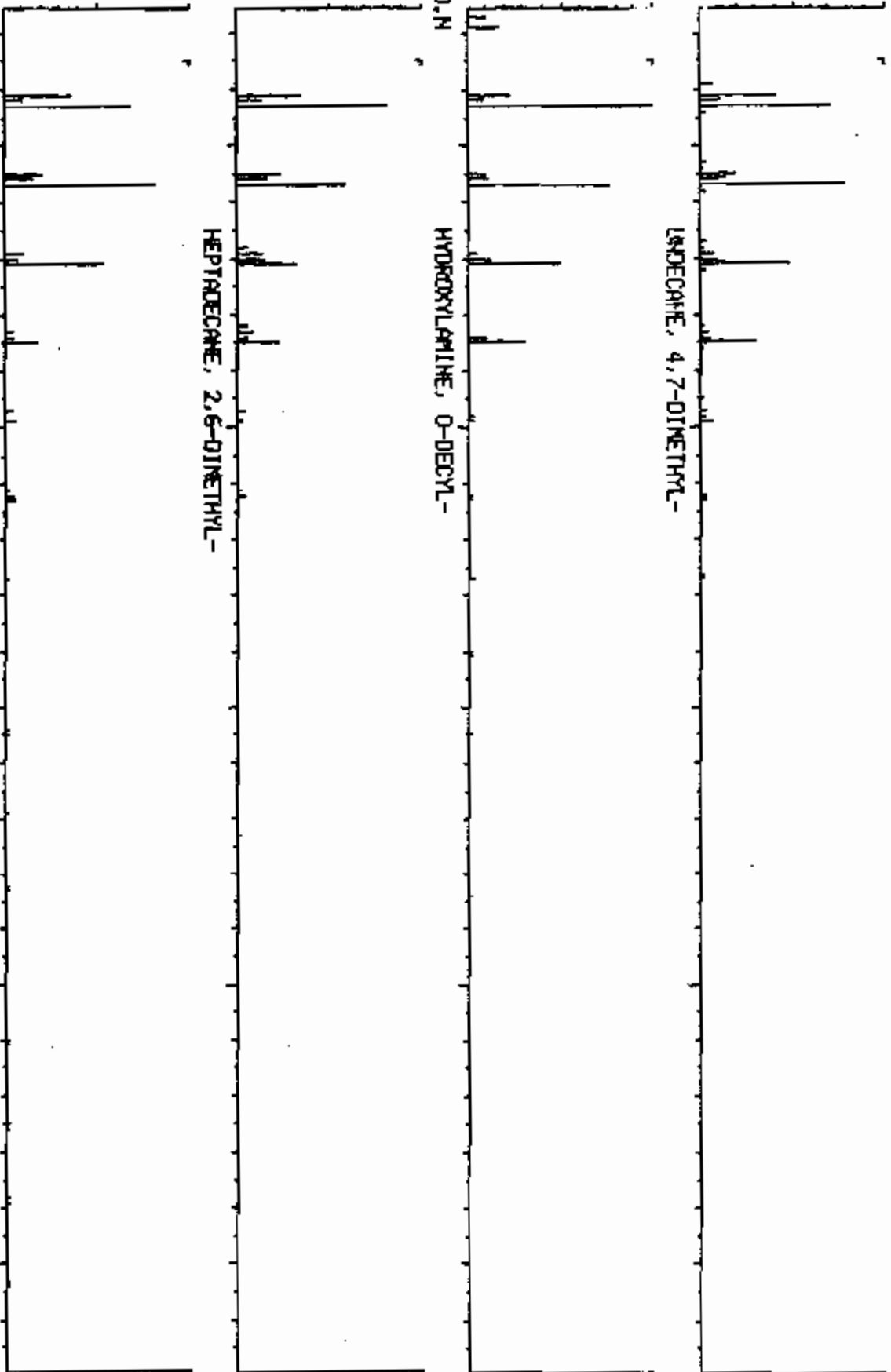
50

100

150

200

250





LIBRARY SEARCH  
 12/06/88 21:23:00 + 17122  
 SAMPLE1 CLP,6016,293,00173900101,M,5,61640,B,6016 GR293,1UL,  
 COND.S: 1HST U:RESTEK RTX-5/30M,4MIN@45-85@7/MIN-300@10/MIN  
 ENHANCED (S 158 2H 0T)

DATA: U2344 #1842  
 COLL: U2344 # 2  
 BASE M/Z: 57  
 RIC: 42239.

1257  
 SAMPLE

C16.H34

M WT 1257  
 B PK 293  
 RANK 57  
 # 206224  
 PUR 859

HEXADECANE

C13.H28

M WT 1257  
 B PK 43  
 RANK 2  
 # 13982  
 PUR 844

UNDECANE, 4,7-DIMETHYL-

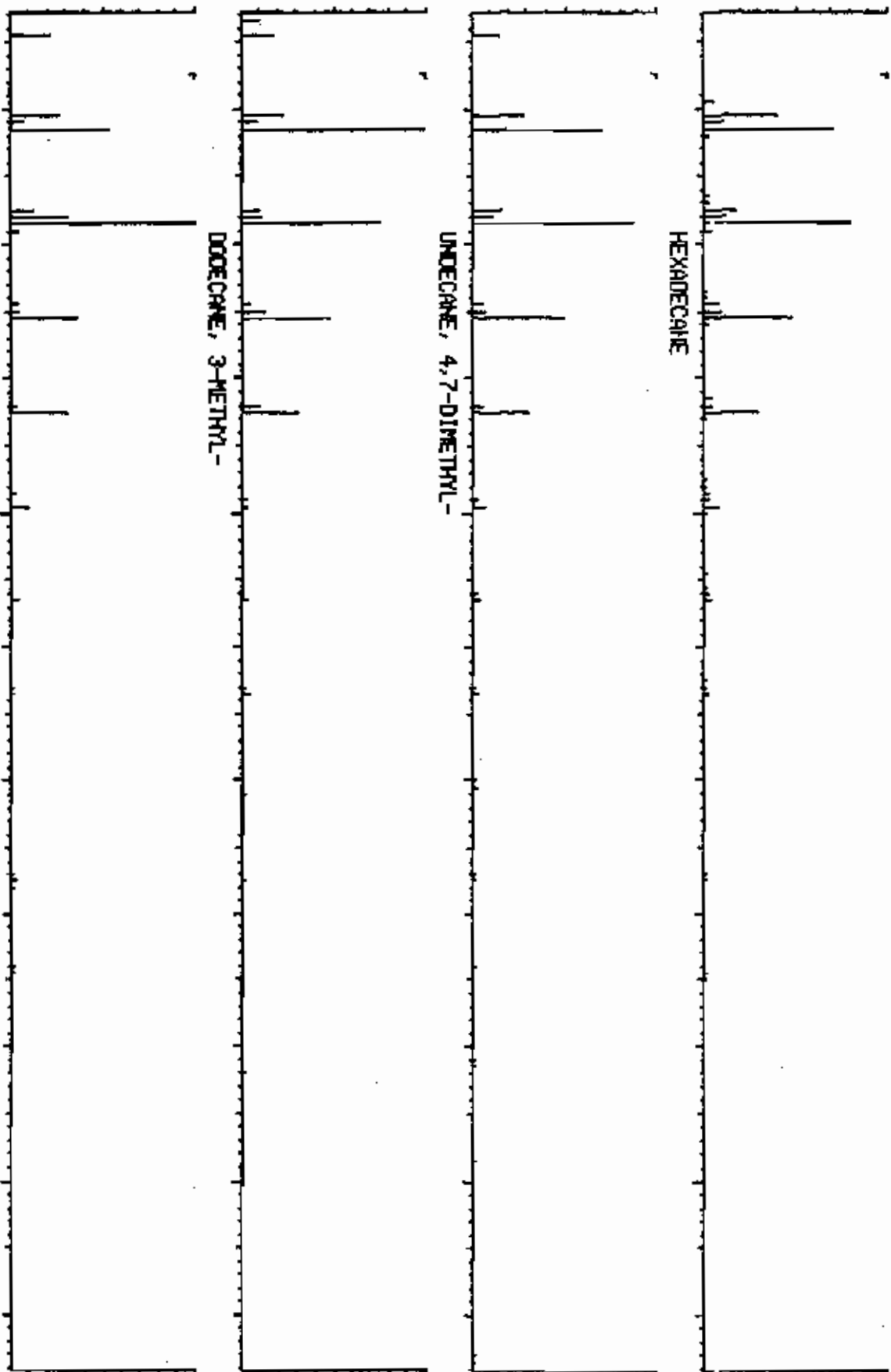
C13.H28

M WT 1257  
 B PK 57  
 RANK 3  
 # 13984  
 PUR 838

DODECANE, 3-METHYL-

M/Z

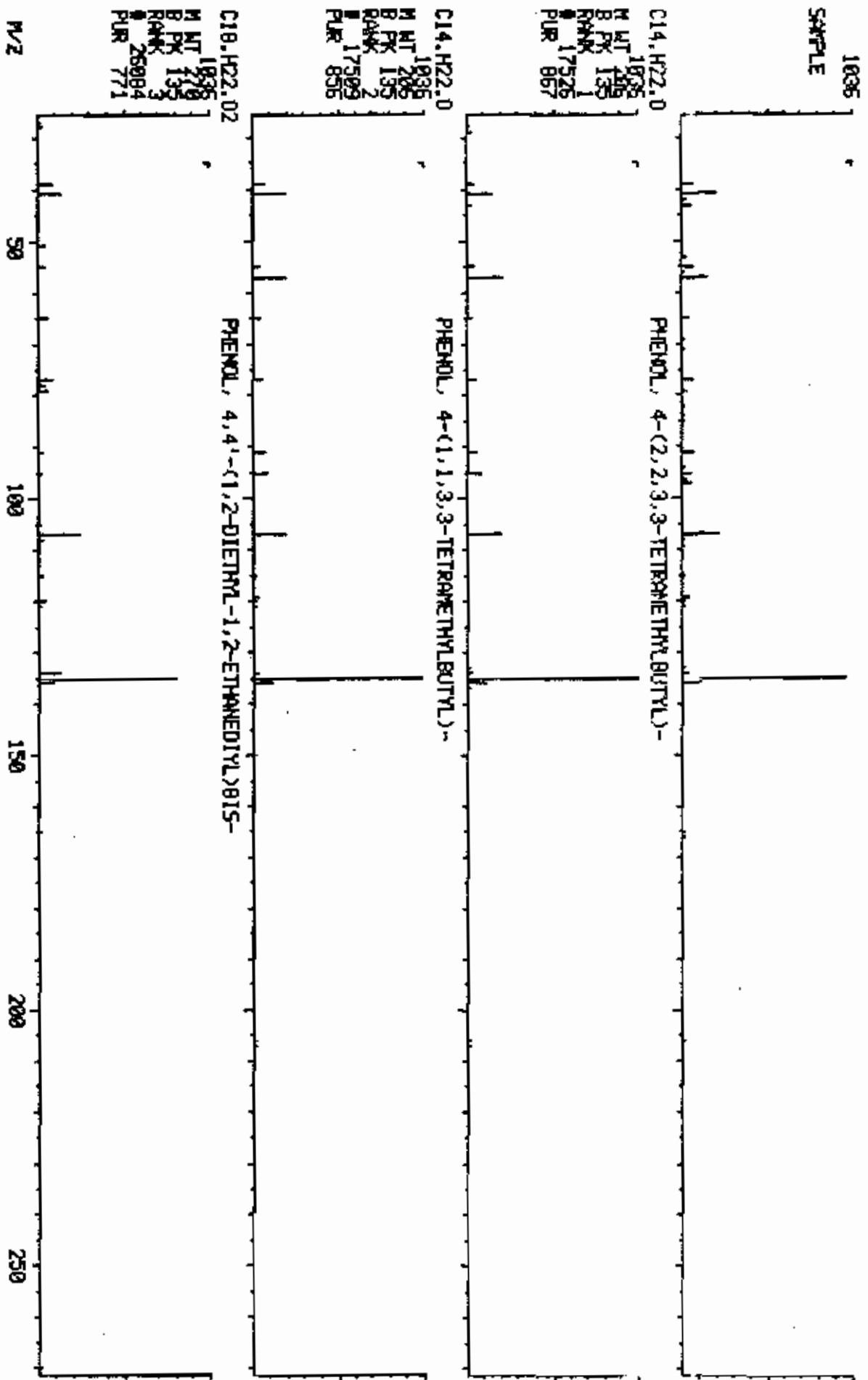
40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220





LIBRARY SEARCH  
 12/06/88 21:23:00 + 17:38  
 SAMPLE: CLP,6016,283,00173800101,M,5,61648,8,,6016 8M,283,10L,  
 COND5.1 INST U:RESTERK RTX-S/30M,4MINQ45-0507/MIH-300010/MIH  
 ENHANCED (S 158 2M QT)

DATA: U2344 #1858  
 CALL: U2344 # 2  
 BASE M/Z: 135  
 RIC: 11151.





LIBRARY SEARCH  
 12/05/88 21:23:00 + 17:55  
 SAMPLE: CLP, 6015, 283, 00173890101.M/S, 61640.8, 6016, B#283, IUL,  
 COND5.: INST U:PESTER, RTX-5/30M, 4MHR045-8587/MIN-300010/MIN  
 ENHANCED (S 150 2H 0T)

DATA: U2344 #1075  
 CALL: U2344 # 2  
 BASE M/Z: 57  
 RIC: 13983.

1250  
 SAMPLE

019.H40

M WT 1250  
 B PK 57  
 RANK 1  
 # 25863  
 PUR 815

HEPTADECANE, 2,6-DIMETHYL-

019.H28

M WT 1250  
 B PK 57  
 RANK 2  
 # 13916  
 PUR 805

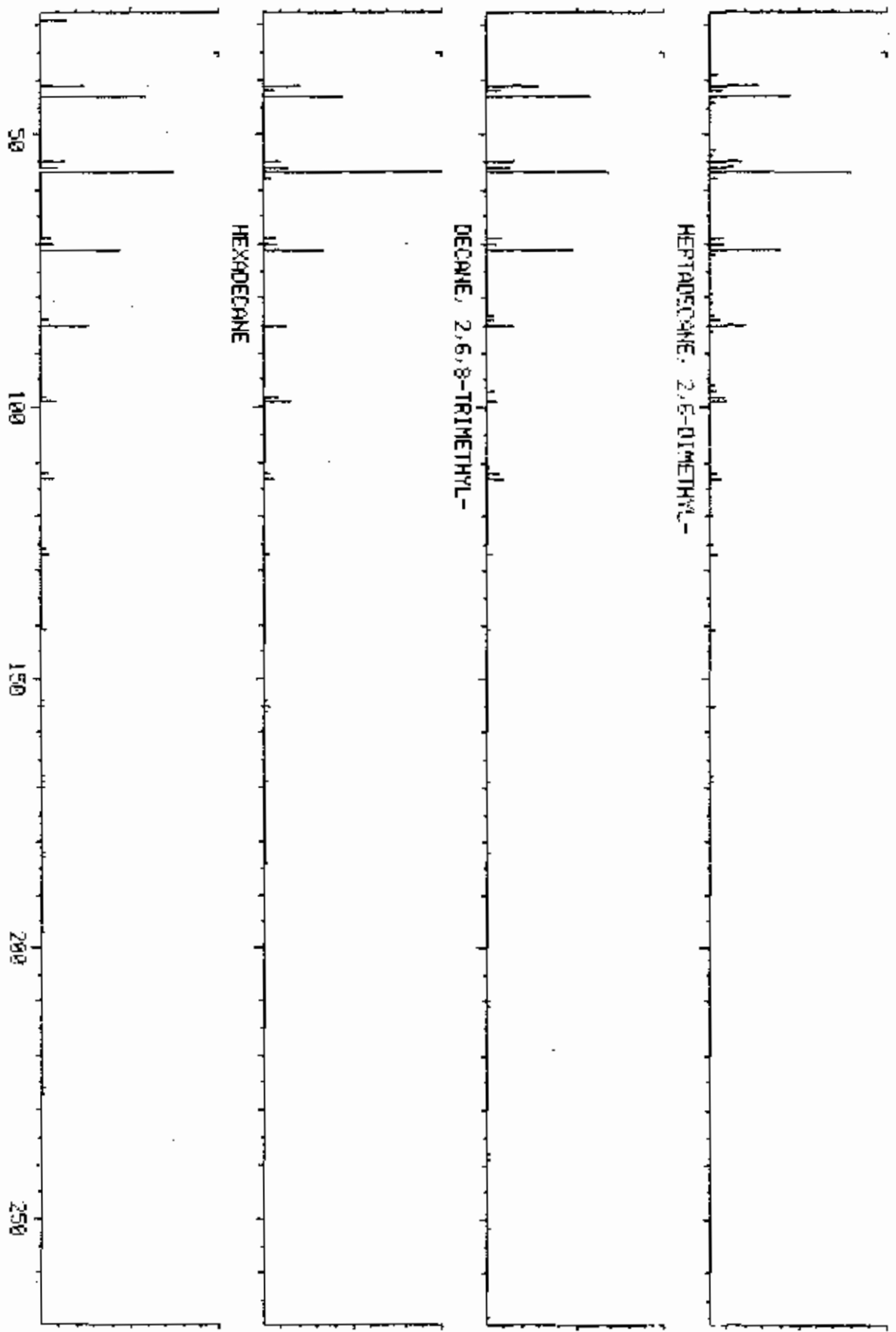
DECANE, 2,6,8-TRIMETHYL-

016.H94

M WT 1250  
 B PK 57  
 RANK 3  
 # 20624  
 PUR 804

HEXADECANE

M/Z



Library Search                      Data: V2344 #1107                      Base m/z: 97  
 12/06/88 21:23:00 + 18:27              Call: V2344 # 2                      RIC: 62911.  
 Sample: CLP, 6016, 283, 00173800101, M, S, 61640, B, 6016 B#263, 1UL,  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-85@7/MIN 300@10/MIN  
 Enhanced (S 15B 2N 0T)

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

HYDROCARBON

Rank In.              Name  
 1 22453 HEPTADECANE  
 2 25863 HEPTADECANE, 2,6-DIMETHYL-  
 3 20624 HEXADECANE  
 4 13882 UNDECANE, 4,7-DIMETHYL-  
 5 18941 DODECANE, 2,7,10-TRIMETHYL-

Rank	Formula	M. Wt	B. P%	Purity	Fit	RFit
1	C17. H34	240	97	852	977	879
2	C19. H40	268	97	854	961	867
3	C16. H34	226	97	834	964	861
4	C13. H28	184	43	832	963	833
5	C19. H32	212	97	828	978	850

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	---	---	---	---	629-73-7
2	---	---	---	---	34105-67-6
3	---	---	---	---	344-76-3
4	---	---	---	---	17301-32-5
5	---	---	---	---	74645-98-0



LIBRARY SEARCH  
 12/06/88 21:23:00 + 18:27  
 SAMPLE: CLP, 6015, 283, 00173000101, M, 5, 61640, B, 6016 BA283, 1U,  
 COND.: INST U: RESTEK RTX-S/30M, 4MIN/45-85/27/MIN-300010/MIN  
 ENHANCED (S 15B 2H 0T)

DATA: U2344 #1107  
 CR.L1: U2344 # 2

BASE M/Z: 57  
 RIC: 62911.

1136

SAMPLE

C17.H26

M HT 1136  
 B PX 240  
 RANK 57  
 # 22453  
 PUR 862

HEPTADECANE

C19.H40

M HT 1136  
 B PX 208  
 RANK 57  
 # 25953  
 PUR 854

HEPTADECANE, 2,6-DIMETHYL-

C16.H34

M HT 1136  
 B PX 226  
 RANK 57  
 # 20524  
 PUR 834

HEXADECANE

M/Z

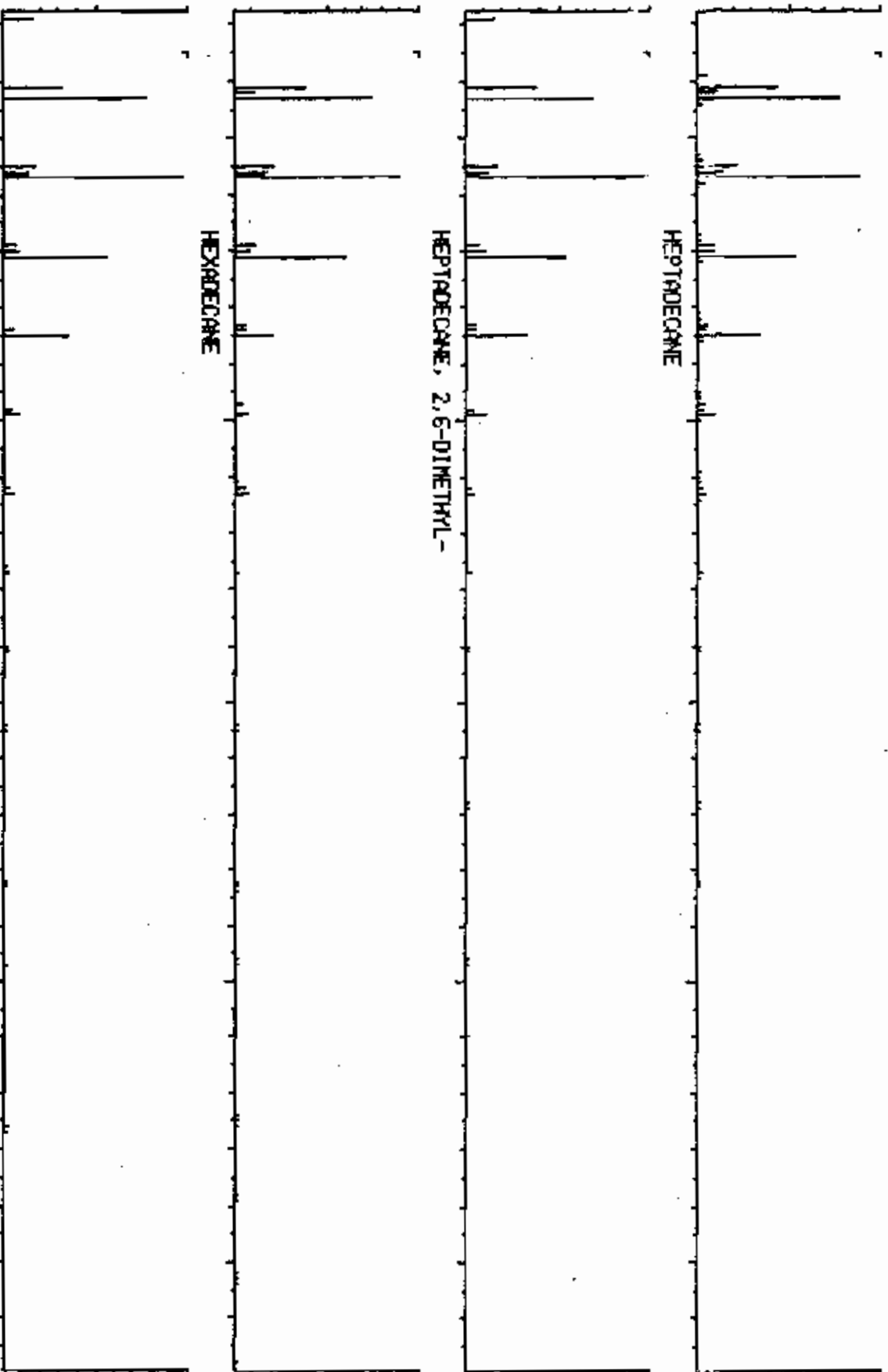
50

100

150

200

250





LIBRARY SEARCH  
 12/06/88 21:23:00 + 18:32  
 SAMPLE: CLP, 6016, 283, 00173800101.M, 5.61640, B, 16016 B#283, 1UL,  
 COND.S.: INST U:RESTEK RTX-5/30M, 4MIN045-0507/11H-300010/MIN  
 ENHANCED (S 158 2H 0T)

DATA: 02344 #1112  
 CALL: 02344 # 2  
 BASE M/Z: 57  
 RIC: 21759.

1092  
 SAMPLE

C13, H40

N WT 1092  
 B PK 268  
 RANK 57  
 # 25863  
 PUR 870

HEPTADECANE, 2,5-DIMETHYL-

C19, H40

N WT 1092  
 B PK 268  
 RANK 71  
 # 25956  
 PUR 865

PENTADECANE, 2,5,10,14-TETRAMETHYL-

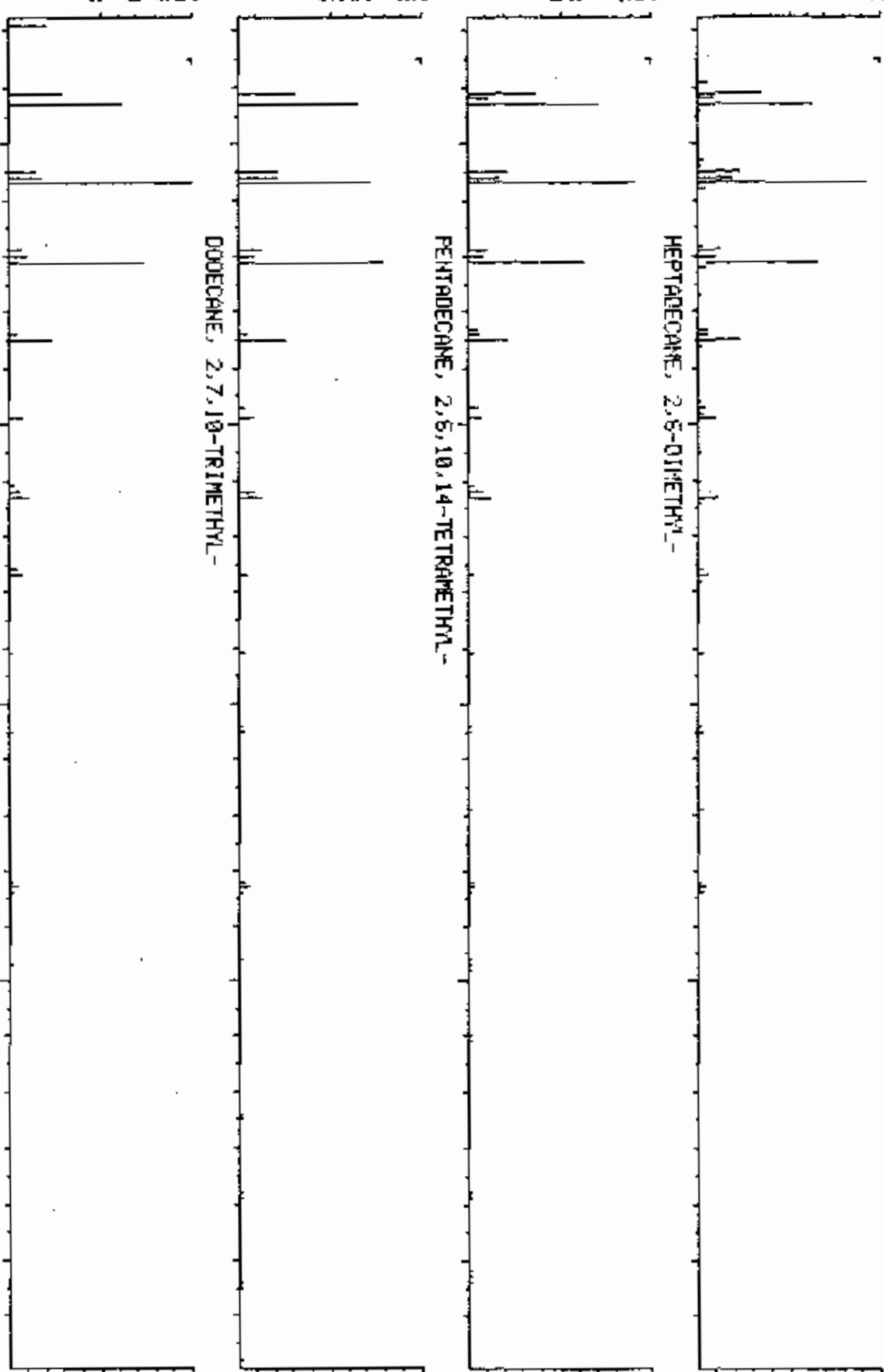
C15, H32

N WT 1092  
 B PK 272  
 RANK 57  
 # 18541  
 PUR 848

DOODECANE, 2,7,10-TRIMETHYL-

M/Z

50 100 150 200 250



Library Search                      Data: V2344 #1169                      Base #/1:    37  
 12/06/88 21:23:00 + 19:29              Call: V2344 #    2                      RIC:            48055.  
 Sample: CLP, 6016, 283, 00173800101, M, S, 61640, B., 6016, B#283, 1UL,  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-85@7/MIN 300@10/MIN  
 Enhanced (8 158 2N QT)

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

HYDRO-ARENE

Rank In.                      Name  
 1 25863 HEPTADECANE, 2,6-DIMETHYL-  
 2 22453 HEPTADECANE  
 3 20624 HEXADECANE  
 4 36165 IRON, TRICARBONYLIN-(PHENYL-2-PYRIDINYLMETHYLENE)BENZENAMINE-N, N'-3-  
 5 18541 DODECANE, 2,7,10-TRIMETHYL-

Rank	Formula	M. Wt	B. Pt	Purity	Fit	RFit
1	C17. H40	268	97	896	762	869
2	C17. H36	240	97	843	761	874
3	C16. H34	226	97	837	765	861
4	C21. H14. O3. N2. FE	398	97	834	745	875
5	C15. H32	212	97	827	778	825

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	---	---	---	---	84105-67-8
2	---	---	---	---	629-78-7
3	---	---	---	---	544-76-3
4	---	---	---	---	74764-11-7
5	---	---	---	---	74645-98-0

LIBRARY SEARCH  
12/05/98 21:23:00 + 19:29  
SAMPLE: CLP,6016,283,00173600101,M,5,61640,B,6016 B#283,11L,  
DIMS.: INST V:RESTEK RTX-5/30M,4MIN@45-05@7/MIN-300@10/MIN  
ENHANCED (5 15R 2N 0T)

DATA: U2344 #1169  
CALL: U2344 # 2  
BASE M/Z: 57  
R10: 45055.

1119

SAMPLE

C19.H40

M AT 1119  
B PK 268  
RANK 57  
# 25863  
PUR 856

HEPTADECANE, 2,6-DIMETHYL-

C17.H36

M AT 1119  
B PK 248  
RANK 57  
# 22453  
PUR 843

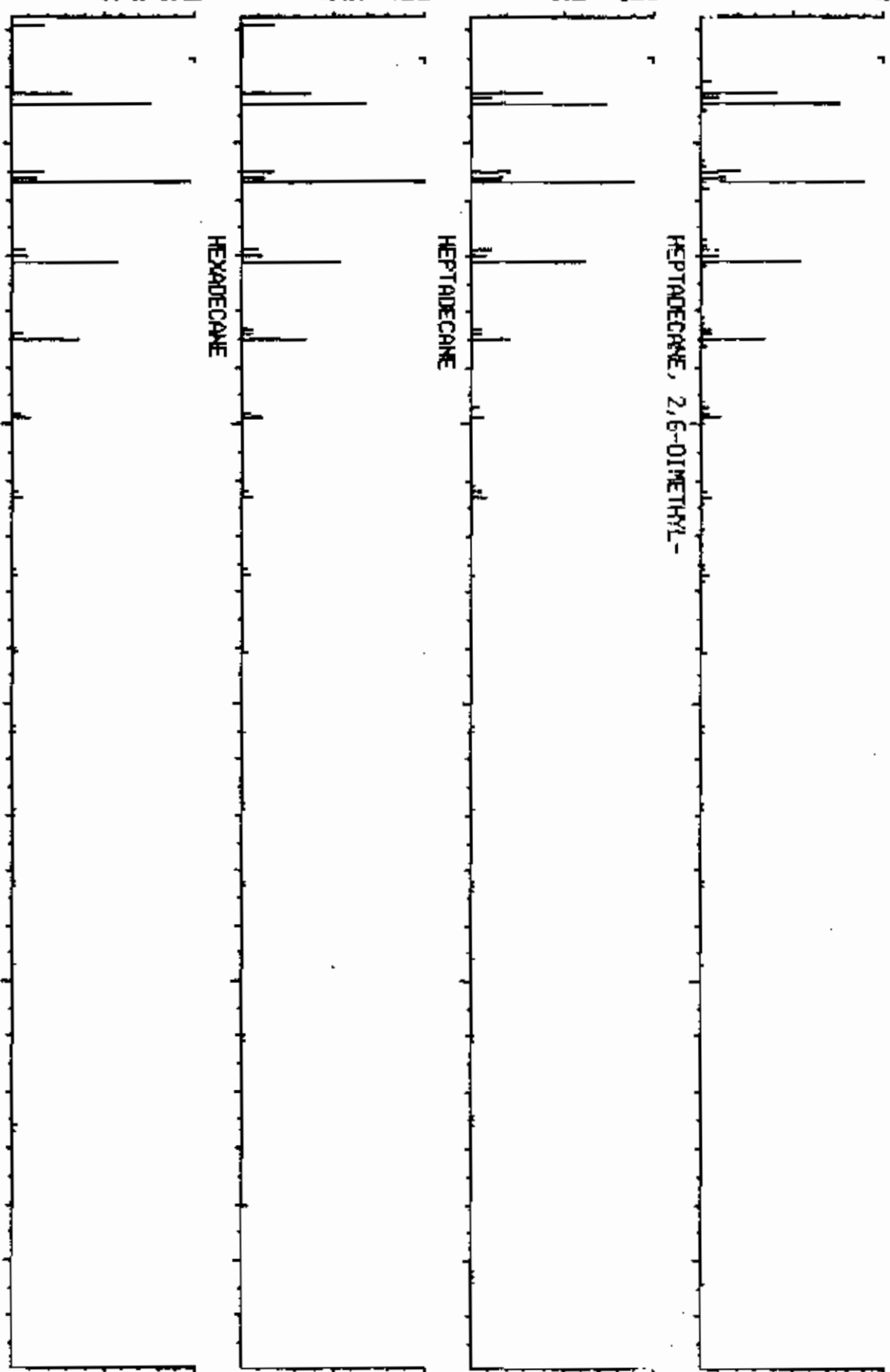
HEPTADECANE

C16.H34

M AT 1119  
B PK 226  
RANK 57  
# 20624  
PUR 837

HEXADECANE

M/Z 50 100 150 200 250





LIBRARY SEARCH  
 12/06/88 21:23:00 + 19:36  
 SAMPLE: CLP, 6016, 283, 00173900101, N, S, 61640, 8, 6816 8#283, 11L,  
 COND: 1 INST VIRESTEK RTX-5/30M, 4MIN@45-85°27/MIN-300@210/MIN  
 ENHANCED (S 159 2N 0T)

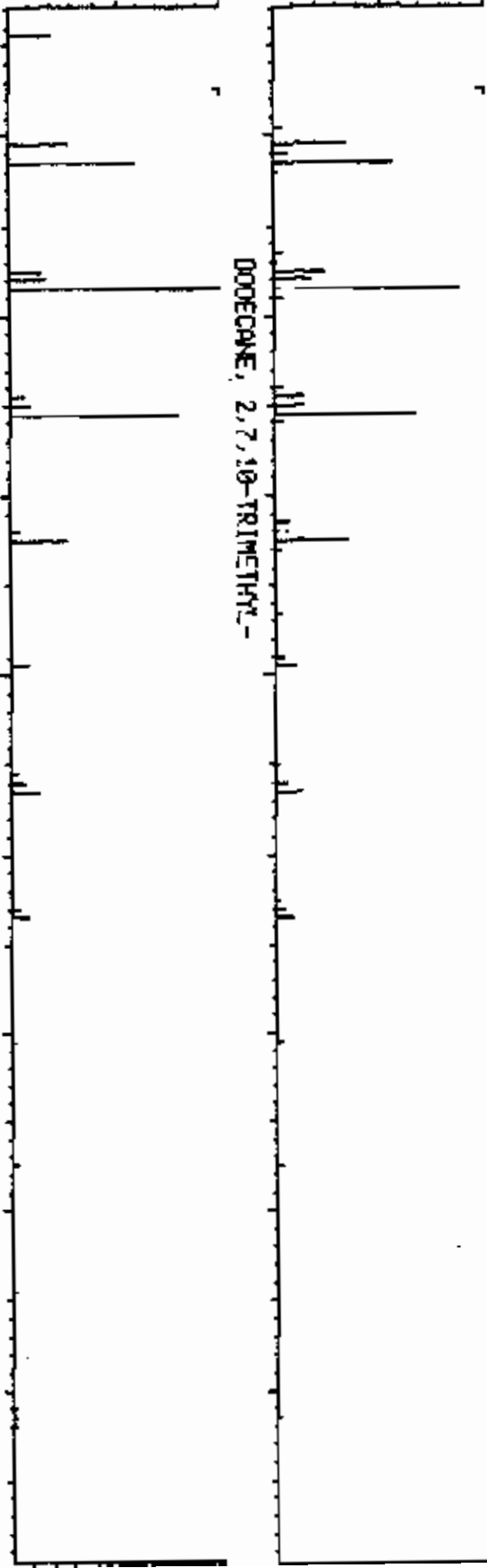
DATA: U2344 81175  
 CELL: U2344 # 2

BASE M/Z: 57  
 RIC: 9631.

1132  
 SAMPLE

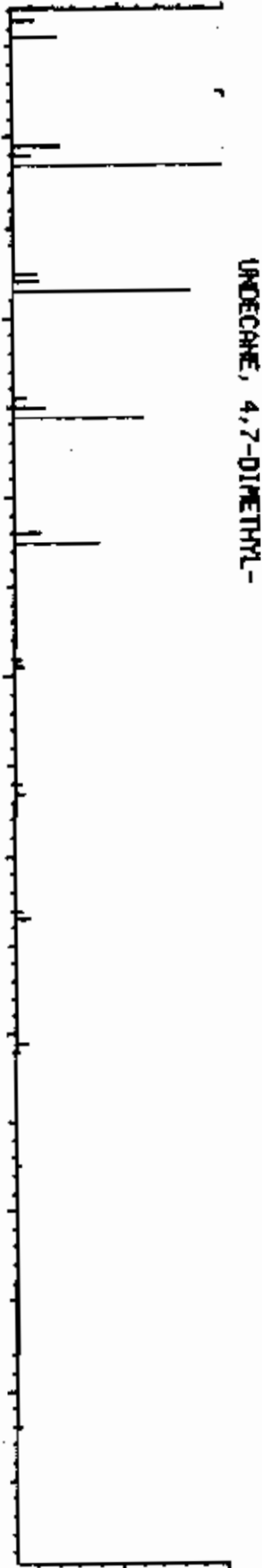
C15.H32

M WT 1132  
 B PK 212  
 RANK 57  
 # 18541  
 PUR 852



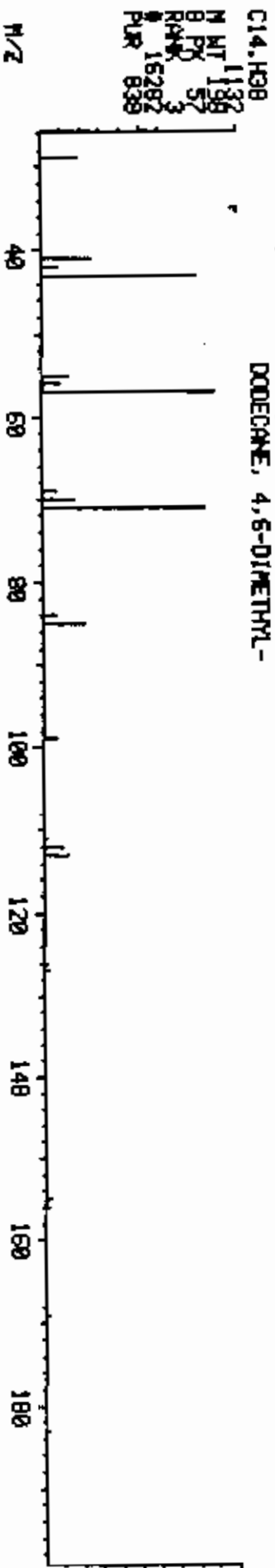
C13.H28

M WT 1132  
 B PK 184  
 RANK 43  
 # 13882  
 PUR 858



C14.H38

M WT 1132  
 B PK 136  
 RANK 57  
 # 15282  
 PUR 839



M/Z

Library Search Data: V2344 #1225 Date m/z: 57  
 12/06/88 21:23:00 + 20:28 Call: V2344 # 2 RIC: 18399  
 Sample: CLP, 6016, 283, 00173800101, M, S, 61640, 8, , 6016, 8#283, 10L.  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-85@7/MIN-300@10/MIN  
 Enhanced (S 15B 2N 0T)

42222 spectra in LIBRARYNE searched for maximum PURITY  
 231 matched at least 8 of the 16 largest peaks in the unknown

ENDORCARBON

- Rank In. Name  
 1 25863 HEPTADECANE, 2,6-DIMETHYL-  
 2 11452 UNDECANE, 2-METHYL-  
 3 11940 HYDROXYLAMINE, D-DECYL-  
 4 11446 DECANE, 2,9-DIMETHYL-  
 5 13880 UNDECANE, 3,8-DIMETHYL-

Rank	Formula	M. Wt	B. Pt	Purity	Fit	RFit
1	C17.H40	268	97	819	728	864
2	C12.H26	170	43	810	765	818
3	C10.H23.O.N	173	43	807	758	810
4	C12.H26	170	43	800	777	808
5	C13.H28	184	57	799	767	801

Rank	Ret. Time	B. P. Int.	US. Pat. 1	US. Pat. 2	C. A. S. #
1	---	---	---	---	54105-67-8
2	---	---	---	---	7045-71-8
3	---	---	---	---	27512-79-1
4	---	---	---	---	1002-17-1
5	---	---	---	---	17301-30-3



LIBRARY SEARCH  
 12/06/89 21:23:00 + 28:28  
 SAMPLE: CLP, 5015, 283, 00173890101, M, S, 51640, B, 5015 B#283, 1UL,  
 COND5.: INST V:RESTERK RTX-5/39M, 4M1H845-8587/MIN-300618/MIN  
 ENHANCED (S 158 2H 0T)

DATA: U2344 #1228  
 CALL: U2344 # 2  
 BASE M/Z: 57  
 RIC: 18399,

1117  
 SAMPLE

C19.H40

M MT 1117  
 B PK 268 57  
 RANK 1  
 # 25863  
 PUR 815

HEPTADECANE, 2,6-DIMETHYL-

C12.H26

M MT 1117  
 B PK 170 43  
 RANK 2  
 # 11452  
 PUR 810

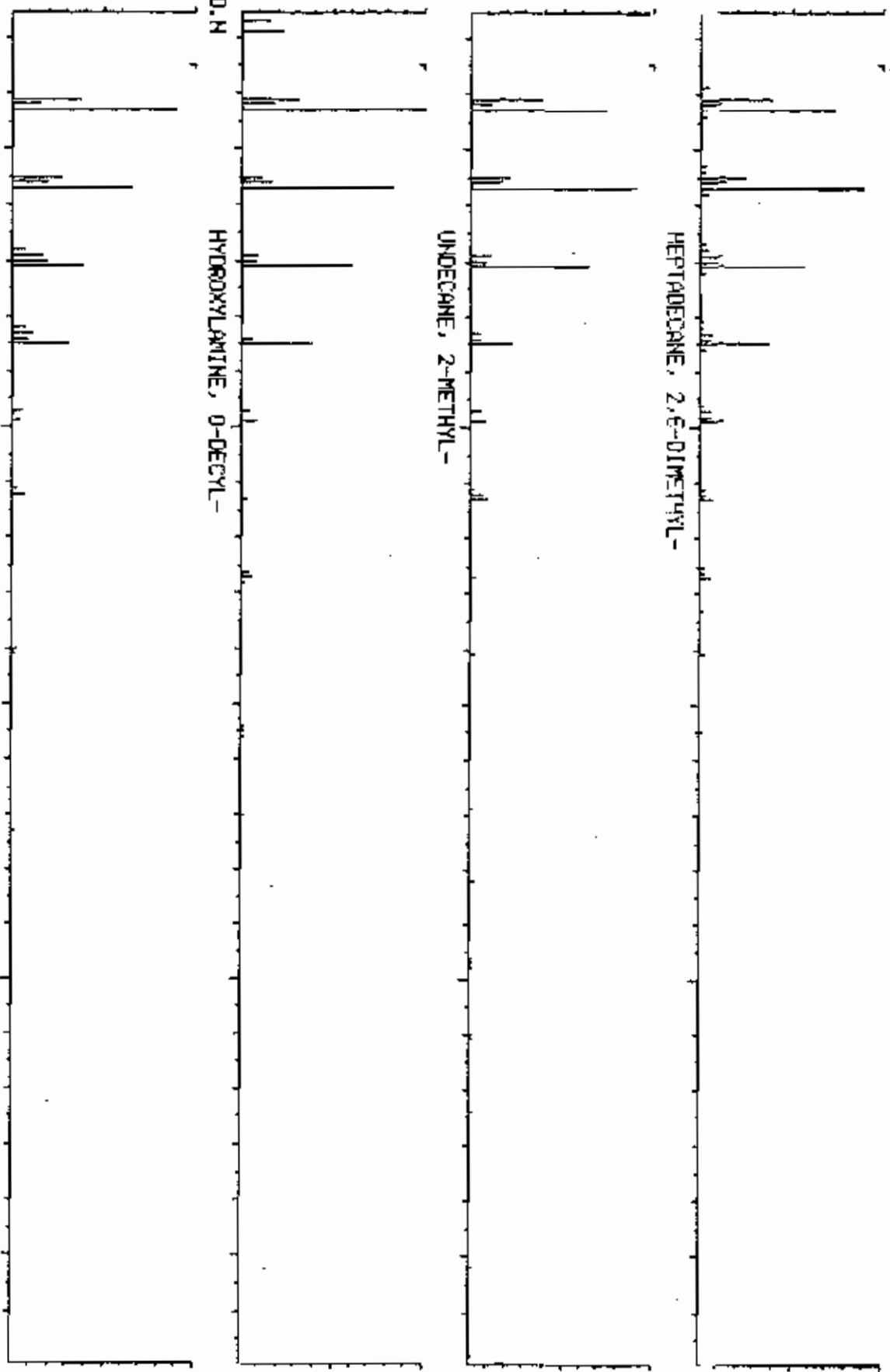
UNDECANE, 2-METHYL-

C10.H23.O.N

M MT 1117  
 B PK 43 3  
 RANK 3  
 # 11946  
 PUR 807

HYDROXYLAMINE, O-DECYL-

M/Z 50 100 150 200 250



Library Search Data: V2344 #1262 Base m/z: 43  
12/06/88 21:23:00 + 21:02 Call: V2344 # 2 RIC: 12831.  
Sample: CLP. 6016, 283, 00173800101, M. S. 61640, B., 6016 B#283, ILL.  
Conds.: INST V: RESTEK RTX-5/30M, 4MINS45-5587/MIN-500&10/MIN  
Enhanced (S 198 2M QT)

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

Rank In.	Name
1	24455 HEXADECANOIC ACID
2	26167 GLYCINE, N-METHYL-N-(1-OXODODECYL)-
3	27905 DODECANAMIDE, N,N-BIS(2-HYDROXYETHYL)-
4	16513 DODECANOIC ACID
5	29875 DODECANOIC ACID, SILVER(1+) SALT

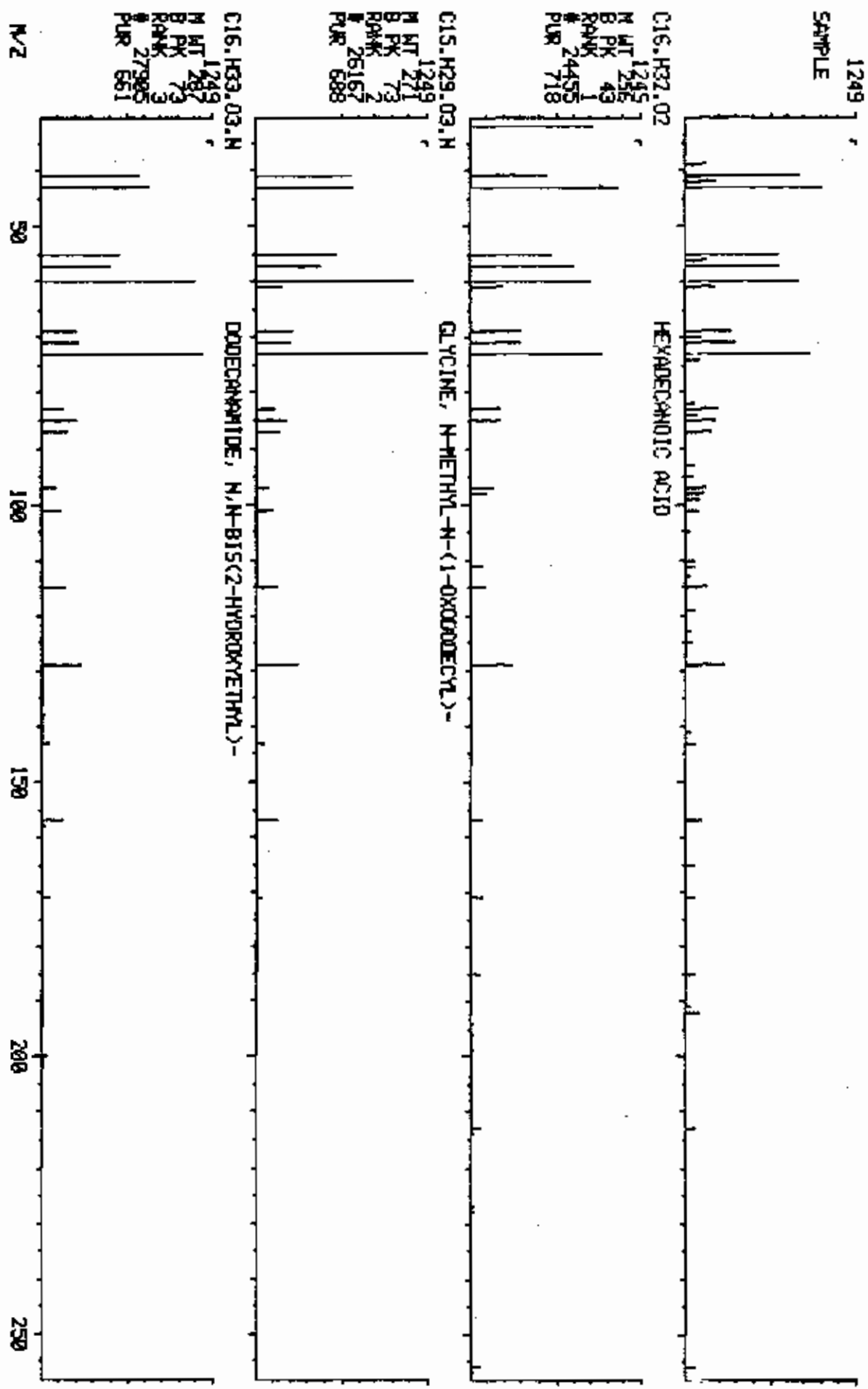
*organic acid*

Rank	Formula	M. Wt	B. Pt	Purity	Fit	RF16
1	C16. H32. O2	256	43	718	768	739
2	C19. H29. O3. N	271	73	688	778	682
3	C16. H33. O3. N	287	73	661	765	674
4	C12. H24. O2	200	60	611	892	677
5	C12. H24. O2. Ag	307	43	544	804	670

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	---	---	---	---	57-10-3
2	---	---	---	---	97-78-9
3	---	---	---	---	120-40-1
4	---	---	---	---	143-07-7
5	---	---	---	---	13269-45-6

LIBRARY SEARCH  
 12/06/88 21:23:00 + 21:02  
 SAMPLE: CLP, 6016, 203, 00173800101, N, 5, 61640, B, 6016 BR283, 1UL,  
 COMDS.: INST U; RESTEK RTX-5/30M, AMINE45-8587/MIN-3000210/MIN  
 ENRANCED (S 158 2N 0T)

DATA: U2344 #1262  
 CALL: U2344 # 2  
 BASE R/Z: 43  
 RIC: 12831.



Library Search Data: V2344 #1284 Base m/z: 97  
 12/06/88 21:23:00 + 21:24 Call: V2344 # 2 RIC: 8239.  
 Sample: CLP, 6016, 283, 00173800101, M. S. 61640, B., 6016 B#283, 1UL,  
 Conds.: INST V: RESTEK RTX-3/30M, 4MIN@49-85@7/MIN 300@10/MIN  
 Enhanced (8 198 2N DT)

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

HYDROCARBON

Rank In. Name  
 1 25863 HEPTADECANE, 2,6-DIMETHYL-  
 2 13882 UNDECANE, 4,7-DIMETHYL-  
 3 13929 DECANE, 2,3,5-TRIMETHYL-  
 4 8733 OCTANE, 2,4,6-TRIMETHYL-  
 5 13903 UNDECANE, 4,6-DIMETHYL-

Rank	Formula	M. Wt	E. Pk	Purity	Fit	RFit
1	C19. H40	268	97	600	926	844
2	C13. H28	184	43	791	946	803
3	C13. H28	184	97	781	967	799
4	C11. H24	156	97	767	965	767
5	C13. H28	184	97	756	989	772

Rank	Ret. Time	S. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	---	---	---	---	94108-67-8
2	---	---	---	---	17301-32-5
3	---	---	---	---	62238-11-3
4	---	---	---	---	62016-37-9
5	---	---	---	---	17312-62-2

LIBRARY SEARCH  
 12/06/88 21:23:00 + 21:24  
 SAMPLE: CLP, 6016, 283, 80173000101, H, S, 61640, B, 6016 B#283, 1UL,  
 COMDS.: IMST V:RESTERK RTX-5/38M, 4MINEAS-8507/11H-300010/11H  
 ENHANCED (5 15B 2N 0T)

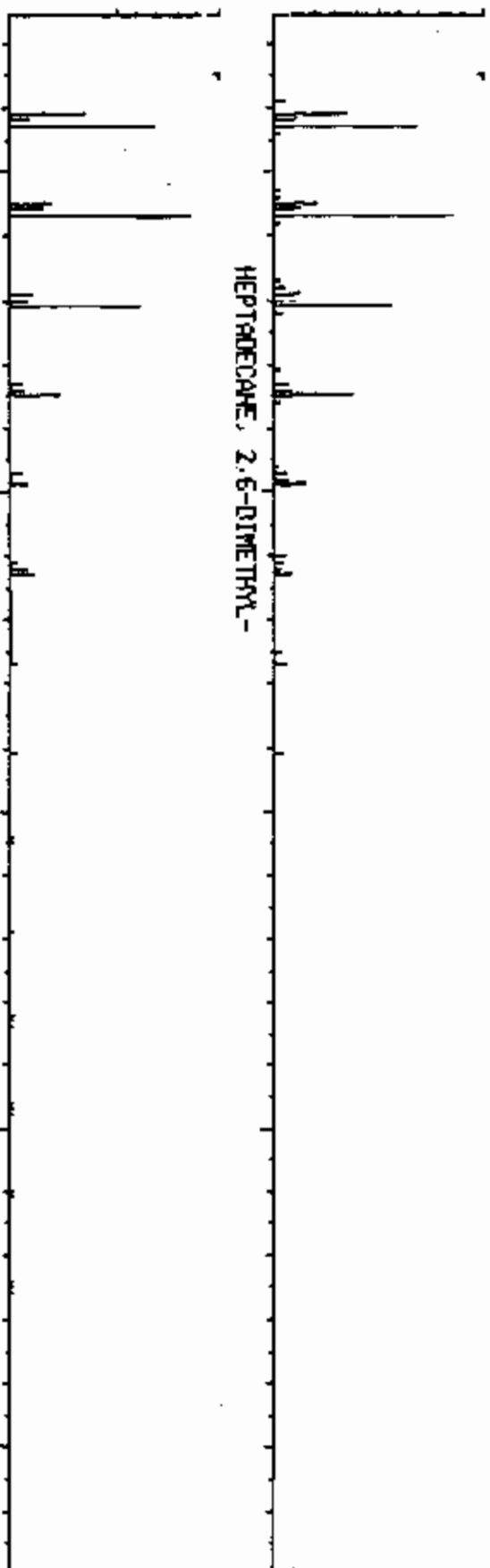
DATA: U2344 #1204  
 OAL: U2344 # 2  
 BASE N/Z: 57  
 RIC: 8239.

1173  
 SAMPLE

C19.H49

M WT 1173  
 B PK 258  
 RANK 57  
 # 25863  
 PUR 900

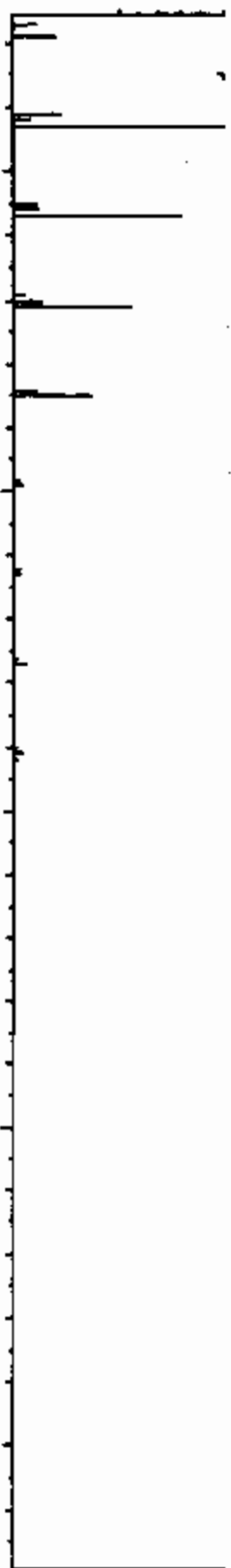
HEPTADECANE, 2,6-DIMETHYL-



C13.H28

M WT 1173  
 B PK 164  
 RANK 43  
 # 13882  
 PUR 791

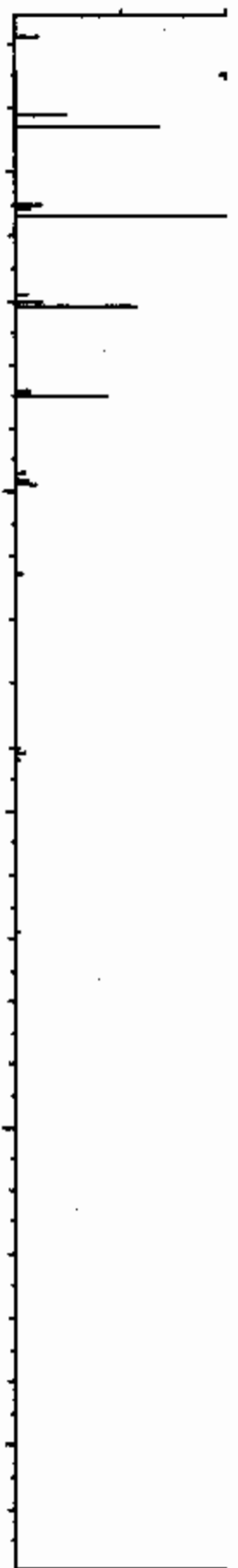
UNDECANE, 4,7-DIMETHYL-



C13.H28

M WT 1173  
 B PK 164  
 RANK 57  
 # 13973  
 PUR 781

DECANE, 2,3,5-TRIMETHYL-



M/Z

50

100

150

200

250

Library Search                                  Data: 42344 #1338                                  Base m/z: 57  
 12/06/88 21:23:00 + 22:18                      Call: 42344 # 2                                  RIC: 6455.  
 Sample: CLP, 6016, 283, 00173600101, M, S, 61640, B, , 6016 B#283, 1UL,  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-85@7/MIN 200@10/MIN  
 Enhanced (S 15B 2N 0T)

42222 spectra in LIBRARYND searched for maximum PURITY  
 161 matched at least 7 of the 16 largest peaks in the unknown

unknown  
 HYDROCARBON

Rank In.                      Name  
 1 25863 HEPTADECANE, 2,6-DIMETHYL-  
 2 41210 TETRACONTANE, 3,5,24-TRIMETHYL-  
 3 13929 DECANE, 2,3,5-TRIMETHYL-  
 4 39432 DECANEDIOIC ACID, DIOCYL ESTER  
 5 18541 DODECANE, 2,7,10-TRIMETHYL-

Rank	Formula	M. Wt	B. Pt	Purity	Fit	RFit
1	C19. H40	268	57	702	926	741
2	C43. H88	604	57	676	890	707
3	C13. H28	184	57	670	757	661
4	C30. H58. O4	482	57	650	723	670
5	C15. H32	212	57	656	933	682

Rank	Ret. Time	B. P. Int.	US. Pat. 1	US. Pat. 2	C. A. S. #
1	---	---	---	---	54105-67-8
2	---	---	---	---	55162-61-3
3	---	---	---	---	62238-11-3
4	---	---	---	---	2432-87-5
5	---	---	---	---	74645-98-0

LIBRARY SEARCH  
 12/06/88 21:23:00 + 22:18  
 SAMPLE: CLP, 6016, 283, 00173000101, N, 5, 61640, B, 6016 B#283, IUL,  
 COND5.: INST VIRESTER RTX-5/30M, 4MINE45-8527/MIN-300218/MIN  
 ENHANCED (S 158 2N 0T)

DATA: V2344 #1338  
 CALL: V2344 # 2  
 BASE M/Z: 57  
 RIC: 6455.

1173  
 SAMPLE

C19, H40

HEPTADECANE, 2,6-DIMETHYL-

M WT 1173  
 B PK 253  
 RANK 57  
 # 25863  
 PUR 702

C43, H88

TETRAOCTANE, 3,5,24-TRIMETHYL-

M WT 1173  
 B PK 604  
 RANK 57  
 # 41210  
 PUR 676

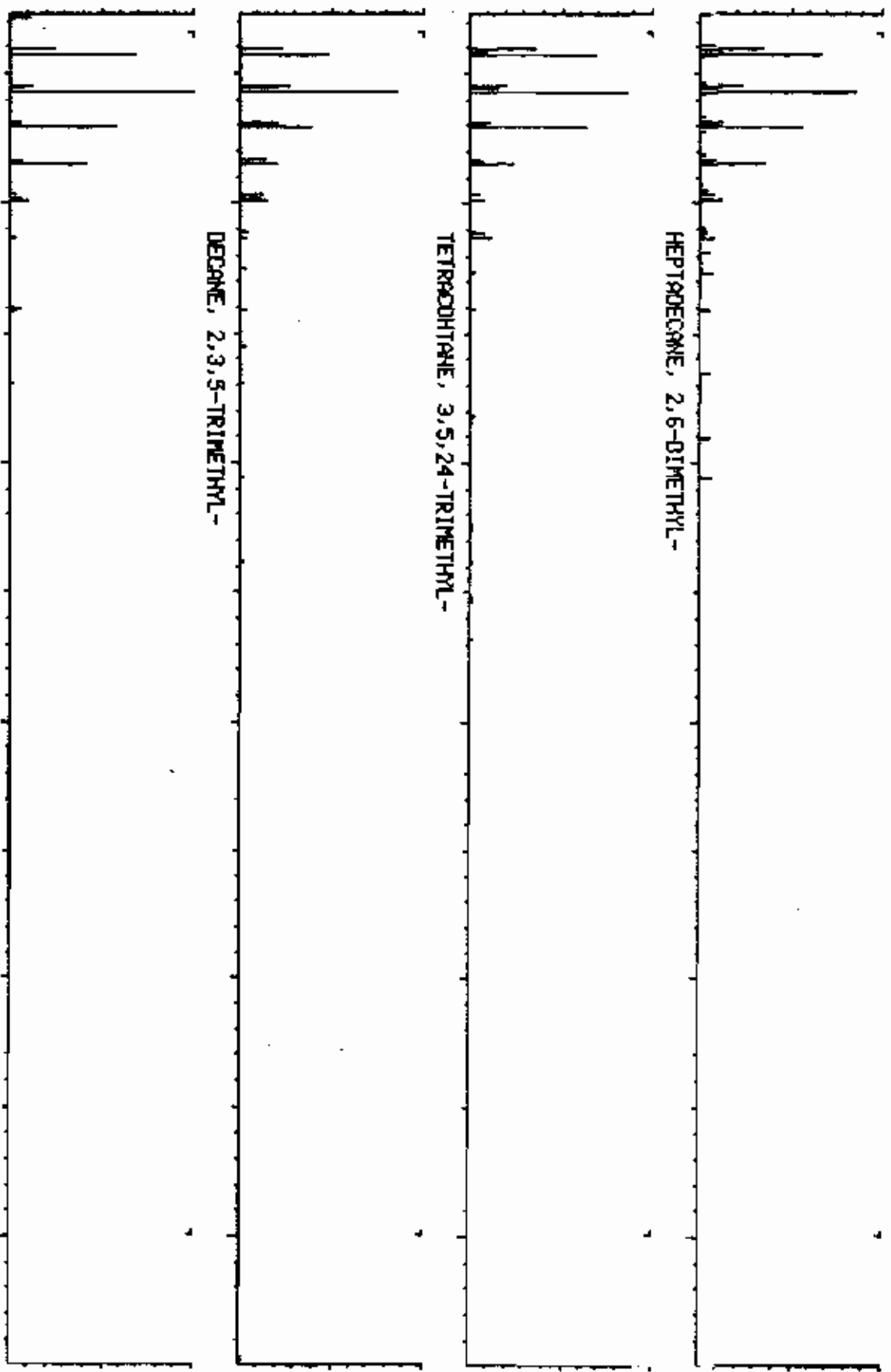
C13, H28

DECANE, 2,3,5-TRIMETHYL-

M WT 1173  
 B PK 184  
 RANK 57  
 # 13929  
 PUR 670

M/Z

100 200 300 400 500



Library Search Data: V2344 #1486 Base m/z: 254  
 12/06/88 21:23:00 + 24:44 Cali: V2344 # 2 RIC: 21151.  
 Sample: CLP, 6016, 283, 00173800101, M, S, 61640, B, , 6010 B#283, 1UL,  
 Conds.: INST V: RESTEK RTX-9/30M, 4MIN@45-65@77MIN 3000107MIN  
 Enhanced (S 15B 2N 0T)

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

Rank In.	Name
1	34328 METHANAMINIUM, N-(4-(4-(DIMETHYLAMINO)PHENYL)PHENYL)METHYLENE)-2,5-
2	24149 2-PROPEN-1-ONE, 1-(2-HYDROXYPHENYL)-3-(4-METHOXYPHENYL)-
3	24148 4H-1-BENZOPYRAN-4-ONE, 2,3-DIHYDRO-2-(4-METHOXYPHENYL)-
4	24182 ETHYLENEDIAMINE, N,N'-DIMETHYL-N-PHENYL-N'-P-TOLYL-
5	28980 1,3-OXATHIOLAN-5-ONE, 4,4-DIPHENYL-2-PROPYL-

Rank	Formula	M. Wt	B. F.	Purity	Flt	RF14
1	C23. H25. N2. CL	364	253	502	709	505
2	C16. H14. O3	254	254	456	728	570
3	C16. H14. O3	254	254	456	741	537
4	C17. H22. N2	254	254	343	861	351
5	C18. H18. O2. S	298	254	324	714	447

Rank	Ret. Time	B. F. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	---	---	---	---	369-64-2
2	---	---	---	---	3327-24-0
3	---	---	---	---	3034-08-0
4	---	---	---	---	32869-58-2
5	---	---	---	---	31061-70-8



LIBRARY SEARCH  
12/25/98 21:23:00 + 24:46  
SAMPLE: CLP, 6016, 293, 09173899101.M.S., 61649.B, 6016.BW293.IUL,  
COND.: INST VIRESTEX RTX-5/32M, 4MIN@45-85@7/MIN-300@18/MIN  
ENHANCED (5 158 2N 0T)

DATA: WZ344 #1496  
CALL: UZ344 # 2

PAGE M/Z: 254  
PLOT: 21151.

1254  
SAMPLE

C22.425.WZ.CL  
M WT 1254  
B PX 253  
RANK 1  
# 34328  
PUR 502

METHANAMINUM, 4-[4-(4-(DIMETHYLAMINO)PHENYL)PHENYL]METHYLENE]-2-S-CY1

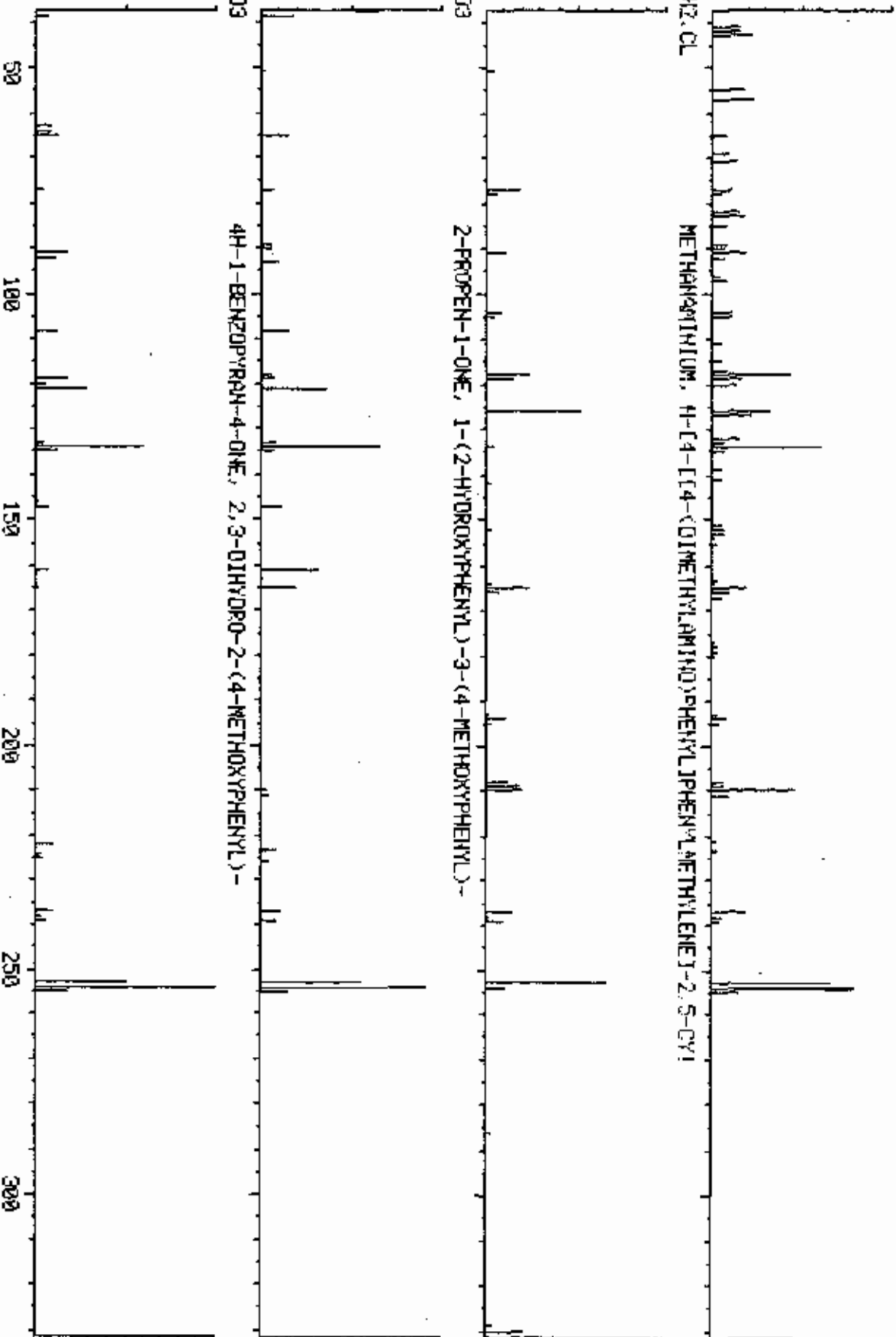
C16.H14.03  
M WT 1254  
B PX 254  
RANK 2  
# 24149  
PUR 455

2-PROPEN-1-ONE, 1-(2-HYDROXYPHENYL)-3-(4-METHOXYPHENYL)-

C16.H14.03  
M WT 1254  
B PX 254  
RANK 3  
# 24148  
PUR 453

4H-1-BENZOPYRAN-4-ONE, 2,3-DIHYDRO-2-(4-METHOXYPHENYL)-

M/Z



## Library Search

12/06/88 21:23:00 + 32:55

Data: V2344 #1975

Call: V2344 # 2

Base m/z: 293

RIC: 30207

Sample: CLP, 6016, 283, 00173800101, M, S, 61640, B, 6016 D8283, 10A,

Conds.: INST V: RESTEK RTX-5/GSM, 4MIN@45-85@7/MIN-300@10/MIN

Enhanced (S 158 2M 0T)

42222 spectra in LIBRARYNB searched for maximum PURITY

98 matched at least 4 of the 16 largest peaks in the unknown

Rank In.

