R3574 - R3580

U.S. ENVIRONMENTAL PROTECTION AGENCY • CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 • 703/557-2490

Sample Number
R3574

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: VERSAR INC.
Lab Sample ID No: 5514
Sample Matrix: LOW LEVEL AQUEOUS
Data Release Authorized By:

Case No: 2427
QC Report No: 2427
Contract No.: 68-01-6756 (824) - 68-01-6757 (825)
Date Sample Received: 2-17-84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-17-84
DATE ANALYZED: 3-10-84
PERCENT MOISTURE: NA
CONC./DILUTION FACTOR: MEDIUM

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10 u
(22A)	59-50-7	p-chloro-m-cresol	10 u
(26A)	95-57-8	2-chlorophenol	10 u
(31A)	120-83-2	2,4-dichlorophenol	10 u
(34A)	105-67-9	2,4-dimethylphenol	10 u
(57A)	88-75-5	2-nitrophenol	20 u
A)	100-02-7	4-nitrophenol	50 u
(59A)	51-28-5	2,4-dinitrophenol	50 u
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 u
(64A)	87-86-5	pentachlorophenol	10 u
(65A)	108-95-2	phenol	10 u
	65-85-0	benzoic acid	100 u
	95-48-7	2-methylphenol	5 u
	108-39-4	4-methylphenol	5 u
	95-95-4	2,4,5-trichlorophenol	100 u
(1B)	83-32-9	acenaphthene	10 u
(5B)	92-87-5	benzidine	40 u
(8B)	120-82-1	1,2,4-trichlorobenzene	10 u
(9B)	118-74-1	hexachlorobenzene	10 u
(12B)	67-72-1	hexachloroethane	10 u
(18B)	111-44-4	bis(2-chloroethyl)ether	10 u
(20B)	91-58-7	2-chloronaphthalene	10 u
(25B)	95-50-1	1,2-dichlorobenzene	10 u
(26B)	541-73-1	1,3-dichlorobenzene	10 u
(27B)	106-46-7	1,4-dichlorobenzene	10 u
(28B)	91-94-1	3,3'-dichlorobenzidine	20 u
(35B)	121-14-2	2,4-dinitrotoluene	20 u
(36B)	606-20-2	2,6-dinitrotoluene	20 u
(37B)	122-66-7	1,2-diphenylhydrazine	20 u
9B)	206-44-0	fluoranthene	10 u
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 u
(41B)	101-55-3	4-bromophenyl phenyl ether	10 u
(42B)	39638-32-9	bis (2-chloroisopropoxyl) ether	20 u
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 u

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10 u
(53B)	77-47-4	hexachlorocyclopentadiene	10 u
(54B)	78-59-1	isophorone	10 u
(55B)	91-20-3	naphthalene	10 u
(56B)	98-95-3	nitrobenzene	10 u
(62B)	86-30-6	N-nitrosodiphenylamine	10 u
(63B)	621-64-7	N-nitrosodipropylamine	10 u
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10 u
(67B)	85-68-7	benzyl butyl phthalate	10 u
(68B)	84-74-2	di-n-butyl phthalate	10 u
(69B)	117-84-0	di-n-octyl phthalate	10 u
(70B)	84-66-2	diethyl phthalate	10 u
(71B)	131-11-3	dimethyl phthalate	10 u
(72B)	56-55-3	benzo(a)anthracene	10 u
(73B)	50-32-8	benzo(a)pyrene	20 u
(74B)	205-99-2	benzo(b)fluoranthene	20 u
(75B)	207-08-9	benzo(k)fluoranthene	20 u
(76B)	218-01-9	chrysene	20 u
(77B)	208-96-8	acenaphthylene	10 u
(78B)	120-12-7	anthracene	10 u
(79B)	191-24-2	benzo(ghi)perylene	20 u
(80B)	86-73-7	fluorene	10 u
(81B)	85-01-8	phenanthrene	10 u
(82B)	53-70-3	dibenzo(a,h)anthracene	20 u
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20 u
(84B)	129-00-0	pyrene	10 u
	62-53-3	aniline	5 u
	100-51-6	benzyl alcohol	20 u
	106-47-8	4-chloroaniline	50 u
	132-64-9	dibenzofuran	10 u
	91-57-6	2-methylnaphthalene	20 u
	88-74-4	2-nitroaniline	100 u
	99-09-2	3-nitroaniline	100 u
	100-01-6	4-nitroaniline	100 u

000842 July 1983
027012

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
R3574

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: VERSAR INC.
Lab Sample ID No: 5814
Sample Matrix: LOW LEVEL AQUEOUS
Data Release Authorized By:

Case No: 2427
QC Report No: 2427
Contract No: ~~68-01-6756 (824)~~ - 68-01-6757 (825)
Date Sample Received: 2-17-84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-21-84
DATE ANALYZED: 2-21-84
PERCENT MOISTURE: —
CONC./DILUTION FACTOR — (ug/l or ug/kg (circle one))

PP #	CAS #		
(2V)	107-02-8	acrolein	100 u
(3V)	107-13-1	acrylonitrile	100 u
(4V)	71-43-2	benzene	5 u
(6V)	56-23-5	carbon tetrachloride	5 u
(7V)	108-90-7	chlorobenzene	5 u
(10V)	107-06-2	1,2-dichloroethane	1 u
(11V)	71-55-6	1,1,1-trichloroethane	5 u
(13V)	75-34-3	1,1-dichloroethane	5 u
(14V)	79-00-5	1,1,2-trichloroethane	5 u
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 u
V)	75-00-3	chloroethane	10 u
(19V)	110-75-8	2-chloroethylvinyl ether	10 u
(23V)	67-66-3	chloroform	5 u
(29V)	75-35-4	1,1-dichloroethene	5 u
(30V)	156-60-5	trans-1,2-dichloroethene	5 u
(32V)	78-87-5	1,2-dichloropropane	10 u
(33V)	10061-02-6	trans-1,3-dichloropropene	5 u
	10061-01-05	cis-1,3-dichloropropene	5 u
(38V)	100-41-4	ethylbenzene	5 u
(44V)	75-09-2	methylene chloride	5 u
(45V)	74-87-3	chloromethane	10 u
(46V)	74-83-9	bromomethane	10 u
(47V)	75-25-2	bromoform	10 u
(48V)	75-27-4	bromodichloromethane	5 u
(49V)	75-69-4	fluorotrichloromethane	5 u
(50V)	75-71-8	dichlorodifluoromethane	5 u
(51V)	124-48-1	chlorodibromomethane	5 u
(85V)	127-18-4	tetrachloroethene	5 u
(86V)	108-88-3	toluene	5 u
(87V)	79-01-6	trichloroethene	5 u
(88V)	75-01-4	vinyl chloride	10 u
	67-64-1	acetone	82.
	78-93-3	2-butanone	5 u
	75-15-0	carbondisulfide	1 u
	519-78-6	2-hexanone	5 u
	108-10-1	4-methyl-2-pentanone	5 u
	100-42-5	styrene	5 u
	108-05-4	vinyl acetate	5 u
	1330-20-7	total xylenes	5 u

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-20-84
DATE ANALYZED: 3-13-84
PERCENT MOISTURE: N/A
CONC./DILUTION FACTOR 1.0 → 10ml (ug/l or ug/kg (circle one))

PP #	CAS #		
(89P)	309-00-2	aldrin	0.005u
(90P)	60-57-1	dieldrin	0.005u
(91P)	57-74-9	chlordane	0.050u
(92P)	50-29-3	4,4'-DDT	0.010u
(93P)	72-55-9	4,4'-DDE	0.005u
(94P)	72-54-8	4,4'-DDD	0.010u
(95P)	115-29-7	α-endosulfan	0.005u
(96P)	115-29-7	β-endosulfan	0.005u
(97P)	1031-07-8	endosulfan sulfate	0.010u
(98P)	72-20-8	endrin	0.005u
(99P)	7421-93-4	endrin aldehyde	0.010u
(100P)	76-44-8	heptachlor	0.005u
(101P)	1024-57-3	heptachlor epoxide	0.005u
(102P)	319-84-6	α-BHC	0.005u
(103P)	319-85-7	β-BHC	0.005u
(104P)	319-86-8	δ-BHC	0.005u
(105P)	58-89-9	γ-BHC (lindane)	0.005u
(106P)	53469-21-9	PCB-1242	0.050u
(107P)	11097-69-1	PCB-1254	0.100u
(108P)	11104-28-2	PCB-1221	0.100u
(109P)	11141-16-5	PCB-1232	0.100u
(110P)	12672-29-6	PCB-1248	0.100u
(111P)	11096-82-5	PCB-1260	0.200u
(112P)	12674-11-2	PCB-1016	0.050u
(113P)	8001-35-2	toxaphene	0.050u

DIOXINS <C

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-20-84
DATE ANALYZED: 3-13-84
PERCENT MOISTURE: —
CONC./DILUTION FACTOR 1000 → 5 (ug/l or ug/kg (circle one))

PP #	CAS #		
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.005u

July 1983

31 000843

027013

ORGANICS ANALYSIS DATA SHEET - Page 3

R3574

Laboratory Name: VERSAR INC. Case No: 2427

QC Report No: 2427

B. Tentatively Identified Compounds

	CAS #	Compound Name	Fraction	Scan No. or Retention Time	% Maximum Score Attained Mass Matching Routines (Specify: FBM)	Estimated Concentration (ug/L or ug/kg)
1.	298767	1,4,7,10,13-Pentaoxacyclopentadecane	BN/A	1099	91%	89
2.	62-12-8	Formamide, N,N-Dimethyl-	B/N	418	99%	14
3.	24870777	Cyclopentasiloxane, decamethyl-	BN/A	550	91%	52
4.						
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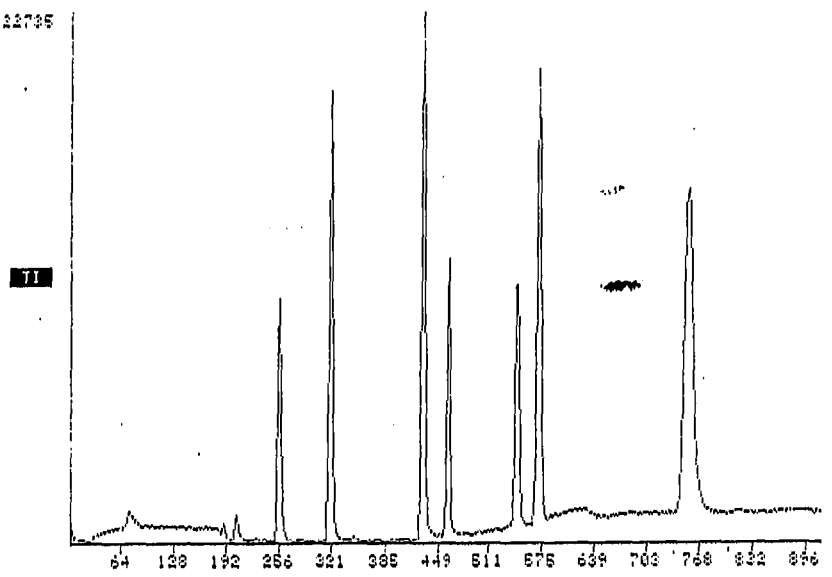
4/82

NAME VOA SAMPLE#58140 ENL EPA#P3574 DATE 3427 FRN 24991
MISC 24991 33 10019 1720 2-21-84 MB-FM



AREA TABLE ENTRIES: FRN 24991

Entry	Time	Mass	Area	% x R.F. = conc. (ug/L)	
1	10.7	127.7	6921.	100.0	IS
2	13.1	64.7	24274.	350.7 x 0.298 = 105.	SS
3	9.0	42.7	3018.	43.6 x 1.88 = 82.	acetone

CALCULATE % ON ENTRY #:
AREA TABLE ENTRIES: FRN 24991

Entry	Time	Mass	Area	%	
1	16.5	76.7	12405.	100.0	IS
2	17.3	83.7	39872.	321.4 x 0.306 = 99.	SS

CALCULATE % ON ENTRY #:
AREA TABLE ENTRIES: FRN 24991

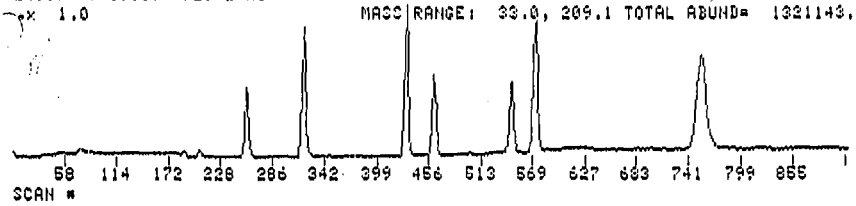
Entry	Time	Mass	Area	%	
1	21.7	54.7	14759.	100.0	IS
2	22.7	97.7	29342.	198.8 x 0.434 = 86.	SS
3	29.9	94.7	31119.	210.8 x 0.422 = 89.	SS

CALCULATE % ON ENTRY #:

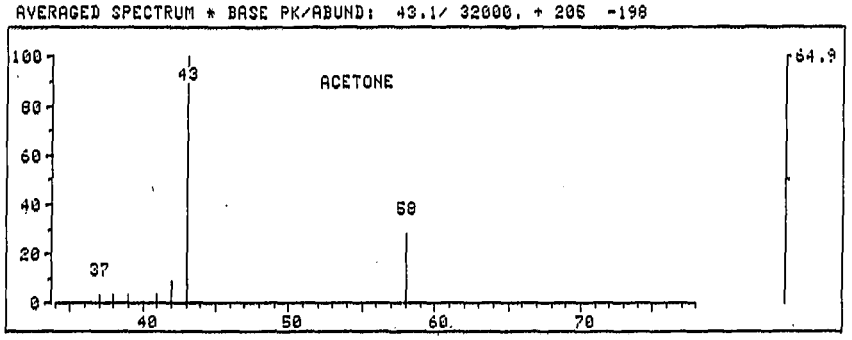
31 000845 X

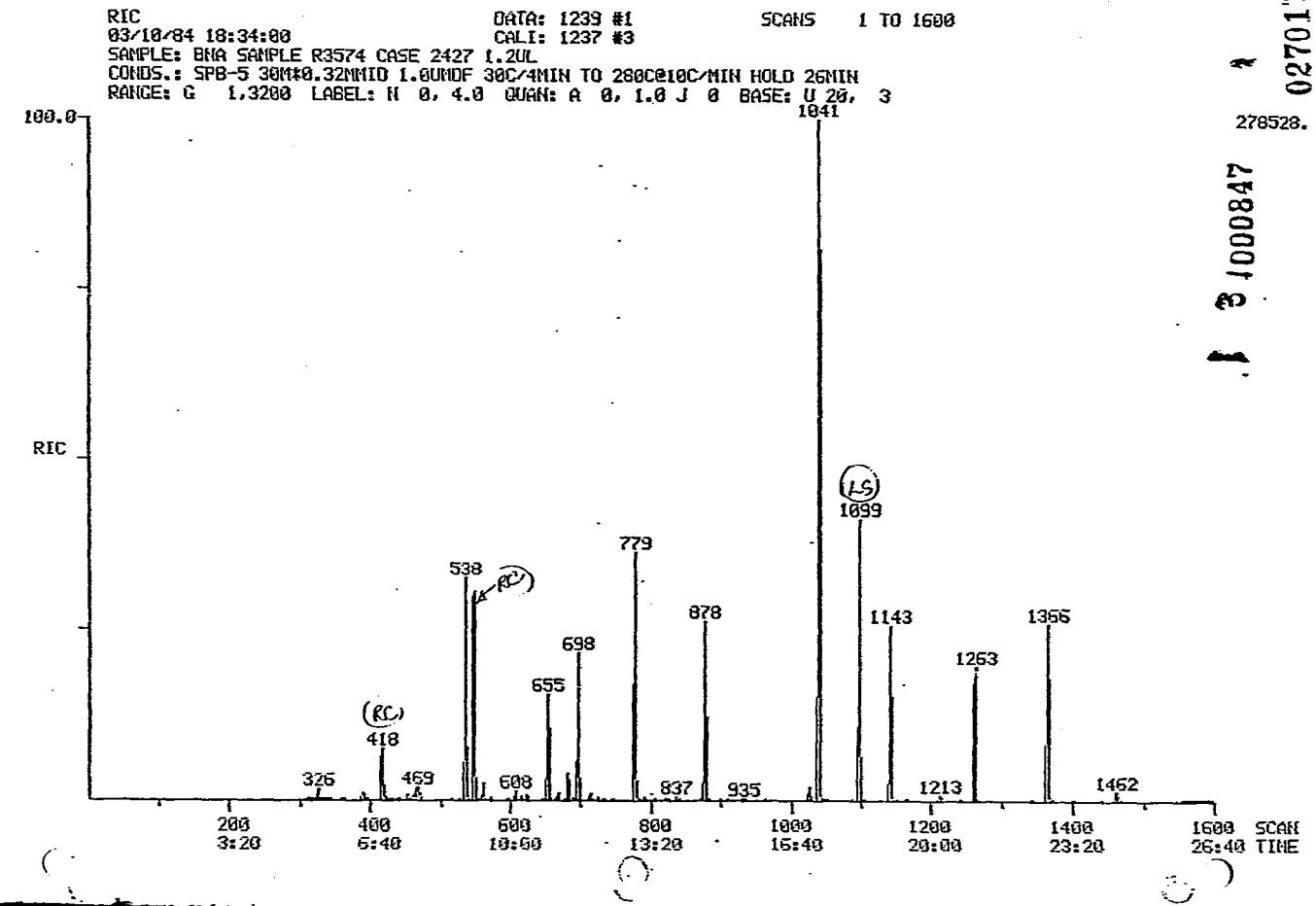
027015

VOA SAMPLE#5814C 5ML EPA#R3574 CASE 2427 FRN 24991, CRN 33
24991 33 10019 1720 2/21/84 MB/PN 916 SCANS (916 SCANS, 35.07 MINS)
x 1.0 MASS RANGE: 33.0, 209.1 TOTAL ABUND= 1321143.



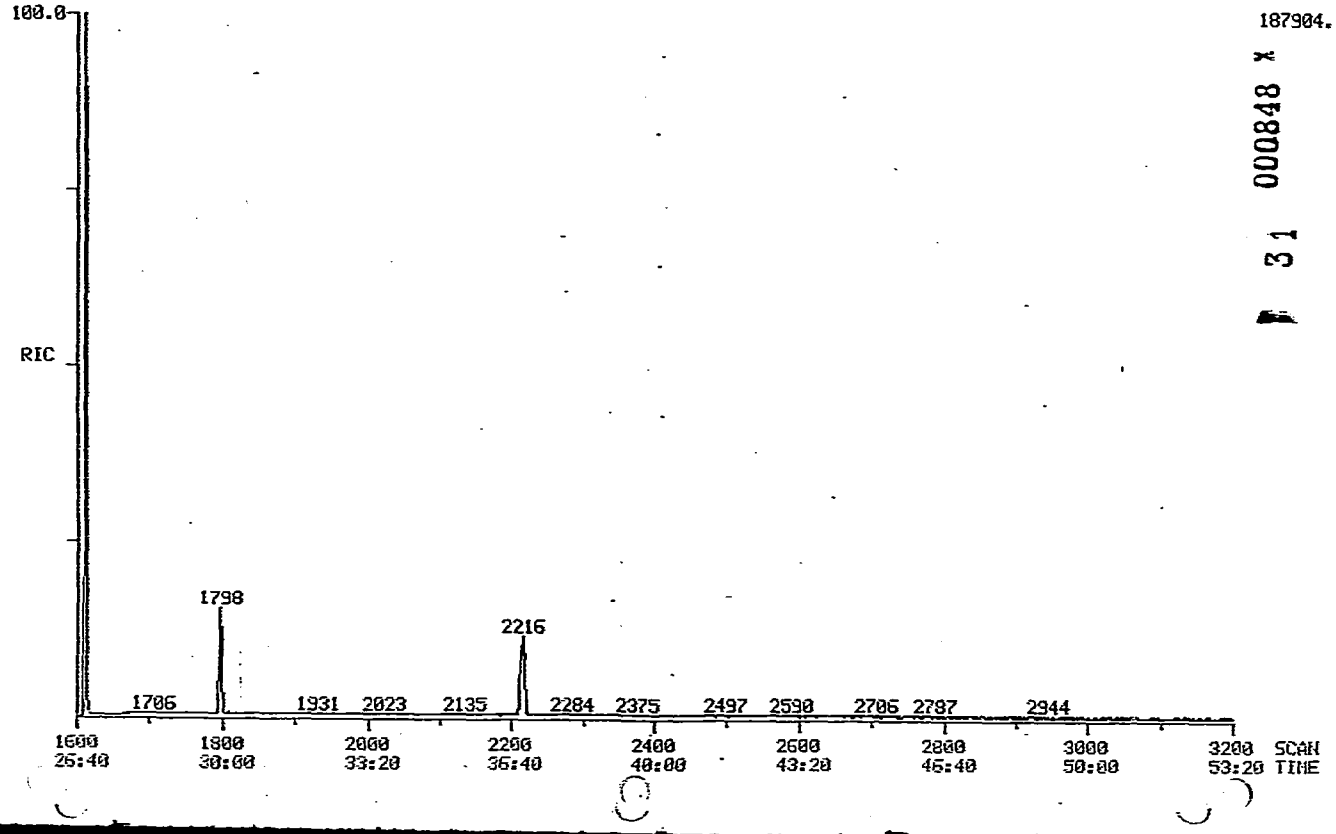
AVERAGED SPECTRUM * BASE PK/ABUND: 43.1/ 32000. + 206 -198




RIC
03/10/84 18:34:00
DATA: 1239 #1
CALI: 1237 #3
SCANS 1 TO 1600
SAMPLE: BNA SAMPLE R3574 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
RANGE: G 1.3200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
RIC
1041
278528.
1099
779
538
878
1143
1356
698
655
1263
418
326
469
608
837
935
1213
1462
200
3:20
400
6:40
600
10:00
800
13:20
1000
16:40
1200
20:00
1400
23:20
1600
26:40
SCAN
TIME

RIC
03/10/84 18:34:00
DATA: 1239 #1
CALI: 1237 #3
SCANS 1600 TO 3200
SAMPLE: BNA SAMPLE R3574 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
RANGE: G 1,3200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

027018
000848 X
31
187904.