Name

- 1 34917 BENZENAMINE, 4,4',4''-METHYLIDYNETRIS(N,N-DIMETHYL-  
 2 34328 METHANAMINIUM, N-(4-(4-(DIMETHYLAMINO)PHENYL)PHENYLENE)-2,3-  
 3 23930 PHENANTHRENE, 3,6-DIMETHOXY-9-METHYL-  
 4 24018 2(1H)-QUINOLINONE, 3-HYDROXY-4-(3-HYDROXYPHENYL)-  
 5 23861 2-PROPENOIC ACID, 3-(3,4,5-TRIMETHOXYPHENYL)-, METHYL ESTER

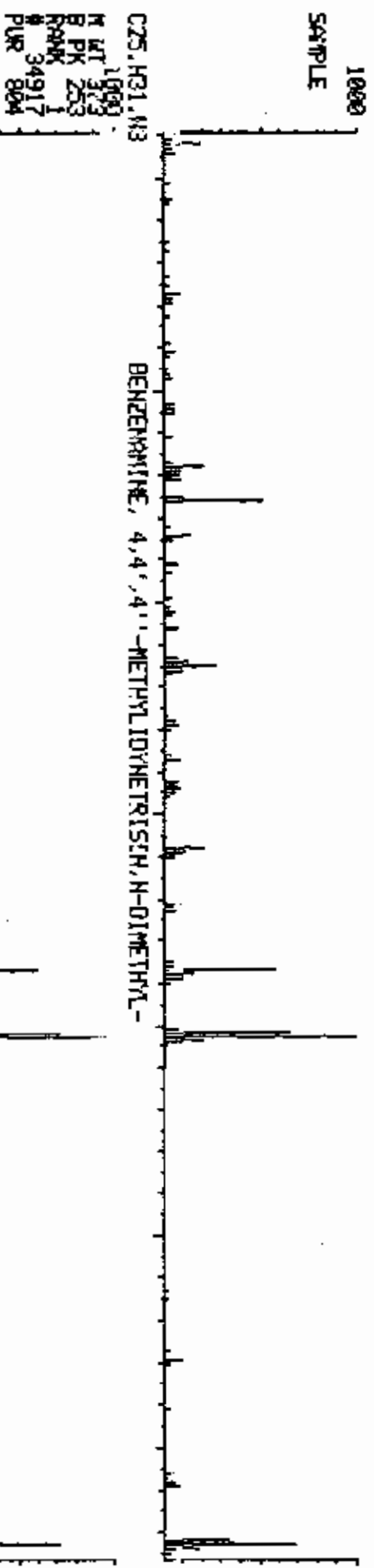
Rank	Formula	M. Wt	B. Pt	Purity	Fit	RFit
1	C29. H31. N3	373	293	834	992	807
2	C23. H25. N2. Cl	364	253	370	796	377
3	C17. H16. O2	252	252	331	331	343
4	C19. H11. O3. N	293	293	303	742	354
5	C13. H16. O5	252	252	303	747	315

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	---	---	---	---	503-45-9
2	---	---	---	---	367-64-2
3	---	---	---	---	13635-07-2
4	---	---	---	---	14484-44-7
5	---	---	---	---	7960-47-8

LIBRARY SEARCH  
 12/06/88 21:23:00 + 32:55  
 SAMPLE: CLP, 6016, 263, 00173980101, N, S, 61648, B, 6016 0#203, IU,  
 COND5.: INST V; RESTEK RTX-5/30M, 4MIN@45-85@7/MIN-300@10/MIN  
 ENHANCED (5 158 2H 0T)

DATA: U2344 #1975  
 CKI: U2344 # 2

BASE M/Z: 253  
 RIC: 30/207.



\*\*\*\*INTERNAL STANDARD RIC REPORT\*\*\*\*

\*\*\*\*\*INTERNAL STANDARD#1\*\*\*\*\*  
Mass List Data: V2344 # 544 Base m/z: 150  
12/06/88 21:23:00 + 9:24 Call: V2344 # 2 RIC: 27536.  
Sample: CLP, 6016, 283, 00173800101, M, S, 61640, B, 6016 B#283, 1UL,  
Conds.: INST V: RESTEK RTX-5/30M, 4MIN245-8587/MIN 300810/MIN  
Enhanced (S 158 2N QT)

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

\*\*\*\*\*INTERNAL STANDARD#2\*\*\*\*\*  
Mass List Data: V2344 # 739 Base m/z: 136  
12/06/88 21:23:00 + 12:19 Call: V2344 # 2 RIC: 37312.  
Sample: CLP, 6016, 283, 00173800101, M, S, 61640, B, 6016 B#283, 1UL,  
Conds.: INST V: RESTEK RTX-5/30M, 4MIN245-8587/MIN 300810/MIN  
Enhanced (S 158 2N QT)

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

\*\*\*\*\*INTERNAL STANDARD#3\*\*\*\*\*  
Mass List Data: V2344 # 923 Base m/z: 162  
12/06/88 21:23:00 + 16:23 Call: V2344 # 2 RIC: 32224.  
Sample: CLP, 6016, 283, 00173800101, M, S, 61640, B, 6016 B#283, 1UL,  
Conds.: INST V: RESTEK RTX-5/30M, 4MIN245-8587/MIN 300810/MIN  
Enhanced (S 158 2N QT)

39 0.00 0.00 0. Minima Min inten: 0.  
30 # 0 Maxima

\*\*\*\*\*INTERNAL STANDARD#4\*\*\*\*\*  
Mass List Data: V2344 #1187 Base m/z: 166  
12/06/88 21:23:00 + 19:47 Call: V2344 # 2 RIC: 34688.  
Sample: CLP, 6016, 283, 00173800101, M, S, 61640, B, 6016 B#283, 1UL,  
Conds.: INST V: RESTEK RTX-5/30M, 4MIN245-8587/MIN 300810/MIN  
Enhanced (S 158 2N QT)

40 0.00 0.00 0. Minima Min inten: 0.  
30 # 0 Maxima

\*\*\*\*\*INTERNAL STANDARD#5\*\*\*\*\*  
Mass List Data: V2344 #1559 Base m/z: 240  
12/06/88 21:23:00 + 25:59 Call: V2344 # 2 RIC: 34800.  
Sample: CLP, 6016, 283, 00173800101, M, S, 61640, B, 6016 B#283, 1UL,  
Conds.: INST V: RESTEK RTX-5/30M, 4MIN245-8587/MIN 300810/MIN  
Enhanced (S 158 2N QT)

39 0.00 0.00 0. Minima Min inten: 0.  
30 # 0 Maxima

\*\*\*\*\*INTERNAL STANDARD#6\*\*\*\*\*  
Mass List Data: V2344 #1730 Base m/z: 284  
12/06/88 21:23:00 + 29:10 Call: V2344 # 2 RIC: 20192.  
Sample: CLP, 6016, 283, 00173800101, M, S, 61640, B, 6016 B#283, 1UL,  
Conds.: INST V: RESTEK RTX-5/30M, 4MIN245-8587/MIN 300810/MIN  
Enhanced (S 158 2N QT)

39 0.00 0.00 0. Minima Min inten: 0.  
30 # 0 Maxima

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

Sample Number 738001-01

Analysis Date 12/06/88

Instrument ID V

Analyst TS

Fraction BNA

PK #	SCAN #	TIC OR AREA	PK HT AREA	IS OR TIC	IS CONC	B	CONC ug/l OR ug/kg	FRACTION
1	267	9,119	29536	40	2772.28	34237	BNA	
2	384	5,127	29536	40	2772.28	19249	BNA	
3	425	4,895	29536	40	2772.28	15374	BNA	
4	537	40,255	29536	40	2772.28	151135	BNA	
5	545	11,263	29536	40	2772.28	42286	BNA	
6	620	7,199	29536	40	2772.28	27828	BNA	
7	647	125,855	29536	40	2772.28	469512	BNA	
8	692	15,823	37312	40	2772.28	47886	BNA	
9	900	6,359	32224	40	2772.28	21883	BNA	
10	973	18,383	32224	40	2772.28	62985	BNA	
11	1042	42,239	32224	40	2772.28	145355	BNA	
12	1058	11,151	32224	40	2772.28	38374	BNA	
13	1075	13,983	32224	40	2772.28	48119	BNA	
14	1107	62,911	34688	40	2772.28	281115	BNA	
15	1112	21,759	34688	40	2772.28	69568	BNA	
16	1169	45,855	34688	40	2772.28	144833	BNA	
17	1176	9,631	34688	40	2772.28	38789	BNA	
18	1228	13,399	34688	40	2772.28	58818	BNA	
19	1262	12,831	34688	40	2772.28	41818	BNA	
20	1284	8,239	34688	40	2772.28	26339	BNA	
21	1338	6,455	34688	40	2772.28	28635	BNA	
22	1486	21,151	24880	40	2772.28	94575	BNA	
23	1975	38,287	28192	40	2772.28	165892	BNA	
24								
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**Versar**

IV. STANDARDS DATA

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: VERSAR INC.Contract: NYSDEC COU298Lab Code: VERSAR Case No.: SH788SAS No.: 6016 SDG No.: 283Instrument ID: YCalibration Date(s): 11/28/88 11/28/88Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) PACK

Min RRF for SPOC(\*) = 0.300 (0.250 for Bromoform) Max %RSD For CCC(\*) = 30.0%

LAB FILE ID:	RRF20 = <u>Y3597</u>	RRF50 = <u>Y3593</u>					
RRF100 = <u>Y3596</u>	RRF150 = <u>Y3595</u>	RRF200 = <u>Y3594</u>					
COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	RRF	% RSD
Chloromethane	* 1.247	1.177	1.387	1.310	1.507	1.326	9.6*
Bromomethane	1.548	1.406	1.583	1.525	1.627	1.538	5.4
Vinyl Chloride	* 1.440	1.425	1.577	1.486	1.657	1.517	6.5*
Chloroethane	1.004	0.976	1.085	1.024	1.099	1.038	5.1
Methylene Chloride	1.463	1.348	1.543	1.459	1.450	1.453	4.8
Acetone	0.281	0.275	0.230	0.231	0.252	0.254	9.4
Carbon Disulfide	3.537	3.800	4.099	4.029	4.286	3.950	7.3
1,1-Dichloroethene	* 1.201	1.211	1.403	1.344	1.397	1.311	7.5*
1,1-Dichloroethane	* 2.930	2.697	3.204	3.057	3.035	2.995	6.3*
1,2-Dichloroethene (total)	1.582	1.462	1.710	1.613	1.631	1.600	5.6
Chloroform	* 3.262	2.882	3.457	3.306	3.228	3.227	6.6*
1,2-Dichloroethane	2.304	2.029	2.450	2.329	2.217	2.266	6.9
2-Butanone	0.028	0.024	0.032	0.029	0.026	0.028	10.8
1,1,1-Trichloroethane	0.634	0.580	0.715	0.655	0.678	0.652	7.7
Carbon Tetrachloride	0.444	0.427	0.560	0.516	0.538	0.497	11.8
Vinyl Acetate	1.112	0.943	1.170	1.041	1.000	1.053	8.5
Bromodichloromethane	0.807	0.684	0.884	0.815	0.795	0.797	9.0
1,2-Dichloropropane	* 0.477	0.410	0.513	0.473	0.458	0.466	8.0*
cis-1,3-Dichloropropene	0.918	0.779	0.991	0.905	0.876	0.894	8.6
Trichloroethane	0.487	0.413	0.522	0.478	0.491	0.478	8.4
Dibromochloromethane	0.651	0.511	0.703	0.653	0.618	0.627	11.4
1,1,2-Trichloroethane	0.438	0.349	0.449	0.410	0.389	0.407	9.8
Benzene	1.106	0.946	1.156	1.051	1.038	1.059	7.4
Trans-1,3-Dichloropropene	0.474	0.394	0.509	0.470	0.450	0.459	9.2
Bromoform	* 0.525	0.390	0.584	0.535	0.505	0.508	14.2*
4-Methyl-2-Pentanone	0.780	0.608	0.797	0.722	0.664	0.714	11.1
2-Hexanone	0.343	0.255	0.345	0.309	0.271	0.305	13.4
Tetrachloroethene	0.478	0.379	0.518	0.474	0.482	0.466	11.1
1,1,2,2-Tetrachloroethane	* 0.977	0.764	1.057	0.966	0.903	0.933	11.7*
Toluene	* 1.209	0.951	1.271	1.179	1.139	1.150	10.5*
Chlorobenzene	* 1.143	0.874	1.206	1.121	1.087	1.086	11.6*
Ethylbenzene	* 0.678	0.519	0.692	0.639	0.624	0.630	10.8*
Styrene	1.296	0.980	1.368	1.264	1.220	1.226	12.0
Total-Xylenes	0.632	0.653	0.864	0.814	0.800	0.793	10.3
Toluene-d8	1.044	0.960	1.112	1.039	1.052	1.041	5.2
BFB	0.793	0.693	0.846	0.770	0.774	0.775	7.1
1,2-Dichloroethane-d4	2.028	1.964	2.179	2.043	2.004	2.044	4.0

7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: VERSAR INC. Contract: NYSDEC 0001298  
 Lab Code: VERSAR Case No.: SH788 SAS No.: 6016 SDG No.: 283  
 Instrument ID: Y Calibration date: 11/29/88 Time: 1103  
 Lab File ID: Y3607 Init. Calib. Date(s): 11/29/88 11/28/88  
 Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) PACK  
 Min RRF50 for SPCG(\*) = 0.300 (0.250 for Bromoform) Max %D for CCC(\*) = 25.0%

COMPOUND	RRF	RRF50	%D
Chloromethane	# 1.326	1.056	19.1 #
Bromomethane	1.538	1.393	9.4
Vinyl Chloride	* 1.517	1.286	15.2 *
Chloroethane	1.038	0.896	13.7
Methylene Chloride	1.453	1.328	8.6
Acetone	0.254	0.189	25.6
Carbon Disulfide	3.950	3.693	6.5
1,1-Dichloroethene	* 1.311	1.247	4.9 *
1,1-Dichloroethane	# 2.985	2.493	16.5 #
1,2-Dichloroethene (total)	1.600	1.491	6.8
Chloroform	* 3.227	2.642	18.1 *
1,2-Dichloroethane	2.266	1.645	27.4
2-Butanone	0.028	0.023	17.9
1,1,1-Trichloroethane	0.652	0.492	24.5
Carbon Tetrachloride	0.497	0.381	23.3
Vinyl Acetate	1.053	0.795	24.5
Bromodichloromethane	0.797	0.611	23.3
1,2-Dichloropropane	* 0.466	0.391	16.1 *
cis-1,3-Dichloropropene	0.894	0.730	18.3
Trichloroethene	0.478	0.416	13.0
Dibromochloromethane	0.627	0.500	20.3
1,1,2-Trichloroethane	0.407	0.347	14.7
Benzene	1.059	0.938	11.4
Trans-1,3-Dichloropropene	0.459	0.356	22.4
Bromoform	# 0.508	0.377	25.8 #
4-Methyl-2-Pentanone	0.714	0.512	28.3
2-Hexanone	0.305	0.211	30.8
Tetrachloroethane	0.466	0.371	20.4
1,1,2,2-Tetrachloroethane	# 0.933	0.743	20.4 #
Toluene	* 1.150	0.944	17.9 *
Chlorobenzene	* 1.086	0.896	17.5 #
Ethylbenzene	* 0.630	0.537	14.8 *
Styrene	1.226	1.018	17.0
Total-Xylenes	0.793	0.672	15.3
Toluene-d8	1.041	0.923	11.3
BFB	0.775	0.628	19.0
1,2-Dichloroethane-d4	2.044	1.576	22.9



CALIBRATION CHECK - SEMIVOLATILE HSL COMPOUNDS  
 CASE NO. 6016 B283 CONTRACT LAB: VERBAR  
 CONTRACT NO. C001298 INSTRUMENT IDENTIFIER: V  
 CALIBRATION DATE: 12/01/88  
 STANDARD FILE: V2330  
 DATE: 12/06/88 TIME: 09:51  
 MINIMUM RF FOR SPCG IS .0500  
 MAXIMUM % D FOR CCC IS 25%

SPCG \*\*  
 CCC \*

COMPOUND	MEAN RF(I)	RF(O)	% D
C315 PHENOL	2.214	2.078	6.105*
C420 2-NITROPHENOL	0.239	0.235	-0.754*
C440 2,4-DICHLOROPHENOL	0.362	0.384	-0.608*
C465 4-CHLORO-3-METHYLPHENOL	0.496	0.472	-0.484*
C915 2,4,6-TRICHLOROPHENOL	0.412	0.426	-0.241*
C635 PENTACHLOROPHENOL	0.163	0.163	-0.173*
C370 N-NITROSO-DI-N-PROPYLAM	1.723	1.532**4	10.849
C910 HEXACHLOROCYCLOPENTADIENE	0.323	0.321**	0.633
C555 2,4-DINITROPHENOL	0.197	0.185**	0.103
C560 4-NITROPHENOL	0.288	0.238**	17.495
C340 1,4-DICHLOROBENZENE	1.607	1.723	-7.247*
C460 HEXACHLOROBUTADIENE	0.211	0.225	-0.600*
C550 ACENAPHTHENE	1.522	1.609	-0.723*
C615 N-NITROSDIPHENYLAMINE	0.878	0.795	0.417*
C655 FLUORANTHENE	1.043	1.100	-0.437*
C760 DI-N-OCTYL PHTHALATE	2.931	2.727	0.943*
C775 BENZO(A)PYRENE	1.754	1.071	1.569*
C330 2-CHLOROPHENOL	1.509	1.541	-0.107
C325 BIS (2-CHLOROETHYL) ETH	2.034	1.969	0.179
C335 1,3-DICHLOROBENZENE	1.557	1.642	-0.737
C350 1,2-DICHLOROBENZENE	1.542	1.642	-0.475
C345 BENZYL ALCOHOL	0.951	0.905	0.894
C360 BIS (2-CHLOROISOPROPYL)	4.051	3.441	16.050
C355 2-METHYLPHENOL	1.405	1.389	0.423
C375 HEXACHLOROETHANE	0.839	0.855	-0.121
C365 4-METHYLPHENOL	1.495	1.399	0.365
C410 NITROBENZENE	0.687	0.641	0.544
C415 ISOPHORONE	1.320	1.253	0.093
C425 2,4-DIMETHYLPHENOL	0.529	0.528	0.742
C435 BIS (2-CHLOROETHOXY) ME	0.793	0.790	0.413
C445 1,2,4-TRICHLOROBENZENE	0.381	0.413	-0.443
C450 NAPHTHALENE	1.255	1.376	-1.127*
C430 BENZOIC ACID	0.294	0.285	0.027
C455 4-CHLOROANILINE	0.466	0.326	0.033
C470 2-METHYLNAPHTHALENE	0.751	0.813	-0.213
C520 2,4,5-TRICHLOROPHENOL	0.496	0.487	0.694
C525 2-CHLORONAPHTHALENE	1.481	1.609	-0.999
C530 2-NITROANILINE	0.863	0.791	0.991
C540 ACENAPHTHYLENE	2.229	1.378	0.651
C535 DIMETHYL PHTHALATE	1.536	1.862	-0.408
C575 2,6-DINITROTOLUENE	0.400	0.419	-0.736
C545 3-NITROANILINE	0.244	0.173	0.701
C565 DIBENZOFURAN	1.774	2.042	-0.437
C544 2,4-DINITROTOLUENE	0.575	0.536	0.133
C590 FLUORENE	1.564	1.552	0.633
C565 4-CHLOROPHENYL-PHENYLET	0.673	0.694	-0.160
C590 DIETHYLPHTHALATE	2.122	2.146	-0.122
C595 4-NITROANILINE	0.271	0.227	0.326
C610 4,6-DINITRO-2-METHYLPHENOL	0.265	0.263	0.727
C625 4-BROMOPHENYL-PHENYLETH	0.361	0.394	-0.692
C630 HEXACHLOROBENZENE	0.514	0.499	0.991
C640 PHENANTHRENE	1.131	1.169	-0.377
C645 ANTHRACENE	1.108	1.152	-0.910
C650 DI-N-BUTYLPHTHALATE	1.714	1.713	0.066
C715 PYRENE	1.065	1.148	-0.832
C720 BUTYLBENZYLPHTHALATE	1.125	1.096	0.600
C730 BENZO(A)ANTHRACENE	1.090	1.074	0.450
C740 CHRYSENE	1.090	1.162	-0.328
C725 3,3'-DICHLOROBENZIDINE	0.041	0.039	0.291
C741 BIS (2-ETHYLHEXYL) PHTH	1.551	1.613	-0.981
C765 BENZO(B)FLUORANTHENE	1.293	1.130	0.815
C770 BENZO(K)FLUORANTHENE	1.328	1.446	-0.923
C760 INDENO(1,2,3-CD)PYRENE	1.150	1.236	-0.473
C785 DIBENZ(A,H)ANTHRACENE	0.898	0.912	-0.311
C790 BENZO(G,H,I)PERYLENE	1.041	1.107	-0.372

CALIBRATION CHECK - SEMIVOLATILE HSL COMPOUNDS  
 CASE NO. 6016 B253  
 CONTRACT NO. 100/298  
 CALIBRATION DATE: 12/01/88  
 STANDARD FILE: V2397  
 DATE: 12/07/88 TIME: 16:28  
 MINIMUM RF FOR SPCC IS .0300  
 MAXIMUM % D FOR CCC IS 25%

CONTRACT LAB: VERSAR

INSTRUMENT IDENTIFIER: V

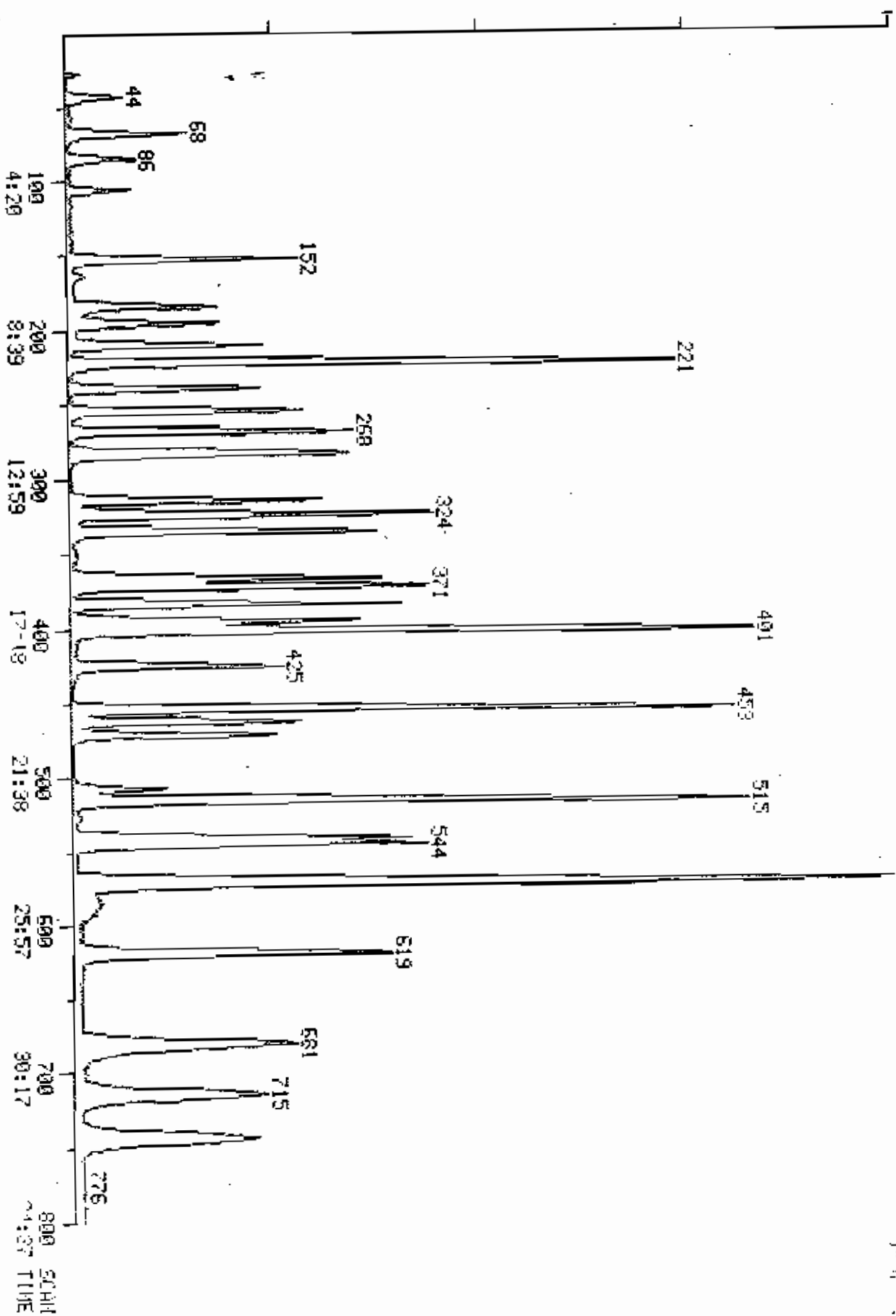
\* CCC

\* SRC

COMPOUND	MEAN RF(I)	RF(O)	% D
C315 PHENOL	2.214	2.534	-14.474 *
C420 2-NITROPHENOL	0.239	0.251	-3.147 *
C440 2,4-DICHLOROPHENOL	0.362	0.373	-8.617 *
C465 4-CHLORO-3-METHYLPHENOL	0.496	0.569	-14.672 *
C515 2,4,6-TRICHLOROPHENOL	0.412	0.423	-3.065 *
C635 PENTACHLOROPHENOL	0.163	0.188	-15.464 *
C370 N-NITROSO-DI-N-PROPYLAM	1.723	2.050 **	-10.833
C510 HEXACHLOROCYCLOPENTADIENE	0.323	0.384 **	-17.003
C555 2,4-DINITROPHENOL	0.197	0.208 **	-3.367
C560 4-NITROPHENOL	0.288	0.293 **	-2.477
C340 1,4-DICHLOROBENZENE	1.607	1.770	-10.195 *
C460 HEXACHLOROBUTADIENE	0.211	0.262	-24.319 *
C550 ACENAPHTHENE	1.522	1.520	0.114 **
C615 N-NITROSODIPHENYLAMINE	0.878	0.843	4.047 **
C655 FLUORANTHENE	1.043	1.042	0.083 **
C760 DI-N-OCTYL PHTHALATE	2.931	2.414	17.628 *
C775 BENZO(A)PYRENE	1.054	1.043	1.012 *
C330 2-CHLOROPHENOL	1.509	1.609	-6.619 *
C325 BIS (2-CHLOROETHYL) ETH	2.034	2.258	-11.034 *
C335 1,3-DICHLOROBENZENE	1.557	1.681	-7.959 *
C350 1,2-DICHLOROBENZENE	1.542	1.684	-7.197 *
C345 BENZYL ALCOHOL	0.951	0.969	-1.806 *
C360 BIS (2-CHLOROISOPROPYL)	4.051	3.153	-27.206 *
C355 2-METHYLPHENOL	1.403	1.535	-9.210 *
C375 HEXACHLOROETHANE	0.839	0.942	-12.301 *
C365 4-METHYLPHENOL	1.495	1.595	-6.695 *
C410 NITROBENZENE	0.687	0.774	-13.698 *
C415 ISOPHORONE	1.320	1.551	-17.498 *
C425 2,4-DIMETHYLPHENOL	0.529	0.598	-13.188 *
C435 BIS (2-CHLOROETHOXY) ME	0.793	0.908	-14.487 *
C445 1,2,4-TRICHLOROBENZENE	0.381	0.421	-10.354 *
C450 NAPHTHALENE	1.253	1.391	-10.839 *
C430 BENZOIC ACID	0.294	0.283	0.933
C455 4-CHLOROANILINE	0.466	0.466	0.073
C470 2-METHYLNAPHTHALENE	0.751	0.811	-6.064 *
C520 2,4,5-TRICHLOROPHENOL	0.496	0.527	-6.372 *
C525 2-CHLORONAPHTHALENE	1.481	1.544	-4.213 *
C530 2-NITROANILINE	0.863	0.983	-13.847 *
C540 ACENAPHTHYLENE	2.229	2.273	-2.035
C535 DIMETHYL PHTHALATE	1.836	1.923	-4.719 *
C575 2,6-DINITROTOLUENE	0.400	0.399	0.051
C545 3-NITROANILINE	0.244	0.251	-3.023
C565 DIBENZOFURAN	1.974	2.052	-3.970 *
C544 2,4-DINITROTOLUENE	0.573	0.584	-1.674 *
C590 FLUORENE	1.564	1.578	-0.902 *
C585 4-CHLOROPHENYL-PHENYLET	0.673	0.726	-7.873 *
C580 DIETHYLPHTHALATE	2.122	2.204	-3.881 *
C595 4-NITROANILINE	0.271	0.278	-2.439 *
C610 4,6-DINITRO-2-METHYLPHE	0.263	0.283	-7.369 *
C625 4-BROMOPHENYL-PHENYLETH	0.361	0.431	-17.593 *
C630 HEXACHLOROBENZENE	0.514	0.627	-21.829 *
C640 PHENANTHRENE	1.131	1.137	-0.506 *
C645 ANTHRACENE	1.108	1.087	1.832
C650 DI-N-BUTYLPHTHALATE	1.714	1.543	7.853 *
C715 PYRENE	1.063	1.060	0.424
C720 BUTYLBENZYLPHTHALATE	1.123	0.963	14.231 *
C730 BENZO(A)ANTHRACENE	1.090	1.017	6.859 *
C740 CHRYSENE	1.090	1.010	7.321 *
C725 3,3'-DICHLOROBENZIDINE	0.041	0.044	-7.538 *
C741 BIS (2-ETHYLHEXYL) PHTH	1.551	1.201	22.582 *
C765 BENZO(B)FLUORANTHENE	1.293	1.088	19.854 *
C770 BENZO(K)FLUORANTHENE	1.328	1.382	-4.064 *
C780 INDENO(1,2,3-CD)PYRENE	1.150	1.124	2.278 *
C785 DIBENZ(A,H)ANTHRACENE	0.838	0.831	0.830
C790 BENZO(G,H,I)PERYLENE	1.041	1.031	0.906

MID RIC  
 11/26/88 23:28:00  
 SAMPLE: CLP...USTD08.L.5. STD16429.U. 10-20.SML  
 COND.S.: INSTRUMENT V:COLIM1 SP-1000 450(C2M1H)  
 RANGE: G L: 890 LABEL: N Q: 4.0 RUMH: 4 Q: 1.0 J: 0 P: ROSE: U 20.

DATA: Y3537 #1  
 CALL: Y3537 #3  
 SCANS 1 TO 800



Quantitation Report File: Y3597

Data: Y3597.TI

1/29/89 23:28:00

Sample: CLP, , VSTD20, L, S, STD16429, V, IC-20, 5ML

Conds.: INSTRUMENT Y: COLUMN SP-1000 45C(2MIN) TO 225C@8DEG/MIN

Formula: Instrument: Y Weight: 0.001

Submitted by: VERSAR Analyst: JP Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	C101 BROMOCHLOROMETHANE****INTERNAL STANDARD#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	C043 TRICHLOROFLUOROMETHANE
11	C050 1,1-DICHLOROETHANE
12	C053 1,2-DICHLOROETHENE (TOTAL)
13	C060 CHLOROFORM
14	C065 1,2-DICHLOROETHANE
15	C015 1,2-DICHLOROETHANE-D4****SURROGATE#1****
16	C110 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
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-CHLOROETHYL VINYLETHER
30	C180 BROMOFORM
31	C120 CHLOROBENZENE-DS****INTERNAL STANDARD#3 ****
32	C210 2-HEXANONE
33	C205 4-METHYL-2-PENTANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 TOTAL XYLENES
41	C005 TOLUENE-D8****SURROGATE#2****
42	C010 4-BROMOFLUOROBENZENE****SURROGATE#3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	ZTot
1	128	221	9:34	1	1.000	A BB	66978.	50.000 UG/L*	5.38
2	50	44	1:54	1	0.200	A BB	33399.	20.000 UG/L	2.16
3	94	68	2:57	1	0.308	A BB	41466.	20.001 UG/L	2.16
4	62	85	3:41	1	0.385	A BB	38577.	20.001 UG/L	2.16
5	64	106	4:35	1	0.480	A BB	26881.	20.000 UG/L	2.16
6	84	152	6:35	1	0.688	A BB	39186.	20.001 UG/L	2.16
7	43	164	7:06	1	0.743	A BB	7522.	20.001 UG/L	2.16
8	76	184	7:58	1	0.833	A BV	94736.	20.000 UG/L	2.16
9	96	210	9:05	1	0.951	A BB	32160.	20.001 UG/L	2.16
10	101	195	8:26	1	0.883	A BB	55511.	20.001 UG/L	2.16
11	63	239	10:20	1	1.082	A BB	78486.	20.001 UG/L	2.16
12	96	254	10:59	1	1.150	A BB	42359.	20.000 UG/L	2.16
13	83	268	11:36	1	1.213	A BB	87383.	20.001 UG/L	2.16
14	62	284	12:17	1	1.286	A BB	61725.	20.000 UG/L	2.16
15	65	282	12:12	1	1.277	A BB	54322.	20.000 UG/L*	2.16
16	114	453	19:36	16	1.000	A BB	282120.	50.000 UG/L*	5.38
17	97	314	13:35	16	0.694	A BB	71507.	20.001 UG/L	2.16
18	72	281	12:09	16	0.621	A BB	3159.	20.000 UG/L	2.16
19	117	323	13:58	16	0.714	A BV	50029.	20.000 UG/L	2.16
20	43	324	14:01	16	0.716	A BV	125383.	20.001 UG/L	2.16
21	83	335	14:30	16	0.740	A BB	91031.	20.000 UG/L	2.16
22	63	366	15:50	16	0.808	A BB	53728.	20.001 UG/L	2.16
23	75	371	16:03	16	0.819	A BB	103499.	20.000 UG/L	2.16
24	130	383	16:34	16	0.846	A BB	54885.	20.000 UG/L	2.16
25	129	399	17:16	16	0.881	A BB	73358.	20.000 UG/L	2.16
26	97	401	17:21	16	0.886	A BB	49364.	20.000 UG/L	2.16
27	78	394	17:03	16	0.870	A BB	124759.	20.001 UG/L	2.16
28	75	401	17:21	16	0.886	A BB	53469.	20.000 UG/L	2.16
29	63	425	18:23	16	0.939	A BB	40046.	20.000 UG/L	2.16
30	173	462	19:59	16	1.020	A BB	59213.	20.000 UG/L	2.16
31	117	569	24:37	31	1.000	A BB	242169.	50.000 UG/L*	5.38
32	43	507	21:56	31	0.892	A BB	33175.	20.001 UG/L	2.16
33	43	471	20:23	31	0.828	A BV	75524.	20.001 UG/L	2.16
34	164	515	22:17	31	0.906	A BB	46273.	20.000 UG/L	2.16
35	83	515	22:17	31	0.906	A BB	94574.	20.000 UG/L	2.16
36	91	544	23:32	31	0.957	A BB	117059.	20.001 UG/L	2.16
37	112	572	24:45	31	1.006	A BB	110640.	20.001 UG/L	2.16
38	106	619	26:47	31	1.088	A BB	65641.	20.000 UG/L	2.16
39	104	714	30:53	31	1.255	A BB	125541.	20.001 UG/L	2.16
40	106	744	32:11	31	1.308	A BB	80548.	20.000 UG/L	2.16
41	98	540	23:22	31	0.950	A BB	101070.	20.001 UG/L*	2.16
42	95	681	29:28	31	1.197	A BB	76790.	20.000 UG/L*	2.16

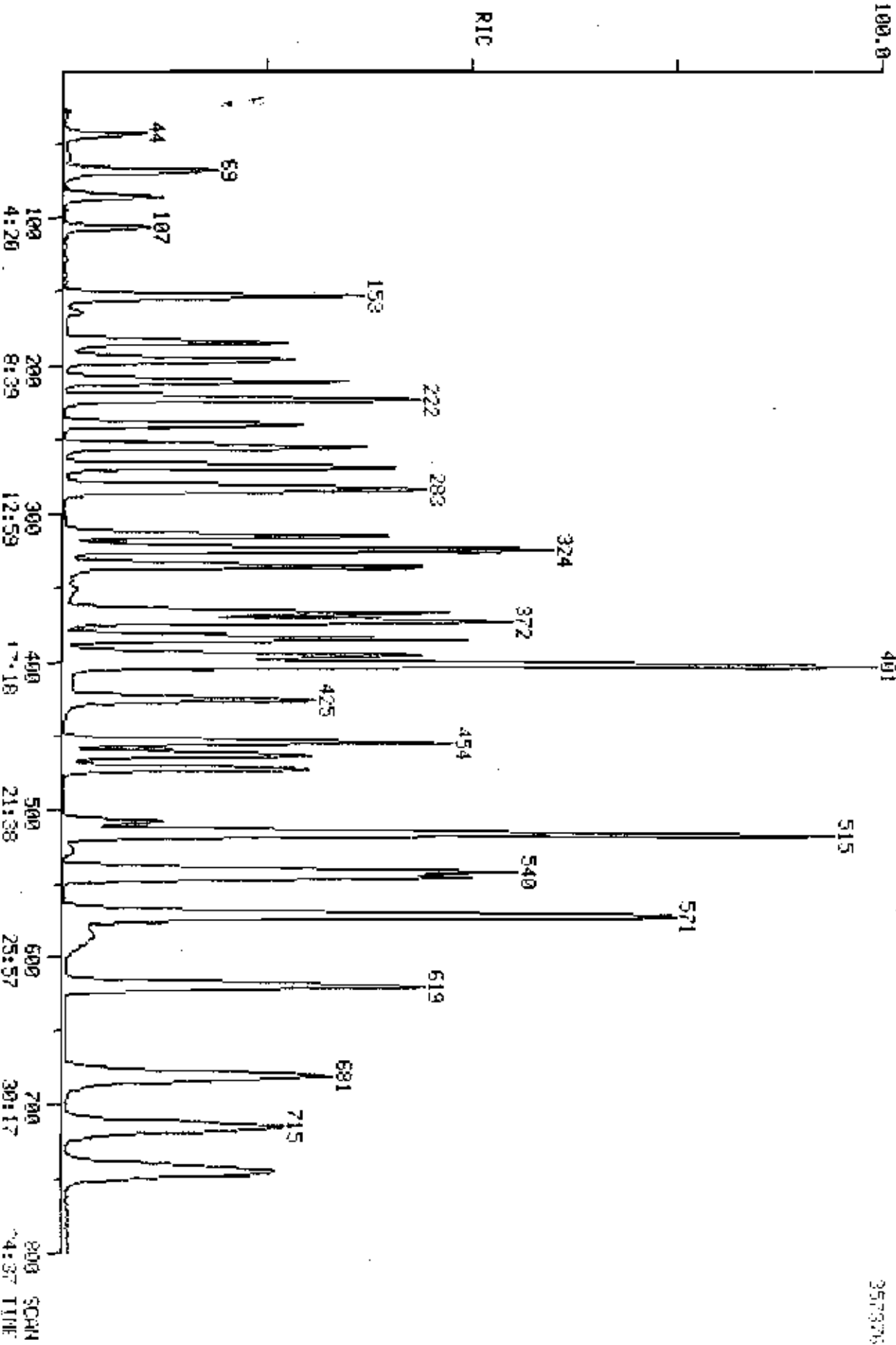
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:34	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:54	1.00	0.200	1.00	20.00	20.00	1.247	1.247	1.00
3	2:57	1.00	0.308	1.00	20.01	20.00	1.548	1.548	1.00
4	3:41	1.00	0.385	1.00	20.01	20.00	1.440	1.440	1.00
5	4:35	1.00	0.480	1.00	20.00	20.00	1.004	1.004	1.00
6	6:35	1.00	0.688	1.00	20.01	20.00	1.463	1.463	1.00
7	7:06	1.00	0.743	1.00	20.01	20.00	0.281	0.281	1.00
8	7:58	1.00	0.833	1.00	20.00	20.00	3.537	3.537	1.00
9	9:05	1.00	0.951	1.00	20.01	20.00	1.201	1.201	1.01
10	8:26	1.00	0.883	1.00	20.01	20.00	2.072	2.072	1.00
11	10:20	1.00	1.082	1.00	20.01	20.00	2.930	2.930	1.00
12	10:59	1.00	1.150	1.00	20.00	20.00	1.532	1.532	1.00

Y3597

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
13	11:36	1.00	1.213	1.00	20.01	20.00	3.262	3.262	1.00
14	12:17	1.00	1.286	1.00	20.00	20.00	2.304	2.304	1.00
15	12:12	1.00	1.277	1.00	20.00	20.00	2.028	2.028	1.00
16	17:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:35	1.00	0.694	1.00	20.01	20.00	0.634	0.634	1.00
18	12:09	1.00	0.621	1.00	20.00	20.00	0.028	0.028	1.00
19	13:58	1.00	0.714	1.00	20.00	20.00	0.444	0.444	1.00
20	14:01	1.00	0.716	1.00	20.01	20.00	1.112	1.112	1.00
21	14:30	1.00	0.740	1.00	20.00	20.00	0.807	0.807	1.00
22	15:50	1.00	0.808	1.00	20.01	20.00	0.477	0.477	1.00
23	16:03	1.00	0.819	1.00	20.00	20.00	0.918	0.918	1.00
24	16:34	1.00	0.846	1.00	20.00	20.00	0.487	0.487	1.00
25	17:16	1.00	0.881	1.00	20.00	20.00	0.651	0.651	1.00
26	17:21	1.00	0.886	1.00	20.00	20.00	0.438	0.438	1.00
27	17:03	1.00	0.870	1.00	20.01	20.00	1.106	1.106	1.01
28	17:21	1.00	0.886	1.00	20.00	20.00	0.474	0.474	1.00
29	18:23	1.00	0.939	1.00	20.00	20.00	0.355	0.355	1.00
30	19:59	1.00	1.020	1.00	20.00	20.00	0.525	0.525	1.00
31	24:37	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:56	1.00	0.892	1.00	20.01	20.00	0.343	0.343	1.00
33	20:23	1.00	0.828	1.00	20.01	20.00	0.780	0.780	1.00
34	22:17	1.00	0.906	1.00	20.00	20.00	0.478	0.478	1.00
35	22:17	1.00	0.906	1.00	20.00	20.00	0.977	0.977	1.00
36	20:32	1.00	0.957	1.00	20.01	20.00	1.209	1.209	1.01
37	24:45	1.00	1.006	1.00	20.01	20.00	1.143	1.143	1.00
38	26:47	1.00	1.088	1.00	20.00	20.00	0.678	0.678	1.00
39	30:53	1.00	1.255	1.00	20.01	20.00	1.296	1.296	1.00
40	32:11	1.00	1.308	1.00	20.00	20.00	0.832	0.832	1.00
41	23:22	1.00	0.950	1.00	20.01	20.00	1.044	1.044	1.00
42	29:28	1.00	1.197	1.00	20.00	20.00	0.793	0.793	1.00

V3597

MID RIC 11/28/98 18:40:00 DATA: Y3593 #1  
 CALL: Y3593 #3  
 SAMPLE: CLP, JUSTISE, L.S. ST016326, U, CC-050, SML  
 COND.: INSTRUMENT Y: SP-1000 COLUMN 450 (2MTR) TO 2250 (8006) MTR  
 RANGE: G 1, 300 LABEL: N 0, 4.0 QUANT: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y3593

File: Y3593.TI

Date: 7/28/88 16:40:00

Sample: CLP, VSTD50, L, S, STD16325, U, CC-050, 5ML

Method: INSTRUMENT Y: SP-1000 COLUMN 450(2MIN) TO 2250(8DEG/MIN)

Formula: Instrument: Y Weight: 0.001

Submitted by: VERSAR Analyst: JDR Acct No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

sp. fac. from Library Entry

0	Name
1	C101 BROMOCHLOROMETHANE****INTERNAL STANDARD#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
0	C043 TRICHLOROFLUOROMETHANE
1	C050 1,1-DICHLOROETHANE
2	C053 1,2-DICHLOROETHENE (TOTAL)
3	C060 CHLOROFORM
4	C065 1,2-DICHLOROETHANE
5	CE15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
6	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
7	C115 1,1,1-TRICHLOROETHANE
8	CI10 2-BUTANONE
9	C120 CARBON TETRACHLORIDE
0	C125 VINYL ACETATE
1	C130 BROMODICHLOROMETHANE
2	C140 1,2-DICHLOROPROPANE
3	C145 CIS-1,3-DICHLOROPROPENE
4	C150 TRICHLOROETHENE
5	C155 DIDROMOCHLOROMETHANE
6	C160 1,1,2-TRICHLOROETHANE
7	C165 BENZENE
8	C170 TRANS-1,3-DICHLOROPROPENE
9	C175 2-CHLOROETHYLVINYLETHER
0	C180 BROMOFORM
1	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
2	C210 2-HEXANONE
3	C205 4-METHYL-2-PENTANONE
4	C220 TETRACHLOROETHENE
5	C225 1,1,2,2-TETRACHLOROETHANE
6	C230 TOLUENE
7	C235 CHLOROBENZENE
8	C240 ETHYLBENZENE
9	C245 STYRENE
0	C250 TOTAL XYLENES
1	CS05 TOLUENE-D8***SURROGATE#2***
2	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***



Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
11:36	1.00	1.208	1.00	50.01	50.00	2.882	2.882	1.00
12:20	1.00	1.284	1.00	50.01	50.00	2.027	2.027	1.00
12:12	1.00	1.271	1.00	50.01	50.00	1.964	1.964	1.00
19:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
13:38	1.00	0.694	1.00	50.01	50.00	0.980	0.980	1.00
12:09	1.00	0.619	1.00	50.01	50.00	0.024	0.024	1.00
13:58	1.00	0.712	1.00	50.01	50.00	0.427	0.427	1.00
14:01	1.00	0.714	1.00	50.00	50.00	0.943	0.943	1.00
14:30	1.00	0.738	1.00	50.01	50.00	0.684	0.684	1.00
15:50	1.00	0.807	1.00	50.01	50.00	0.410	0.410	1.00
16:06	1.00	0.820	1.00	50.01	50.00	0.779	0.779	1.00
16:34	1.00	0.844	1.00	50.01	50.00	0.413	0.413	1.00
17:16	1.00	0.882	1.00	50.01	50.00	0.511	0.511	1.00
17:24	1.00	0.886	1.00	50.00	50.00	0.349	0.349	1.00
17:05	1.00	0.871	1.00	50.00	50.00	0.946	0.946	1.00
17:21	1.00	0.884	1.00	50.01	50.00	0.394	0.394	1.00
18:23	1.00	0.937	1.00	50.01	50.00	0.303	0.303	1.00
20:02	1.00	1.020	1.00	50.01	50.00	0.390	0.390	1.00
24:37	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
21:59	1.00	0.893	1.00	50.01	50.00	0.255	0.255	1.00
20:25	1.00	0.830	1.00	50.01	50.00	0.608	0.608	1.00
22:17	1.00	0.906	1.00	50.01	50.00	0.379	0.379	1.00
22:19	1.00	0.907	1.00	50.01	50.00	0.764	0.764	1.00
23:35	1.00	0.958	1.00	50.00	50.00	0.951	0.951	1.00
24:45	1.00	1.006	1.00	50.00	50.00	0.874	0.874	1.00
26:47	1.00	1.088	1.00	50.01	50.00	0.519	0.519	1.00
30:56	1.00	1.257	1.00	50.01	50.00	0.980	0.980	1.01
32:14	1.00	1.310	1.00	50.00	50.00	0.653	0.653	1.00
23:22	1.00	0.950	1.00	50.00	50.00	0.960	0.960	1.00
29:28	1.00	1.197	1.00	50.00	50.00	0.693	0.693	1.00

MID RIC  
11/28/88 22:40:00  
CALI: Y3596 #3  
DATA: Y3596 #1  
SCANS 1 TO 800

V3596

Quantitation Report File: Y3596

Data: Y3596.T1

11/28/88 22:40:00

Sample: CLF,,,VSTD100,L,S,STD16428,V,IC-100,5ML

Conds.: INSTRUMENT Y: COLUMN SP-1000 45C(2MIN) TO 225C@SDEG/MIN

Formula: Instrument: Y Weight: 0.001

Submitted by: VERSAR Analyst: JP Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CO10 CHLOROMETHANE
3	CO15 BROMOMETHANE
4	CO20 VINYL CHLORIDE
5	CO25 CHLOROETHANE
6	CO30 METHYLENE CHLORIDE
7	CO39 ACETONE
8	CO40 CARBON DISULFIDE
9	CO45 1,1-DICHLOROETHENE
10	CO43 TRICHLOROFLUOROMETHANE
11	CO50 1,1-DICHLOROETHANE
12	CO53 1,2-DICHLOROETHENE (TOTAL)
13	CO60 CHLOROFORM
14	CO69 1,2-DICHLOROETHANE
15	CS15 1,2-DICHLOROETHANE-D4****SURROGATE#1****
16	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
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	C190 TRICHLOROETHENE
25	C155 OIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYL VINYLETHER
30	C180 BROMOFORM
31	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
32	C210 2-HEXANONE
33	C205 4-METHYL-2-PENTANONE
34	C220 TETRACHLOROETHENE
35	C229 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 TOTAL XYLENES
41	CS05 TOLUENE-D8****SURROGATE#2****
42	CS10 4-BROMOFLUOROBENZENE****SURROGATE#3****

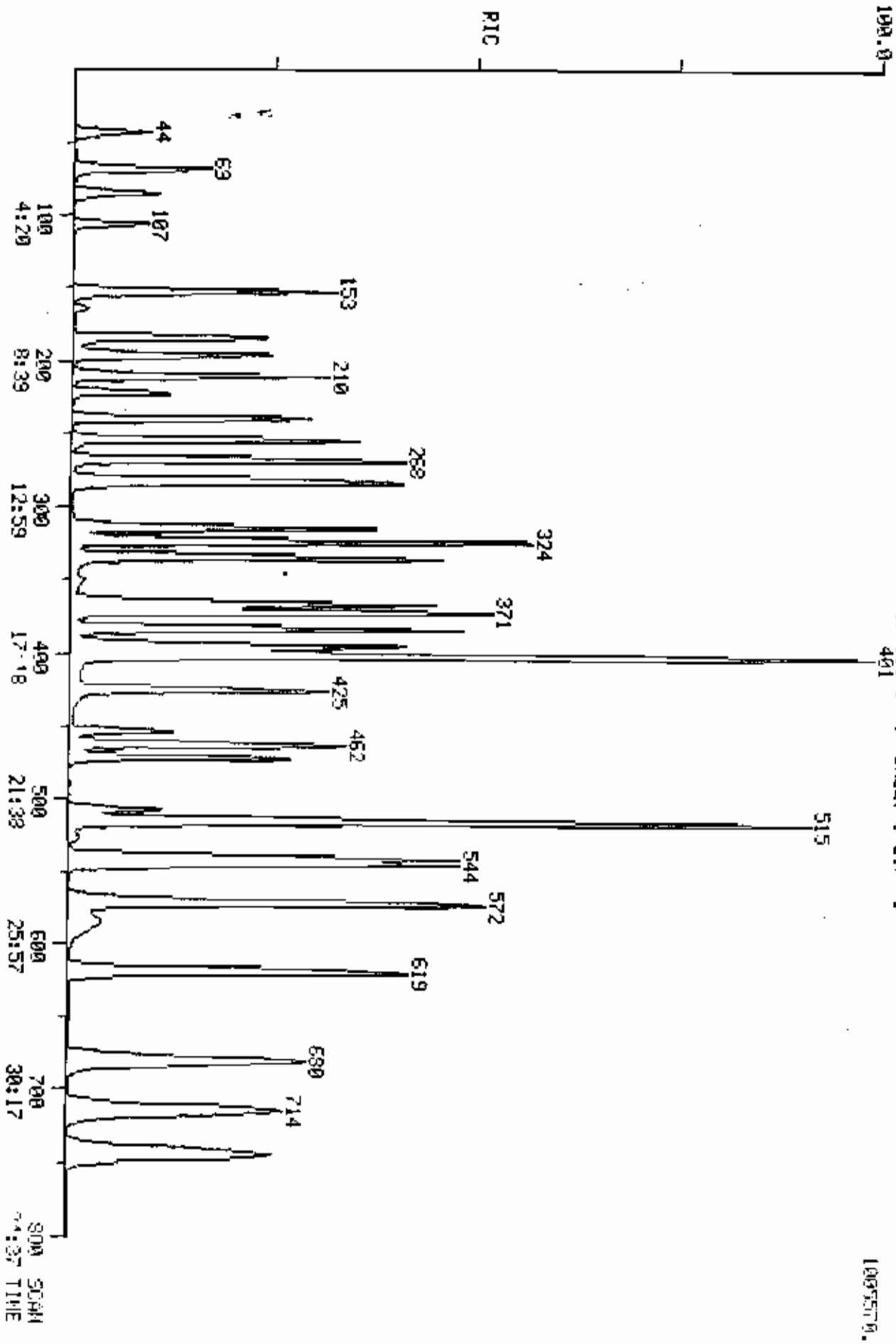
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	UTot
1	128	221	9:34	1	1.000	A BB	59015.	50.000 UG/L*	1.24
2	50	44	1:54	1	0.200	A BB	163636.	100.001 UG/L	2.47
3	94	68	2:57	1	0.308	A BB	186797.	100.001 UG/L	2.47
4	62	85	3:41	1	0.385	A BB	186047.	100.001 UG/L	2.47
5	64	106	4:35	1	0.480	A BB	127992.	100.001 UG/L	2.47
6	84	152	6:35	1	0.688	A BB	182056.	100.001 UG/L	2.47
7	43	164	7:06	1	0.743	A BB	27088.	100.001 UG/L	2.47
8	76	183	7:55	1	0.829	A BB	483714.	100.001 UG/L	2.47
9	96	209	9:03	1	0.946	A BB	165492.	100.001 UG/L	2.47
10	101	195	8:26	1	0.883	A BB	300225.	100.001 UG/L	2.47
11	63	239	10:20	1	1.082	A BB	378100.	100.001 UG/L	2.47
12	96	254	10:59	1	1.150	A BB	201757.	100.001 UG/L	2.47
13	83	268	11:36	1	1.213	A BV	408009.	100.001 UG/L	2.47
14	62	284	12:17	1	1.286	A BB	289154.	100.001 UG/L	2.47
15	65	282	12:12	1	1.277	A BV	257138.	100.001 UG/L*	2.47
16	114	453	19:36	16	1.000	A BB	241053.	50.000 UG/L*	1.24
17	97	314	13:35	16	0.694	A BB	345121.	100.001 UG/L	2.47
18	72	281	12:09	16	0.621	A BB	15328.	100.001 UG/L	2.47
19	117	323	13:58	16	0.714	A VB	270095.	100.001 UG/L	2.47
20	43	324	14:01	16	0.716	A BB	564692.	100.001 UG/L	2.47
21	83	305	14:30	16	0.740	A BB	426315.	100.001 UG/L	2.47
22	63	366	15:50	16	0.808	A BB	247564.	100.001 UG/L	2.47
23	75	371	16:03	16	0.819	A BB	478114.	100.001 UG/L	2.47
24	130	383	16:34	16	0.846	A BB	251852.	100.001 UG/L	2.47
25	129	399	17:16	16	0.981	A BB	339302.	100.001 UG/L	2.47
26	97	401	17:21	16	0.886	A BB	216311.	100.001 UG/L	2.47
27	78	394	17:03	16	0.870	A BB	557605.	100.001 UG/L	2.47
28	75	401	17:21	16	0.886	A BB	245393.	100.001 UG/L	2.47
29	63	425	18:23	16	0.939	A BB	186941.	100.001 UG/L	2.47
30	173	462	19:59	16	1.020	A BB	281891.	100.001 UG/L	2.47
31	117	569	24:37	31	1.000	A BB	201616.	50.000 UG/L*	1.24
32	43	507	21:56	31	0.892	A BB	138895.	100.001 UG/L	2.47
33	43	471	20:23	31	0.828	A BB	321050.	100.001 UG/L	2.47
34	164	514	22:14	31	0.904	A BB	208824.	100.001 UG/L	2.47
35	83	515	22:17	31	0.906	A BB	426031.	100.001 UG/L	2.47
36	91	544	23:32	31	0.957	A BB	512329.	100.001 UG/L	2.47
37	112	572	24:45	31	1.006	A BB	486121.	100.001 UG/L	2.47
38	106	619	26:47	31	1.088	A BB	278871.	100.001 UG/L	2.47
39	104	714	30:53	31	1.255	A BB	551517.	100.001 UG/L	2.47
40	106	744	32:11	31	1.308	A BB	348091.	100.000 UG/L	2.47
41	98	540	23:22	31	0.950	A BB	448353.	100.001 UG/L*	2.47
42	95	680	29:25	31	1.196	A BB	341006.	100.001 UG/L*	2.47

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:34	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:54	1.00	0.200	1.00	100.01	100.00	1.387	1.387	1.01
3	2:57	1.00	0.308	1.00	100.01	100.00	1.583	1.583	1.00
4	3:41	1.00	0.385	1.00	100.01	100.00	1.577	1.577	1.00
5	4:35	1.00	0.480	1.00	100.01	100.00	1.085	1.085	1.01
6	6:35	1.00	0.688	1.00	100.01	100.00	1.543	1.543	1.01
7	7:06	1.00	0.743	1.00	100.01	100.00	0.230	0.230	1.00
8	7:55	1.00	0.829	1.00	100.01	100.00	4.099	4.099	1.00
9	9:03	1.00	0.946	1.00	100.01	100.00	1.403	1.403	1.00
10	8:26	1.00	0.883	1.00	100.01	100.00	2.544	2.544	1.00
11	10:20	1.00	1.082	1.00	100.01	100.00	2.204	2.204	1.00
12	10:59	1.00	1.150	1.00	100.01	100.00	1.710	1.710	1.01

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
13	11:36	1.00	1.213	1.00	100.01	100.00	3.457	3.457	1.00
14	12:17	1.00	1.286	1.00	100.01	100.00	2.450	2.450	1.00
15	12:12	1.00	1.277	1.00	100.01	100.00	2.179	2.179	1.01
16	19:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:35	1.00	0.694	1.00	100.01	100.00	0.715	0.715	1.00
18	12:09	1.00	0.621	1.00	100.01	100.00	0.032	0.032	1.00
19	13:58	1.00	0.714	1.00	100.01	100.00	0.560	0.560	1.00
20	14:01	1.00	0.716	1.00	100.01	100.00	1.170	1.170	1.01
21	14:30	1.00	0.740	1.00	100.01	100.00	0.884	0.884	1.00
22	15:50	1.00	0.808	1.00	100.01	100.00	0.513	0.513	1.00
23	16:03	1.00	0.819	1.00	100.01	100.00	0.991	0.991	1.00
24	16:34	1.00	0.846	1.00	100.01	100.00	0.522	0.522	1.00
25	17:16	1.00	0.881	1.00	100.01	100.00	0.703	0.703	1.00
26	17:21	1.00	0.886	1.00	100.01	100.00	0.449	0.449	1.00
27	17:03	1.00	0.870	1.00	100.01	100.00	1.156	1.156	1.01
28	17:21	1.00	0.886	1.00	100.01	100.00	0.509	0.509	1.00
29	18:23	1.00	0.939	1.00	100.01	100.00	0.388	0.388	1.01
30	19:59	1.00	1.020	1.00	100.01	100.00	0.584	0.584	1.00
31	24:37	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:56	1.00	0.892	1.00	100.01	100.00	0.345	0.345	1.00
33	20:23	1.00	0.828	1.00	100.01	100.00	0.797	0.797	1.00
34	22:14	1.00	0.904	1.00	100.01	100.00	0.518	0.518	1.00
35	22:17	1.00	0.906	1.00	100.01	100.00	1.057	1.057	1.00
36	23:32	1.00	0.957	1.00	100.01	100.00	1.271	1.271	1.01
37	24:45	1.00	1.006	1.00	100.01	100.00	1.206	1.206	1.00
38	26:47	1.00	1.088	1.00	100.01	100.00	0.692	0.692	1.00
39	30:53	1.00	1.255	1.00	100.01	100.00	1.368	1.368	1.01
40	32:11	1.00	1.308	1.00	100.00	100.00	0.864	0.864	1.00
41	23:22	1.00	0.950	1.00	100.01	100.00	1.112	1.112	1.01
42	29:25	1.00	1.196	1.00	100.01	100.00	0.846	0.846	1.00

Y 3596

MID RIC 11/28/88 21:52:88  
 DATA: Y3595 #1  
 CALL: Y3595 #3  
 SAMPLE: Q.P., USTD150, L.S., STD16427, U, IC-150, 5M  
 CONDOS.: INSTRUMENT Y: COLUMN1 SP-1000 45C (ZMIN) TO 225C @ 80 DEG/MIN  
 RANGE: 5 1, 800 LABEL: N 0, 4.0 GAIN: A 0, 1.0 J 0 BASE: U 20, 3



1007579.