Quantitation Report File: 1239

Data: 1239.TI
03/10/84 18:34:00
Sample: BNA SAMPLE R3574 CASE 2427 1.2UL
Submitted by: VERSAR Analyst: SEP

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

NONE DETECTED
1 LIBRARY SEARCH

1099

NO	NAME
1	1,4-DICHLOROBENZENE D4 ***INTERNAL STANDARD#1***
2	N-NITROSODIMETHYLAMINE
3	ANILINE
4	2-CHLOROPHENOL
5	PHENOL
6	BIS(2-CHLOROETHYL)ETHER
7	1,3-DICHLOROBENZENE
8	1,4-DICHLOROBENZENE
9	1,2-DICHLOROBENZENE
10	BENZYL ALCOHOL
11	BIS(2-CHLOROISOPROPYL)ETHER
12	2-METHYLPHENOL
13	HEXACHLOROETHANE
14	4-METHYLPHENOL
15	N-NITROSO-DI-N-PROPYLAMINE
16	NITROBENZENE
17	NAPHTHALENE D8 ***INTERNAL STANDARD#2***
18	ISOPHORONE
19	2-NITROPHENOL
20	2,4-DIMETHYLPHENOL
21	BIS(2-CHLOROETHOXY)METHANE
22	2,4-DICHLOROPHENOL
23	1,2,4-TRICHLOROBENZENE
24	NAPHTHALENE
25	BENZOIC ACID
26	4-CHLOROANILINE
27	HEXACHLORDBUTADIENE
28	4-CHLORO-M-CRESOL
29	2-METHYLNAPHTHALENE
30	ACENAPHTHENE D10 ***INTERNAL STANDARD#3***
31	HEXACHLOROCYCLOPENTADIENE
32	2,4,6-TRICHLOROPHENOL
33	2,4,5-TRICHLOROPHENOL
34	2-CHLORONAPHTHALENE
35	2-NITROANILINE
36	ACENAPHTHYLENE
37	DIMETHYLPHTHALATE
38	2,6-DINITROTOLUENE
39	ACENAPHTHENE
40	3-NITROANILINE
41	2,4-DINITROPHENOL
42	DIBENZOFURAN
43	4-NITROPHENOL
44	2,4-DINITROTOLUENE
45	FLUORENE
46	4-CHLOROPHENYLPHENYLETHER
47	DIETHYLPHTHALATE
48	4-NITROANILINE
49	4,6-DINITRO-O-CRESOL
50	DIPHENYLAMINE

31 000849 X
027019

1237

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot	
1	152	698	11:38	1	1.000	A BB	21073.	24.000	NG/UL	32.44	
~~2~~	~~74~~	~~341~~	~~5:41~~	~~1~~	~~0.489~~	~~A BB~~	~~46.~~	~~0.057~~ ND	~~NG~~	~~0.08~~	~~Jap~~
3	NOT FOUND										
4	NOT FOUND										
5	NOT FOUND										
6	NOT FOUND										
7	NOT FOUND										
8	NOT FOUND										
~~9~~	~~146~~	~~726~~	~~12:06~~	~~1~~	~~1.040~~	~~A BB~~	~~729.~~	ND ~~0.501~~	~~NG~~	~~0.68~~	~~Jap~~
10	NOT FOUND										
11	NOT FOUND										
12	NOT FOUND										
13	NOT FOUND										
14	NOT FOUND										
~~15~~	~~43~~	~~747~~	~~12:27~~	~~1~~	~~1.070~~	~~A BB~~	~~171.~~	ND ~~0.237~~	~~NG~~	~~0.32~~	~~Jap~~
16	NOT FOUND										
17	136	878	14:38	17	1.000	A BB	83122.	24.000	NG/UL	32.44	
18	NOT FOUND										
19	NOT FOUND										
20	NOT FOUND										
21	NOT FOUND										
22	NOT FOUND										
23	NOT FOUND										
24	NOT FOUND										
~~25~~	~~105~~	~~838~~	~~13:58~~	~~17~~	~~0.954~~	~~A BB~~	~~212.~~	ND ~~0.430~~	~~NG~~	~~0.58~~	~~Jap~~
26	NOT FOUND										
27	NOT FOUND										
28	NOT FOUND										
29	NOT FOUND										
30	164	1142	19:02	30	1.000	A BB	45758.	24.000	NG/UL	32.44	
31	NOT FOUND										
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~~	~~169~~	~~1242~~	~~20:42~~	~~30~~	~~1.088~~	~~A BB~~	~~660.~~	ND ~~0.805~~	~~NG~~	~~1.09~~	~~Jap~~

Quantitation Report File: 1239

Data: 1239.TI
03/10/94 18:34:00
Sample: BNA SAMPLE R3574 CASE 2427 1.2UL
Submitted by: VERSAR Analyst: SEP

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

NO	NAME
51	PHENANTHRENE D10 ***INTERNAL STANDARD#4***
52	1,2-DIPHENYLHYDRAZINE
53	4-BROMOPHENYLPHENYLETHER
54	HEXACHLOROBENZENE
55	PENTACHLOROPHENOL
56	PHENANTHRENE
57	ANTHRACENE
58	DIBUTYLPHTHALATE
59	FLUORANTHENE
60	BENZIDINE
61	PYRENE
62	CHRYSENE D12***INTERNAL STANDARD#5***
63	BUTYL BENZYL PHTHALATE
64	BENZO(A)ANTHRACENE
65	CHRYSENE
66	3,3'-DICHLOROBENZIDINE
67	BIS(2-ETHYLHEXYL)PHTHALATE
68	BENZO(A)PYRENE D12 ***INTERNAL STANDARD#6***
69	DIOCTYLPHTHALATE
70	BENZO(B)FLUORANTHENE
71	BENZO(K)FLUORANTHENE
72	BENZO(A)PYRENE
73	INDENO(1,2,3-CD)PYRENE
74	DIBENZO(A,H)ANTHRACENE
75	BENZO(GHI)PERYLENE

1239

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	188	1366	22:46	51	1.000	A BB	73173.	24.000 NG/UL	24.40
52	NOT FOUND								
53	NOT FOUND								
54	NOT FOUND								
55	NOT FOUND								
56	NOT FOUND								
57	NOT FOUND								
~~58~~	~~147~~	~~1462~~	~~24:22~~	~~51~~	~~1.070~~	~~A BB~~	~~5471.~~	~~2.122 NG~~ ND	~~2.16~~
59	NOT FOUND								
60	NOT FOUND								
61	NOT FOUND								
62	240	1797	29:57	62	1.000	A BB	29330.	24.000 NG/UL	24.40
63	NOT FOUND								
64	NOT FOUND								
65	NOT FOUND								
66	NOT FOUND								
~~67~~	~~147~~	~~1809~~	~~30:07~~	~~62~~	~~1.007~~	~~A BB~~	~~357.~~ ND	~~0.244 NG~~	~~0.25~~
68	264	2216	36:56	68	1.000	A BB	41910.	48.000 NG/UL	48.81
69	NOT FOUND								
70	NOT FOUND								
71	NOT FOUND								
72	NOT FOUND								
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								

31000852

027022

Quantitation Report File: 1239Q

Data: 1239.TI
03/10/84 18:34:00
Sample: BNA SAMPLE R3574 CASE 2427 1.2UL
Submitted by: VERSAR Analyst: SEP

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)* 1.670
Resp. fac. from average of whole .RL

NO	NAME
1	2-FLUOROPHENOL *ACID SURROGATE*
2	PHENOL D5 *ACID SURROGATE*
3	1,4-DICHLOROBENZENE D4 ***INTERNAL STANDARD#1***
4	NITROBENZENE D5 *BN SURROGATE*
5	NAPHTHALENE D8 ***INTERNAL STANDARD#2***
6	2-FLUOROBIPHENYL *BN SURROGATE*
7	ACENAPHTHENE D10 ***INTERNAL STANDARD#3***
8	2,4,6-TRIBROMOPHENOL *ACID SURROGATE*
9	PHENANTHRENE D10 ***INTERNAL STANDARD#4***
10	P-TERPHENYL D14 *BN SURROGATE*
11	CHRYSENE D12***INTERNAL STANDARD#5***

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	112	538	8:58	3	0.771	A BV	59851.	80.895	NG	11.17
2	98	655	10:55	3	0.938	A BB	37853.	44.290	NG	6.12
3	152	698	11:38	3	1.000	A BB	21073.	40.080	NG/UL	5.53
4	82	779	12:59	5	0.887	A BV	70249.	100.278	NG	13.85
5	136	878	14:38	5	1.000	A BB	83122.	40.080	NG/UL	5.53
6	172	1041	17:21	7	0.912	A BV	163933.	98.866	NG	13.65
7	164	1142	19:02	7	1.000	A BB	45756.	40.080	NG/UL	5.53
8	330	1262	21:02	9	0.924	A BB	20491.	87.071	NG	12.02
9	188	1366	22:46	9	1.000	A BB	73173.	40.080	NG/UL	5.53
10	244	1612	26:52	11	0.897	A BB	182210.	112.442	NG	15.53
11	240	1797	29:57	11	1.000	A BB	29330.	40.080	NG/UL	5.53

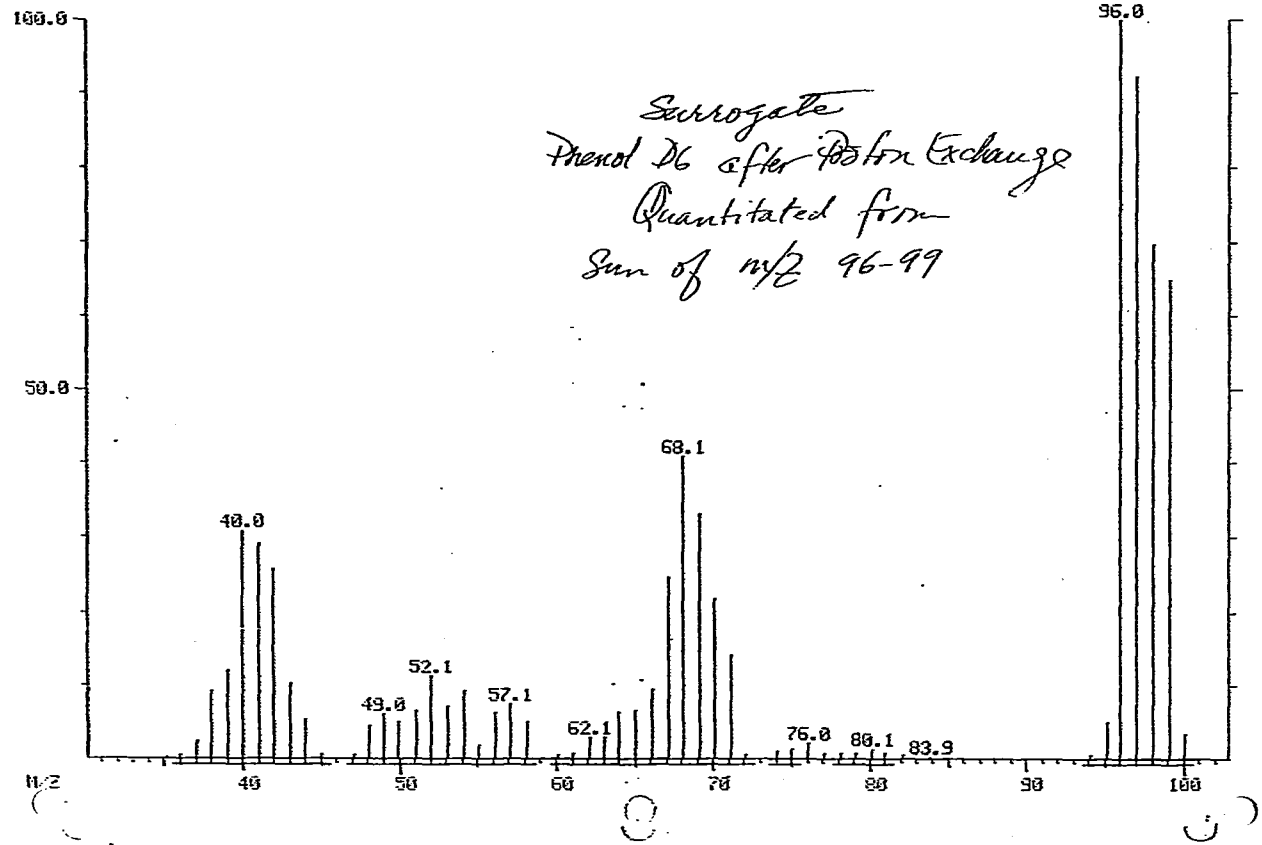
31 000853

027023

MASS SPECTRUM
03/10/84 18:34:00 + 10:55
SAMPLE: BNA SAMPLE R3574 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN

DATA: 1239 #655
CALI: 1239 #3

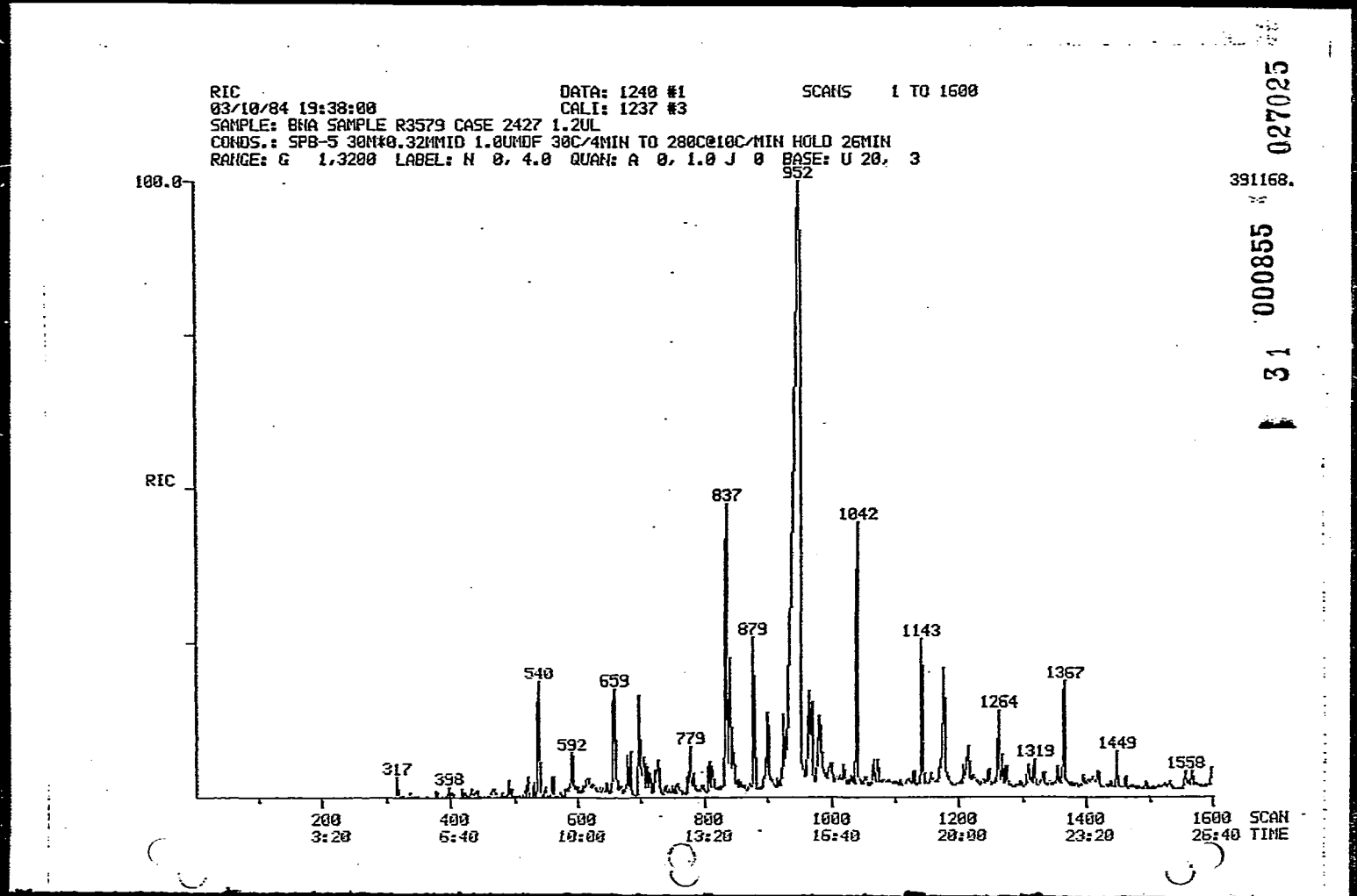
BASE M/Z: 96
RIC: 43968.

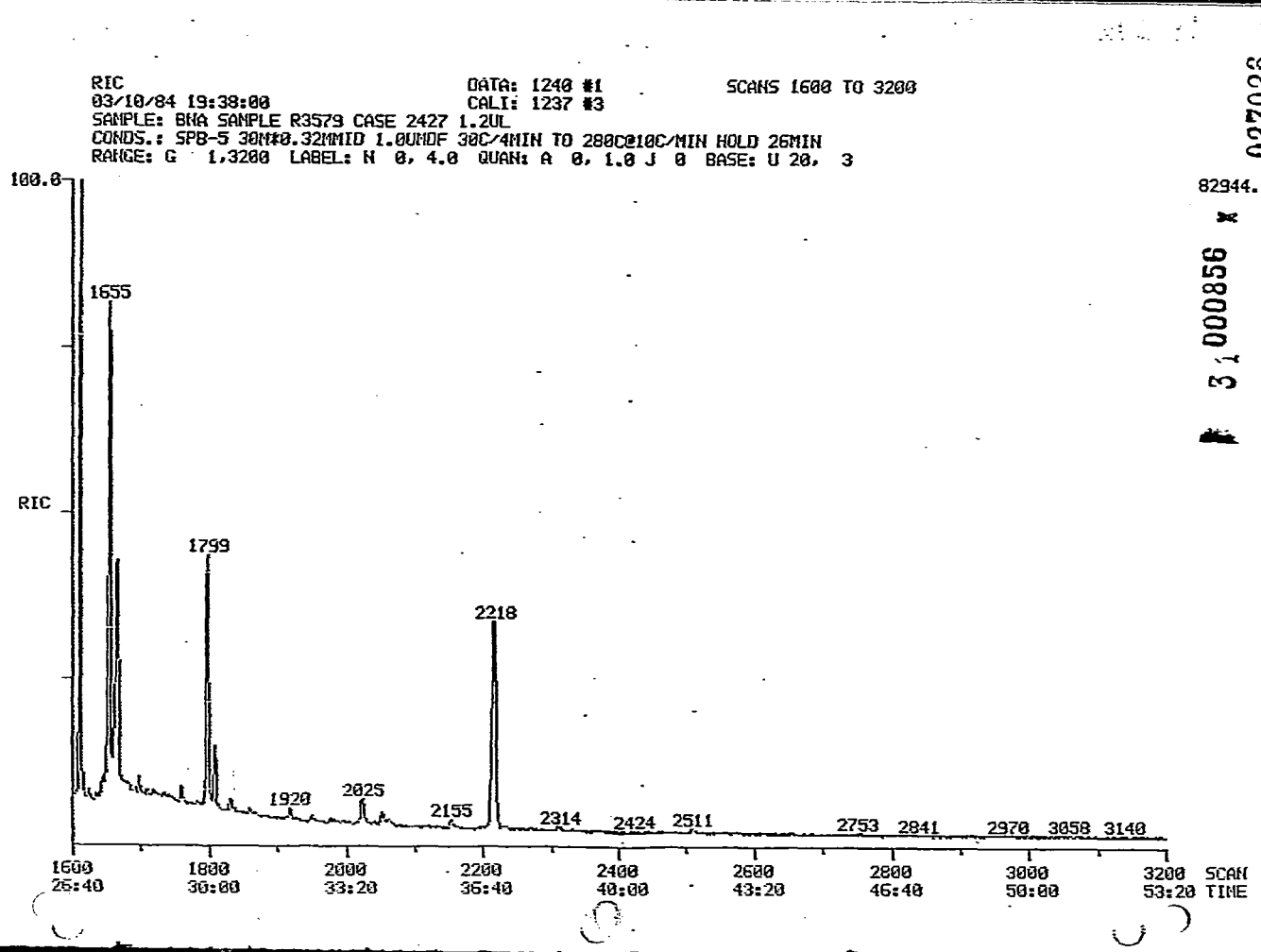


Surrogate
Phenol D6 after Ion Exchange
Quantitated from
Sum of m/z 96-99

6208.

31 000854 X 027024


RIC
03/10/84 19:38:00
DATA: 1240 #1
CALI: 1237 #3
SCANS 1 TO 1600
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
RANGE: G 1,3200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
RIC
391168.
027025
000855
31
952
837
1042
879
1143
540
659
1367
1264
592
779
1319
1449
317
398
1558
200
3:20
400
6:40
600
10:00
800
13:20
1000
16:40
1200
20:00
1400
23:20
1600
26:40
SCAN
TIME


RIC
03/10/84 19:38:00
DATA: 1240 #1
CALI: 1237 #3
SCANS 1600 TO 3200
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M#0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
RANGE: G 1,3200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
82944.
1655
RIC
1799
2218
1920
2025
2155
2314
2424
2511
2753
2841
2970
3058
3140
1600
25:40
1800
30:00
2000
33:20
2200
36:40
2400
40:00
2600
43:20
2800
46:40
3000
50:00
3200
53:20
SCAN
TIME
027026
3 1 000856 X

Library Search Data: 1239 #1099 Base m/z: 82
03/10/84 18:34:00 + 18:19 Cali: 1239 # 3 RIC: 112383 / 1265 = 89
Sample: BNA SAMPLE R3574 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN

38752 spectra in LIBRARYNB searched for maximum FIT
188 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	465	1-AZABICYCLO[3.1.0]HEXANE
2	3809	FORMIC ACID, CYCLOHEXYL ESTER
3	2783	CYCLOHEXANE, CHLORO-
4	1286	4-HEXEN-1-OL, (Z)-
5	3329	CYCLOPENTANE, 1-METHYL-2-(2-PROPENYL)-, TRANS-

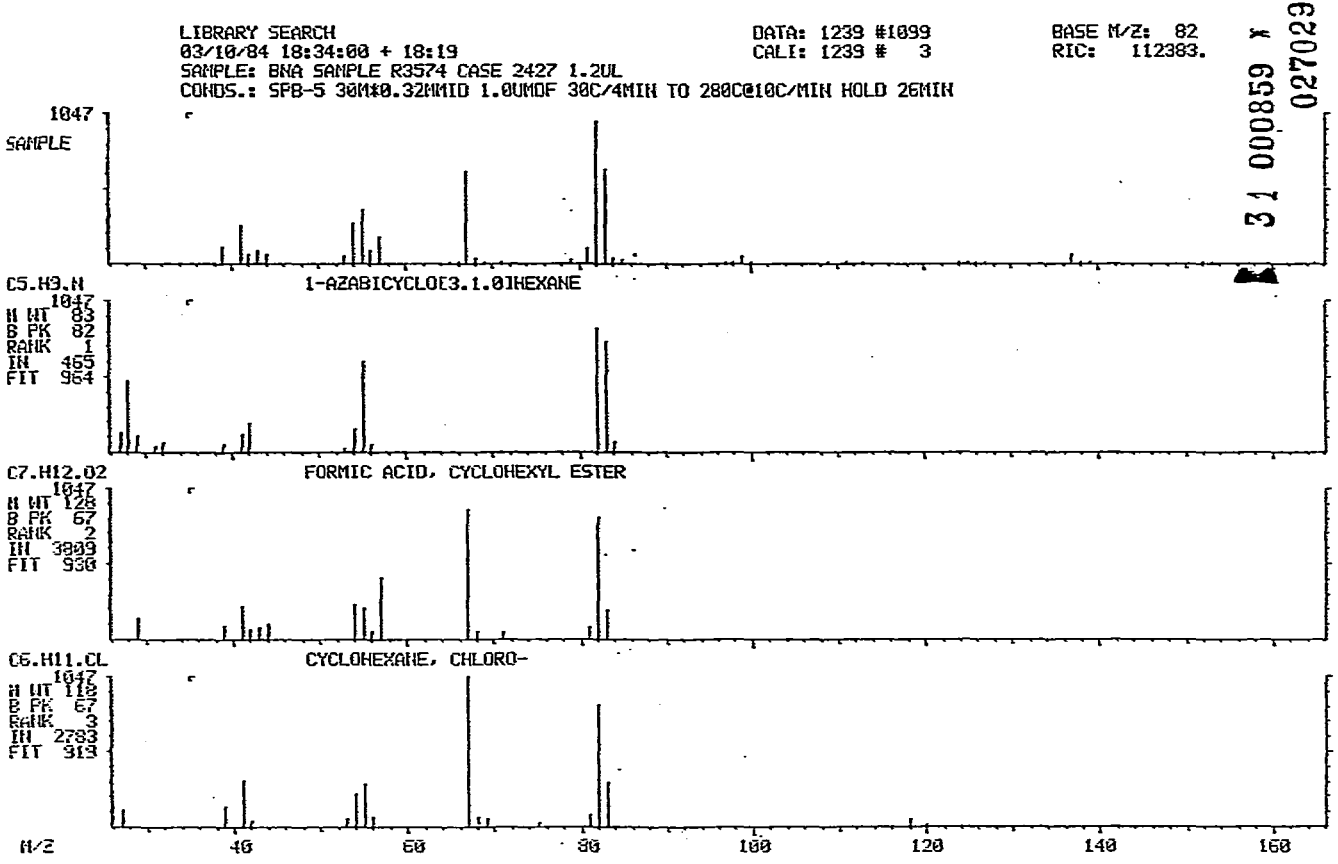
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C5.H9.N	83	82	635	964	635
2	C7.H12.O2	128	67	812	930	812
3	C6.H11.CL	118	67	758	919	790
4	C6.H12.O	100	67	620	906	620
5	C9.H16	124	83	722	886	750

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	———	———	———	———	285-76-7
2	———	———	———	———	4351-54-6
3	———	———	———	———	542-18-7
4	———	———	———	———	928-91-6
5	———	———	———	———	50746-53-7

Mass	Inten	1	2	3	4	5
27		139		126	311	255
28		497				
29		101	142		219	132
31		39			210	
32		68				
39	120	56	95	153	255	170
41	266	119	224	325	436	310
42	68	207	63	39	105	
43	88		76			
44	64		112			
53	49	32		56	97	83
54	284	163	243	223	132	64
55	379	628	218	295	248	590
56	98	51	54	64	68	
57	194		434		147	
65	12					
66	17					
67	641		893	1047	965	353
68	44		54	63	69	68
69	17			49	79	
71	11		49			
75				33		
79	30					39
81	104		79	79	93	250
82	1000	861	848	848	407	524
83	658	762	195	315		951
84	46	68				61
85	28					
95						57
96						39
97	2					
98	17					

31 000857 027027

99	50	
100	2	
109	1	
111	2	
113	4	
118		47
120		16
124	15	
125	8	
126	1	
127	4	
137	72	
138	4	
139	4	
152	3	
153	1	
165	12	


LIBRARY SEARCH
03/10/84 18:34:00 + 18:19
SAMPLE: BNA SAMPLE R3574 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
DATA: 1239 #1099
CALI: 1239 # 3
BASE M/Z: 82
RIC: 112383.
31 000859 X
027029
1047
SAMPLE
C5.H9.N
1-AZABICYCLO[3.1.0]HEXANE
1047
M WT 83
B PK 82
RANK 1
IN 465
FIT 964
C7.H12.O2
FORMIC ACID, CYCLOHEXYL ESTER
1047
M WT 128
B PK 67
RANK 2
IN 3809
FIT 930
C6.H11.CL
CYCLOHEXANE, CHLORO-
1047
M WT 118
B PK 67
RANK 3
IN 2783
FIT 919
M/Z
40
60
80
100
120
140
160

Library Search Data: 1239 # 418 Base m/z: 73
03/10/84 18:34:00 + 6:58 Cali: 1239 # 3 RIC: 17567
Sample: BNA SAMPLE R3574 CASE 2427 1.2UL
Conds.: SPD-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N 0T)

38752 spectra in LIBRARYNB searched for maximum FIT
212 matched at least 6 of the 15 largest peaks in the unknown

Rank	In.	Name
1	270	FORMAMIDE, N,N-DIMETHYL-
2	25352	1H-PYRIMIDO[4,5,6-IJ][2,7]NAPHTHYRIDINE-6-CARBONITRILE, 2-ETHYL-5,8*
3	100	2-PROPANAMINE
4	2714	L-ALANINE, ETHYL ESTER
5	2595	1,3-DIOXOLANE, 2-(1-METHYLETHYL)-

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C3, H7, O, N	73	73	978	994	978
2	C14, H13, O2, N5	283	73	928	935	985
3	C3, H9, N	59	44	344	890	356
4	C5, H11, O2, N	117	44	364	859	374
5	C6, H12, O2	116	73	507	846	555

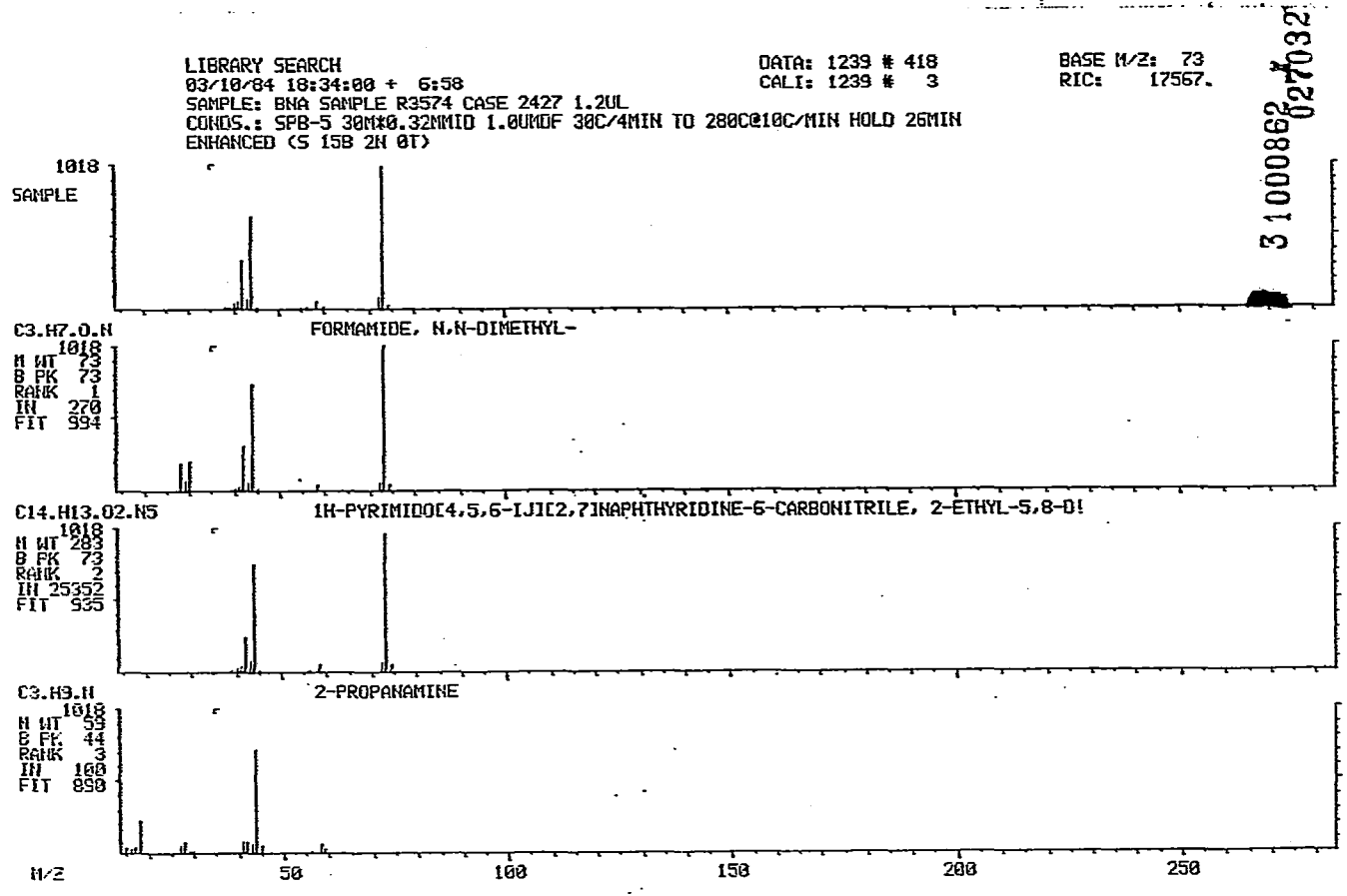
Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	—	—	—	—	68-12-2
2	—	—	—	—	55044-48-9
3	—	—	—	—	75-31-0
4	—	—	—	—	3082-75-5
5	—	—	—	—	822-83-3

Mass	Inten	1	2	3	4	5
15				36		187
16				22		
17				42		
18				228	41	
26					8	
27				51	43	52
28		186		80		36
29		74		15	46	
30		205		15	19	
38	7					
39	14		13			30
40	47	18	31			
41	55	27	41	87	14	53
42	344	312	241	87	58	
43	73	61	75	65	24	57
44	654	751	760	731	710	
45	18	17	19	51	27	216
46					8	
55	2				8	29
56	12		15	14	7	63
57						39
58	56	46	54	66		
59				29		
60	12					
71						20
72	84	61	73		47	
73	1000	1018	982			992
74	32	40	57		57	39
99						8
101						7
102					8	

3 1000860

027030

115		22
116		11
282	13	
283	17	


LIBRARY SEARCH
03/10/84 18:34:00 + 6:58
SAMPLE: BNA SAMPLE R3574 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)
DATA: 1239 # 418
CALI: 1239 # 3
BASE M/Z: 73
RIC: 17567.
3100086202
1018
SAMPLE
C3.H7.O.N
FORMAMIDE, N,N-DIMETHYL-
1018
M WT 73
B PK 73
RANK 1
IN 270
FIT 994
C14.H13.02.N5
1H-PYRIMIDO[4,5,6-IJ][2,7]NAPHTHYRIDINE-6-CARBONITRILE, 2-ETHYL-5,8-DI
1018
M WT 283
B PK 73
RANK 2
IN 25352
FIT 935
C3.H9.N
2-PROPANAMINE
1018
M WT 59
B PK 44
RANK 3
IN 160
FIT 898
M/Z
50
100
150
200
250

Library Search Data: 1239 # 550 Base m/z: 57
93/10/84 18:34:00 + 9:10 Cali: 1239 # 3 RIC: 70911/1265 = 56
Sample: BNA SAMPLE R3574 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum FIT
171 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	1328	CYCLOPENTANOL, 2-METHYL-
2	1331	CYCLOPENTANOL, 2-METHYL-, CIS-
3	1289	2-HEXEN-1-OL, (E)-
4	1330	CYCLOPENTANOL, 2-METHYL-, TRANS-
5	1288	2-HEXEN-1-OL, (Z)-

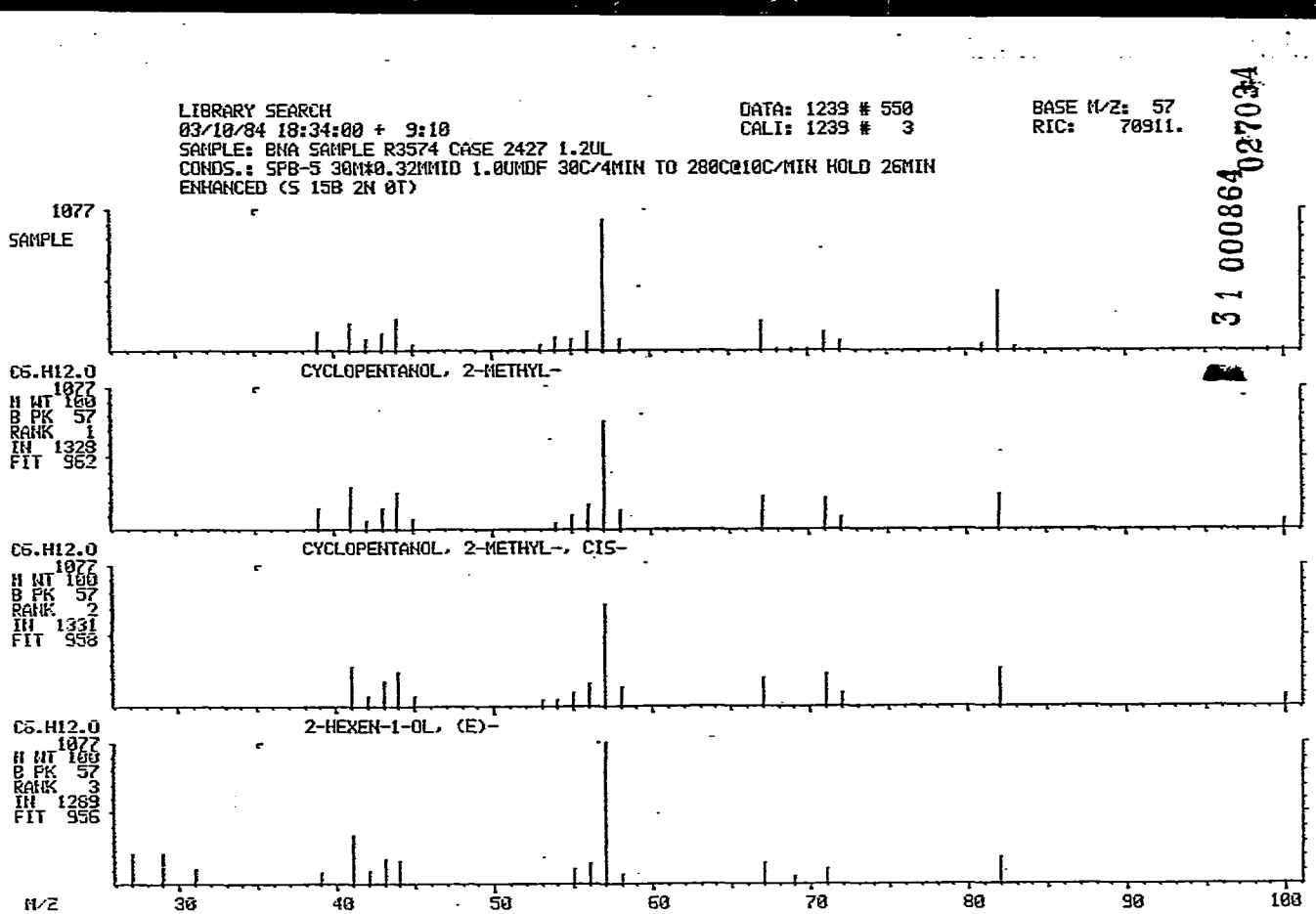
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C6.H12.O	100	57	897	962	897
2	C6.H12.O	100	57	877	958	877
3	C6.H12.O	100	57	828	956	828
4	C6.H12.O	100	57	877	953	877
5	C6.H12.O	100	57	832	951	832

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	---	---	---	---	24070-77-7
2	---	---	---	---	25144-05-2
3	---	---	---	---	928-95-0
4	---	---	---	---	25144-04-1
5	---	---	---	---	928-94-9

Mass	Inten	1	2	3	4	5
27				224		283
28						126
29				235		206
31				117		
39	142	163		91		239
41	217	312	308	374	332	474
42	79	59	74	95	74	81
43	135	161	193	189	220	109
44	249	275	254	177	261	210
45	36	68	75		75	
53	39		50			67
54	100	44	50		47	71
55	90	95	100	115	113	105
56	143	189	176	152	188	72
57	1000	814	778	1077	740	823
58	83	146	147	75	156	
67	224	244	218	160	209	409
68	13					
69	15			61		
70	12					
71	140	231	244	120	231	74
72	71	86	101		92	
79	14					
81	46					
82	464	265	287	202	278	283
83	34				38	
99	10					
100	21	72	83		81	

31000863

027033


LIBRARY SEARCH
03/10/84 18:34:00 + 9:10
SAMPLE: BNA SAMPLE R3574 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)
DATA: 1239 # 550
CALI: 1239 # 3
BASE M/Z: 57
RIC: 70911.
31 000864 027034
1077
SAMPLE
C6.H12.0
CYCLOPENTANOL, 2-METHYL-
1077
M WT 100
B PK 57
RANK 1
IN 1328
FIT 962
C6.H12.0
CYCLOPENTANOL, 2-METHYL-, CIS-
1077
M WT 100
B PK 57
RANK 2
IN 1331
FIT 958
C6.H12.0
2-HEXEN-1-OL, (E)-
1077
M WT 100
B PK 57
RANK 3
IN 1289
FIT 956
M/Z
30
40
50
60
70
80
90
100

PESTICIDE DATA REDUCTION FORM

Case # 2427 Sample # R3574

Sample Wt/Vol 1000 ml Final Vol 10 ml

% Moisture NA Solid or Liquid L

	Typical RT	Fraction	Dilution	Injection Conc. µg/ml	Light Box	Dilution	Rerun	Injection Conc.	Light Box	Second Column	Lgt. Box	Sample Conc. µg/l
α BHC	3.98	1		—								
β BHC	4.49	1		—								
γ BHC	4.67	1		—								
δ BHC	5.24	1		—								
Heptachlor	6.88	1		—								
Aldrin	8.38	1		—								
Heptachlorepoxide	10.57	1		—								
α Endosulfan	13.16	1&2		—								
Dieldrin	15.47	2		—								
p,p'-DDE	15.72	1		—								
Endrin	17.67	2		—								
β Endosulfan	18.77	3		—								
p,p'-DDD	20.74	1		—								
Endrin Aldehyde	21.30	2&3		—								
Endosulfan Sulfate	24.95	3		—								
p,p'-DDT	26.72	1		—								
DBC	47.87	1,2&3		2.46	+					"		98%

3 1000865 027035

EDIT AUTO SEQ 8:40
PR: AUTO SEQ
OVEN TEMP NOT READY

R3574 69%
Pest Analysis

TI 00133 MAR 13 1984
RT: ATTN = 275

1.35

2.31

9.06

10.16

16.12

20.72

23.03
23.80

26.08

31.71

33.41

OVL START PRGM RATE 1
OVL START FINAL TIME 1

37.57

methoxychlor IS

39.89

OUT OF PAPER

SAMPLE # : ID CODE :
56 R3574 6
PESTICIDE MIX CALIBRATION CURVE Pest
D

RT	EXP RT	AREA	TYPE	WIDTH	CAL	AMOUNT	NAME
0.00		BASELINE @ START RUN = 311.93					
0.00		THRESHOLD @ START RUN = -1					
0.00		PEAK WIDTH @ START RUN = 0.08					
0.00		RP: REJECT > 1E+06					
3.50		RP: REJECT > 20					
5.88		22.14	BB	------*		6.642E-04	
7.78		102.49	BB	0.092		3.075E-03	
10.16		273.57	BB	0.115		8.207E-03	
26.08		92.77	BV	*------*		2.783E-03	
27.27		33.05	BB	------*		9.915E-04	
39.89	39.89	21236.50 +	BB	0.242*	17	0.559	METHOXYCHLOR
48.82		35.15	BB	------		1.054E-03	
50.00		RP: REJECT > 1E+06					