Quantitation Report File: Y3595

Data: Y3595.TI

11/28/88 21:52:00

Sample: CLP,,,VSTD150,L,S,STD16427,V,IC-150,5ML

Conds.: INSTRUMENT Y: COLUMN SP-1000 45C(2MIN) TO 225C@8DEG/MIN

Formula: Instrument: Y Weight: 0.001

Submitted by: VERSAR Analyst: JP Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CO10 CHLOROMETHANE
3	CO15 BROMOMETHANE
4	CO20 VINYL CHLORIDE
5	CO25 CHLOROETHANE
6	CO30 METHYLENE CHLORIDE
7	CO35 ACETONE
8	CO40 CARBON DISULFIDE
9	CO45 1,1-DICHLOROETHENE
10	CO43 TRICHLOROFLUOROMETHANE
11	CO50 1,1-DICHLOROETHANE
12	CO53 1,2-DICHLOROETHENE (TOTAL)
13	CO60 CHLOROFORM
14	CO69 1,2-DICHLOROETHANE
15	CS19 1,2-DICHLOROETHANE-D4****SURROGATE#1****
16	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
17	CI15 1,1,1-TRICHLOROETHANE
18	CI10 2-BUTANONE
19	CI20 CARBON TETRACHLORIDE
20	CI25 VINYL ACETATE
21	CI30 BROMODICHLOROMETHANE
22	CI40 1,2-DICHLOROPROPANE
23	CI45 CIS-1,3-DICHLOROPROPENE
24	CI50 TRICHLOROETHENE
25	CI55 DIBROMOCHLOROMETHANE
26	CI60 1,1,2-TRICHLOROETHANE
27	CI65 BENZENE
28	CI70 TRANS-1,3-DICHLOROPROPENE
29	CI75 2-CHLOROETHYL VINYLETHER
30	CI80 BROMOFORM
31	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
32	CI20 2-HEXANONE
33	CI205 4-METHYL-2-PENTANONE
34	CI220 TETRACHLOROETHENE
35	CI225 1,1,2,2-TETRACHLOROETHANE
36	CI230 TOLUENE
37	CI235 CHLOROBENZENE
38	CI240 ETHYLBENZENE
39	CI245 STYRENE
40	CI250 TOTAL XYLENES
41	CS05 TOLUENE-D8****SURROGATE#2****
42	CS10 4-BROMOFLUOROBENZENE****SURROGATE#3****

No	m/z	Scan	Time	Ref	RRT	Meth	Area (Hght)	Amount	XTot
1	128	221	9:34	1	1.000	A BB	62664.	50.000 UG/L*	0.84
2	50	44	1:54	1	0.200	A BB	246090.	150.001 UG/L	2.51
3	94	69	2:59	1	0.313	A BB	286605.	150.001 UG/L	2.51
4	62	85	3:41	1	0.385	A BB	279255.	150.001 UG/L	2.51
5	64	106	4:35	1	0.480	A BB	192464.	150.001 UG/L	2.51
6	84	152	6:35	1	0.688	A BB	274235.	150.001 UG/L	2.51
7	43	164	7:06	1	0.743	A BV	43271.	150.001 UG/L	2.50
8	76	183	7:55	1	0.829	A BB	757252.	150.001 UG/L	2.51
9	96	210	9:05	1	0.951	A BB	252480.	150.001 UG/L	2.51
10	101	196	8:29	1	0.887	A BV	457286.	150.001 UG/L	2.50
11	63	237	10:20	1	1.082	A BB	574589.	150.001 UG/L	2.50
12	96	254	10:59	1	1.150	A BB	303162.	150.001 UG/L	2.51
13	83	268	11:36	1	1.213	A BV	621425.	150.001 UG/L	2.51
14	62	284	12:17	1	1.286	A BB	437812.	150.001 UG/L	2.51
15	65	282	12:12	1	1.277	A BB	384031.	150.001 UG/L*	2.51
16	114	453	19:36	16	1.000	A BB	265731.	50.000 UG/L*	0.84
17	97	314	13:35	16	0.694	A BB	521505.	150.001 UG/L	2.51
18	72	281	12:09	16	0.621	A BB	22979.	150.001 UG/L	2.50
19	117	323	13:58	16	0.714	A BV	411039.	150.001 UG/L	2.51
20	43	324	14:01	16	0.716	A BB	629448.	150.001 UG/L	2.51
21	83	335	14:30	16	0.740	A BB	649665.	150.000 UG/L	2.50
22	63	366	15:50	16	0.808	A BB	376514.	150.000 UG/L	2.50
23	75	372	16:06	16	0.822	A BB	720963.	150.001 UG/L	2.51
24	130	383	16:34	16	0.846	A BB	380328.	150.001 UG/L	2.51
25	129	399	17:16	16	0.881	A BB	519780.	150.001 UG/L	2.50
26	97	401	17:21	16	0.886	A BB	326738.	150.001 UG/L	2.51
27	78	394	17:03	16	0.870	A BB	637473.	150.001 UG/L	2.51
28	75	401	17:21	16	0.886	A BB	374500.	150.001 UG/L	2.50
29	63	425	18:23	16	0.939	A BB	283439.	150.001 UG/L	2.50
30	173	462	19:59	16	1.020	A BB	425722.	150.000 UG/L	2.50
31	117	569	24:37	31	1.000	A BB	219905.	50.000 UG/L*	0.84
32	43	508	21:59	31	0.873	A BB	203381.	150.000 UG/L	2.50
33	43	472	20:25	31	0.830	A BB	475959.	150.001 UG/L	2.50
34	164	514	22:14	31	0.904	A BB	312312.	150.001 UG/L	2.50
35	83	515	22:17	31	0.906	A BB	636758.	150.001 UG/L	2.50
36	91	544	23:32	31	0.957	A BB	777590.	150.001 UG/L	2.50
37	112	572	24:45	31	1.006	A BB	738890.	150.001 UG/L	2.51
38	106	619	26:47	31	1.088	A BB	421073.	150.001 UG/L	2.51
39	104	715	30:56	31	1.257	A BB	833765.	150.001 UG/L	2.51
40	106	743	32:09	31	1.306	A BB	536802.	150.001 UG/L	2.50
41	98	540	23:22	31	0.950	A BB	685438.	150.001 UG/L*	2.51
42	95	680	29:25	31	1.196	A BB	507968.	150.001 UG/L*	2.50

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:34	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:54	1.00	0.200	1.00	150.01	150.00	1.310	1.310	1.00
3	2:59	1.00	0.313	1.00	150.01	150.00	1.525	1.525	1.01
4	3:41	1.00	0.385	1.00	150.01	150.00	1.486	1.486	1.01
5	4:35	1.00	0.480	1.00	150.01	150.00	1.024	1.024	1.01
6	6:35	1.00	0.688	1.00	150.01	150.00	1.459	1.459	1.01
7	7:06	1.00	0.743	1.00	150.01	150.00	0.231	0.231	1.00
8	7:55	1.00	0.829	1.00	150.01	150.00	4.029	4.029	1.01
9	9:05	1.00	0.951	1.00	150.01	150.00	1.344	1.344	1.01
10	8:29	1.00	0.887	1.00	150.01	150.00	2.433	2.433	1.00
11	10:20	1.00	1.082	1.00	150.01	150.00	3.057	3.057	1.00
12	10:59	1.00	1.150	1.00	150.01	150.00	1.613	1.613	1.00

✓3545

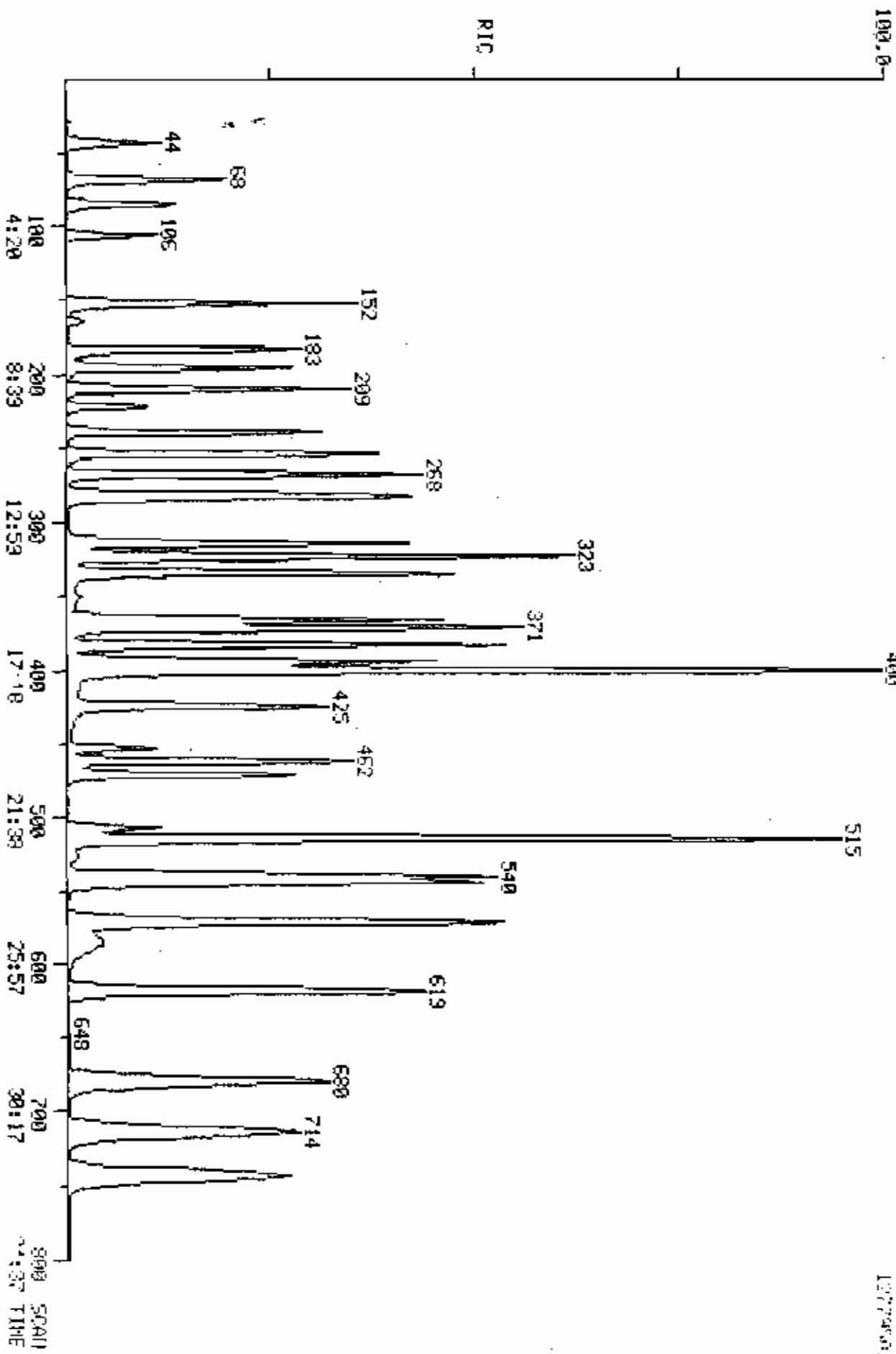
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
13	11:36	1.00	1.213	1.00	150.01	150.00	3.306	3.306	1.01
14	12:17	1.00	1.286	1.00	150.01	150.00	2.329	2.329	1.00
15	12:12	1.00	1.277	1.00	150.01	150.00	2.043	2.043	1.00
16	19:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:35	1.00	0.694	1.00	150.01	150.00	0.655	0.655	1.00
18	12:09	1.00	0.621	1.00	150.01	150.00	0.029	0.029	1.00
19	13:58	1.00	0.714	1.00	150.01	150.00	0.516	0.516	1.00
20	14:01	1.00	0.716	1.00	150.01	150.00	1.041	1.041	1.01
21	14:30	1.00	0.740	1.00	150.00	150.00	0.815	0.815	1.00
22	15:50	1.00	0.809	1.00	150.00	150.00	0.473	0.473	1.00
23	16:06	1.00	0.822	1.00	150.01	150.00	0.905	0.905	1.00
24	16:34	1.00	0.846	1.00	150.01	150.00	0.478	0.478	1.00
25	17:16	1.00	0.881	1.00	150.01	150.00	0.553	0.553	1.00
26	17:21	1.00	0.886	1.00	150.01	150.00	0.410	0.410	1.01
27	17:03	1.00	0.870	1.00	150.01	150.00	1.051	1.051	1.01
28	17:21	1.00	0.886	1.00	150.01	150.00	0.470	0.470	1.00
29	18:23	1.00	0.939	1.00	150.01	150.00	0.356	0.356	1.00
30	19:59	1.00	1.020	1.00	150.00	150.00	0.535	0.535	1.00
31	24:37	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:59	1.00	0.893	1.00	150.00	150.00	0.309	0.309	1.00
33	20:25	1.00	0.830	1.00	150.01	150.00	0.722	0.722	1.00
34	22:14	1.00	0.904	1.00	150.01	150.00	0.474	0.474	1.00
35	22:17	1.00	0.906	1.00	150.01	150.00	0.966	0.966	1.00
36	23:32	1.00	0.957	1.00	150.01	150.00	1.179	1.179	1.00
37	24:45	1.00	1.006	1.00	150.01	150.00	1.121	1.121	1.01
38	26:47	1.00	1.088	1.00	150.01	150.00	0.639	0.639	1.00
39	30:56	1.00	1.257	1.00	150.01	150.00	1.264	1.264	1.00
40	32:09	1.00	1.306	1.00	150.01	150.00	0.814	0.814	1.00
41	23:22	1.00	0.950	1.00	150.01	150.00	1.039	1.039	1.00
42	29:25	1.00	1.196	1.00	150.01	150.00	0.770	0.770	1.00



MID RIC  
 11/28/98 20:57:00  
 SAMPLE: CLP, JUSTD200, L.S. STD16426.U, IC-200, SML  
 COND.: INSTRUMENT Y: COLUMN SP-1000 4SC(2MIN) TO 225000000.MIN  
 RANGE: G 1, 899 LABEL: N 0, 4.0 C00H: R 0, 1.0 U 0 BOSE: U 20, 3

DATA: Y3594 #1  
 CALL: Y3594 #3  
 SCALE: 1 TO 200

12/7/98



Quantitation Report File: Y3594

Data: Y3594.TI

1/28/88 20:57:00

Sample: CLP, , , VSTD200, L, S, STD16426, V, IC-200, SML

Conds.: INSTRUMENT Y: COLUMN SP-1000 450(2MIN) TO 225C@8DEG/MIN

Formula: Instrument: Y Weight: 0.001

Submitted by: VERSAR Analyst: JP Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

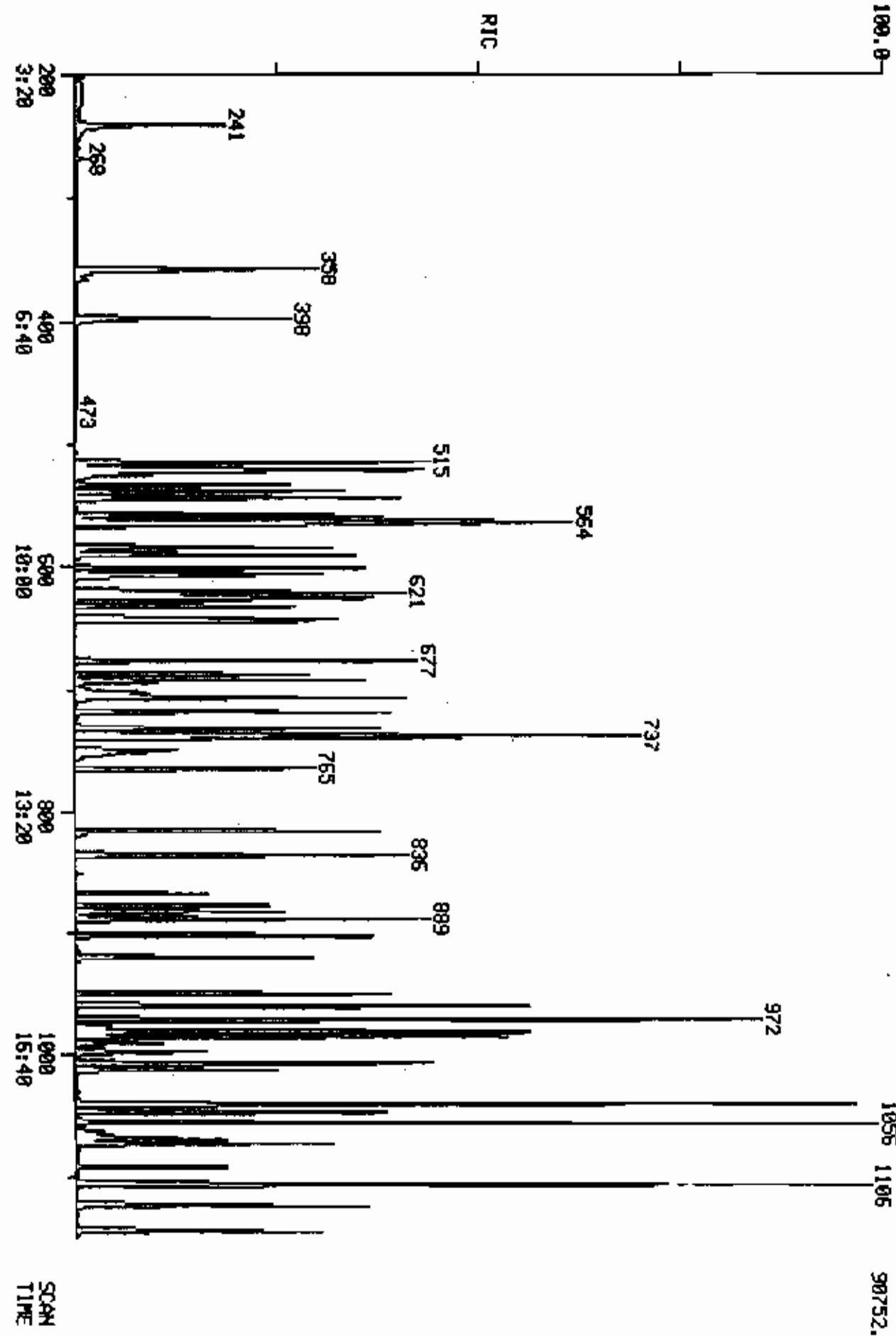
No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CO10 CHLOROMETHANE
3	CO15 BROMOMETHANE
4	CO20 VINYL CHLORIDE
5	CO25 CHLOROETHANE
6	CO30 METHYLENE CHLORIDE
7	CO35 ACETONE
8	CO40 CARBON DISULFIDE
9	CO45 1,1-DICHLOROETHENE
10	CO43 TRICHLOROFLUOROMETHANE
11	CO50 1,1-DICHLOROETHANE
12	CO53 1,2-DICHLOROETHENE (TOTAL)
13	CO60 CHLOROFORM
14	CO65 1,2-DICHLOROETHANE
15	CS15 1,2-DICHLOROETHANE-D4****SURROGATE#1***
16	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
17	CI15 1,1,1-TRICHLOROETHANE
18	CI10 2-BUTANONE
19	CI20 CARBON TETRACHLORIDE
20	CI25 VINYL ACETATE
21	CI30 BROMODICHLOROMETHANE
22	CI40 1,2-DICHLOROPROPANE
23	CI45 CIS-1,3-DICHLOROPROPENE
24	CI50 TRICHLOROETHENE
25	CI55 DIBROMOCHLOROMETHANE
26	CI60 1,1,2-TRICHLOROETHANE
27	CI65 BENZENE
28	CI70 TRANS-1,3-DICHLOROPROPENE
29	CI75 2-CHLOROETHYL VINYLETHER
30	CI80 BROMOFORM
31	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
32	CI10 2-HEXANONE
33	CI205 4-METHYL-2-PENTANONE
34	CI220 TETRACHLOROETHENE
35	CI225 1,1,2,2-TETRACHLOROETHANE
36	CI30 TOLUENE
37	CI35 CHLOROBENZENE
38	CI40 ETHYLBENZENE
39	CI45 STYRENE
40	CI50 TOTAL XYLENES
41	CS05 TOLUENE-D8****SURROGATE#2***
42	CS10 4-BROMOFLUOROBENZENE****SURROGATE#3***

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	221	9:34	1	1.000	A BB	64283.	50.000 UG/L*	0.63
2	90	44	1:54	1	0.200	A BB	387464.	200.001 UG/L	2.52
3	94	68	2:57	1	0.308	A BB	418197.	200.001 UG/L	2.52
4	62	85	3:41	1	0.385	A BB	425853.	200.001 UG/L	2.52
5	64	106	4:35	1	0.480	A BB	282426.	200.001 UG/L	2.52
6	84	152	6:35	1	0.685	A BB	372692.	200.001 UG/L	2.52
7	43	164	7:06	1	0.743	A BB	64731.	200.001 UG/L	2.52
8	76	183	7:55	1	0.829	A BB	1101820.	200.001 UG/L	2.52
9	96	209	9:03	1	0.946	A BB	359144.	200.001 UG/L	2.52
10	101	195	8:26	1	0.883	A BV	667159.	200.001 UG/L	2.52
11	63	239	10:20	1	1.082	A BB	780339.	200.001 UG/L	2.52
12	96	254	10:59	1	1.150	A BB	419190.	200.001 UG/L	2.52
13	83	268	11:36	1	1.213	A BB	829912.	200.001 UG/L	2.52
14	62	284	12:17	1	1.286	A BB	569880.	200.001 UG/L	2.52
15	65	282	12:12	1	1.277	A BB	515160.	200.001 UG/L*	2.52
16	114	453	19:36	16	1.000	A BB	269434.	50.000 UG/L*	0.63
17	97	314	13:35	16	0.694	A BV	730393.	200.001 UG/L	2.52
18	72	281	12:09	16	0.621	A BB	27372.	200.001 UG/L	2.52
19	117	323	13:58	16	0.714	A VB	579694.	200.001 UG/L	2.52
20	43	324	14:01	16	0.716	A BB	1077660.	200.000 UG/L	2.52
21	83	335	14:30	16	0.740	A BB	855854.	200.000 UG/L	2.52
22	63	366	15:50	16	0.808	A BB	493324.	200.001 UG/L	2.52
23	75	371	16:03	16	0.819	A BB	943070.	200.001 UG/L	2.52
24	130	383	16:34	16	0.846	A BV	528107.	200.001 UG/L	2.52
25	129	399	17:16	16	0.881	A BB	665417.	200.000 UG/L	2.52
26	97	401	17:21	16	0.886	A BB	419065.	200.000 UG/L	2.52
27	78	394	17:03	16	0.870	A BB	1117750.	200.001 UG/L	2.52
28	75	401	17:21	16	0.886	A BB	484611.	200.001 UG/L	2.52
29	63	425	18:23	16	0.939	A BB	363742.	200.001 UG/L	2.52
30	173	462	19:59	16	1.020	A BB	543387.	200.001 UG/L	2.52
31	117	569	24:37	31	1.000	A BB	226183.	50.000 UG/L*	0.63
32	43	507	21:56	31	0.892	A BB	244782.	200.001 UG/L	2.52
33	43	471	20:23	31	0.828	A BB	600268.	200.001 UG/L	2.52
34	164	514	22:14	31	0.904	A BB	435725.	200.001 UG/L	2.52
35	83	515	22:17	31	0.906	A BB	816465.	200.000 UG/L	2.52
36	91	544	23:32	31	0.957	A BB	1029830.	200.001 UG/L	2.52
37	112	571	24:42	31	1.004	A BB	982565.	200.001 UG/L	2.52
38	106	618	26:44	31	1.087	A BB	564454.	200.000 UG/L	2.52
39	104	714	30:53	31	1.255	A BB	1103470.	200.001 UG/L	2.52
40	106	744	32:11	31	1.308	A BB	723331.	200.000 UG/L	2.52
41	98	540	23:22	31	0.950	A BB	950900.	200.001 UG/L*	2.52
42	95	680	29:25	31	1.196	A BB	699942.	200.001 UG/L*	2.52

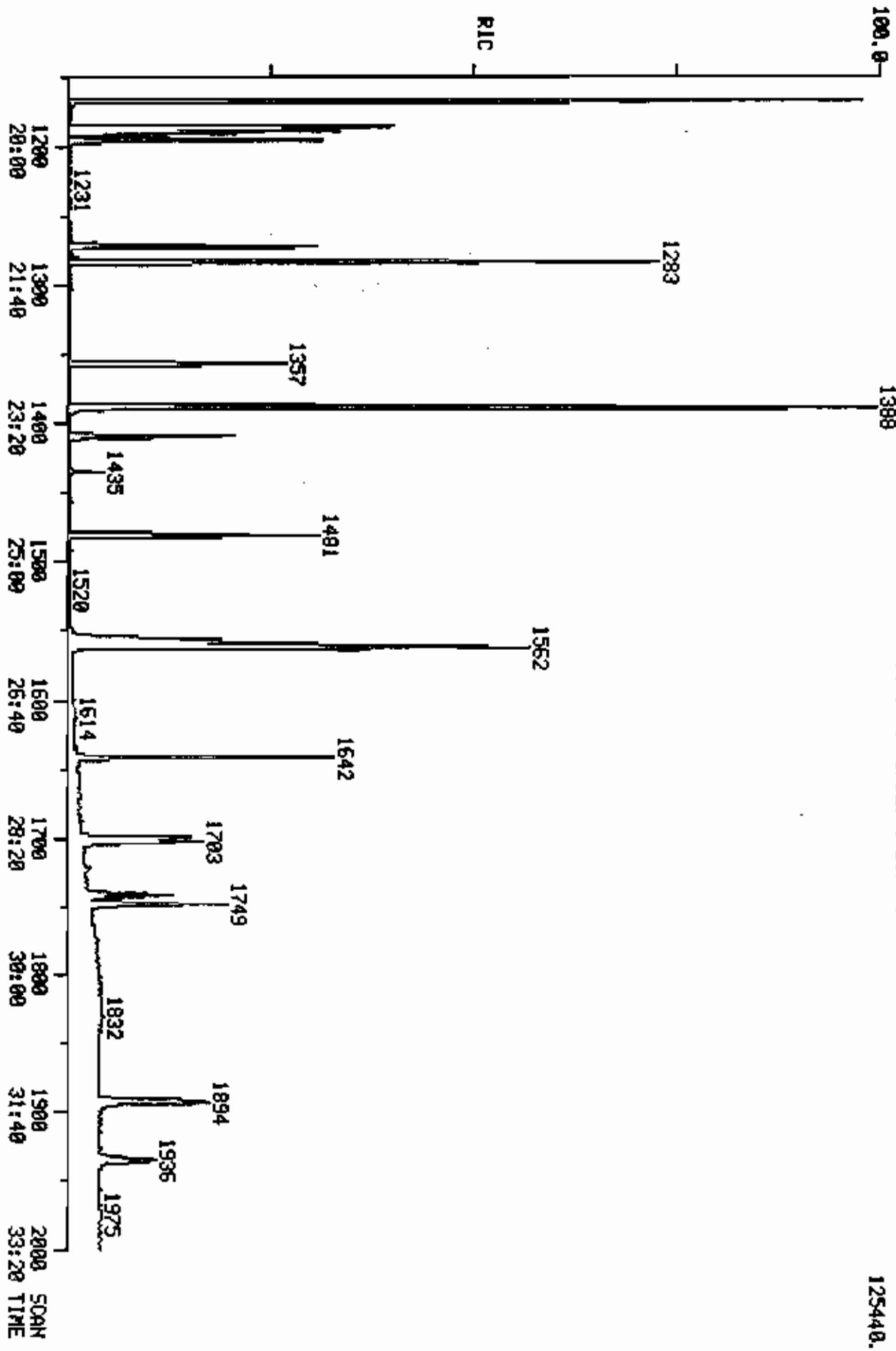
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:34	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:54	1.00	0.200	1.00	200.01	200.00	1.507	1.507	1.00
3	2:57	1.00	0.308	1.00	200.01	200.00	1.627	1.627	1.01
4	3:41	1.00	0.385	1.00	200.01	200.00	1.657	1.657	1.01
5	4:35	1.00	0.480	1.00	200.01	200.00	1.099	1.099	1.01
6	6:35	1.00	0.688	1.00	200.01	200.00	1.450	1.450	1.00
7	7:06	1.00	0.743	1.00	200.01	200.00	0.252	0.252	1.00
8	7:55	1.00	0.829	1.00	200.01	200.00	4.286	4.286	1.00
9	9:03	1.00	0.946	1.00	200.01	200.00	1.397	1.397	1.00
10	8:26	1.00	0.883	1.00	200.01	200.00	2.595	2.595	1.00
11	10:20	1.00	1.082	1.00	200.01	200.00	3.035	3.035	1.01
12	10:59	1.00	1.150	1.00	200.01	200.00	1.631	1.631	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
13	11:36	1.00	1.213	1.00	200.01	200.00	3.228	3.228	1.00
14	12:17	1.00	1.286	1.00	200.01	200.00	2.217	2.217	1.00
15	12:12	1.00	1.277	1.00	200.01	200.00	2.004	2.004	1.00
16	19:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:35	1.00	0.694	1.00	200.01	200.00	0.678	0.678	1.00
18	12:09	1.00	0.621	1.00	200.01	200.00	0.026	0.026	1.00
19	13:58	1.00	0.714	1.00	200.01	200.00	0.538	0.538	1.00
20	14:01	1.00	0.716	1.00	200.00	200.00	1.000	1.000	1.00
21	14:30	1.00	0.740	1.00	200.00	200.00	0.795	0.795	1.00
22	15:50	1.00	0.808	1.00	200.01	200.00	0.458	0.458	1.00
23	16:03	1.00	0.819	1.00	200.01	200.00	0.876	0.876	1.00
24	16:34	1.00	0.846	1.00	200.01	200.00	0.491	0.491	1.00
25	17:16	1.00	0.881	1.00	200.00	200.00	0.618	0.618	1.00
26	17:21	1.00	0.886	1.00	200.00	200.00	0.389	0.389	1.00
27	17:03	1.00	0.870	1.00	200.01	200.00	1.038	1.038	1.00
28	17:21	1.00	0.886	1.00	200.01	200.00	0.450	0.450	1.00
29	18:23	1.00	0.939	1.00	200.01	200.00	0.338	0.338	1.00
30	19:59	1.00	1.020	1.00	200.01	200.00	0.505	0.505	1.00
31	24:37	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:36	1.00	0.892	1.00	200.01	200.00	0.271	0.271	1.00
33	20:23	1.00	0.828	1.00	200.01	200.00	0.664	0.664	1.00
34	22:14	1.00	0.904	1.00	200.01	200.00	0.482	0.482	1.00
35	22:17	1.00	0.906	1.00	200.00	200.00	0.903	0.903	1.00
36	23:32	1.00	0.957	1.00	200.01	200.00	1.139	1.139	1.00
37	24:42	1.00	1.004	1.00	200.01	200.00	1.087	1.087	1.00
38	26:44	1.00	1.087	1.00	200.00	200.00	0.624	0.624	1.00
39	30:53	1.00	1.255	1.00	200.01	200.00	1.220	1.220	1.01
40	32:11	1.00	1.308	1.00	200.00	200.00	0.800	0.800	1.00
41	23:22	1.00	0.950	1.00	200.01	200.00	1.052	1.052	1.01
42	29:25	1.00	1.196	1.00	200.01	200.00	0.774	0.774	1.00

RIC  
12/01/88 18:46:00  
SAMPLE: CLP,,,551028,,,16258,B,IC-28,,1UL,  
COND5.: INST V:RESTEK RTX-5/30M,4MINE45-8507/MIN-300010/MIN  
RANGE: C 1,2000 LABEL: H 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3  
DATA: U2303 #1  
CALL: U2303 #2  
SCANS 200 TD 1150



RIC  
 12/01/08 18:46:00  
 SAMPLE: CLP,,,SSTD20,,,16298,B,1C-20,,,IUL,  
 COND.: INST V:RESTERK RTX-5/30M,4MHEADS-0507/MIN-300018/MIN  
 RANGE: G 1,2000 LABEL: N 0, 4.0 QUANT: A 0, 1.0 J 0 BRSE: V 20, 3  
 DATA: UZ303 #1  
 CALL: UZ303 #2  
 SCANS 1150 TO 2000  
 125448.



Quantitation Report File: V2303

Data: V2303.TI

12/01/88 18:46:00

Sample: CLP,,,SSTD20,,,16298,B,IC-20,,,1UL,

Conds.: INST V:RESTEK RTX-5/30M,4MIN@45-85@7/MIN 300@10/MIN

Formula: Instrument: V Weight: 0.000

Submitted by: VERSAR Analyst: TS Acct. No.: ----

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	C310 N-NITROSODIMETHYLAMINE
2	CE01 4-METHYL-4-HYDROXYL-2-PENTANONE
3	CS50 2-FLUOROPHENOL**ACID SURR.**
4	CE02 1,3,5-TRIMETHYLBENZENE
5	CS45 PHENOL-D5**ACID SURR.**
6	C315 PHENOL
7	C325 BIS (2-CHLOROETHYL) ETHER
8	C330 2-CHLOROPHENOL
9	CE03 1,2,4-TRIMETHYLBENZENE
10	C335 1,3-DICHLOROBENZENE
11	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
12	C340 1,4-DICHLOROBENZENE
13	C345 BENZYL ALCOHOL
14	C350 1,2-DICHLOROBENZENE
15	C355 2-METHYLPHENOL
16	C360 BIS (2-CHLOROISOPROPYL) ETHER
17	C365 4-METHYLPHENOL
18	CE04 4-METHYL-BENZALDEHYDE
19	C370 N-NITROSO-DI-N-PROPYLAMINE
20	C375 HEXACHLOROETHANE
21	CS20 NITROBENZENE-D5**BN SURR.**
22	C410 NITROBENZENE
23	C415 ISOPHORONE
24	C420 2-NITROPHENOL
25	C425 2,4-DIMETHYLPHENOL
26	C430 BENZOIC ACID
27	C435 BIS (2-CHLOROETHOXY) METHANE
28	C440 2,4-DICHLOROPHENOL
29	C445 1,2,4-TRICHLOROBENZENE
30	CI40 NAPHTHALENE-D8**INT. STD. #2**
31	C450 NAPHTHALENE
32	C455 4-CHLOROANILINE
33	C460 HEXACHLOROBTADIENE
34	C465 4-CHLORO-3-METHYLPHENOL
35	C470 2-METHYLNAPHTHALENE
36	C510 HEXACHLOROCYCLOPENTADIENE
37	C515 2,4,6-TRICHLOROPHENOL
38	C520 2,4,5-TRICHLOROPHENOL
39	CS25 2-FLUOROBIPHENYL**BN SURR.**
40	C525 2-CHLORONAPHTHALENE
41	C530 2-NITROANILINE
42	C535 DIMETHYL PHTHALATE
43	C575 2,6-DINITROTOLUENE
44	C540 ACENAPHTHYLENE
45	CE05 PENTADECANE
46	C545 3-NITROANILINE
47	CI50 ACENAPHTHENE-D10**INT. STD. #3**

V2303

No Name  
 48 C950 ACENAPHTHENE  
 49 C955 2,4-DINITROPHENOL  
 50 C560 4-NITROPHENOL

No	a/i	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	XTot
1	74	241	4:01	11	0.427	A BB	10849.	20.000 NG	1.06
2	99	358	5:58	11	0.633	A BB	13534.	20.000 NG***	1.06
3	112	398	6:38	11	0.706	A BB	11449.	20.000 NG*	1.06
4	103	313	8:33	11	0.913	A BB	26203.	20.000 NG***	1.06
5	99	320	8:40	11	0.922	A BB	14214.	20.000 NG*	1.06
6	94	322	8:42	11	0.926	A BB	17869.	20.000 NG	1.06
7	93	334	8:54	11	0.947	A VB	16108.	20.000 NG	1.06
8	128	339	8:59	11	0.956	A BB	12462.	20.000 NG	1.06
9	120	344	9:04	11	0.963	A BB	10471.	20.000 NG***	1.06
10	146	359	9:19	11	0.991	A BB	13401.	20.000 NG	1.06
11	192	564	9:24	11	1.000	A BB	14712.	40.000 NG/UL	2.13
12	146	566	9:26	11	1.004	A BB	14110.	20.000 NG	1.06
13	108	589	9:43	11	1.037	A BB	7006.	20.000 NG	1.06
14	146	391	9:51	11	1.048	A BB	13492.	20.000 NG	1.06
15	108	602	10:02	11	1.067	A BB	11413.	20.000 NG	1.06
16	43	607	10:07	11	1.076	A BB	31073.	20.000 NG	1.06
17	108	621	10:21	11	1.101	A BB	11839.	20.000 NG	1.06
18	119	624	10:24	11	1.106	A BB	6096.	20.000 NG***	1.06
19	70	626	10:26	11	1.110	A BB	14109.	20.000 NG	1.06
20	117	632	10:32	11	1.121	A BB	6947.	20.000 NG	1.06
21	82	642	10:42	30	0.871	A BB	15313.	20.000 NG*	1.06
22	77	644	10:44	30	0.874	A BB	16605.	20.000 NG	1.06
23	82	677	11:17	30	0.919	A BB	33035.	20.000 NG	1.06
24	139	688	11:28	30	0.934	A BB	3439.	20.000 NG	1.06
25	107	693	11:33	30	0.940	A BB	12868.	20.000 NG	1.06
26	122	707	11:47	30	0.939	A VB	6942.	20.000 NG	1.06
27	93	708	11:48	30	0.961	A BB	19851.	20.000 NG	1.06
28	162	719	11:59	30	0.976	A BB	8998.	20.000 NG	1.06
29	180	732	12:12	30	0.993	A BB	9938.	20.000 NG	1.06
30	136	737	12:17	30	1.000	A BB	42921.	40.000 NG/UL	2.13
31	128	740	12:20	30	1.004	A BB	34232.	20.000 NG	1.06
32	127	750	12:30	30	1.018	A BB	10681.	20.000 NG	1.06
33	229	763	12:43	30	1.038	A BB	3428.	20.000 NG	1.06
34	107	816	13:36	30	1.107	A BB	12877.	20.000 NG	1.06
35	142	836	13:56	30	1.134	A BB	20330.	20.000 NG	1.06
36	237	867	14:27	47	0.883	A BB	3063.	20.000 NG	1.06
37	196	877	14:37	47	0.893	A BV	3042.	20.000 NG	1.06
38	196	882	14:42	47	0.898	A VB	6120.	20.000 NG*	1.06
39	172	889	14:49	47	0.903	A BB	20663.	20.000 NG*	1.06
40	162	902	13:02	47	0.919	A BB	19131.	20.000 NG	1.06
41	63	921	13:21	47	0.938	A BB	10032.	20.000 NG*	1.06
42	163	930	13:30	47	0.967	A BB	24087.	20.000 NG	1.06
43	163	960	16:00	47	0.978	A BB	4993.	20.000 NG	1.06
44	192	961	16:01	47	0.979	A BB	30041.	20.000 NG	1.06
45	37	972	16:12	47	0.990	A BB	30423.	20.000 NG***	1.06
46	138	979	16:19	47	0.997	A BB	1942.	20.000 NG*	1.06
47	164	982	16:22	47	1.000	A BB	20988.	40.000 NG/UL	2.13
48	133	987	16:27	47	1.003	A BB	20380.	20.000 NG	1.06
49	184	992	16:32	47	1.010	A BB	1839.	20.000 NG*	1.06
50	109	999	16:39	47	1.017	A BB	3273.	20.000 NG	1.06



V2303

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	4:01	1.00	0.427	1.00	20.00	20.00	1.478	1.478	1.00
2	5:58	1.00	0.635	1.00	20.00	20.00	1.843	1.843	1.00
3	6:38	1.00	0.706	1.00	20.00	20.00	1.556	1.556	1.00
4	8:35	1.00	0.913	1.00	20.00	20.00	3.562	3.562	1.00
5	8:40	1.00	0.922	1.00	20.00	20.00	1.932	1.932	1.00
6	8:42	1.00	0.926	1.00	20.00	20.00	2.427	2.427	1.00
7	8:54	1.00	0.947	1.00	20.00	20.00	2.190	2.190	1.00
8	8:57	1.00	0.956	1.00	20.00	20.00	1.694	1.694	1.00
9	9:04	1.00	0.968	1.00	20.00	20.00	1.423	1.423	1.00
10	9:17	1.00	0.991	1.00	20.00	20.00	1.822	1.822	1.00
11	9:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
12	9:26	1.00	1.004	1.00	20.00	20.00	1.918	1.918	1.00
13	9:45	1.00	1.037	1.00	20.00	20.00	0.952	0.952	1.00
14	9:51	1.00	1.048	1.00	20.00	20.00	1.834	1.834	1.00
15	10:02	1.00	1.067	1.00	20.00	20.00	1.352	1.352	1.00
16	10:07	1.00	1.076	1.00	20.00	20.00	4.224	4.224	1.00
17	10:21	1.00	1.101	1.00	20.00	20.00	1.607	1.607	1.00
18	10:24	1.00	1.106	1.00	20.00	20.00	0.827	0.827	1.00
19	10:26	1.00	1.110	1.00	20.00	20.00	1.918	1.918	1.00
20	10:32	1.00	1.121	1.00	20.00	20.00	0.944	0.944	1.00
21	10:42	1.00	0.871	1.00	20.00	20.00	0.714	0.714	1.00
22	10:44	1.00	0.874	1.00	20.00	20.00	0.774	0.774	1.00
23	11:17	1.00	0.919	1.00	20.00	20.00	1.540	1.540	1.00
24	11:28	1.00	0.934	1.00	20.00	20.00	0.254	0.254	1.00
25	11:33	1.00	0.940	1.00	20.00	20.00	0.601	0.601	1.00
26	11:47	1.00	0.959	1.00	20.00	20.00	0.323	0.323	1.00
27	11:48	1.00	0.961	1.00	20.00	20.00	0.925	0.925	1.00
28	11:59	1.00	0.976	1.00	20.00	20.00	0.417	0.417	1.00
29	12:12	1.00	0.993	1.00	20.00	20.00	0.463	0.463	1.00
30	12:17	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
31	12:20	1.00	1.004	1.00	20.00	20.00	1.596	1.596	1.00
32	12:30	1.00	1.018	1.00	20.00	20.00	0.498	0.498	1.00
33	12:45	1.00	1.038	1.00	20.00	20.00	0.253	0.253	1.00
34	13:36	1.00	1.107	1.00	20.00	20.00	0.600	0.600	1.00
35	13:56	1.00	1.134	1.00	20.00	20.00	0.938	0.938	1.00
36	14:27	1.00	0.883	1.00	20.00	20.00	0.292	0.292	1.00
37	14:37	1.00	0.893	1.00	20.00	20.00	0.480	0.480	1.00
38	14:42	1.00	0.898	1.00	20.00	20.00	0.383	0.383	1.00
39	14:47	1.00	0.905	1.00	20.00	20.00	1.967	1.967	1.00
40	15:02	1.00	0.919	1.00	20.00	20.00	1.825	1.825	1.00
41	15:21	1.00	0.938	1.00	20.00	20.00	0.956	0.956	1.00
42	15:50	1.00	0.967	1.00	20.00	20.00	2.298	2.298	1.00
43	16:00	1.00	0.978	1.00	20.00	20.00	0.476	0.476	1.00
44	16:01	1.00	0.979	1.00	20.00	20.00	2.863	2.863	1.00
45	16:12	1.00	0.990	1.00	20.00	20.00	2.897	2.897	1.00
46	16:19	1.00	0.997	1.00	20.00	20.00	0.188	0.188	1.00
47	16:22	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
48	16:27	1.00	1.005	1.00	20.00	20.00	1.961	1.961	1.00
49	16:32	1.00	1.010	1.00	20.00	20.00	0.177	0.177	1.00
50	16:39	1.00	1.017	1.00	20.00	20.00	0.312	0.312	1.00

Quantitation Report File: V2303

Data: V2303.T1

12/01/88 18:46:00

Sample: CLP...SSTD20...16298.B, IC-20...IUL

Conds.: INST V:RESTEK RTX-5/30M,4MIN@49-65@7/MIN-000810/MIN

Formula: Instrument: V Weight: 0.000

Submitted by: VERSAR Analyst: TS Acct. No.: ---

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
51	C565 DIBENZOFURAN
52	C544 2,4-DINITROTOLUENE
53	CE06 HEXADECANE
54	C580 DIETHYLPHTHALATE
55	C585 4-CHLOROPHENYL-PHENYLEETHER
56	C590 FLUORENE
57	C595 4-NITROANILINE
58	C610 4,6-DINITRO-2-METHYLPHENOL
59	C615 N-NITROSODIPHENYLAMINE
60	C555 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
61	CE07 HEPTADECANE
62	C625 4-BROMOPHENYL-PHENYLEETHER
63	C630 HEXACHLOROBENZENE
64	C635 PENTACHLOROPHENOL
65	CE08 OCTADECANE
66	CI60 PHENANTHRENE-D10**INT. STD. #4**
67	C640 PHENANTHRENE
68	C645 ANTHRACENE
69	C630 DI-N-BUTYLPHTHALATE
70	CE09 EICOSANE
71	C655 FLUORANTHENE
72	C715 PYRENE
73	CE10 DOCOSANE
74	CS90 P-TERPHENYL-D14**BN SURR.**
75	C720 BUTYLBENZYLPHTHALATE
76	C725 3,3'-DICHLOROBENZIDINE
77	C730 BENZO(A)ANTHRACENE
78	CI70 CHRYSENE-D12**INT. STD. #5**
79	C741 BIS (2-ETHYLHEXYL) PHTHALATE
80	C740 CHRYSENE
81	C760 DI-N-OCTYL PHTHALATE
82	C765 BENZO(B)FLUORANTHENE
83	C770 BENZO(K)FLUORANTHENE
84	C775 BENZO(A)PYRENE
85	CI75 PERYLENE-D12**INT. STD. #6**
86	C780 INDENO(1,2,3-CD)PYRENE
87	C785 DIBENZ(A,H)ANTHRACENE
88	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	RTot
51	168	1008	16:48	47	1.026	A BB	26359.	20.000 NG	1.06
52	165	1014	16:54	47	1.033	A BB	6703	20.000 NG	1.06
53	97	1041	17:21	47	1.040	A BB	31193.	20.000 NG***	1.06
54	149	1049	17:28	47	1.067	A BB	28688.	20.000 NG	1.06
55	204	1056	17:36	47	1.073	A BB	8716.	20.000 NG	1.06

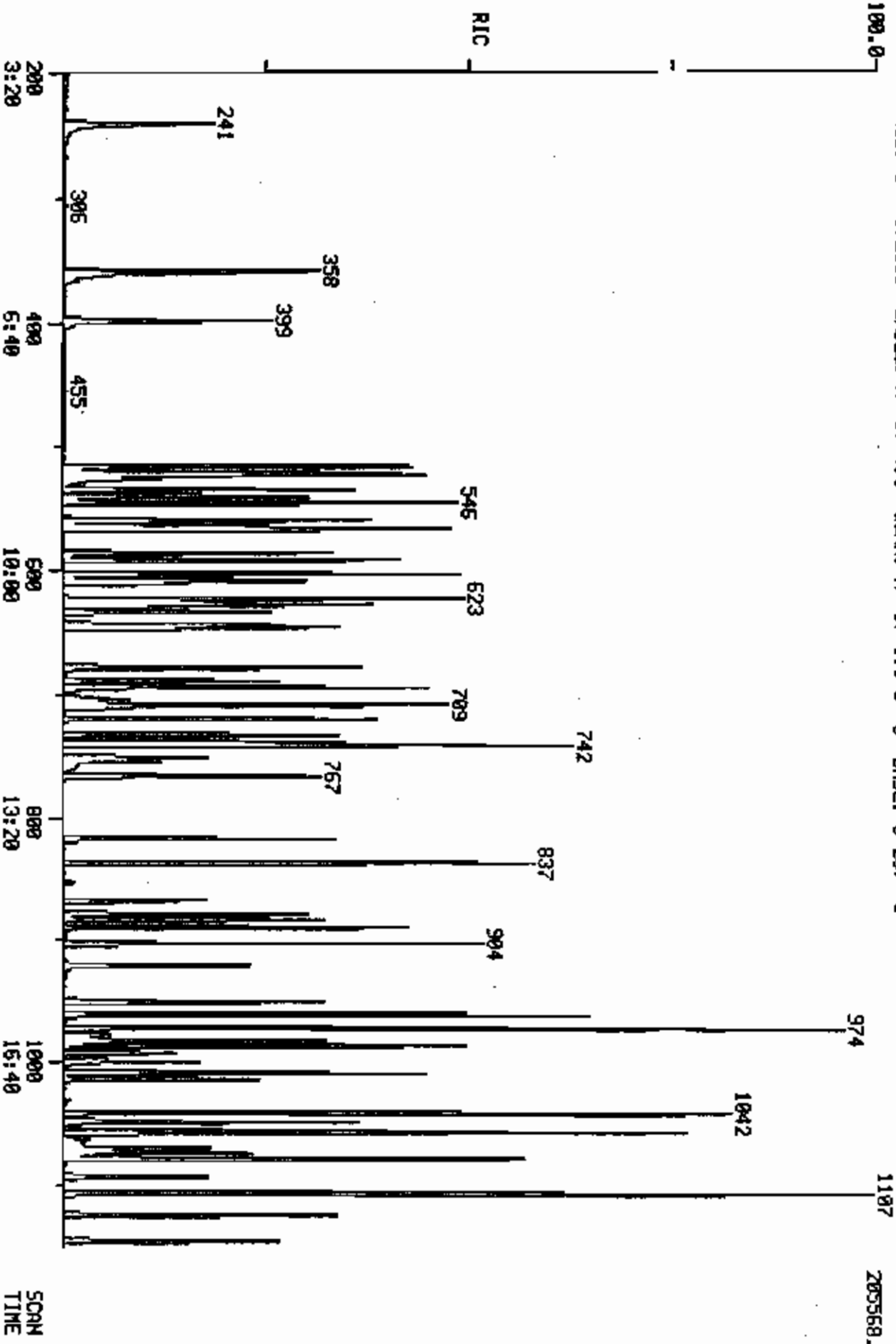
V2303

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	ZTot
56	166	1056	17:36	47	1.075	A BB	21119.	20.000 NG	1.06
57	138	1065	17:45	47	1.085	A BB	2465.	20.000 NG*	1.06
58	198	1069	17:49	47	1.089	A BB	2878.	20.000 NG*	1.06
59	169	1073	17:53	47	1.093	A BB	10664.	20.000 NG	1.06
60	330	1092	18:12	66	0.921	A BB	2833.	20.000 NG*	1.06
61	57	1106	18:26	66	0.933	A BB	33736.	20.000 NG***	1.06
62	248	1123	18:43	47	1.144	A BB	4515.	20.000 NG	1.06
63	284	1144	19:04	47	1.165	A BB	6745.	20.000 NG	1.06
64	266	1168	19:28	66	0.985	A BB	3390.	20.000 NG	1.06
65	57	1168	19:28	66	0.985	A BB	33558.	20.000 NG***	1.06
66	188	1186	19:46	66	1.000	A BB	39578.	40.000 NG/L	2.13
67	178	1190	19:50	66	1.003	A BV	28731.	20.000 NG	1.06
68	178	1196	19:56	66	1.008	A VB	27745.	20.000 NG	1.06
69	149	1272	21:12	66	1.073	A BB	43126.	20.000 NG	1.06
70	71	1283	21:23	66	1.082	A BB	22476.	20.000 NG***	1.06
71	202	1357	22:37	66	1.144	A BB	26639.	20.000 NG	1.06
72	202	1388	23:08	66	1.170	A BB	28144.	20.000 NG	1.06
73	57	1388	23:08	66	1.170	A BB	39022.	20.000 NG***	1.06
74	244	1409	23:29	78	0.904	A BB	17229.	20.000 NG*	1.06
75	149	1481	24:41	78	0.950	A BB	16847.	20.000 NG	1.06
76	252	1552	25:52	78	0.996	A BB	676.	20.000 NG	1.06
77	228	1556	25:56	78	0.998	A BV	16475.	20.000 NG	1.06
78	240	1559	25:59	78	1.000	A BB	24129.	40.000 NG/L	2.13
79	149	1561	26:01	78	1.001	A BB	23966.	20.000 NG	1.06
80	228	1562	26:02	78	1.002	A VB	17377.	20.000 NG	1.06
81	149	1642	27:22	85	0.939	A BB	35337.	20.000 NG	1.06
82	252	1700	28:20	85	0.973	M XX	14170.	20.000 NG	1.06
83	252	1703	28:23	85	0.974	M XX	18883.	20.000 NG	1.06
84	252	1741	29:01	85	0.996	A BV	12567.	20.000 NG	1.06
85	264	1748	29:08	85	1.000	A BB	18499.	40.000 NG/L	2.13
86	276	1893	31:33	85	1.083	A BB	13294.	20.000 NG	1.06
87	278	1893	31:33	85	1.083	A BB	10022.	20.000 NG	1.06
88	276	1936	32:16	85	1.108	A BB	11838.	20.000 NG	1.06

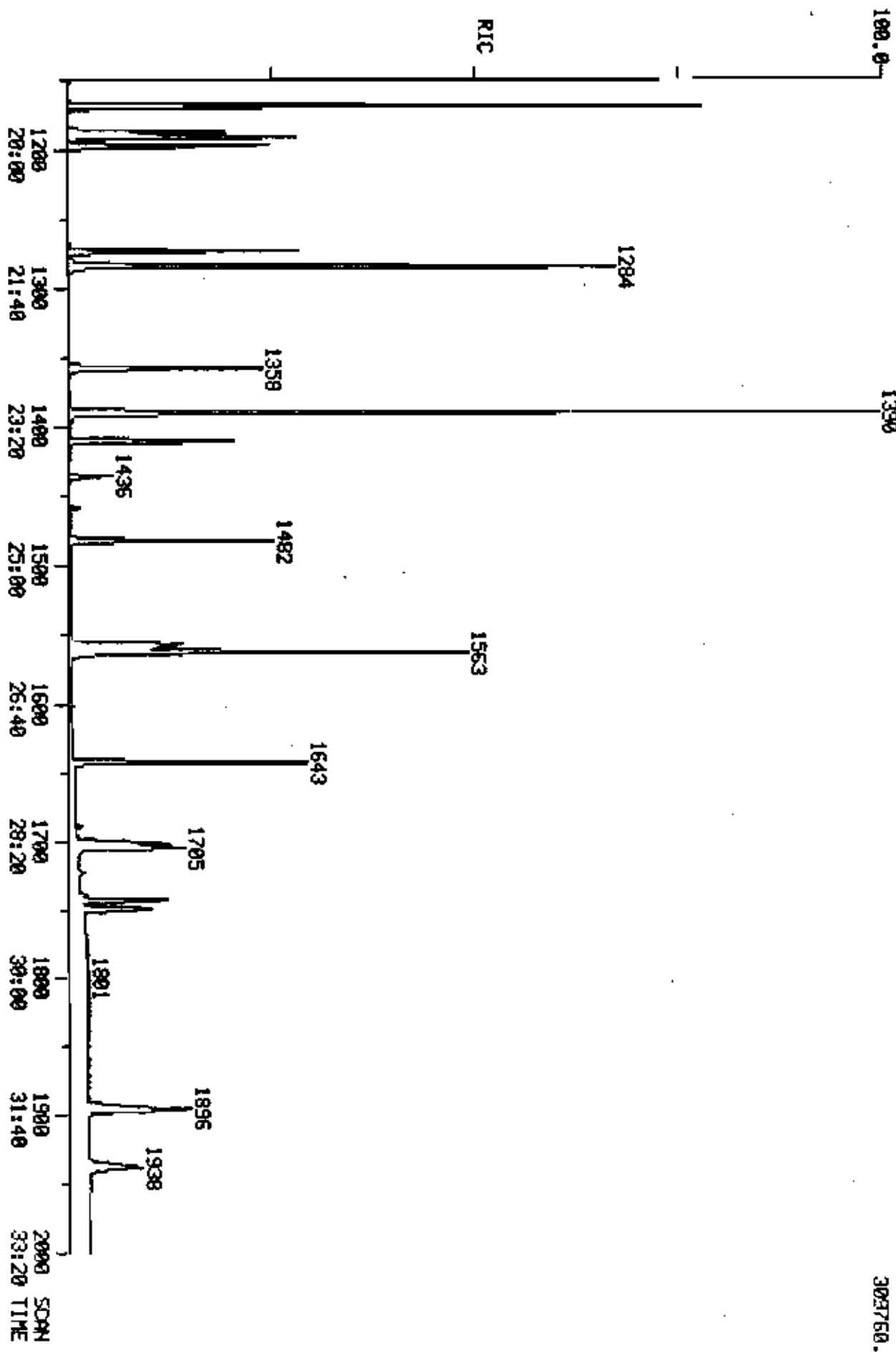
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
51	16:48	1.00	1.026	1.00	20.00	20.00	2.519	2.519	1.00
52	16:54	1.00	1.033	1.00	20.00	20.00	0.688	0.688	1.00
53	17:21	1.00	1.060	1.00	20.00	20.00	2.972	2.972	1.00
54	17:28	1.00	1.067	1.00	20.00	20.00	2.734	2.734	1.00
55	17:36	1.00	1.075	1.00	20.00	20.00	0.831	0.831	1.00
56	17:36	1.00	1.075	1.00	20.00	20.00	2.012	2.012	1.00
57	17:45	1.00	1.085	1.00	20.00	20.00	0.235	0.235	1.00
58	17:49	1.00	1.089	1.00	20.00	20.00	0.274	0.274	1.00
59	17:53	1.00	1.093	1.00	20.00	20.00	1.016	1.016	1.00
60	18:12	1.00	0.921	1.00	20.00	20.00	0.144	0.144	1.00
61	18:26	1.00	0.933	1.00	20.00	20.00	1.706	1.706	1.00
62	18:43	1.00	1.144	1.00	20.00	20.00	0.430	0.430	1.00
63	19:04	1.00	1.165	1.00	20.00	20.00	0.643	0.643	1.00
64	19:28	1.00	0.985	1.00	20.00	20.00	0.171	0.171	1.00
65	19:28	1.00	0.985	1.00	20.00	20.00	1.696	1.696	1.00
66	19:46	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
67	19:50	1.00	1.003	1.00	20.00	20.00	1.452	1.452	1.00
68	19:56	1.00	1.008	1.00	20.00	20.00	1.402	1.402	1.00
69	21:12	1.00	1.073	1.00	20.00	20.00	2.177	2.177	1.00
70	21:23	1.00	1.082	1.00	20.00	20.00	1.136	1.136	1.00
71	22:37	1.00	1.144	1.00	20.00	20.00	1.346	1.346	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
72	23:08	1.00	1.170	1.00	20.00	20.00	1.422	1.422	1.00
73	23:08	1.00	1.170	1.00	20.00	20.00	1.972	1.972	1.00
74	23:29	1.00	0.904	1.00	20.00	20.00	1.428	1.428	1.00
75	24:41	1.00	0.950	1.00	20.00	20.00	1.396	1.396	1.00
76	25:52	1.00	0.976	1.00	20.00	20.00	0.056	0.056	1.00
77	25:56	1.00	0.998	1.00	20.00	20.00	1.366	1.366	1.00
78	25:59	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
79	26:01	1.00	1.001	1.00	20.00	20.00	1.986	1.986	1.00
80	26:02	1.00	1.002	1.00	20.00	20.00	1.440	1.440	1.00
81	27:22	1.00	0.939	1.00	20.00	20.00	3.820	3.820	1.00
82	28:20	1.00	0.973	1.00	20.00	20.00	1.532	1.532	1.00
83	28:23	1.00	0.974	1.00	20.00	20.00	2.038	2.038	1.00
84	29:01	1.00	0.996	1.00	20.00	20.00	1.359	1.359	1.00
85	29:08	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
86	31:33	1.00	1.083	1.00	20.00	20.00	1.437	1.437	1.00
87	31:33	1.00	1.083	1.00	20.00	20.00	1.084	1.084	1.00
88	32:16	1.00	1.108	1.00	20.00	20.00	1.280	1.280	1.00

RIC  
 12/01/88 15:16:00  
 SAMPLE: CLP,,,SST050,,,16297/B,CC-050,,1UL,  
 COND5.: INST V:RESTERK RTX-5/30M,4MIME45-0507/MIM-300010/MIM  
 RANGE: G 1,2000 LABEL: N 0, 4.0 QURN: A 0, 1.0 J 0 BASE: U 20, 3  
 DATA: VZ299 #1  
 CALL: VZ299 #2  
 SCANS 200 TO 1150



RIC  
 12/01/88 15:16:00  
 DATA: V2299 #1  
 SAMPLE: CLP,,,5ST050,,,16297,B,CC-850,,,1UL,  
 CALL: V2299 #2  
 COMDS.: INST V:RESTEK RTX-5/30M,4MIN:45-85:27/MIN-300:10/MIN  
 RANGE: C 1,2000 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BRSE: U 20, 3  
 SCANS 1150 TO 2000



Quantitation Report File: V2299

Data: V2299.TI

12/01/88 15:16:00

Sample: CLP,,,5STD50,,,16297,B,CC-030,,1UL,

Conds.: INST V:REBTEK RTX-3/30M,4MIN@45-85@7/MIN-300@10/MIN

Formula: Instrument: V Weight: 0.001

Submitted by: VERSAR Analyst: GC Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	C310 N-NITROSODIMETHYLAMINE
2	CE01 4-METHYL-4-HYDROXYL-2-PENTANONE
3	CS50 2-FLUOROPHENOL**ACID SURR.**
4	CE02 1,3,5-TRIMETHYLBENZENE
5	CS45 PHENOL-D5**ACID SURR.**
6	C319 PHENOL
7	C329 BIS (2-CHLOROETHYL) ETHER
8	C330 2-CHLOROPHENOL
9	CE03 1,2,4-TRIMETHYLBENZENE
10	C339 1,3-DICHLOROBENZENE
11	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
12	C340 1,4-DICHLOROBENZENE
13	C345 BENZYL ALCOHOL
14	C390 1,2-DICHLOROBENZENE
15	C355 2-METHYLPHENOL
16	C360 BIS (2-CHLOROISOPROPYL) ETHER
17	C365 4-METHYLPHENOL
18	CE04 4-METHYL-BENZALDEHYDE
19	C370 N-NITROSO-DI-N-PROPYLAMINE
20	C375 HEXACHLOROETHANE
21	CS20 NITROBENZENE-D5**BN SURR.**
22	C410 NITROBENZENE
23	C415 ISOPHORONE
24	C420 2-NITROPHENOL
25	C425 2,4-DIMETHYLPHENOL
26	C435 BIS (2-CHLOROETHOXY) METHANE
27	C430 BENZOIC ACID
28	C440 2,4-DICHLOROPHENOL
29	C445 1,2,4-TRICHLOROBENZENE
30	CI40 NAPHTHALENE-D8**INT. STD. #2**
31	C450 NAPHTHALENE
32	C455 4-CHLOROANILINE
33	C460 HEXACHLOROBUTADIENE
34	C465 4-CHLORO-3-METHYLPHENOL
35	C470 2-METHYLNAPHTHALENE
36	C310 HEXACHLOROCYCLOPENTADIENE
37	C515 2,4,6-TRICHLOROPHENOL
38	C520 2,4,5-TRICHLOROPHENOL
39	CS25 2-FLUOROBIPHENYL**BN SURR.**
40	C525 2-CHLORONAPHTHALENE
41	C330 2-NITROANILINE
42	CS35 DIMETHYL PHTHALATE
43	C575 2,6-DINITROTOLUENE
44	C540 ACENAPHTHYLENE
45	CE05 PENTADECANE
46	CS45 3-NITROANILINE
47	CI30 ACENAPHTHENE-D10**INT. STD. #3**

V2299

No Name  
 48 C550 ACENAPHTHENE  
 49 C555 2,4-DINITROPHENOL  
 50 C560 4-NITROPHENOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area (Height)	Amount	ZTot
1	74	241	4:01	11	0.427	A BB	33485.	50.000 NG	1.14
2	59	358	5:58	11	0.634	A BB	39497.	50.000 NG***	1.14
3	112	398	6:38	11	0.704	A BB	31916.	50.000 NG*	1.14
4	105	516	8:36	11	0.913	A BB	65797.	50.000 NG***	1.14
5	99	522	8:42	11	0.924	A BB	38869.	50.000 NG*	1.14
6	94	523	8:43	11	0.926	A BB	47329.	50.000 NG	1.14
7	93	535	8:55	11	0.947	A VB	43663.	50.000 NG	1.14
8	128	540	9:00	11	0.956	A BB	32382.	50.000 NG	1.14
9	120	546	9:06	11	0.966	A BB	25888.	50.000 NG***	1.14
10	146	560	9:20	11	0.991	A BB	33412.	50.000 NG	1.14
11	152	565	9:25	11	1.000	A BE	15865.	40.000 NG/UL	0.91
12	146	567	9:27	11	1.004	A BB	34704.	50.000 NG	1.14
13	108	586	9:46	11	1.037	A BB	20556.	50.000 NG	1.14
14	146	592	9:52	11	1.048	A BB	32397.	50.000 NG	1.14
15	108	603	10:03	11	1.067	A BB	29581.	50.000 NG	1.14
16	43	606	10:06	11	1.076	A BB	84641.	50.000 NG	1.14
17	108	623	10:23	11	1.103	A BB	31239.	50.000 NG	1.14
18	119	625	10:25	11	1.106	A BB	11285.	50.000 NG***	1.14
19	70	628	10:28	11	1.112	A BB	35681.	50.000 NG	1.14
20	117	634	10:34	11	1.122	A BB	17708.	50.000 NG	1.14
21	82	644	10:44	30	0.871	A BB	39782.	50.000 NG*	1.14
22	77	646	10:46	30	0.874	A BB	42709.	50.000 NG	1.14
23	82	678	11:18	30	0.917	A BB	80920.	50.000 NG	1.14
24	139	690	11:30	30	0.934	A BB	14907.	50.000 NG	1.14
25	107	693	11:33	30	0.940	A BB	31811.	50.000 NG	1.14
26	93	709	11:49	30	0.959	A BB	49358.	50.000 NG	1.14
27	122	712	11:52	30	0.963	A VB	17211.	50.000 NG	1.14
28	162	721	12:01	30	0.976	A BB	22209.	50.000 NG	1.14
29	180	733	12:13	30	0.992	A BB	23946.	50.000 NG	1.14
30	136	739	12:19	30	1.000	A BB	47710.	40.000 NG/UL	0.91
31	128	742	12:22	30	1.004	A BB	80438.	50.000 NG	1.14
32	127	752	12:32	30	1.018	A BB	27001.	50.000 NG	1.14
33	225	767	12:47	30	1.038	A BB	13048.	50.000 NG	1.14
34	107	817	13:37	30	1.106	A BB	30022.	50.000 NG	1.14
35	142	837	13:57	30	1.133	A BB	47448.	50.000 NG	1.14
36	237	868	14:28	47	0.882	A BB	9071.	50.000 NG	1.14
37	196	879	14:39	47	0.893	A BV	11306.	50.000 NG	1.14
38	196	884	14:44	47	0.898	A VB	13701.	50.000 NG*	1.14
39	172	890	14:50	47	0.904	A BB	45061.	50.000 NG*	1.14
40	162	904	15:04	47	0.919	A BB	42622.	50.000 NG	1.14
41	63	922	15:22	47	0.937	A BB	23255.	50.000 NG*	1.14
42	163	932	15:52	47	0.967	A BB	50037.	50.000 NG	1.14
43	163	961	16:01	47	0.977	A BB	11203.	50.000 NG	1.14
44	132	962	16:02	47	0.978	A BE	65111.	50.000 NG	1.14
45	57	974	16:14	47	0.990	A BB	74786.	50.000 NG***	1.14
46	138	979	16:19	47	0.995	A BB	9900.	50.000 NG*	1.14
47	164	984	16:24	47	1.000	A BB	21694.	40.000 NG/UL	0.91
48	133	988	16:28	47	1.004	A BB	43313.	50.000 NG	1.14
49	184	994	16:34	47	1.010	A BE	3215.	50.000 NG*	1.14
50	109	1001	16:41	47	1.017	A BE	7088.	50.000 NG	1.14



V2299

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	4:01	1.00	0.427	1.00	50.00	50.00	1.688	1.688	1.00
2	5:38	1.00	0.634	1.00	50.00	50.00	1.992	1.992	1.00
3	6:38	1.00	0.704	1.00	50.00	50.00	1.589	1.589	1.00
4	8:36	1.00	0.913	1.00	50.00	50.00	3.318	3.318	1.00
5	8:42	1.00	0.924	1.00	50.00	50.00	1.960	1.960	1.00
6	8:43	1.00	0.926	1.00	50.00	50.00	2.387	2.387	1.00
7	8:55	1.00	0.947	1.00	50.00	50.00	2.202	2.202	1.00
8	9:00	1.00	0.956	1.00	50.00	50.00	1.633	1.633	1.00
9	9:06	1.00	0.966	1.00	50.00	50.00	1.305	1.305	1.00
10	9:20	1.00	0.991	1.00	50.00	50.00	1.685	1.685	1.00
11	9:29	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
12	9:27	1.00	1.004	1.00	50.00	50.00	1.750	1.750	1.00
13	9:46	1.00	1.037	1.00	50.00	50.00	1.037	1.037	1.00
14	9:52	1.00	1.048	1.00	50.00	50.00	1.634	1.634	1.00
15	10:03	1.00	1.067	1.00	50.00	50.00	1.492	1.492	1.00
16	10:08	1.00	1.076	1.00	50.00	50.00	4.268	4.268	1.00
17	10:23	1.00	1.103	1.00	50.00	50.00	1.575	1.575	1.00
18	10:29	1.00	1.106	1.00	50.00	50.00	0.569	0.569	1.00
19	10:28	1.00	1.112	1.00	50.00	50.00	1.799	1.799	1.00
20	10:34	1.00	1.122	1.00	50.00	50.00	0.893	0.893	1.00
21	10:44	1.00	0.871	1.00	50.00	50.00	0.667	0.667	1.00
22	10:46	1.00	0.874	1.00	50.00	50.00	0.716	0.716	1.00
23	11:18	1.00	0.917	1.00	50.00	50.00	1.357	1.357	1.00
24	11:30	1.00	0.934	1.00	50.00	50.00	0.250	0.250	1.00
25	11:35	1.00	0.940	1.00	50.00	50.00	0.533	0.533	1.00
26	11:47	1.00	0.959	1.00	50.00	50.00	0.828	0.828	1.00
27	11:52	1.00	0.963	1.00	50.00	50.00	0.289	0.289	1.00
28	12:01	1.00	0.976	1.00	50.00	50.00	0.372	0.372	1.00
29	12:13	1.00	0.992	1.00	50.00	50.00	0.402	0.402	1.00
30	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
31	12:22	1.00	1.004	1.00	50.00	50.00	1.349	1.349	1.00
32	12:32	1.00	1.018	1.00	50.00	50.00	0.433	0.433	1.00
33	12:47	1.00	1.038	1.00	50.00	50.00	0.219	0.219	1.00
34	13:37	1.00	1.106	1.00	50.00	50.00	0.503	0.503	1.00
35	13:37	1.00	1.133	1.00	50.00	50.00	0.796	0.796	1.00
36	14:28	1.00	0.882	1.00	50.00	50.00	0.333	0.333	1.00
37	14:39	1.00	0.893	1.00	50.00	50.00	0.417	0.417	1.00
38	14:44	1.00	0.898	1.00	50.00	50.00	0.509	0.509	1.00
39	14:50	1.00	0.904	1.00	50.00	50.00	1.662	1.662	1.00
40	15:04	1.00	0.919	1.00	50.00	50.00	1.572	1.572	1.00
41	15:22	1.00	0.937	1.00	50.00	50.00	0.858	0.858	1.00
42	15:52	1.00	0.967	1.00	50.00	50.00	1.845	1.845	1.00
43	16:01	1.00	0.977	1.00	50.00	50.00	0.413	0.413	1.00
44	16:02	1.00	0.978	1.00	50.00	50.00	2.401	2.401	1.00
45	16:14	1.00	0.990	1.00	50.00	50.00	2.758	2.758	1.00
46	16:19	1.00	0.995	1.00	50.00	50.00	0.218	0.218	1.00
47	16:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
48	16:28	1.00	1.004	1.00	50.00	50.00	1.597	1.597	1.00
49	16:34	1.00	1.010	1.00	50.00	50.00	0.192	0.192	1.00
50	16:41	1.00	1.017	1.00	50.00	50.00	0.261	0.261	1.00

Quantitation Report File: V2277

V2299

Data: V2299.TI

12/01/88 15:16:00

Sample: CLP,,,SSTD50,,,16277,B,CC-050,,,1UL,

Conds.: INST V:RESTEK RTX-5/30M,4MIN245-8587/MIN 300210/MIN

Formula: Instrument: V Weight: 0.001

Submitted by: VERSAR Analyst: GC Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

- No Name
- 51 C565 DIBENZOFURAN
- 52 C544 2,4-DINITROTOLUENE
- 53 C606 HEXADECANE
- 54 C580 DIETHYLPHTHALATE
- 55 C585 4-CHLOROPHENYL-PHENYLETHER
- 56 C590 FLUORENE
- 57 C595 4-NITROANILINE
- 58 C610 4,6-DINITRO-2-METHYLPHENOL
- 59 C615 N-NITROSODIPHENYLAMINE
- 60 C611 1,2-DIPHENYLHYDRAZINE
- 61 C555 2,4,6,-TRIBROMOPHENOL\*\*ACID SURR.\*\*
- 62 C607 HEPTADECANE
- 63 C625 4-BROMOPHENYL-PHENYLETHER
- 64 C630 HEXACHLOROBENZENE
- 65 C635 PENTACHLOROPHENOL
- 66 C608 OCTADECANE
- 67 C160 PHENANTHRENE-DID\*\*INT. STD. #4\*\*
- 68 C640 PHENANTHRENE
- 69 C645 ANTHRACENE
- 70 C650 DI-N-BUTYLPHTHALATE
- 71 C609 EICOSANE
- 72 C655 FLUORANTHENE
- 73 C715 PYRENE
- 74 C610 DOCOSANE
- 75 C530 P-TERPHENYL-D14\*\*BN SURR.\*\*
- 76 C720 BUTYLBENZYLPHTHALATE
- 77 C725 3,3'-DICHLOROBENZIDINE
- 78 C730 BENZO(A)ANTHRACENE
- 79 C170 CHRYSENE-D12\*\*INT. STD. #5\*\*
- 80 C740 CHRYSENE
- 81 C741 BIS (2-ETHYLHEXYL) PHTHALATE
- 82 C760 DI-N-OCTYL PHTHALATE
- 83 C765 BENZO(B)FLUORANTHENE
- 84 C770 BENZO(K)FLUORANTHENE
- 85 C775 BENZO(A)PYRENE
- 86 C175 PERYLENE-D12\*\*INT. STD. #6\*\*
- 87 C780 INDENO(1,2,3-CD)PYRENE
- 88 C785 DIBENZ(A,H)ANTHRACENE
- 89 C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	ZT%
51	168	1010	16:50	47	1.026	A BB	55682.	50.000 NG	1.14
52	165	1015	16:55	47	1.032	A BB	15471.	50.000 NG	1.14
53	57	1042	17:22	47	1.059	A BB	74927.	50.000 NG***	1.14
54	149	1050	17:30	47	1.067	A BB	58227.	50.000 NG	1.14

No	m/z	Scan	Time	Ref	RRT	Math	Area(Hght)	Amount	RTot
55	204	1057	17:37	47	1.074	A BB	18778.	50.000 NG	1.14
56	166	1058	17:38	47	1.075	A BB	44363.	50.000 NG	1.14
57	138	1064	17:44	47	1.081	A BB	6419.	50.000 NG*	1.14
58	198	1071	17:51	47	1.088	A BB	7300.	50.000 NG*	1.14
59	169	1074	17:54	47	1.091	A BB	21906.	50.000 NG	1.14
60	77	1079	17:59	47	1.097	A BB	126229.	50.000 NG***	1.14
61	330	1093	18:13	67	0.920	A BB	6517.	50.000 NG*	1.14
62	57	1107	18:27	67	0.932	A BB	79533.	50.000 NG***	1.14
63	248	1124	18:44	47	1.142	A BB	9919.	50.000 NG	1.14
64	284	1145	19:05	47	1.164	A BB	14210.	50.000 NG	1.14
65	266	1169	19:29	67	0.984	A BB	8056.	50.000 NG	1.14
66	57	1169	19:29	67	0.984	A BB	76796.	50.000 NG***	1.14
67	188	1188	19:48	67	1.000	A BB	40353.	40.000 NG/UL	0.91
68	178	1191	19:51	67	1.003	A BV	58164.	50.000 NG	1.14
69	178	1197	19:57	67	1.008	A VB	58811.	50.000 NG	1.14
70	149	1274	21:14	67	1.072	A VB	93169.	50.000 NG	1.14
71	71	1284	21:24	67	1.081	A BB	52559.	50.000 NG***	1.14
72	202	1358	22:38	67	1.143	A BB	57667.	50.000 NG	1.14
73	202	1390	23:10	67	1.170	A BB	60814.	50.000 NG	1.14
74	57	1390	23:10	67	1.170	A VB	95152.	50.000 NG***	1.14
75	244	1411	23:31	79	0.904	A BB	37253.	50.000 NG*	1.14
76	149	1482	24:42	79	0.930	A BB	35196.	50.000 NG	1.14
77	252	1554	25:54	79	0.996	A BB	1244.	50.000 NG	1.14
78	228	1557	25:57	79	0.998	A BV	33622.	50.000 NG	1.14
79	240	1560	26:00	79	1.000	A BB	25045.	40.000 NG/UL	0.91
80	228	1563	26:03	79	1.002	A VB	33774.	50.000 NG	1.14
81	149	1563	26:03	79	1.002	A BB	48592.	50.000 NG	1.14
82	149	1643	27:23	86	0.939	A BB	76985.	50.000 NG	1.14
83	252	1702	28:22	86	0.973	M XX	31828.	50.000 NG	1.14
84	252	1705	28:25	86	0.974	M XX	36015.	50.000 NG	1.14
85	252	1743	29:03	86	0.996	A BB	28440.	50.000 NG	1.14
86	264	1750	29:10	86	1.000	A BB	21368.	40.000 NG/UL	0.91
87	276	1896	31:36	86	1.083	A BB	30324.	50.000 NG	1.14
88	278	1896	31:36	86	1.083	A BB	22236.	50.000 NG	1.14
89	276	1938	32:18	86	1.107	A BB	28321.	50.000 NG	1.14