MULTIPLIER = 1

31 000867

027037

R 3574 15%
Pest Analysis

PR: AUTO SEQ

1.29

10.18

16.94

24.99
25.57
26.08

27.25

29.13
29.61

30.94

34.23
005 START PRGM RATE 1
006 START FINAL TIME 1

37.65

39.14

methoxychlor IS

39.90

48.80
007 START BREAKRATE 20 CM/MIN
INV. START FINAL TIME 2
RTN STOP RUN

31 000868

027038

[illegible] MAR 13 1984

SAMPLE # : ID CODE :
87 R3574 15

PESTICIDE MIX CALIBRATION CURVE Pest
ESTD

RT	EXP RT	AREA	TYPE	WIDTH	CAL	AMOUNT	NAME
0.00		BASELINE @ START RUN = 311.19					
0.00		THRESHOLD @ START RUN = -1					
0.00		PEAK WIDTH @ START RUN = 0.08					
0.00		RP: REJECT > 1E+06					
3.50		RP: REJECT > 20					
7.78		82.66	BB	0.096		2.480E-03	
10.18		242.74	BB	0.117		7.282E-03	
26.08		88.50	BB	*------*		2.655E-03	
27.25		28.82	BV	*------*		8.645E-04	
29.13		44.26	BB	*------*		1.328E-03	
39.90	39.90	17795.90 +	BB	0.242*	17	0.468	METHOXYCHLOR
48.80		20.50	BB	------		6.149E-04	
50.00		RP: REJECT > 1E+06					

MULTIPLIER = 1

31 000869 X

027039

PR: AUTO SEQ
OVEN TEMP NOT READY

R 3574 50%
Pest Analysis

ST: 08:54 MAR 13, 1984
RT: ATTN = 245

1.40
2.39
4.27
5.69
7.30
7.78
10.17
11.90
12.54
14.82
20.72
25.28
27.27
29.15
30.98
33.09
OV: START PRGM RATE 1
OV: START FINAL TIME 1
38.16
39.26
39.91
45.00
46.25
47.92
48.80
OV: START PROGRAM RATE 20 CM/MIN
OV: START FINAL TIME 2

methoxychlor IS

DBC-SS

31 000870 027040

174

[HP] 5880A SAMPLER INJECTION @ 08:54 MAR 13, 1984
SAMPLE # : ID CODE :
68 R3574 50 Pest
PESTICIDE MIX CALIBRATION CURVE
STD

RT	EXP RT	AREA	TYPE	WIDTH	CAL	AMOUNT	NAME
0.00		BASELINE @ START RUN = 313.00					
0.00		THRESHOLD @ START RUN = -1					
0.00		PEAK WIDTH @ START RUN = 0.08					
0.00		RP: REJECT > 1E+06					
3.50		RP: REJECT > 20					
3.52		195.70	VV	------*		5.871E-03	
3.68		176.14	VV	------		5.284E-03	
3.90		73.58	VV	------		2.207E-03	
3.98	3.99	65.01	VV	------	1	6.641E-03	~~A-BHC~~
4.15		124.47	VV	------		3.734E-03	
4.27		661.49	VV	0.077		1.984E-02	
4.44		85.82	VV	------		2.575E-03	
4.61		132.93	VV	------		3.988E-03	
4.86		152.51	VV	------*		4.575E-03	
5.14		75.04	VV	------		2.251E-03	
5.26	5.25	70.26	VV	------	4	5.877E-03	~~B-BHC~~
5.52		121.35	VV	*------		3.640E-03	
5.69		1905.96	VV	0.069		5.718E-02	
5.88		144.30	VV	------*		4.329E-03	
6.13		73.43	VV	------		2.203E-03	
6.54		47.90	VV	------		1.437E-03	
6.70		78.25	VV	------		2.348E-03	
7.78		1635.86	BB	0.10 *		4.908E-02	
10.17		67.95	BB	*------		2.038E-03	
20.72	20.78	208.19	BB	0.198	13	2.611E-02	~~PP-DDD~~
25.28		21.06	BB	------*		6.319E-04	
27.27		646.54	BB	0.267*		1.940E-02	
29.15		40.08	BB	------*		1.202E-03	
39.91	39.91	15986.30 +	PB	0.24 *	17	0.420	METHOXYCHLOR
46.25		1460.35	BB	0.284*		4.381E-02	
47.92	47.97	32950.40	BV	0.284	18	2.460	DIBUTYLCHLOR
48.00		651.09	VB	------*		1.953E-02	
50.00		RP: REJECT > 1E+06					

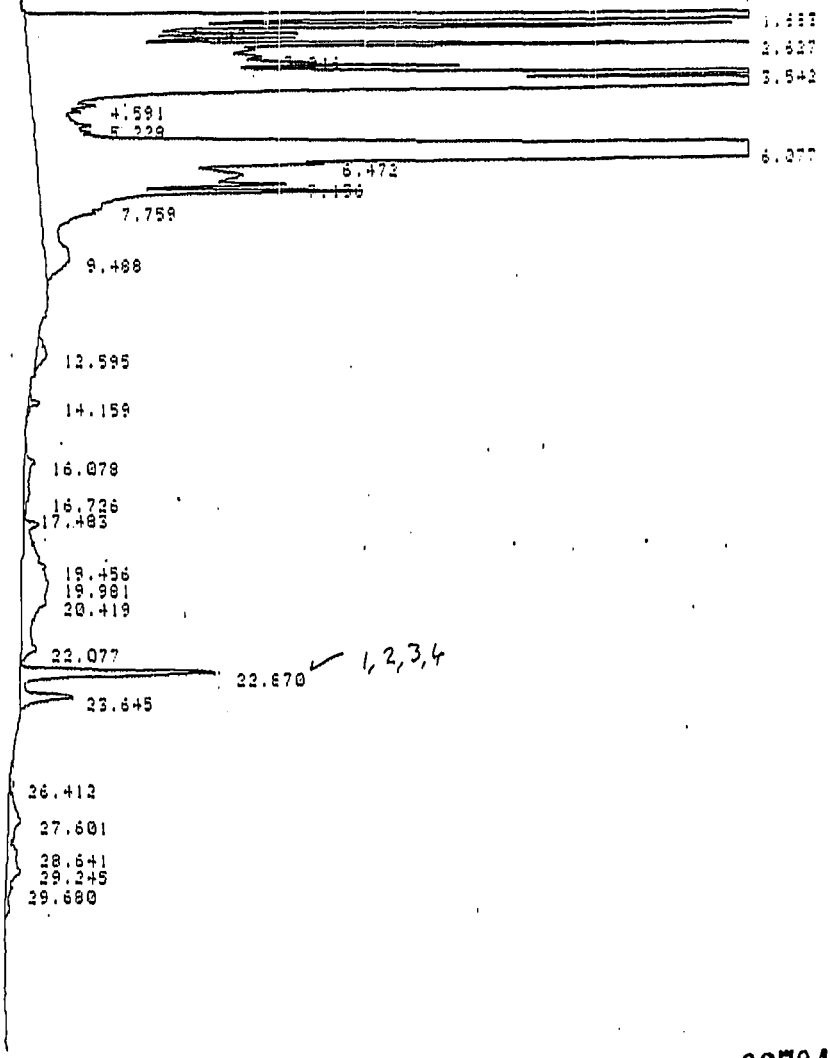
MULTIPLIER = 1

027041

31 000871

R3574
TCDD

CH 1 SPEED 0.6 CM MIN
AT IN: 64 ZERO: 5%



1, 2, 3, 4

027042

31 Q00872

TITLE: CMBE 2417 TICO DATE: 14 MAR 84

CHANNEL NO: 1 SAMPLE: P 3574 METHOD: TICO

PEAK NO	PEAK NAME	RESULT	TIME (MIN)	APEA COUNTS	BP CODE
		36.69	1.661	7620410	BV
		0.95	1.004	196793	VV
		0.94	1.067	194455	VV
		0.23	2.147	47391	VV
5		0.61	2.269	126582	VV
6		0.18	2.364	37727	VV
7		0.57	2.443	118723	VV
8		1.96	2.617	407056	VV
9		0.47	2.780	98062	VV
10		0.47	2.878	97169	VV
11		1.09	3.046	227184	VV
12		0.93	3.217	193338	VV
13		0.86	3.316	178678	VV
14		5.15	3.542	1070530	VV
15		9.72	3.813	2021010	VV
16		0.25	4.591	52464	VV
17		0.16	4.761	33455	VV
18		0.45	5.228	92920	VV
19		0.21	5.446	44517	VV
20		27.03	6.077	5620800	VV
21		1.02	6.472	213047	VV
22		1.97	6.825	409371	VV
23		1.01	7.136	210284	VV
24		1.60	7.361	332820	VV
25		0.30	7.759	61713	VV
26		0.46	8.030	95228	VV
27		0.63	8.468	131870	VB
28		0.16	12.595	33030	BB
29		0.07	14.159	13841	BB
30		0.17	16.078	34610	BV
31		0.09	16.726	19319	VV
32		0.02	17.463	4210	VV
33		0.09	18.068	18699	VV
34		0.42	19.456	87661	VV
35		0.48	19.961	100272	VV
36		0.37	20.419	77763	VV
37		0.23	22.077	48171	VV
38		1.03	22.870 ✓ SS	214720	VV
39		0.33	23.645	68150	VB
+0		0.02	26.412	4313	BV
+1		0.21	27.601	44364	VV
+2		0.15	28.641	30310	VV
+3		0.19	29.245	38735	VV
++		0.11	29.660	22793	VB
TOTALS:		100.01		20794600	

MULTIPLIER: 1.00000

RACK: 8 VIAL: 5 INJ: 1

ERRORS:
ADC OVERANGE

NOTES:
COLUMN:DB-5 CAPILLARY
DETECTOR:ECD
OVEN TEMP PROGRAM:ISOTHERMAL @ 195°C
RUN TIME:35.00 MINUTES
HE SPLITTER, HE CARRIER, N2 MAKEUP
DETECTOR TEMP:300°C, INJECTOR TEMP:250°C

31 000873

027043

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
R3579

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: VERSAR INC.
Case No: 2427
Lab Sample ID No: 5815
QC Report No: 2427
Sample Matrix: LOW LEVEL AQUEOUS
Contract No.: ~~68-01-6725 (634) - 68-01-6757 (825)~~
Data Release Authorized By: MP
Date Sample Received: 2-17-84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one) M
DATE EXTRACTED/PREPARED: 2-17-84
DATE ANALYZED: 3-10-84
PERCENT MOISTURE: —
CONC./DILUTION FACTOR 1000/1

PP #	CAS #		(ug/l or ug/kg) (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	10 u
(22A)	59-50-7	p-chloro-m-cresol	10 u
(24A)	95-57-8	2- chlorophenol	10 u
(31A)	120-83-2	2,4-dichlorophenol	10 u
(34A)	105-67-9	2,4-dimethylphenol	10 u
(37A)	88-75-5	2- nitrophenol	20 u
A)	100-02-7	4-nitrophenol	50 u
(39A)	51-28-5	2,4-dinitrophenol	50 u
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 u
(64A)	87-86-5	pentachlorophenol	10 u
(65A)	108-95-2	phenol	10 u
	65-85-0	benzoic acid	8k
	95-48-7	2-methylphenol	5 u
	108-39-4	4-methylphenol	5 u
	95-95-4	2,4,5-trichlorophenol	100 u
(1B)	83-32-9	acenaphthene	10 u
(5B)	92-87-5	benzidine	40 u
(8B)	120-82-1	1,2,4-trichlorobenzene	10 u
(9B)	118-74-1	hexachlorobenzene	10 u
(12B)	67-72-1	hexachloroethane	10 u
(13B)	111-44-4	bis(2-chloroethyl)ether	3 K
(20B)	91-58-7	2-chloronaphthalene	10 u
(25B)	95-50-1	1,2-dichlorobenzene	10 u
(26B)	541-73-1	1,3-dichlorobenzene	10 u
(27B)	106-46-7	1,4-dichlorobenzene	7k
(28B)	91-94-1	3,3'-dichlorobenzidine	20 u
(35B)	121-14-2	2,4-dinitrotoluene	20 u
(36B)	606-20-2	2,6-dinitrotoluene	20 u
(37B)	122-66-7	1,2-diphenylhydrazine	20 u
1B)	206-44-0	fluoranthene	10 u
40B)	7005-72-3	4-chlorophenyl phenyl ether	10 u
(41B)	101-55-3	4-bromophenyl phenyl ether	10 u
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 u
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 u

PP #	CAS #		(ug/l or ug/kg) (circle one)
(52B)	87-68-3	hexachlorobutadiene	10 u
(53B)	77-47-4	hexachlorocyclopentadiene	10 u
(54B)	78-59-1	isophorone	10 u
(55B)	91-20-3	naphthalene	10 u
(56B)	98-95-3	nitrobenzene	10 u
(62B)	86-30-6	N-nitrosodiphenylamine	10 u
(63B)	621-64-7	N-nitrosodipropylamine	10 u
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	8k
(67B)	85-68-7	benzyl butyl phthalate	10 u
(68B)	84-74-2	di-n-butyl phthalate	10 u
(69B)	117-84-0	di-n-octyl phthalate	10 u
(70B)	84-66-2	diethyl phthalate	7k
(71B)	131-11-3	dimethyl phthalate	10 u
(72B)	56-55-3	benzo(a)anthracene	10 u
(73B)	50-32-8	benzo(a)pyrene	20 u
(74B)	205-99-2	benzo(b)fluoranthene	20 u
(75B)	207-08-9	benzo(k)fluoranthene	20 u
(76B)	218-01-9	chrysene	20 u
(77B)	208-96-8	acenaphthylene	10 u
(78B)	120-12-7	anthracene	10 u
(79B)	191-24-2	benzo(ghi)perylene	20 u
(80B)	86-73-7	fluorene	10 u
(81B)	85-01-8	phenanthrene	10 u
(82B)	53-70-3	dibenzo(a,h)anthracene	20 u
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20 u
(84B)	129-00-0	pyrene	10 u
	62-53-3	aniline	5 u
	100-51-6	benzyl alcohol	20 u
	106-47-8	4-chloroaniline	50 u
	132-64-9	dibenzofuran	10 u
	91-57-6	2-methylnaphthalene	20 u
	88-74-4	2-nitroaniline	100 u
	99-09-2	3-nitroaniline	100 u
	100-01-6	4-nitroaniline	100 u

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
R35-79

ORGANICS ANALYSIS DATA SHEET

oratory Name: VERSAR INC.
Lab Sample ID No: 5815
Sample Matrix: LOW LEVEL AQUEOUS
Data Release Authorized By: [signature]

Case No: 2427
QC Report No: 2427
Contract No.: ~~68-01-6750 (824)~~ 68-01-6757 (825)
Date Sample Received: 2-17-84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-21-84
DATE ANALYZED: 2-21-84
PERCENT MOISTURE: —

CONC./DILUTION FACTOR — (ug/l or ug/kg (circle one))

PP #	CAS #		
(2V)	107-02-8	acrolein	100 u
(3V)	107-13-1	acrylonitrile	100 u
(4V)	71-43-2	benzene	34.
(6V)	56-23-5	carbon tetrachloride	5 u
(7V)	108-90-7	chlorobenzene	5 u
(10V)	107-06-2	1,2-dichloroethane	1 u
(11V)	71-55-6	1,1,1-trichloroethane	5 u
(13V)	75-34-3	1,1-dichloroethane	7.
(14V)	79-00-5	1,1,2-trichloroethane	5 u
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 u
(V)	75-00-3	chloroethane	16.
(19V)	110-75-8	2-chloroethylvinyl ether	10 u
(23V)	67-66-3	chloroform	5 u
(29V)	75-35-4	1,1-dichloroethene	5 u
(30V)	156-60-5	trans-1,2-dichloroethene	5 u
(32V)	78-87-5	1,2-dichloropropane	10 u
(33V)	10061-02-6	trans-1,3-dichloropropene	5 u
	10061-01-05	cis-1,3-dichloropropene	5 u
(38V)	100-41-4	ethylbenzene	5 u
(44V)	75-09-2	methylene chloride	H. K
(45V)	74-87-3	chloromethane	10 u
(46V)	74-83-9	bromomethane	10 u
(47V)	75-25-2	bromoform	10 u
(48V)	75-27-4	bromodichloromethane	5 u
(49V)	75-69-4	fluorotrichloromethane	5 u
(50V)	75-71-8	dichlorodifluoromethane	5 u
(51V)	124-48-1	chlorodibromomethane	5 u
(85V)	127-18-4	tetrachloroethene	5 u
(86V)	108-88-3	toluene	5 u
(87V)	79-01-6	trichloroethene	5 u
(88V)	75-01-4	vinyl chloride	10 u
	67-64-1	acetone	27.
	78-93-3	2-butanone	5 u
	75-15-0	carbondisulfide	1 u
	519-78-6	2-hexanone	5 u
	108-10-1	4-methyl-2-pentanone	5 u
	100-42-5	styrene	5 u
	108-05-4	vinyl acetate	5 u
	1330-20-7	total xylenes	27.

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-20-84
DATE ANALYZED: 3-13-84
PERCENT MOISTURE: N.A.

CONC./DILUTION FACTOR 1l → 10 ml (ug/l or ug/kg (circle one))

PP #	CAS #		
(89P)	309-00-2	aldrin	0.005u
(90P)	60-57-1	dieldrin	0.005u
(91P)	57-74-9	chlordane	0.050u
(92P)	50-29-3	4,4'-DDT	0.010u
(93P)	72-55-9	4,4'-DDE	0.005u
(94P)	72-54-8	4,4'-DDD	0.010u
(95P)	115-29-7	α-endosulfan	0.005u
(96P)	115-29-7	β-endosulfan	0.005u
(97P)	1031-07-8	endosulfan sulfate	0.010u
(98P)	72-20-8	endrin	0.005u
(99P)	7421-93-4	endrin aldehyde	0.010u
(100P)	76-44-8	heptachlor	0.005u
(101P)	1024-57-3	heptachlor epoxide	0.005u
(102P)	319-84-6	α-BHC	0.005u
(103P)	319-85-7	β-BHC	0.005u
(104P)	319-86-8	δ-BHC	0.005u (1)
(105P)	58-89-9	γ-BHC (lindane)	0.005u
(106P)	53469-21-9	PCB-1242	0.050u
(107P)	11097-69-1	PCB-1254	0.100u
(108P)	11104-28-2	PCB-1221	0.100u
(109P)	11141-16-5	PCB-1232	0.100u
(110P)	12672-29-6	PCB-1248	0.100u
(111P)	11096-82-5	PCB-1260	0.200u
(112P)	12674-11-2	PCB-1016	0.050u
(113P)	8001-35-2	toxaphene	0.050u

(1) D-BHC FSCC ID, however could not confirm on packed column due to interference

DIOXINS CC

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-20-84
DATE ANALYZED: 3-13-84
PERCENT MOISTURE: —

CONC./DILUTION FACTOR 1000 → 5 (ug/l or ug/kg (circle one))

PP #	CAS #	
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin 0.005u

ORGANICS ANALYSIS DATA SHEET - Page 3

Section Number R3579

Laboratory Name: VERSAR INC. Case No: 2427

QC Report No: 2427

B. Tentatively Identified Compounds

	CAS #	Compound Name	Fraction	Scan No. or Retention Time	% Maximum Score Attained Mass Matching Routines (Specify:)	Estimated Concentration (ug/L or ug/kg)	
1.	75434	Methane dichlorofluoro-	VOA	142	98%	25.	J
2.	60297	Ethane, 1,1'-oxybis-	VOA	298	91%	50.	J
3.	109999	Furan, tetrahydro-	VOA	278	72%	40.	J
4.	106406	Trimethyl cyclohexane	VOA	343	75%	10.	J
5.	462953	Ethane, 1,2-dimethoxy-1,2-diphenyl-	VOA	467	97%	20.	J
6.	—	Unknown	VOA	58	—	25	J
7.	—	UNKNOWN	BNA	317	—	7	J
8.	107 41 5	2,4-Pentanediol, 2-methyl	BNA	592	987	19.	J
9.	—	UNKNOWN	BNA	706	—	15.	J
10.	107 49 3	Diphosphoric Acid Tetraethyl	BNA	800	990	11.	J
11.	498 81 7	Cyclohexanemethanol, alpha-	BNA	827	995	110.	J
12.	76 22 2	Bicyclo(2.2.1) Heptan-2-one	BNA	842	990	42.	J
13.	—	UNKNOWN	BNA	881	—	12.	J
14.	—	UNKNOWN	BNA	903	—	25.	J
15.	112 40 3	2,5,8,11-Tetraoxadodecane	BNA	937	943	26.	J
16.	108 60 8	2H-Azepin-2-one, hexahydro-	BNA	958	992	205.	J
17.	143-07-7	Dodecanoic Acid	BNA	1178	993	42.	J
18.	—	UNKNOWN	BNA	1269	—	12.	J
19.	544 63 8	Tetradecanoic Acid	BNA	1319	993	9	J
20.	—	UNKNOWN	BNA	1367	—	42	J
21.	57 10 3	Hexadecanoic Acid	BNA	1469	993	12.	J
22.	—	UNKNOWN	BNA	1555	983	40.	J
23.	—	UNKNOWN	BNA	1667	—	12.	J
24.							
25.							
26.							
27.							
28.							
29.							
30.							

4/82

J = estimated conc.