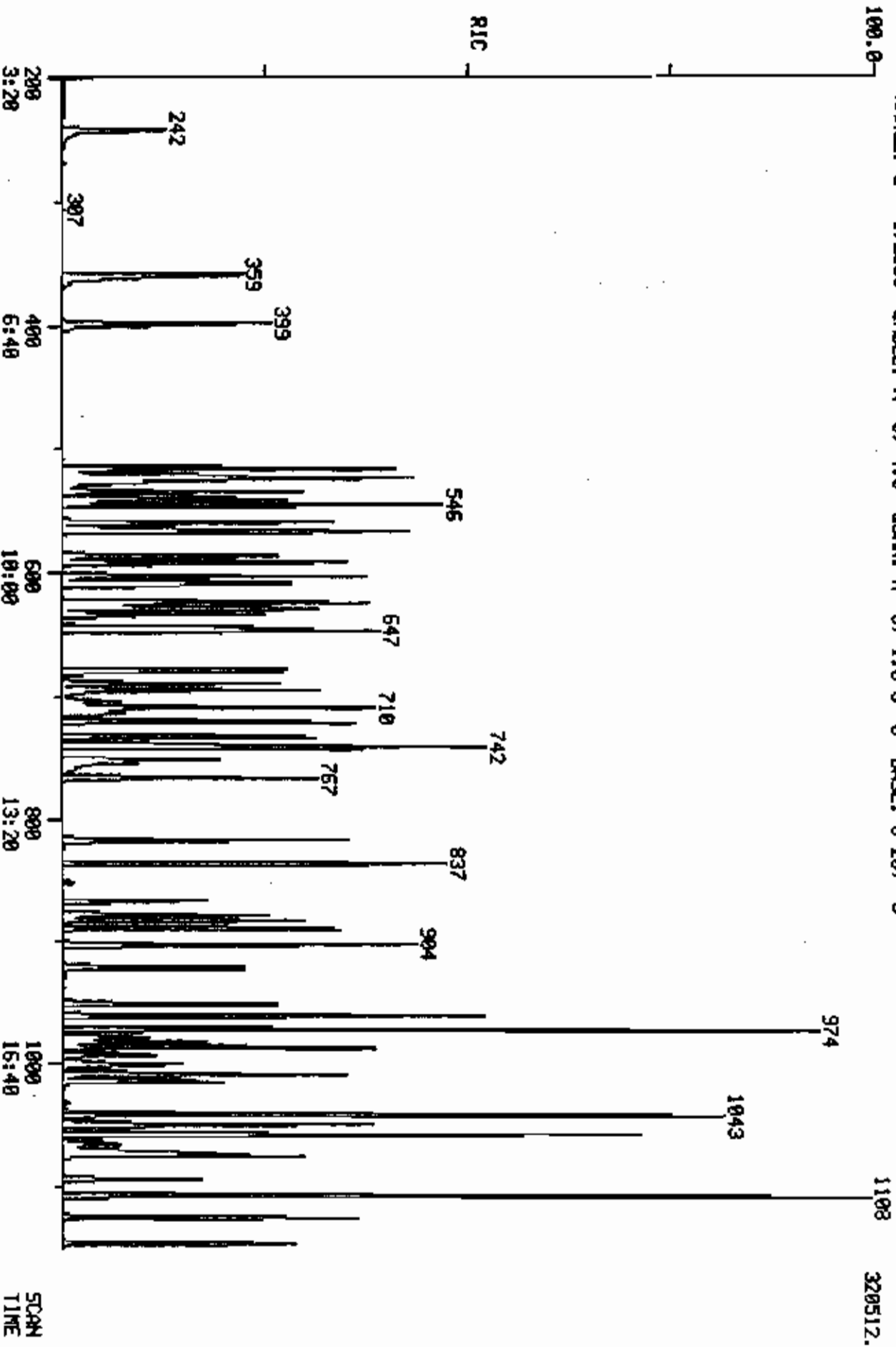
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
51	16:50	1.00	1.026	1.00	50.00	50.00	2.053	2.053	1.00
52	16:55	1.00	1.032	1.00	50.00	50.00	0.571	0.571	1.00
53	17:22	1.00	1.059	1.00	50.00	50.00	2.763	2.763	1.00
54	17:30	1.00	1.067	1.00	50.00	50.00	2.147	2.147	1.00
55	17:37	1.00	1.074	1.00	50.00	50.00	0.692	0.692	1.00
56	17:38	1.00	1.075	1.00	50.00	50.00	1.636	1.636	1.00
57	17:44	1.00	1.081	1.00	50.00	50.00	0.237	0.237	1.00
58	17:51	1.00	1.088	1.00	50.00	50.00	0.269	0.269	1.00
59	17:54	1.00	1.091	1.00	50.00	50.00	0.808	0.808	1.00
60	17:59	1.00	1.097	1.00	50.00	50.00	4.655	4.655	1.00
61	18:13	1.00	0.920	1.00	50.00	50.00	0.129	0.129	1.00
62	18:27	1.00	0.932	1.00	50.00	50.00	1.577	1.577	1.00
63	18:44	1.00	1.142	1.00	50.00	50.00	0.366	0.366	1.00
64	19:05	1.00	1.164	1.00	50.00	50.00	0.524	0.524	1.00
65	19:29	1.00	0.984	1.00	50.00	50.00	0.160	0.160	1.00
66	19:29	1.00	0.984	1.00	50.00	50.00	1.322	1.322	1.00
67	19:48	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
68	19:51	1.00	1.003	1.00	50.00	50.00	1.153	1.153	1.00
69	19:57	1.00	1.008	1.00	50.00	50.00	1.165	1.165	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
70	21:14	1.00	1.072	1.00	50.00	50.00	1.847	1.847	1.00
71	21:24	1.00	1.081	1.00	50.00	50.00	1.042	1.042	1.00
72	22:38	1.00	1.143	1.00	50.00	50.00	1.143	1.143	1.00
73	23:10	1.00	1.170	1.00	50.00	50.00	1.205	1.205	1.00
74	23:10	1.00	1.170	1.00	50.00	50.00	1.885	1.885	1.00
75	23:31	1.00	0.904	1.00	50.00	50.00	1.190	1.190	1.00
76	24:42	1.00	0.930	1.00	50.00	50.00	1.124	1.124	1.00
77	25:54	1.00	0.996	1.00	50.00	50.00	0.040	0.040	1.00
78	25:57	1.00	0.998	1.00	50.00	50.00	1.074	1.074	1.00
79	26:00	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
80	26:03	1.00	1.002	1.00	50.00	50.00	1.079	1.079	1.00
81	26:03	1.00	1.002	1.00	50.00	50.00	1.552	1.552	1.00
82	27:23	1.00	0.939	1.00	50.00	50.00	2.882	2.882	1.00
83	28:22	1.00	0.973	1.00	50.00	50.00	1.192	1.192	1.00
84	28:29	1.00	0.974	1.00	50.00	50.00	1.348	1.348	1.00
85	29:03	1.00	0.996	1.00	50.00	50.00	1.065	1.065	1.00
86	29:10	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
87	31:36	1.00	1.083	1.00	50.00	50.00	1.138	1.138	1.00
88	31:36	1.00	1.083	1.00	50.00	50.00	0.832	0.832	1.00
89	32:18	1.00	1.107	1.00	50.00	50.00	1.060	1.060	1.00

RIC  
12/01/88 18:02:00  
SAMPLE1 CLP,,,551080,,,16296,B,1C-80,,1UL,  
COND.S.: INST V:RESTERX RTX-5/30M,4MIN@45-85@7/MIN-30@210/MIN  
RANGE: G 1,2000 LABEL: N 0, 4.0 QUANT: A 0, 1.0 J 0 BRSE: U 20, 3

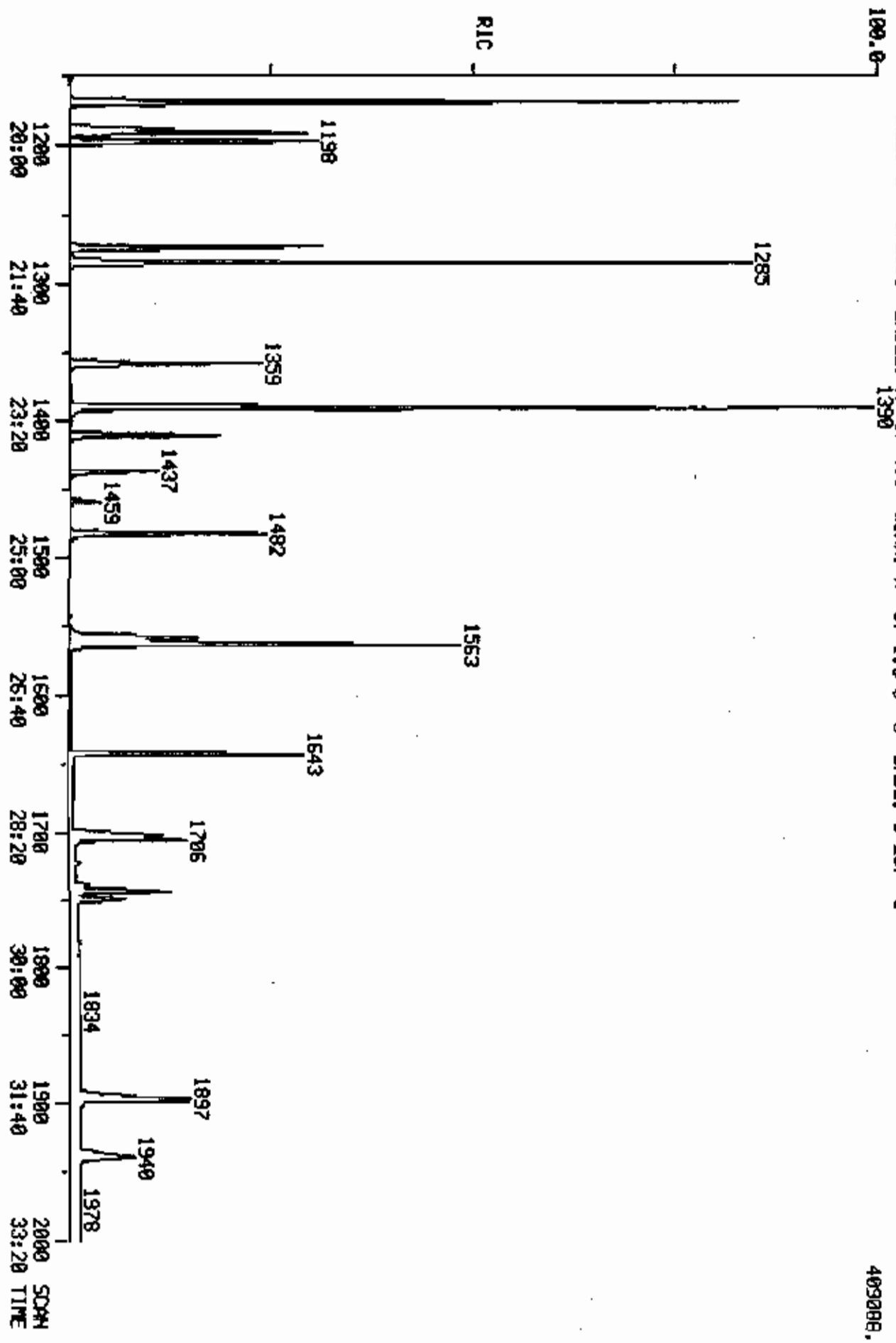
DATA: V2302 #1  
CALI: U2302 #2

SCANS 200 TO 1150

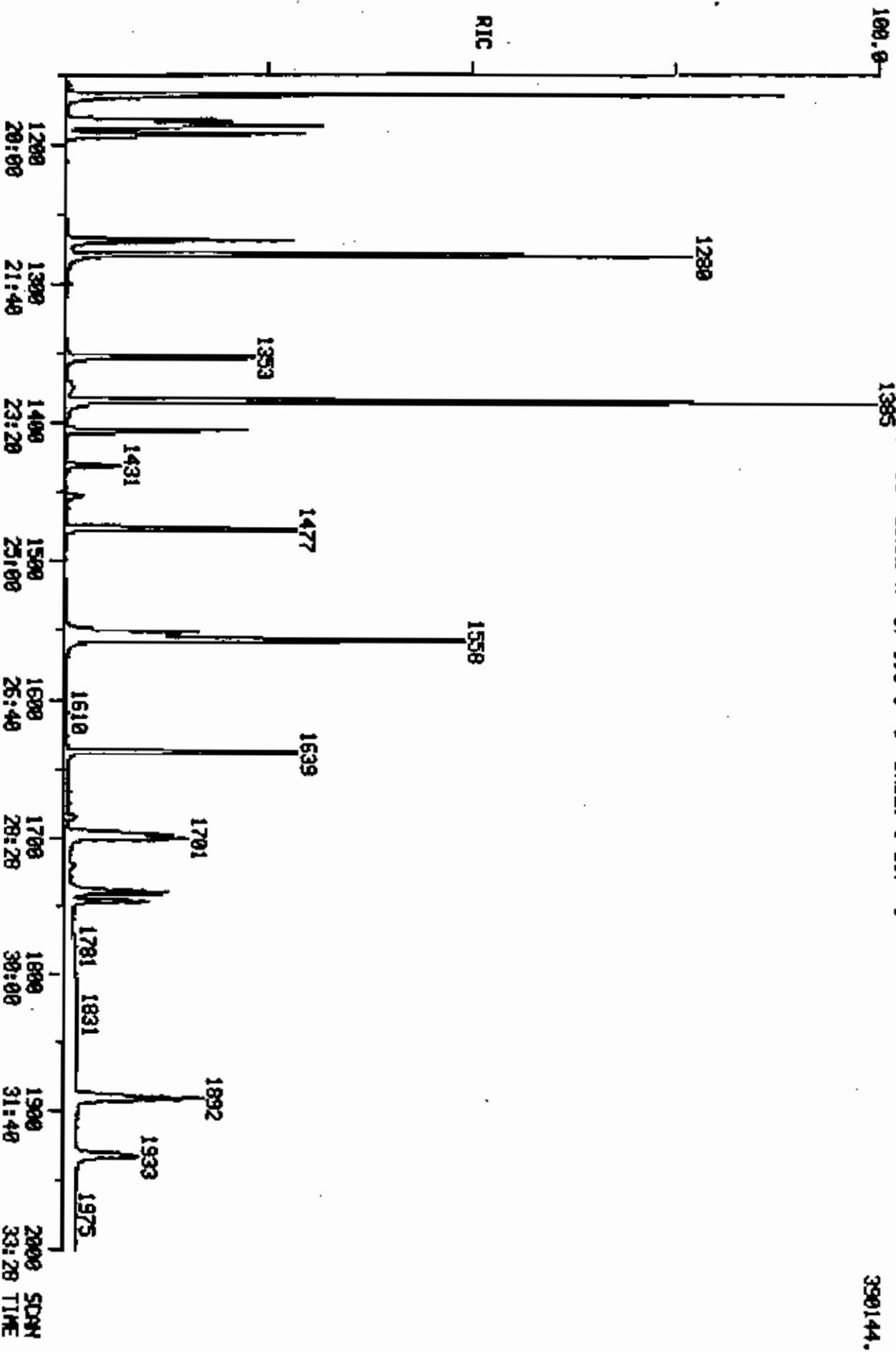


RIC  
 12/01/88 18:02:08  
 SAMPLE: CLP,,55TD80,,16296,B,IC-80,,1UL,  
 COND5.: INST V:RESTERX RTX-5/30M,4MIN45-8527/MIN-300010/MIN  
 RANGE: C 1,2000 LABEL: N 0, 4.0 QUEN: A 0, 1.0 J 0 BASE: U 20, 3  
 4092086

DATA: UZ302 #1  
 CALL: UZ302 #2  
 SCANS 1150 TO 2000



RIC  
 12/07/88 16:28:00  
 DATA: V2357 #1  
 CALL: V2357 #2  
 SAMPLE: CLP,,5ST050,,16297,B,CC-850,,1UL,  
 COND: 1 INST U:RESTEK RIX-5/30M,4MILN45-8507/MIN-300010/MIN  
 RANGE: 1 G 1,2000 LABEL: N 0, 4.0 QUANT: 0, 1.0 J 0 BASE: U 20, 3  
 SCANS 1150 TO 2000



No Name  
 48 C580 DIETHYLPHthalate  
 49 C585 4-CHLOROPHENYL-PHENYLETHER  
 50 C590 FLUORENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area (Hght)	Amount	XTot
1	112	394	6:34	7	0.704	A BB	37653.	50.000 NG*	1.30
2	99	518	8:38	7	0.923	A BB	45672.	50.000 NG*	1.30
3	94	520	8:40	7	0.929	A BV	39837.	50.000 NG	1.30
4	93	531	8:51	7	0.948	A VV	53328.	50.000 NG	1.30
5	128	537	8:57	7	0.959	A BB	37997.	50.000 NG	1.30
6	146	556	9:16	7	0.993	A BB	37688.	50.000 NG	1.30
7	152	560	9:20	7	1.000	A BB	18891.	40.000 NG/UL	1.04
8	146	563	9:23	7	1.003	A BB	41801.	50.000 NG	1.30
9	108	583	9:43	7	1.041	A BB	22870.	50.000 NG	1.30
10	146	588	9:48	7	1.050	A BB	37773.	50.000 NG	1.30
11	108	599	9:59	7	1.070	A VB	36245.	50.000 NG	1.30
12	45	604	10:04	7	1.079	A BB	121680.	50.000 NG	1.30
13	108	619	10:19	7	1.105	A BB	37657.	50.000 NG	1.30
14	119	621	10:21	7	1.109	A BB	13189.	50.000 NG***	1.30
15	70	624	10:24	7	1.114	A BV	48404.	50.000 NG	1.30
16	117	630	10:30	7	1.123	A BB	22241.	50.000 NG	1.30
17	82	640	10:40	26	0.871	A BB	32456.	50.000 NG*	1.30
18	77	642	10:42	26	0.873	A BB	36674.	50.000 NG	1.30
19	82	679	11:19	26	0.918	A BB	110644.	50.000 NG	1.30
20	139	686	11:26	26	0.933	A BB	17917.	50.000 NG	1.30
21	107	691	11:31	26	0.940	A BB	42684.	50.000 NG	1.30
22	93	706	11:46	26	0.961	A BB	64783.	50.000 NG	1.30
23	122	707	11:47	26	0.962	A VB	20180.	50.000 NG	1.30
24	162	717	11:57	26	0.976	A BB	28058.	50.000 NG	1.30
25	180	729	12:09	26	0.992	A BB	30009.	50.000 NG	1.30
26	136	735	12:15	26	1.000	A BB	57075.	40.000 NG/UL	1.04
27	128	738	12:18	26	1.004	A BB	99207.	50.000 NG	1.30
28	127	748	12:28	26	1.018	A BB	33234.	50.000 NG	1.30
29	225	763	12:43	26	1.038	A BB	18727.	50.000 NG	1.30
30	107	814	13:34	26	1.107	A BB	40572.	50.000 NG	1.30
31	142	833	13:53	26	1.133	A BB	57892.	50.000 NG	1.30
32	237	864	14:24	42	0.882	A BB	13773.	50.000 NG	1.30
33	196	875	14:35	42	0.893	A BV	15237.	50.000 NG	1.30
34	196	880	14:40	42	0.898	A VB	18910.	50.000 NG*	1.30
35	172	886	14:46	42	0.904	A BB	37448.	50.000 NG*	1.30
36	162	900	15:00	42	0.918	A BB	38349.	50.000 NG	1.30
37	65	919	15:19	42	0.938	A BV	38318.	50.000 NG*	1.30
38	163	948	15:48	42	0.967	A BB	68951.	50.000 NG	1.30
39	165	958	15:58	42	0.978	A BB	14320.	50.000 NG	1.30
40	152	958	15:58	42	0.978	A BB	81572.	50.000 NG	1.30
41	138	975	16:15	42	0.995	A BB	9012.	50.000 NG*	1.30
42	164	980	16:20	42	1.000	A BB	28687.	40.000 NG/UL	1.04
43	153	984	16:24	42	1.004	A BB	34520.	50.000 NG	1.30
44	184	990	16:30	42	1.010	A BB	7461.	50.000 NG*	1.30
45	109	997	16:37	42	1.017	A BV	10563.	50.000 NG	1.30
46	168	1006	16:46	42	1.027	A BB	73386.	50.000 NG	1.30
47	165	1011	16:51	42	1.032	A BB	20955.	50.000 NG	1.30
48	149	1045	17:25	42	1.066	A BV	79038.	50.000 NG	1.30
49	204	1053	17:33	42	1.074	A BB	26016.	50.000 NG	1.30
50	166	1054	17:34	42	1.076	A BB	36578.	50.000 NG	1.30

v2357



No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	6:34	1.00	0.704	1.00	50.00	50.00	1.595	1.595	1.00
2	8:38	1.00	0.925	1.00	50.00	50.00	1.934	1.934	1.00
3	8:40	1.00	0.929	1.00	50.00	50.00	2.334	2.334	1.00
4	8:51	1.00	0.948	1.00	50.00	50.00	2.255	2.255	1.00
5	8:57	1.00	0.959	1.00	50.00	50.00	1.607	1.607	1.00
6	9:16	1.00	0.993	1.00	50.00	50.00	1.681	1.681	1.00
7	9:20	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
8	9:23	1.00	1.005	1.00	50.00	50.00	1.770	1.770	1.00
9	9:43	1.00	1.041	1.00	50.00	50.00	0.969	0.969	1.00
10	9:48	1.00	1.050	1.00	50.00	50.00	1.684	1.684	1.00
11	9:59	1.00	1.070	1.00	50.00	50.00	1.535	1.535	1.00
12	10:04	1.00	1.079	1.00	50.00	50.00	3.153	3.153	1.00
13	10:19	1.00	1.105	1.00	50.00	50.00	1.595	1.595	1.00
14	10:21	1.00	1.109	1.00	50.00	50.00	0.559	0.559	1.00
15	10:24	1.00	1.114	1.00	50.00	50.00	2.050	2.050	1.00
16	10:30	1.00	1.125	1.00	50.00	50.00	0.942	0.942	1.00
17	10:40	1.00	0.871	1.00	50.00	50.00	0.735	0.735	1.00
18	10:42	1.00	0.873	1.00	50.00	50.00	0.794	0.794	1.00
19	11:15	1.00	0.918	1.00	50.00	50.00	1.551	1.551	1.00
20	11:26	1.00	0.933	1.00	50.00	50.00	0.251	0.251	1.00
21	11:31	1.00	0.940	1.00	50.00	50.00	0.595	0.595	1.00
22	11:46	1.00	0.961	1.00	50.00	50.00	0.908	0.908	1.00
23	11:47	1.00	0.962	1.00	50.00	50.00	0.283	0.283	1.00
24	11:57	1.00	0.976	1.00	50.00	50.00	0.393	0.393	1.00
25	12:09	1.00	0.992	1.00	50.00	50.00	0.421	0.421	1.00
26	12:15	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
27	12:18	1.00	1.004	1.00	50.00	50.00	1.391	1.391	1.00
28	12:28	1.00	1.018	1.00	50.00	50.00	0.466	0.466	1.00
29	12:43	1.00	1.038	1.00	50.00	50.00	0.262	0.262	1.00
30	13:34	1.00	1.107	1.00	50.00	50.00	0.569	0.569	1.00
31	13:53	1.00	1.133	1.00	50.00	50.00	0.811	0.811	1.00
32	14:24	1.00	0.882	1.00	50.00	50.00	0.384	0.384	1.00
33	14:35	1.00	0.893	1.00	50.00	50.00	0.425	0.425	1.00
34	14:40	1.00	0.898	1.00	50.00	50.00	0.327	0.327	1.00
35	14:46	1.00	0.904	1.00	50.00	50.00	1.502	1.502	1.00
36	15:00	1.00	0.918	1.00	50.00	50.00	1.544	1.544	1.00
37	15:19	1.00	0.938	1.00	50.00	50.00	0.985	0.985	1.00
38	15:48	1.00	0.967	1.00	50.00	50.00	1.923	1.923	1.00
39	15:58	1.00	0.978	1.00	50.00	50.00	0.397	0.397	1.00
40	15:58	1.00	0.978	1.00	50.00	50.00	2.275	2.275	1.00
41	16:15	1.00	0.995	1.00	50.00	50.00	0.251	0.251	1.00
42	16:20	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
43	16:24	1.00	1.004	1.00	50.00	50.00	1.520	1.520	1.00
44	16:30	1.00	1.010	1.00	50.00	50.00	0.208	0.208	1.00
45	16:37	1.00	1.017	1.00	50.00	50.00	0.295	0.295	1.00
46	16:46	1.00	1.027	1.00	50.00	50.00	2.052	2.052	1.00
47	16:51	1.00	1.032	1.00	50.00	50.00	0.584	0.584	1.00
48	17:25	1.00	1.066	1.00	50.00	50.00	2.204	2.204	1.00
49	17:33	1.00	1.074	1.00	50.00	50.00	0.726	0.726	1.00
50	17:34	1.00	1.076	1.00	50.00	50.00	1.578	1.578	1.00

V2357

Quantitation Report File: V2357

Date: V2357.T1

12/07/88 16:28:00

Sample: CLP,,,BSTD50,,,16297, B, CC-050,, 1UL,

Conds.: INST V:RETEK RTX-5/30M, 4MIN@45-85@7/MIN-300@10/MIN

Formula:

Instrument: V

Weight: 0.001

Submitted by: VERSAR

Analyst: TS

Acct. No.: \_\_\_\_\_

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
51	C595 4-NITROANILINE
52	C610 4,6-DINITRO-2-METHYLPHENOL
53	C615 N-NITROSODIPHENYLAMINE
54	C555 2,4,6-TRIBROMOPHENOL**ACID SURR.**
55	C625 4-BROMOPHENYL-PHENYLETHER
56	C630 HEXACHLOROBENZENE
57	C635 PENTACHLOROPHENOL
58	C160 PHENANTHRENE-D10**INT. STD. #4**
59	C640 PHENANTHRENE
60	C645 ANTHRACENE
61	C690 DI-N-BUTYLPHTHALATE
62	C655 FLUORANTHENE
63	C715 PYRENE
64	C830 P-TERPHENYL-D14**BN SURR.**
65	C720 BUTYLBENZYLPHTHALATE
66	C725 3,3'-DICHLOROBENZIDINE
67	C730 BENZO(A)ANTHRACENE
68	C170 CHRYSENE-D12**INT. STD. #5**
69	C741 BIS (2-ETHYLHEXYL) PHTHALATE
70	C740 CHRYSENE
71	C760 DI-N-OCTYL PHTHALATE
72	C765 BENZO(B)FLUORANTHENE
73	C770 BENZO(K)FLUORANTHENE
74	C775 BENZO(A)PYRENE
75	C175 PERYLENE-D12**INT. STD. #6**
76	C780 INDENO(1,2,3-CD)PYRENE
77	C785 DIBENZ(A,H)ANTHRACENE
78	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	ZTot
51	138	1061	17:41	42	1.083	A VB	7957.	50.000 NG*	1.30
52	198	1067	17:47	42	1.089	A BB	10215.	50.000 NG*	1.30
53	169	1071	17:51	42	1.093	A BB	30211.	50.000 NG	1.30
54	330	1089	18:09	58	0.920	A BB	10858.	50.000 NG*	1.30
55	248	1120	18:40	42	1.143	A BB	15468.	50.000 NG	1.30
56	284	1141	19:01	42	1.164	A BB	22467.	50.000 NG	1.30
57	266	1165	19:25	58	0.984	A BB	13545.	50.000 NG	1.30
58	188	1184	19:44	58	1.000	A BB	57551.	40.000 NG/UL	1.04
59	178	1187	19:47	58	1.003	A BV	81767.	50.000 NG	1.30
60	178	1193	19:53	58	1.008	A VB	78217.	50.000 NG	1.30
61	149	1269	21:09	58	1.072	A VB	111139.	50.000 NG	1.30
62	202	1333	22:33	58	1.143	A VB	74962.	50.000 NG	1.30
63	202	1385	23:05	58	1.170	A VB	76265.	50.000 NG	1.30
64	244	1406	23:26	68	0.905	A VB	51130.	50.000 NG*	1.30
65	149	1477	24:37	68	0.950	A VB	45691.	50.000 NG	1.30

**Versar<sub>INC.</sub>**

V. RAW GC DATA

MASS SPECTRUM

12/01/88 14:58:00 + 91.26

SAMPLE: 50MG DFTPP 1UL

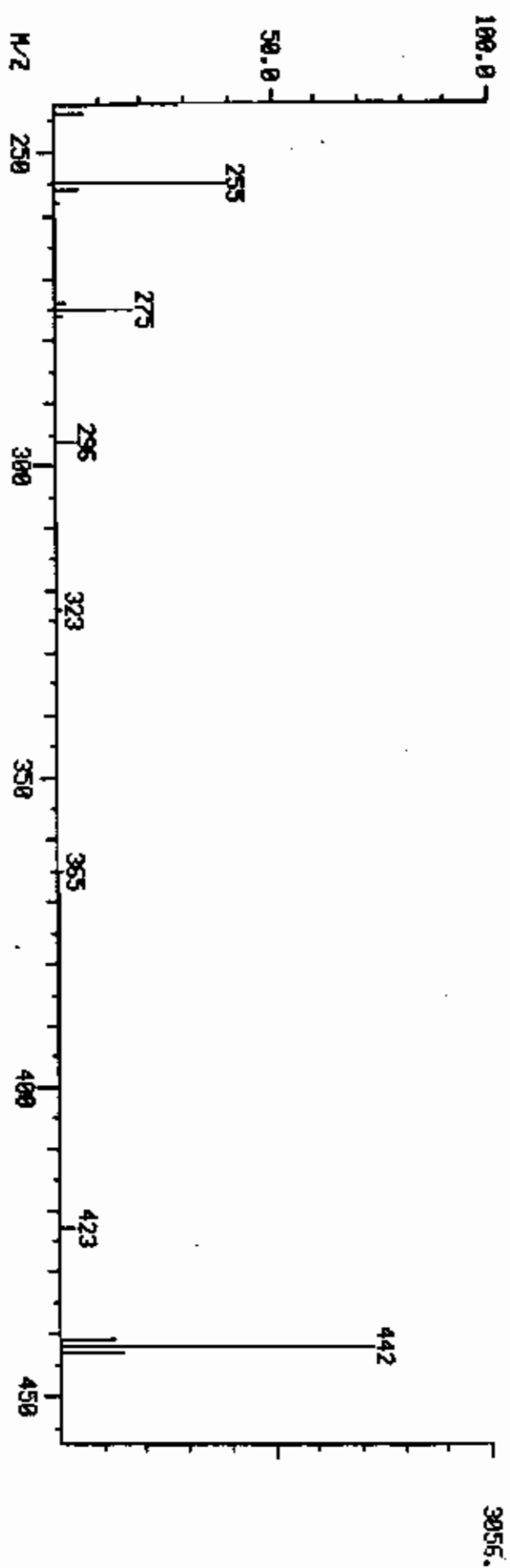
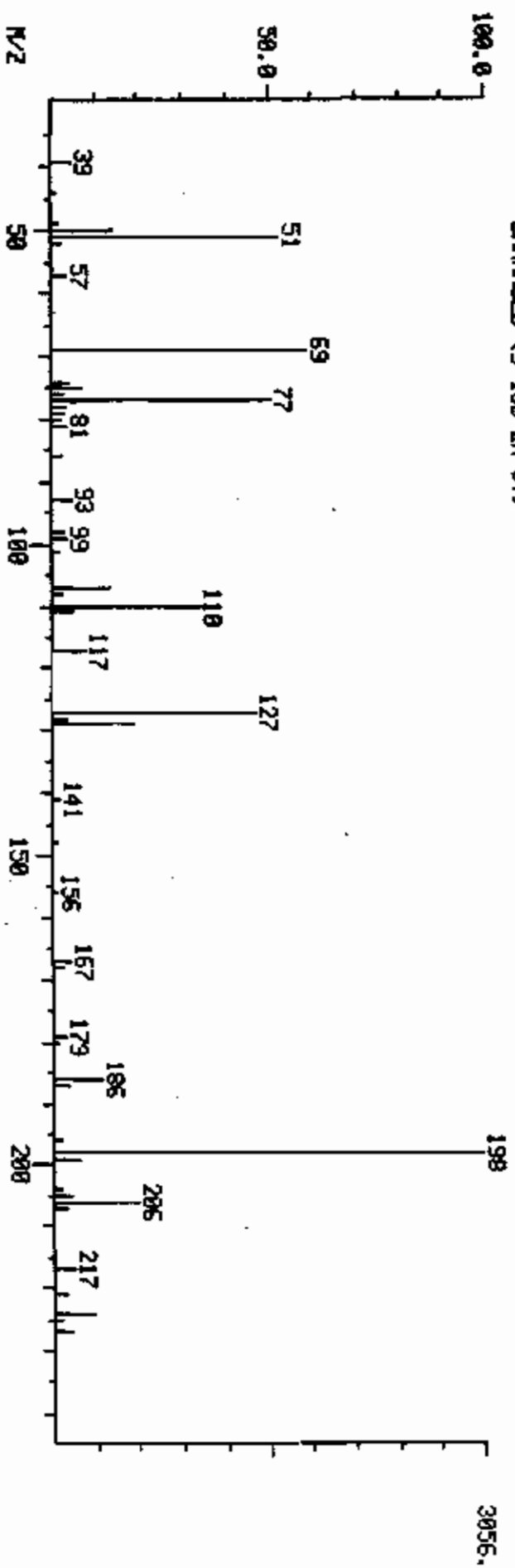
COMPOS. 1 INSTRUMENT VIRESTEK 30M RTX-S IMINE4SC-2500E25/MIN-3000E30/MIN

RT NAME: DFTPP

ENHANCED (S 150 2N 0T)

DATA: U2298 #566  
CALL: U2298 #2

BASE M/Z: 198  
R1C1 22656.



3056.

3056.

MASS SPECTRUM

12/06/88 9:25:00 + 9:15

SAMPLE: 50MG DFTPP 1UL

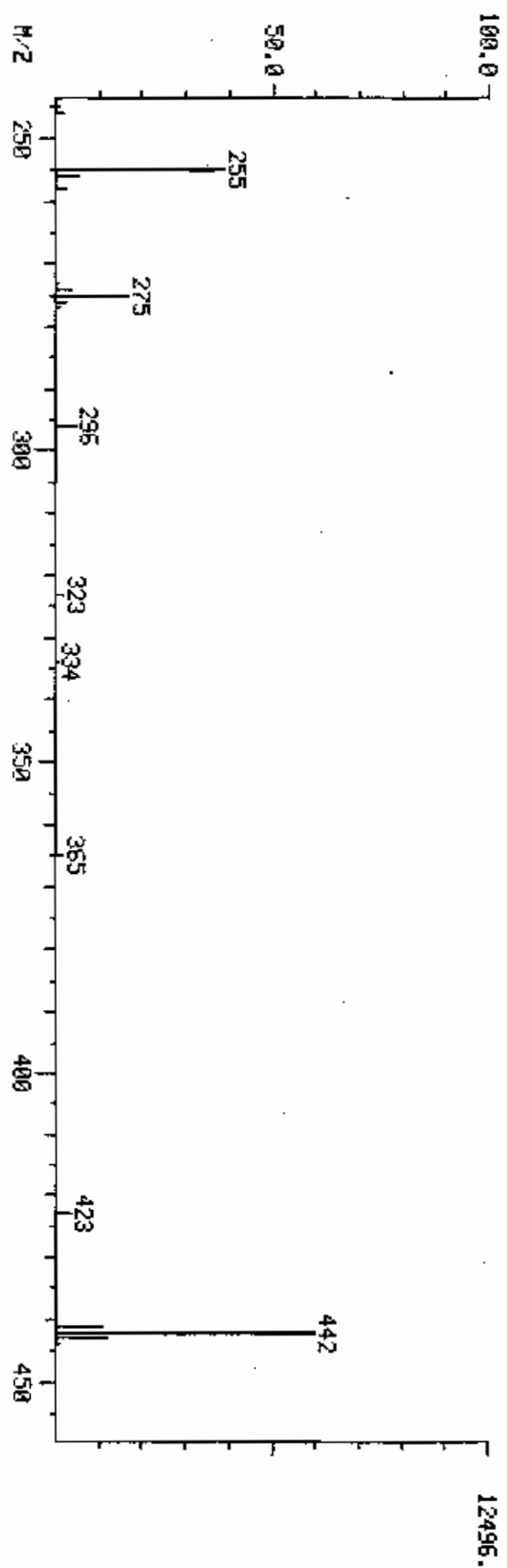
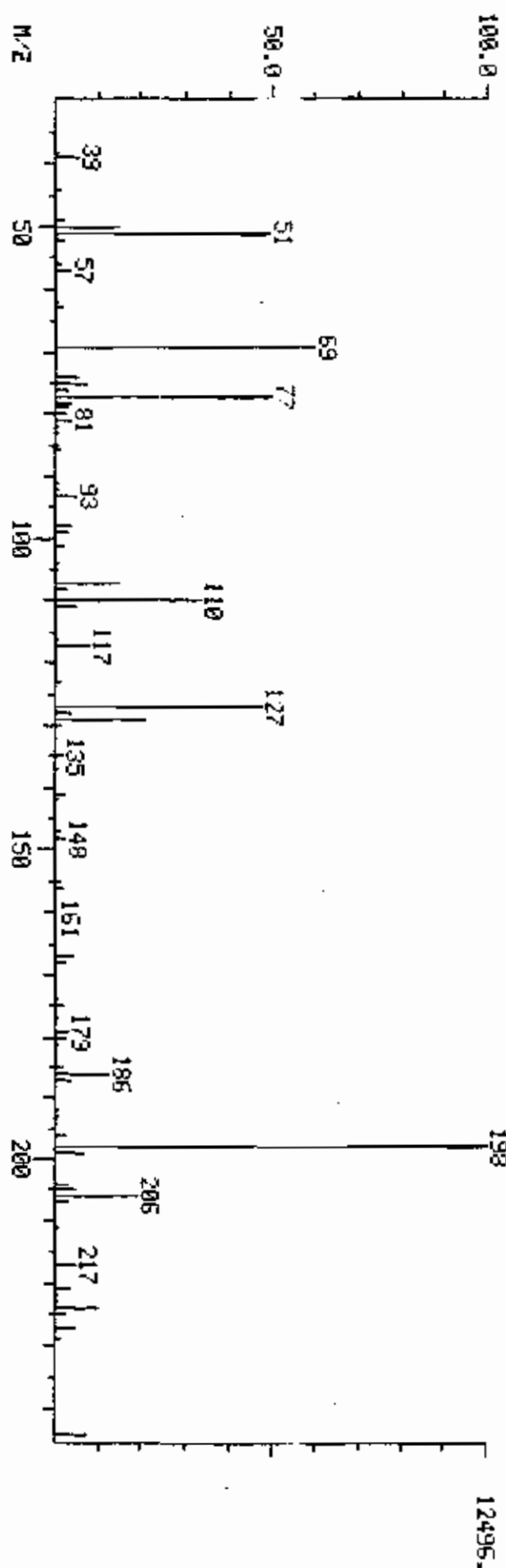
COND5.: INSTRUMENT U:RESTERK 30M RTX-5 I:MINI@45C-2500@25/MIN-3000@30/MIN

\*\* NAME: DFTPP

#555 TO #556 SUMMED

DATA: U2329 #555  
CALL: U2329 #2

BASE M/Z: 198  
R1C: 96896.



Mass List

12/04/88 9:25:00 + 9:15

Sample: SONG DFTPP 1UL

Conds.: INSTRUMENT V: RESTEX 30M RTX-2 IMING450-2500025/MIN-3000030/MIN  
#555 to #556 Summed

Data: V2329 # 559

Call: V2329 # 2

Base m/z: 199

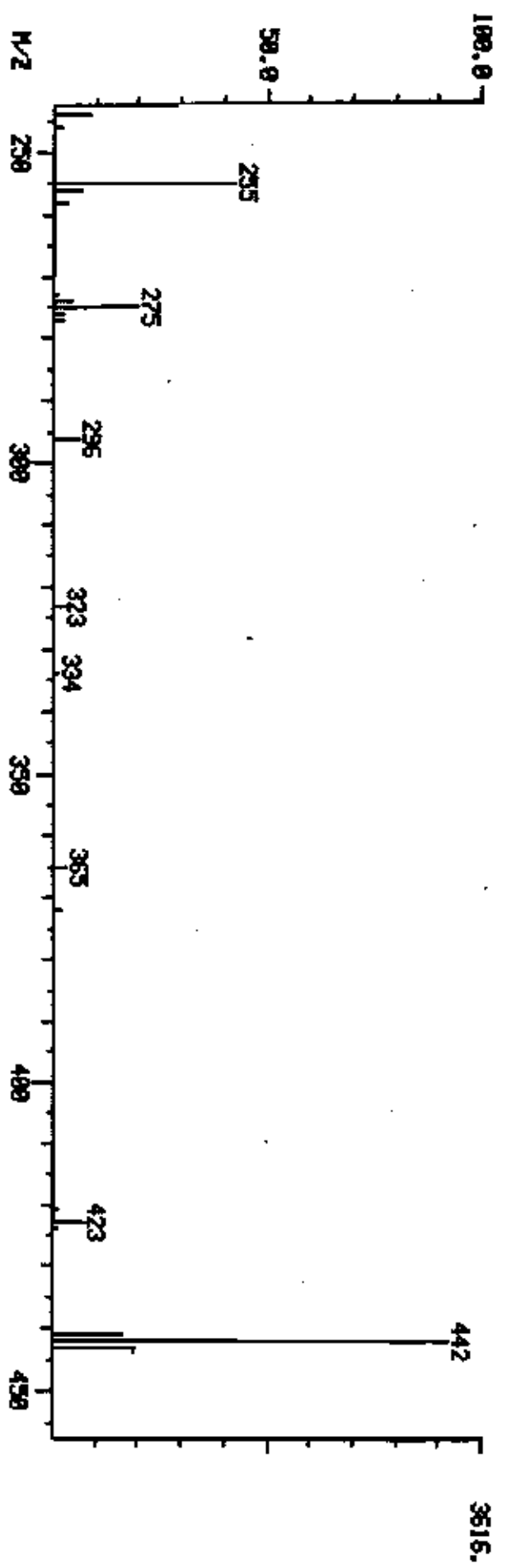
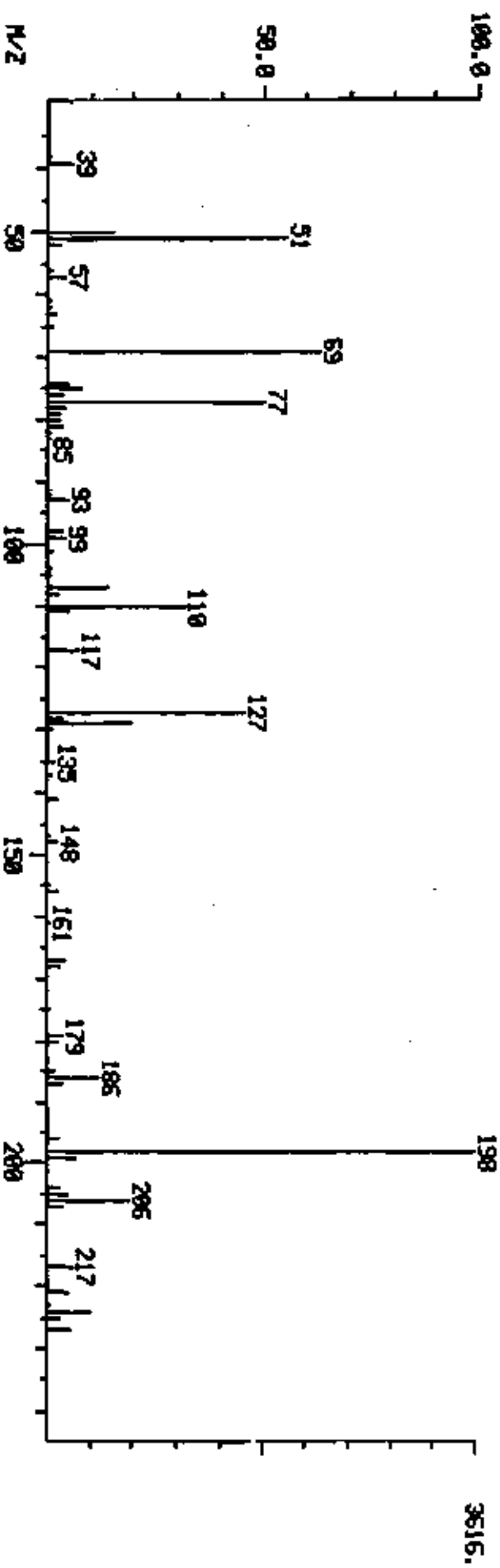
RIC: 76676

38 444 Mass	0.00 % RA	0.00 % RIC	0. # 0 Inten.	Minima Maxima Mass	Min inter:	77. % RA % RIC	Inten.
38.007	0.77	0.10	76.	156.00	2.06	0.27	287.
39.007	5.24	0.68	655.	160.00	0.62	0.05	77.
44.007	1.21	0.16	151.	161.00	0.89	0.11	110.
49.007	1.79	0.23	224.	167.00	4.19	0.34	523.
50.007	15.17	1.76	1896.	168.00	2.26	0.27	282.
51.007	49.68	6.41	6208.	174.00	0.64	0.08	80.
52.007	1.79	0.26	247.	175.00	1.70	0.22	212.
56.007	1.45	0.19	181.	177.00	0.62	0.05	77.
57.007	3.70	0.48	462.	177.00	0.18	0.41	397.
63.007	1.56	0.20	195.	190.00	2.23	0.27	277.
65.007	0.84	0.11	103.	181.00	0.74	0.10	93.
69.00	60.05	7.74	7504.	185.00	1.61	0.21	201.
74.00	5.14	0.66	642.	186.00	12.47	1.61	1358.
75.00	7.42	0.76	927.	187.00	0.31	0.45	428.
76.00	2.14	0.40	392.	192.00	0.58	0.07	55.
77.00	50.00	6.45	6245.	193.00	0.68	0.08	81.
78.00	3.71	0.48	463.	195.00	2.35	0.33	274.
79.00	3.24	0.42	405.	198.00	100.00	12.70	12495.
80.00	2.66	0.34	333.	197.00	5.47	0.83	608.
81.00	3.71	0.48	464.	204.00	2.75	0.25	344.
82.00	0.78	0.10	78.	205.00	4.77	0.62	392.
83.00	0.78	0.10	77.	206.00	17.33	2.47	2412.
85.00	0.76	0.10	75.	207.00	2.74	0.25	343.
86.00	0.94	0.12	117.	211.00	0.73	0.09	91.
91.00	0.67	0.09	66.	217.00	0.04	0.55	530.
92.00	0.75	0.10	74.	221.00	0.46	0.45	402.
93.00	4.91	0.63	614.	223.00	0.74	0.07	72.
98.00	3.69	0.48	461.	224.00	7.97	1.27	1248.
99.00	3.28	0.42	410.	225.00	2.50	0.32	312.
101.00	1.35	0.20	194.	227.00	4.66	0.60	382.
104.00	0.84	0.11	105.	227.00	0.70	0.12	110.
105.00	0.86	0.11	107.	244.00	7.27	0.94	711.
107.00	13.22	1.76	1702.	246.00	1.66	0.24	233.
108.00	2.27	0.30	286.	255.00	30.92	3.02	4854.
110.00	33.80	4.36	4224.	256.00	5.67	0.73	708.
111.00	4.65	0.60	581.	258.00	2.40	0.31	300.
116.00	0.65	0.08	81.	273.00	0.67	0.09	84.
117.00	8.00	1.03	1000.	274.00	0.43	0.44	429.
123.00	1.07	0.14	134.	275.00	16.74	2.16	2092.
127.00	48.08	6.20	6008.	276.00	2.26	0.27	282.
128.00	3.67	0.47	458.	277.00	1.49	0.17	165.
129.00	20.81	2.68	2600.	278.00	4.57	0.57	371.
130.00	1.26	0.16	157.	323.00	1.78	0.23	222.
135.00	1.74	0.22	218.	365.00	1.94	0.25	242.
137.00	0.66	0.09	83.	423.00	0.47	0.45	434.
141.00	2.34	0.30	292.	441.00	10.85	1.40	1355.
142.00	0.66	0.09	83.	442.00	50.77	7.74	7495.
147.00	0.76	0.12	120.	443.00	11.85	1.63	1482.
148.00	2.27	0.29	284.	444.00	0.82	0.11	102.
155.00	0.75	0.12	117.				

MASS SPECTRUM  
 12/07/88 14:59:00 + 4140  
 SAMPLE1 DFTPP 50MG IUL  
 COND. 1 INSTRUMENT V COLUMN: RESTEK 30M RTX-5 INHIBIT/SC TO 300C @ 300/MI  
 \*X NAME1 DFTPP  
 ENHANCED (S 138 ZN 81)

DATA1 U7355 #280  
 CALL: U7355 #2

BASE M/Z: 198  
 RIC: 30550.



Mass List

12/07/88 14:59:00 → 4:40

Date: V2355 @ 280

Call: V2355 @ 2

Base m/r: 198

RIC: 30360.

Sample: DFTPP 5000 1UL

Conds.: INSTRUMENT V COLUMN: RESTEK 30M RTX-5 ININ9125C TO 300C @ 30C/MIN

Enhanced (S 158 2N 0T)

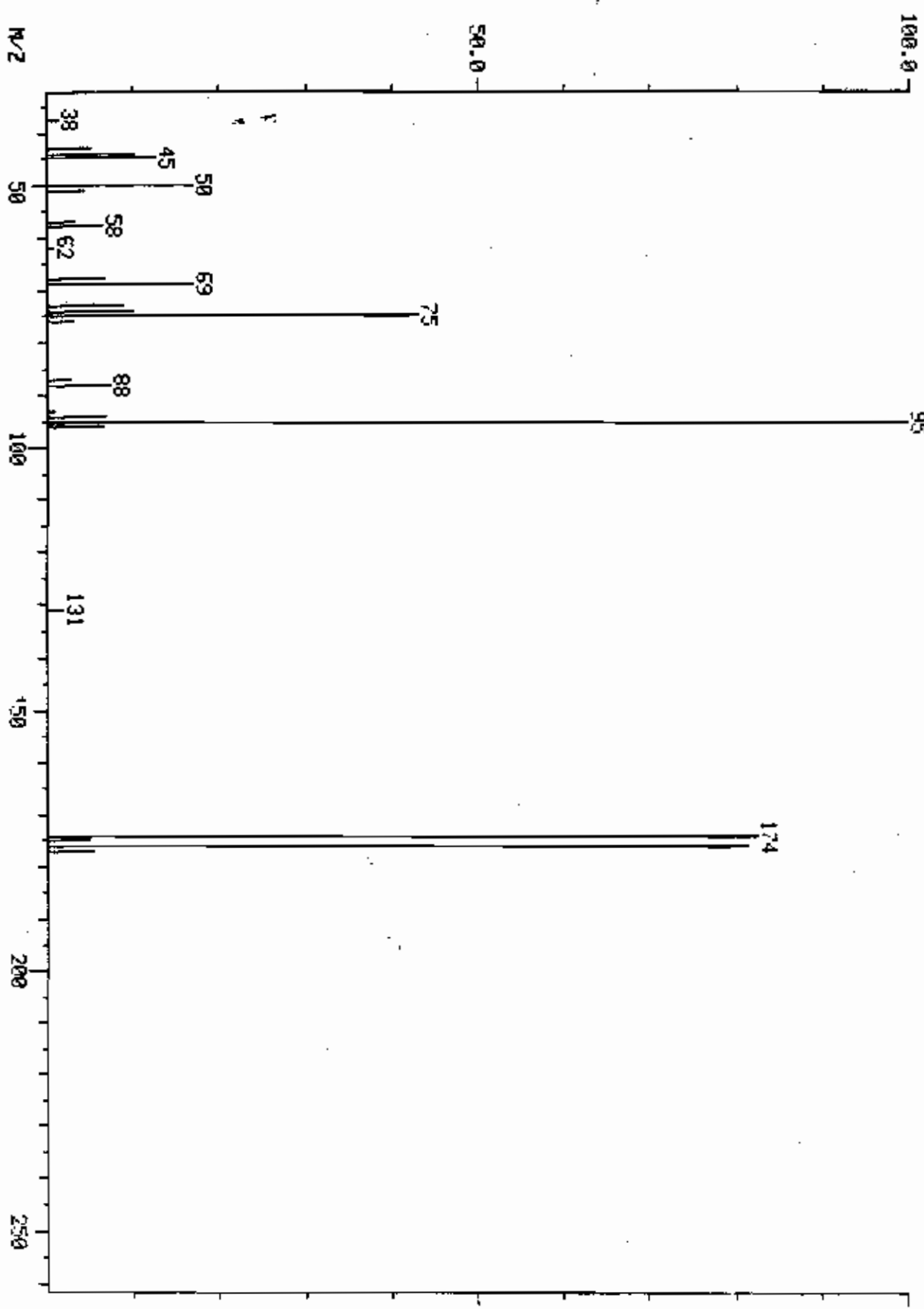
39 443 Mass	0.00 X RA	0.00 X RIC	0. # 0 Inten.	Minima Maxima Mass	Min Inten:	0. X RA X RIC	Inten.
38.007	0.77	0.09	28.	168.00	3.27	0.37	119.
39.007	6.08	0.72	220.	175.00	0.83	0.10	30.
50.007	15.54	1.84	362.	177.00	3.54	0.42	128.
51.007	55.92	6.62	2022.	180.00	2.54	0.30	92.
52.007	2.99	0.35	108.	185.00	1.98	0.23	71.
56.007	1.38	0.16	50.	186.00	12.20	1.44	441.
57.007	4.23	0.50	153.	187.00	3.71	0.44	134.
61.007	0.64	0.08	23.	196.00	2.68	0.32	97.
62.007	0.66	0.08	24.	198.00	100.00	11.83	3616.
63.007	1.32	0.18	55.	199.00	5.42	0.76	232.
65.007	0.91	0.11	33.	204.00	3.01	0.35	107.
69.00	63.50	7.51	2276.	205.00	5.01	0.87	181.
74.00	4.87	0.88	176.	206.00	18.94	2.24	688.
75.00	7.80	0.92	282.	207.00	3.35	0.40	121.
76.00	3.51	0.42	127.	217.00	5.78	0.58	207.
77.00	50.83	6.01	1838.	221.00	5.07	0.60	184.
78.00	3.98	0.47	144.	223.00	0.86	0.10	31.
79.00	3.26	0.37	118.	224.00	10.43	1.23	377.
80.00	2.90	0.34	105.	225.00	2.82	0.33	102.
81.00	3.87	0.46	140.	227.00	5.57	0.65	202.
82.00	0.72	0.07	26.	244.00	0.41	0.57	304.
83.00	0.77	0.07	28.	246.00	1.83	0.22	66.
85.00	0.77	0.07	28.	255.00	42.70	5.05	1544.
91.00	0.69	0.08	25.	256.00	5.50	0.77	235.
92.00	0.66	0.08	24.	258.00	2.79	0.33	101.
93.00	4.56	0.54	165.	273.00	1.30	0.18	47.
98.00	3.65	0.43	132.	274.00	4.12	0.49	147.
99.00	4.04	0.48	146.	275.00	17.88	2.35	717.
101.00	1.19	0.14	43.	276.00	2.43	0.29	88.
104.00	0.83	0.10	30.	277.00	2.16	0.26	78.
105.00	0.77	0.07	28.	276.00	5.92	0.70	214.
107.00	14.44	1.71	522.	323.00	2.57	0.30	93.
108.00	2.46	0.27	89.	334.00	1.19	0.14	43.
110.00	32.02	3.77	1158.	365.00	2.85	0.34	103.
111.00	4.65	0.55	168.	372.00	1.74	0.21	63.
117.00	7.11	0.84	257.	421.00	1.02	0.12	37.
123.00	0.88	0.10	32.	423.00	7.08	0.83	255.
127.00	45.85	5.43	1658.	424.00	1.13	0.13	41.
128.00	3.79	0.45	137.	441.00	16.45	1.75	575.
129.00	19.47	2.30	704.	442.00	91.92	10.85	3324.
130.00	1.00	0.12	36.	443.00	17.16	2.27	573.
135.00	2.02	0.24	73.				
137.00	1.02	0.12	37.				
141.00	2.46	0.29	89.				
147.00	0.80	0.09	29.				
148.00	2.30	0.27	83.				
155.00	0.80	0.09	29.				
156.00	2.38	0.28	86.				
161.00	0.75	0.07	27.				
167.00	4.40	0.52	159.				



MID MASS SPECTRUM  
11/28/88 18:15:00 + 8:55  
SAMPLE: 50MG BFB  
COND.S.: INSTRUMENT Y, SP-1000 COLUMN, ISOTHERMAL AT 225C  
GC TEMP: -491 DEG. C

DATA: Y3592 #206  
CALL: Y3592 #3

BASE M/Z: 95  
PIC: 25920.



5752.  
1.

## MIO Mass List

11/28/88 18:15:00 + 8:55

Data: Y3592 # 206

Cali: Y3592 # 3

Base m/z: 95

RIC: 25920.

Sample: 50NG BFB

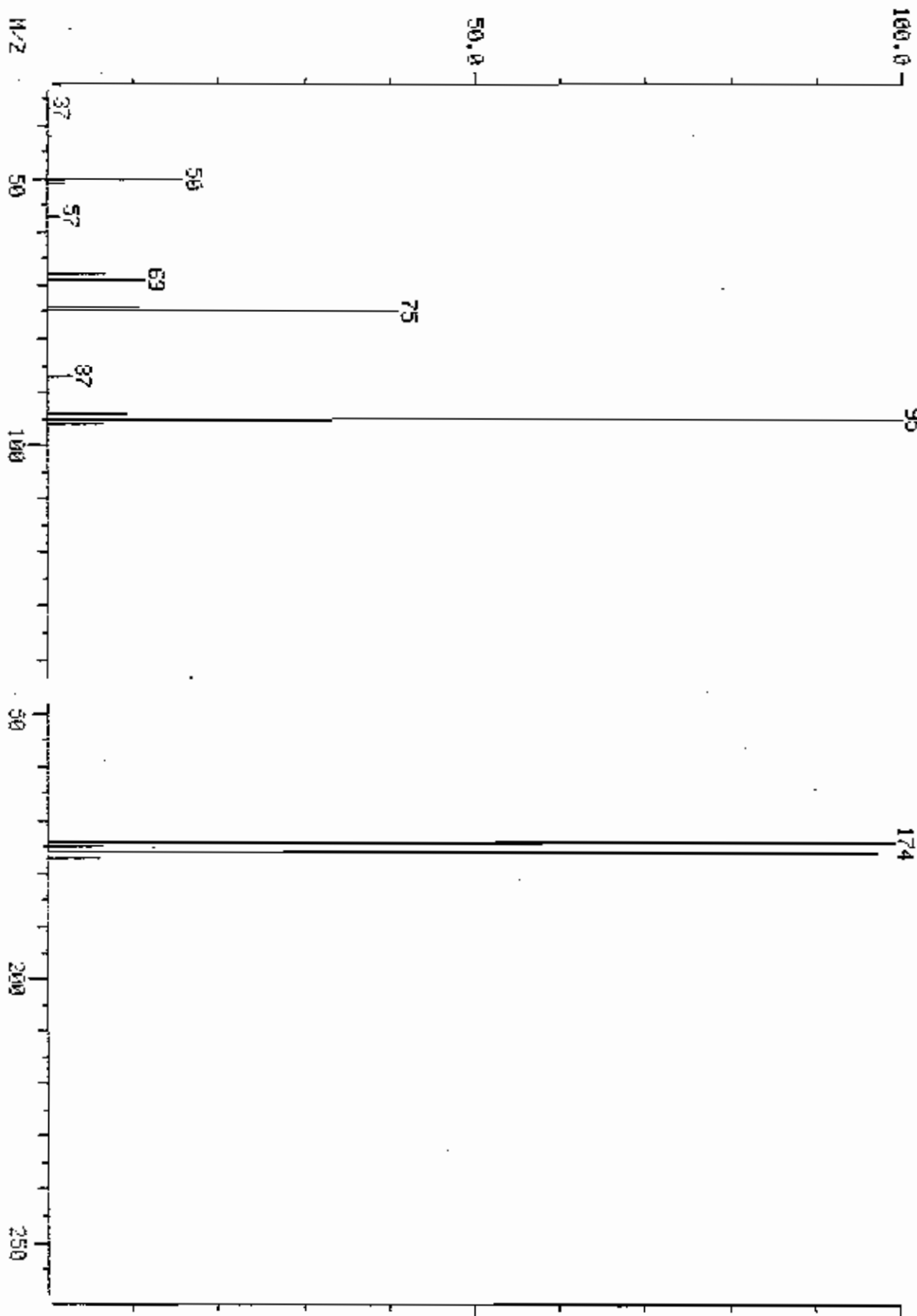
Conds.: INSTRUMENT Y, SP-1000 COLUMN, ISOTHERMAL AT 225C

Mass	X RA	Inten.	Minima Maxima	Min Inten: # 0	1.
35	0.00				
177					
38? M	1.47	84.			
43? M	5.10	293.			
44? M	10.21	587.			
45? M	12.56	722.			
50? M	16.89	971.			
51? M	4.19	241.			
57? M	3.12	179.			
58? M	6.33	364.			
62?	0.75	43.			
68? M	6.65	382.			
69 M	17.06	981.			
73 M	8.75	503.			
74 M	9.88	568.			
75	43.05	2476.			
76 M	3.08	177.			
87 M	2.75	158.			
88 M	7.24	416.			
93	0.94	54.			
94 M	6.73	387.			
95	100.00	5752.			
96 M	6.54	376.			
131 M	1.93	111.			
174	82.62	4752.			
175 M	4.75	273.			
176	81.51	4688.			
177 M	5.50	316.			

MID MASS SPECTRUM  
11/23/88 18:41:00 + 8:54  
SAMPLE: 50HG BFB  
COMDS.: INSTRUMENT Y, SP-1800 COLUMN, ISOTHERMAL AT 225C  
GC TEMP: -491 DEG. C  
ENHANCED (5 1SB 2N 0T)

DATA: V3606 #205  
CH1: V3606 #3

BASE M/Z: 95  
RIC: 23360.



5608.  
1.

MID Mass List

11/29/88 10:41:00 + 8:54

Data: Y3606 # 205

Cal: Y3606 # 3

Base m/z: 95

RIC: 23360.

Sample: SONG BFB

Inst: INSTRUMENT Y, SP-1000 COLUMN: ISOTHERMAL AT 225C

Enhanced (S 15B 2N OT)

Mass	% RA	Inten.	Minima	Min Inten:	1.
			Maxima	#	0
37	0.00	1.			
177					
37?	0.36	20.			
42?	0.34	19.			
50?	15.80	856.			
51?	1.91	107.			
57?	1.25	70.			
68?	6.51	365.			
69	11.42	640.			
74	10.40	583.			
75	41.02	2300.			
87	2.86	160.			
94	9.06	508.			
95	100.00	5608.			
96	6.42	360.			
174	99.15	5560.			
175	6.41	359.			
176	97.15	5448.			
177	6.07	340.			

**Versar**<sub>INC</sub>

REAGENT BLANK DATA

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NUMBER

Lab Name: VERSAR INC. Contract: NYSDEC 0001298  
VBLK99

Lab Code: VERSAR Case No.: SH788 SAS No.: 6016 SDG No.: 283

Matrix: (soil/water) SOIL Lab Sample ID: VBLK99

Sample wt/vol: 5.0 (g/mL) 0 Lab File ID: Y3599

Level: (low/med) MED Date Received: \_\_\_\_\_

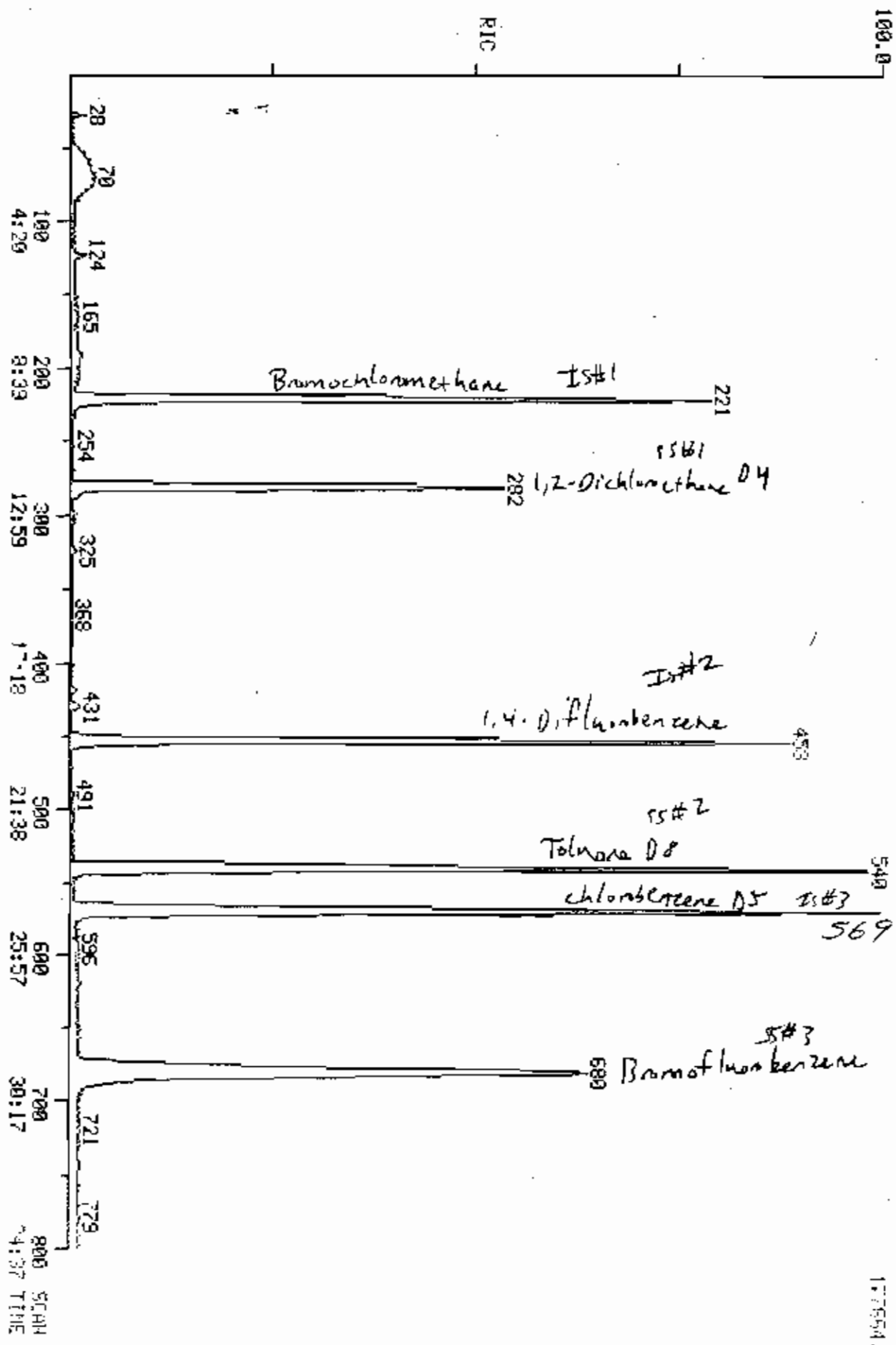
Moisture: not dec. \_\_\_\_\_ Date Analyzed: 11/29/88

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

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG      0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	0
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
75-35-3	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

MID RIC 11/29/88 1:06:00  
 SAMPLE: CLP, JBLK99, M.S. JBLK99, U., .5ML MEQH  
 COND.S.: INSTRUMENT YI:SP-1000 COLUMN 45C(2MIN) TO 225C(30DEG/MIN)  
 RANGE: C 1, 800 LABEL: H 0, 4.0 QUANT: H 0, 1.0 J 0 BASE: U 20, 3  
 DATA: Y3599 #1  
 CALL: Y3599 #3  
 SCANS 1 TO 800



Quantitation Report File: Y3599

Data: Y3599.TI

1/29/88 1:06:00

Sample: CLP,,,VBLK99,M,S,VBLK99,V,,,5ML MEOH

Conds.: INSTRUMENT Y: SP-1000 COLUMN 450(2MIN) TO 2250@BDEG/MIN

Formula: Instrument: Y Weight: 0.001

Submitted by: VERSAR Analyst: JP Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANOARD#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	C043 TRICHLOROFLUOROMETHANE
11	C050 1,1-DICHLOROETHANE
12	C053 1,2-DICHLOROETHENE (TOTAL)
13	C060 CHLOROFORM
14	C065 1,2-DICHLOROETHANE
15	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
16	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
17	CI15 1,1,1-TRICHLOROETHANE
18	CI10 2-BUTANONE
19	CI20 CARBON TETRACHLORIDE
20	CI25 VINYL ACETATE
21	CI30 BROMODICHLOROMETHANE
22	CI40 1,2-DICHLOROPROPANE
23	CI45 CIS-1,3-DICHLOROPROPENE
24	CI50 TRICHLOROETHENE
25	CI55 DIBROMOCHLOROMETHANE
26	CI60 1,1,2-TRICHLOROETHANE
27	CI65 BENZENE
28	CI70 TRANS-1,3-DICHLOROPROPENE
29	CI75 2-CHLOROETHYL VINYLETHER
30	CI80 BROMOFORM
31	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
32	C210 2-HEXANONE
33	C205 4-METHYL-2-PENTANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 TOTAL XYLENES
41	CS05 TOLUENE-D8***SURROGATE#2***
42	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***



No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	221	9:34	1	1.000	A BB	72718.	50.000 UG/L*	17.65
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	NOT FOUND								
15	85	281	12:09	1	1.272	A BB	135153.	45.833 UG/L*	16.18
16	114	453	19:36	16	1.000	A BB	316199.	50.000 UG/L*	17.65
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	NOT FOUND								
31	117	569	24:37	31	1.000	A BB	291372.	50.000 UG/L*	17.65
32	43	509	22:01	31	0.895	A BB	1819.	<del>0.912 UG/LND</del>	0.33
33	43	472	20:25	31	0.930	A BV	860.	<del>0.170 UG/LND</del>	0.07
34	NOT FOUND								
35	93	515	22:17	31	0.906	A BB	121.	<del>0.025 UG/LND</del>	0.01
36	91	545	23:35	31	0.958	A BB	732.	<del>0.104 UG/LND</del>	0.04
37	112	572	24:45	31	1.006	A BB	529.	<del>0.080 UG/LND</del>	0.03
38	106	618	26:44	31	1.087	A DB	98.	<del>0.025 UG/LND</del>	0.01
39	104	715	30:56	31	1.257	A*BB	641.	<del>0.085 UG/LND</del>	0.03
40	106	744	32:11	31	1.308	A BB	708.	<del>0.147 UG/LND</del>	0.06
41	98	539	23:19	31	0.948	A BB	269124.	44.263 UG/L*	15.62
42	95	680	29:25	31	1.196	A DB	192796.	41.735 UG/L*	14.73

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:34	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:54		0.200						
3	2:57		0.308						
4	3:41		0.385						
5	4:35		0.480						
6	6:35		0.688						
7	7:06		0.743						
8	7:58		0.833						
9	9:05		0.951						
10	8:26		0.883						
11	10:20		1.082						
12	10:59		1.150						

✓ 3529

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
13	11:36		1.213						
14	12:17		1.286						
15	12:12	1.00	1.277	1.00	45.84	50.00	1.859	2.028	0.92
16	19:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:35		0.694						
18	12:09		0.621						
19	13:58		0.714						
20	14:01		0.716						
21	14:30		0.740						
22	15:50		0.808						
23	16:03		0.819						
24	16:34		0.846						
25	17:16		0.981						
26	17:21		0.886						
27	17:03		0.870						
28	17:21		0.886						
29	18:23		0.939						
30	19:59		1.020						
31	24:37	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:56	1.01	0.892	1.01	0.92	50.00	0.007	0.343	0.02
33	20:23	1.01	0.828	1.01	0.19	50.00	0.003	0.780	0.01
34	22:17		0.906						
35	22:17	1.00	0.906	1.00	0.03	50.00	0.001	0.977	0.01
36	23:32	1.01	0.957	1.01	0.11	50.00	0.003	1.209	0.01
37	24:45	1.00	1.006	1.00	0.08	50.00	0.002	1.143	0.01
38	26:47	1.00	1.088	1.00	0.03	50.00	0.001	0.678	0.01
39	30:53	1.01	1.255	1.01	0.09	50.00	0.003	1.296	0.01
40	32:11	1.00	1.308	1.00	0.15	50.00	0.003	0.832	0.01
41	23:22	1.00	0.950	1.00	44.27	50.00	0.924	1.044	0.85
42	29:28	1.00	1.197	1.00	41.74	50.00	0.662	0.793	0.84

V35-44

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

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

MID Mass List Data: Y3599 # 221 Base m/z: 49  
11/29/88 1:06:00 + 9:34 Cali: Y3599 # 3 RIC: 133688.  
Sample: CLP,,,VBLK99,M,S,VBLK99,V,,,5ML MEQH  
Conds.: INSTRUMENT Y:SP-1000 COLUMN 45C(2MIN) TO 225C@8DEG/MIN  
Enhanced (S 15B 2N OT)

35	0.00	1.	Minima	Min Inten:	1.
30			Maxima	# 0	

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

MID Mass List Data: Y3599 # 453 Base m/z: 114  
11/29/88 1:06:00 + 19:36 Cali: Y3599 # 3 RIC: 153088.  
Sample: CLP,,,VBLK99,M,S,VBLK99,V,,,5ML MEQH  
Conds.: INSTRUMENT Y:SP-1000 COLUMN 45C(2MIN) TO 225C@8DEG/MIN  
Enhanced (S 15B 2N OT)

37	0.00	1.	Minima	Min Inten:	1.
30			Maxima	# 0	

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

MID Mass List Data: Y3599 # 569 Base m/z: 117  
11/29/88 1:06:00 + 24:37 Cali: Y3599 # 3 RIC: 171776.  
Sample: CLP,,,VBLK99,M,S,VBLK99,V,,,5ML MEQH  
Conds.: INSTRUMENT Y:SP-1000 COLUMN 45C(2MIN) TO 225C@8DEG/MIN  
Enhanced (S 15B 2N OT)

35	0.00	1.	Minima	Min Inten:	1.
30			Maxima	# 0	

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

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: VERSAR INC.

Contract: NYSDEC

VBLK09

Lab Code: VERSAR

Case No.: SH78B

BAS No.: 6016

SDG No.: 283

Matrix: (soil/water) SOIL

Lab Sample ID: VBLK09

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: Y3609

Level: (low/med) MED

Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 11/29/88

Column: (pack/cap) PACK

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
74-87-3	Chloromethane	10	U
74-83-7	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
75-35-3	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.

VBLK09

Lab Name: VERSAR INC.

Contract: NYSDEC *1001298*

Lab Code: VERSAR Case No.: SH788

SAS No.: 6016 SDG No.: 283

Matrix: (soil/water) SOIL

Lab Sample ID: VBLK09

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: Y3609

Level: (low/med) MED

Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 11/29/88

Column (pack/cap) PACK

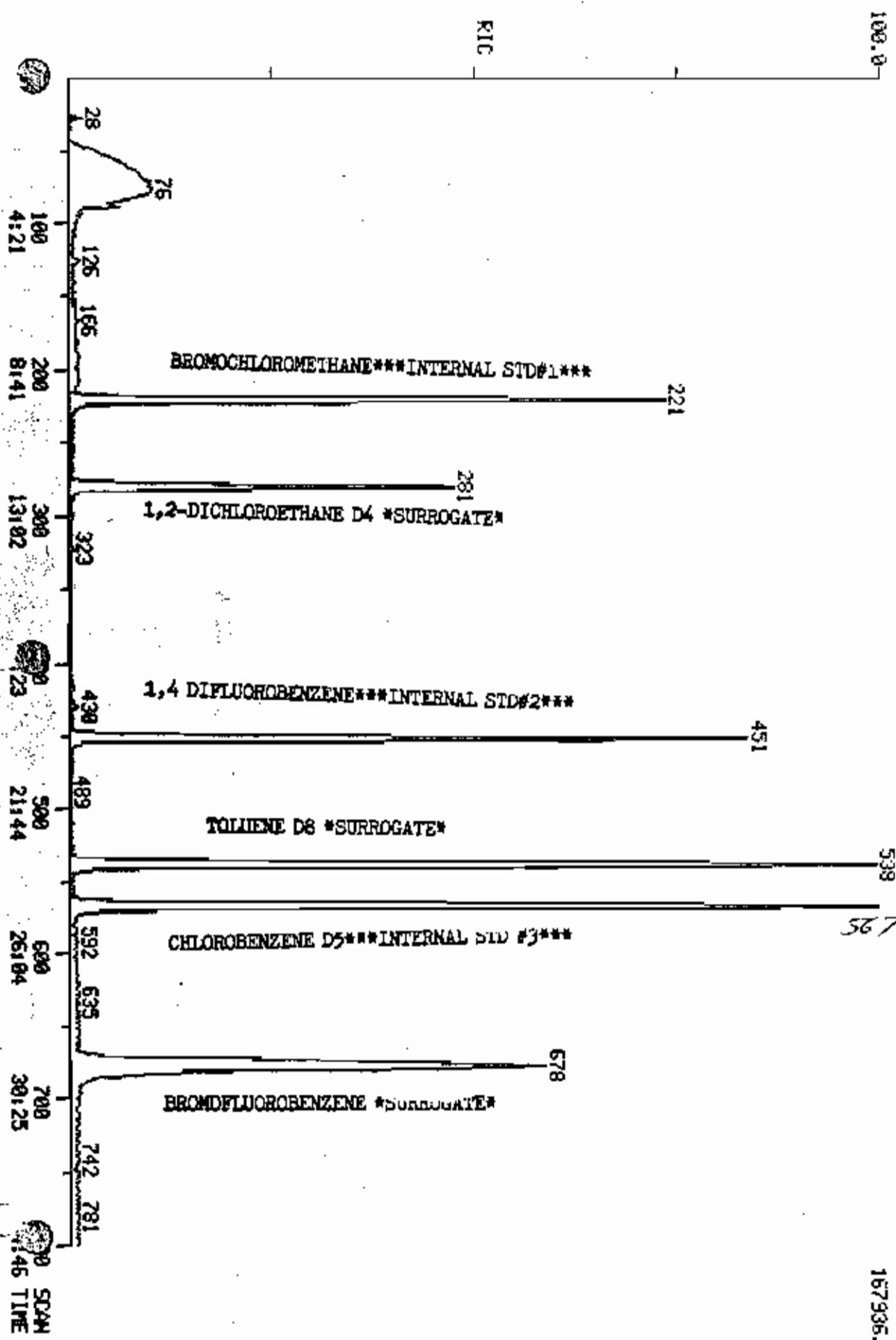
Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	G
=====	=====	=====	=====	=====

RID RIC  
 11/29/88 13:06:00  
 SAMPLE: CLP., UBLK03.M.S, UBLK03.U, ELANK, SNL, 100UL NEOH ADDED  
 COND.: INSTRUMENT Y:SP-1000 COLUMN 45C(2MIN) TO 225C(8DEC/MIN)  
 RANGE: G 1, 890 LABEL: H 0, 4.0 QUANT: A 0, 1.0 J 0 BASE: U 20, 3  
 DATA: 73609 #1  
 CALL: 73609 #3  
 SCANS 1 TO 800



Quantitation Report File: Y3609

Date: Y3609.T1  
 29/88 13:06:00

Sample: CLP,,, VBLK09, M, S, VBLK09, V, BLANK, 5ML, 100UL METH ADDED  
 Cond.: INSTRUMENT Y: SP-1000 COLUMN 450(2MIN): TO 225C@9DEG/MIN  
 Formula: Instrument: Y Weight: 0.001  
 Submitted by: VERSAR Analyst: HN Acct. No.:

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

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CO10 CHLOROMETHANE
3	CO15 BROMOMETHANE
4	CO20 VINYL CHLORIDE
5	CO25 CHLOROETHANE
6	CO30 METHYLENE CHLORIDE
7	CO35 ACETONE
8	CO40 CARBON DISULFIDE
9	CO45 1,1-DICHLOROETHENE
10	CO43 TRICHLOROFLUOROMETHANE
11	CO50 1,1-DICHLOROETHANE
12	CO52 1,2-DICHLOROETHENE (TOTAL)
13	CO60 CHLOROFORM
14	CO65 1,2-DICHLOROETHANE
15	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
16	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
17	CI15 1,1,1-TRICHLOROETHANE
18	CI10 2-BUTANONE
19	CI20 CARBON TETRACHLORIDE
20	CI25 VINYL ACETATE
21	CI30 BROMODICHLOROMETHANE
22	CI40 1,2-DICHLOROPROPANE
23	CI45 CIS-1,3-DICHLOROPROPENE
24	CI50 TRICHLOROETHENE
25	CI55 DIBROMOCHLOROMETHANE
26	CI60 1,1,2-TRICHLOROETHANE
27	CI65 BENZENE
28	CI70 TRANS-1,3-DICHLOROPROPENE
29	CI75 2-CHLOROETHYL VINYLETHER
30	CI80 BROMOFORM
31	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#0 ****
32	CI20 2-HEXANONE
33	CI205 4-METHYL-2-PENTANONE
34	CI220 TETRACHLOROETHENE
35	CI225 1,1,2,2-TETRACHLOROETHANE
36	CI230 TOLUENE
37	CI235 CHLOROBENZENE
38	CI240 ETHYLBENZENE
39	CI245 STYRENE
40	CI250 TOTAL XYLENES
41	CS05 TOLUENE-D8***SURROGATE#2***
42	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***

Y3609

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	ZTot
1	128	220	9:34	1	1.000	A BB	69405.	50.000 UG/L*	16.96
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	NOT FOUND								
15	65	281	12:13	1	1.278	A BB	104668.	47.868 UG/L*	16.24
16	114	451	19:36	16	1.000	A BB	315437.	50.000 UG/L*	16.96
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	NOT FOUND								
31	117	567	24:38	31	1.000	A BB	292978.	50.000 UG/L*	16.96
32	43	505	21:57	31	0.891	A BB	160.	0.130 UG/L	0.05
33	43	470	20:25	31	0.829	A BB	111.	0.020 UG/L	0.02
34	NOT FOUND								
35	NOT FOUND								
36	91	542	23:33	31	0.956	A BB	295.	0.050 UG/L	0.02
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	98	538	23:23	31	0.949	A BB	265214.	49.047 UG/L*	16.64
42	95	677	29:25	31	1.195	A BB	175563.	47.746 UG/L*	16.20

96

98

95

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:34	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:55		0.201						
3	2:57		0.310						
4	3:42		0.387						
5	4:36		0.482						
6	6:34		0.687						
7	7:05		0.741						
8	7:57		0.832						
9	9:02		0.946						
10	8:26		0.882						
11	10:21		1.082						
12	10:57		1.146						

Y3609



43609

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
7	11:36		1.214						
	12:18		1.287						
15	12:10	1.01	1.273	1.01	47.87	50.00	1.509	1.576	0.96
16	19:34	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:23		0.692						
18	12:10		0.621						
19	13:57		0.712						
20	14:00		0.714						
21	14:28		0.739						
22	15:49		0.808						
23	16:02		0.819						
24	16:33		0.845						
25	17:15		0.881						
26	17:20		0.885						
27	17:02		0.870						
28	17:20		0.885						
29	18:23		0.938						
30	19:59		1.020						
31	24:36	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:57	1.00	0.893	1.00	0.13	50.00	0.001	0.211	0.01
33	20:23	1.01	0.829	1.01	0.04	50.00	0.001	0.512	0.01
34	22:15		0.905						
35	22:17		0.907						
36	23:33	1.00	0.958	1.00	0.06	50.00	0.002	0.944	0.01
37	24:43		1.006						
38	26:46		1.089						
39	30:54		1.257						
40	32:09		1.308						
41	23:20	1.01	0.949	1.01	49.05	50.00	0.906	0.923	0.99
42	29:25	1.00	1.197	1.00	47.75	50.00	0.800	0.628	0.96

43609

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

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

MID Mass List Data: Y3609 # 221 Base m/z: 49  
11/29/88 13:06:00 + 9:36 Cali: Y3609 # 3 RIC: 118144.  
Sample: CLP, VBLK09, M, S, VBLK09, V, BLANK, 5ML, 100UL MEQH ADDED  
Conds.: INSTRUMENT Y: SP-1000 COLUMN 45C(2MIN) TO 225C@8DEG/MIN  
Enhanced (S 15B 2N OT)

35	0.00	1.	Minima	Min Inten:	1.
30			Maxima	# 0	

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

MID Mass List Data: Y3609 # 451 Base m/z: 114  
11/29/88 13:06:00 + 19:36 Cali: Y3609 # 3 RIC: 135936.  
Sample: CLP, VBLK09, M, S, VBLK09, V, BLANK, 5ML, 100UL MEQH ADDED  
Conds.: INSTRUMENT Y: SP-1000 COLUMN 45C(2MIN) TO 225C@8DEG/MIN  
Enhanced (S 15B 2N OT)

37	0.00	1.	Minima	Min Inten:	1.
30			Maxima	# 0	

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

MID Mass List Data: Y3609 # 567 Base m/z: 117  
11/29/88 13:06:00 + 24:38 Cali: Y3609 # 3 RIC: 162304.  
Sample: CLP, VBLK09, M, S, VBLK09, V, BLANK, 5ML, 100UL MEQH ADDED  
Conds.: INSTRUMENT Y: SP-1000 COLUMN 45C(2MIN) TO 225C@8DEG/MIN  
Enhanced (S 15B 2N OT)

35	0.00	1.	Minima	Min Inten:	1.
30			Maxima	# 0	

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

Versar Inc., Laboratory Operations  
 5850 Versar Center, Springfield VA 22151 703/750-3000

Sample Number :  
 15RLX91

Case No: 6016 Bw283

ORGANICS ANALYSIS DATA SHEET (Page 2)  
 Semivolatile Compounds

Concentration: MED

Date Extracted/Prepared: 11/20/88

GPC Cleanup  Yes  No

Date Analyzed: 12/06/88

Separatory Funnel Extraction  Yes

Conc/Dil Factor: 1

Continuous Liquid-Liquid Extraction  Yes

CAS Number	Compound	ug/Kg
108-95-2	Phenol	20000 u
111-44-4	Bis(2-Chloroethyl)Ether	20000 u
195-57-8	2-Chlorophenol	20000 u
1541-73-1	1,3-Dichlorobenzene	20000 u
106-46-7	1,4-Dichlorobenzene	20000 u
150-51-6	Benzyl Alcohol	20000 u
195-58-1	1,2-Dichlorobenzene	20000 u
195-48-7	2-Methylphenol	20000 u
139638-32-9	Bis(2-chloroisopropyl)ether	20000 u
186-44-5	4-Methylphenol	20000 u
1621-64-7	N-Nitroso-Di-n-propylamine	20000 u
167-72-1	Hexachlorocyclohexane	20000 u
198-05-3	Nitrobenzene	20000 u
178-59-1	Isophorone	20000 u
188-75-5	2-Nitrophenol	20000 u
105-67-9	2,4-dimethylphenol	20000 u
165-25-0	Benzoic Acid	100000 u
111-91-1	Bis(2-chloroethoxy)methane	20000 u
120-81-2	2,4-dichlorophenol	20000 u
129-82-1	1,2,4-Trichlorobenzene	20000 u
101-20-3	Naphthalene	20000 u
106-47-8	4-Chloroaniline	20000 u
187-58-3	Hexachlorobutadiene	20000 u
159-50-7	4-chloro-2-methylphenol	20000 u
191-57-6	2-methylnaphthalene	20000 u
177-47-4	Hexachlorocyclopentadiene	20000 u
183-06-2	2,4,6-Trichlorophenol	20000 u
195-95-4	2,4,5-Trichlorophenol	100000 u
191-58-7	2-Chloronaphthalene	20000 u
188-74-4	2-Nitroaniline	100000 u
131-11-3	Dimethyl Phthalate	20000 u
1208-96-8	Acenaphthylene	20000 u
199-09-2	3-Nitroaniline	100000 u

CAS Number	Compound	ug/Kg
183-32-9	Acenaphthene	20000 u
151-28-5	2,4-Dinitrophenol	100000 u
190-02-7	4-Nitrophenol	100000 u
132-64-9	10benzofuran	20000 u
1121-14-2	2,4-Dinitrotoluene	20000 u
1606-20-2	2,6-Dinitrotoluene	20000 u
184-66-2	Diethylphthalate	20000 u
17005-22-1	4-Chlorophenyl-phenylether	20000 u
186-73-7	Fluorene	20000 u
100-81-6	4-Nitroaniline	100000 u
1534-52-1	2,4,6-dinitro-2-methylphenol	100000 u
186-30-6	N-Nitrosodibenzylamine (1)	20000 u
1101-55-3	4-Bromophenyl-phenylether	20000 u
1118-74-1	Hexachlorobenzene	20000 u
187-86-5	Pentachlorophenol	100000 u
185-01-8	Phenanthrene	20000 u
1120-12-7	Anthracene	20000 u
194-74-2	Di-n-butylphthalate	20000 u
1206-44-0	Fluoranthene	20000 u
1129-00-0	Pyrene	20000 u
185-68-7	Butylbenzylphthalate	20000 u
191-94-1	1,3,3'-trichlorobenzidine	10000 u
156-55-3	Benzo(a)anthracene	20000 u
1117-81-7	Bis(2-Ethylhexyl)Phthalate	20000 u
1218-01-3	Chrysene	20000 u
1117-94-0	Di-n-Octylphthalate	20000 u
1205-99-2	Benzo(b)Fluoranthene	20000 u
1207-08-9	Benzo(k)Fluoranthene	20000 u
150-32-8	Benzo(a)pyrene	20000 u
1193-39-5	Indeno(1,2,3-cd)Pyrene	20000 u
150-70-3	Dibenz(a,h)Anthracene	20000 u
191-84-2	Benzo(g,h,i)Perylene	20000 u

(1) - Cannot be separated from dibenzylamine

SAMPLE ID  
**SBLK91**

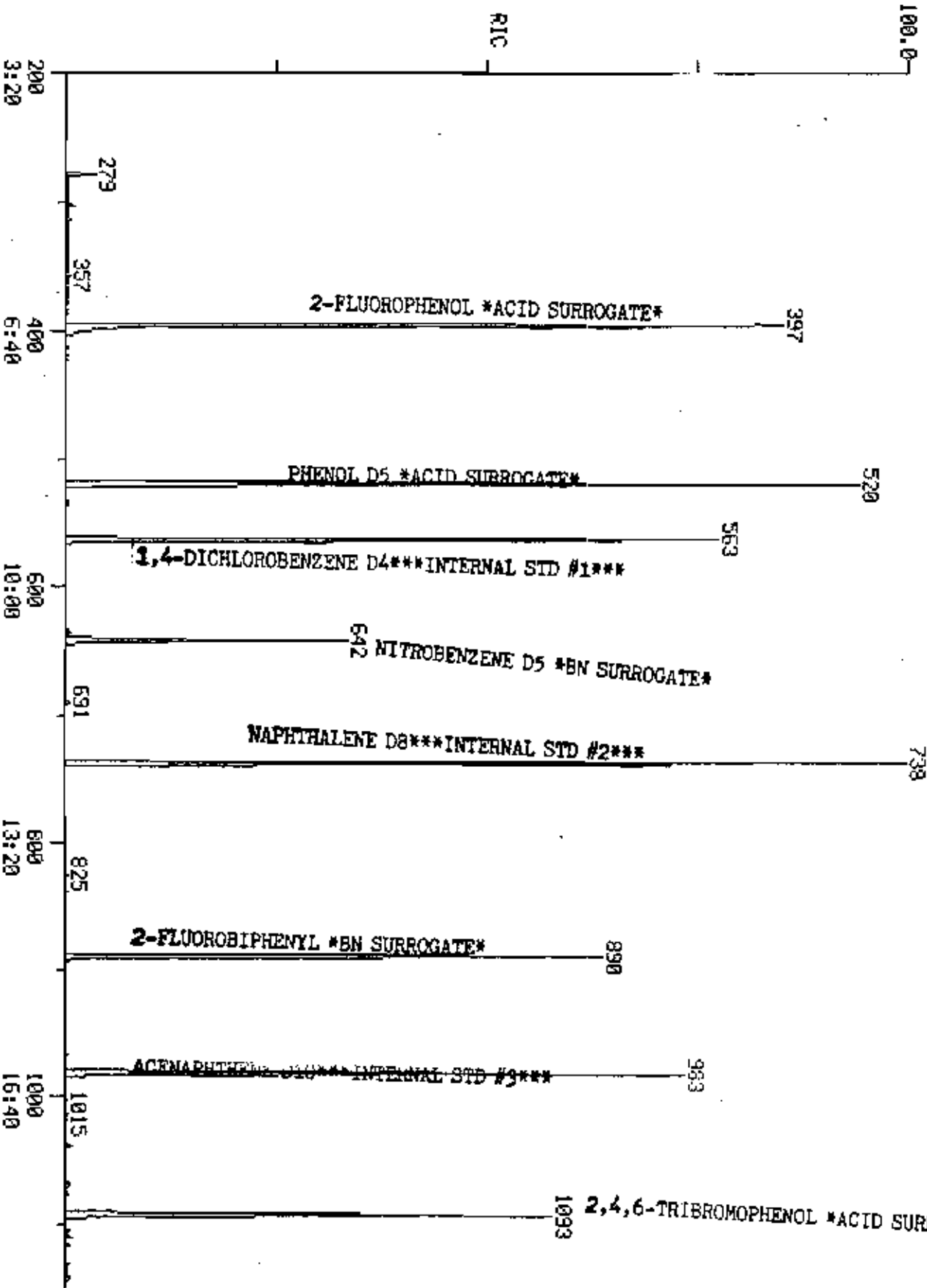
Organics Analysis Data Sheet  
 (Page 4)

Tentatively Identified Compounds

DPS Number	Compound Name	Fraction	RT or Scan	Estimated Concentration (ug/Kg or ug/l)
11.	NO SEMIVOLATILES DETECTED.	BNR	NA	NA
12.				
13.				
14.				
15.				
16.				
17.				
18.				
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113.				
114.				
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121.				
122.				
123.				
124.				
125.				
126.				
127.				
128.				
129.				
130.				

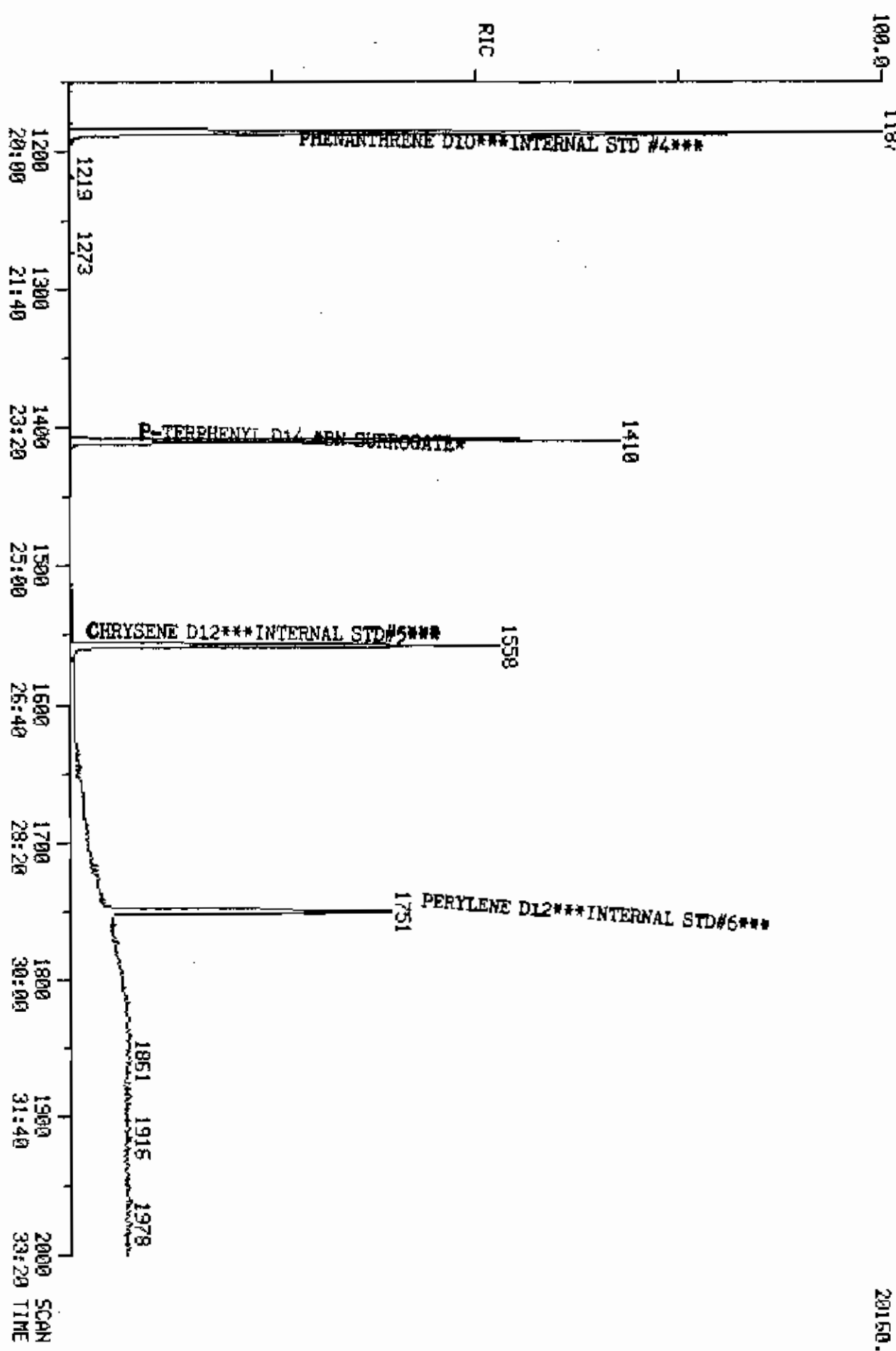
RIC  
 12/06/98 12:46:00  
 SAMPLE: CLP, 6016, 289, SBLK91, M, 5, RB4091, B, BLANK, 6016B283, 1UL,  
 COND.: INET V: RESTEK RTX-5, 20M, 4MIDH45-9507/MIN-3000E10/MIN  
 RANGE: C 1, 2000 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0, BASE: U 20, 3

DATA: U2333 #1  
 CALL: U2333 #2  
 SCANS 200 TO 1150



35264.

RIC  
 12/06/88 12:46:00  
 SAMPLE: CLP, 6016, 283, SBLK31, M, S, RB4091, B, BLANK, 60168283, 1UL,  
 CONDOS.: INST VIRESTERK RTX-S/30M, 4MIN845-8507/MTH-3000210/MTH  
 RANGE: G 1/2000 LABEL: N 0, 4.0 QUANT: A 0, 1.0 J 0 BASE: U 20, 3  
 1187  
 DATE: U2333 #1  
 CALL: U2333 #2  
 SCANS 1150 TO 2006



Quantitation Report File: V2333

Data: V2333.TI

12/06/88 12:46:00

Sample: CLP, 6016, 283, SBLK91, M, S, RB4091, B, BLANK, 6016B283, 1UL,

Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-65@7/MIN 200@10/MIN

Formula:

Instrument: V

Weight: 0.001

Submitted by: VERSAR

Analyst: GC

Acct. No.: 6016

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	C130 1,4-DICHLORO BENZENE-D4 **INT. STD. #1**
2	C330 2-CHLOROPHENOL
3	C315 PHENOL
4	C325 BIS (2-CHLOROETHYL) ETHER
5	C335 1,3-DICHLORO BENZENE
6	C340 1,4-DICHLORO BENZENE
7	C350 1,2-DICHLORO BENZENE
8	C345 BENZYL ALCOHOL
9	C360 BIS (2-CHLOROISOPROPYL) ETHER
10	C355 2-METHYLPHENOL
11	C375 HEXACHLOROETHANE
12	C365 4-METHYLPHENOL
13	C370 N-NITROSO-DI N-PROPYLAMINE
14	C545 PHENOL-D5**ACID SURR.**
15	C550 2-FLUOROPHENOL**ACID SURR.**
16	C140 NAPHTHALENE-D8**INT. STD. #2**
17	C410 NITROBENZENE
18	C415 ISOPHORBNE
19	C420 2-NITROPHENOL
20	C425 2,4-DIMETHYLPHENOL
21	C435 BIS (2-CHLOROETHOXY) METHANE
22	C440 2,4-DICHLORO PHENOL
23	C445 1,2,4-TRICHLORO BENZENE
24	C450 NAPHTHALENE
25	C430 BENZOIC ACID
26	C455 4-CHLOROANILINE
27	C460 HEXACHLORO BUTADIENE
28	C465 4-CHLORO-3-METHYLPHENOL
29	C470 2-METHYLNAPHTHALENE
30	C520 NITROBENZENE-D5**BN SURR.**
31	C150 ACENAPHTHENE-D10**INT. STD. #3**
32	C510 HEXACHLOROCYCLOPENTADIENE
33	C515 2,4,6-TRICHLORO PHENOL
34	C520 2,4,5-TRICHLORO PHENOL
35	C525 2-CHLORONAPHTHALENE
36	C530 2-NITROANILINE
37	C540 ACENAPHTHYLENE
38	C535 DIMETHYL PHTHALATE
39	C575 2,6-DINITROTOLUENE
40	C550 ACENAPHTHENE
41	C545 3-NITROANILINE
42	C555 2,4-DINITROPHENOL
43	C565 DIBENZOFURAN
44	C560 4-NITROPHENOL
45	C544 2,4-DINITROTOLUENE
46	C590 FLUDRENE
47	C585 4-CHLOROPHENYL-PHENYLETHER

READY FOR FORMS  
JF  
VQB 12/15/88

No Name  
 48 C580 DIETHYLPHTHALATE  
 49 C595 4-NITROANILINE  
 50 C610 4,6-DINITRO-2-METHYLPHENOL

No	m/z	Scan	Time	Ref	RRT	Math	Area(Hght)	Amount	RTot
1	152	563	9:23	1	1.000	A BE	7992.	40.000 NO/UL	8.05
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	99	520	8:40	1	0.924	A BE	16976.	47.063 NO*	7.07
15	112	397	8:37	1	0.705	A BE	15136.	32.357 NO*	10.84
16	136	738	12:18	16	1.000	A BE	21149.	40.000 NO/UL	8.05
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	92	642	10:42	16	0.870	A BE	7560.	23.345 NO*	4.70
31	164	983	16:23	31	1.000	A BE	9920.	40.000 NO/UL	8.05
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	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								



No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:25	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	9:00		0.956						
3	8:43		0.926						
4	8:55		0.947						
5	9:20		0.991						
6	9:27		1.004						
7	9:52		1.048						
8	9:46		1.037						
9	10:08		1.076						
10	10:03		1.067						
11	10:34		1.122						
12	10:23		1.103						
13	10:27		1.110						
14	8:42	1.00	0.924	1.00	49.06	50.00	1.701	1.734	0.98
15	8:38	1.00	0.704	1.00	52.37	50.00	1.515	1.445	1.08
16	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
17	10:46		0.874						
18	11:18		0.917						
19	11:30		0.934						
20	11:39		0.940						
21	11:49		0.959						
22	12:01		0.976						
23	12:13		0.992						
24	12:22		1.004						
25	11:51		0.962						
26	12:32		1.018						
27	12:47		1.038						
28	13:38		1.107						
29	13:57		1.133						
30	10:44	1.00	0.871	1.00	23.34	50.00	0.255	0.313	0.47
31	16:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
32	14:28		0.882						
33	14:39		0.893						
34	14:44		0.898						
35	15:04		0.919						
36	15:23		0.938						
37	16:03		0.979						
38	15:53		0.968						
39	16:02		0.978						
40	16:29		1.005						
41	16:20		0.996						
42	16:35		1.011						
43	16:50		1.026						
44	16:41		1.017						
45	16:56		1.033						
46	17:08		1.078						
47	17:38		1.075						
48	17:30		1.067						
49	17:48		1.089						
50	17:52		1.089						



No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	XTot
67	NOT FOUND								
68	NOT FOUND								
69	244	1410	23:30	63	0.905	A BE	13004.	38.761 NG*	7.80
70	264	1750	29:10	70	1.000	A BE	10858.	40.000 NG/UL	8.00
71	NOT FOUND								
72	NOT FOUND								
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								
76	NOT FOUND								
77	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
51	17:55		1.092						
52	18:45		1.143						
53	19:06		1.165						
54	14:50	1.00	0.904	1.00	50.27	50.00	1.011	1.667	0.61
55	19:48	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
56	19:30		0.985						
57	19:52		1.003						
58	19:58		1.008						
59	21:14	1.00	1.072	1.00	0.25	50.00	0.007	1.713	0.01
60	22:37		1.144						
61	23:10		1.170						
62	18:14	1.00	0.921	1.00	63.31	50.00	0.146	0.116	1.27
63	26:00	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
64	24:43		0.951						
65	25:58		0.999						
66	26:04		1.003						
67	25:54		0.996						
68	26:04		1.003						
69	23:31	1.00	0.904	1.00	38.76	50.00	0.854	1.140	0.75
70	29:11	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
71	27:24		0.939						
72	28:23		0.973						
73	28:26		0.974						
74	29:04		0.996						
75	31:37		1.083						
76	31:37		1.083						
77	32:19		1.107						

V2333

Quantitation Report File: SSRECOVERY

Data: V2333.TI

12/06/88 12:46:00

Sample: GLP, 6016, 263, SBLK91, M, S, R34091, B, BLANK, 60165223, IUL,

Conds.: INST V:RESTEK RTX-5/30M, 4MIN@45-25@7/MIN, 000810/MIN

Formula:

Instrument: V

Weight: 0.001

Submitted by: VERSAR

Analyst: GC

Acc. No.: 6016

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	CI40 NAPHTHALENE-D8**INT. STD. #2**
2	CS20 NITROBENZENE-D5**BN SURR. **
3	CI80 ACENAPHTHENE-D10**INT. STD. #3**
4	CS25 2-FLUOROBIPHENYL**BN SURP. **
5	CI70 CHRYSENE-D12**INT. STD. #5**
6	CS30 P-TERPHENYL-D14**BN SURR. **
7	CI30 1,4-DICHLORO BENZENE-D4 **INT. STD. #1**
8	CS45 PHENOL-D5**ACID SURR. **
9	CS50 2-FLUOROPHENOL**ACID SURR. **
10	CI60 PHENANTHRENE-D10**INT. STD. #4**
11	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR. **
12	CI75 PERYLENE-D12**INT. STD. #6**

No	m/z	Scan	Time	Ref	RRT	Math	Area(Hght)	Amount	XTot
1	134	738	12:18	1	1.000	A BE	21147.	40.000 NG/UL	8.88
2	82	642	10:42	1	0.870	A BE	7560.	23.343 NG*	4.70 47
3	164	983	16:23	3	1.000	A BE	9920.	40.000 NG/UL	8.88
4	172	890	14:50	3	0.905	A BE	12541.	30.273 NG*	6.87 51
5	240	1558	23:58	5	1.000	A BE	11774.	40.000 NG/UL	8.88
6	244	1410	23:30	5	0.905	A BE	13004.	38.761 NG*	7.80 73
7	152	563	9:23	7	1.000	A BE	7992.	40.000 NG/UL	8.88
8	79	520	8:40	7	0.924	A BE	16796.	49.063 NG*	7.87 49
9	112	397	6:37	7	0.705	A BE	15136.	52.387 NG*	10.84 52
10	188	1187	19:47	10	1.000	A BE	22023.	40.000 NG/UL	8.88
11	330	1093	18:13	10	0.921	A BE	4030.	63.310 NG*	12.73 63
12	264	1780	29:10	12	1.000	A BE	10828.	40.000 NG/UL	8.88

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	10:44	1.00	0.871	1.00	23.34	30.00	0.285	0.813	0.87
3	16:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	14:50	1.00	0.904	1.00	30.27	50.00	1.011	1.367	0.81
5	26:00	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	23:31	1.00	0.904	1.00	38.76	50.00	0.884	1.140	0.78
7	9:25	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
8	8:42	1.00	0.924	1.00	49.06	50.00	1.701	1.734	0.78
9	6:38	1.00	0.704	1.00	52.39	50.00	1.515	1.446	1.05
10	19:48	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
11	18:14	1.00	0.921	1.00	63.31	50.00	0.146	0.116	1.37
12	29:11	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00

\*\*\*INTERNAL STANDARD RIC REPORT\*\*\*

\*\*\*\*\*INTERNAL STANDARD#1\*\*\*\*\*RIC  
 Mass List Data: V2333 # 963 Base m/z: 152  
 12/06/88 12:46:00 + 9:23 Call: V2333 # 2 RIC: 21344.  
 Sample: CLP, 6016, 283, SBLK91, M, S, RB4091, B, BLANK, 60162283, 1UL,  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-65@7/MIN 300@10/MIN  
 Enhanced (S 158 2M OT)

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

\*\*\*\*\*INTERNAL STANDARD#2\*\*\*\*\*RIC  
 Mass List Data: V2333 # 738 Base m/z: 156  
 12/06/88 12:46:00 + 12:18 Call: V2333 # 2 RIC: 25675.  
 Sample: CLP, 6016, 283, SBLK91, M, S, RB4091, B, BLANK, 60162283, 1UL,  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-65@7/MIN 300@10/MIN  
 Enhanced (S 158 2M OT)

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

\*\*\*\*\*INTERNAL STANDARD#3\*\*\*\*\*RIC  
 Mass List Data: V2333 # 983 Base m/z: 164  
 12/06/88 12:46:00 + 16:23 Call: V2333 # 2 RIC: 20032.  
 Sample: CLP, 6016, 283, SBLK91, M, S, RB4091, B, BLANK, 60162283, 1UL,  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-65@7/MIN 300@10/MIN  
 Enhanced (S 158 2M OT)

40 0.00 0.00 0. Minima Min inten: 0.  
 30 # 0 Maxima

\*\*\*\*\*INTERNAL STANDARD#4\*\*\*\*\*RIC  
 Mass List Data: V2333 #1167 Base m/z: 168  
 12/06/88 12:46:00 + 19:47 Call: V2333 # 2 RIC: 23264.  
 Sample: CLP, 6016, 283, SBLK91, M, S, RB4091, B, BLANK, 60162283, 1UL,  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-65@7/MIN 300@10/MIN  
 Enhanced (S 158 2M OT)

40 0.00 0.00 0. Minima Min inten: 0.  
 30 # 0 Maxima

\*\*\*\*\*INTERNAL STANDARD#5\*\*\*\*\*RIC  
 Mass List Data: V2333 #1558 Base m/z: 240  
 12/06/88 12:46:00 + 25:38 Call: V2333 # 2 RIC: 11920.  
 Sample: CLP, 6016, 283, SBLK91, M, S, RB4091, B, BLANK, 60162283, 1UL,  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-65@7/MIN 300@10/MIN  
 Enhanced (S 158 2M OT)

42 0.00 0.00 0. Minima Min inten: 0.  
 30 # 0 Maxima

\*\*\*\*\*INTERNAL STANDARD#6\*\*\*\*\*RIC  
 Mass List Data: V2333 #1751 Base m/z: 264  
 12/06/88 12:46:00 + 29:11 Call: V2333 # 2 RIC: 8912.  
 Sample: CLP, 6016, 283, SBLK91, M, S, RB4091, B, BLANK, 60162283, 1UL,  
 Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-65@7/MIN 300@10/MIN  
 Enhanced (S 158 2M OT)

73 0.00 0.00 0. Minima Min inten: 0.  
 30 # 0 Maxima

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

**Versar<sub>INC</sub>**

MATRIX SPIXE DATA

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

0001298

001738D0101MS

Lab Name: VERSAR INC.

Contract: NYSDEC

Lab Code: VERSAR Case No.: SH788

SAS No.: 6016 SDG No.: 283

Matrix: (soil/water) SOIL

Lab Sample ID: 61641MS

Sample wt/vol: 3.0 (g/mL) G

Lab File ID: Y3610

Level: (low/med) MED

Date Received: 11/18/88

X Moisture: not dec. 27

Date Analyzed: 11/29/88

Column: (pack/cap) PACK

Dilution Factor: 100

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
74-87-3	Chloromethane	1400	U
74-83-9	Bromomethane	1400	U
75-01-4	Vinyl Chloride	1400	U
75-00-3	Chloroethane	1400	U
75-09-2	Methylene Chloride	690	U
67-64-1	Acetone	1400	U
75-15-0	Carbon Disulfide	690	U
75-35-4	1,1-Dichloroethene	690	U
75-35-3	1,1-Dichloroethane	690	U
540-59-0	1,2-Dichloroethene (total)	2500	U
67-66-3	Chloroform	690	U
107-06-2	1,2-Dichloroethane	690	U
78-93-3	2-Butanone	1400	U
71-55-6	1,1,1-Trichloroethane	690	U
56-23-5	Carbon Tetrachloride	690	U
108-05-4	Vinyl Acetate	1400	U
75-27-4	Bromodichloromethane	690	U
78-87-5	1,2-Dichloropropane	690	U
10061-01-5	cis-1,3-Dichloropropene	690	U
79-01-6	Trichloroethene		Y
124-48-1	Dibromochloromethane	690	U
79-00-5	1,1,2-Trichloroethane	690	U
71-43-2	Benzene	690	U
10061-02-6	Trans-1,3-Dichloropropene	690	U
75-25-2	Bromoform	690	U
108-10-1	4-Methyl-2-Pentanone	2200	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	5600	U
79-34-5	1,1,2,2-Tetrachloroethane	7700	U
108-88-3	Toluene		Y
108-90-7	Chlorobenzene	690	U
100-41-4	Ethylbenzene	17000	U
100-42-5	Styrene	690	U
1330-20-7	Total-Xylenes	75000	E

6016 3N283

ORGANICS ANALYSIS DATA SHEET (Page 2)  
 Semivolatile Compounds

Location: 4ED

Extracted/Prepared: 11/28/88

GPC Cleanup  Yes  No

Filtered: 12/07/88

Separatory Funnel Extraction  Yes

Factor: 1

Continuous Liquid-Liquid Extraction  Yes

	ug/Kg	CAS Number	ug/Kg	
2 Phenol	28000	103-12-9	Acenaphthene	28000
4 Bis(2-Chloroethyl)Ether	28000	751-28-5	2,4-Dinitrophenol	136000
1,2-Dichlorophenol	28000	120-02-7	4-Nitrophenol	136000
1,3-Dichlorobenzene	28000	132-64-9	Dibenzofuran	28000
1,4-Dichlorobenzene	28000	121-14-2	2,4-Dinitrotoluene	28000
1 Benzyl Alcohol	28000	106-20-2	2,6-Dinitrotoluene	28000
1,2-Dichlorobenzene	28000	124-56-2	Dichlorophthalate	28000
2-Methylphenol	28000	7005-22-3	4-Chlorophenyl-phenylether	28000
2-9 Bis(2-chloroisopropyl)ether	28000	186-73-7	Fluorene	28000
3 4-methylphenol	28000	100-01-6	4-Nitroaniline	136000
7 N-Nitroso-Di-n-propylamine	28000	1534-52-1	4,6-dinitro-2-methylphenol	136000
1,1,1-Trichloroethane	28000	186-30-6	N-Nitrosodiphenylamine (1)	28000
1 Nitrobenzene	28000	101-55-3	4-Bromophenyl-phenylether	28000
1 Isophorone	28000	118-74-1	Hexachlorobenzene	28000
1 2-Nitrophenol	28000	107-26-5	Pentachlorophenol	136000
1 2,4-dimethylphenol	28000	105-01-8	1 Phenanthrene	28000
1 Benzoic Acid	136000	120-12-7	Anthracene	28000
1 Bis(2-ethylhexoxy)ethane	28000	184-74-2	Di-n-butylphthalate	28000
1 2,4-dichlorophenol	28000	1206-44-0	Fluoranthene	28000
1 1,2,4-trichlorobenzene	28000	1129-00-0	Pyrene	28000
1 Naphthalene	28000	105-68-7	Butylbenzylphthalate	28000
1 4-Chloroaniline	28000	91-94-1	3,3'-Dichlorobenzidine	54000
1 Hexachlorobutadiene	28000	156-55-3	Benzo(a)anthracene	28000
1 4-cyano-3-methylphenol	28000	117-81-7	bis(2-Ethylhexyl)phthalate	28000
1 2-methylnaphthalene	28000	1218-81-9	Chrysene	28000
1 Hexachlorocyclopentadiene	28000	117-84-0	Di-n-Octylphthalate	28000
1 2,4,6-Trichlorophenol	28000	1205-99-2	Benzo(h)Fluoranthene	28000
1 2,4,5-Trichlorophenol	136000	1207-88-9	Benzo(k)Fluoranthene	28000
1 2-Chloronaphthalene	28000	150-22-8	Benzo(a)pyrene	28000
1 2-Nitroaniline	136000	1195-39-5	Indeno(1,2,3-cd)Pyrene	28000
1 Diethyl Phthalate	28000	101-70-3	Dibenz(a,h)Anthracene	28000
1 Acenaphthylene	28000	1291-24-2	Benzo(g,h,i)Perylene	28000
1 3-Nitroaniline	136000			

(1) - Cannot be separated from diphenylamine

NID RUC  
 11-29-88 14:12:00  
 SAMPLES CUP/016/283-001/28001/ETH/100/04/11/88/2/281-2-106  
 DATE: 11/28/88  
 TIME: 10:51:04 AM  
 CALL: 750-3100  
 1 TO 3001



Quantitation Report File: Y3610

Sample: Y3610.T1

1/29/88 14:12:00

Sample: CLP, 6016, 283, 00173800101MS, M, S, 61641MS, V, 5ML, 1/100

Conditions: INSTRUMENT Y: SP-1000 COLUMN 45C(2MIN) TO 225C@90EG/MIN

Formula: Instrument: Y Weight: 0.001  
 Submitted by: VERSAR Analyst: HN Acct. No.: 6016

OUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. Fac. from Library Entry

Io	Name
1	C101 BROMOCHLOROMETHANE****INTERNAL STANDARD#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
0	C043 TRICHLOROFLUOROMETHANE
1	C050 1,1-DICHLOROETHANE
2	C053 1,2-DICHLOROETHENE (TOTAL)
3	C060 CHLOROFORM
4	C065 1,2-DICHLOROETHANE
5	CS15 1,2-DICHLOROETHANE-D4****SURROGATE#1****
6	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
7	C115 1,1,1-TRICHLOROETHANE
8	C110 2-BUTANONE
9	C120 CARBON TETRACHLORIDE
0	C125 VINYL ACETATE
1	C130 BROMODICHLOROMETHANE
2	C140 1,2-DICHLOROPROPANE
3	C145 CIS-1,3-DICHLOROPROPENE
4	C150 TRICHLOROETHENE
5	C155 DIBROMOCHLOROMETHANE
6	C160 1,1,2-TRICHLOROETHANE
7	C165 BENZENE
8	C170 TRANS-1,3-DICHLOROPROPENE
9	C175 2-CHLOROETHYL VINYLETHER
0	C180 BROMOFORM
1	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
2	C210 2-HEXANONE
3	C205 4-METHYL-2-PENTANONE
4	C220 TETRACHLOROETHENE
5	C225 1,1,2,2-TETRACHLOROETHANE
6	C230 TOLUENE
7	C235 CHLOROBENZENE
8	C240 ETHYLBENZENE
9	C245 STYRENE
0	C250 TOTAL XYLENES
1	CS05 TOLUENE-D8****SURROGATE#2****
2	CS10 4-BROMOFLUOROBENZENE****SURROGATE#3****
3	C250 TOTAL XYLENES

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
12	10:57	1.01	1.146	1.01	17.87	50.00	0.533	1.491	0.36
13	11:36	1.00	1.214	1.00	0.09	50.00	0.005	2.642	0.01
14	12:18		1.287						
15	12:10	1.00	1.273	1.00	45.08	50.00	1.421	1.576	0.91
16	17:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:33	1.01	0.692	1.01	1.89	50.00	0.019	0.492	0.04
18	12:10		0.621						
19	13:57		0.712						
20	14:00	1.00	0.714	1.00	0.65	50.00	0.011	0.795	0.02
21	14:28		0.739						
22	15:49		0.808						
23	16:02		0.819						
24	16:33	1.00	0.845	1.00	80.47	50.00	0.669	0.416	1.61
25	17:15		0.881						
26	17:20	1.00	0.885	1.00	1.36	50.00	0.010	0.347	0.03
27	17:02	1.00	0.870	1.00	47.41	50.00	0.889	0.938	0.95
28	17:20		0.885						
29	18:23		0.938						
30	19:59		1.020						
31	24:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:57		0.893						
33	20:23	1.01	0.829	1.01	15.78	50.00	0.162	0.512	0.32
34	22:15	1.00	0.905	1.00	41.10	50.00	0.305	0.371	0.83
35	22:17	1.00	0.907	1.00	56.20	50.00	0.835	0.743	1.13
36	23:33	1.00	0.958	1.00	221.30	50.00	4.176	0.944	4.43
37	24:43	1.00	1.006	1.00	55.96	50.00	1.002	0.896	1.12
38	26:46	1.00	1.089	1.00	125.26	50.00	1.344	0.537	2.51
39	30:54		1.257						
40	32:09	1.01	1.308	1.01	223.92	50.00	3.008	0.672	4.48
41	23:20	1.00	0.949	1.00	48.45	50.00	0.895	0.923	0.97
42	29:25	1.00	1.197	1.00	49.83	50.00	0.626	0.628	1.00
43	32:09	0.97	1.308	0.97	310.90	50.00	4.177	0.672	6.22

\*\*\*INTERNAL STANDARD RIC REPORT\*\*\*

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

MID Mass List Data: Y3610 # 220 Base m/z: 49  
 11/29/88 14:12:00 + 9:34 Cali: Y3610 # 3 RIC: 110208  
 Sample: CLP, 6016, 283, 0017380010IMS, M, S, 61641MS, V, 5ML, 1/100  
 Conds.: INSTRUMENT Y: SP-1000 COLUMN 450(2MIN) TO 225038DE9/MIN  
 Enhanced (S 15B 2N OT)

35	0.00	1.	Minima	Min Inten:	1
30			Maxima	# 0	

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

MID Mass List Data: Y3610 # 431 Base m/z: 114  
 11/29/88 14:12:00 + 19:36 Cali: Y3610 # 3 RIC: 150256  
 Sample: CLP, 6016, 283, 0017380010IMS, M, S, 61641MS, V, 5ML, 1/100  
 Conds.: INSTRUMENT Y: SP-1000 COLUMN 450(2MIN) TO 225038DE9/MIN  
 Enhanced (S 15B 2N OT)

37	0.00	1.	Minima	Min Inten:	1
30			Maxima	# 0	

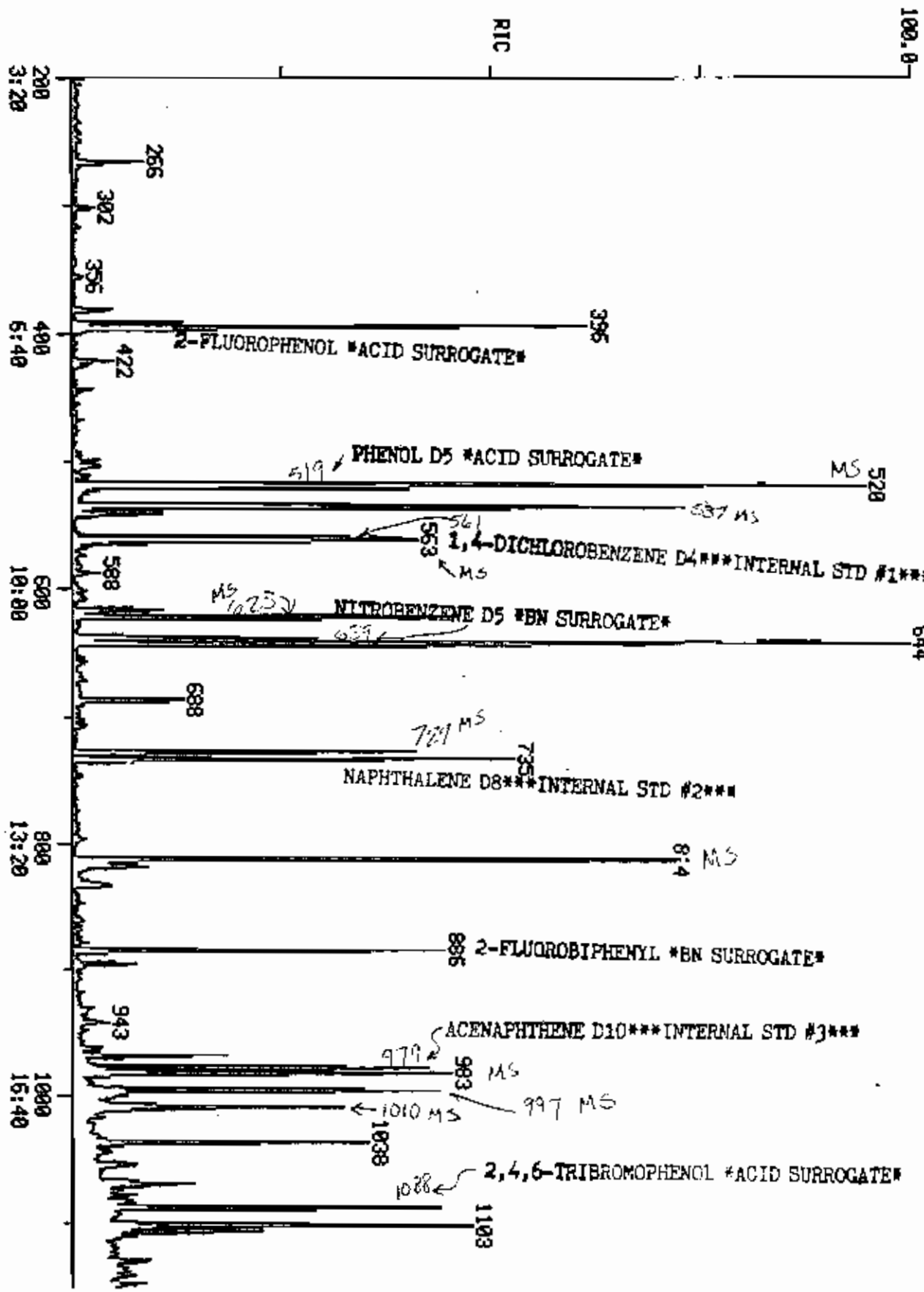
\*\*\*\*\*INTERNAL STANDARD#3\*\*\*\*\*

MID Mass List Data: Y3610 # 566 Base m/z: 117  
 11/29/88 14:12:00 + 24:36 Cali: Y3610 # 3 RIC: 181792  
 Sample: CLP, 6016, 283, 0017380010IMS, M, S, 61641MS, V, 5ML, 1/100  
 Conds.: INSTRUMENT Y: SP-1000 COLUMN 450(2MIN) TO 225038DE9/MIN  
 Enhanced (S 15B 2N OT)

36	0.00	1.	Minima	Min Inten:	1
30			Maxima	# 0	

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

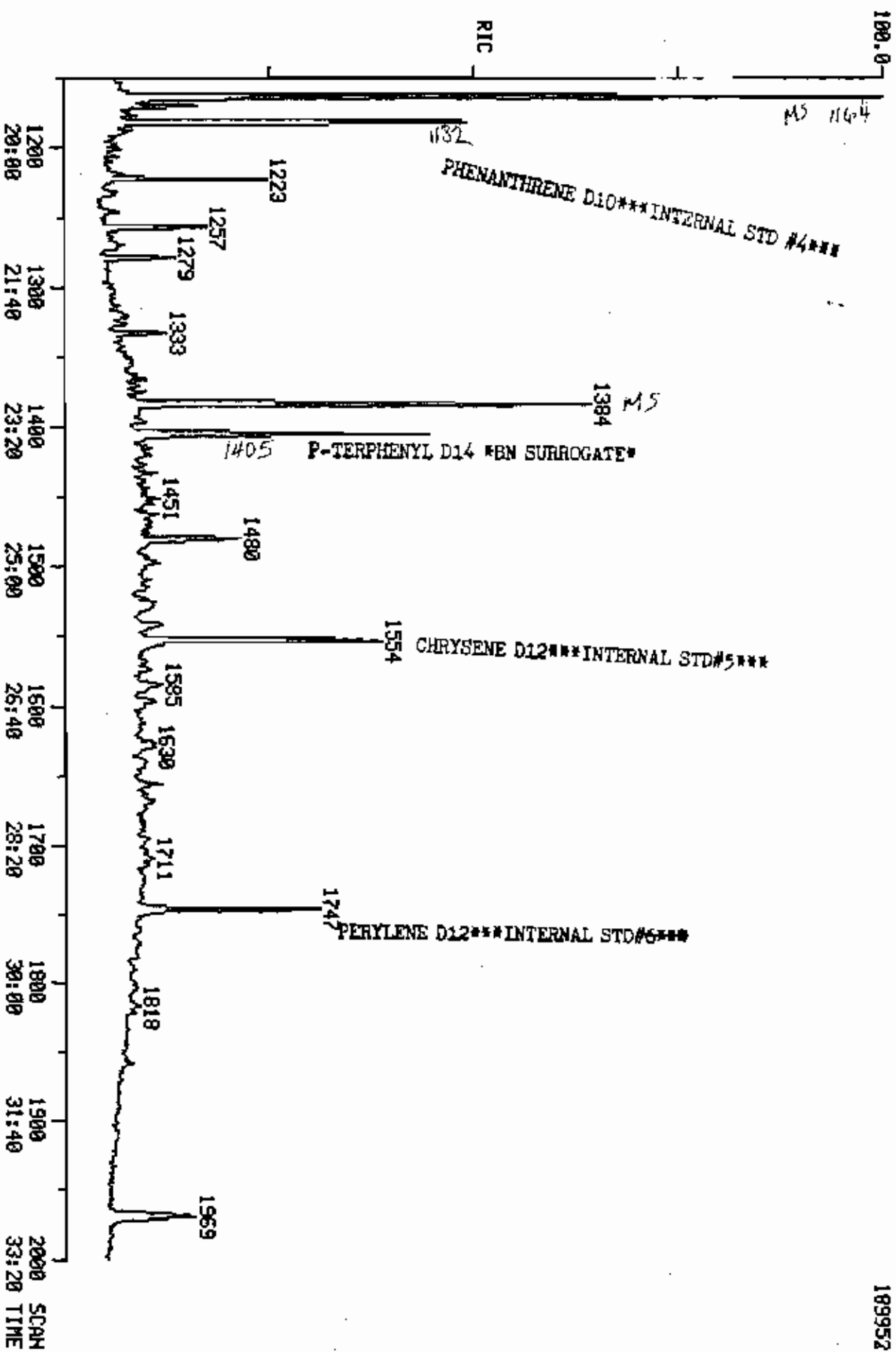
RIC  
 12/07/09 17:32:00  
 SAMPLE: CLP,6016,283,00173900101MS,M,5,61640MS,B,MS,6016 B#283,1U,  
 COND5.: INST U:REXTEK RTX-5/30N,4MIN@45-85027/MIN-3000E10/MIN  
 RANGE: G 1,2000 LABEL: N 0, 4.0 QURN: 0 9, 1.0 J 0 BRSE: U 20, 3  
 DATA: U2358 #1  
 CALL: U2358 #2  
 SCANS 200 TO 1150



235000.

SCAN TIME

RIC  
 12/07/98 17:32:00  
 SAMPLE: CLP,6016,283,00173800101MS,M,5,61640MS,B,MS,6016 B#283,1UL,  
 COMPOS.: INST VIRESTEX RTX-5/30M,4MIND45-8587/MIN-300@10/MIN  
 RANGE: G 1,2000 LABEL: N 0, 4.0 QUANT: A 0, 1.0 J 0 BRSE: U 20, 3  
 DATA: U2358 #1  
 CXL1: U2358 #2  
 SCANS 1150 TO 2090



189952.