027046

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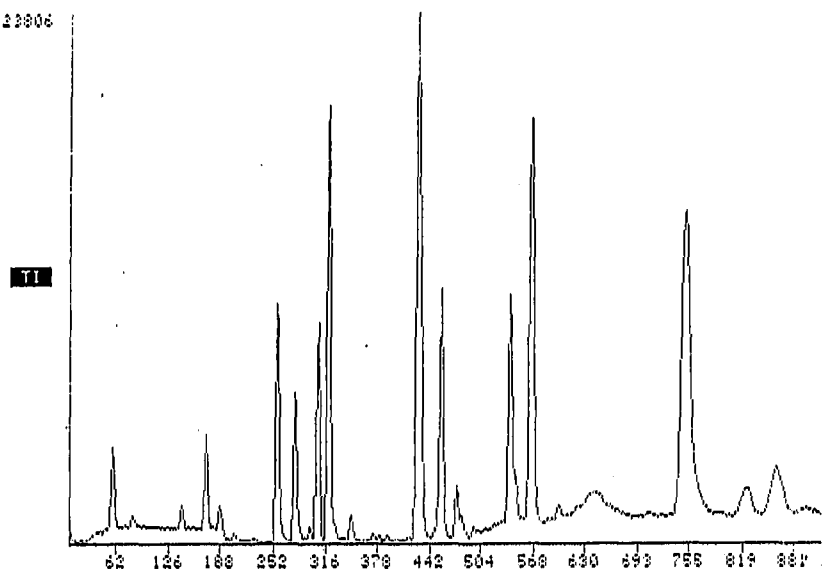
NAME VOA SAMPLE#5815 5ML EPA#P3575 CASE 3427 #FRN 24992
MISC 24992 33 10015 1758 2-21-84 MB PM



AREA TABLE ENTRIES: FRN 24992

Entry	Time	Mass	Area	% x R.F. = conc. (ug/L)
1	10.7	127.7	6498.	100.0
2	13.1	64.7	23815.	366.5 x 0.298 = 109.
3	6.3	65.7	374.	5.8 x 2.75 = 16.
~~MB 4~~	~~9.1~~	~~49.7~~	~~875.~~	~~13.5 x 0.327 = 4. Below Reporting Level~~
5	8.8	42.7	951.	14.6 x 1.88 = 27.
6	11.5	62.7	2495.	38.4 x 0.194 = 7.

Qualifying & MECL REPORT OK BB 3/2/84

IS
SS
chloromethane
~~methylene chloride~~
acetone
1,1-dichloroethane

Entry	Time	Mass	Area	%
1	18.5	76.7	10498.	100.0
2	17.3	83.7	37564.	357.8 x 0.308 = 110.
3	17.4	77.7	13451.	128.1 x 0.262 = 34.

IS
SS
benzene

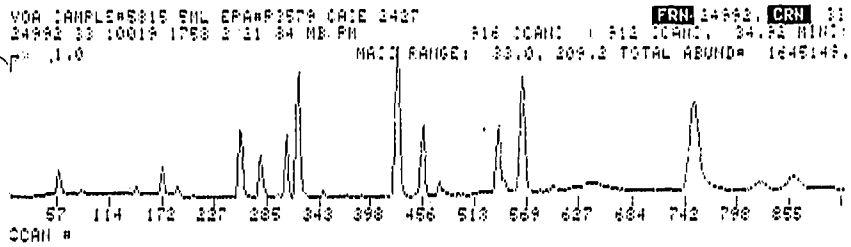
CALCULATE % ON ENTRY #:
AREA TABLE ENTRIES: FRN 24992

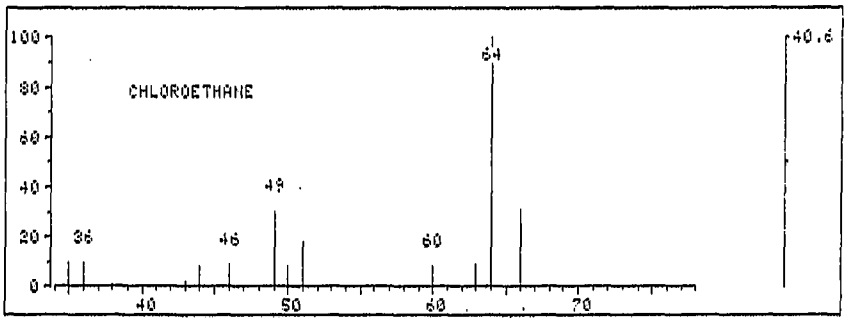
Entry	Time	Mass	Area	%
1	21.6	54.7	14010.	100.0
2	22.5	97.7	27929.	199.3 x 0.434 = 86.
~~MB 3~~	~~22.7~~	~~91.7~~	~~550.~~	~~3.9 Below Reporting Level~~ OK BB 3/2/84
4	29.9	94.7	29830.	212.9 x 0.422 = 90.
5	32.5	105.7	1839.	13.1 x 0.681 = 9. > 27
6	33.9	105.7	3755.	26.8 x 0.681 = 18.

IS
SS
SS
xylene
xylene

CALCULATE % ON ENTRY #:

31 000877 X
027047





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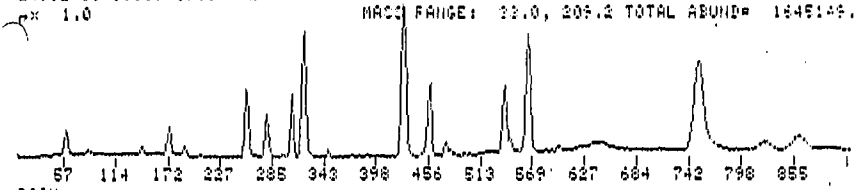
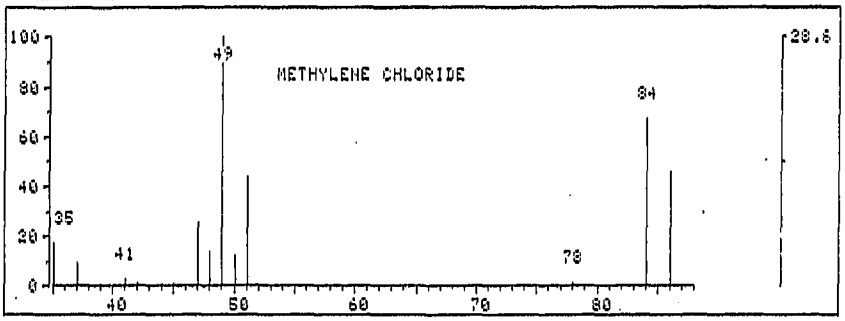
027043

VOA SAMPLE#5815 SML EPA#83579 CASE 3427 FRN 24992, CRH 33
24992 33 10019 1758 3/21/84 MB/BM 916 SCANS : 912 SCANS, 34.92 MINS
RX 1.0 MASS RANGE: 33.0, 209.2 TOTAL ABUND= 1645149.

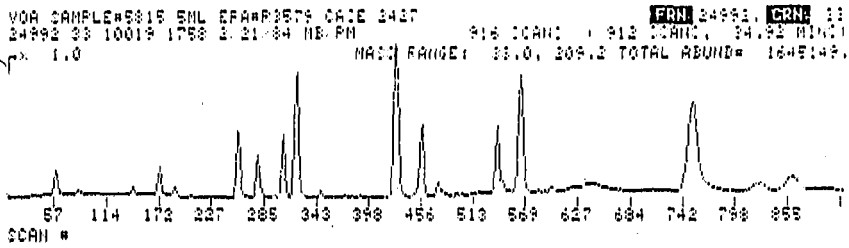


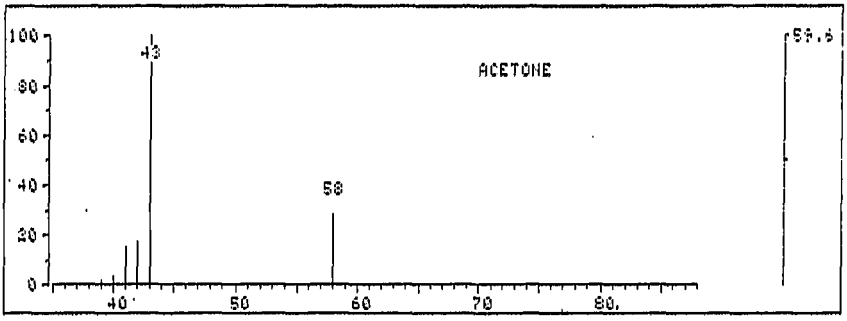
AVERAGED SPECTRUM * BASE PK/ABUND: 49.1/ 32000. * 190 -183



31 000879

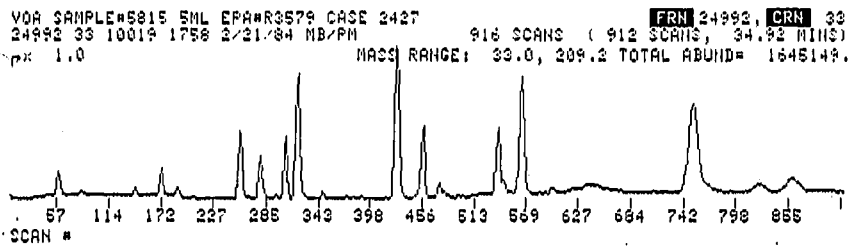
027043

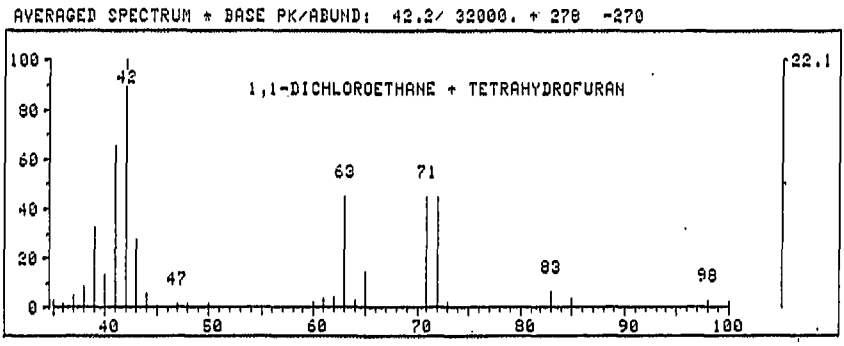




31 000880 X

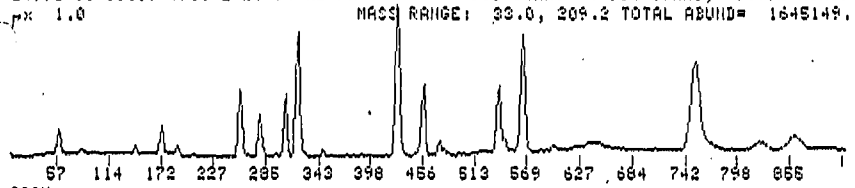
027050





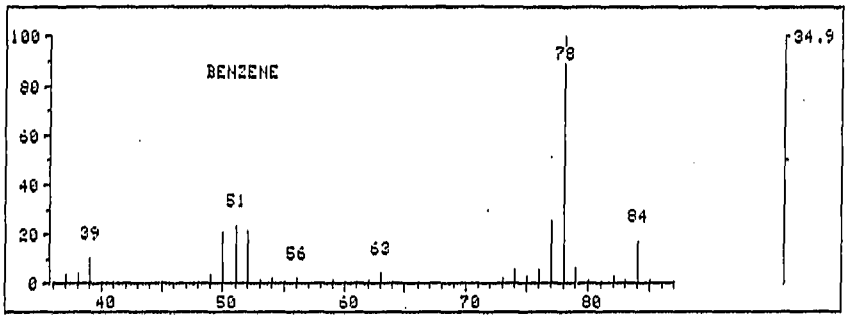
PEAKS CO-ELUTE BB 3/2/84

VOA SAMPLE#5815 SML EPA#R3579 CASE 2437 FRN 24992, CRN 33
24992 33 10019 1758 3/21/84 MB/PM 916 SCANS (912 SCANS, 34.92 MINS)
px 1.0 MASS RANGE: 33.0, 209.2 TOTAL ABUND= 1645149.



SCAN #

AVERAGED SPECTRUM * BASE PK/ABUND: 78.1/ 32000. * 431 -423

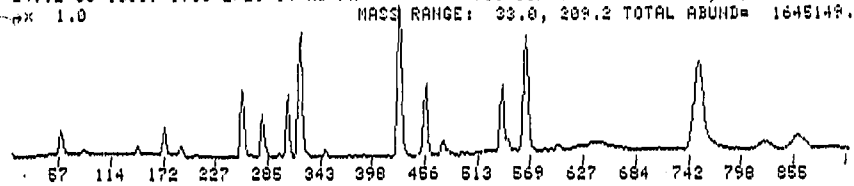


SPECTRA HAS
SOME Benzene &c
BB 3/2/84

31 000882

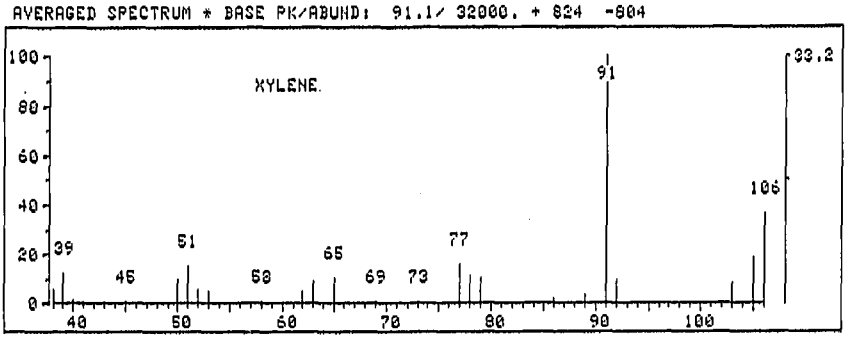
027052

VOA SAMPLE#5815 5ML EPA#R3579 CASE 2427 FRN 24992, CRN 33
24992 33 10019 1758 2/21/84 MB/PM 916 SCANS (912 SCANS, 34.92 MINS)
X 1.0 MASS RANGE: 33.0, 209.2 TOTAL ABUND= 1645149.

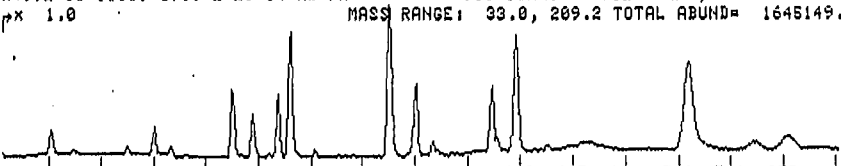


SCAN #

AVERAGED SPECTRUM * BASE PK/ABUND: 91.1/ 32000. + 824 -804

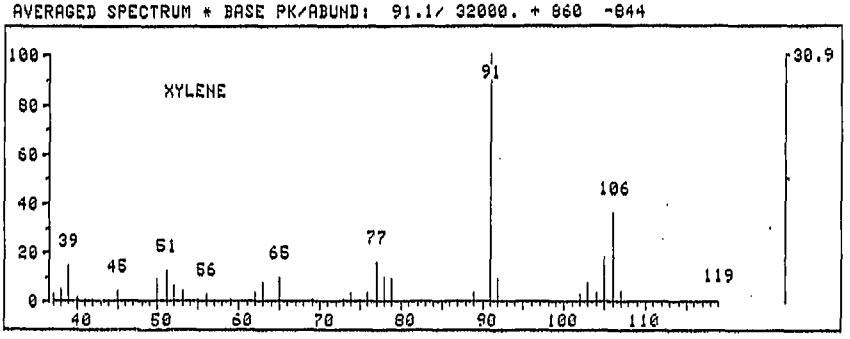


VOA SAMPLE#5815 5ML EPA#R3579 CASE 2427 FRN 24992, CRN 33
24992 33 10019 1758 2/21/84 MB/PM 916 SCANS (912 SCANS, 34.92 MINS)
X 1.0 MASS RANGE: 33.0, 209.2 TOTAL ABUND= 1645149.



SCAN #

AVERAGED SPECTRUM * BASE PK/ABUND: 91.1/ 32000. + 860 -844



31 000883
027053

```
[Similarity/Full Search]        MW Range: 101- 103]

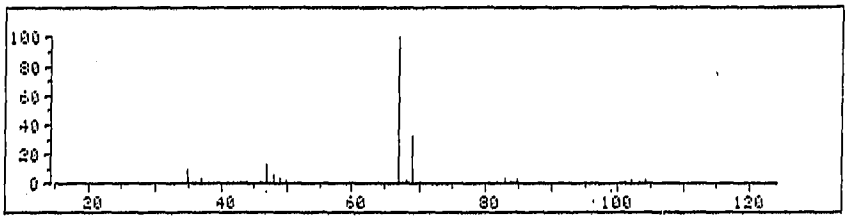
AVERAGED SPECTRUM FROM FRN 24992
+ 172  -165

          25 PEAKS,    20 SIGNIFICANT      MAX K   44.1

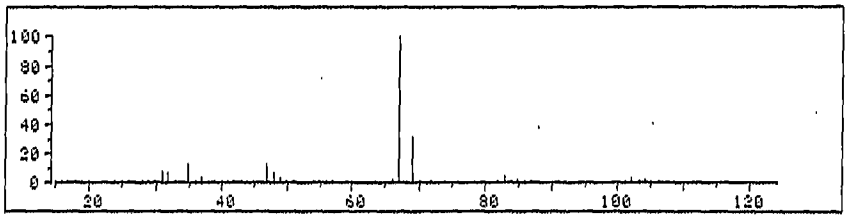
 LIBRARY  3000    148 SPECTRA SEARCHED,    1 HIT(S)


 .9770 +  Methane, dichlorofluoro- (8CI9CI)
        SPEC= 1250  LSH=  1250, MW= 102  CHCl2F
        FRN = 3001 [NBS   1250.] CAS #  0000075434  EPA #  0000001234
        MATCHING PEAKS   CONTAMINATED   MISSING PEAKS  QUAL INDEX=  727
         40.1  18  98%    .0   0   0%     .6   0   0%  MULTIPLIER= 1.00
>PAUSE


  1 HIT: AVERAGED SPECTRUM (FRN 24992) + 172  -165
```




```
#  1  LFRN  3001 SPECT 1250   MW= 102  CHCl2F
.9770 Methane, dichlorofluoro- (8CI9CI)
```



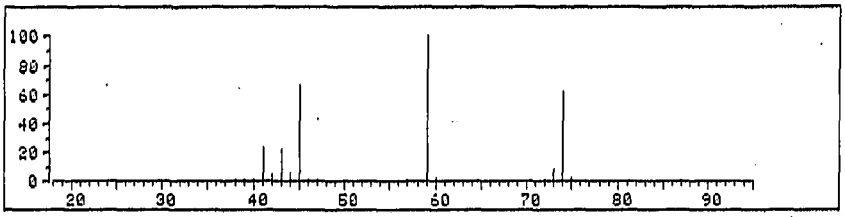
[Similarity/Full Search] MW Range: 74- 86]

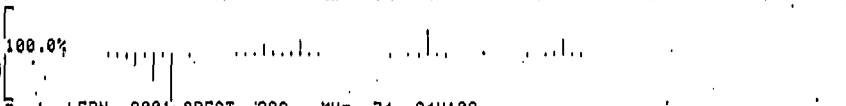
REF. SPECT #= 298 LSN= 298. MW= 0 FRN=24992 RET. TIME= 12.5
17 PEAKS, 12 SIGNIFICANT MAX K 27.5

LIBRARY 3000 404 SPECTRA SEARCHED, 1 HIT(S)

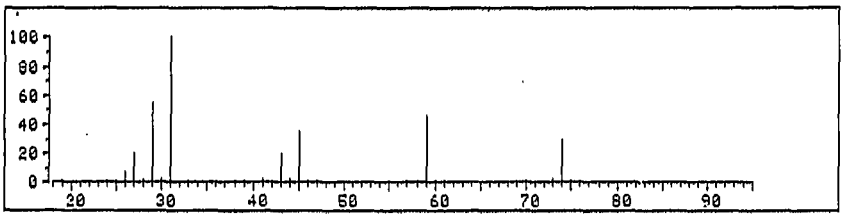
,8686 + Ethane, 1,1'-oxybis- (9CI)
SPEC= 293 LSN= 293. MW= 74 C4H10O
FRN = 3001 [NBS 293.] CAS # 0000060297. EPA # 0000019102
MATCHING PEAKS CONTAMINATED MISSING PEAKS QUAL INDEX= 720
23.1 10 91% .0 0 0% 2.7 1 13% MULTIPLIER= 1.09
>PAUSE

1 HIT: REFERENCE FRN 24992 SCAN 298





1 LFRN 3001 SPECT 293 MW= 74 .C4H10O
.8686 Ethane, 1,1'-oxybis- (9CI)



[Similarity/Condensed Search: MW Range: 71- 731

AVERAGED SPECTRUM FROM FRN 24992
+ 278 -283

28 PEAKS, 25 SIGNIFICANT MAX K 24.7

LIBRARY 3000 55 SPECTRA SEARCHED, 4 HIT(S)

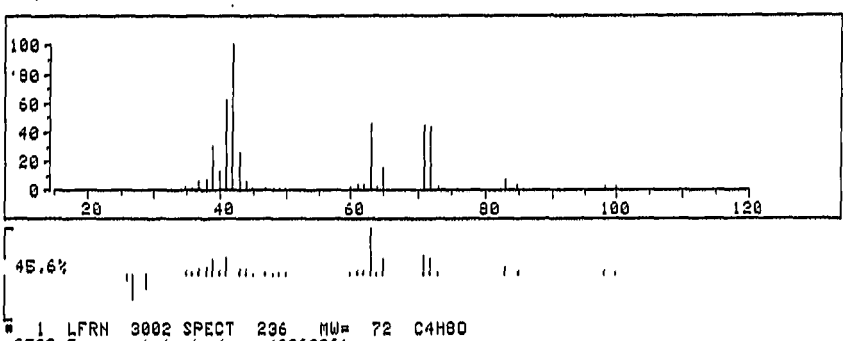
.9733 + Furan, tetrahydro- (8CI9CI)
SPEC= 236 LSN= 236. MW= 72 C4H8O
FRN = 3002 [NBS 236.] CAS # 0000109999 EPA # 0000019124
MATCHING PEAKS CONTAMINATED MISSING PEAKS QUAL INDEX= 728
17.3 7 72% .0 0 0% .0 0 0% MULTIPLIER= 1.00