Quantitation Report File: V2302

Date: V2302.TI

12/01/88 18:02:00

Sample: CLP,,,SSTD80,,,16296,B,IC-80,,,1UL,

Conds.: INST V:RESTEK RTX-3/3GM,4MIN@45-85@7/MIN 300@10/MIN

Formula: Instrument: V Weight: 0.000

Submitted by: VERSAR Analyst: TS Acct. No.: ---

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	C310 N-NITROSODIMETHYLAMINE
2	CE01 4-METHYL-4-HYDROXYL-2-PENTANONE
3	CS50 2-FLUOROPHENOL**ACID SURR.**
4	CE02 1,3,5-TRIMETHYLBENZENE
5	CS48 PHENOL-D5**ACID SURR.**
6	C315 PHENOL
7	C325 BIS (2-CHLOROETHYL) ETHER
8	C330 2-CHLOROPHENOL
9	CE03 1,2,4-TRIMETHYLBENZENE
10	C335 1,3-DICHLOROBENZENE
11	C130 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
12	C340 1,4-DICHLOROBENZENE
13	C345 BENZYL ALCOHOL
14	C350 1,2-DICHLOROBENZENE
15	C355 2-METHYLPHENOL
16	C360 BIS (2-CHLOROISOPROPYL) ETHER
17	C365 4-METHYLPHENOL
18	CE04 4-METHYL-BENZALDEHYDE
19	C370 N-NITROSO-DI-N-PROPYLAMINE
20	C375 HEXACHLOROETHANE
21	CS20 NITROBENZENE-D5**BN SURR.**
22	C410 NITROBENZENE
23	C415 ISOPHORONE
24	C420 2-NITROPHENOL
25	C425 2,4-DIMETHYLPHENOL
26	C435 BIS (2-CHLOROETHOXY) METHANE
27	C430 BENZOIC ACID
28	C440 2,4-DICHLOROPHENOL
29	C445 1,2,4-TRICHLOROBENZENE
30	C140 NAPHTHALENE-D8**INT. STD. #2**
31	C450 NAPHTHALENE
32	C455 4-CHLOROANILINE
33	C460 HEXACHLOROBUTADIENE
34	C465 4-CHLORO-3-METHYLPHENOL
35	C470 2-METHYLNAPHTHALENE
36	C510 HEXACHLOROCYCLOPENTADIENE
37	C515 2,4,6-TRICHLOROPHENOL
38	C520 2,4,5-TRICHLOROPHENOL
39	CS25 2-FLUOROBIPHENYL**BN SURR.**
40	C525 2-CHLORONAPHTHALENE
41	C530 2-NITROANILINE
42	C535 DIMETHYL PHTHALATE
43	C575 2,6-DINITROTOLUENE
44	C540 ACENAPHTHYLENE
45	CE05 PENTADECANE
46	CS45 3-NITROANILINE
47	C150 ACENAPHTHENE-D10**INT. STD. #3**

V2302

No Name  
 48 C550 ACENAPHTHENE  
 49 C555 2,4-DINITROPHENOL  
 50 C560 4-NITROPHENOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	ZTot
1	74	242	4:02	11	0.428	A BB	40964.	80.000 NG	1.18
2	59	359	5:59	11	0.635	A BB	50029.	80.000 NG***	1.18
3	112	399	6:39	11	0.706	A BB	41465.	80.000 NG*	1.18
4	105	517	8:37	11	0.915	A BB	86667.	80.000 NG***	1.18
5	99	523	8:43	11	0.926	A BB	32174.	80.000 NG*	1.18
6	94	524	8:44	11	0.927	A BV	63613.	80.000 NG	1.18
7	93	536	8:56	11	0.949	A VV	59545.	80.000 NG	1.18
8	128	541	9:01	11	0.958	A BB	43267.	80.000 NG	1.18
9	120	546	9:06	11	0.966	A BB	34142.	80.000 NG***	1.18
10	146	560	9:20	11	0.991	A BB	44711.	80.000 NG	1.18
11	152	565	9:25	11	1.000	A BB	14832.	40.000 NG/LA	0.59
12	146	567	9:27	11	1.004	A BB	45263.	80.000 NG	1.18
13	108	587	9:47	11	1.039	A BB	28285.	80.000 NG	1.18
14	146	592	9:52	11	1.048	A BB	44468.	80.000 NG	1.18
15	108	603	10:03	11	1.067	A BV	41436.	80.000 NG	1.18
16	45	609	10:09	11	1.078	A BB	117739.	80.000 NG	1.18
17	108	624	10:24	11	1.104	A BB	43746.	80.000 NG	1.18
18	119	625	10:25	11	1.106	A BB	6625.	80.000 NG***	1.18
19	70	629	10:29	11	1.113	A BB	50354.	80.000 NG	1.18
20	117	634	10:34	11	1.122	A BB	24564.	80.000 NG	1.18
21	82	644	10:44	30	0.871	A BB	58116.	80.000 NG*	1.18
22	77	647	10:47	30	0.876	A BB	61943.	80.000 NG	1.18
23	82	679	11:19	30	0.919	A BB	115752.	80.000 NG	1.18
24	139	690	11:30	30	0.934	A BB	21470.	80.000 NG	1.18
25	107	695	11:35	30	0.940	A BB	47632.	80.000 NG	1.18
26	93	710	11:50	30	0.961	A BB	70298.	80.000 NG	1.18
27	122	714	11:54	30	0.966	A VV	26805.	80.000 NG	1.18
28	162	722	12:02	30	0.977	A BB	31926.	80.000 NG	1.18
29	180	733	12:13	30	0.992	A BB	33111.	80.000 NG	1.18
30	136	739	12:19	30	1.000	A BB	45113.	40.000 NG/LA	0.59
31	128	742	12:22	30	1.004	A BB	106977.	80.000 NG	1.18
32	127	752	12:32	30	1.018	A BB	43663.	80.000 NG	1.18
33	225	767	12:47	30	1.038	A BB	18259.	80.000 NG	1.18
34	107	818	13:38	30	1.107	A BB	43598.	80.000 NG	1.18
35	142	837	13:57	30	1.133	A BB	64365.	80.000 NG	1.18
36	237	868	14:28	47	0.882	A BB	14023.	80.000 NG	1.18
37	196	879	14:39	47	0.893	A BV	16567.	80.000 NG	1.18
38	196	884	14:44	47	0.898	A VB	20597.	80.000 NG*	1.18
39	172	890	14:50	47	0.904	A BB	63667.	80.000 NG*	1.18
40	162	904	15:04	47	0.919	A BB	60044.	80.000 NG	1.18
41	65	923	15:23	47	0.938	A BB	35746.	80.000 NG*	1.18
42	163	953	15:53	47	0.968	A BB	72381.	80.000 NG	1.18
43	165	962	16:02	47	0.978	A BB	15834.	80.000 NG	1.18
44	152	963	16:03	47	0.979	A BB	87328.	80.000 NG	1.18
45	57	974	16:14	47	0.990	A BB	109672.	80.000 NG***	1.18
46	138	980	16:20	47	0.996	A BB	11117.	80.000 NG*	1.18
47	164	984	16:24	47	1.000	A BB	20785.	40.000 NG/LA	0.59
48	153	989	16:29	47	1.005	A BB	61022.	80.000 NG	1.18
49	184	994	16:34	47	1.010	A BB	8377.	80.000 NG*	1.18
50	109	1002	16:42	47	1.018	A BV	12177.	80.000 NG	1.18

V2302

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	4:02	1.00	0.428	1.00	80.00	80.00	1.381	1.381	1.00
2	5:59	1.00	0.635	1.00	80.00	80.00	1.687	1.687	1.00
3	6:39	1.00	0.706	1.00	80.00	80.00	1.398	1.398	1.00
4	8:37	1.00	0.915	1.00	80.00	80.00	2.922	2.922	1.00
5	8:43	1.00	0.926	1.00	80.00	80.00	1.759	1.759	1.00
6	8:44	1.00	0.927	1.00	80.00	80.00	2.144	2.144	1.00
7	8:56	1.00	0.949	1.00	80.00	80.00	2.007	2.007	1.00
8	9:01	1.00	0.958	1.00	80.00	80.00	1.459	1.459	1.00
9	9:06	1.00	0.966	1.00	80.00	80.00	1.151	1.151	1.00
10	9:20	1.00	0.991	1.00	80.00	80.00	1.507	1.507	1.00
11	9:25	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
12	9:27	1.00	1.004	1.00	80.00	80.00	1.526	1.526	1.00
13	9:47	1.00	1.039	1.00	80.00	80.00	0.954	0.954	1.00
14	9:52	1.00	1.048	1.00	80.00	80.00	1.499	1.499	1.00
15	10:03	1.00	1.067	1.00	80.00	80.00	1.397	1.397	1.00
16	10:09	1.00	1.078	1.00	80.00	80.00	3.969	3.969	1.00
17	10:24	1.00	1.104	1.00	80.00	80.00	1.475	1.475	1.00
18	10:25	1.00	1.106	1.00	80.00	80.00	0.223	0.223	1.00
19	10:29	1.00	1.113	1.00	80.00	80.00	1.697	1.697	1.00
20	10:34	1.00	1.122	1.00	80.00	80.00	0.828	0.828	1.00
21	10:44	1.00	0.871	1.00	80.00	80.00	0.644	0.644	1.00
22	10:47	1.00	0.876	1.00	80.00	80.00	0.587	0.587	1.00
23	11:19	1.00	0.919	1.00	80.00	80.00	1.283	1.283	1.00
24	11:30	1.00	0.934	1.00	80.00	80.00	0.238	0.238	1.00
25	11:35	1.00	0.940	1.00	80.00	80.00	0.528	0.528	1.00
26	11:50	1.00	0.961	1.00	80.00	80.00	0.779	0.779	1.00
27	11:54	1.00	0.966	1.00	80.00	80.00	0.297	0.297	1.00
28	12:02	1.00	0.977	1.00	80.00	80.00	0.354	0.354	1.00
29	12:13	1.00	0.992	1.00	80.00	80.00	0.367	0.367	1.00
30	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
31	12:22	1.00	1.004	1.00	80.00	80.00	1.186	1.186	1.00
32	12:32	1.00	1.018	1.00	80.00	80.00	0.484	0.484	1.00
33	12:47	1.00	1.038	1.00	80.00	80.00	0.202	0.202	1.00
34	13:38	1.00	1.107	1.00	80.00	80.00	0.483	0.483	1.00
35	13:57	1.00	1.133	1.00	80.00	80.00	0.713	0.713	1.00
36	14:28	1.00	0.882	1.00	80.00	80.00	0.337	0.337	1.00
37	14:39	1.00	0.893	1.00	80.00	80.00	0.398	0.398	1.00
38	14:44	1.00	0.898	1.00	80.00	80.00	0.495	0.495	1.00
39	14:50	1.00	0.904	1.00	80.00	80.00	1.531	1.531	1.00
40	15:04	1.00	0.919	1.00	80.00	80.00	1.444	1.444	1.00
41	15:23	1.00	0.938	1.00	80.00	80.00	0.860	0.860	1.00
42	15:53	1.00	0.968	1.00	80.00	80.00	1.741	1.741	1.00
43	16:02	1.00	0.978	1.00	80.00	80.00	0.381	0.381	1.00
44	16:03	1.00	0.979	1.00	80.00	80.00	2.100	2.100	1.00
45	16:14	1.00	0.990	1.00	80.00	80.00	2.638	2.638	1.00
46	16:20	1.00	0.996	1.00	80.00	80.00	0.267	0.267	1.00
47	16:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
48	16:29	1.00	1.005	1.00	80.00	80.00	1.468	1.468	1.00
49	16:34	1.00	1.010	1.00	80.00	80.00	0.201	0.201	1.00
50	16:42	1.00	1.018	1.00	80.00	80.00	0.293	0.293	1.00



Quantitation Report File: V2302

Data: V2302.TI

12/01/88 18:02:00

Sample: CLP...SSTD80...16296.B, IC-80...1UL

Conds.: INST V:REXTEK RTX-5/30M, 4MIN@45-85@7/MIN @00910/MIN

Formula: Instrument: V Weight: 0.000

Submitted by: VERSAR Analyst: TS Acct. No.: ----

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

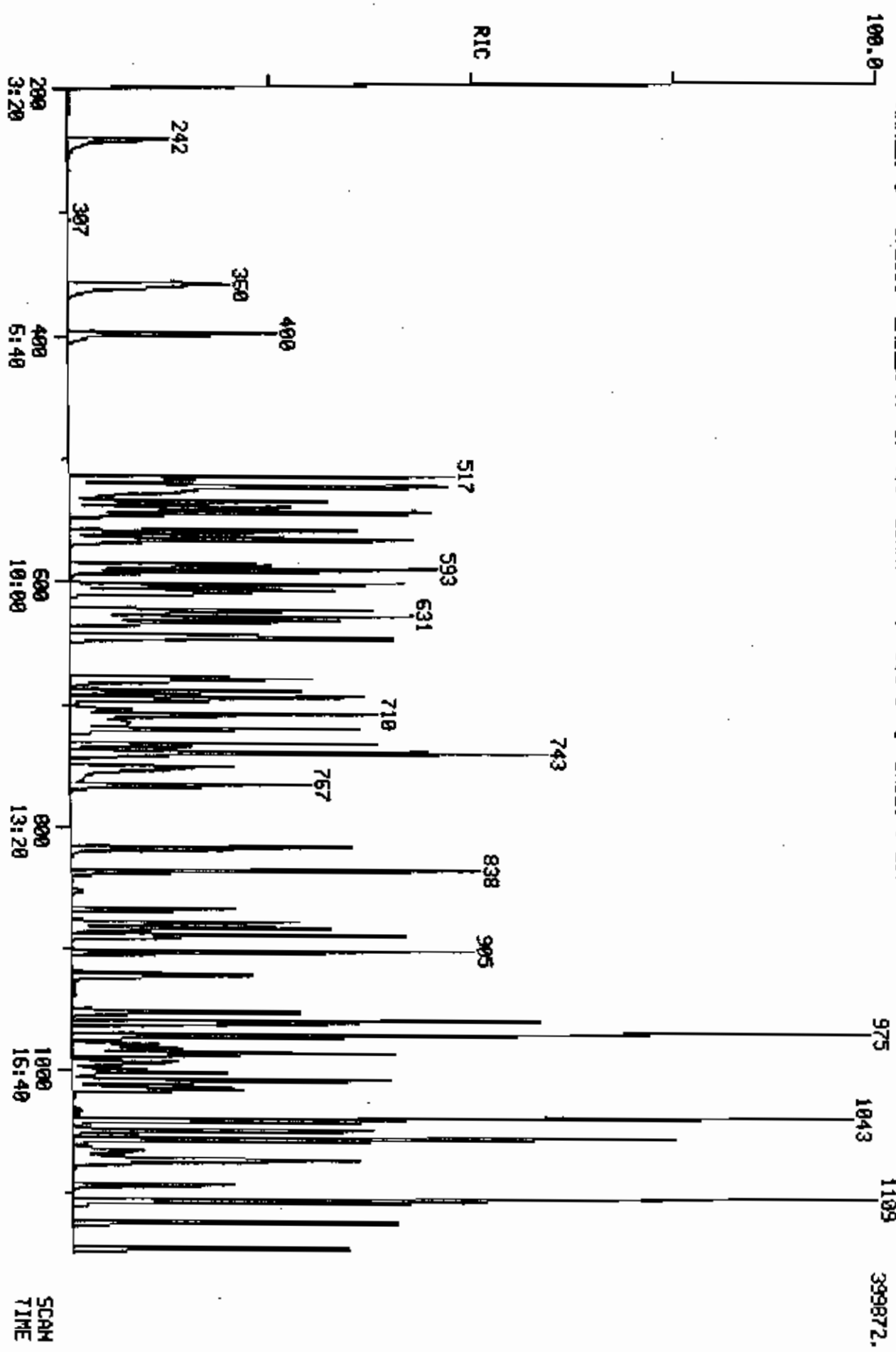
- No Name
- 51 C565 DIBENZOFURAN
- 52 C544 2,4-DINITROTOLUENE
- 53 CE06 HEXADECANE
- 54 C580 DIETHYLPHTHALATE
- 55 C585 4-CHLOROPHENYL-PHENYLETHER
- 56 C590 FLUORENE
- 57 C595 4-NITROANILINE
- 58 C610 4,6-DINITRO-2-METHYLPHENOL
- 59 C615 N-NITROSODIPHENYLAMINE
- 60 C555 2,4,6,-TRIBROMOPHENOL\*\*ACID SURR.\*\*
- 61 CE07 HEPTADECANE
- 62 C625 4-BROMOPHENYL-PHENYLETHER
- 63 C630 HEXACHLOROBENZENE
- 64 CE08 OCTADECANE
- 65 C635 PENTACHLOROPHENOL
- 66 C160 PHENANTHRENE-D10\*\*INT. STD. #4\*\*
- 67 C640 PHENANTHRENE
- 68 C645 ANTHRACENE
- 69 C650 DI-N-BUTYLPHTHALATE
- 70 CE09 EICOSANE
- 71 C655 FLUORANTHENE
- 72 CE10 DOCOSANE
- 73 C715 PYRENE
- 74 C530 P-TERPHENYL-D14\*\*BN SURR.\*\*
- 75 C720 BUTYLBENZYLPHTHALATE
- 76 C725 3,3'-DICHLOROBENZIDINE
- 77 C730 BENZO(A)ANTHRACENE
- 78 C170 CHRYSENE-D12\*\*INT. STD. #5\*\*
- 79 C741 BIS (2-ETHYLHEXYL) PHTHALATE
- 80 C740 CHRYSENE
- 81 C760 DI-N-OCTYL PHTHALATE
- 82 C765 BENZO(B)FLUORANTHENE
- 83 C770 BENZO(K)FLUORANTHENE
- 84 C775 BENZO(A)PYRENE
- 85 C175 PERYLENE-D12\*\*INT. STD. #6\*\*
- 86 C780 INDENO(1,2,3-CD)PYRENE
- 87 C785 DIBENZ(A,H)ANTHRACENE
- 88 C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	XTot
51	168	1010	16:50	47	1.026	A BB	77594.	80.000 NG	1.15
52	165	1016	16:56	47	1.033	A BB	23058.	80.000 NG	1.15
53	57	1043	17:23	47	1.060	A BB	112206.	80.000 NG***	1.15
54	149	1050	17:30	47	1.067	A BB	54574.	80.000 NG	1.15
55	204	1058	17:38	47	1.075	A BB	26520.	80.000 NG	1.15

Q/Z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	ZTot	Ratio
166	1098	17:38	47	1.075	A BB	61494.	80.000 NG	1.18	1.00
138	1069	17:45	47	1.082	A BB	12699.	80.000 NG*	1.18	1.00
198	1072	17:52	47	1.089	A BB	10888.	80.000 NG*	1.18	1.00
169	1079	17:59	47	1.092	A BB	36871.	80.000 NG	1.18	1.00
330	1094	18:14	66	0.921	A BB	8728.	80.000 NG*	1.18	1.00
57	1108	18:28	66	0.933	A BB	121669.	80.000 NG***	1.18	1.00
248	1129	18:45	47	1.143	A BB	13729.	80.000 NG	1.18	1.00
284	1146	19:06	47	1.165	A BB	19503.	80.000 NG	1.18	1.00
57	1170	19:30	66	0.985	A BB	116900.	80.000 NG***	1.18	1.00
266	1170	19:30	66	0.985	A BB	12119.	80.000 NG	1.18	1.00
188	1188	19:48	66	1.000	A BB	39199.	40.000 NG/UL	0.99	1.00
178	1192	19:52	66	1.003	A BV	84621.	80.000 NG	1.18	1.00
178	1198	19:58	66	1.008	A VB	82620.	80.000 NG	1.18	1.00
149	1274	21:14	66	1.072	A VB	131924.	80.000 NG	1.18	1.00
71	1289	21:29	66	1.082	A BB	79730.	80.000 NG***	1.18	1.00
202	1399	22:39	66	1.144	A BB	79032.	80.000 NG	1.18	1.00
57	1390	23:10	66	1.170	A VB	143846.	80.000 NG***	1.18	1.00
202	1391	23:11	66	1.171	A BB	78641.	80.000 NG	1.18	1.00
244	1411	23:31	78	0.904	A BB	47692.	80.000 NG*	1.18	1.00
149	1482	24:42	78	0.950	A BB	30813.	80.000 NG	1.18	1.00
292	1554	25:54	78	0.996	A BB	1979.	80.000 NG	1.18	1.00
228	1558	25:58	78	0.999	A BV	48979.	80.000 NG	1.18	1.00
240	1560	26:00	78	1.000	A BB	22654.	40.000 NG/UL	0.99	1.00
149	1563	26:03	78	1.002	A BB	70669.	80.000 NG	1.18	1.00
228	1564	26:04	78	1.003	A VB	47078.	80.000 NG	1.18	1.00
149	1643	27:23	85	0.939	A BB	110917.	80.000 NG	1.18	1.00
292	1702	28:22	85	0.973	M XX	46927.	80.000 NG	1.18	1.00
292	1706	28:26	85	0.975	M XX	46259.	80.000 NG	1.18	1.00
292	1744	29:04	85	0.997	A BB	38459.	80.000 NG	1.18	1.00
264	1790	29:10	85	1.000	A BB	18939.	40.000 NG/UL	0.99	1.00
276	1897	31:37	85	1.084	A BB	41918.	80.000 NG	1.18	1.00
278	1897	31:37	85	1.084	A BB	31782.	80.000 NG	1.18	1.00
276	1939	32:19	85	1.108	A BB	38673.	80.000 NG	1.18	1.00

Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
16:30	1.00	1.026	1.00	80.00	80.00	1.866	1.866	1.00
16:56	1.00	1.033	1.00	80.00	80.00	0.558	0.558	1.00
17:23	1.00	1.060	1.00	80.00	80.00	2.699	2.699	1.00
17:30	1.00	1.067	1.00	80.00	80.00	2.033	2.033	1.00
17:38	1.00	1.075	1.00	80.00	80.00	0.638	0.638	1.00
17:38	1.00	1.079	1.00	80.00	80.00	1.479	1.479	1.00
17:45	1.00	1.082	1.00	80.00	80.00	0.310	0.310	1.00
17:52	1.00	1.089	1.00	80.00	80.00	0.262	0.262	1.00
17:59	1.00	1.092	1.00	80.00	80.00	0.887	0.887	1.00
18:14	1.00	0.921	1.00	80.00	80.00	0.111	0.111	1.00
18:28	1.00	0.933	1.00	80.00	80.00	1.592	1.592	1.00
18:45	1.00	1.143	1.00	80.00	80.00	0.330	0.330	1.00
19:06	1.00	1.165	1.00	80.00	80.00	0.469	0.469	1.00
19:30	1.00	0.985	1.00	80.00	80.00	1.491	1.491	1.00
19:30	1.00	0.985	1.00	80.00	80.00	0.159	0.159	1.00
19:48	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
19:52	1.00	1.003	1.00	80.00	80.00	1.079	1.079	1.00
19:58	1.00	1.008	1.00	80.00	80.00	1.054	1.054	1.00
21:14	1.00	1.072	1.00	80.00	80.00	1.653	1.653	1.00
21:29	1.00	1.082	1.00	80.00	80.00	1.017	1.017	1.00
22:39	1.00	1.144	1.00	80.00	80.00	1.009	1.009	1.00

RIC  
12/01/88 17:10:00  
SAMPLE: CLP,,55TD120,,16295,B,IC-120,,1UL,  
COND5.1 INST U:RESTEM RTX-5/30M,4MINR45-8527/MIH-300210/MIH  
RANGE: C 1,2000 LABEL: H 0, 4.0 QUANT: A 0, 1.0 J 0 BASE: U 20, 3  
DATA: U2301 #1  
CALL: U2301 #2  
SCANS 200 TO 1150



SCAN  
TIME

Quantitation Report File: V2301

Data: V2301.TI

12/01/88 17:10:00

Sample: CLP...BSTD120...16295.B, IC-120., 1UL,

Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-85@7/MIN @200@10/MIN

Formula: Instrument: V

Weight: 0.001

Submitted by: VERSAR

Analyst: TS

Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	C310 N-NITROSODIMETHYLAMINE
2	CE01 4-METHYL-4-HYDROXYL-2-PENTANONE
3	CS90 2-FLUOROPHENOL**ACID SURR.**
4	CE02 1,3,5-TRIMETHYLBENZENE
5	CS45 PHENOL-D5**ACID SURR.**
6	C315 PHENOL
7	C325 BIS (2-CHLOROETHYL) ETHER
8	C330 2-CHLOROPHENOL
9	CE03 1,2,4-TRIMETHYLBENZENE
10	C335 1,3-DICHLOROBENZENE
11	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
12	C340 1,4-DICHLOROBENZENE
13	C345 BENZYL ALCOHOL
14	C350 1,2-DICHLOROBENZENE
15	C355 2-METHYLPHENOL
16	C360 BIS (2-CHLOROISOPROPYL) ETHER
17	C365 4-METHYLPHENOL
18	CE04 4-METHYL-BENZALDEHYDE
19	C370 N-NITROSO-DI-N-PROPYLAMINE
20	C375 HEXACHLOROETHANE
21	CS20 NITROBENZENE-D3**BN SURR.**
22	C410 NITROBENZENE
23	C415 ISOPHORONE
24	C420 2-NITROPHENOL
25	C425 2,4-DIMETHYLPHENOL
26	C435 BIS (2-CHLOROETHOXY) METHANE
27	C430 BENZOIC ACID
28	C440 2,4-DICHLOROPHENOL
29	C445 1,2,4-TRICHLOROBENZENE
30	CI40 NAPHTHALENE-D8**INT. STD. #2**
31	C450 NAPHTHALENE
32	C455 4-CHLOROANILINE
33	C460 HEXACHLOROBTADIENE
34	C465 4-CHLORO-3-METHYLPHENOL
35	C470 2-METHYLNAPHTHALENE
36	C910 HEXACHLOROCYCLOPENTADIENE
37	C919 2,4,6-TRICHLOROPHENOL
38	C320 2,4,5-TRICHLOROPHENOL
39	CS25 2-FLUOROBIPHENYL**BN SURR.**
40	C525 2-CHLORONAPHTHALENE
41	C530 2-NITROANILINE
42	C535 DIMETHYL PHTHALATE
43	C575 2,6-DINITROTOLUENE
44	C540 ACENAPHTHYLENE
45	CE05 PENTADECANE
46	C545 3-NITROANILINE
47	CI50 ACENAPHTHENE-D10**INT. STD. #3**

V2301

No Name  
 48 C350 ACENAPHTHENE  
 49 C355 2,4-DINITROPHENOL  
 50 C360 4-NITROPHENOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hgnt)	Amount	XTot
1	74	242	4:02	11	0.428	A BB	38449.	120.000 NG	1.19
2	59	360	6:00	11	0.637	A BB	70977.	120.000 NG***	1.19
3	112	400	6:40	11	0.708	A BB	38471.	120.000 NG*	1.19
4	105	517	8:37	11	0.915	A BB	121545.	120.000 NG***	1.19
5	99	524	8:44	11	0.927	A BB	75010.	120.000 NG*	1.19
6	94	526	8:46	11	0.931	A BV	93497.	120.000 NG	1.19
7	93	537	8:57	11	0.950	A VV	56084.	120.000 NG	1.19
8	128	542	9:02	11	0.959	A BB	62359.	120.000 NG	1.19
9	120	546	9:06	11	0.966	A BB	48124.	120.000 NG***	1.19
10	146	561	9:21	11	0.993	A BV	63498.	120.000 NG	1.19
11	152	565	9:25	11	1.000	A BB	14996.	40.000 NG/UL	0.40
12	146	568	9:28	11	1.005	A VB	64875.	120.000 NG	1.19
13	108	588	9:48	11	1.041	A BB	40948.	120.000 NG	1.19
14	146	593	9:53	11	1.050	A BB	62744.	120.000 NG	1.19
15	108	604	10:04	11	1.069	A VV	38852.	120.000 NG	1.19
16	45	609	10:09	11	1.078	A BB	177635.	120.000 NG	1.19
17	108	625	10:25	11	1.106	A BB	62911.	120.000 NG	1.19
18	119	626	10:26	11	1.108	A BB	5790.	120.000 NG***	1.19
19	70	631	10:31	11	1.117	A BB	72850.	120.000 NG	1.19
20	117	634	10:34	11	1.122	A BB	34885.	120.000 NG	1.19
21	82	645	10:45	30	0.872	A BB	84443.	120.000 NG*	1.19
22	77	648	10:48	30	0.876	A BB	88950.	120.000 NG	1.19
23	82	681	11:21	30	0.920	A BB	170378.	120.000 NG	1.19
24	139	691	11:31	30	0.934	A BB	31528.	120.000 NG	1.19
25	107	696	11:36	30	0.941	A BB	68545.	120.000 NG	1.19
26	93	710	11:50	30	0.959	A BB	101566.	120.000 NG	1.19
27	122	716	11:56	30	0.968	A VV	39590.	120.000 NG	1.19
28	162	722	12:02	30	0.976	A BB	46545.	120.000 NG	1.19
29	180	734	12:14	30	0.992	A BB	46951.	120.000 NG	1.19
30	136	740	12:20	30	1.000	A BB	46678.	40.000 NG/UL	0.40
31	128	743	12:23	30	1.004	A BB	148843.	120.000 NG	1.19
32	127	753	12:33	30	1.018	A BB	63712.	120.000 NG	1.19
33	225	767	12:47	30	1.036	A BB	26246.	120.000 NG	1.19
34	107	818	13:38	30	1.105	A BB	62492.	120.000 NG	1.19
35	142	838	13:58	30	1.132	A BB	89651.	120.000 NG	1.19
36	237	869	14:29	47	0.883	A BB	21412.	120.000 NG	1.19
37	196	880	14:40	47	0.894	A BV	24223.	120.000 NG	1.19
38	196	885	14:45	47	0.899	A VB	29157.	120.000 NG*	1.19
39	172	891	14:51	47	0.905	A BB	88677.	120.000 NG*	1.19
40	162	905	15:05	47	0.920	A BB	83545.	120.000 NG	1.19
41	65	924	15:24	47	0.939	A BB	53896.	120.000 NG*	1.19
42	163	954	15:54	47	0.970	A BB	107725.	120.000 NG	1.19
43	165	963	15:03	47	0.979	A BB	23594.	120.000 NG	1.19
44	152	964	16:04	47	0.980	A BB	125386.	120.000 NG	1.19
45	37	975	16:15	47	0.991	A BB	159731.	120.000 NG***	1.19
46	138	981	16:21	47	0.997	A BB	16761.	120.000 NG*	1.19
47	164	984	16:24	47	1.000	A BB	21594.	40.000 NG/UL	0.40
48	153	989	16:29	47	1.005	A BB	86169.	120.000 NG	1.19
49	184	996	16:36	47	1.012	A BB	13151.	120.000 NG*	1.19
50	109	1004	16:44	47	1.020	A BV	18753.	120.000 NG	1.19

Quantitation Report File: V2301

Data: V2301.TI

12/01/88 17:10:00

Sample: CLP...SSTD120...16293,B,IC-120...IUL

Conds.: INST V:RESEX RTX-3/30M,4MIN&43-85&7/MIN 300&10/MIN

Formula: Instrument: V Weight: 0.001

Submitted by: VERBAR Analyst: TS Acct. No.:

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

- No Name
- 31 C565 DIBENZOFURAN
- 32 C544 2,4-DINITROTOLUENE
- 33 C606 HEXADECANE
- 34 C580 DIETHYLPHTHALATE
- 35 C585 4-CHLOROPHENYL-PHENYLEETHER
- 36 C590 FLUORENE
- 37 C595 4-NITROANILINE
- 38 C610 4,6-DINITRO-2-METHYLPHENOL
- 39 C615 N-NITROSODIPHENYLAMINE
- 60 C555 2,4,6-TRIBROMOPHENOL\*\*ACID SURR.\*\*
- 61 C607 HEPTADECANE
- 62 C625 4-BROMOPHENYL-PHENYLEETHER
- 63 C630 HEXACHLOROBENZENE
- 64 C608 OCTADECANE
- 65 C635 PENTACHLOROPHENOL
- 66 C160 PHENANTHRENE-D10\*\*INT. STD. #4\*\*
- 67 C640 PHENANTHRENE
- 68 C645 ANTHRACENE
- 69 C650 DI-N-BUTYLPHTHALATE
- 70 C609 EICOSANE
- 71 C655 FLUORANTHENE
- 72 C610 DODECANE
- 73 C715 PYRENE
- 74 C530 P-TERPHENYL-D14\*\*BN SURR.\*\*
- 75 C720 BUTYLBENZYLPHTHALATE
- 76 C725 3,3'-DICHLOROBENZIDINE
- 77 C730 BENZO(A)ANTHRACENE
- 78 C170 CHRYSENE-D12\*\*INT. STD. #5\*\*
- 79 C741 BIS(2-ETHYLHEXYL)PHTHALATE
- 80 C740 CHRYSENE
- 81 C760 DI-N-OCTYL PHTHALATE
- 82 C765 BENZO(B)FLUORANTHENE
- 83 C770 BENZO(K)FLUORANTHENE
- 84 C775 BENZO(A)PYRENE
- 85 C175 PERYLENE-D12\*\*INT. STD. #6\*\*
- 86 C780 INDENO(1,2,3-CD)PYRENE
- 87 C785 DIBENZ(A,H)ANTHRACENE
- 88 C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Math	Area(Hght)	Amount	RTot
31	168	1011	16:51	47	1.027	A BB	111751.	120.000 NG	1.17
32	165	1017	16:57	47	1.034	A BB	39127.	120.000 NG	1.17
33	57	1043	17:23	47	1.060	A BB	162287.	120.000 NG***	1.17
34	149	1051	17:31	47	1.068	A VV	121408.	120.000 NG	1.17
35	204	1058	17:35	47	1.075	A BB	38497.	120.000 NG	1.17

V2301

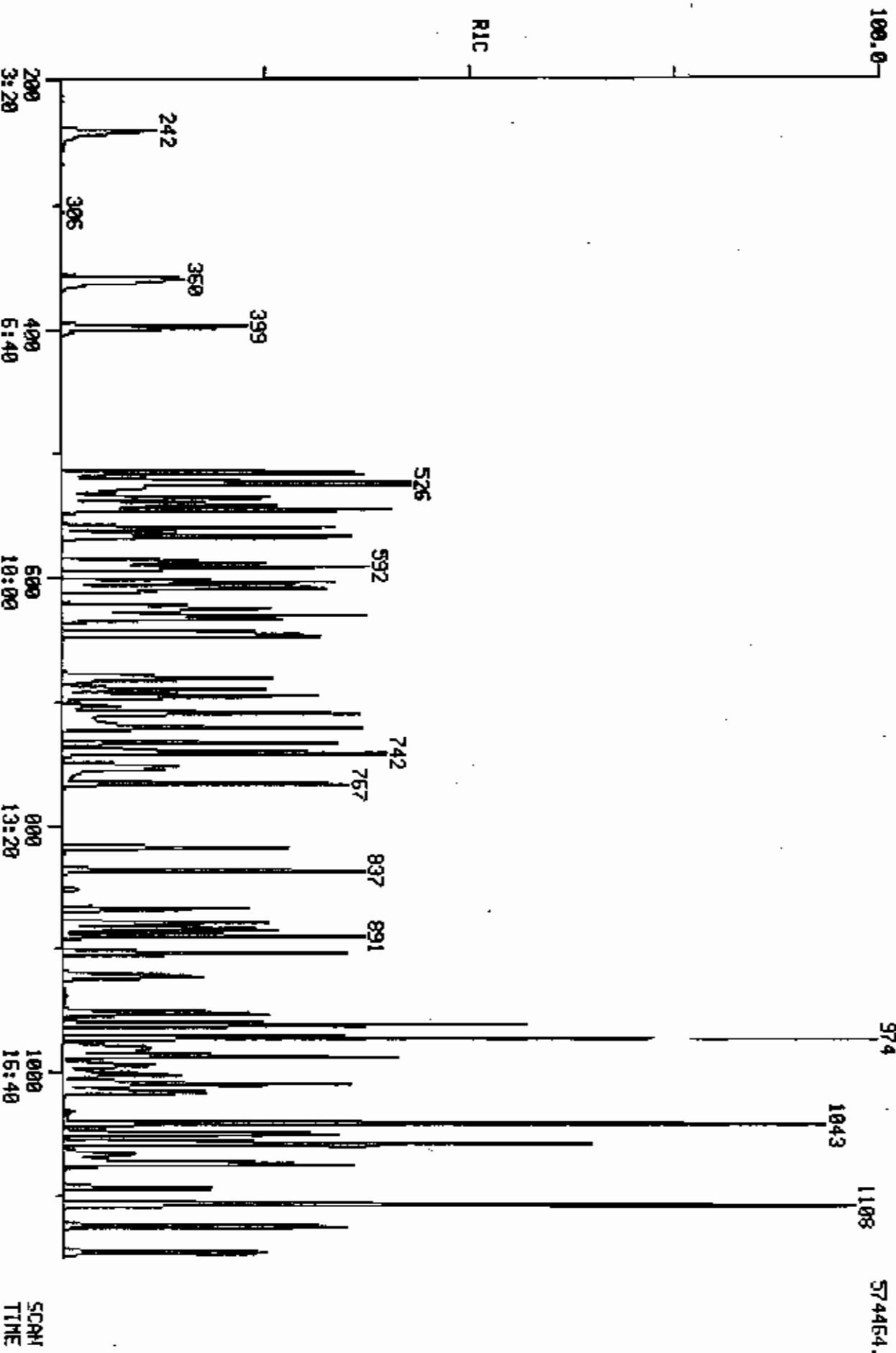
No	n/r	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	XTot
56	166	1099	17:39	47	1.076	A BB	88966.	120.000 NG	1.19
57	138	1067	17:47	47	1.084	A VB	17868.	120.000 NG*	1.17
58	198	1073	17:53	47	1.090	A BB	16669.	120.000 NG*	1.17
59	169	1076	17:56	47	1.093	A BB	55121.	120.000 NG	1.19
60	330	1095	18:15	66	0.921	A BB	14514.	120.000 NG*	1.17
61	57	1109	18:29	66	0.933	A BB	177040.	120.000 NG***	1.19
62	248	1126	18:46	47	1.144	A BB	21703.	120.000 NG	1.17
63	284	1147	19:07	47	1.166	A BB	30345.	120.000 NG	1.19
64	57	1170	19:30	66	0.984	A BB	171647.	120.000 NG***	1.17
65	266	1171	19:31	66	0.985	A BB	20158.	120.000 NG	1.19
66	188	1189	19:49	66	1.000	A BB	41979.	40.000 NG/UL	0.40
67	178	1193	19:53	66	1.003	A BV	123571.	120.000 NG	1.19
68	178	1199	19:59	66	1.008	A VB	121865.	120.000 NG	1.19
69	149	1273	21:15	66	1.072	A BB	182235.	120.000 NG	1.19
70	71	1286	21:26	66	1.082	A VB	116274.	120.000 NG***	1.19
71	202	1360	22:40	66	1.144	A BB	109711.	120.000 NG	1.19
72	57	1391	23:11	66	1.170	A VB	204698.	120.000 NG***	1.17
73	202	1391	23:11	66	1.170	A BB	109042.	120.000 NG	1.19
74	244	1412	23:32	78	0.905	A VB	69999.	120.000 NG*	1.17
75	149	1483	24:43	78	0.950	A BB	74062.	120.000 NG	1.17
76	252	1555	25:55	78	0.996	A BB	2657.	120.000 NG	1.17
77	228	1559	25:59	78	0.999	A BV	70892.	120.000 NG	1.19
78	240	1561	26:01	78	1.000	A BB	24389.	40.000 NG/UL	0.40
79	149	1564	26:04	78	1.002	A BB	99277.	120.000 NG	1.19
80	228	1565	26:05	78	1.003	A VB	68687.	120.000 NG	1.17
81	149	1644	27:24	85	0.938	A BB	139835.	120.000 NG	1.17
82	252	1704	28:24	85	0.973	M XX	73566.	120.000 NG	1.17
83	252	1707	28:27	85	0.974	M XX	64159.	120.000 NG	1.17
84	252	1746	29:06	85	0.997	A BB	56922.	120.000 NG	1.19
85	264	1752	29:12	85	1.000	A BB	20542.	40.000 NG/UL	0.40
86	276	1901	31:41	85	1.085	A BB	63433.	120.000 NG	1.19
87	278	1901	31:41	85	1.085	A BB	46875.	120.000 NG	1.19
88	276	1943	32:23	85	1.109	A BB	56559.	120.000 NG	1.19

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
51	16:51	1.00	1.027	1.00	120.00	120.00	1.725	1.725	1.00
52	16:57	1.00	1.034	1.00	120.00	120.00	0.542	0.542	1.00
53	17:23	1.00	1.060	1.00	120.00	120.00	2.505	2.505	1.00
54	17:31	1.00	1.068	1.00	120.00	120.00	1.874	1.874	1.00
55	17:38	1.00	1.075	1.00	120.00	120.00	0.594	0.594	1.00
56	17:39	1.00	1.076	1.00	120.00	120.00	1.373	1.373	1.00
57	17:47	1.00	1.084	1.00	120.00	120.00	0.276	0.276	1.00
58	17:53	1.00	1.090	1.00	120.00	120.00	0.257	0.257	1.00
59	17:56	1.00	1.093	1.00	120.00	120.00	0.851	0.851	1.00
60	18:15	1.00	0.921	1.00	120.00	120.00	0.115	0.115	1.00
61	18:29	1.00	0.933	1.00	120.00	120.00	1.406	1.406	1.00
62	18:46	1.00	1.144	1.00	120.00	120.00	0.335	0.335	1.00
63	19:07	1.00	1.166	1.00	120.00	120.00	0.468	0.468	1.00
64	19:30	1.00	0.984	1.00	120.00	120.00	1.363	1.363	1.00
65	19:31	1.00	0.985	1.00	120.00	120.00	0.160	0.160	1.00
66	19:49	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
67	19:53	1.00	1.003	1.00	120.00	120.00	0.951	0.951	1.00
68	19:59	1.00	1.008	1.00	120.00	120.00	0.968	0.968	1.00
69	21:15	1.00	1.072	1.00	120.00	120.00	1.447	1.447	1.00
70	21:26	1.00	1.082	1.00	120.00	120.00	0.923	0.923	1.00
71	22:40	1.00	1.144	1.00	120.00	120.00	0.871	0.871	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Aamt	Aamt(L)	R. Fac	R. Fac(L)	Ratio
72	23:11	1.00	1.170	1.00	120.00	120.00	1.525	1.525	1.00
73	23:11	1.00	1.170	1.00	120.00	120.00	0.866	0.866	1.00
74	23:32	1.00	0.903	1.00	120.00	120.00	0.937	0.937	1.00
75	24:43	1.00	0.930	1.00	120.00	120.00	1.012	1.012	1.00
76	25:33	1.00	0.996	1.00	120.00	120.00	0.036	0.036	1.00
77	25:39	1.00	0.999	1.00	120.00	120.00	0.969	0.969	1.00
78	26:01	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
79	26:04	1.00	1.002	1.00	120.00	120.00	1.357	1.357	1.00
80	26:03	1.00	1.003	1.00	120.00	120.00	0.939	0.939	1.00
81	27:24	1.00	0.738	1.00	120.00	120.00	2.594	2.594	1.00
82	28:24	1.00	0.773	1.00	120.00	120.00	1.174	1.174	1.00
83	28:27	1.00	0.774	1.00	120.00	120.00	1.041	1.041	1.00
84	27:06	1.00	0.797	1.00	120.00	120.00	0.924	0.924	1.00
85	29:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
86	31:41	1.00	1.085	1.00	120.00	120.00	1.029	1.029	1.00
87	31:41	1.00	1.085	1.00	120.00	120.00	0.761	0.761	1.00
88	32:23	1.00	1.109	1.00	120.00	120.00	0.918	0.918	1.00



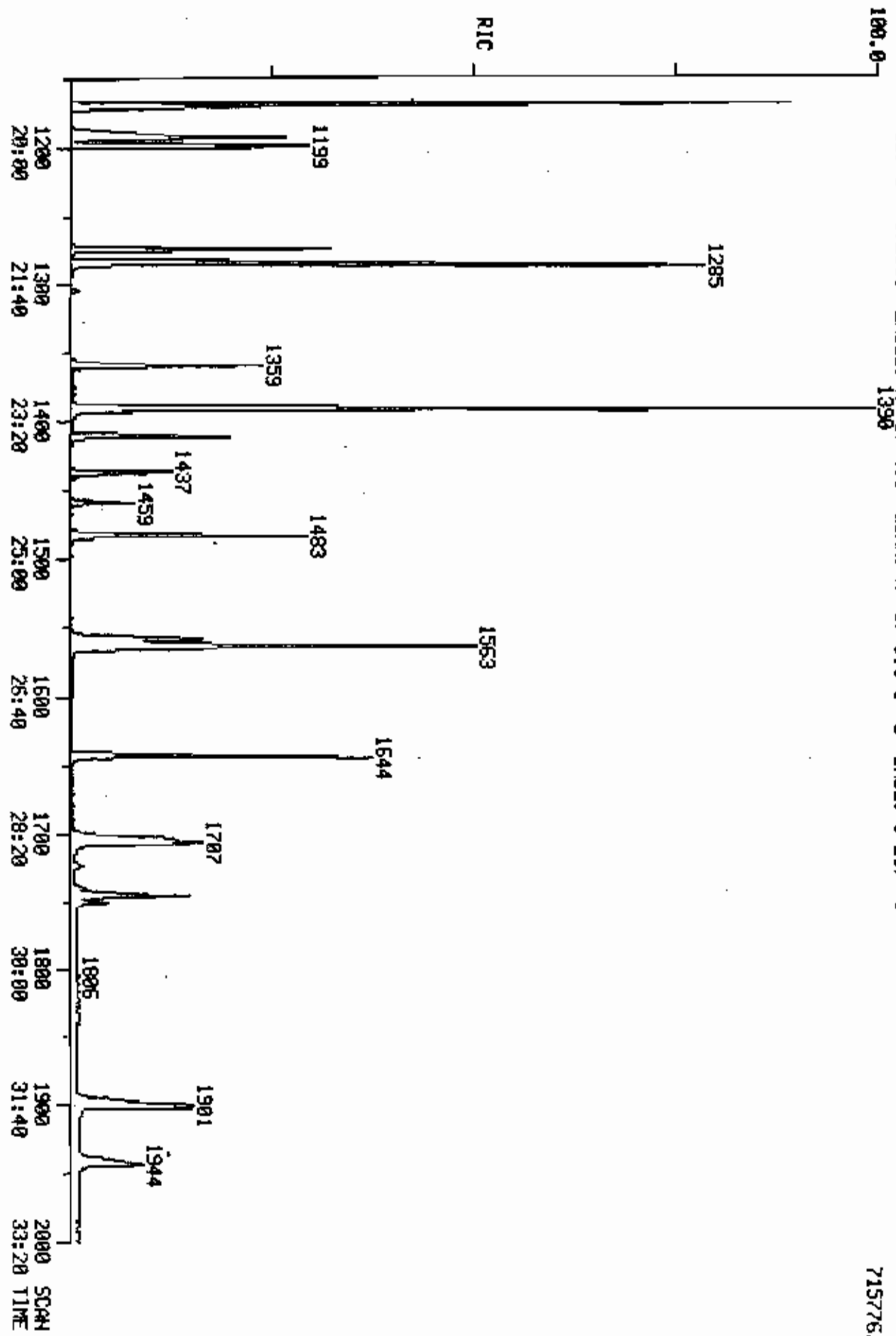
RIC  
 12/01/88 16:23:00  
 SAMPLE: CLP,,,55TD160,,,16294.8,IC-150,,1UL,  
 COND5.1 IN51 U:RESTERK RTX-5/30M,4KLINE45-8507/MIN-300010/MIN  
 RANGE: G 1,2000 LABEL: N 0, 4.0 CURRN: A 0, 1.0 J 0 BASE: U 20, 3  
 DATA: U7300 #1  
 CALL: U2300 #2  
 SCANS 200 TO 1150



574464.

RIC  
 12/01/88 16:23:08  
 SAMPLE: CLP,,,STD160,,,16294,B,IC-150,,ILM,  
 COND.: INST V:RESTERK RTX-5/30M,4MIN:45-85:7/MIN-300:10/MIN  
 RANGE: G 1,2000 LABEL: N 0, 4.0 CURVE: A 0, 1.0 J 0 BASE: U 20, 3  
 1390

DATA: U2300 #1  
 CALL: U2300 #2  
 SCANS 1150 TO 2000



715776.

Quantitation Report File: V2300

Data: V2300.TI

12/01/88 16:23:00

Sample: CLP,,,SSTD160,,,16294,B,IC-160,,1UL,

Conds.: INST V:REXTEK RTX-5/30M,4MIN@45-85@7/MIN-200@10/MIN

Formula: Instrument: V Weight: 0.001

Submitted by: VERSAR Analyst: TS Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	C310 N-NITROSODIMETHYLAMINE
2	CE01 4-METHYL-4-HYDROXYL-2-PENTANONE
3	CE90 2-FLUOROPHENOL**ACID SURR.**
4	CE02 1,3,5-TRIMETHYLBENZENE
5	CE45 PNENOL-D5**ACID SURR.**
6	C315 PHENOL
7	C325 BIS (2-CHLOROETHYL) ETHER
8	C330 2-CHLOROPHENOL
9	CE03 1,2,4-TRIMETHYLBENZENE
10	C335 1,3-DICHLOROBENZENE
11	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
12	C340 1,4-DICHLOROBENZENE
13	C345 BENZYL ALCOHOL
14	C390 1,2-DICHLOROBENZENE
15	C355 2-METHYLPHENOL
16	C360 BIS (2-CHLOROISOPROPYL) ETHER
17	C365 4-METHYLPHENOL
18	CE04 4-METHYL-BENZALDEHYDE
19	C370 N-NITROSO-DI-N-PROPYLAMINE
20	C375 HEXACHLOROETHANE
21	CE20 NITROBENZENE-D5**BN SURR.**
22	C410 NITROBENZENE
23	C415 ISOPHORONE
24	C420 2-NITROPHENOL
25	C425 2,4-DIMETHYLPHENOL
26	C435 BIS (2-CHLOROETHOXY) METHANE
27	C430 BENZOIC ACID
28	C440 2,4-DICHLOROPHENOL
29	C445 1,2,4-TRICHLOROBENZENE
30	CI40 NAPHTHALENE-D8**INT. STD. #2**
31	C450 NAPHTHALENE
32	C455 4-CHLOROANILINE
33	C460 HEXACHLOROBUTADIENE
34	C465 4-CHLORO-3-METHYLPHENOL
35	C470 2-METHYLNAPHTHALENE
36	C510 HEXACHLOROCYCLOPENTADIENE
37	C515 2,4,6-TRICHLOROPHENOL
38	C520 2,4,5-TRICHLOROPHENOL
39	CE25 2-FLUOROBIPHENYL**BN SURR.**
40	C525 2-CHLORONAPHTHALENE
41	C530 2-NITROANILINE
42	C535 DIMETHYL PHTHALATE
43	C540 ACENAPHTHYLENE
44	C575 2,6-DINITROTOLUENE
45	CE05 PENTADECANE
46	C545 3-NITROANILINE
47	CI50 ACENAPHTHENE-D10**INT. STD. #3**

V2300

No Name  
 48 C550 ACENAPHTHENE  
 49 C555 2,4-DINITROPHENOL  
 50 C560 4-NITROPHENOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	RTot
1	74	242	4:02	11	0.428	A BB	78358.	160.000 NG	1.20
2	59	360	6:00	11	0.637	A BB	92344.	160.000 NG***	1.20
3	112	399	6:39	11	0.706	A BB	79438.	160.000 NG*	1.20
4	105	517	8:37	11	0.915	A BB	157858.	160.000 NG**	1.20
5	99	524	8:44	11	0.927	A BB	100621.	160.000 NG*	1.20
6	94	526	8:46	11	0.931	A BV	125204.	160.000 NG	1.20
7	93	536	8:56	11	0.949	A VV	114386.	160.000 NG	1.20
8	128	542	9:02	11	0.959	A BB	84809.	160.000 NG	1.20
9	120	546	9:06	11	0.966	A BB	65374.	160.000 NG***	1.20
10	146	560	9:20	11	0.991	A BV	83828.	160.000 NG	1.20
11	132	565	9:25	11	1.000	A BB	15426.	40.000 NG/UL	0.30
12	146	567	9:27	11	1.004	A VB	86169.	160.000 NG	1.20
13	108	589	9:49	11	1.042	A BB	55627.	160.000 NG	1.20
14	146	592	9:52	11	1.048	A BB	83330.	160.000 NG	1.20
15	108	604	10:04	11	1.069	A BB	78916.	160.000 NG	1.20
16	49	609	10:09	11	1.078	A BB	237185.	160.000 NG	1.20
17	108	625	10:25	11	1.106	A BB	87326.	160.000 NG	1.20
18	119	625	10:25	11	1.106	A BB	4330.	160.000 NG**	1.20
19	70	631	10:31	11	1.117	A BB	98129.	160.000 NG	1.20
20	117	634	10:34	11	1.122	A BB	46423.	160.000 NG	1.20
21	82	645	10:45	30	0.873	A BB	111726.	160.000 NG*	1.20
22	77	647	10:47	30	0.876	A BB	118228.	160.000 NG	1.20
23	82	681	11:21	30	0.922	A BV	227885.	160.000 NG	1.20
24	139	690	11:30	30	0.934	A BB	42951.	160.000 NG	1.20
25	107	696	11:36	30	0.942	A BB	93090.	160.000 NG	1.20
26	93	710	11:50	30	0.961	A BB	134210.	160.000 NG	1.20
27	122	720	12:00	30	0.974	A BB	53140.	160.000 NG	1.20
28	162	722	12:02	30	0.977	A BB	62967.	160.000 NG	1.20
29	180	734	12:14	30	0.993	A BB	64102.	160.000 NG	1.20
30	136	739	12:19	30	1.000	A BB	47376.	40.000 NG/UL	0.30
31	128	742	12:22	30	1.004	A BB	204907.	160.000 NG	1.20
32	127	752	12:32	30	1.018	A BB	83668.	160.000 NG	1.20
33	225	767	12:47	30	1.038	A BB	36708.	160.000 NG	1.20
34	107	818	13:38	30	1.107	A BB	84590.	160.000 NG	1.20
35	142	837	13:57	30	1.133	A BB	122708.	160.000 NG	1.20
36	237	868	14:28	47	0.882	A BB	28653.	160.000 NG	1.20
37	196	880	14:40	47	0.894	A BV	35148.	160.000 NG	1.20
38	196	885	14:45	47	0.899	A VB	39922.	160.000 NG*	1.20
39	172	891	14:51	47	0.905	A BB	115320.	160.000 NG*	1.20
40	162	904	15:04	47	0.919	A BB	114460.	160.000 NG	1.20
41	65	924	15:24	47	0.939	A BB	73617.	160.000 NG*	1.20
42	163	934	15:34	47	0.970	A BB	146917.	160.000 NG	1.20
43	152	963	16:03	47	0.979	A BB	163848.	160.000 NG	1.20
44	165	963	16:03	47	0.979	A BB	32651.	160.000 NG	1.20
45	57	974	16:14	47	0.990	A BB	207357.	160.000 NG***	1.20
46	138	981	16:21	47	0.997	A BB	26112.	160.000 NG*	1.20
47	164	984	16:24	47	1.000	A BB	22443.	40.000 NG/UL	0.30
48	153	989	16:29	47	1.005	A BB	112624.	160.000 NG	1.20
49	184	996	16:36	47	1.012	A BB	19145.	160.000 NG*	1.20
50	109	1004	16:44	47	1.020	A BV	25520.	160.000 NG	1.20

V2300

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	4:02	1.00	0.428	1.00	160.00	160.00	1.273	1.273	1.00
2	6:00	1.00	0.637	1.00	160.00	160.00	1.497	1.497	1.00
3	6:39	1.00	0.706	1.00	160.00	160.00	1.287	1.287	1.00
4	8:37	1.00	0.915	1.00	160.00	160.00	2.558	2.558	1.00
5	8:44	1.00	0.927	1.00	160.00	160.00	1.631	1.631	1.00
6	8:46	1.00	0.931	1.00	160.00	160.00	2.029	2.029	1.00
7	8:56	1.00	0.949	1.00	160.00	160.00	1.857	1.857	1.00
8	9:02	1.00	0.959	1.00	160.00	160.00	1.374	1.374	1.00
9	9:06	1.00	0.966	1.00	160.00	160.00	1.059	1.059	1.00
10	9:20	1.00	0.991	1.00	160.00	160.00	1.359	1.359	1.00
11	9:23	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
12	9:27	1.00	1.004	1.00	160.00	160.00	1.396	1.396	1.00
13	9:49	1.00	1.042	1.00	160.00	160.00	0.902	0.902	1.00
14	9:52	1.00	1.048	1.00	160.00	160.00	1.390	1.390	1.00
15	10:04	1.00	1.069	1.00	160.00	160.00	1.279	1.279	1.00
16	10:09	1.00	1.078	1.00	160.00	160.00	3.844	3.844	1.00
17	10:23	1.00	1.106	1.00	160.00	160.00	1.415	1.415	1.00
18	10:25	1.00	1.106	1.00	160.00	160.00	0.070	0.070	1.00
19	10:31	1.00	1.117	1.00	160.00	160.00	1.590	1.590	1.00
20	10:34	1.00	1.122	1.00	160.00	160.00	0.752	0.752	1.00
21	10:43	1.00	0.873	1.00	160.00	160.00	0.590	0.590	1.00
22	10:47	1.00	0.876	1.00	160.00	160.00	0.624	0.624	1.00
23	11:21	1.00	0.922	1.00	160.00	160.00	1.203	1.203	1.00
24	11:30	1.00	0.934	1.00	160.00	160.00	0.227	0.227	1.00
25	11:36	1.00	0.942	1.00	160.00	160.00	0.491	0.491	1.00
26	11:50	1.00	0.961	1.00	160.00	160.00	0.708	0.708	1.00
27	12:00	1.00	0.974	1.00	160.00	160.00	0.280	0.280	1.00
28	12:02	1.00	0.977	1.00	160.00	160.00	0.332	0.332	1.00
29	12:14	1.00	0.993	1.00	160.00	160.00	0.338	0.338	1.00
30	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
31	12:22	1.00	1.004	1.00	160.00	160.00	1.079	1.079	1.00
32	12:32	1.00	1.018	1.00	160.00	160.00	0.442	0.442	1.00
33	12:47	1.00	1.038	1.00	160.00	160.00	0.194	0.194	1.00
34	13:38	1.00	1.107	1.00	160.00	160.00	0.446	0.446	1.00
35	13:57	1.00	1.133	1.00	160.00	160.00	0.648	0.648	1.00
36	14:28	1.00	0.882	1.00	160.00	160.00	0.319	0.319	1.00
37	14:40	1.00	0.894	1.00	160.00	160.00	0.392	0.392	1.00
38	14:43	1.00	0.899	1.00	160.00	160.00	0.443	0.443	1.00
39	14:51	1.00	0.903	1.00	160.00	160.00	1.285	1.285	1.00
40	15:04	1.00	0.919	1.00	160.00	160.00	1.273	1.273	1.00
41	15:24	1.00	0.939	1.00	160.00	160.00	0.820	0.820	1.00
42	15:34	1.00	0.970	1.00	160.00	160.00	1.637	1.637	1.00
43	16:03	1.00	0.979	1.00	160.00	160.00	1.847	1.847	1.00
44	16:03	1.00	0.979	1.00	160.00	160.00	0.364	0.364	1.00
45	16:14	1.00	0.990	1.00	160.00	160.00	2.310	2.310	1.00
46	16:21	1.00	0.997	1.00	160.00	160.00	0.291	0.291	1.00
47	16:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
48	16:29	1.00	1.003	1.00	160.00	160.00	1.255	1.255	1.00
49	16:36	1.00	1.012	1.00	160.00	160.00	0.213	0.213	1.00
50	16:44	1.00	1.020	1.00	160.00	160.00	0.284	0.284	1.00

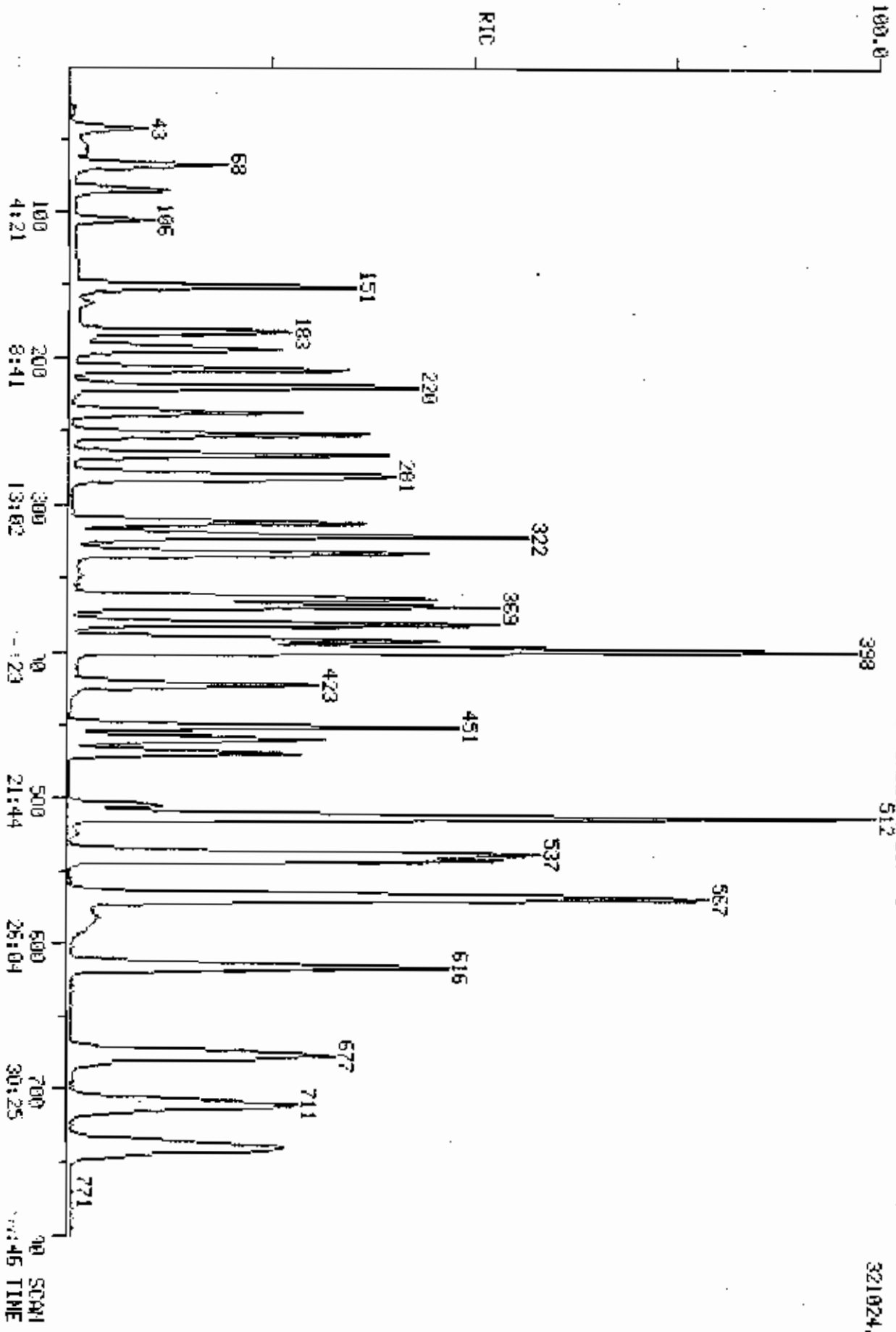
VZ30U

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	XTot
56	166	1059	17:39	47	1.076	A BB	118283.	160.000 NG	1.20
57	138	1067	17:47	47	1.084	A VB	26713.	160.000 NG*	1.20
58	198	1074	17:54	47	1.091	A BB	23679.	160.000 NG*	1.20
59	169	1076	17:56	47	1.093	A BB	74384.	160.000 NG	1.20
60	330	1094	18:14	66	0.921	A BB	20312.	160.000 NG*	1.20
61	57	1108	18:28	66	0.933	A BB	233378.	160.000 NG***	1.20
62	248	1125	18:45	47	1.143	A BB	30682.	160.000 NG	1.20
63	284	1146	19:06	47	1.165	A BB	41893.	160.000 NG	1.20
64	266	1170	19:30	66	0.985	A BB	29281.	160.000 NG	1.20
65	57	1170	19:30	66	0.985	A BB	230749.	160.000 NG***	1.20
66	188	1188	19:48	66	1.000	A BB	43119.	40.000 NG/UL	0.30
67	178	1192	19:52	66	1.003	A BV	170945.	160.000 NG	1.20
68	178	1199	19:59	66	1.009	A VB	163557.	160.000 NG	1.20
69	149	1274	21:14	66	1.072	A BB	243668.	160.000 NG	1.20
70	71	1285	21:25	66	1.082	A VB	157729.	160.000 NG***	1.20
71	202	1359	22:39	66	1.144	A BV	146106.	160.000 NG	1.20
72	57	1390	23:10	66	1.170	A BB	273640.	160.000 NG***	1.20
73	202	1391	23:11	66	1.171	A BB	142532.	160.000 NG	1.20
74	244	1411	23:31	78	0.904	A BB	93649.	160.000 NG*	1.20
75	149	1483	24:43	78	0.950	A BB	102306.	160.000 NG	1.20
76	252	1554	25:54	78	0.996	A BB	3151.	160.000 NG	1.20
77	228	1558	25:58	78	0.998	A BV	101041.	160.000 NG	1.20
78	240	1561	26:01	78	1.000	A BB	26365.	40.000 NG/UL	0.30
79	149	1563	26:03	78	1.001	A BB	137323.	160.000 NG	1.20
80	228	1565	26:05	78	1.003	A VB	100681.	160.000 NG	1.20
81	149	1644	27:24	85	0.939	A BB	225042.	160.000 NG	1.20
82	252	1706	28:26	85	0.974	M XX	121371.	160.000 NG	1.20
83	252	1707	28:27	85	0.975	M XX	91705.	160.000 NG	1.20
84	252	1746	29:06	85	0.997	A BB	84079.	160.000 NG	1.20
85	264	1751	29:11	85	1.000	A BB	23164.	40.000 NG/UL	0.30
86	278	1901	31:41	85	1.086	A BB	71586.	160.000 NG	1.20
87	276	1902	31:42	85	1.086	A BB	96418.	160.000 NG	1.20
88	276	1944	32:24	85	1.110	A BB	89708.	160.000 NG	1.20

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
51	16:51	1.00	1.027	1.00	160.00	160.00	1.709	1.709	1.00
52	16:58	1.00	1.039	1.00	160.00	160.00	0.548	0.548	1.00
53	17:23	1.00	1.060	1.00	160.00	160.00	2.416	2.416	1.00
54	17:31	1.00	1.068	1.00	160.00	160.00	1.819	1.819	1.00
55	17:38	1.00	1.075	1.00	160.00	160.00	0.607	0.607	1.00
56	17:39	1.00	1.076	1.00	160.00	160.00	1.318	1.318	1.00
57	17:47	1.00	1.084	1.00	160.00	160.00	0.298	0.298	1.00
58	17:54	1.00	1.091	1.00	160.00	160.00	0.264	0.264	1.00
59	17:56	1.00	1.093	1.00	160.00	160.00	0.829	0.829	1.00
60	18:14	1.00	0.921	1.00	160.00	160.00	0.118	0.118	1.00
61	18:28	1.00	0.933	1.00	160.00	160.00	1.353	1.353	1.00
62	18:45	1.00	1.143	1.00	160.00	160.00	0.342	0.342	1.00
63	19:06	1.00	1.165	1.00	160.00	160.00	0.467	0.467	1.00
64	19:30	1.00	0.985	1.00	160.00	160.00	0.170	0.170	1.00
65	19:30	1.00	0.985	1.00	160.00	160.00	1.338	1.338	1.00
66	19:48	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
67	19:52	1.00	1.003	1.00	160.00	160.00	0.989	0.989	1.00
68	19:59	1.00	1.009	1.00	160.00	160.00	0.745	0.745	1.00
69	21:14	1.00	1.072	1.00	160.00	160.00	1.414	1.414	1.00
70	21:25	1.00	1.082	1.00	160.00	160.00	0.714	0.714	1.00
71	22:39	1.00	1.144	1.00	160.00	160.00	0.847	0.847	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
72	23:10	1.00	1.170	1.00	160.00	160.00	1.387	1.387	1.00
73	23:11	1.00	1.171	1.00	160.00	160.00	0.826	0.826	1.00
74	23:31	1.00	0.904	1.00	160.00	160.00	0.888	0.888	1.00
75	24:43	1.00	0.950	1.00	160.00	160.00	0.970	0.970	1.00
76	25:34	1.00	0.996	1.00	160.00	160.00	0.030	0.030	1.00
77	25:38	1.00	0.998	1.00	160.00	160.00	0.958	0.958	1.00
78	26:01	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
79	26:03	1.00	1.001	1.00	160.00	160.00	1.302	1.302	1.00
80	26:05	1.00	1.003	1.00	160.00	160.00	0.953	0.953	1.00
81	27:24	1.00	0.939	1.00	160.00	160.00	2.429	2.429	1.00
82	28:26	1.00	0.974	1.00	160.00	160.00	1.310	1.310	1.00
83	28:27	1.00	0.975	1.00	160.00	160.00	0.990	0.990	1.00
84	29:06	1.00	0.997	1.00	160.00	160.00	0.907	0.907	1.00
85	29:11	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
86	31:41	1.00	1.086	1.00	160.00	160.00	0.773	0.773	1.00
87	31:42	1.00	1.086	1.00	160.00	160.00	1.041	1.041	1.00
88	32:24	1.00	1.110	1.00	160.00	160.00	0.925	0.925	1.00

MID RIC 11/29/89 11:05:00 DATA: Y3607 #1 SCANS 1 TO 600  
 11/29/89 11:05:00 CALL: Y3607 #3  
 SAMPLE: CLP,,,JUSTISO,L,S,ST016437,U,CC-050,5ML  
 COND.S.: INSTRUMENT Y:SF-1000 COLUMN 45C(2MIN) TO 2250660E/MIN  
 RANGE: 0 1, 800 LABEL: N 0, 4.0 GURN: N 0, 1.0 J 0 BASE: 0 20, 3





Quantitation Report File: Y3607

Date: Y3607.T1  
Time: 29/88 11:05:00

Sample: CLP,,,VSTD50, L. S. STD16437, V, CC-050, 5ML

Conds.: INSTRUMENT Y: SP-100D COLUMN 45C(2MIN) TO 2250@8DEG/MIN

Formula: Instrument: Y Weight: 0.001

Submitted by: VERSAR Analyst: JDR Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CO10 CHLOROMETHANE
3	CO15 BROMOMETHANE
4	CO20 VINYL CHLORIDE
5	CO25 CHLOROETHANE
6	CO30 METHYLENE CHLORIDE
7	CO35 ACETONE
8	CO40 CARBON DISULFIDE
9	CO45 1,1-DICHLOROETHENE
10	CO43 TRICHLOROFLUOROMETHANE
11	CO50 1,1-DICHLOROETHANE
12	CO53 1,2-DICHLOROETHENE (TOTAL)
13	CO60 CHLOROFORM
14	CO65 1,2-DICHLOROETHANE
15	CS15 1,2-DICHLOROETHANE-D4****SURROGATE#1****
16	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
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-CHLOROETHYL VINYLETHER
30	C180 BROMOFORM
31	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
32	CO210 2-HEXANONE
33	CO205 4-METHYL-2-PENTANONE
34	CO220 TETRACHLOROETHENE
35	CO225 1,1,2,2-TETRACHLOROETHANE
36	CO230 TOLUENE
37	CO235 CHLOROBENZENE
38	CO240 ETHYLBENZENE
39	CO245 STYRENE
40	CO250 TOTAL XYLENES
41	CS05 TOLUENE-D8****SURROGATE#2****
42	CS10 4-BROMOFLUOROBENZENE****SURROGATE#3****

73607

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	220	9:34	1	1.000	A BB	74614.	50.000 UG/L*	2.39
2	50	44	1:55	1	0.201	A BB	81177.	50.001 UG/L	2.39
3	94	68	2:57	1	0.310	A BB	104199.	50.001 UG/L	2.39
4	62	85	3:42	1	0.387	A BB	96142.	50.001 UG/L	2.39
5	64	106	4:36	1	0.482	A BB	67012.	50.000 UG/L	2.39
6	84	151	6:34	1	0.687	A BB	99318.	50.001 UG/L	2.39
7	43	163	7:05	1	0.741	A BB	14109.	50.001 UG/L	2.39
8	76	183	7:57	1	0.832	A BB	276262.	50.001 UG/L	2.39
9	96	206	9:02	1	0.946	A BB	93268.	50.001 UG/L	2.39
10	101	194	8:26	1	0.882	A BB	144470.	50.001 UG/L	2.39
11	63	238	10:21	1	1.082	A BB	186479.	50.000 UG/L	2.39
12	96	252	10:57	1	1.146	A BB	111494.	50.001 UG/L	2.39
13	83	267	11:36	1	1.214	A BB	197595.	50.000 UG/L	2.39
14	62	283	12:18	1	1.287	A BB	123015.	50.001 UG/L	2.39
15	65	280	12:10	1	1.273	A BB	117852.	50.001 UG/L*	2.39
16	114	451	19:36	16	1.000	A BB	330042.	50.000 UG/L*	2.39
17	97	312	13:33	16	0.692	A BB	162149.	50.001 UG/L	2.39
18	72	280	12:10	16	0.621	A BB	7555.	50.000 UG/L	2.39
19	117	321	13:57	16	0.712	A VB	125612.	50.000 UG/L	2.39
20	43	322	14:00	16	0.714	A BB	262163.	50.000 UG/L	2.39
21	83	333	14:28	16	0.739	A BB	201366.	50.001 UG/L	2.39
22	63	364	15:49	16	0.808	A BB	128773.	50.000 UG/L	2.39
23	75	369	16:02	16	0.819	A BB	240905.	50.000 UG/L	2.39
24	130	361	16:33	16	0.845	A BB	137132.	50.001 UG/L	2.39
25	129	397	17:15	16	0.881	A BB	164946.	50.001 UG/L	2.39
26	97	399	17:20	16	0.885	A BB	114219.	50.001 UG/L	2.39
27	78	392	17:02	16	0.870	A BB	309265.	50.000 UG/L	2.39
28	75	399	17:20	16	0.885	A BB	117379.	50.000 UG/L	2.39
29	63	423	18:23	16	0.938	A BB	93482.	50.001 UG/L	2.39
30	173	460	19:59	16	1.020	A BB	124304.	50.001 UG/L	2.39
31	117	566	24:36	31	1.000	A BB	299880.	50.000 UG/L*	2.39
32	43	505	21:57	31	0.893	A BB	63154.	50.001 UG/L	2.39
33	43	469	20:23	31	0.829	A BV	153414.	50.001 UG/L	2.39
34	164	512	22:15	31	0.905	A BB	111117.	50.001 UG/L	2.39
35	83	513	22:17	31	0.907	A BB	222586.	50.001 UG/L	2.39
36	91	542	23:32	31	0.958	A BB	282901.	50.000 UG/L	2.39
37	112	569	24:43	31	1.006	A BB	268452.	50.001 UG/L	2.39
38	106	616	26:46	31	1.089	A BB	160867.	50.001 UG/L	2.39
39	104	711	30:54	31	1.257	A BB	305049.	50.001 UG/L	2.39
40	106	740	32:09	31	1.308	A BB	201405.	50.001 UG/L	2.39
41	98	537	23:20	31	0.949	A BB	276738.	50.001 UG/L*	2.39
42	95	677	29:25	31	1.197	A BB	188184.	50.000 UG/L*	2.39

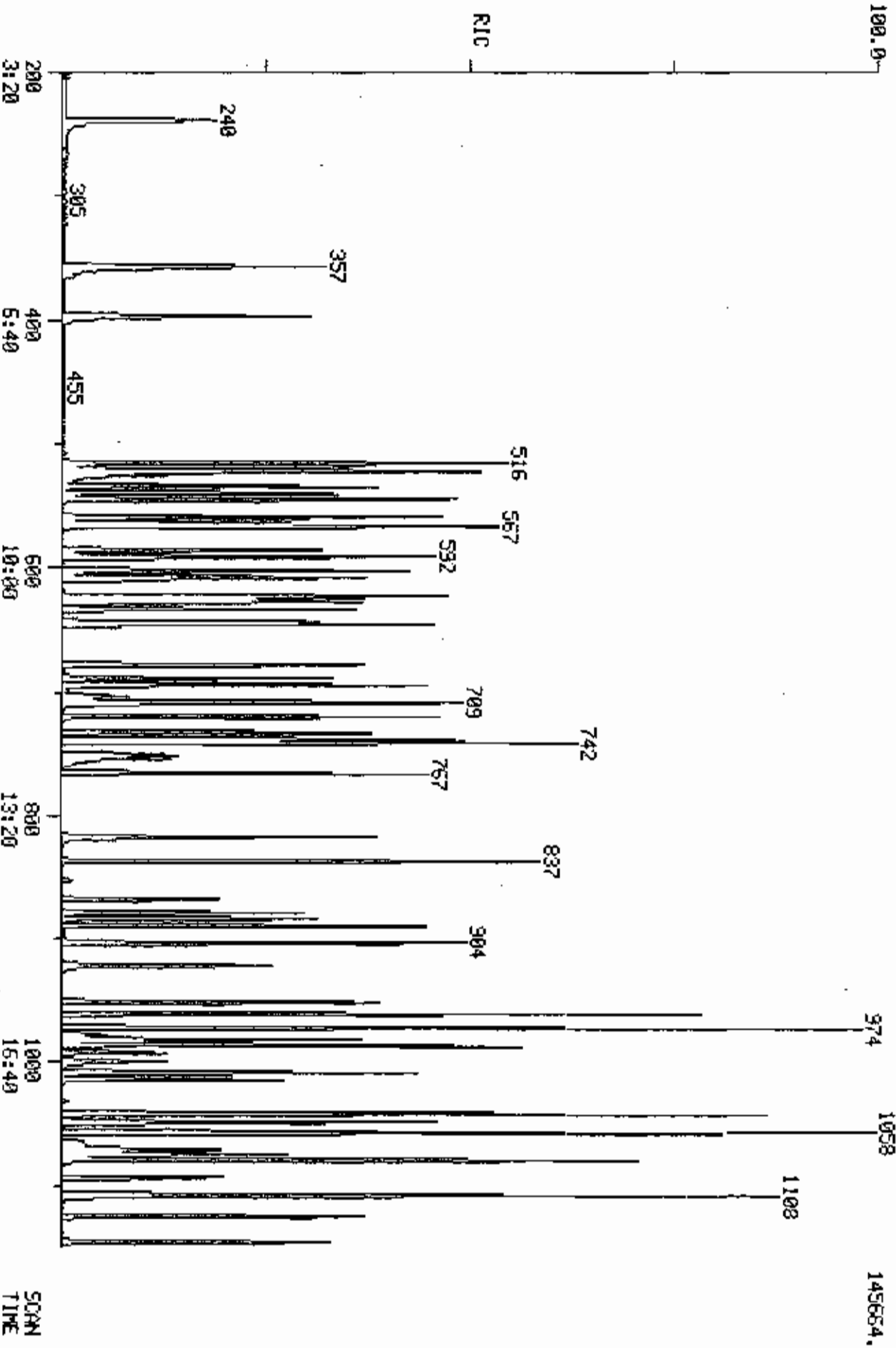
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:34	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:55	1.00	0.201	1.00	50.01	50.00	1.086	1.086	1.01
3	2:57	1.00	0.310	1.00	50.01	50.00	1.393	1.393	1.00
4	3:42	1.00	0.387	1.00	50.01	50.00	1.286	1.286	1.01
5	4:36	1.00	0.482	1.00	50.00	50.00	0.896	0.896	1.00
6	6:34	1.00	0.687	1.00	50.01	50.00	1.328	1.328	1.01
7	7:05	1.00	0.741	1.00	50.01	50.00	0.189	0.189	1.00
8	7:57	1.00	0.832	1.00	50.01	50.00	3.693	3.693	1.00
9	9:02	1.00	0.946	1.00	50.01	50.00	1.247	1.247	1.01
10	8:26	1.00	0.882	1.00	50.01	50.00	1.932	1.932	1.00
11	10:21	1.00	1.082	1.00	50.00	50.00	2.493	2.493	1.00
12	10:57	1.00	1.146	1.00	50.01	50.00	1.491	1.491	1.01

73607

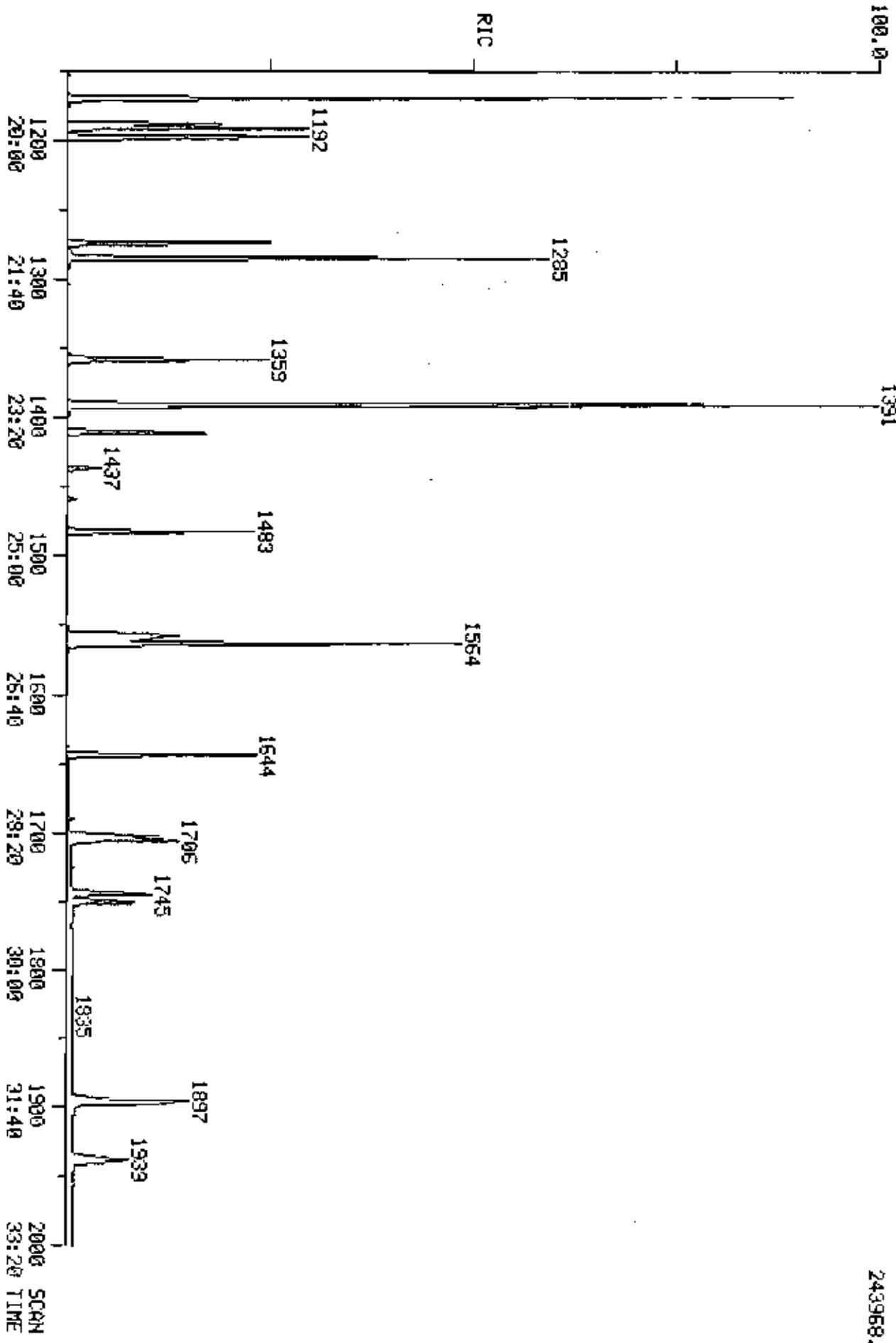
RIC  
12/06/88 9:51:09  
SAMPLE: CLP,,,551050,,,16297,B,CC-050,,,1UL,  
COND5.: INST U:RESTERK RTX-5/30M,4M11845-85E7/MIN-3000E18/MIN  
RANGE: G 1,2000 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: U2330 #1  
CALI: U2330 #2

SCANS 200 TO 1150



RLC  
 12/06/88 9:51:00  
 SAMPLE: CLP...551050...16297.B,CC-050,,LUL.  
 COND.: INST VARESTEK RTX-5/30M,4MINE45-6507/MH-300010/MIN  
 RANGE: C 1.2000 LABEL: N 0, 4.0 QLMN: A 0, 1.0 J 0 BASE: U 20, 3  
 DATA: U2330 #1  
 CALL: U2330 #2  
 SCRNS 1150 TO 2000



Quantitation Report File: V2330

Data: V2330.TI

12/06/88 9:51:00

Sample: CLP,,,SSTD50,,,16297,B,CC-050,,,IUL,

Conds.: INST V:RETEK RTX-5/30M.4MIN@45-8387/MIN 300@10/MIN

Formula:

Instrument: V

Weight: 0.000

Submitted by: VERSAR

Analyst: GC

Acct. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	C890 2-FLUOROPHENOL**ACID SURR.**
2	C845 PHENOL-D5**ACID SURR.**
3	C315 PHENOL
4	C325 BIS (2-CHLOROETHYL) ETHER
5	C330 2-CHLOROPHENOL
6	C335 1,3-DICHLOROBENZENE
7	C130 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
8	C340 1,4-DICHLOROBENZENE
9	C345 BENZYL ALCOHOL
10	C350 1,2-DICHLOROBENZENE
11	C355 2-METHYLPHENOL
12	C360 BIS (2-CHLOROISOPROPYL) ETHER
13	C365 4-METHYLPHENOL
14	C370 N-NITROSO-DI-N-PROPYLAMINE
15	C375 HEXACHLOROETHANE
16	C820 NITROBENZENE-D5**BN SURR.**
17	C410 NITROBENZENE
18	C415 ISOPHORONE
19	C420 2-NITROPHENOL
20	C425 2,4-DIMETHYLPHENOL
21	C435 BIS (2-CHLOROETHOXY) METHANE
22	C430 BENZOIC ACID
23	C440 2,4-DICHLOROPHENOL
24	C445 1,2,4-TRICHLOROBENZENE
25	C140 NAPHTHALENE-D8**INT. STD. #2**
26	C450 NAPHTHALENE
27	C455 4-CHLOROANILINE
28	C460 HEXACHLOROBUTADIENE
29	C465 4-CHLORO-3-METHYLPHENOL
30	C470 2-METHYLNAPHTHALENE
31	C510 HEXACHLOROCYCLOPENTADIENE
32	C515 2,4,6-TRICHLOROPHENOL
33	C520 2,4,5-TRICHLOROPHENOL
34	C825 2-FLUOROBIPHENYL**BN SURR.**
35	C925 2-CHLORONAPHTHALENE
36	C530 2-NITROANILINE
37	C535 DIMETHYL PHTHALATE
38	C575 2,6-DINITROTOLUENE
39	C540 ACENAPHTHYLENE
40	C545 3-NITROANILINE
41	C150 ACENAPHTHENE-D10**INT. STD. #3**
42	C550 ACENAPHTHENE
43	C555 2,4-DINITROPHENOL
44	C560 4-NITROPHENOL
45	C565 DIBENZOFURAN
46	C544 2,4-DINITROTOLUENE
47	C580 DIETHYLPHTHALATE

No Name  
 48 C389 4-CHLOROPHENYL-PHENYLETHER  
 49 C390 FLUORENE  
 50 C393 4-NITROANILINE

No	m/z	Scan	Time	Ref	RRT	Math	Area (Height)	Amount	Unit	ZTot
1	112	398	6:38	7	0.704	A BB	24801.	50.000	NG*	1.32
2	99	522	8:42	7	0.924	A BB	29737.	50.000	NG*	1.32
3	94	523	8:43	7	0.926	A BB	33645.	50.000	NG	1.32
4	93	535	8:55	7	0.947	A VB	33777.	50.000	NG	1.32
5	128	540	9:00	7	0.956	A BB	26431.	50.000	NG	1.32
6	146	560	9:20	7	0.991	A BB	28500.	50.000	NG	1.32
7	152	565	9:29	7	1.000	A BS	13721.	40.000	NG/UL	1.06
8	146	567	9:27	7	1.004	A BB	29551.	50.000	NG	1.32
9	108	586	9:46	7	1.037	A BB	15916.	50.000	NG	1.32
10	146	592	9:52	7	1.048	A BB	28168.	50.000	NG	1.32
11	108	603	10:03	7	1.067	A BB	23761.	50.000	NG	1.32
12	45	608	10:08	7	1.076	A BB	59011.	50.000	NG	1.32
13	108	623	10:23	7	1.103	A BB	24002.	50.000	NG	1.32
14	70	627	10:27	7	1.110	A BB	26373.	50.000	NG	1.32
15	117	634	10:34	7	1.122	A BB	14533.	50.000	NG	1.32
16	82	644	10:44	25	0.871	A BB	30313.	50.000	NG*	1.32
17	77	646	10:46	25	0.874	A BB	31740.	50.000	NG	1.32
18	82	678	11:18	25	0.917	A BB	61996.	50.000	NG	1.32
19	139	690	11:30	25	0.934	A BB	12620.	50.000	NG	1.32
20	107	695	11:35	25	0.940	A BB	25964.	50.000	NG	1.32
21	93	709	11:49	25	0.959	A BB	39055.	50.000	NG	1.32
22	122	711	11:51	25	0.962	A VB	14055.	50.000	NO	1.32
23	162	721	12:01	25	0.976	A BB	19002.	50.000	NG	1.32
24	180	733	12:13	25	0.992	A BB	20453.	50.000	NG	1.32
25	136	739	12:19	25	1.000	A BB	37595.	40.000	NG/UL	1.06
26	128	742	12:22	25	1.004	A BB	69097.	50.000	NG	1.32
27	127	752	12:32	25	1.018	A BV	16131.	50.000	NG	1.32
28	223	767	12:47	25	1.038	A BB	11126.	50.000	NG	1.32
29	107	818	13:38	25	1.107	A BB	23342.	50.000	NG	1.32
30	142	837	13:57	25	1.133	A BB	40217.	50.000	NG	1.32
31	237	868	14:28	41	0.882	A BB	7407.	50.000	NG	1.32
32	196	879	14:39	41	0.893	A BV	9833.	50.000	NG	1.32
33	196	884	14:44	41	0.898	A VB	11260.	50.000	NG*	1.32
34	172	890	14:50	41	0.904	A BB	38372.	50.000	NG*	1.32
35	162	904	15:04	41	0.919	A BB	37167.	50.000	NG	1.32
36	65	923	15:23	41	0.938	A BB	16190.	50.000	NG	1.32
37	163	953	15:33	41	0.968	A BB	43025.	50.000	NG	1.32
38	165	962	16:02	41	0.975	A BB	9670.	50.000	NG	1.32
39	152	963	16:03	41	0.979	A BB	34946.	50.000	NG	1.32
40	138	980	16:20	41	0.996	A BB	4467.	50.000	NG*	1.32
41	164	984	16:24	41	1.000	A BB	18485.	40.000	NG/UL	1.06
42	153	989	16:29	41	1.005	A BB	37165.	50.000	NG	1.32
43	184	995	16:35	41	1.011	A BB	4263.	50.000	NG*	1.32
44	109	1001	16:41	41	1.017	A BV	3468.	50.000	NG	1.32
45	165	1010	16:50	41	1.026	A BB	47173.	50.000	NG	1.32
46	165	1016	16:56	41	1.032	A BB	12853.	50.000	NG	1.32
47	149	1050	17:30	41	1.067	A BV	49577.	50.000	NG	1.32
48	204	1058	17:38	41	1.075	A BB	16031.	50.000	NG	1.32
49	166	1058	17:38	41	1.075	A BB	38174.	50.000	NG	1.32
50	138	1068	17:48	41	1.085	A BB	5236.	50.000	NG*	1.32

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	6:38	1.00	0.704	1.00	50.00	50.00	1.446	1.446	1.00
2	8:42	1.00	0.924	1.00	50.00	50.00	1.734	1.734	1.00
3	8:43	1.00	0.926	1.00	50.00	50.00	2.078	2.078	1.00
4	8:55	1.00	0.947	1.00	50.00	50.00	1.957	1.957	1.00
5	9:00	1.00	0.956	1.00	50.00	50.00	1.841	1.841	1.00
6	9:20	1.00	0.991	1.00	50.00	50.00	1.662	1.662	1.00
7	9:25	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
8	9:27	1.00	1.004	1.00	50.00	50.00	1.723	1.723	1.00
9	9:46	1.00	1.037	1.00	50.00	50.00	0.905	0.905	1.00
10	9:52	1.00	1.048	1.00	50.00	50.00	1.642	1.642	1.00
11	10:03	1.00	1.067	1.00	50.00	50.00	1.355	1.355	1.00
12	10:08	1.00	1.076	1.00	50.00	50.00	3.441	3.441	1.00
13	10:23	1.00	1.103	1.00	50.00	50.00	1.397	1.397	1.00
14	10:27	1.00	1.110	1.00	50.00	50.00	1.538	1.538	1.00
15	10:34	1.00	1.122	1.00	50.00	50.00	0.855	0.855	1.00
16	10:44	1.00	0.871	1.00	50.00	50.00	0.613	0.613	1.00
17	10:46	1.00	0.874	1.00	50.00	50.00	0.641	0.641	1.00
18	11:18	1.00	0.917	1.00	50.00	50.00	1.253	1.253	1.00
19	11:30	1.00	0.934	1.00	50.00	50.00	0.255	0.255	1.00
20	11:35	1.00	0.940	1.00	50.00	50.00	0.525	0.525	1.00
21	11:49	1.00	0.957	1.00	50.00	50.00	0.770	0.770	1.00
22	11:51	1.00	0.962	1.00	50.00	50.00	0.255	0.255	1.00
23	12:01	1.00	0.976	1.00	50.00	50.00	0.384	0.384	1.00
24	12:13	1.00	0.992	1.00	50.00	50.00	0.413	0.413	1.00
25	12:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
26	12:22	1.00	1.004	1.00	50.00	50.00	1.376	1.376	1.00
27	12:32	1.00	1.018	1.00	50.00	50.00	0.325	0.325	1.00
28	12:47	1.00	1.038	1.00	50.00	50.00	0.229	0.229	1.00
29	13:38	1.00	1.107	1.00	50.00	50.00	0.472	0.472	1.00
30	13:57	1.00	1.133	1.00	50.00	50.00	0.813	0.813	1.00
31	14:28	1.00	0.882	1.00	50.00	50.00	0.321	0.321	1.00
32	14:37	1.00	0.893	1.00	50.00	50.00	0.425	0.425	1.00
33	14:44	1.00	0.898	1.00	50.00	50.00	0.487	0.487	1.00
34	14:50	1.00	0.904	1.00	50.00	50.00	1.667	1.667	1.00
35	15:04	1.00	0.919	1.00	50.00	50.00	1.607	1.607	1.00
36	15:23	1.00	0.938	1.00	50.00	50.00	0.701	0.701	1.00
37	15:53	1.00	0.768	1.00	50.00	50.00	1.862	1.862	1.00
38	16:02	1.00	0.978	1.00	50.00	50.00	0.417	0.417	1.00
39	16:03	1.00	0.979	1.00	50.00	50.00	2.378	2.378	1.00
40	16:20	1.00	0.996	1.00	50.00	50.00	0.193	0.193	1.00
41	16:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
42	16:29	1.00	1.005	1.00	50.00	50.00	1.607	1.607	1.00
43	16:35	1.00	1.011	1.00	50.00	50.00	0.185	0.185	1.00
44	16:41	1.00	1.017	1.00	50.00	50.00	0.238	0.238	1.00
45	16:50	1.00	1.026	1.00	50.00	50.00	2.042	2.042	1.00
46	16:56	1.00	1.033	1.00	50.00	50.00	0.556	0.556	1.00
47	17:30	1.00	1.067	1.00	50.00	50.00	2.145	2.145	1.00
48	17:38	1.00	1.075	1.00	50.00	50.00	0.674	0.674	1.00
49	17:38	1.00	1.075	1.00	50.00	50.00	1.652	1.652	1.00
50	17:48	1.00	1.085	1.00	50.00	50.00	0.227	0.227	1.00

Quantitation Report File: V2330

Data: V2330.T1

12/06/88 9:51:00

Sample: GLP,,,SSTD90,,,16297,B,CG-050,,1UL,

Conds.: INST V:RESTEK RTX-9/30M,4MIN345-8587/MIN,200SLQ/HIN

Formula:

Instrument: V

Weight: 0.000

Submitted by: VERBAR

Analyst: SC

Acc#. No.:

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
51	C610 4,6-DINITRO-2-METHYLPHENOL
52	C615 N-NITROSODIPHENYLAMINE
53	C535 2,4,6-TRIBROMOPHENOL**ACID SURR.**
54	C625 4-BROMOPHENYL-PHENYLETHER
55	C630 HEXACHLOROBENZENE
56	C635 PENTACHLOROPHENOL
57	C160 PHENANTHRENE-D10**INT. STD.#4**
58	C640 PHENANTHRENE
59	C645 ANTHRACENE
60	C650 DI-N-BUTYLPHTHALATE
61	C655 FLUORANTHENE
62	C715 PYRENE
63	C530 P-TERPHENYL-D14**BN SURR.**
64	C720 BUTYLBENZYLPHTHALATE
65	C725 3,3'-DICHLOROBENZIDINE
66	C730 BENZO(A)ANTHRACENE
67	C170 CHRYSENE-D12**INT. STD.#5**
68	C740 CHRYSENE
69	C741 BIS (2-ETHYLHEXYL) PHTHALATE
70	C760 DI-N-OCTYL PHTHALATE
71	C765 BENZO(B)FLUORANTHENE
72	C770 BENZO(K)FLUORANTHENE
73	C775 BENZO(A)PYRENE
74	C175 PERYLENE-D12**INT. STD.#6**
75	C780 INDENO(1,2,3-CD)PYRENE
76	C785 DIBENZ(A,H)ANTHRACENE
77	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	STot
51	198	1072	17:52	41	1.089	A BB	6085.	50.000 NG*	1.02
52	169	1075	17:53	41	1.092	A BB	18377.	50.000 NG	1.02
53	330	1094	18:14	57	0.921	A BB	4945.	50.000 NG*	1.02
54	248	1125	18:45	41	1.143	A BB	8191.	50.000 NG	1.02
55	284	1146	19:06	41	1.165	A BB	11537.	50.000 NG	1.02
56	266	1170	19:30	57	0.985	A BB	6984.	50.000 NG	1.02
57	188	1188	19:48	57	1.000	A BB	34217.	40.000 NG/UL	1.06
58	178	1192	19:52	57	1.003	A BV	50004.	50.000 NG	1.02
59	178	1198	19:58	57	1.008	A VB	49700.	50.000 NG	1.02
60	149	1274	21:14	57	1.072	A VB	73263.	50.000 NG	1.02
61	202	1339	22:39	57	1.144	A BB	47045.	50.000 NG	1.02
62	202	1390	23:10	57	1.170	A BB	49114.	50.000 NG	1.02
63	244	1411	23:31	67	0.904	A BB	27259.	50.000 NG*	1.02
64	149	1483	24:43	67	0.951	A BB	26332.	50.000 NG	1.02
65	252	1554	25:54	67	0.996	A BE	922.	50.000 NG	1.02
66	228	1598	25:58	67	0.999	A BV	28720.	50.000 NG	1.02



No	#/1	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	RTot
67	240	1560	26:00	67	1.000	A BB	17154.	40.000 NG/UL	1.00
68	228	1564	26:04	67	1.003	A VB	27810.	50.000 NG	1.00
69	149	1564	26:04	67	1.003	A BB	38625.	90.000 NG	1.00
70	149	1644	27:24	74	0.939	A BB	56997.	50.000 NG	1.00
71	252	1703	28:23	74	0.973	M XX	24105.	50.000 NG	1.00
72	252	1706	28:26	74	0.974	M XX	30227.	50.000 NG	1.00
73	252	1744	29:04	74	0.996	A BB	22377.	50.000 NG	1.00
74	264	1751	29:11	74	1.000	A BB	16720.	40.000 NG/UL	1.00
75	276	1897	31:37	74	1.083	A BB	25630.	90.000 NG	1.00
76	278	1897	31:37	74	1.083	A BB	17088.	50.000 NG	1.00
77	276	1939	32:19	74	1.107	A BB	23140.	50.000 NG	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
31	17:52	1.00	1.089	1.00	50.00	50.00	0.263	0.263	1.00
52	17:55	1.00	1.092	1.00	50.00	50.00	0.795	0.795	1.00
53	18:14	1.00	0.921	1.00	50.00	50.00	0.116	0.116	1.00
54	18:45	1.00	1.143	1.00	50.00	50.00	0.384	0.384	1.00
55	19:06	1.00	1.165	1.00	50.00	50.00	0.497	0.497	1.00
56	19:30	1.00	0.985	1.00	50.00	50.00	0.163	0.163	1.00
57	19:48	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
58	19:52	1.00	1.003	1.00	50.00	50.00	1.167	1.167	1.00
59	19:58	1.00	1.008	1.00	50.00	50.00	1.162	1.162	1.00
60	21:14	1.00	1.072	1.00	50.00	50.00	1.713	1.713	1.00
61	22:39	1.00	1.144	1.00	50.00	50.00	1.100	1.100	1.00
62	23:10	1.00	1.170	1.00	50.00	50.00	1.148	1.148	1.00
63	23:31	1.00	0.904	1.00	50.00	50.00	1.140	1.140	1.00
64	24:43	1.00	0.991	1.00	50.00	50.00	1.076	1.076	1.00
65	25:54	1.00	0.996	1.00	50.00	50.00	0.039	0.039	1.00
66	25:58	1.00	0.999	1.00	50.00	50.00	1.074	1.074	1.00
67	26:00	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
68	26:04	1.00	1.003	1.00	50.00	50.00	1.162	1.162	1.00
69	26:04	1.00	1.003	1.00	90.00	50.00	1.613	1.613	1.00
70	27:24	1.00	0.939	1.00	50.00	50.00	2.727	2.727	1.00
71	28:23	1.00	0.973	1.00	50.00	50.00	1.153	1.153	1.00
72	28:26	1.00	0.974	1.00	50.00	50.00	1.446	1.446	1.00
73	29:04	1.00	0.996	1.00	50.00	50.00	1.071	1.071	1.00
74	29:11	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
75	31:37	1.00	1.083	1.00	50.00	50.00	1.206	1.206	1.00
76	31:37	1.00	1.083	1.00	50.00	50.00	0.912	0.912	1.00
77	32:19	1.00	1.107	1.00	50.00	50.00	1.107	1.107	1.00

RIC

DATA: U2357 #1

SCANS 289 TO 1150

Quantitation Report File: V2358

Data: V2358.TI

12/07/88 17:32:00

Sample: CLP, 6016, 283, 00173800101MS, M. S. & 1640MS. B. MS. 6016 5#263, 1UL

Conds.: INST V: RESTEK RTX-5/30M. 4MIN#45-85#7/MIN 000#10/MIN

Formula: Instrument: V Weight: 0.001  
 Submitted by: VERSAR Analyst: TS Acct. No.: \_\_\_\_\_

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

No	Name
1	C130 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	C330 2-CHLOROPHENOL
3	C315 PHENOL
4	C325 BIS (2-CHLOROETHYL) ETHER
5	C335 1,3-DICHLOROBENZENE
6	C340 1,4-DICHLOROBENZENE
7	C350 1,2-DICHLOROBENZENE
8	C345 BENZYL ALCOHOL
9	C360 BIS (2-CHLOROISOPROPYL) ETHER
10	C355 2-METHYLPHENOL
11	C375 HEXACHLOROETHANE
12	C365 4-METHYLPHENOL
13	C370 N-NITROSO-DI-N-PROPYLAMINE
14	CE04 4-METHYL-BENZALDEHYDE
15	CS45 PHENOL-D3**ACID SURR.**
16	CS50 2-FLUOROPHENOL**ACID SURR.**
17	CI40 NAPHTHALENE-D8**INT. STD. #2**
18	C410 NITROBENZENE
19	C415 ISOPHORONE
20	C420 2-NITROPHENOL
21	C425 2,4-DIMETHYLPHENOL
22	C435 BIS (2-CHLOROETHOXY) METHANE
23	C440 2,4-DICHLOROPHENOL
24	C445 1,2,4-TRICHLOROBENZENE
25	C450 NAPHTHALENE
26	C430 BENZOIC ACID
27	C455 4-CHLOROANILINE
28	C460 HEXACHLOROBUTADIENE
29	C465 4-CHLORO-3-METHYLPHENOL
30	C470 2-METHYLNAPHTHALENE
31	CS20 NITROBENZENE-D3**BM SURR.**
32	CI50 ACENAPHTHENE-D10**INT. STD. #3**
33	CS10 HEXACHLOROCYCLOPENTADIENE
34	CS15 2,4,6-TRICHLOROPHENOL
35	CS20 2,4,5-TRICHLOROPHENOL
36	CS25 2-CHLORONAPHTHALENE
37	C530 2-NITROANILINE
38	C540 ACENAPHTHYLENE
39	CS35 DIMETHYL PHTHALATE
40	CS75 2,6-DINITROTOLUENE
41	CS50 ACENAPHTHENE
42	CS45 3-NITROANILINE
43	CS55 2,4-DINITROPHENOL
44	C565 DIBENZOFURAN
45	C560 4-NITROPHENOL
46	C544 2,4-DINITROTOLUENE
47	C590 FLUORENE

✓ 6032/15/88

No Name  
 48 C585 4-CHLOROPHENYL-PHENYLETHER  
 49 C380 DIETHYLPHTHALATE  
 50 C595 4-NITROANILINE

No	m/z	Scan	Time	Ref	RRT	Math	Area (Height)	Amount	XTot
1	152	561	9:21	1	1.000	A BB	17714.	40.000 NG/UL	3.01
2	128	537	8:57	1	0.957	A BB	61522.	77.577 NG	5.84 **
3	94	520	8:40	1	0.927	A BB	97229.	79.433 NG	5.98 **
4	NOT FOUND								
5	146	563	9:23	1	1.004	A BB	33689.	<del>49.670 NG</del>	3.06 **
6	146	563	9:23	1	1.004	A BB	33689.	35.615 NG	2.91 **
7	146	565	9:48	1	1.048	A BB	2045.	<del>2.484 NG</del>	0.19
8	NOT FOUND								
9	NOT FOUND								
10	108	599	9:59	1	1.068	A BB	164.	<del>6.217 NG</del>	0.02
11	NOT FOUND								
12	108	619	10:19	1	1.103	A BB	2937.	<del>3.737 NG</del>	0.28
13	70	623	10:23	1	1.111	A BB	40482.	40.041 NG	3.02 **
14	NOT FOUND								
15	99	519	8:39	1	0.925	A BB	70853.	74.361 NG*	3.60
16	112	396	6:36	1	0.706	A BB	55590.	70.625 NG*	5.32
17	136	735	12:15	17	1.000	A BB	60725.	40.000 NG/UL	3.01
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	107	671	11:31	17	0.940	A BB	987.	<del>6.645 NG</del>	0.05
22	NOT FOUND								
23	NOT FOUND								
24	180	729	12:09	17	0.992	A BB	24319.	38.084 NG	2.87 **
25	128	737	12:17	17	1.003	A BB	1427.	<del>0.675 NG</del>	0.05
26	122	697	11:37	17	0.948	A BB	258.	<del>0.671 NG</del>	0.05
27	NOT FOUND								
28	NOT FOUND								
29	107	813	13:33	17	1.106	A BB	75784.	87.751 NG	6.61 **
30	142	832	13:52	17	1.132	A BB	1811.	<del>1.470 NG</del>	0.11
31	82	639	10:39	17	0.869	A BB	39689.	35.557 NG*	2.68
32	164	979	16:19	32	1.000	A BB	30819.	40.000 NG/UL	3.01
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	152	957	15:57	32	0.978	A BB	408.	<del>0.233 NG</del>	0.02
39	NOT FOUND								
40	NOT FOUND								
41	153	983	15:23	32	1.004	A BB	48402.	41.318 NG	3.11 **
42	NOT FOUND								
43	NOT FOUND								
44	168	1005	16:45	32	1.027	A BB	1129.	<del>6.714 NG</del>	0.05
45	109	997	16:37	32	1.018	A BB	21641.	75.173 NG	7.17 **
46	165	1010	16:50	32	1.032	A BB	19299.	42.774 NG	3.22 **
47	166	1092	17:32	32	1.075	A BB	231.	<del>0.193 NG</del>	0.01
48	NOT FOUND								
49	149	1044	17:24	32	1.066	A BB	331.	<del>0.199 NG</del>	0.01
50	NOT FOUND								

\*\* = MATRIX SPIKE

V2358

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:20	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	8:57	1.00	0.959	1.00	77.58	50.00	2.497	1.509	1.55
3	8:40	1.00	0.929	1.00	79.45	50.00	4.027	2.534	1.59
4	8:51		0.948						
5	9:16	1.01	0.993	1.01	40.67	50.00	1.357	1.581	0.81
6	9:23	1.00	1.005	1.00	38.61	50.00	1.357	1.770	0.77
7	9:48	1.00	1.050	1.00	2.46	50.00	0.053	1.584	0.03
8	9:43		1.041						
9	10:04		1.079						
10	9:59	1.00	1.070	1.00	0.22	50.00	0.007	1.535	0.00
11	10:30		1.125						
12	10:17	1.00	1.105	1.00	3.74	50.00	0.119	1.595	0.07
13	10:24	1.00	1.114	1.00	40.04	50.00	1.542	2.050	0.80
14	10:21		1.109						
15	8:38	1.00	0.925	1.00	74.36	50.00	2.876	1.934	1.49
16	8:34	1.01	0.704	1.00	70.69	50.00	2.254	1.595	1.41
17	12:15	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
18	10:42		0.873						
19	11:15		0.918						
20	11:26		0.933						
21	11:31	1.00	0.940	1.00	0.65	50.00	0.008	0.598	0.01
22	11:46		0.961						
23	11:57		0.976						
24	12:09	1.00	0.992	1.00	38.08	50.00	0.320	0.421	0.75
25	12:18	1.00	1.004	1.00	0.68	50.00	0.019	1.391	0.01
26	11:47	0.99	0.962	0.99	0.67	50.00	0.004	0.283	0.01
27	12:28		1.018						
28	12:43		1.038						
29	13:34	1.00	1.107	1.00	87.78	50.00	0.998	0.569	1.75
30	13:53	1.00	1.133	1.00	1.47	50.00	0.024	0.811	0.03
31	10:40	1.00	0.871	1.00	35.56	50.00	0.523	0.735	0.71
32	16:20	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
33	14:24		0.882						
34	14:35		0.893						
35	14:40		0.898						
36	15:00		0.918						
37	15:17		0.938						
38	15:58	1.00	0.978	1.00	0.23	50.00	0.011	2.275	0.00
39	15:48		0.967						
40	15:58		0.978						
41	16:24	1.00	1.004	1.00	41.32	50.00	1.255	1.520	0.83
42	16:15		0.993						
43	16:30		1.010						
44	16:46	1.00	1.027	1.00	0.71	50.00	0.029	2.032	0.01
45	16:37	1.00	1.017	1.00	95.17	50.00	0.552	0.295	1.90
46	16:51	1.00	1.032	1.00	42.77	50.00	0.500	0.584	0.86
47	17:34	1.00	1.076	1.00	0.19	50.00	0.005	1.578	0.00
48	17:33		1.074						
49	17:25	1.00	1.066	1.00	0.19	50.00	0.009	2.204	0.00
50	17:41		1.083						

Quantitation Report File: V2358

Data: V2358.TI

12/07/88 17:32:00

Sample: CLP, 6016, 283, 00173800101MS, M, S, 61640MS, B, MS, 6016 88283, 1UL,

Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-85@7/MIN 000210/MIN

Formula:

Instrument: V

Height: 0.001

Submitted by: VERSAR

Analyst: TB

Accf. No.: \_\_\_\_\_

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

- No Name
- 51 C610 4,4-DINITRO-2-METHYLPHENOL
- 52 C613 N-NITROSODIPHENYLAMINE
- 53 C625 4-BROMOPHENYL-PHENYLETHER
- 54 C630 HEXACHLOROBENZENE
- 55 C525 2-FLUOROBIPHENYL\*\*BN SURR.\*\*
- 56 C160 PHENANTHRENE-D10\*\*INT. STD. #4\*\*
- 57 C635 PENTACHLOROPHENOL
- 58 C640 PHENANTHRENE
- 59 C645 ANTHRACENE
- 60 C650 DI-N-BUTYLPHTHALATE
- 61 C699 FLUORANTHENE
- 62 C715 PYRENE
- 63 C555 2,4,6-TRIBROMOPHENOL\*\*ACID SURR.\*\*
- 64 C170 CHRYSENE-D12\*\*INT. STD. #5\*\*
- 65 C720 BUTYLBENZYLPHTHALATE
- 66 C730 BENZO(A)ANTHRACENE
- 67 C740 CHRYSENE
- 68 C729 3,3'-DICHLOROBENZIDINE
- 69 C741 BIS (2-ETHYLHEXYL) PHTHALATE
- 70 C530 P-TERPHENYL-D14\*\*BN SURR.\*\*
- 71 C179 PERYLENE-012\*\*INT. STD. #6\*\*
- 72 C760 DI-N-OCTYL PHTHALATE
- 73 C765 BENZO(B)FLUORANTHENE
- 74 C770 BENZO(K)FLUORANTHENE
- 75 C775 BENZO(A)PYRENE
- 76 C780 INDENO(1,2,3-CD)PYRENE
- 77 C785 DIBENZ(A,H)ANTHRACENE
- 78 C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area (Height)	Amount	XTot
51	NOT FOUND								
52	NOT FOUND								
53	NOT FOUND								
54	NOT FOUND								
55	172	886	14:46	32	0.703	A BB	47017.	35.050 NG*	2.87
56	188	1182	19:42	56	1.000	A BB	61858.	40.000 NG/UL	3.01
57	266	1164	19:24	56	0.985	A BB	28402.	97.843 NG	7.34 **
58	178	1185	19:43	56	1.003	A BB	1335.	<del>ND 0.767 NG</del>	0.05
59	178	1185	19:43	56	1.003	A BB	1535.	<del>ND 0.774 NG</del>	0.06
60	149	1268	21:08	56	1.073	A BB	1585.	<del>ND 0.653 NG</del>	0.08
61	202	1352	22:32	56	1.144	A BB	873.	<del>ND 0.842 NG</del>	0.04
62	202	1384	23:04	56	1.171	A BB	82166.	30.118 NG	3.77 **
63	330	1088	18:08	56	0.920	A BB	19615.	84.040 NG*	6.33
64	240	1554	25:54	64	1.000	A BB	43427.	40.000 NG/UL	3.01
65	149	1476	24:36	64	0.950	A BB	247.	<del>ND 0.234 NG</del>	0.02

\* = MATRIX SPIKE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	RTot
66	228	1551	25:51	64	0.998	A BV	666.	<del>NP 0.503 NG</del>	0.03
67	228	1557	25:57	64	1.002	A VB	385.	<del>NP 0.391 NG</del>	0.03
68	NOT FOUND								
69	149	1557	25:57	64	1.002	A BB	333.	<del>NP 0.255 NG</del>	0.02
70	244	1405	23:29	64	0.904	A BB	49160.	<del>38.537 NG*</del>	2.90
71	264	1747	29:07	71	1.000	A VB	36253.	<del>40.000 NG/LA</del>	3.01
72	149	1637	27:17	71	0.937	A BB	228.	<del>NP 0.184 NG</del>	0.01
73	292	1697	28:17	71	0.971	A BB	613.	<del>NP 0.624 NG</del>	0.05
74	NOT FOUND								
75	292	1740	29:00	71	0.996	A BB	306.	<del>NP 0.324 NG</del>	0.02
76	276	1890	31:30	71	1.082	A BB	418.	<del>NP 0.410 NG</del>	0.03
77	278	1891	31:31	71	1.082	A BB	350.	<del>NP 0.484 NG</del>	0.03
78	276	1932	32:12	71	1.106	A BB	340.	<del>NP 0.364 NG</del>	0.03

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
51	17:47		1.089						
52	17:51		1.093						
53	18:40		1.143						
54	19:01		1.164						
55	14:46	1.00	0.904	1.00	38.09	50.00	1.220	1.502	0.75
56	19:44	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
57	19:25	1.00	0.984	1.00	97.54	50.00	0.357	0.188	1.99
58	19:47	1.00	1.003	1.00	0.76	50.00	0.017	1.137	0.02
59	19:53	0.99	1.008	0.99	0.77	50.00	0.017	1.087	0.02
60	21:09	1.00	1.072	1.00	0.66	50.00	0.003	1.545	0.01
61	22:33	1.00	1.143	1.00	0.94	50.00	0.011	1.042	0.01
62	23:09	1.00	1.170	1.00	50.12	50.00	1.063	1.060	1.00
63	18:09	1.00	0.920	1.00	84.04	50.00	0.254	0.151	1.68
64	25:54	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
65	24:37	1.00	0.950	1.00	0.24	50.00	0.005	0.769	0.00
66	25:52	1.00	0.999	1.00	0.60	50.00	0.012	1.017	0.01
67	25:58	1.00	1.003	1.00	0.35	50.00	0.007	1.010	0.01
68	25:49		0.997						
69	25:57	1.00	1.002	1.00	0.26	50.00	0.005	1.201	0.01
70	23:26	1.00	0.905	1.00	38.54	50.00	0.832	1.079	0.77
71	29:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
72	27:19	1.00	0.938	1.00	0.10	50.00	0.005	2.414	0.00
73	28:18	1.00	0.972	1.00	0.62	50.00	0.014	1.085	0.01
74	28:21		0.974						
75	29:00	1.00	0.996	1.00	0.32	50.00	0.007	1.043	0.01
76	31:32	1.00	1.083	1.00	0.41	50.00	0.009	1.124	0.01
77	31:32	1.00	1.083	1.00	0.45	50.00	0.008	0.851	0.01
78	32:13	1.00	1.106	1.00	0.36	50.00	0.008	1.031	0.01

v2358

Quantitation Report File: SSRECOVERY

Data: V2358.TI

12/07/88 17:32:00

Sample: CLP, 6016, 263, 00173800101MS, M, 5, 61640MS, S, MS, 0015 8#253, 1UL,

Conds.: INST V: RESTEK RTX-5/30M, 4MIN@45-85@7/MIN 000@10/MIN

Formula:

Instrument: V

Weight: 0.001

Submitted by: VERGAR

Analyst: TS

Acct. No.: \_\_\_\_\_

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	CI40 NAPHTHALENE-D8**INT. STD. #2**
2	CS20 NITROBENZENE-D5**BN SURR.**
3	CI50 ACENAPHTHENE-D10**INT. STD. #3**
4	CS25 2-FLUOROBIPHENYL**BN SURR.**
5	CI70 CHRYSENE-D12**INT. STD. #5**
6	CS30 P-TERPHENYL-D14**BN SURR.**
7	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
8	CS45 PHENOL-D5**ACID SURR.**
9	CS50 2-FLUOROPHENOL**ACID SURR.**
10	CI60 PHENANTHRENE-D10**INT. STD. #4**
11	CS55 2,4,6-TRIBROMOPHENOL**ACID SURR.**
12	CI75 PERYLENE-D12**INT. STD. #6**

No	m/z	Scan	Time	Ref	RRT	Math	Area(Hght)	Amount	RT%
1	136	739	12:13	1	1.000	A BB	60725.	40.000 NG/UL	5.88
2	82	639	10:39	1	0.869	A BB	39689.	35.857 NG*	5.12 71
3	164	979	16:19	3	1.000	A BB	30819.	40.000 NG/UL	5.88 76
4	172	866	14:46	3	0.903	A BB	47017.	38.090 NG*	5.88 77
5	240	1554	25:54	5	1.000	A BB	43427.	40.000 NG/UL	5.88 77
6	244	1405	23:25	5	0.904	A BB	49160.	38.839 NG*	5.88 77
7	152	561	9:21	7	1.000	A BB	19714.	40.000 NG/UL	5.88 74
8	99	919	8:39	7	0.925	A BB	70883.	74.361 NG*	12.77 74
9	112	396	6:36	7	0.706	A BB	35550.	70.656 NG*	12.16 71
10	188	1182	19:42	10	1.000	A BB	61858.	40.000 NG/UL	5.88 71
11	330	1088	18:08	10	0.920	A BB	17616.	84.040 NG*	14.66 84
12	264	1747	29:07	12	1.000	A VB	36293.	40.000 NG/UL	5.88

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	12:13	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	10:40	1.00	0.871	1.00	35.86	30.00	0.863	0.738	0.71
3	16:20	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	14:46	1.00	0.904	1.00	38.09	30.00	1.220	1.502	0.76
5	25:54	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	23:26	1.00	0.903	1.00	38.84	30.00	0.832	1.079	0.77
7	9:20	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
8	8:38	1.00	0.925	1.00	74.36	90.00	2.876	1.934	1.47
9	6:34	1.01	0.704	1.00	70.67	90.00	2.294	1.995	1.41
10	17:44	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
11	18:08	1.00	0.920	1.00	84.04	90.00	0.254	0.191	1.68
12	29:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00

**Versar**<sub>INC.</sub>

MATRIX SPIKE DUPLICATE DATA



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

00173800101MSD

Lab Name: VERSAR INC.

Contract: NYSDEC *000298*

Lab Code: VERSAR Case No.: SH788

SAS No.: 6016 SDG No.: 293

Matrix: (soil/water) SOIL

Lab Sample ID: 61641MSD

Sample wt/vol: 9.0 (g/mL) G

Lab File ID: Y3611

Level: (low/med) MED

Date Received: 11/18/88

% Moisture: not dec. 27

Date Analyzed: 11/29/88

Column: (pack/cap) PACK

Dilution Factor: 100

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	1400	U
74-83-7	Bromomethane	1400	U
75-01-4	Vinyl Chloride	1400	U
75-00-3	Chloroethane	1400	U
75-09-2	Methylene Chloride	690	U
67-64-1	Acetone	1400	U
75-15-0	Carbon Disulfide	690	U
75-35-4	1,1-Dichloroethene	690	U
75-35-3	1,1-Dichloroethane	690	U
540-59-0	1,2-Dichloroethene (total)	2500	
67-66-3	Chloroform	690	U
107-06-2	1,2-Dichloroethane	690	U
75-93-3	2-Butanone	1400	U
71-55-6	1,1,1-Trichloroethane	690	U
56-23-5	Carbon Tetrachloride	690	U
108-05-4	Vinyl Acetate	1400	U
75-27-4	Bromodichloromethane	690	U
78-87-5	1,2-Dichloropropane	690	U
10061-01-5	cis-1,3-Dichloropropene	690	U
79-01-6	Trichloroethene		Y
124-48-1	Dibromochloromethane	690	U
79-00-5	1,1,2-Trichloroethane	690	U
71-43-2	Benzene	690	U
10061-02-6	Trans-1,3-Dichloropropene	690	U
75-25-2	Bromoform	690	U
108-10-1	4-Methyl-2-Pentanone	1600	
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	5100	
79-34-5	1,1,2,2-Tetrachloroethane	6500	
108-88-3	Toluene		Y
108-90-7	Chlorobenzene	690	U
100-41-4	Ethylbenzene	17000	
100-42-5	Styrene	690	U
1330-20-7	Total-Xylenes	63000	E

Versar Inc., Laboratory Operations  
 6450 Versar Center, Springfield VA 22151 703/750-3000

Sample Number:  
 730001-01MSD

Case No: 6016 R#283

ORGANICS ANALYSIS DATA SHEET (Page 2)  
 Semivolatile Compounds

Concentration: MED

Date Extracted/Prepared: 11/28/88

GPC Cleanup  Yes  No

Date Analyzed: 12/07/88

Separatory Funnel Extraction  Yes

Conc/Dil Factor: 1

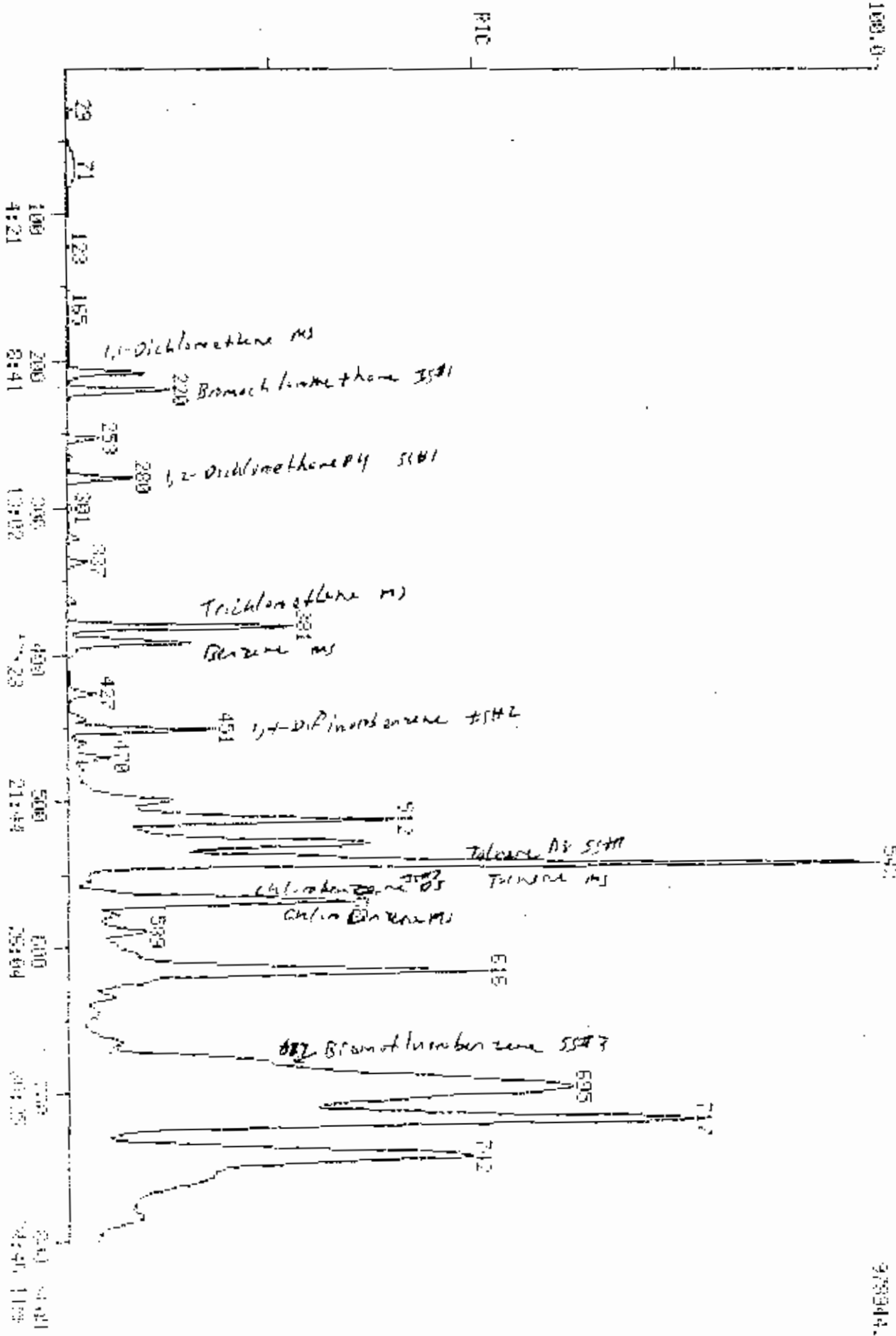
Continuous Liquid-Liquid Extraction  Yes

CAS Number	ug/kg	CAS Number	ug/kg
108-95-2	1 Phenol	183-32-9	1 Acenaphthene
111-44-4	1 Bis(2-Chloroethyl)Ether	151-28-5	1 2,4-Dinitrophenol
95-57-3	1 2-Chlorophenol	1100-02-7	1 4-Nitrophenol
541-73-1	1 1,3-Dichlorobenzene	1132-64-9	1 Dibenzofuran
106-46-7	1 1,4-Dichlorobenzene	1121-14-2	1 2,4-Dinitrotoluene
100-51-6	1 Benzyl Alcohol	1506-20-2	1 2,6-Dinitrotoluene
105-50-1	1 1,2-Dichlorobenzene	84-66-2	1 Diethylphthalate
95-48-7	1 2-Methylphenol	17005-22-3	1 4-Chlorophenyl-propylether
133638-32-7	1 Bis(2-chloroisopropyl)ether	86-73-7	1 Fluorene
1106-44-5	1 4-methylphenol	1190-01-6	1 4-Nitroaniline
621-64-7	1 N-Nitroso-Di-n-propylamine	1534-52-1	1 4,6-dinitro-2-methylphenol
167-72-1	1 Hexachloroethane	186-30-6	1 N-Nitrosodiphenylamine (1)
98-95-3	1 Nitrobenzene	1101-85-3	1 4-Bromophenyl-phenylether
78-59-1	1 Isophorone	1118-74-1	1 Hexachlorobenzene
183-75-5	1 2-Nitrophenol	187-86-5	1 Pentachlorophenol
105-67-9	1 2,4-Diethylphenol	85-01-8	1 Phenanthrene
65-85-0	1 Benzoic Acid	1120-12-7	1 Anthracene
1111-91-1	1 Bis(2-chloroethoxy)ethane	84-74-2	1 Di-n-butylphthalate
1120-83-2	1 2,4-dichlorophenol	1266-44-0	1 Fluoranthene
1129-32-1	1 1,2,4-Trichlorobenzene	1329-00-0	1 Pyrene
81-20-1	1 Naphthalene	185-66-7	1 Butylbenzylphthalate
106-47-8	1 4-Chloroaniline	91-94-1	1 1,3'-Dichlorobenzidine
187-63-3	1 Hexachlorobutadiene	156-55-3	1 Benzo(a)anthracene
59-50-7	1 4-chloro-3-methylphenol	1117-61-7	1 bis(2-Ethylhexyl)Phthalate
101-57-6	1 2-methylnaphthalene	1218-01-9	1 Chrysene
177-47-4	1 Hexachlorocyclopentadiene	1117-84-0	1 Di-n-Octylphthalate
108-06-2	1 2,4,6-Trichlorophenol	1205-99-2	1 Benzo(b)fluoranthene
95-95-4	1 2,4,5-Trichlorophenol	1207-08-9	1 Benzo(k)fluoranthene
131-58-7	1 2-Chloronaphthalene	150-32-8	1 Benzo(a)pyrene
88-74-4	1 2-Nitroaniline	1193-39-5	1 Indeno(1,2,3-cd)Pyrene
131-11-3	1 Diethyl Phthalate	153-70-1	1 Dibenz(a,h)anthracene
100-96-8	1 Acenaphthylene	1191-24-2	1 Benzo(g,h,i)Perylene
133-09-2	1 3-Nitroaniline		

(1) - Cannot be separated from diphenylamine

MID RIC  
 11/29/88 15:58:00  
 SAMPLE: CLP-6016 (283.60173800) (LINED, H.S. 6164150-41.811, 1.100)  
 CONDS.: INSTRUMENT V1.55-1600 COLUMN 450 (LINA) TO 29000000. R1H  
 RANGE: 0 1, 800 LABEL: N 0, 4.0 QUANT: N 0, 1.0 J 0 GASES: 0 0, 0 0

DATE: 198811 01  
 CAL: 198811 01  
 SCALE: 1 TO 5000



No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	ZTot
1	128	220	9:34	1	1.000	A BB	69928.	50.000 UG/L*	3.41
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	43	165	7:10	1	0.751	A BB	3777.	<del>14.320 UG/L</del>	0.98
8	76	183	7:57	1	0.832	A BB	671.	<del>0.130 UG/L</del>	0.01
9	96	208	9:02	1	0.946	A BB	83242.	47.744 UG/L	3.26
10	NOT FOUND								
11	63	238	10:21	1	1.082	A BB	816.	<del>0.235 UG/L</del>	0.02
12	96	253	11:00	1	1.150	A BB	37441.	<u>17.964 UG/L</u>	1.23
13	NOT FOUND								
14	NOT FOUND								
15	65	280	12:10	1	1.273	A BB	100718.	45.717 UG/L*	3.12
16	114	451	19:36	16	1.000	A BB	308111.	50.000 UG/L*	3.41
17	97	313	13:36	16	0.695	A BB	5271.	<del>1.740 UG/L</del>	0.12
18	NOT FOUND								
19	NOT FOUND								
20	43	321	13:57	16	0.712	A BB	3230.	<del>0.660 UG/L</del>	0.05
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	130	381	16:33	16	0.845	A BB	217226.	(Y) 84.841 UG/L	5.79
25	NOT FOUND								
26	97	399	17:20	16	0.885	A BB	3301.	<del>1.548 UG/L</del>	0.11
27	78	392	17:02	16	0.870	A BB	283265.	49.057 UG/L	3.35
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	117	566	24:36	31	1.000	A BB	347365.	50.000 UG/L*	3.41
32	NOT FOUND								
33	43	470	20:25	31	0.831	A VV	42448.	<u>11.944 UG/L</u>	0.82
34	164	512	22:15	31	0.905	A BB	96648.	<u>37.545 UG/L</u>	2.56
35	83	513	22:17	31	0.907	A BB	244419.	<u>47.399 UG/L</u>	3.24
36	91	542	23:33	31	0.958	A BB	1462290.	(Y) <u>223.116 UG/L</u>	15.22
37	112	569	24:43	31	1.006	A BB	363832.	58.502 UG/L	3.99
38	106	616	26:46	31	1.089	A BB	464560.	<u>124.654 UG/L</u>	8.50
39	NOT FOUND								
40	106	741	32:12	31	1.310	A BB	883524.	<u>189.357 UG/L</u>	12.91
41	98	537	23:20	31	0.949	A VB	316000.	49.289 UG/L*	3.37
42	95	677	29:25	31	1.197	A BB	219942.	50.450 UG/L*	3.44
43	106	717	31:09	31	1.267	A BB	1216110.	<u>260.636 UG/L</u>	17.77

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	9:34	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:55		0.201						
3	2:57		0.310						
4	3:42		0.387						
5	4:36		0.482						
6	6:34		0.687						
7	7:05	1.02	0.741	1.02	14.32	50.00	0.055	0.189	0.29
8	7:57	1.00	0.832	1.00	0.13	50.00	0.010	3.693	0.01
9	9:02	1.00	0.946	1.00	47.75	50.00	1.191	1.247	0.96
10	8:26		0.882						
11	10:21	1.00	1.082	1.00	0.24	50.00	0.012	2.493	0.01

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
12	10:57	1.01	1.146	1.01	17.97	50.00	0.536	1.491	0.36
13	11:36		1.214						
14	12:18		1.287						
15	12:10	1.00	1.273	1.00	45.72	50.00	1.441	1.576	0.92
16	19:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:33	1.01	0.692	1.01	1.75	50.00	0.018	0.492	0.04
18	12:10		0.621						
19	13:57		0.712						
20	14:00	1.00	0.714	1.00	0.66	50.00	0.011	0.795	0.02
21	14:28		0.739						
22	15:49		0.808						
23	16:02		0.819						
24	16:33	1.00	0.845	1.00	84.85	50.00	0.706	0.416	1.70
25	17:15		0.881						
26	17:20	1.00	0.885	1.00	1.55	50.00	0.011	0.347	0.04
27	17:02	1.00	0.870	1.00	49.06	50.00	0.920	0.938	0.99
28	17:20		0.885						
29	18:23		0.938						
30	19:59		1.020						
31	24:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:57		0.893						
33	20:23	1.01	0.829	1.01	11.95	50.00	0.123	0.512	0.24
34	22:15	1.00	0.905	1.00	37.55	50.00	0.279	0.371	0.76
35	22:17	1.00	0.907	1.00	47.40	50.00	0.704	0.743	0.95
36	23:33	1.00	0.958	1.00	223.12	50.00	4.210	0.944	4.47
37	24:43	1.00	1.006	1.00	58.51	50.00	1.048	0.896	1.18
38	26:46	1.00	1.089	1.00	124.66	50.00	1.338	0.537	2.50
39	30:54		1.257						
40	32:09	1.01	1.308	1.01	189.36	50.00	2.544	0.672	3.79
41	23:20	1.00	0.949	1.00	49.29	50.00	0.910	0.923	0.99
42	29:25	1.00	1.197	1.00	50.45	50.00	0.634	0.628	1.01
43	32:09	0.97	1.308	0.97	260.64	50.00	3.501	0.672	5.22

0000INTERNAL STANDARD RIC REPORT00000

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

MID Mass List Data: Y3611 # 220 Base m/z: 49  
11/29/88 15:08:00 + 9.34 Cali: Y3611 # 3 RIC: 117889  
Sample: CLP, 6016, 283, 00173800101MSD, M, S, 61641MSD, V, 5ML, 1/100  
Conds.: INSTRUMENT Y: SP-1000 COLUMN 450(2MIN) TO 225028059 MIN  
Enhanced (S 15B 2N OT)

35 0.00 1. Minima Min Inten: 1.  
30 Maxima # 0

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

MID Mass List Data: Y3611 # 431 Base m/z: 114  
11/29/88 15:08:00 + 17.36 Cali: Y3611 # 2 RIC: 184864  
Sample: CLP, 6016, 283, 00173800101MSD, M, S, 61641MSD, V, 5ML, 1/100  
Conds.: INSTRUMENT Y: SP-1000 COLUMN 450(2MIN) TO 225028059 MIN  
Enhanced (S 15B 2N OT)

36 0.00 1. Minima Min Inten: 1  
30 Maxima # 0

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

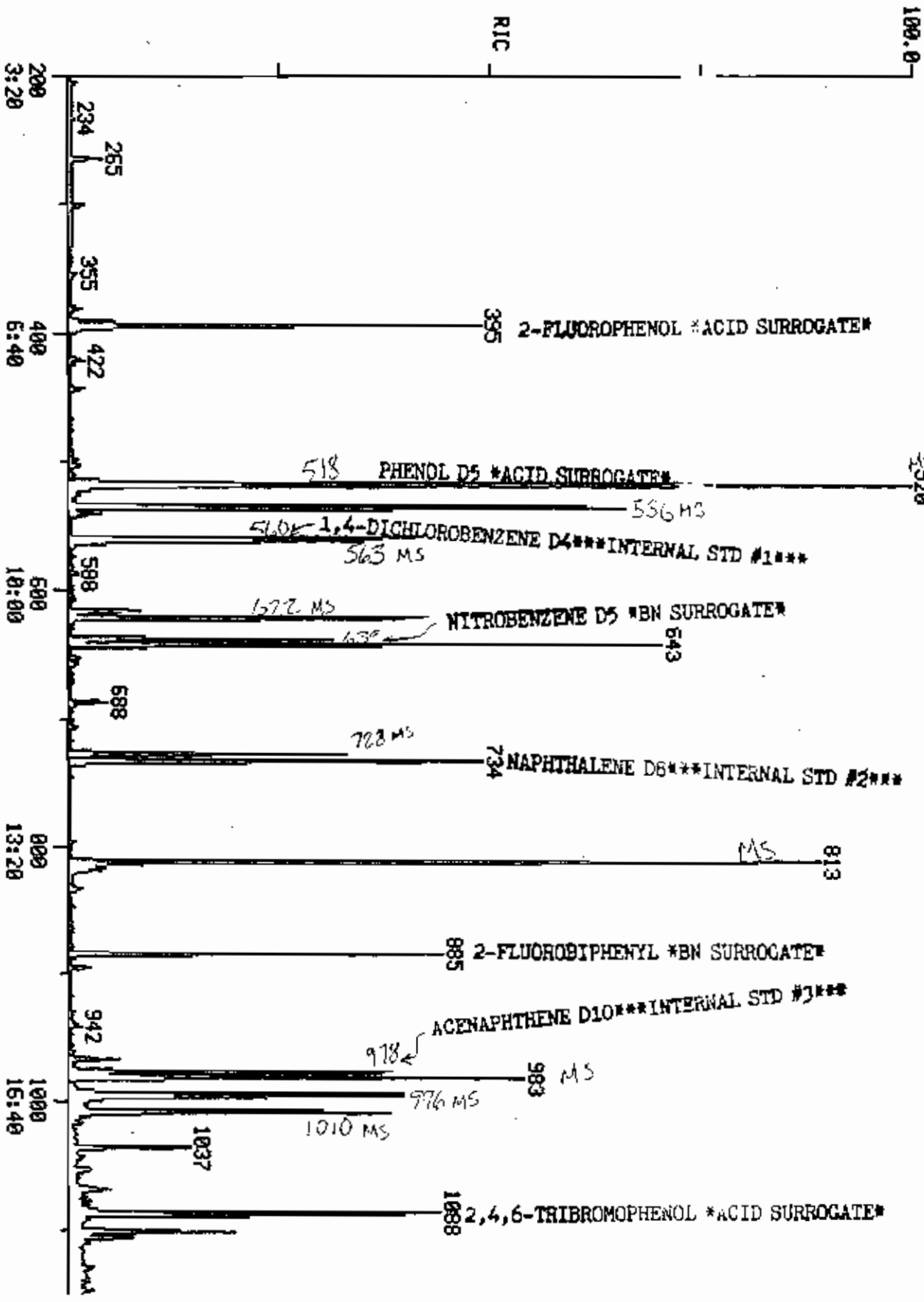
MID Mass List Data: Y3611 # 556 Base m/z: 117  
11/29/88 15:08:00 + 24.36 Cali: Y3611 # 3 RIC: 213504  
Sample: CLP, 6016, 283, 00173800101MSD, M, S, 61641MSD, V, 5ML, 1/100  
Conds.: INSTRUMENT Y: SP-1000 COLUMN 450(2MIN) TO 225028059 MIN  
Enhanced (S 15D 2N OT)

40 0.00 1. Minima Min Inten: 1.  
30 Maxima # 0

ANALYST CHECK BASE M/Z AND RIC AMOUNT TO ENSURE NO CONTAMINATION

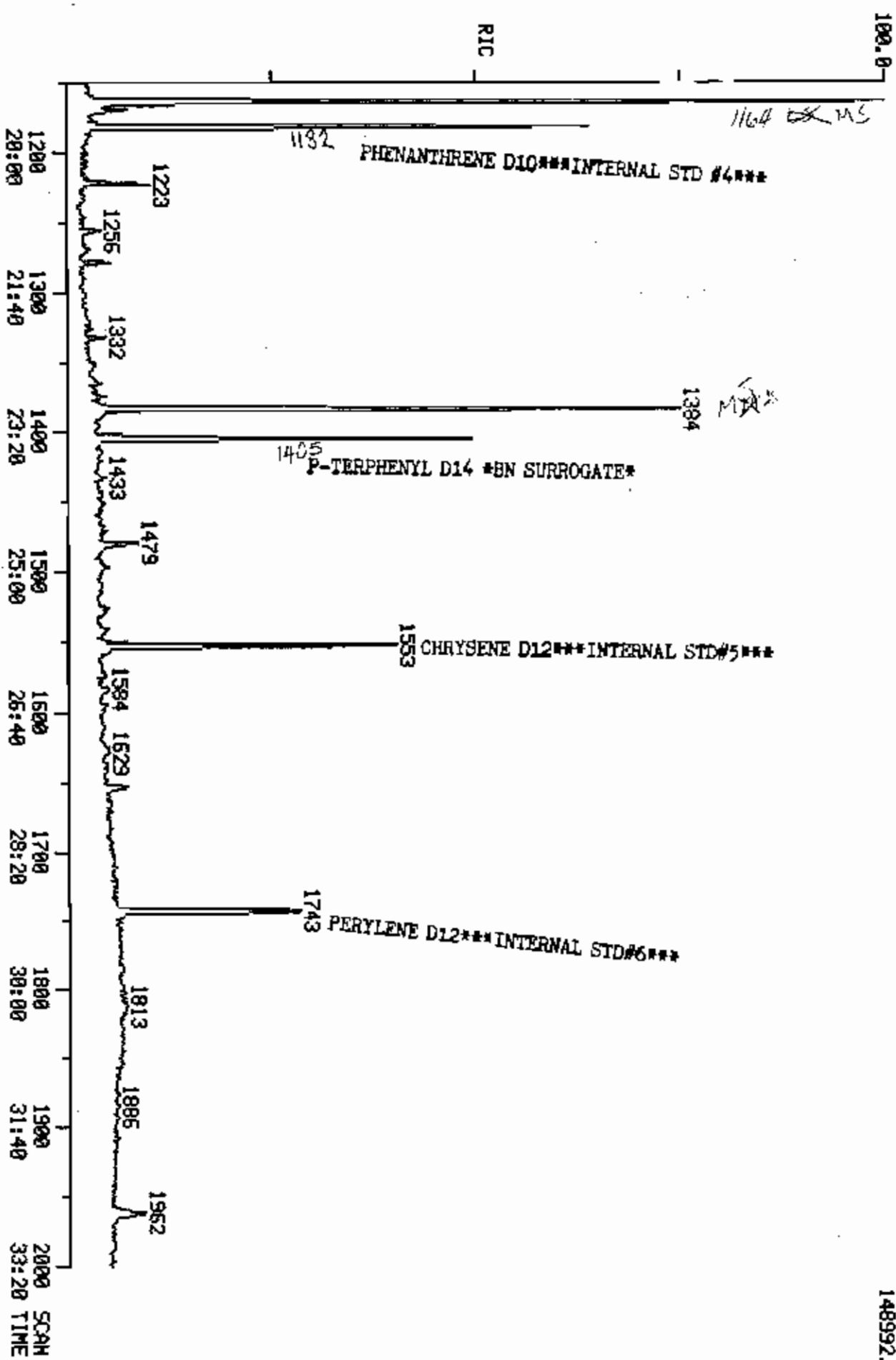
RIC  
 12/07/08 18:28:08  
 SAMPLE: CLP,6016,283,00173000101MSD,M,5,61640MSD,8,MSD,6016 BR283,1UL,  
 COMDS:1 INST U:REXTEK RTX-S/30M,4M1M45-8507/MIH-300010/MIN  
 RANGE: G 1,2000 LABEL: N 0, 4.0 QUAM: A 0, 1.0 J 0 BASE: U 20, 3

DATA: UZ359 #1  
 CALL: UZ359 #2  
 SCANS 200 TO 1150



210608.