.9707 + 1-Propene, 2-methoxy- (9CI)
SPEC= 237 LSN= 237. MW= 72 C4H8O
FRN = 3002 [NBS 237.] CAS # 0000116110 EPA # 0000019135
MATCHING PEAKS CONTAMINATED MISSING PEAKS QUAL INDEX= 655
14.8 6 62% .0 0 0% .0 0 0% MULTIPLIER= 1.00

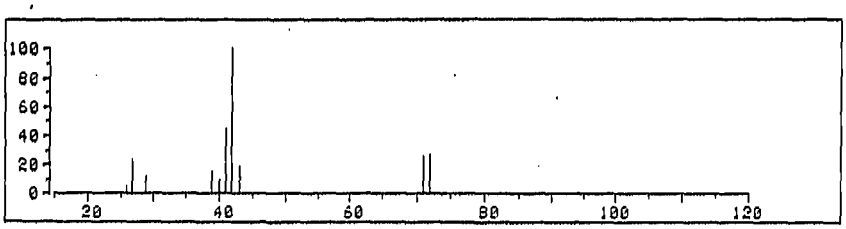
.9707 + Oxirane, 2,2-dimethyl- (9CI)
SPEC= 241 LSN= 241. MW= 72 C4H8O
FRN = 3002 [NBS 241.] CAS # 0000558305 EPA # 0000019121
MATCHING PEAKS CONTAMINATED MISSING PEAKS QUAL INDEX= 728
14.8 6 62% .0 0 0% .0 0 0% MULTIPLIER= .74

.8232 + Oxirane, ethyl- (9CI)
SPEC= 234 LSN= 234. MW= 72 C4H8O
FRN = 3002 [NBS 234.] CAS # 0000106887 EPA # 0000034327
MATCHING PEAKS CONTAMINATED MISSING PEAKS QUAL INDEX= 655
15.1 6 66% .0 0 0% 2.7 1 3% MULTIPLIER= .83

>PAUSE
4 HITS: AVERAGED SPECTRUM (FRN 24992) + 278 -283



1 LFRN 3002 SPECT 236 MW= 72 C4H8O
.9733 Furan, tetrahydro- (8CI9CI)



```
[Similarity/Condensed Search]        MW Range:  88-  93]

REF.  SPECT #=  343  LSN=   343. MW=   0  FRN=24992   RET. TIME=    .4
          18 PEAKS,    17 SIGNIFICANT       MAX K   23.9

 LIBRARY  3000    145 SPECTRA SEARCHED,    5 HIT(S)

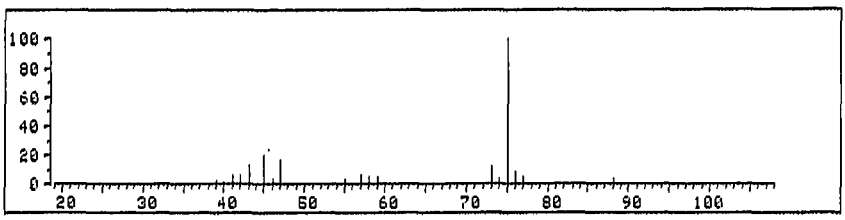

 .9737    Silanol, trimethyl- (8CI9CI)
          SPEC=  693  LSN=   693. MW=  90  C3H10OSi
          FRN = 3002 [NBS    693.] CAS #  0001066406   EPA #  0000000734
          MATCHING PEAKS   CONTAMINATED   MISSING PEAKS  QUAL INDEX=  563
           16.7   7  75%    .0   0   0%    .0   0   0%  MULTIPLIER= 1.00

 .8248 +  Ethanol, 2-(ethenyloxy)- (9CI)
          SPEC=  649  LSN=   649. MW=  88  C4H8O2
          FRN = 3002 [NBS    649.] CAS #  0000764487   EPA #  0000000684
          MATCHING PEAKS   CONTAMINATED   MISSING PEAKS  QUAL INDEX=  655
           16.0   7  29%    .0   0   0%    2.9   1  14%  MULTIPLIER=  .42

 .7695 +  1,4-Butanediamine (8CI9CI)
          SPEC=  631  LSN=   631. MW=  88  C4H12N2
          FRN = 3002 [NBS    631.] CAS #  0000110601   EPA #  0000000666
          MATCHING PEAKS   CONTAMINATED   MISSING PEAKS  QUAL INDEX=  655
           11.2   5  19%    .0   0   0%    2.9   1  18%  MULTIPLIER=  .53

 .6954 ?  Butanoic acid (9CI)
          SPEC=  638  LSN=   638. MW=  88  C4H8O2
          FRN = 3002 [NBS    638.] CAS #  0000107926   EPA #  0000000673
          MATCHING PEAKS   CONTAMINATED   MISSING PEAKS  QUAL INDEX=  720
           13.6   6  28%   2.4   1   1%    2.9   1  23%  MULTIPLIER=  .53

 .6906 +  Propanoic acid, 2-methyl- (9CI)
          SPEC=  636  LSN=   636. MW=  88  C4H8O2
          FRN = 3002 [NBS    636.] CAS #  0000079312   EPA #  0000000672
          MATCHING PEAKS   CONTAMINATED   MISSING PEAKS  QUAL INDEX=  720
           13.4   6  16%   2.4   1   7%    2.9   1  11%  MULTIPLIER=  .38
>PAUSE
  5 HITS: REFERENCE FRN 24992 SCAN  343
```

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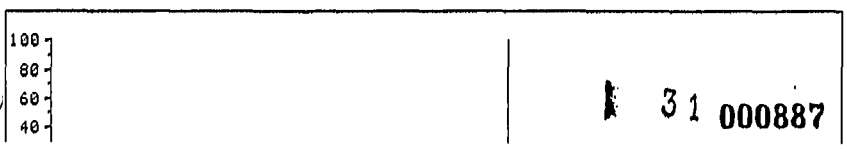
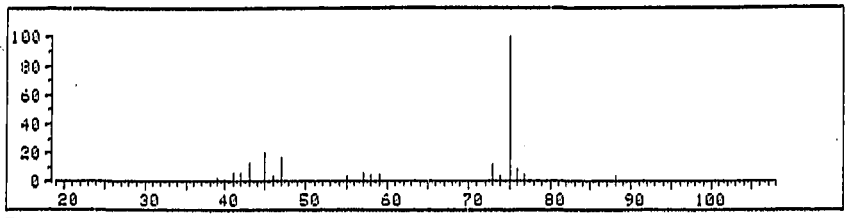
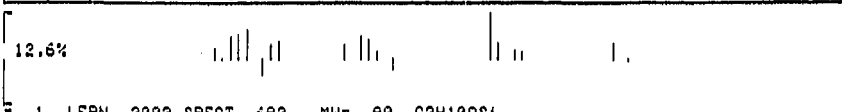
#  1  LFRN  3002 SPECT  693   MW=  90  C3H10OSi
.9737 Silanol, trimethyl- (8CI9CI)
```

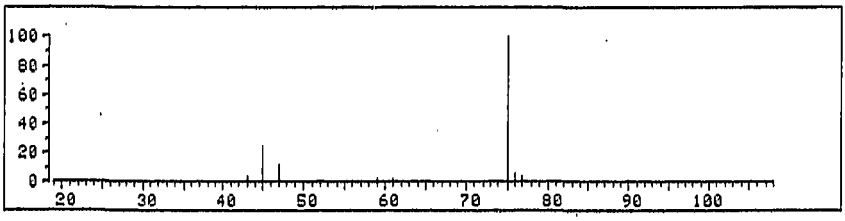


5 HITS: REFERENCE FRN 24992 SCAN 343





1 LFRN 3002 SPECT 693 MW= 90 C3H10OSi
.9737 Silanol, trimethyl- (8CI9CI)



31 000888

027058

[Similarity/Full Search] MW Range: 100- 105]

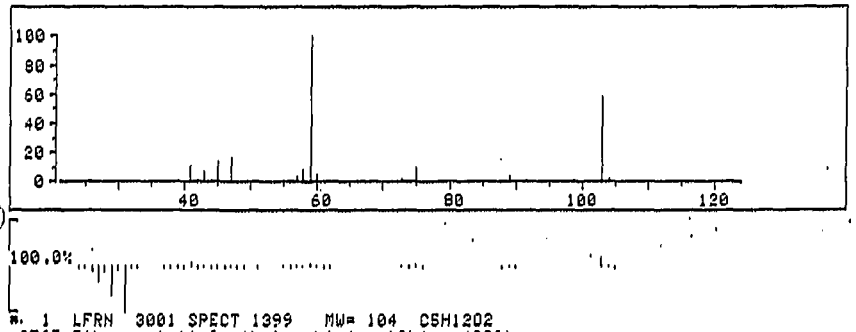
REF. SPECT #= 467 LSN= 467. MW= 0 FRN=24992 RET. TIME= .5
16 PEAKS, 14 SIGNIFICANT MAX K 32.4

LIBRARY 3000 383 SPECTRA SEARCHED, 2 HIT(S)

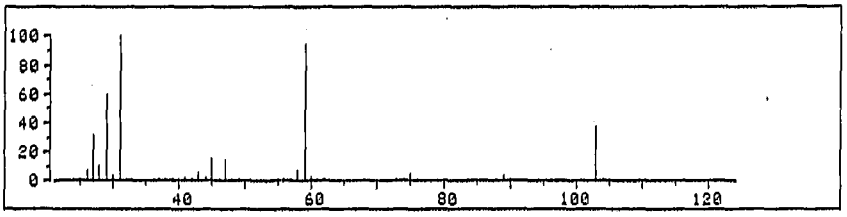
.9765 + Ethane, 1,1'-[methylenebis(oxy)]bis- (9CI)
SPEC= 1399 LSN= 1399. MW= 104 C5H1202
FRN = 3001 [NBS 1399.] CAS # 0000462953 EPA # 0000001280
MATCHING PEAKS CONTAMINATED MISSING PEAKS QUAL INDEX= 728
27.9 12 97% .0 0 0% .0 0 0% MULTIPLIER= 1.37

.6699 + 2-Propanol, 1-ethoxy- (8CI9CI)
SPEC= 1402 LSN= 1402. MW= 104 C5H1202
FRN = 3001 [NBS 1402.] CAS # 0001569024 EPA # 0000001268
MATCHING PEAKS CONTAMINATED MISSING PEAKS QUAL INDEX= 655
24.9 11 64% 5.2 2 30% 5.8 2 77% MULTIPLIER= 1.71

>PAUSE
2 HITS: REFERENCE FRN 24992 SCAN 467

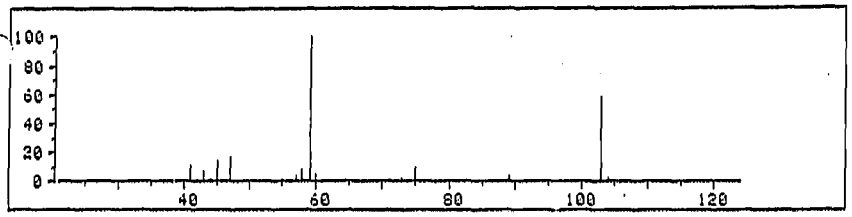


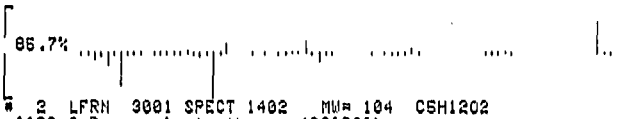
#. 1 LFRN 3001 SPECT 1399 MW= 104 C5H1202
.9765 Ethane, 1,1'-[methylenebis(oxy)]bis- (9CI)



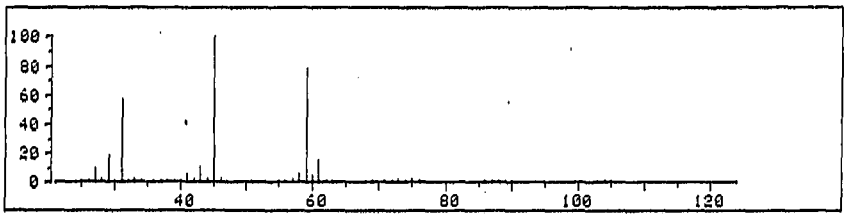
31 000889 X
027059

2 HITS: REFERENCE FRN 24992 SCAN 467





2 LFRN 3001 SPECT 1402 MW= 104 C5H1202
.6699 2-Propanol, 1-ethoxy- (8CI9CI)



31 000890

027060

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[Similarity/Condensed Search:      MW Range:  68- 120]

AVERAGED SPECTRUM FROM FRN 24992
+  58   -52

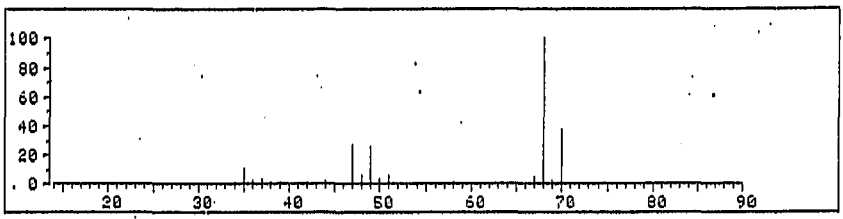
          18 PEAKS,    15 SIGNIFICANT      MAX K   23.8

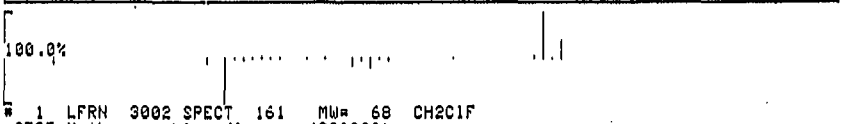
 LIBRARY  3000   2448 SPECTRA SEARCHED,    3 HIT(S)


 .9705    Methane, chlorofluoro- (8CI9CI)
          SPEC=  161  LSN=   161. MW=  68  CH2ClF
          FRN = 3002 [NBS    161.]  CAS #  0000593704   EPA #  0000019062
          MATCHING PEAKS   CONTAMINATED   MISSING PEAKS  QUAL INDEX=  728
           13.8   6  33%    .0   0   0%    .0   0   0%  MULTIPLIER=  .36

 .7609    Methane, chlorodifluoro- (8CI9CI)
          SPEC=  525  LSN=   525. MW=  86  CHClF2
          FRN = 3002 [NBS    525.]  CAS #  0000075456   EPA #  0000000624
          MATCHING PEAKS   CONTAMINATED   MISSING PEAKS  QUAL INDEX=  724
           11.2   5  11%    .0   0   0%    2.9   1  25%  MULTIPLIER=  .67

 .6487 *  Nitrogen chloride fluoride (NClF2) (8CI9CI)
          SPEC=  599  LSN=   599. MW=  87  ClF2N
          FRN = 3002 [NBS    599.]  CAS #  0013637871   EPA #  0000000649
          MATCHING PEAKS   CONTAMINATED   MISSING PEAKS  QUAL INDEX=  481
           12.6   5  75%    .0   0   0%    5.9   2  72%  MULTIPLIER=  .91
>PAUSE
  3 HITS: AVERAGED SPECTRUM (FRN 24992) +  58   -52
```