RIC  
 12/07/88 18:28:00  
 SAMPLE: CLP,6016,283,00173900101MSD,M.S.61640MSD,B,MSD,6016 BW283,1UL,  
 COND.S.: INST V:RESTERX RTX-5/30M,4MIN@45-8507/MIN-3000210/MIN  
 RANGE: C 1,2000 LABEL: N 0, 4.0 QUANT: A 0, 1.0 J 0 BASE: U 28, 3  
 DATA: U2359 #1  
 CALL: U2359 #2  
 SCANS 1150 TO 2000





Quantitation Report File: V2359

Data: V2359.TI

12/07/88 18:20:00

Sample: CLP, 6016, 283, 00173800101MSD, N, S, 61640MSD, G, MSD, 6016 B#283, 1U,

Conds.: INST V: RESTEK RTX-3/30M, 4MIN@45-85@7/MIN 300@10/MIN

Formula: Instrument: V Weight: 0.001

Submitted by: VERSAR Analyst: TS Acct. No.: 6016

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	C130 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	C330 2-CHLOROPHENOL
3	C315 PHENOL
4	C325 BIS (2-CHLOROETHYL) ETHER
5	C335 1,3-DICHLOROBENZENE
6	C340 1,4-DICHLOROBENZENE
7	C350 1,2-DICHLOROBENZENE
8	C345 BENZYL ALCOHOL
9	C360 BIS (2-CHLOROISOPROPYL) ETHER
10	C355 2-METHYLPHENOL
11	C375 HEXACHLOROETHANE
12	C365 4-METHYLPHENOL
13	C370 N-NITROSO-DI-N-PROPYLAMINE
14	CE04 4-METHYL-BENZALDEHYDE
15	CS45 PHENOL-D5**ACID SURR.**
16	CS50 2-FLUOROPHENOL**ACID SURR.**
17	CI40 NAPHTHALENE-D8**INT. STD. #2**
18	C410 NITROBENZENE
19	C415 ISOPHORONE
20	C420 2-NITROPHENOL
21	C425 2,4-DIMETHYLPHENOL
22	C435 BIS (2-CHLOROETHOXY) METHANE
23	C440 2,4-DICHLOROPHENOL
24	C445 1,2,4-TRICHLOROBENZENE
25	C450 NAPHTHALENE
26	C430 BENZOIC ACID
27	C455 4-CHLOROANILINE
28	C460 HEXACHLOROBUTADIENE
29	C465 4-CHLORO-3-METHYLPHENOL
30	C470 2-METHYLNAPHTHALENE
31	CS20 NITROBENZENE-D5**BN SURR.**
32	CI50 ACENAPHTHENE-D10**INT. STD. #3**
33	CS10 HEXACHLOROCYCLOPENTADIENE
34	CS15 2,4,6-TRICHLOROPHENOL
35	CS20 2,4,5-TRICHLOROPHENOL
36	CS25 2-CHLORONAPHTHALENE
37	CS30 2-NITROANILINE
38	CS40 ACENAPHTHYLENE
39	CS35 DIMETHYL PHTHALATE
40	CS75 2,6-DINITROTOLUENE
41	CS50 ACENAPHTHENE
42	CS45 3-NITROANILINE
43	CS55 2,4-DINITROPHENOL
44	CS65 DIBENZOFURAN
45	CS60 4-NITROPHENOL
46	CS44 2,4-DINITROTOLUENE
47	CS90 FLUORENE

*✓* 08 12/15/88

No Name  
 48 C585 4-CHLOROPHENYL-PHENYLETHER  
 49 C580 DIETHYLPHTHALATE  
 50 C595 4-NITROANILINE

No	m/z	Scan	Time	Ref	RRT	Meth	Area (Height)	Amount	RT <sub>06</sub>
1	152	560	9:20	1	1.000	A B8	20269.	40.000 NG/UL	3.14
2	128	836	8:56	1	0.957	A B8	53752.	65.967 NG	5.17 **
3	94	520	8:40	1	0.929	A B8	87505.	68.148 NG	5.34 **
4	NOT FOUND								
5	146	563	9:23	1	1.005	A B8	28974.	<del>34.621 NG</del>	2.67
6	146	563	9:23	1	1.005	A B8	28974.	32.301 NG	2.53 **
7	146	587	9:47	1	1.048	A B8	682.	<del>0.777 NG</del>	0.05
8	NOT FOUND								
9	NOT FOUND								
10	108	618	10:18	1	1.104	A B8	2655.	<del>3.414 NG</del>	0.27
11	NOT FOUND								
12	108	618	10:18	1	1.104	A B8	2655.	<del>3.285 NG</del>	0.26
13	70	622	10:22	1	1.111	A B8	36700.	38.333 NG	2.77 **
14	NOT FOUND								
15	99	518	8:38	1	0.925	A B8	61267.	62.533 NG*	4.59
16	112	395	8:35	1	0.705	A B8	48064.	59.456 NG*	4.65
17	136	734	12:14	17	1.000	A B8	60850.	40.000 NG/UL	3.14
18	77	643	10:43	17	0.876	A B8	22602.	<del>18.793 NG</del>	1.47
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	180	728	12:08	17	0.992	A B8	21277.	33.252 NG	2.51 **
25	NOT FOUND								
26	122	643	10:43	17	0.876	A B8	3110.	<del>7.228 NG</del>	0.57
27	NOT FOUND								
28	NOT FOUND								
29	107	813	13:33	17	1.108	A B8	71929.	83.144 NG	6.52 **
30	142	831	13:51	17	1.132	A B8	842.	<del>0.682 NG</del>	0.05
31	82	639	10:39	17	0.871	A B8	33716.	30.144 NG*	2.36
32	164	978	16:18	32	1.000	A B8	30174.	40.000 NG/UL	3.14
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	153	983	16:23	32	1.005	A B8	45643.	39.776 NG	3.12 **
42	NOT FOUND								
43	NOT FOUND								
44	168	1004	16:44	32	1.027	A*B8	718.	<del>0.464 NG</del>	0.04
45	109	996	16:36	32	1.018	A B8	21334.	76.726 NG	7.59 **
46	165	1010	16:50	32	1.033	A B8	19071.	43.262 NG	3.37 **
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								

\*\* = MATRIX SPIKE

V2359

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	7:20	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	8:57	1.00	0.959	1.00	65.97	50.00	2.123	1.509	1.32
3	8:40	1.00	0.929	1.00	68.15	50.00	3.454	2.534	1.36
4	8:51		0.948						
5	7:16	1.01	0.993	1.01	34.02	50.00	1.144	1.591	0.58
6	9:23	1.00	1.005	1.00	32.30	50.00	1.144	1.770	0.55
7	9:48	1.00	1.050	1.00	0.80	50.00	0.027	1.584	0.02
8	9:43		1.041						
9	10:04		1.079						
10	9:59	1.03	1.070	1.03	3.41	50.00	0.105	1.535	0.07
11	10:30		1.125						
12	10:19	1.00	1.105	1.00	3.29	50.00	0.105	1.595	0.07
13	10:24	1.00	1.114	1.00	39.33	50.00	1.449	2.050	0.71
14	10:21		1.109						
15	8:38	1.00	0.925	1.00	62.53	50.00	2.419	1.934	1.25
16	6:34	1.00	0.704	1.00	59.49	50.00	1.897	1.595	1.19
17	12:15	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
18	10:42	1.00	0.873	1.00	18.70	50.00	0.297	0.794	0.37
19	11:15		0.918						
20	11:26		0.933						
21	11:31		0.940						
22	11:46		0.961						
23	11:57		0.976						
24	12:09	1.00	0.992	1.00	33.25	50.00	0.280	0.421	0.57
25	12:18		1.004						
26	11:47	0.91	0.962	0.91	7.23	50.00	0.041	0.283	0.14
27	12:28		1.018						
28	12:43		1.038						
29	13:34	1.00	1.107	1.00	83.14	50.00	0.946	0.569	1.65
30	13:53	1.00	1.133	1.00	0.68	50.00	0.011	0.811	0.01
31	10:40	1.00	0.871	1.00	30.14	50.00	0.463	0.735	0.60
32	16:20	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
33	14:24		0.882						
34	14:35		0.893						
35	14:40		0.898						
36	15:00		0.918						
37	15:19		0.938						
38	15:58		0.978						
39	15:48		0.967						
40	15:58		0.978						
41	16:24	1.00	1.004	1.00	39.80	50.00	1.210	1.520	0.50
42	16:15		0.995						
43	16:30		1.010						
44	16:46	1.00	1.027	1.00	0.46	50.00	0.017	2.052	0.01
45	16:37	1.00	1.017	1.00	96.73	50.00	0.571	0.293	1.93
46	16:51	1.00	1.032	1.00	43.26	50.00	0.506	0.584	0.57
47	17:34		1.076						
48	17:33		1.074						
49	17:25		1.066						
50	17:41		1.083						

VZ559

Quantitation Report File: V2359

Data: V2359.T1

12/07/88 18:20:00

Sample: CLP, 6016, 283, 0017390010IMSD, M, S, 61640MSD, G, MSD, 6016 B#283, 1UL,

Conds.: INST V: RESTEX RTX-5/30M, 4MIN@45-85@7/MIN 300@10/MIN

Formula: Instrument: V Weight: 0.001

Submitted by: VERSAR Analyst: TS Acct. No.: 6016

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
51	C610 4,6-DINITRO-2-METHYLPHENOL
52	C615 N-NITROSODIPHENYLAMINE
53	C625 4-BROMOPHENYL-PHENYLEETHER
54	C630 HEXACHLOROBENZENE
55	C825 2-FLUOROBIPHENYL**BN SURR.**
56	C160 PHENANTHRENE-D10**INT. STD. #4**
57	C635 PENTACHLOROPHENOL
58	C640 PHENANTHRENE
59	C645 ANTHRACENE
60	C650 DI-N-BUTYLPHTHALATE
61	C655 FLUORANTHRENE
62	C715 PYRENE
63	C855 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
64	C170 CHRYSENE-D12**INT. STD. #3**
65	C720 BUTYLBENZYLPHTHALATE
66	C730 BENZO(A)ANTHRACENE
67	C740 CHRYSENE
68	C725 3,3'-DICHLOROBENZIDINE
69	C741 B18 (2-ETHYLHEXYL) PHTHALATE
70	C630 P-TERPHENYL-D14**BN SURR.**
71	C175 PERYLENE-D12**INT. STD. #6**
72	C760 DI-N-OCTYL PHTHALATE
73	C765 BENZO(B)FLUORANTHRENE
74	C770 BENZO(K)FLUORANTHRENE
75	C775 BENZO(A)PYRENE
76	C780 INDEMO(1,2,3-CD)PYRENE
77	C785 DIBENZ(A,H)ANTHRACENE
78	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hgát)	Amount	ATot
51	NOT FOUND								
52	169	1069	17:49	32	1.093	A BB	326.	<del>6.513 NG</del>	0.04
53	NOT FOUND								
54	NOT FOUND								
55	172	885	14:45	32	0.905	A BB	42753.	35.376 NG*	2.77
56	188	1182	19:42	36	1.000	A BB	58610.	40.000 NG/UL	3.14
57	266	1164	19:24	36	0.985	A BB	27306.	98.975 NG	7.75 **
58	178	1185	19:45	36	1.003	A BB	466.	<del>0.289 NG</del>	0.02
59	NOT FOUND								
60	149	1268	21:08	36	1.073	A BB	631.	<del>0.279 NG</del>	0.02
61	202	1352	22:32	36	1.144	A BB	302.	<del>0.198 NG</del>	0.02
62	202	1384	23:04	36	1.171	A BB	83723.	33.898 NG	4.22 **
63	330	1088	18:08	36	0.920	A BB	18930.	83.576 NG*	6.71
64	240	1553	25:53	64	1.000	A BB	38547.	40.000 NG/UL	3.14
65	149	1476	24:36	64	0.950	A BB	281.	<del>0.302 NG</del>	0.02

No	a/z	Scan	Time	Ref	RRT	Math	Area(Hg <sup>+</sup> )	Amount	XTot
66	228	1553	29:53	64	1.000	A BB	194.	<del>0.157 NG</del>	0.01
67	NOT FOUND								
68	NOT FOUND								
69	149	1556	29:56	64	1.002	A BB	278.	<del>0.240 NG</del>	0.02
70	244	1405	23:25	64	0.905	A BV	43071.	41.411 NG*	3.23
71	264	1743	29:03	71	1.000	A BB	31078.	40.000 NG/UL	3.14
72	149	1636	27:16	71	0.939	A BB	190.	<del>0.151 NG</del>	0.01
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								
76	NOT FOUND								
77	NOT FOUND								
78	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac (L)	Ratio
91	17:47		1.089						
92	17:51	1.00	1.093	1.00	0.51	50.00	0.009	0.842	0.01
93	18:40		1.143						
94	19:01		1.164						
95	14:46	1.00	0.904	1.00	35.35	30.00	1.134	1.302	0.71
96	19:44	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
97	19:25	1.00	0.984	1.00	98.95	30.00	0.373	0.186	1.98
98	19:47	1.00	1.003	1.00	0.28	30.00	0.006	1.137	0.01
99	19:53		1.008						
60	21:09	1.00	1.072	1.00	0.28	30.00	0.009	1.545	0.01
61	22:33	1.00	1.143	1.00	0.20	30.00	0.004	1.042	0.00
62	23:05	1.00	1.170	1.00	53.90	30.00	1.143	1.060	1.05
63	18:09	1.00	0.920	1.00	65.60	30.00	0.258	0.151	1.71
64	25:54	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
65	24:37	1.00	0.950	1.00	0.30	30.00	0.006	0.765	0.01
66	25:52	1.00	0.999	1.00	0.15	30.00	0.003	1.017	0.00
67	25:55		1.003						
68	25:49		0.997						
69	25:57	1.00	1.002	1.00	0.24	30.00	0.005	1.201	0.00
70	23:26	1.00	0.905	1.00	41.41	30.00	0.894	1.079	0.83
71	29:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
72	27:19	1.00	0.938	1.00	0.10	30.00	0.003	2.414	0.00
73	28:18		0.972						
74	28:21		0.974						
75	29:00		0.996						
76	31:32		1.083						
77	31:32		1.083						
78	32:13		1.106						

V2359

Quantitation Report File: SSRECOVERY

Data: V2359.T1

12/07/88 18:20:00

Sample: CLP, 6016, 283, 00173800101MSD, M. S. 61640MSD, D. MSD, 6016 B#283, 1UL,

Conds.: INST V: RESTEK RTX-5/30M, 4MIN@43-85@7/MIN-000@10/MIN

Formula: Instrument: V Weight: 0.001

Submitted by: VERSAR Analyst: TS Acct. No.: 6016

AMOUNT=AREA \* REF AMNT/(REF AREA \* RESP FACT)

Resp. fac. from Library Entry

No	Name
1	CI40 NAPHTHALENE-D8**INT. STD.#2**
2	CS20 NITROBENZENE-D5**BN SURR.**
3	CI50 ACENAPHTHENE-D10**INT. STD.#3**
4	CS25 2-FLUOROBIPHENYL**BN SURR.**
5	CI70 CHRYSENE-D12**INT. STD.#5**
6	CS30 P-TERPHEYL-D14**BN SURR.**
7	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD.#1**
8	CS45 PHENOL-D5**ACID SURR.**
9	CS30 2-FLUOROPHENOL**ACID SURR.**
10	CI60 PHENANTHRENE-D10**INT. STD.#4**
11	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
12	CI75 PERYLENE-D12**INT. STD.#6**

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	RTs
1	136	734	12:14	1	1.000	A BB	60830.	40.000 NG/UL	7.21
2	82	639	10:37	1	0.871	A BB	33716.	30.144 NG*	5.44
3	164	978	16:18	3	1.000	A BB	30174.	40.000 NG/UL	7.21
4	172	885	14:45	3	0.909	A BB	42733.	35.375 NG*	6.38
5	240	1353	23:53	5	1.000	A BB	39547.	40.000 NG/UL	7.21
6	244	1405	23:25	5	0.905	A BV	43071.	41.411 NG*	7.47
7	132	360	9:20	7	1.000	A BB	20269.	40.000 NG/UL	7.21
8	99	318	8:38	7	0.925	A BB	61287.	62.533 NG*	11.28
9	112	395	6:35	7	0.705	A BB	49064.	59.466 NG*	10.73
10	188	1182	17:42	10	1.000	A BB	58610.	40.000 NG/UL	7.21
11	330	1088	18:08	10	0.920	A BB	18930.	65.575 NG*	15.44
12	264	1743	29:03	12	1.000	A BB	31078.	40.000 NG/UL	7.21

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	12:18	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	10:40	1.00	0.871	1.00	30.14	50.00	0.443	0.735	0.60
3	16:20	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	14:46	1.00	0.904	1.00	35.38	50.00	1.134	1.502	0.71
5	23:54	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	23:26	1.00	0.905	1.00	41.41	50.00	0.874	1.079	0.83
7	9:20	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
8	8:38	1.00	0.925	1.00	62.53	50.00	2.419	1.934	1.25
9	6:34	1.00	0.704	1.00	59.49	50.00	1.897	1.595	1.19
10	17:44	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
11	18:09	1.00	0.920	1.00	65.60	50.00	0.259	0.191	1.71
12	29:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00

60  
71  
83  
63  
59  
86

**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

PARAMETER REQUEST SHEET

DELIVER TO : DATA PROCESSING

DATE PRINTED : 11/18/88

JOB NAME : NYSDEC  
 JOB#/TASK# : 6016 .0 .0  
 BATCH# : 283  
 CASE# : SH 788

QUOTE# :  
 BANK# :  
 LO RESPONSABLE : BERNARDING  
 LOGGERS INITIALS : BM

SITE : COZZY ✓

DUE DATE : 12/13/88

RECEIPT DATE : 11/18/88

*due in NY 12-18*

BATCH COMMENTS : QA/QC ON #738 001 01; PEST=CLP PEST/PCB

T	T	C	T	B	P	V
1	2	N	S	N	E	O
M	M	-		A	S	A
				L	T	L

LAB # X	FIELD #	COM	MATRIX	LOCATION
61639	001 735001 01		WASTE	A 54
61640	001 738001 01		WASTE	A 54
61641	001 738001 01		WASTE	A 54

T T C T

B P

V

1  
 SAMPLE COMMENTS

NOT RECEIVED (2) RECEIVED BROKEN (3) LEAKING (4) MISLABELED (5) BLANK  
 VOA'S IN GCMS (7) SEE LO MGR. (8) HANDLE IN HOOD (9) SEE BATCH COMMENTS



**Versar**

EXTRACTS READY FOR ANALYSIS

DATE 11-22-88

PROJECT 6016

INCLUDE TASK AND SUBTASK

CASE SA 788

BATCH 283

DATE RECEIVED \_\_\_\_\_

DATE EXTRACTED 11-22-88

HOLDING TIME MET ? YES  NO \_\_\_\_\_

NUMBER OF EXTRACTS 2

NUMBER OF SAMPLES 1

RE-DONE EXTRACTION YES \_\_\_\_\_ NO

RE-EXTRACTION YES \_\_\_\_\_ NO  MATRIX Soil/Waste

LOCATION OF EXTRACTS Frag 5 PARAMETER BNA - Soil Screen

COPY OF EXTRACTION SHEETS ON FILE IN EXTRACTION LABORATORY YES  NO \_\_\_\_\_

ORIGINAL EXTRACTION SHEETS IN GC LAB YES  NO \_\_\_\_\_

ORIGINAL EXTRACTION SHEETS IN GC/MS LAB YES \_\_\_\_\_ NO

TECHNICIAN CR2 FIRST INITIAL AND FULL LAST NAME

EXTRACTION SHEETS REVIEWED BY SUPERVISOR J Monk

SAMPLE LABORATORY NUMBERS 61640, RB4067

COMMENTS \_\_\_\_\_



VERSAR INC.

SAMPLE PREPARATION COMMENT SHEET

PROJECT 6011

BATCH 284

CASE —

MATRIX Soil

PREPARATION PARAMETER BVA

VERSAR SAMPLE NUMBER	<i>Note: RB's shared w/6473 B:19. Vialcd in same Vial file.</i>
FIELD SAMPLE NUMBER	
SOIL SAMPLE pH	
VERSAR SAMPLE NUMBER	
FIELD SAMPLE NUMBER	
SOIL SAMPLE pH	
VERSAR SAMPLE NUMBER	
FIELD SAMPLE NUMBER	
SOIL SAMPLE pH	

Date :

Count : 0

CALIB TABLE (PART 1)

	Time	Amount	Peak Name	Typ	Std	Grp	Id	Wdw
1.	6.88	1.000000	PHENOL	R				
2.	12.65	1.000000	PHENATHRENE	R				
3.	15.91	1.000000	DI-N-OCTYL PHTHALATE	R				

RESPONSE FACTORS

	Peak#	Peak Name	Factor
1.	1	PHENOL	1.00000
2.	2	PHENATHRENE	1.00000
3.	3	DI-N-OCTYL PHTHALATE	1.00000

REPORT SPECIFICATION

Rpt Job : /DATA/LOOP/JOB/PLOT/IRSTEEMIE.JOB  
Fmt File : /FORMAT/PLOTFORMAT.FMT  
Rpt Units : AREA

REPORT DEVICES

Report Device Number Copies

1. L1 1

METHOD HEADER

Method : /METHOD/SCREEN2.MTH  
 Created : Fri Apr 8, 1988 1:17:05 pm  
 Updated : Tue Nov 27, 1988 11:04:13 am  
 Instrument : FIVE  
 Integrtr : GENIE  
 Calc Type : APCT  
 Mitlevel : NO

COMMENT & PLOT FIELDS

Comment 1 : 6483 8419 6016 84286 & 283 BNA SCREENS  
 Comment 2 : SPB-5 CAPILLARY COLUMN 30M  
 Comment 3 : FID DETECTOR  
 Comment 4 : 2.0 ul  
 Start Time : 0 Stop Time :  
 Min Area : Max Area :  
 Enlarge : Rt/PltName :  
 First/Last : PrinterCode : 2934thin

DATA INPUT

Run Time : 38.00 Number Of Peaks : 188  
 Delay Start : 0.00 Threshold : 1  
 Minimum Area : 1.00000E+04 Peak Width : .84000  
 Shoulders : NO Extended Peaks : NO  
 Solvent Slope : 1.0E+05 Split Solvent : 2.0E+04  
 % of Plates : 0.00

DATA ANALYSIS

Area Calc : YES

USER PROGRAMS

Post Run :  
 Dig Prog :  
 Para File :  
 Overlap : YES

PEAK IDENTIFICATION

Abs Ref Wdw : 0.000 % Ref Wdw : 5.000  
 Abs Non-Ref : 0.000 % Non-Ref : 5.000  
 Resp Factor Unkn : 1.00000 Suppress Unknown : NO  
 Minimum Id Level : 0.0 Unknown Standard :  
 Update Ret Times : YES % Update Times : 25.00  
 Use New Times : NO Dead Volume Time : 0.00

TIMED EVENTS

	Time	Event	Value	S/ECH	Relay & Update
1.	0.00	HI			NO
2.	1.50	HI-			NO

CALIBRATION FILE

File Name :

CALIBRATION DATE

Date :

Count : 0

CALIB TABLE (PART 1)

	Time	Amount	Peak Name	Typ	Std	Grp	Id	Wdw
1.	6.85	1.000000	PHENOL	R				
2.	12.65	1.000000	PHENATHRENE	R				
3.	15.95	1.000000	DI-N-OCTYL PHTHALATE	R				

RESPONSE FACTORS

	Peak#	Peak Name	Factor
1.	1	PHENOL	1.00000
2.	2	PHENATHRENE	1.00000
3.	3	DI-N-OCTYL PHTHALATE	1.00000

REPORT SPECIFICATION

Rpt Job : /DATA/LOOP/JOB/PLTFFIRSTGENIE.JOB

Fmt File : /FORMAT/PLTFFORMAT.FMT

Rpt Units : AREA

REPORT DEVICES

	Report Device	Number Copies
1.	L1	1

SEQUENCE HEADER

Sequence : /SEQUENCE/B112288BNA.SED  
 Created : Tue Nov 22, 1988 10:17:59 am  
 Updated : Tue Nov 22, 1988 10:33:26 am  
 Instrument : FIVE

SUBSEQUENCE HEADER

SUBSEQ # : 1  
 Method : /METHOD/SCREEN2.MTH  
 Dig-Prg :  
 Para File :

SAMPLER PARAMETERS

Number Washes : 5  
 Syringe Stop : 1  
 Post Bottle # : 50  
 Post Washes - #1 : 5  
 Number Pumps : 5  
 Start Oven : Yes  
 Post Washes - #1 : 5  
 Vol Ratio : 1.00000

SAMPLE SPECIFICATION

	Bt]	Sample	Dilution	Cal	%	Lvl
1.	1	A434 FIDMIX	100.00000	50.00	1	
2.	2	RB 4065	100.00000	50.00	1	
3.	3	RB 4066	100.00000	50.00	1	
4.	4	RB 4067	100.00000	50.00	1	
5.	5	61837	100.00000	50.00	1	
6.	6	61838	100.00000	50.00	1	
7.	7	61839	100.00000	50.00	1	
8.	8	61840	100.00000	50.00	1	
9.	9	61841	100.00000	50.00	1	
10.	10	61842	100.00000	50.00	1	
11.	11	61843	100.00000	50.00	1	
12.	12	61844	100.00000	50.00	1	
13.	13	61845	100.00000	50.00	1	
14.	14	61846	100.00000	50.00	1	
15.	15	61847	100.00000	50.00	1	
16.	16	61848	100.00000	50.00	1	
17.	17	61849	100.00000	50.00	1	
18.	18	61850	100.00000	50.00	1	
19.	19	61851	100.00000	50.00	1	
20.	20	61852	100.00000	50.00	1	
21.	21	61930	100.00000	50.00	1	
22.	22	61931	100.00000	50.00	1	
23.	23	61932	100.00000	50.00	1	
24.	24	61933	100.00000	50.00	1	
25.	25	61640	100.00000	50.00	1	
26.	26	A434 FIDMIX	100.00000	50.00	1	

RESULT FILE LIST

Result Files

1. /INSTRUMENT/FIVE/B112288BNA001.RES
2. /INSTRUMENT/FIVE/B112288BNA002.RES
3. /INSTRUMENT/FIVE/B112288BNA003.RES
4. /INSTRUMENT/FIVE/B112288BNA004.RES

5. /INSTRUMENT/FIVE/81122888NA005.RES
6. /INSTRUMENT/FIVE/81122888NA006.RES
7. /INSTRUMENT/FIVE/81122888NA007.RES
8. /INSTRUMENT/FIVE/81122888NA008.RES
9. /INSTRUMENT/FIVE/81122888NA009.RES
10. /INSTRUMENT/FIVE/81122888NA010.RES
11. /INSTRUMENT/FIVE/81122888NA011.RES
12. /INSTRUMENT/FIVE/81122888NA012.RES
13. /INSTRUMENT/FIVE/81122888NA013.RES
14. /INSTRUMENT/FIVE/81122888NA014.RES
15. /INSTRUMENT/FIVE/81122888NA015.RES
16. /INSTRUMENT/FIVE/81122888NA016.RES
17. /INSTRUMENT/FIVE/81122888NA017.RES
18. /INSTRUMENT/FIVE/81122888NA018.RES
19. /INSTRUMENT/FIVE/81122888NA019.RES
20. /INSTRUMENT/FIVE/81122888NA020.RES
21. /INSTRUMENT/FIVE/81122888NA021.RES
22. /INSTRUMENT/FIVE/81122888NA022.RES
23. /INSTRUMENT/FIVE/81122888NA023.RES
24. /INSTRUMENT/FIVE/81122888NA024.RES
25. /INSTRUMENT/FIVE/81122888NA025.RES
26. /INSTRUMENT/FIVE/81122888NA026.RES

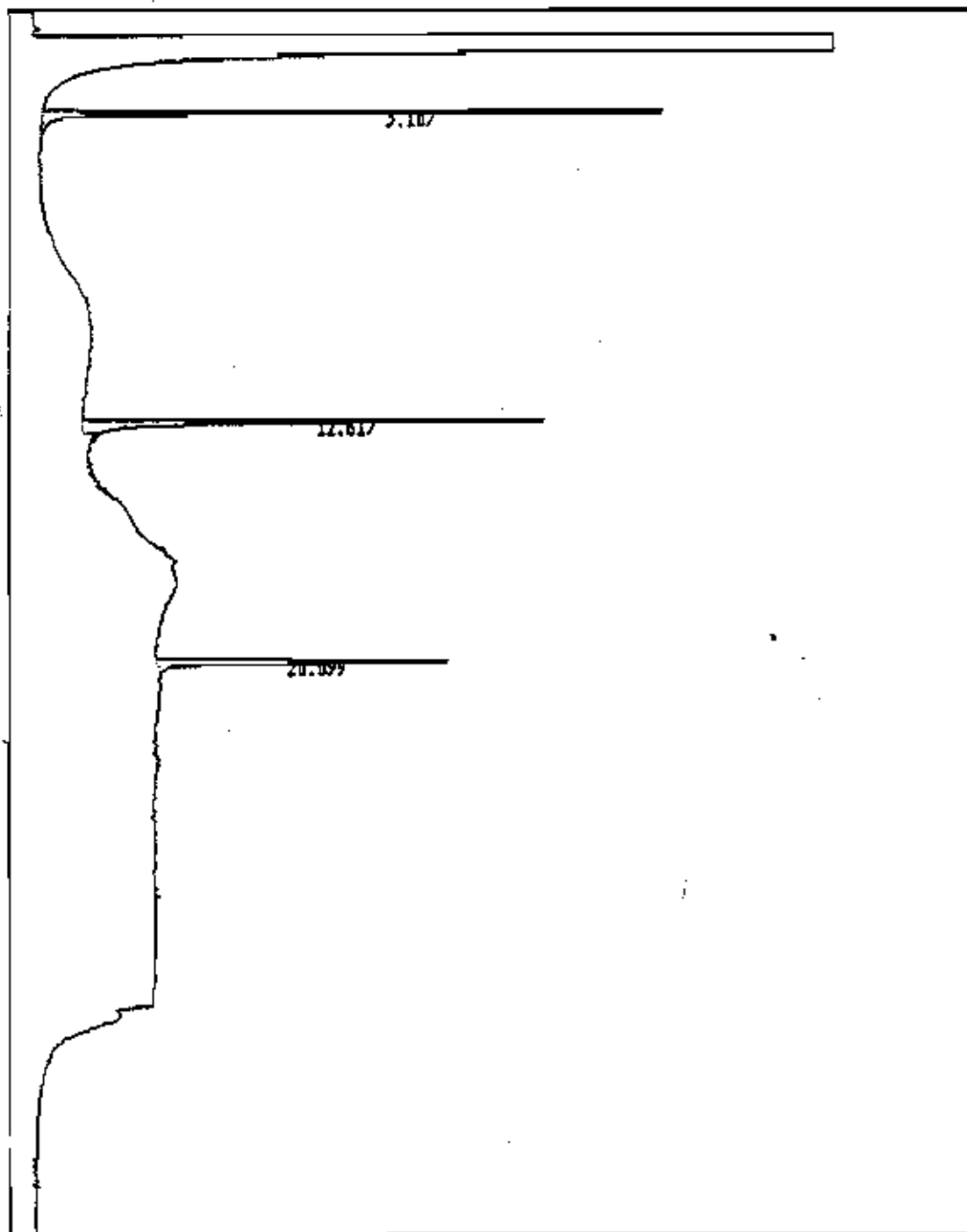


VERSOR GC LAB REPORT

6483 B919 6016 B9286 & 283 BNA SCREENS  
SPB-5 CAPILLARY COLUMN 30M  
FID DETECTOR

PK#	RT	Amplitude
1	3.11	9857
2	12.62	7795
3	20.10	3477

Sample Name : A434 FIDMIX  
Instrument : FIVE  
Result File : /INSTRUMENT/FIVE/B112288BNA001.RES  
Run Time : 38.02 Minutes Injected on 1547, 22Nov1988  
Report Time : 1626, 22Nov1988  
Method : /METHOD/SCREEN2.MTH  
Addn. Data :  
Amount Inj. : 2.0 ul



VERSAR GC LAB REPORT

Page 1

6483 B#19 6016 B#286 & 283 BNA SCREENS  
 SPB-5 CAPILLARY COLUMN 30M  
 FID DETECTOR

Amount Inj. : 2.0 ul  
 Sample Name : A434 FIDMIX  
 Instrument : FIUE Application : Loop  
 Calculation : Percentage Quantitation: AreaUnits  
 Result File : /INSTRUMENT/FIUE/B112288BNA001.RES  
 Run Time : 38.02 Minutes Injected on 1547, 22Nov1988  
 Report Time : 1626, 22Nov1988  
 Sequence File: /SEQUENCE/B112288BNA.SEQ  
 Method : /METHOD/SCREEN2.MTH  
 Subseq/Sample: 1/ 1 Bottle no. : 1  
 Run Status : SignalOverload  
 Timed Events Time Events  
 1 0.00 EndIntegrateAtBL  
 2 1.50 SetBLandIntegret

Pk#	RT	ID-tm	Factor	Area	Code	AREA	Name
1	3.11		1.00000	38317	BU	38.118	
2	12.62	*12.65	1.00000	37112	PV	36.920	PHENATHRENE
3	20.10		1.00000	25092	BU	24.962	

Total Area : 100520 Total AREA : 100.000

VERSAR GC LAB REPORT

6483 B419 6016 B4286 & 283 BNA SCREENS

SPB-5 CAPILLARY COLUMN 30M

FID DETECTOR

Sample Name : RB 4867

Instrument : FIVE

Result File : /INSTRUMENT/FIVE/B112288BNA004.RES

Run Time : 38.00 Minutes Injected on 1747, 22Nov1988

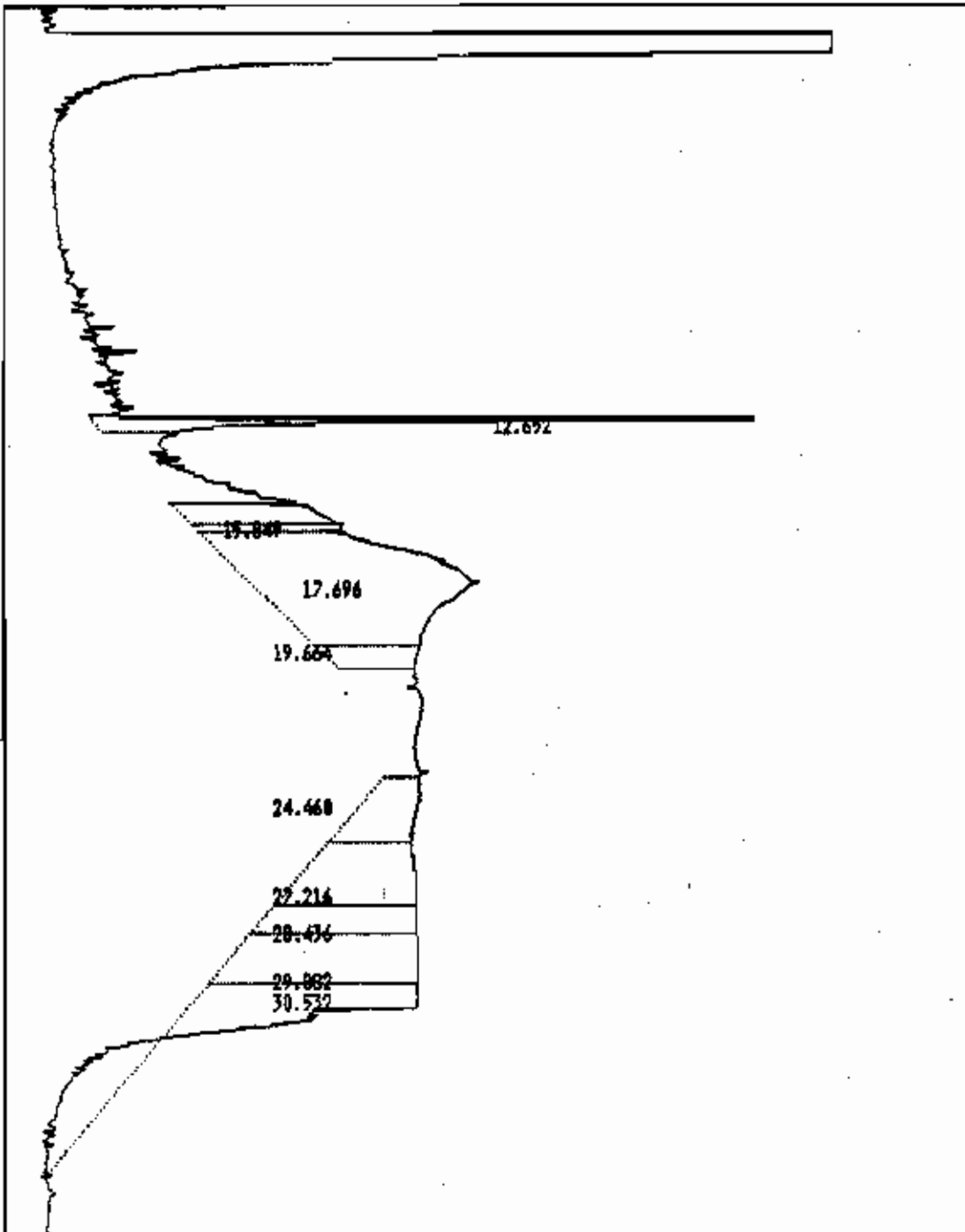
Report Time : 1826, 22Nov1988

Method : /METHOD/SCREEN2.MTH

Adm. Data :

Amount Inj. : 2.0 ul

PK#	RT	Amplitude
1	12.45	2569
2	15.85	496
3	17.70	792
4	19.66	362
5	24.46	199
6	27.22	431
7	28.44	545
8	29.88	684
9	30.53	747



UERSAR GC LAB REPORT

Page 1

6483 B#19 6016 B#286 & 283 BNA SCREENS

SPB-5 CAPILLARY COLUMN 30M

FID DETECTOR

Amount Inj. : 2.0 ul

Sample Name : RB 4067

Instrument : FIVE

Application : Loop

Calculation : Percentage

Quantitation: AreaUnits

Result File : /INSTRUMENT/FIVE/B112288BNA004.RES

Run Time : 38.00 Minutes Injected on 1747, 22Nov1988

Report Time : 1826, 22Nov1988

Sequence File: /SEQUENCE/B112288BNA.SEQ

Method : /METHOD/SCREEN2.MTH

Subseq/Sample: 1/ 4

Bottle no. : 4

Run Status : EndOffBaseline

SignalOverload

Timed Events	Time	Events
1	0.00	EndIntegrateAtBL
2	1.50	SetBLandIntegret

Pk#	RT	ID-tm	Factor	Area	Code	AREA	Name
1	12.65	#12.65	1.00000	21496	PU	6.159	PHENATHRENE
2	15.85	#15.95	1.00000	18484	UU	5.296	OI-H-OCTYL PHTHALATE
3	17.70		1.00000	124301	UU	35.613	
4	19.66		1.00000	13759	UU	3.942	
5	24.46		1.00000	24143	UU	6.917	
6	27.22		1.00000	44938	UU	12.875	
7	28.44		1.00000	26522	UU	7.599	
8	29.88		1.00000	58022	UU	16.624	
9	30.53		1.00000	17368	UU	4.976	

Total Area : 349033 Total AREA : 100.000

VERSAR GC LAB REPORT

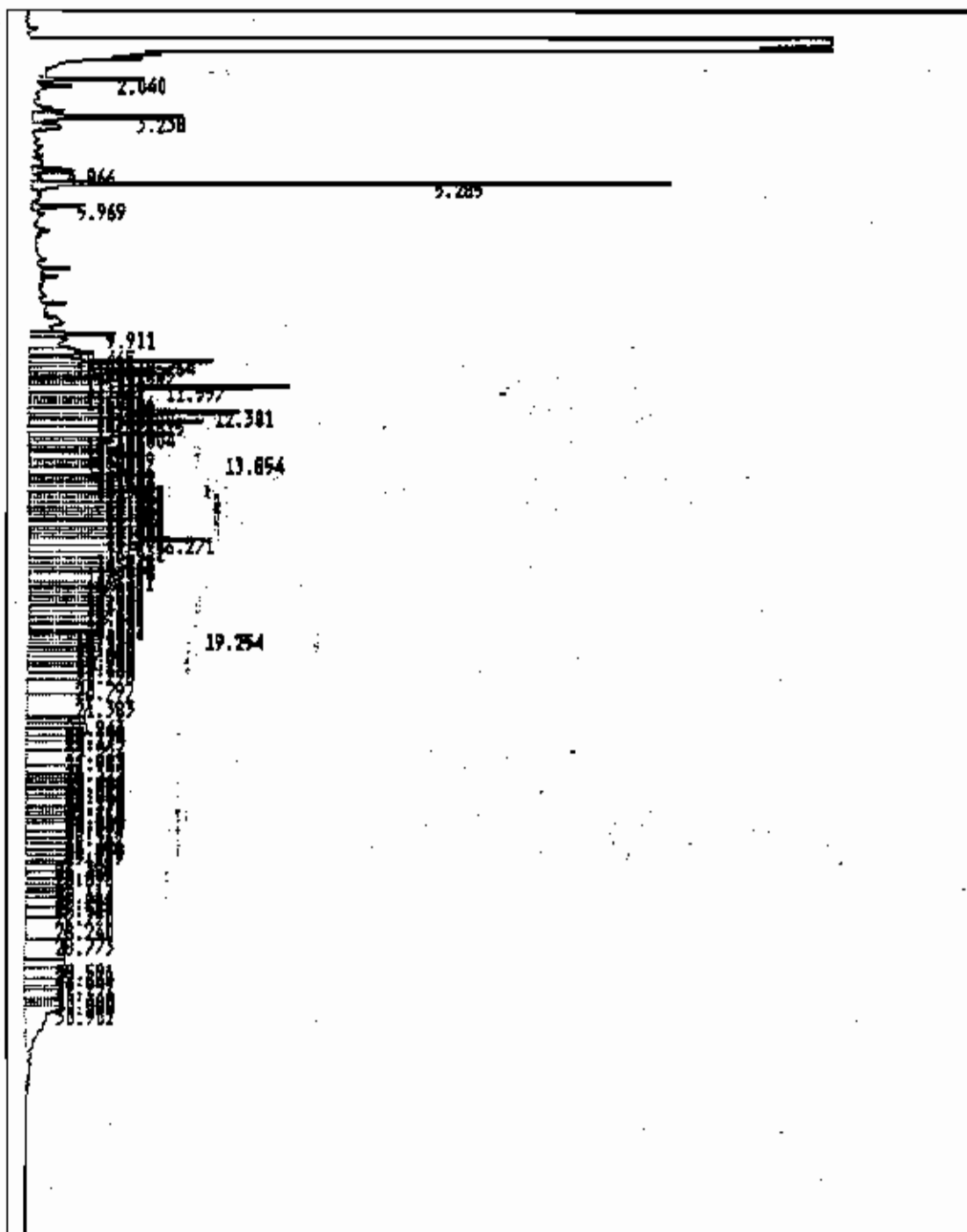
6483 B019 6016 B0286 & 283 BNA SCREENS

SPB-5 CAPILLARY COLUMN 30M

FID DETECTOR

Sample Name : 61640

94	22.72	2188
95	22.98	2279
96	23.33	2138
97	23.65	2801
98	23.73	1994
99	23.91	2139
100	24.07	2036
101	24.27	2894
102	24.37	1982
103	24.66	1921
104	24.81	1882
105	24.91	1894
106	24.97	1883
107	25.10	1844
108	25.36	1788
109	25.69	1788
110	25.76	1795
111	25.95	1769
112	26.32	1714
113	26.45	1733
114	26.64	1694
115	27.11	1666
116	27.28	1648
117	27.53	1621
118	27.79	1614
119	28.24	1784
120	28.77	1561
121	29.57	1536
122	29.69	1589
123	29.95	1493
124	30.17	1491
125	30.40	1512
126	30.57	1474
127	30.90	1529



VERSAR GC LAB REPORT

648J 8419 6016 84286 & 283 8MA SCREENS

SPB-5 CAPILLARY COLUMN 30M

FID DETECTOR

Sample Name : 61640

43	14.56	4237
44	14.69	4836
45	14.76	4793
46	14.81	4798
47	14.91	4919
48	15.06	4655
49	15.14	5283
50	15.30	4843
51	15.46	4385
52	15.53	4810
53	15.66	4620
54	15.71	4489
55	15.79	4789
56	15.96	4395
57	16.06	4307
58	16.16	4341
59	16.27	7817
60	16.53	4482
61	16.78	3988
62	16.87	3800
63	17.08	3923
64	17.15	3839
65	17.25	3419
66	17.43	3799
67	17.64	3446
68	17.71	3511
69	17.83	3330
70	17.90	3269
71	18.03	3245
72	18.09	3289
73	18.19	3335
74	18.48	3375
75	18.54	3297
76	18.80	3210
77	18.93	3040
78	19.10	2916
79	19.22	2958
80	19.25	2892
81	19.38	2864
82	19.49	2818
83	19.62	2858
84	19.79	2886
85	19.92	2736
86	20.11	2608
87	20.30	2653
88	20.80	2596
89	21.38	2491
90	21.94	2308
91	22.16	2369
92	22.21	2377
93	22.37	2228

VERSAR GC LAB REPORT

6483 B919 6016 B9286 & 283 BNA SCREENS

SPB-5 CAPILLARY COLUMN 30M

FID DETECTOR

Sample Name : 61640

Instrument : FIVE

Result File : \INSTRUMENT\FIVE\81122888BNA025.RES

Run Time : 38.80 Minutes Injected on 754, 23Nov1988

Report Time : 834, 23Nov1988

Method : \METHOD\SCREEN2.MTH

Adm. Data :

Amount Inj. : 2.0 ul

Pk#	RT	Amplitude
1	2.04	5435
2	3.24	7669
3	4.87	2361
4	5.29	32159
5	5.97	2521
6	9.91	6405
7	10.47	2757
8	10.76	9923
9	10.85	2559
10	10.97	6105
11	11.16	5651
12	11.27	3599
13	11.33	3866
14	11.45	3554
15	11.56	15339
16	11.75	3354
17	11.83	3474
18	11.90	4818
19	12.03	4138
20	12.11	4301
21	12.19	3771
22	12.30	11865
23	12.38	5813
24	12.62	9079
25	12.75	3656
26	12.81	3696
27	13.08	6788
28	13.15	3223
29	13.29	3094
30	13.43	3491
31	13.50	3454
32	13.57	5359
33	13.67	4642
34	13.80	7224
35	13.85	3198
36	13.94	3551
37	13.99	3360
38	14.18	4011
39	14.25	4021
40	14.31	4463
41	14.37	3745
42	14.46	3842

VERSAR GC LAB REPORT

6483 B#19 6016 B#286 & 283 BNA SCREENS

SPB-5 CAPILLARY COLUMN 30M

FID DETECTOR

Amount Inj. : 2.0 ul

Sample Name : 61640

83	19.62	1.00000	10500 UU	.306
84	19.79	1.00000	27609 UU	.804
85	19.92	1.00000	30095 UU	.876
86	20.11	1.00000	14801 UU	.431
87	20.30	1.00000	37910 UU	1.104
88	20.80	1.00000	66616 UU	1.940
89	21.38	1.00000	100078 UU	2.914
90	21.94	1.00000	13691 UU	.399
91	22.16	1.00000	27493 UU	.801
92	22.21	1.00000	23122 UU	.673
93	22.37	1.00000	22668 UU	.660
94	22.72	1.00000	32926 UU	.959
95	22.98	1.00000	61031 UU	1.777
96	23.33	1.00000	30083 UU	.876
97	23.65	1.00000	11246 UU	.327
98	23.73	1.00000	12770 UU	.372
99	23.90	1.00000	20298 UU	.591
100	24.07	1.00000	19237 UU	.560
101	24.27	1.00000	18789 UU	.547
102	24.37	1.00000	23095 UU	.672
103	24.66	1.00000	11036 UU	.321
104	24.81	1.00000	12836 UU	.374
105	24.91	1.00000	10566 UU	.308
106	24.97	1.00000	15576 UU	.454
107	25.10	1.00000	26242 UU	.764
108	25.36	1.00000	23152 UU	.674
109	25.69	1.00000	18470 UU	.538
110	25.76	1.00000	22689 UU	.661
111	25.95	1.00000	19774 UU	.576
112	26.32	1.00000	14700 UU	.428
113	26.45	1.00000	22284 UU	.649
114	26.64	1.00000	24332 UU	.708
115	27.11	1.00000	10503 UU	.306
116	27.28	1.00000	18030 UU	.525
117	27.53	1.00000	22672 UU	.660
118	27.79	1.00000	32502 UU	.946
119	28.24	1.00000	69608 UU	2.027
120	28.77	1.00000	57915 UU	1.686
121	29.52	1.00000	17985 UU	.524
122	29.69	1.00000	30784 UU	.896
123	29.95	1.00000	19108 UU	.556
124	30.17	1.00000	10339 UU	.301
125	30.40	1.00000	23946 UU	.697
126	30.57	1.00000	11406 UU	.332
127	30.90	1.00000	60850 UU	1.772

Total Area : 3434381

Total AREA : 100.000



VERSAR GC LAB REPORT

6483 B#19 6016 B#286 & 283 BNA SCREENS  
 SPB-5 CAPILLARY COLUMN 30M  
 FID DETECTOR

Amount Inj. : 2.0 ul

Sample Name : 61640

34	13.80	1.00000	17370	UU	.506	
35	13.85	1.00000	10404	UU	.303	
36	13.94	1.00000	16877	UU	.491	
37	13.99	1.00000	10767	UU	.313	
38	14.18	1.00000	39911	UU	1.159	
39	14.25	1.00000	13389	UU	.390	
40	14.31	1.00000	17623	UU	.513	
41	14.37	1.00000	17479	UU	.509	
42	14.46	1.00000	13711	UU	.399	
43	14.56	1.00000	25888	UU	.754	
44	14.69	1.00000	35122	UU	1.023	
45	14.76	1.00000	13596	UU	.396	
46	14.81	1.00000	18357	UU	.534	
47	14.91	1.00000	26453	UU	.770	
48	15.06	1.00000	34895	UU	1.016	
49	15.14	1.00000	49158	UU	1.431	
50	15.30	1.00000	40268	UU	1.172	
51	15.46	1.00000	19905	UU	.580	
52	15.53	1.00000	29553	UU	.860	
53	15.66	1.00000	18290	UU	.533	
54	15.71	1.00000	12422	UU	.362	
55	15.79	1.00000	47440	UU	1.381	
56	15.96	1.00000	29555	UU	.861	
57	16.06	1.00000	22281	UU	.649	
58	16.16	1.00000	20573	UU	.599	
59	16.27	*15.95	77898	UU	2.268	DI-N-OCTYL PHTHALATE
60	16.53	1.00000	49126	UU	1.430	
61	16.78	1.00000	44297	UU	1.290	
62	16.87	1.00000	29085	UU	.847	
63	17.08	1.00000	35352	UU	1.029	
64	17.15	1.00000	19614	UU	.571	
65	17.25	1.00000	10148	UU	.295	
66	17.43	1.00000	63471	UU	1.848	
67	17.64	1.00000	14453	UU	.421	
68	17.71	1.00000	12736	UU	.371	
69	17.83	1.00000	14671	UU	.427	
70	17.90	1.00000	24076	UU	.701	
71	18.03	1.00000	11284	UU	.329	
72	18.09	1.00000	21235	UU	.618	
73	18.19	1.00000	21648	UU	.630	
74	18.48	1.00000	34653	UU	1.009	
75	18.54	1.00000	34680	UU	1.010	
76	18.80	1.00000	28859	UU	.840	
77	18.93	1.00000	27585	UU	.803	
78	19.10	1.00000	11089	UU	.323	
79	19.22	1.00000	10393	UU	.303	
80	19.25	1.00000	19701	UU	.574	
81	19.38	1.00000	19560	UU	.570	
82	19.49	1.00000	18807	UU	.548	

VERSAR GC LAB REPORT

6483 B#19 6016 B#286 & 283 BNA SCREEN8  
 SPB-5 CAPILLARY COLUMN 30M  
 FID DETECTOR

Amount Inj. : 2.0 ul  
 Sample Name : 61640  
 Instrument : FIVE  
 Calculation : Percentage  
 Result File : /INSTRUMENT/FIVE/B112288BNA025.RES  
 Run Time : 38.00 Minutes Injected on 754, 23Nov1988  
 Report Time : 833, 23Nov1988  
 Sequence File: /SEQUENCE/B112288BNA.SEQ  
 Method : /METHOD/SCREEN2.MTH  
 Subseq/Sample: 1/ 25  
 Run Status : EndOffBaseline  
 SignalOverload

Application : Loop

Quantitation: AreaUnits

Bottle no. : 25

Timed Events      Time      Events  
 1                  0.00      EndIntegrateAtBL  
 2                  1.50      SetBLandIntegret

PK#	RT	ID-tm	Factor	Area	Code	AREA	Name
1	2.04		1.00000	16759	UU	.488	
2	3.24		1.00000	46136	UU	1.343	
3	4.87		1.00000	11005	UU	.320	
4	5.29		1.00000	117393	UU	3.418	
5	5.97		1.00000	12541	UU	.365	
6	9.91		1.00000	19003	UU	.593	
7	10.47		1.00000	25223	UU	.734	
8	10.76		1.00000	42444	UU	1.236	
9	10.85		1.00000	10444	UU	.304	
10	10.97		1.00000	34139	UU	.994	
11	11.16		1.00000	30128	UU	.877	
12	11.27		1.00000	10634	UU	.310	
13	11.33		1.00000	16843	UU	.490	
14	11.45		1.00000	20354	UU	.593	
15	11.56		1.00000	87221	UU	2.548	
16	11.75		1.00000	11197	UU	.326	
17	11.83		1.00000	15841	UU	.461	
18	11.90		1.00000	22946	UU	.668	
19	12.03		1.00000	29966	UU	.873	
20	12.11		1.00000	21226	UU	.618	
21	12.19		1.00000	15923	UU	.464	
22	12.30		1.00000	46942	UU	1.367	
23	12.38		1.00000	35431	UU	1.032	
24	12.62	*12.65	1.00000	59178	UU	1.723	PHENATHRENE
25	12.75		1.00000	11248	UU	.328	
26	12.81		1.00000	29264	UU	.852	
27	13.00		1.00000	46078	UU	1.342	
28	13.15		1.00000	20637	UU	.601	
29	13.29		1.00000	23088	UU	.672	
30	13.43		1.00000	21506	UU	.626	
31	13.50		1.00000	13647	UU	.397	
32	13.57		1.00000	13492	UU	.393	
33	13.67		1.00000	29543	UU	.860	

VERSAR GC LAB REPORT

6483 B#19 6016 B#286 & 283 BNA SCREENS

1-5 CAPILLARY COLUMN 30M

FID DETECTOR

Sample Name : A434 FIDMIX

Instrument : FIVE

Result File : /INSTRUMENT/FIVE/B112288BNA026.RES

Run Time : 38.80 Minutes Injected on 835, 23Nov1988

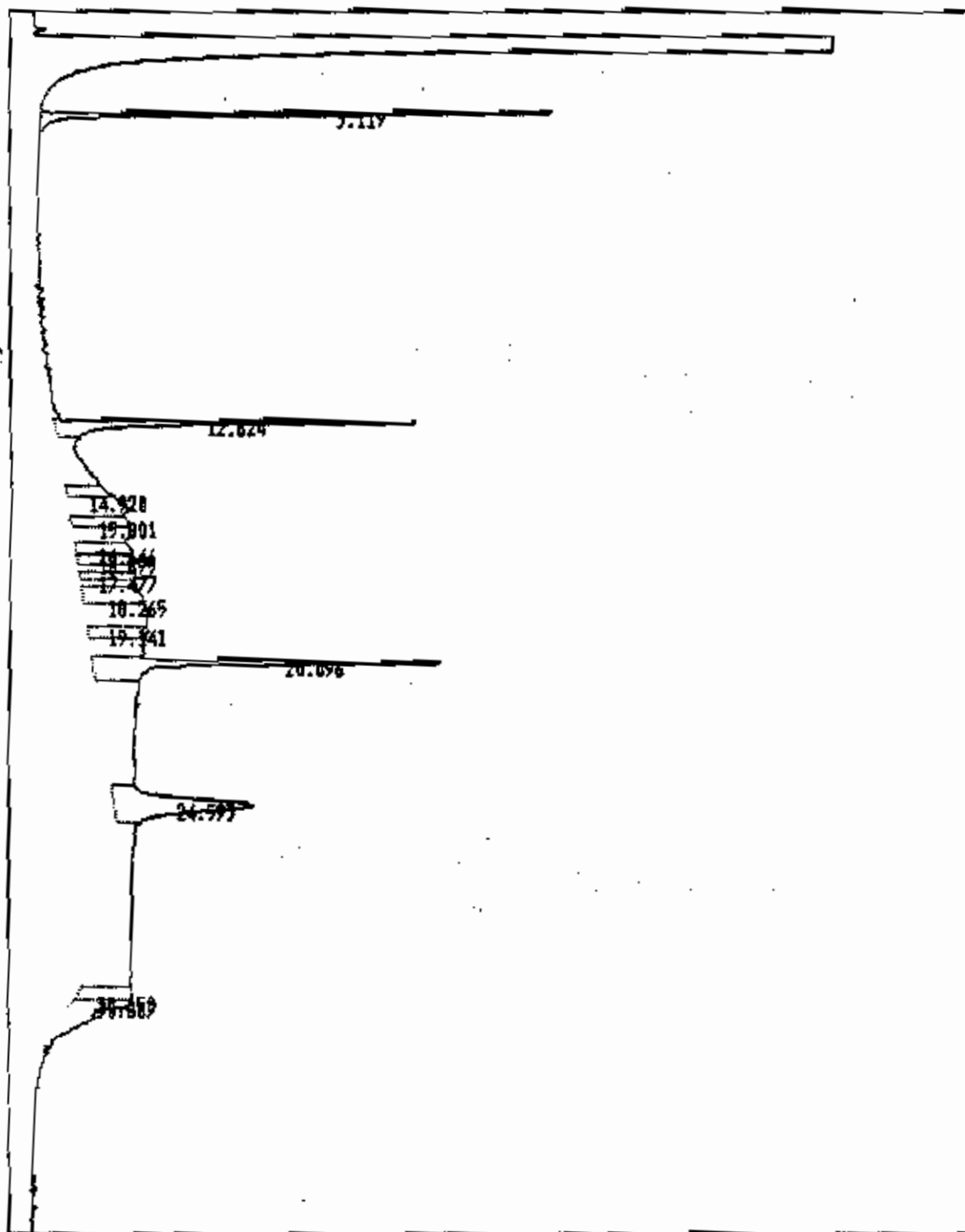
Report Time : 914, 23Nov1988

Method : METHOD/SCREEN2.MTH

Add. Data :

Amount Inj. : 2.8 ul

PK#	RT	Amplitude
1	3.12	9989
2	12.62	8182
3	14.92	623
4	15.80	739
5	16.65	708
6	16.90	783
7	17.48	717
8	18.26	775
9	19.14	753
10	20.18	6588
11	24.59	1819
12	38.65	685
13	30.81	728



VERSAR GC LAB REPORT

6483 B#19 6016 B#286 & 283 BNA SCREENS  
 SPB-5 CAPILLARY COLUMN 30M  
 FID DETECTOR

Amount Inj. : 2.0 ul  
 Sample Name : A434 FIDMIX  
 Instrument : FIVE  
 Calculation : Percentage  
 Result File : /INSTRUMENT/FIVE/B112288BNA026.RES  
 Run Time : 38.00 Minutes  
 Report Time : 914, 23Nov1988  
 Sequence File: /SEQUENCE/B112288BNA.SEQ  
 Method : /METHOD/SCREEN2.MTH  
 Subseq/Sample: 1/ 26  
 Run Status : EndOffBaseline  
 SignalOverload

Application : Loop  
 Quantitation: AreaUnits  
 Injected on 835, 23Nov1988  
 Bottle no. : 26

Timed Events

Time	Events
0.00	EndIntegrateAtBL
1.50	SetBLandIntegret

Pk#	RT	ID-tm	Fector	Area	Code	AREA	Name
1	3.12		1.00000	41930	BB	12.803	
2	12.62	#12.65	1.00000	44062	UU	13.454	PHENATHRENE
3	14.92		1.00000	10337	UU	3.156	
4	15.80		1.00000	14955	UU	4.567	
5	16.65	#15.95	1.00000	15369	UU	4.693	DI-N-OCTYL PHTHALATE
6	16.90		1.00000	11137	UU	3.401	
7	17.40		1.00000	10500	UU	3.206	
8	18.26		1.00000	23242	UU	7.097	
9	19.14		1.00000	16766	UU	5.119	
10	20.10		1.00000	56012	UU	17.103	
11	24.59		1.00000	55826	UU	17.046	
12	30.65		1.00000	15223	UU	4.648	
13	30.81		1.00000	12140	UU	3.707	

Total Area : 327499 Total AREA : 100.000

VERSAR INC.

SAMPLE PREPARATION COMMENT SHEET

PROJECT 6016

BATCH 283

CASE SH788

MATRIX Soil/Waste

PREPARATION PARAMETER DNAL, PEST

VERSAR SAMPLE NUMBER 61640	Two (2) phase waste sample; soil-like solid covered by dark - black/purple - liquid. (CR) 11-22-80
FIELD SAMPLE NUMBER 001 7830010	
SOIL SAMPLE pH 6.75	
VERSAR SAMPLE NUMBER	
FIELD SAMPLE NUMBER	
SOIL SAMPLE pH	
VERSAR SAMPLE NUMBER	
FIELD SAMPLE NUMBER	
SOIL SAMPLE pH	



EXTRACTS READY FOR ANALYSIS

DATE 11/28/88

PROJECT 6016

INCLUDE TASK AND SUBTASK

CASE 54738

BATCH 283

DATE RECEIVED 11/18/88

DATE EXTRACTED 11/28/88

HOLDING TIME MET ? YES  NO

NUMBER OF EXTRACTS 6

NUMBER OF SAMPLES 1

RE-DONE EXTRACTION YES

NO

RE-EXTRACTION YES

NO

MATRIX Mid Soil

LOCATION OF EXTRACTS 2

PARAMETER BNA

BNAL  
EXC

COPY OF EXTRACTION SHEETS ON FILE IN EXTRACTION LABORATORY YES  NO

ORIGINAL EXTRACTION SHEETS IN GC LAB YES

NO

ORIGINAL EXTRACTION SHEETS IN GC/MS LAB YES

NO

TECHNICIAN C. West FIRST INITIAL AND FULL LAST NAME

EXTRACTION SHEETS REVIEWED BY SUPERVISOR C. West IV

SAMPLE LABORATORY NUMBERS 61640 + QC

COMMENTS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



VERSAR INC.

SOIL DRY WEIGHT FACTOR SHEET

PROJECT 6016

CASE SH 788

BATCH 283

DATE 11-22-88

ANALYET CR

VERSAR SAMPLE #	FIELD SAMPLE #	TRAY WEIGHT	TRAY + NET WET WEIGHT	TRAY + NET DRY WEIGHT	% MOISTURE	DRY WEIGHT FACTOR
61640	01	1.00g	5.95	4.95	27.7	1.4
<del>CR</del>	<del>CR</del>	<del>CR</del>	<del>CR</del>	<del>CR</del>	EG	EG
<del>11-22-88</del>	<del>11-22-88</del>	<del>11-22-88</del>	<del>11-22-88</del>	<del>11-22-88</del>	<del>11-22-88</del>	<del>11-22-88</del>

\* MOISTURE = [(NET WET WEIGHT - NET DRY WEIGHT)/NET WET WEIGHT] \* 100

DWF = NET WET WEIGHT/NET DRY WEIGHT





METHOD IN  
 FILE 10059-00000000  
 FILE 10059-00000000

INSTRUMENT LOG

Y3582.MSD

Filename	AICII Filename	Screen ID	Method	Case	SDB	Field Sample ID	Level	Matrix	Sample No.	Veror	Frac.	Type	Project Batch	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.
Y1580	X	31	-	-	-	BFB 50mg	L	M-OH	500 10059					-	-	-	25ml	-	-
Y3581	X	31	-	-	-	BFB 50mg	L	M-OH	500 10059					-	-	-	25ml	-	-
Y3582		31	-	-	-	BFB 50mg	L	M-OH	500 10059					-	-	-	25ml	-	-
Y3583	Y3581A	31	CLP	-	-	4774 V3580	L	S	10059	V				-	-	-	25ml	-	10059
Y3584	X	31	CLP	-	-	VBLK84	L	S	VBLK84	V				-	-	-	25ml	-	10059
Y3585		31	CLP	-	-	VBLK85	L	S	VBLK85	V				-	-	-	25ml	-	10059
Y3586		31	CLP	10059	AM 650	L-LO3	L	S	6153/A	V			10059	-	-	-	25ml	-	10059
Y3587		31	CLP	10059	AM 650	AM653KE	L	S	6153/RE	V			5062	-	-	-	25ml	-	10059
Y3588		31	CLP	10059	AM 650	AM654MS	L	S	6153/MS	V			5062	-	-	-	25ml	-	10059
Y3589		31	CLP	10059	AM 650	AM655MSB	L	S	6153/MSB	V			5062	-	-	-	25ml	-	10059
Y3590		31	CLP	10059	AM 650	AL658D1C	L	S	6153/D1C	V			5062	-	-	-	25ml	1/3	10059

X 10059-00000000 500 10059

Analyst Signature: *C. P. Fitzgerald*

Date: *April 23, 2001*

000015

VERSAR, INC.  
 GCMS INSTRUMENT ID Y  
 DATE 11-14-93

INJECTION LOG

Y3592X  
 BSW, 76532

Filename	ASCI I Filename	Stream ID	Method	Case	30G	Fluid Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Exl. Purged	Vol. Purged	Final Dil.	IS No.	
Y3592						5043 200	L	S	STD1507								2ul			
Y3593			CLP			1510 50	L	S	STD1625								5ul			16165
Y3594						6510 200	L	S	STD1644								5ul			
Y3595						4510 150	L	S	STD1642								5ul			
Y3596						6510 100	L	S	STD1643								5ul			
Y3597						6510 20	L	S	STD1642								5ul			
Y3598						113-11 98	L	S	V201								5ul			
Y3599				6016		105-11 94	M	S	V13-11								5ul			
Y3600	X			6016	253	0017382101	M	S	61641					5ul	5ul	1ul	5ul	5ul	1000	
Y3601				6016	6	0017382101	M	S	61641					5ul	5ul	5ul	5ul	5ul	100	

Analyst Signature [Signature] Date 11-14-93

INJECTION LOG

VERSAR, INC.  
 GCMS INSTRUMENT ID Y  
 DATE 11-24-88

Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Sample No.	Frac.	Type	Project Batch	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.
Y3606		31	CLP	-	-	BFB50M	L	S	510 15522	-	-	-	-	-	-	2ul	-	-
Y3607	Y3513A	31	CLP	-	-	VST0SD	L	S	510 16137	V	CL 350	-	-	-	-	5ul	-	16165
Y3608		31	CLP	-	-	VALK08	L	S	VALK08	V	Blank	-	-	-	-	5ul	-	16165
Y3609		31	CLP	-	-	VALK09	M	S	VALK09	V	Blank	-	-	-	-	5ul	-	16165
Y3610		31	CLP	6016	-	00178001012W	M	S	61641MS	V	-	6016 283	-	-	10-2 160A	5ul	1/100	16165
Y3611		31	CLP	6016	-	00178001012W	M	S	61641MS	V	-	6016 183	-	-	10-2 160A	5ul	1/100	16165
Y3612		31	CLP	996B	-	MCS3	L	S	62016	V	-	996B 1	-	-	-	5ul	1/1	16165
Y3613		31	CLP	996B	-	MCS7	L	S	62020	V	-	996B 1	-	-	-	5ul	1/1	16165
Y3614		31	CLP	996B	-	MCS5	L	S	62021	V	-	996B 1	-	-	-	5ul	1/1	16165
Y3615		31	CLP	996B	-	MCS9	L	S	62022	V	-	996B 1	-	-	-	5ul	1/1	16165
Y3616		31	CLP	996B	-	MCS10	L	S	62023	V	-	996B 1	-	-	-	5ul	1/1	16165
Y3617		31	CLP	996B	-	MCS11	L	S	62001	V	-	996B 1	-	-	-	5ul	1/1	16165
Y3618		31	CLP	996B	-	MCS12	L	S	62005	V	-	996B 1	-	-	-	5ul	1/1	16165
Y3619		31	CLP	996B	-	MCS13	L	S	62006	V	-	996B 1	-	-	-	5ul	1/1	16165

Analyst Signature [Signature] Date Nov 24, 1988

\* Splited with 5ul of MS STD 1685

VERSAR, INC.  
GCMS INSTRUMENT ID V  
DATE 12-01-88

INJECTION LOG

File Name	ASCL1 File Name	Stream ID	Method	Case	SDB	Field Sample ID	Level	Matrix	Versar Sample No.	Fraction	Type	Project Batch	Ext. Comb. Vol.	Final Vol.	15 Vol.	15 No.	B Factor
V2296		51				50mg DFIPP			13691			mult @ 1015					
V2297		51	CLP /SAMS			SSTD50			16297	B	CC						
V2298		51				50mg DFIPP			13691	B		mult @ 1450					
V2299	V20192A1	51	SP /SAMS			SSTD50			16297	B	CC	TCA-1B					
V2300		51	CLP /SAMS			SSTD160			16294	B	IC						
V2301		51	CLP /SAMS			SSTD120			16295	B	IC						
V2302		51	CLP /SAMS			SSTD80			16296	B	IC						
V2303		51	CLP /SAMS			SSTD20			116298	B	IC						
V2304		51	CLP /SAMS			AB8001	M	S	61469	B		6483 15	1ml 0.4ml	0.4ml	4ul	13406	
V2305		51	CLP /SAMS			AB8001 MS	M	S	61469 MS	B	MS	6483 15	1ml 0.4ml	0.4ml	4ul	13406	
V2306		51	CLP /SAMS			AB8001 MSD	M	S	61469 MSD	B	MS	6483 15	1ml 0.4ml	0.4ml	4ul	13406	
V2307		51	CLP /SAMS			SLAB8101 DL	M	S	61001 DL	B		6483 11	1ml 0.2ml	0.6ml	1/3	6ul	13406
V2308		51	CLP /SAMS			AB8401 DL	M	S	61296 DL	B		6483 13	1ml 0.1ml	0.4ml	1/4	4ul	13406
V2309		51	CLP /SAMS			AB8602 DL	M	S	61336 DL	B		6483 14	1ml 0.2ml	0.4ml	1/2	4ul	13406

Analyst Signature Scott D. Schoffeleers Date 12-01-88

000039

DATE

12-06-88

Filename	ASCII Filename	Stream ID	Method	Case	SD6	Field Sample ID	Level	Matrix	Versar Sample No.	Fraction	Type	Project	Match	Ext. Vol.	Comb. Vol.	Final Vol.	Dil.	IS Vol.	IS No.	B Factor	
V2321		52				5000 DRIPP			12332												
V2330		52	CLP			551050			16297	B	CC	6983	18								
V2331	V20683M	52	CLP			SRGN1602	L	W	61725	B		6983	18	1ml	0.3ml	0.6ml		6ml	13406		
V2332		52	CLP			SRGN1602D	L	W	61726	B		6983	18	1ml	0.3ml	0.6ml		6ml	13406		
V2333	V20683M	52	CLP			SBLK91	M	S	RB4091	B	Blank	6016	283	1ml	0.4ml	0.4ml		4ml	13406		
V2334	V20683M	52	CLP			SBLK97	M	S	RB4097	P	Blank	6016	286	1ml	0.4ml	0.4ml		4ml	13406		
V2335		52	CLP			SBLK73	L	W	RB4073	B	Blank	6016	286	1ml	0.3ml	0.6ml		6ml	13406		
V2336		52	CLP			LOT 17	L	W	61885	B		6016	286	1ml	0.3ml	0.6ml		6ml	13406		
V2337		52	CLP			LOT 17 MSD	L	W	61885MS	B	MS	6016	286	1ml	0.3ml	0.6ml		6ml	13406		
V2338		52	CLP			LOT 17 MSD	L	W	61885MSD	B	MSD	6016	286	1ml	0.3ml	0.6ml		6ml	13406		
V2339		52	CLP			LOT 18	L	W	61886	B		6016	286	1ml	0.3ml	0.6ml		6ml	13406		
V2340		52	CLP			LOT 6	M	S	61842	B		6016	286	1ml	0.4ml	0.4ml		4ml	13406		
V2341		52	CLP			LOT 6 MS	M	S	61842MS	B	MS	6016	286	1ml	0.4ml	0.4ml		4ml	13406		
V2342		52	CLP			LOT 6 MSD	M	S	61842MSD	B	MSD	6016	286	1ml	0.4ml	0.4ml		4ml	13406		
V2343		52	CLP			LOT 9	M	S	61845	B		6016	286	1ml	0.4ml	0.4ml		4ml	13406		
V2344	V20683M	52	CLP			001738001 OI	M	S	6016+O	B		6016	283	1ml	0.4ml	0.4ml		4ml	13406		

Analyst Signature *Greg P. Schaeffer* Date 12-06-88

000042

OSAR, INC.  
 MS INSTRUMENT ID V  
 12-7-88

11-11-88

Filename	ASCI File Name	Stream ID	Method	Case	SO6	Field Sample ID	Level	Matrix	Versar Sample No.	Fraction	Type	Project	Batch	Ext. Vol.	Comb. Vol.	Final Vol.	Dil.	IS Vol.	IS No.	B Factor	
12352	V120658	52				SODG DF77			52016071	HFT	1459										
12353	V120659	52				SS7D50			52016071	B	14										
12357	V120660	52				00173801 OIMS	M	S	60110	B	MS	60110	283	1ml	0.4ml	0.4ml		4jul	13406		
12358	V120661	52	CLP	✓		00173801 OIMSD	M	S	60110	B	MSD	60110	283	1ml	0.4ml	0.4ml		4jul	13406		
12359	V120662	52	CLP	✓		SBK14	L	W	KB4114	B	Blank	5201	4	1ml	0.3ml	0.6ml		6jul	13406		
12360	V120663	52	CLP			SER BLANK	L	W	62417	B	-	5201	4	1ml	0.3ml	0.6ml		6jul	13406		
12361	V120664	52	CLP			TYR GW 2	L	W	62425	B	-	5201	4	1ml	0.3ml	0.6ml		6jul	13406		
12362	V120665	52	CLP			TYR GW 3	L	W	62426	B	-	5201	4	1ml	0.3ml	0.6ml		6jul	13406		
12363	V120666	52	CLP			TYR GW 4	L	W	62427	B	-	5201	4	1ml	0.3ml	0.6ml		6jul	13406		
12364	V120667	52	CLP			SER GW 1	L	W	62418	B	-	5201	4	1ml	0.3ml	0.6ml		6jul	13406		
12365	V120668	52	CLP			SER GW 2	L	W	62419	B	-	5201	4	1ml	0.3ml	0.6ml		6jul	13406		
12366	V120669	52	CLP			QGW 3	L	W	62421	B	-	5201	4	1ml	0.3ml	0.6ml		6jul	13406		
12367	V120670	52	CLP			QGW 4	L	W	62422	B	-	5201	4	1ml	0.3ml	0.6ml		6jul	13406		
12368	V120671	52	CLP			TYR BLANK	L	W	62423	B	-	5201	4	1ml	0.3ml	0.6ml		6jul	13406		
12369	V120672	52	CLP			TYR GW 1	L	W	62424	B	-	5201	4	1ml	0.3ml	0.6ml		6jul	13406		

Analyst Signature April P. Schmalzer Date 12-07-88

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