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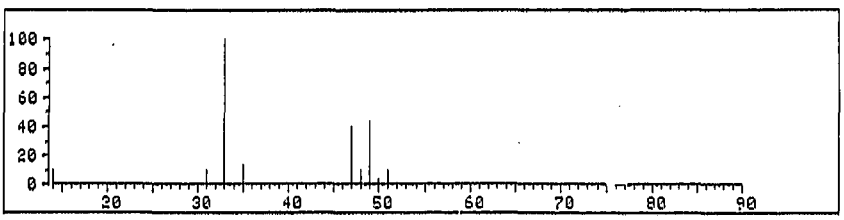
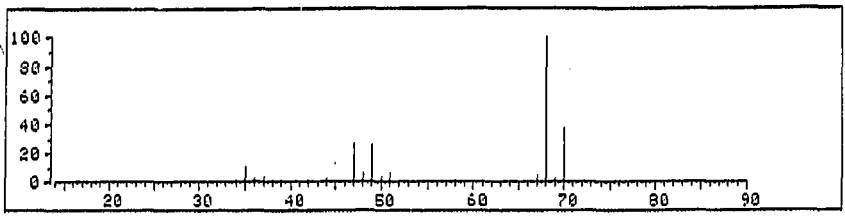
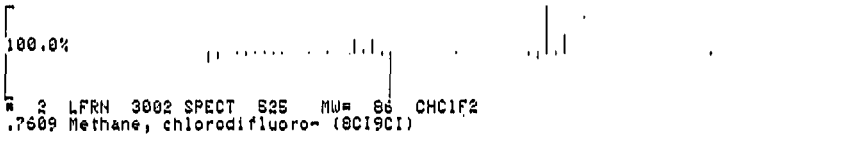
*  1  LFRN  3002 SPECT  161   MW=  68  CH2ClF
.9705 Methane, chlorofluoro- (8CI9CI)
```

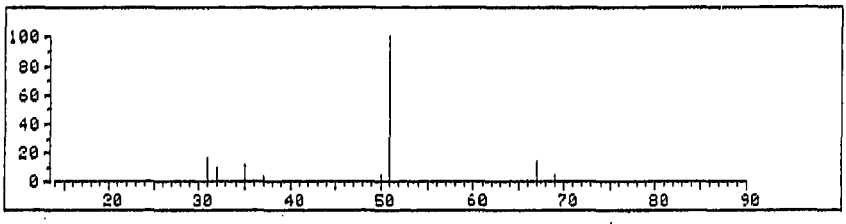


3 HITS: AVERAGED SPECTRUM (FRN 24992) + 58 -52

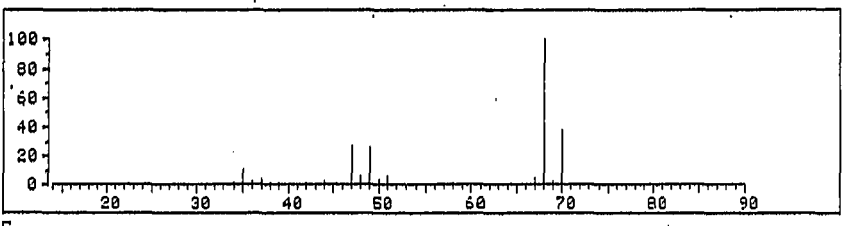


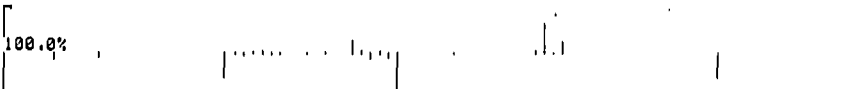


3 LFRN 3002 SPECT 525 MW= 86 CHC1F2
.7609 Methane, chlorodifluoro- (8CI9CI)

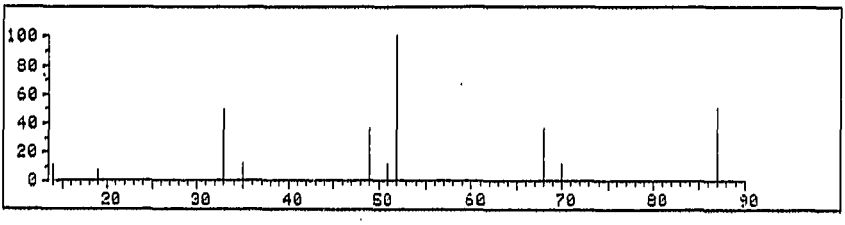


3 HITS: AVERAGED SPECTRUM (FRN 24992) + 58 . -52

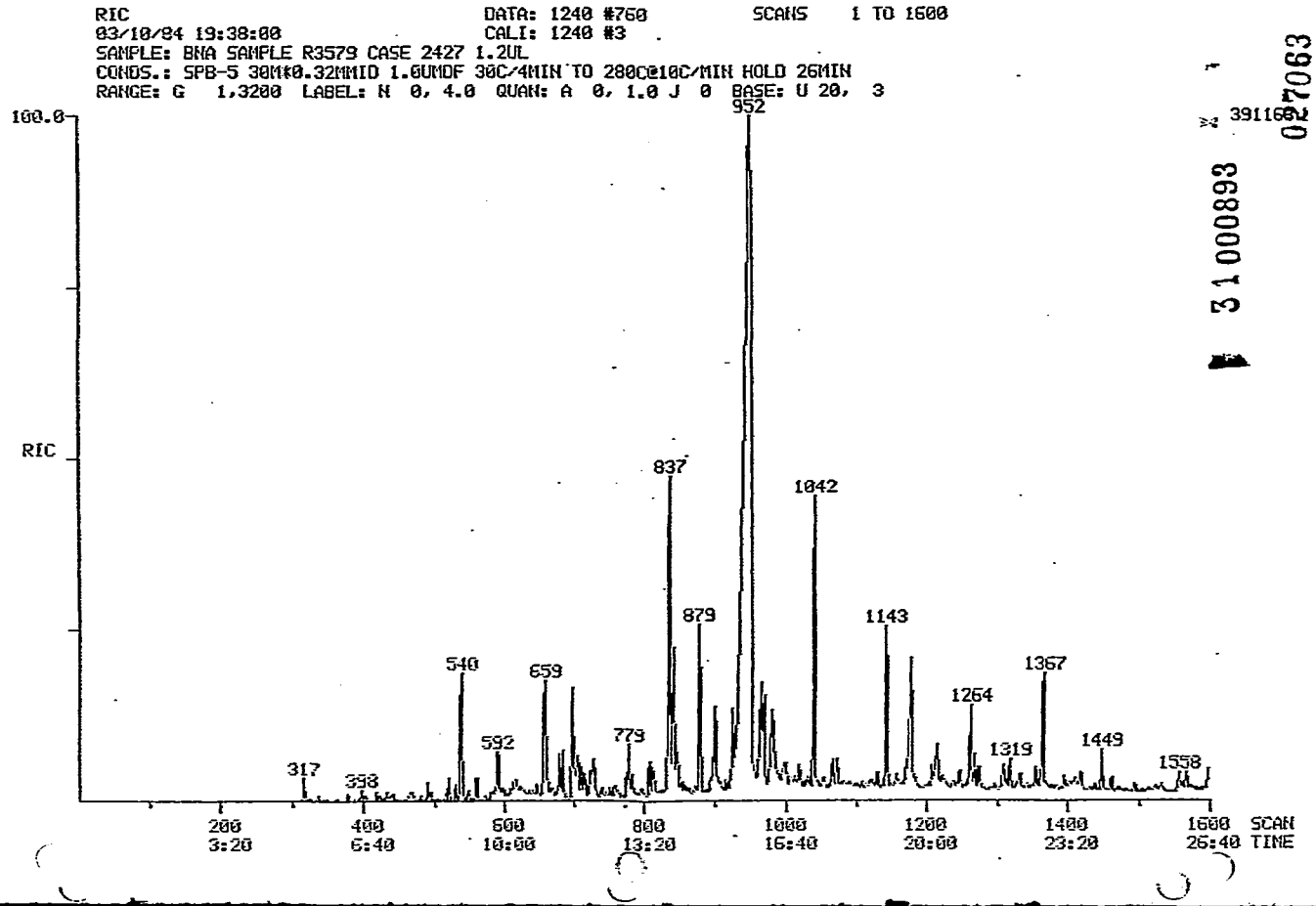


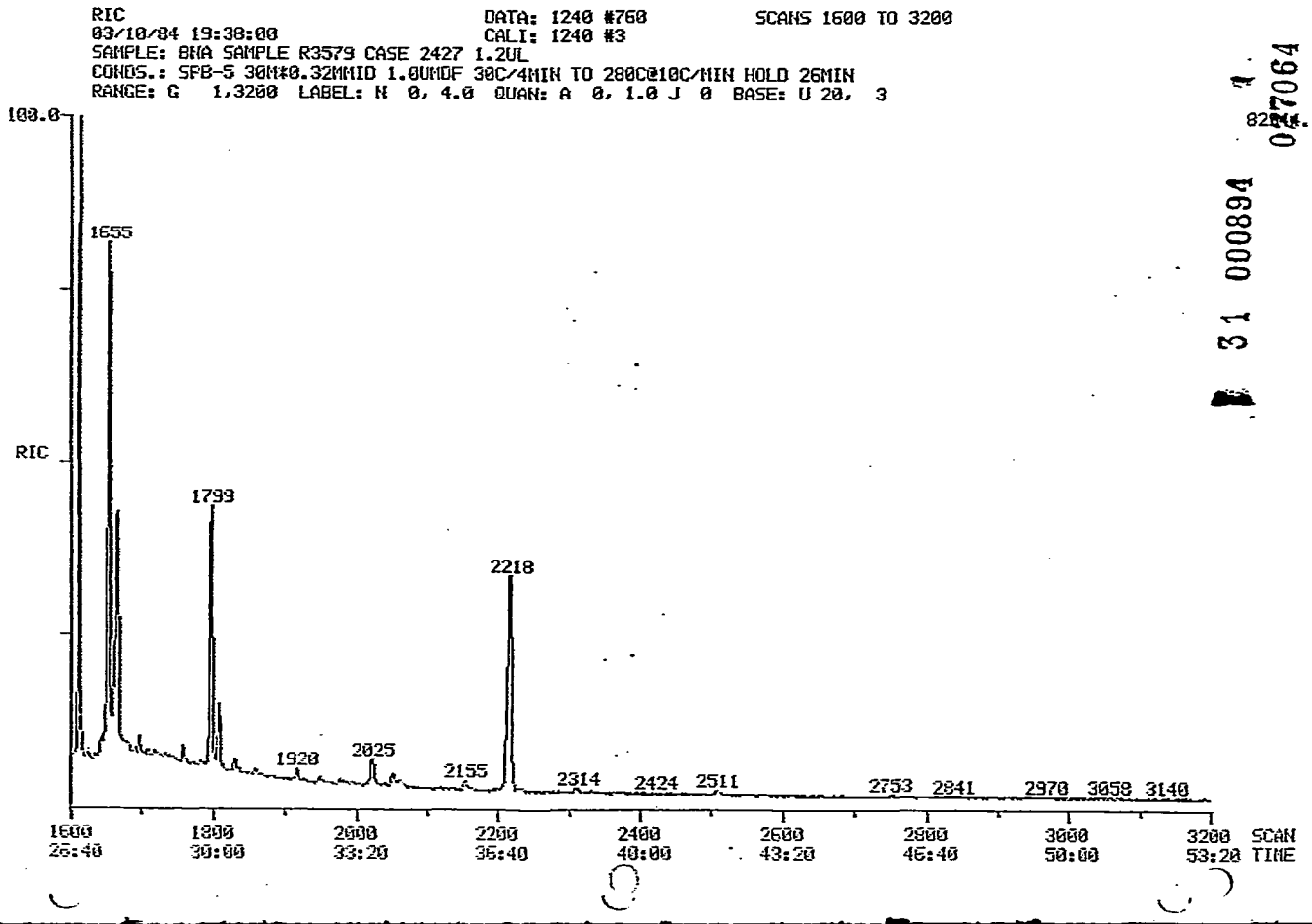


3 LFRN 3002 SPECT 599 MW= 87 C1F2N
.6487 Nitrogen chloride fluoride (NC1F2) (8CI9CI)



000892 K
027062


RIC
03/10/84 19:38:00
DATA: 1240 #760
CALI: 1240 #3
SCANS 1 TO 1600
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M@0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
RANGE: G 1,3200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
RIC
952
837
1042
879
1143
540
659
1367
1264
592
779
1319
1449
317
398
1558
200
3:20
400
6:40
800
13:20
1000
16:40
1200
20:00
1400
23:20
1600
26:40
SCAN
TIME



Quantitation Report File: 1240

Data: 1240.TI
03/10/84 19:38:00
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Submitted by: VERSAR Analyst: SEP

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

REVIEW.

5 DETECTED.

NO	NAME
1	1,4-DICHLOROBENZENE D4 ***INTERNAL STANDARD#1***
2	N-NITROSODIMETHYLAMINE
3	ANILINE
4	2-CHLOROPHENOL
5	PHENOL
6	BIS(2-CHLOROETHYL)ETHER
7	1,3-DICHLOROBENZENE
8	1,4-DICHLOROBENZENE
9	1,2-DICHLOROBENZENE
10	BENZYL ALCOHOL
11	BIS(2-CHLOROISOPROPYL)ETHER
12	2-METHYLPHENOL
13	HEXACHLOROETHANE
14	4-METHYLPHENOL
15	N-NITROSO-DI-N-PROPYLAMINE
16	NITROBENZENE
17	NAPHTHALENE D8 ***INTERNAL STANDARD#2***
18	ISOPHORONE
19	2-NITROPHENOL
20	2,4-DIMETHYLPHENOL
21	BIS(2-CHLOROETHOXY)METHANE
22	2,4-DICHLOROPHENOL
23	1,2,4-TRICHLOROBENZENE
24	NAPHTHALENE
25	BENZOIC ACID
26	4-CHLOROANILINE
27	HEXACHLOROBUTADIENE
28	4-CHLORO-M-CRESOL
29	2-METHYLNAPHTHALENE
30	ACENAPHTHENE D10 ***INTERNAL STANDARD#3***
31	HEXACHLOROCYCLOPENTADIENE
32	2,4,6-TRICHLOROPHENOL
33	2,4,5-TRICHLOROPHENOL
34	2-CHLORONAPHTHALENE
35	2-NITROANILINE
36	ACENAPHTHYLENE
37	DIMETHYLPHTHALATE
38	2,6-DINITROTOLUENE
39	ACENAPHTHENE
40	3-NITROANILINE
41	2,4-DINITROPHENOL
42	DIBENZOFURAN
43	4-NITROPHENOL
44	2,4-DINITROTOLUENE
45	FLUORENE
46	4-CHLOROPHENYLPHENYLETHER
47	DIETHYLPHTHALATE
48	4-NITROANILINE
49	4,6-DINITRO-O-CRESOL
50	DIPHENYLAMINE

31 000895

027065

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot	
1	152	698	11:38	1	1.000	A BB	22791.	24.000	NG/UL	21.61	
2	NOT FOUND										
3	NOT FOUND										
4	NOT FOUND										
5	NOT FOUND										
(6)	63	668 ✓	11:08	1	0.957	A VB	1666.	1.548	NG *1.67	1.39	= (3)
7	146	701 ✓	11:41	1	1.004	A BB	6561.	4.000	NG	3.60	
(8)	148	701	11:41	1	1.004	A BB	4251.	3.894	NG *1.67	3.51	= (4)
9	146	726	12:06	1	1.040	A BB	407.	0.258	NG	0.23	
10	79	721	12:01	1	1.033	A VB	549.	0.593	NG	0.53	
11	45	742	12:22	1	1.063	A BB	1425.	0.780	NG	0.70	
12	108	740 ✓	12:20	1	1.060	A BB	2944.	2.256	NG	2.03	
13	NOT FOUND										
14	107	740	12:20	1	1.060	A BB	2424.	1.523	NG	1.37	
15	43	752	12:32	1	1.077	A BB	628.	0.806	NG	0.73	
16	NOT FOUND										
17	136	879	14:39	17	1.000	A BV	93679.	24.000	NG/UL	21.61	
18	82	809	13:29	17	0.920	A BV	1952.	0.857	NG	0.77	
19	NOT FOUND										
20	107	834 ✓	13:54	17	0.949	A BB	8561.	6.892	NG	6.21	
21	NOT FOUND										
22	NOT FOUND										
23	NOT FOUND										
24	128	882 ✓	14:42	17	1.003	A BV	7871.	1.923	NG	1.73	
(25)	105	894 ✓	14:54	17	1.017	A BV	3887.	4.751	NG*1.67	4.28	= (8)
26	NOT FOUND										
27	NOT FOUND										
28	NOT FOUND										
29	NOT FOUND										
30	164	1143	19:03	30	1.000	A BB	52207.	24.000	NG/UL	21.61	
31	NOT FOUND										
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	65	1165	19:25	30	1.019	A BV	90.	0.250	NG	0.23	
44	NOT FOUND										
45	NOT FOUND										
46	NOT FOUND										
(47)	149	1215 ✓	20:15	30	1.063	A BB	18957.	7.318	NG*1.67	6.59	= (7)
48	NOT FOUND										
49	NOT FOUND										
50	169	1243	20:43	30	1.087	A BV	1343.	1.436	NG	1.29	

mg/L

Quantitation Report File: 1240

Data: 1240.TI
03/10/84 19:38:00
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Submitted by: VERSAR Analyst: SEP

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

NO	NAME
51	PHENANTHRENE D10 ***INTERNAL STANDARD#4***
52	1,2-DIPHENYLHYDRAZINE
53	4-BROMOPHENYLPHENYLETHER
54	HEXACHLOROBENZENE
55	PENTACHLOROPHENOL
56	PHENANTHRENE
57	ANTHRACENE
58	DIBUTYLPHTHALATE
59	FLUORANTHENE
60	BENZIDINE
61	PYRENE
62	CHRYSENE D12***INTERNAL STANDARD#5***
63	BUTYL BENZYL PHTHALATE
64	BENZO(A)ANTHRACENE
65	CHRYSENE
66	3,3'-DICHLOROBENZIDINE
67	BIS(2-ETHYLHEXYL)PHTHALATE
68	BENZO(A)PYRENE D12 ***INTERNAL STANDARD#6***
69	DIOCTYLPHTHALATE
70	BENZO(B)FLUORANTHENE
71	BENZO(K)FLUORANTHENE
72	BENZO(A)PYRENE
73	INDENO(1,2,3-CD)PYRENE
74	DIBENZO(A,H)ANTHRACENE
75	BENZO(GHI)PERYLENE

000897

027067

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
51	188	1367	22:47	51	1.000	A BB	76556.	24.000	NG/UL	22.94
52	NOT FOUND									
53	NOT FOUND									
54	NOT FOUND									
55	NOT FOUND									
56	NOT FOUND									
57	NOT FOUND									
58	149	1463	24:23	51	1.070	A BV	10343.	3.834	NG	3.67
59	NOT FOUND									
60	NOT FOUND									
61	NOT FOUND									
62	240	1798	29:58	62	1.000	A BB	32179.	24.000	NG/UL	22.94
63	149	1693	28:13	62	0.942	A BB	358.	0.216	NG	0.21
64	NOT FOUND									
65	NOT FOUND									
66	NOT FOUND									
67	149	1810	30:10	62	1.007	A BB	7343.	4.571	NG*1.67	4.37=(8)
68	264	2217	36:57	68	1.000	A BB	58108.	48.000	NG/UL	45.89
69	NOT FOUND									
70	NOT FOUND									
71	NOT FOUND									
72	NOT FOUND									
73	NOT FOUND									
74	NOT FOUND									
75	NOT FOUND									

Quantitation Report File: 1240Q

Data: 1240.TI
03/10/84 19:38:00
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Submitted by: VERSAR Analyst: SEP

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)* 1.670
Resp. fac. from linear fit to the 3 closest data points in .RL

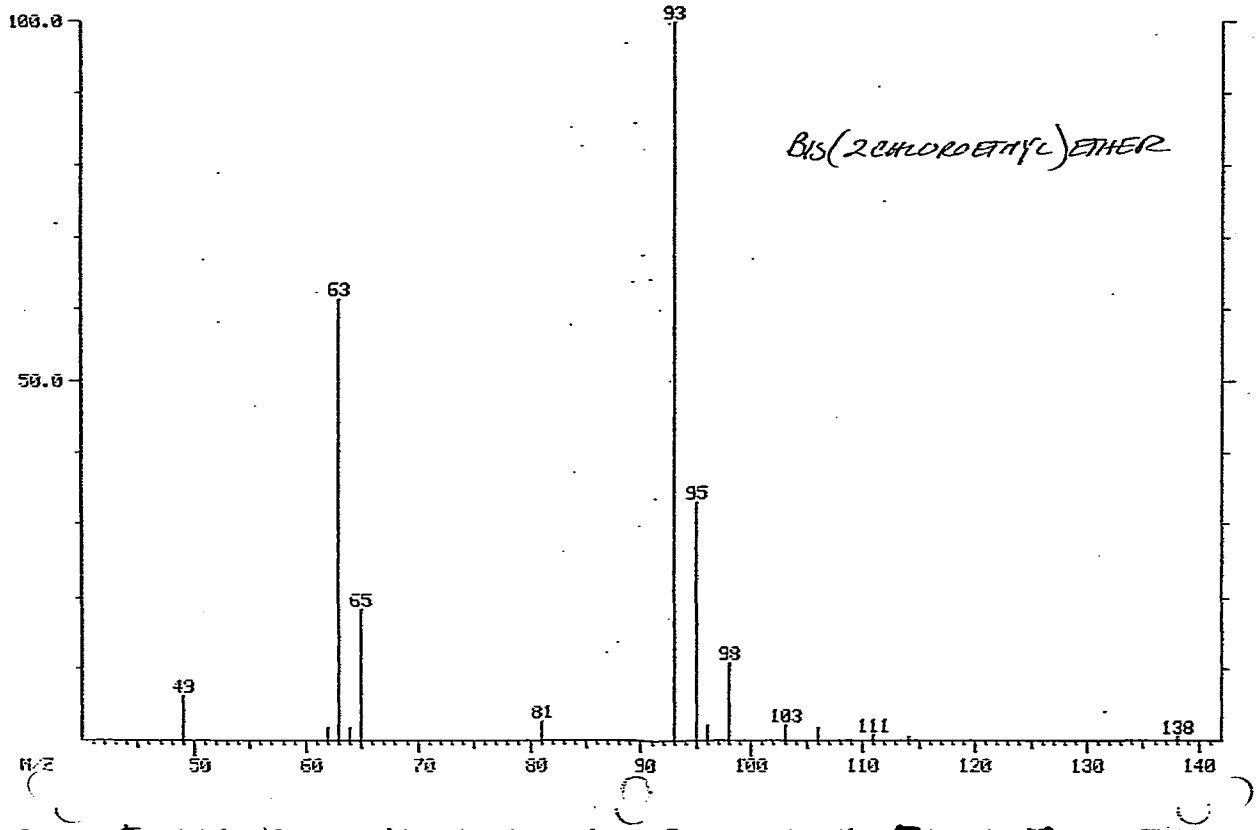
NO	NAME
1	1,4-DICHLOROBENZENE D4 ***INTERNAL STANDARD#1***
2	2-FLUOROPHENOL *ACID SURROGATE*
3	PHENOL D5 *ACID SURROGATE*
4	NAPHTHALENE D8 ***INTERNAL STANDARD#2***
5	NITROBENZENE D5 *BN SURROGATE*
6	ACENAPHTHENE D10 ***INTERNAL STANDARD#3***
7	2-FLUOROBIPHENYL *BN SURROGATE*
8	PHENANTHRENE D10 ***INTERNAL STANDARD#4***
9	2,4,6-TRIBROMOPHENOL *ACID SURROGATE*
10	CHRYSENE D12***INTERNAL STANDARD#5***
11	P-TERPHENYL D14 *BN SURROGATE*

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	152	698	11:38	1	1.000	A BB	22791.	40.080	NG/UL	7.19
2	112	540	9:00	1	0.774	A BV	61045.	63.814	NG	11.45
3	99	659	10:59	1	0.944	A BB	84685.	62.067	NG	11.13
4	136	879	14:39	4	1.000	A BV	93679.	40.080	NG/UL	7.19
5	82	779	12:59	4	0.886	A BV	19392.	59.222	NG	10.62
6	164	1143	19:03	6	1.000	A BB	32207.	40.080	NG/UL	7.19
7	172	1042	17:22	6	0.912	A BV	128621.	59.296	NG	10.64
8	188	1367	22:47	8	1.000	A BB	76556.	40.080	NG/UL	7.19
9	330	1263	21:03	8	0.924	A BB	21336.	61.207	NG	10.98
10	240	1798	29:58	10	1.000	A BB	32179.	40.080	NG/UL	7.19
11	244	1613	26:53	10	0.897	A VB	75666.	51.444	NG	9.23

MASS SPECTRUM
03/10/84 19:38:00 + 11:08
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 #668
CALI: 1240 #3

BASE M/Z: 93
RIC: 2620.



BIS(2CHLOROETHYL)ETHER

107

31 000900 027070

MASS SPECTRUM
03/10/84 19:38:00 + 11:41
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 #701
CALI: 1240 #3

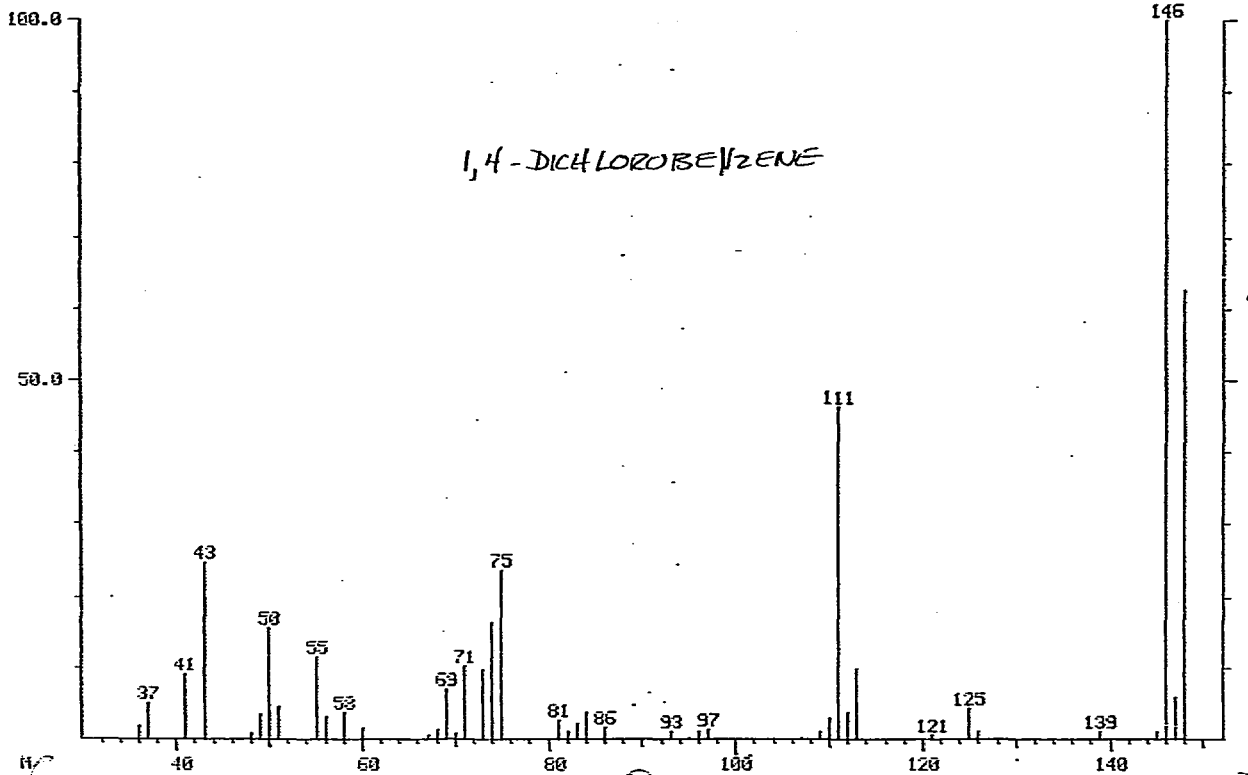
BASE M/Z: 146
RIC: 10384.

027071

31 000901 X

2528.

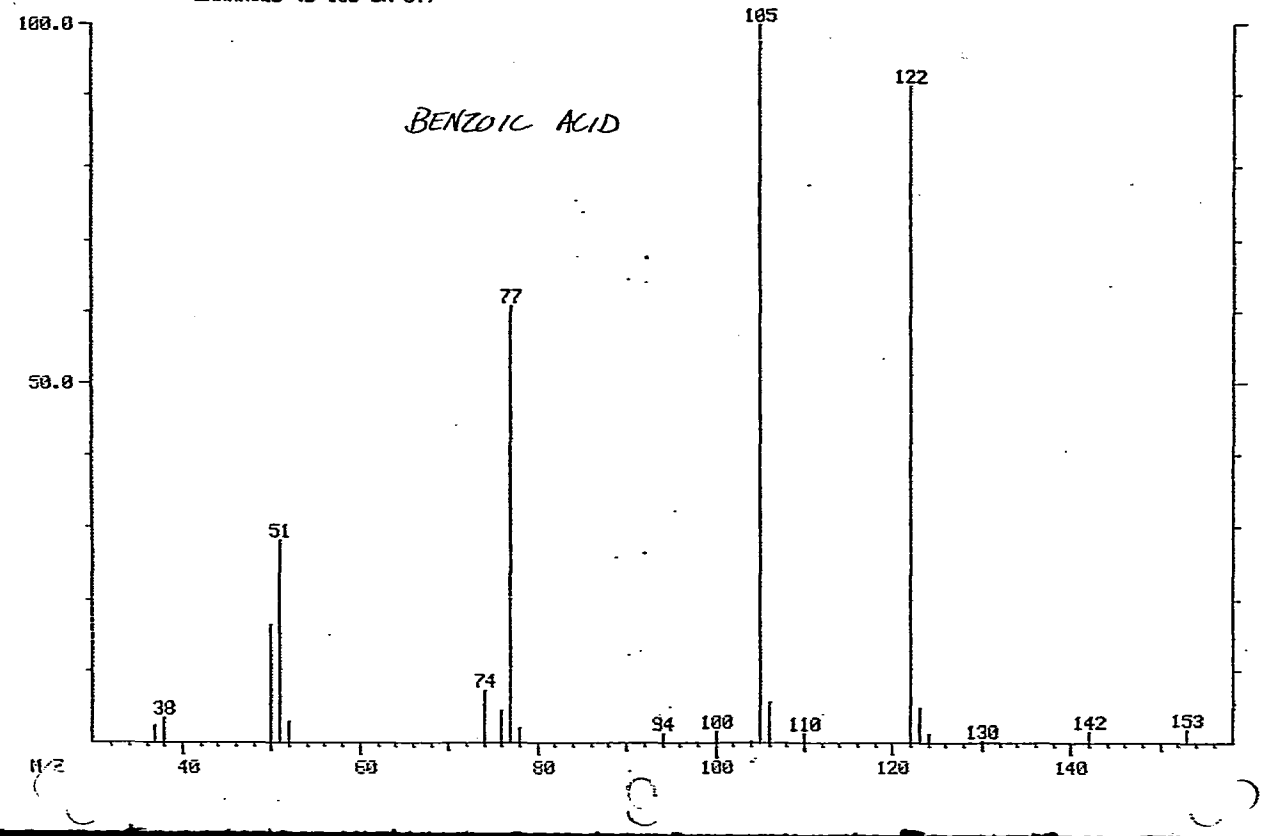
1,4-DICHLOROBENZENE



MASS SPECTRUM
03/10/84 19:38:00 + 14:54
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 #894
CALI: 1240 #3

BASE M/Z: 105
RIC: 3280.



MASS SPECTRUM
03/10/84 19:38:00 + 20:15
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

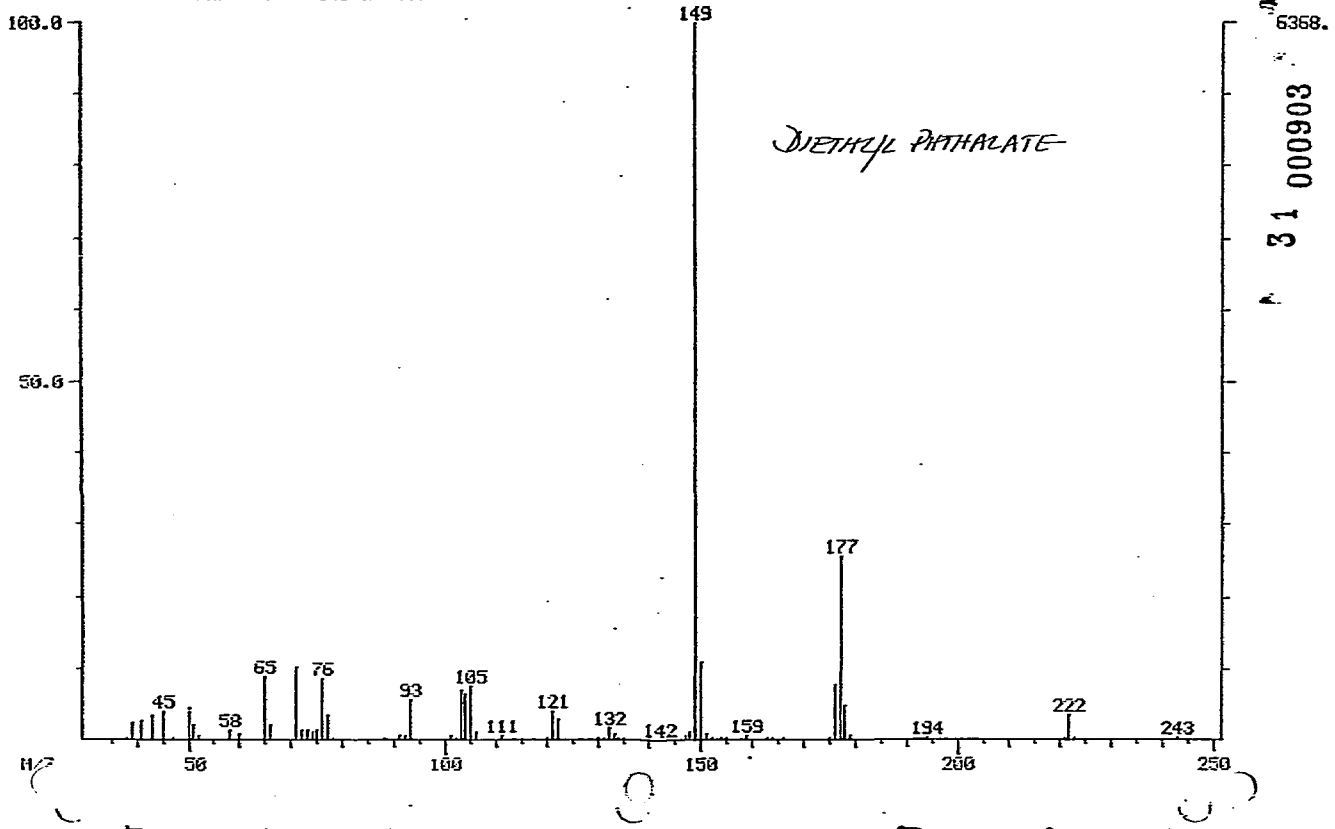
DATA: 1240 #1215
CALI: 1240 #3

BASE M/Z: 149
RIC: 16640.

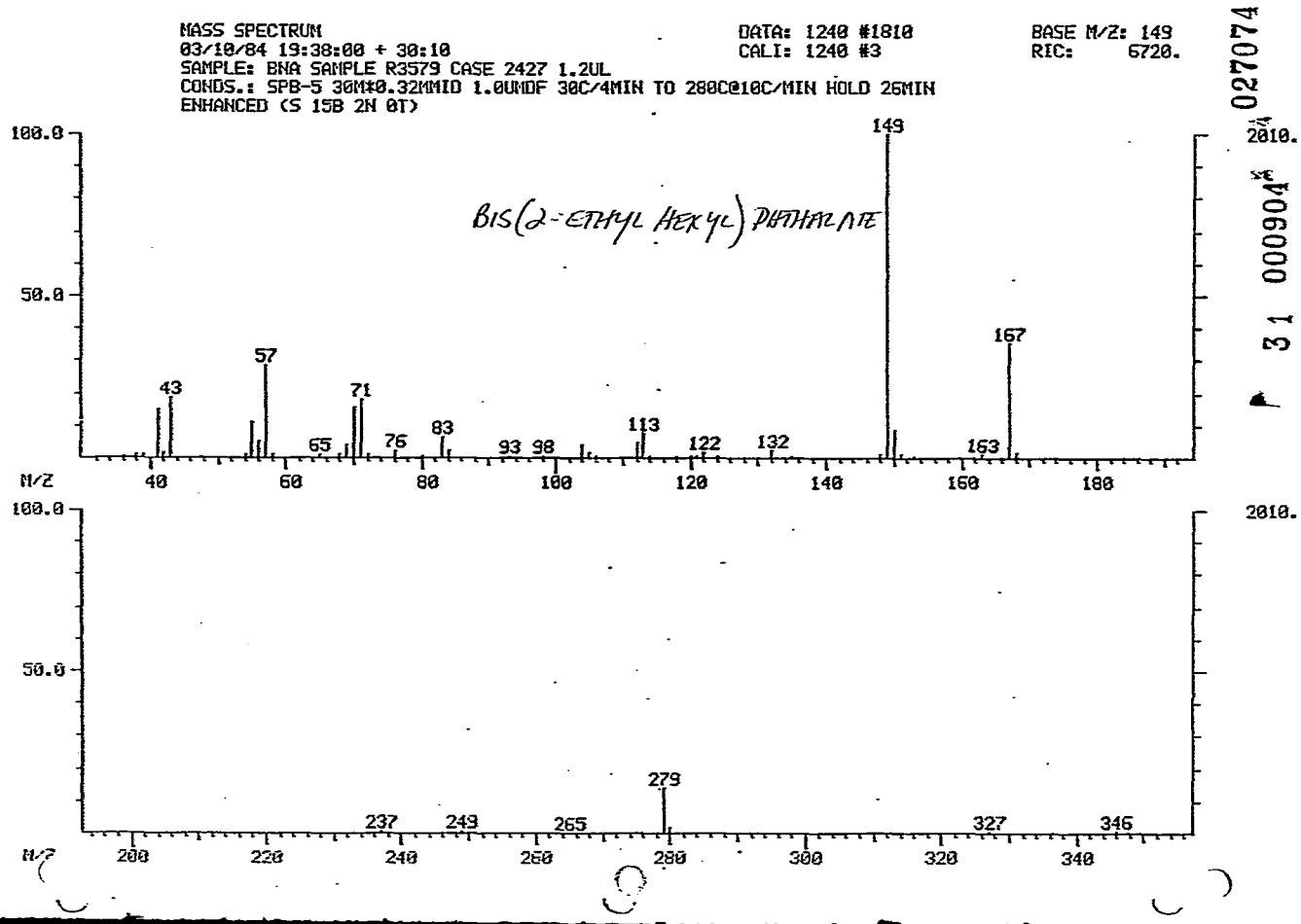
027073

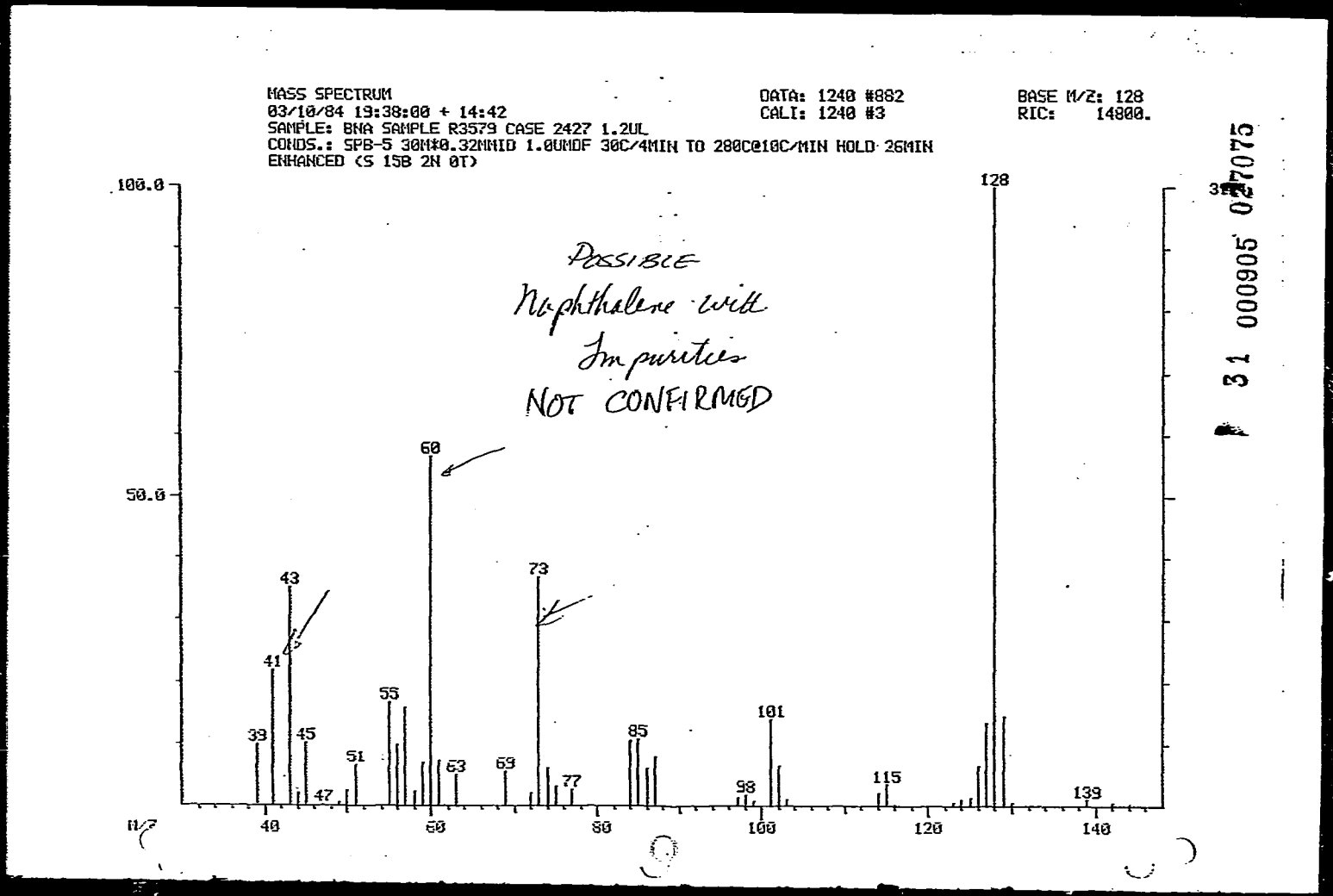
A 6368.

31 000903



DIETHYL PHTHALATE


MASS SPECTRUM
03/10/84 19:38:00 + 30:10
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 25MIN
ENHANCED (S 15B 2N 0T)
DATA: 1240 #1810
CALI: 1240 #3
BASE M/Z: 149
RIC: 6720.
027074
31 000904
BIS(2-ETHYL HEXYL) PHTHALATE
100.0
50.0
M/Z
43
57
71
65
76
83
93
98
113
122
132
149
163
167
40
60
80
100
120
140
160
180
2010.
279
237
249
265
327
346
200
220
240
260
280
300
320
340


MASS SPECTRUM
03/10/84 19:38:00 + 14:42
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)
DATA: 1240 #882
CALI: 1240 #3
BASE M/Z: 128
RIC: 14800.
Possible
Naphthalene with
Impurities
NOT CONFIRMED
100.0
50.0
M/Z
40
60
80
100
120
140
128
60
73
43
41
55
39
45
51
63
69
77
85
101
98
115
139
47
31 000905 027075

MASS SPECTRUM
03/10/84 19:38:00 + 12:20
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 #740
CALI: 1240 #3

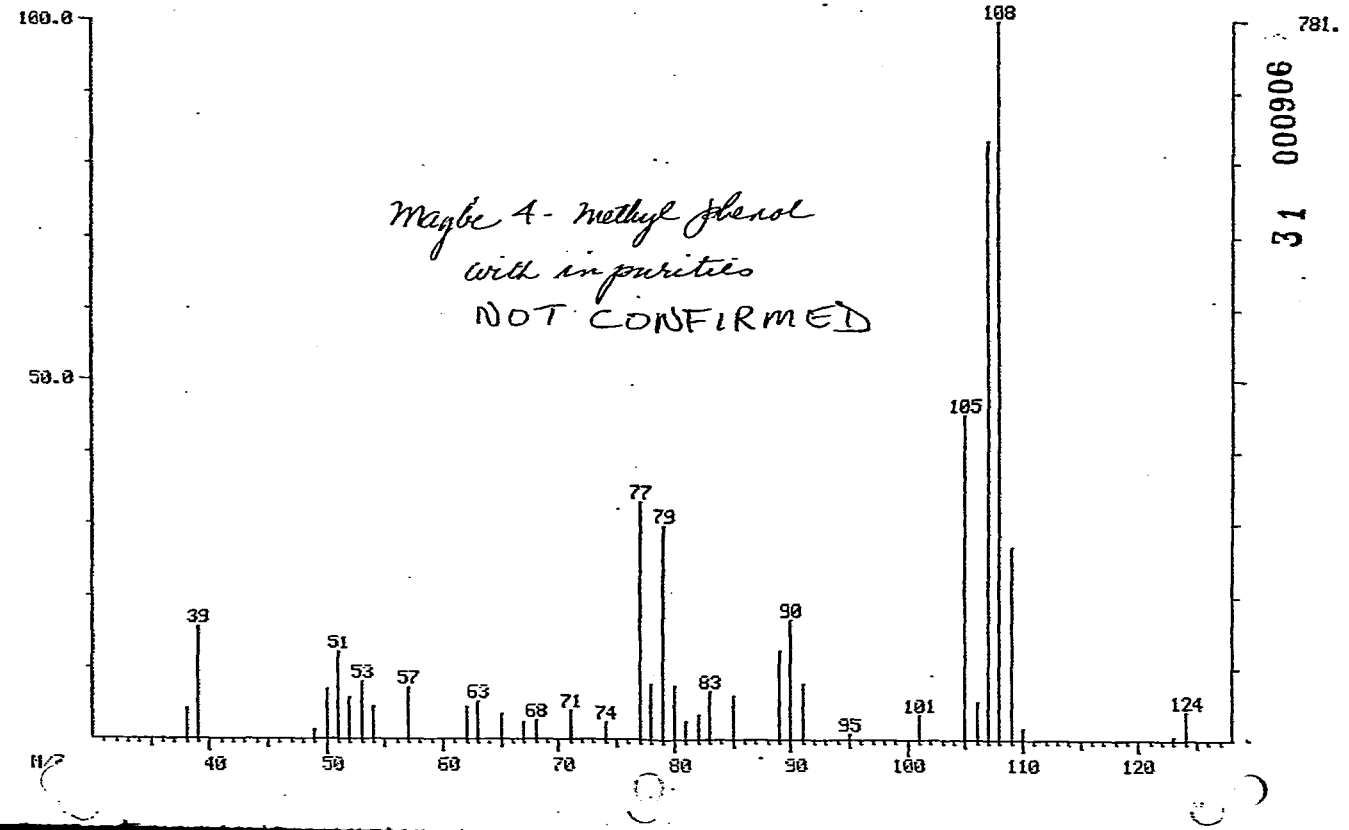
BASE M/Z: 108
RIC: 3884.

027076

31 000906

781.

Maybe 4-methyl phenol
with impurities
NOT CONFIRMED



Library Search Data: 1240 # 317 Base m/z: 88
03/10/94 19:38:00 + 5:17 Cali: 1240 # 3 RIC: 8479 7365
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
83 matched at least 7 of the 16 largest peaks in the unknown

UNKNOWN

Rank	In.	Name.
1	697	1,2-ETHANEDIAMINE, N,N-DIMETHYL-
2	700	1,2-ETHANEDIAMINE, N-ETHYL-
3	8720	HEPTANOIC ACID, 2-METHYL-, METHYL ESTER
4	10990	OCTANOIC ACID, 2-METHYL-, METHYL ESTER
5	4125	1-BUTANAMINE, N-ETHYL-N-NITROSO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C4,H12,N2	88	58	596	638	607
2	C4,H12,N2	88	58	578	665	593
3	C9,H18,O2	158	88	518	707	673
4	C10,H20,O2	172	88	501	684	673
5	C6,H14,O,N2	130	58	481	499	576

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	——	——	——	——	108-00-9
2	——	——	——	——	110-72-5
3	——	——	——	——	51209-78-0
4	——	——	——	——	2177-86-8
5	——	——	——	——	4549-44-4

Mass	Inten	1	2	3	4	5
27		13		128	112	
29		23		143	136	
30		155				168
39				112	96	
40		11	4			
41	12	24	11	223	220	202
42	48	142	33	79	70	293
43	241	41	14	136	150	173
44	87	49	38			122
49	10					
54			4			
55	12		2	104	103	55
56	9	19	13	65	54	307
57	208	24		248	148	365
58	611	695	643			367
59	25	28	29	110	96	
69			2	56	60	
70		5	2			
71		4	4		73	29
72			6			
75						29
84	9					45
85	5					
86	11					
87	90			79	65	89
88	1000	66	74	1010	1022	108
89	34	4	35			
99				19		
101				221	231	11
102				17		
113						33

115	36	30	
127	27		
129		16	
130			100
131			8
141		20	
143	6	12	
157		1	
158	2		
172		2	

LIBRARY SEARCH
03/10/84 19:38:00 + 5:17
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 # 317
CALI: 1240 # 3

BASE M/Z: 88
RIC: 8479.

31 0000000

1010
SAMPLE

C4.H12.N2 1,2-ETHANEDIAMINE, N,N-DIMETHYL-
1010
M WT 88
B PK 58
RANK 1
IN 697
PUR 596

C4.H12.N2 1,2-ETHANEDIAMINE, N-ETHYL-
1010
M WT 88
B PK 58
RANK 2
IN 700
PUR 578

C9.H18.O2 HEPTANOIC ACID, 2-METHYL-, METHYL ESTER
1010
M WT 158
B PK 88
RANK 3
IN 8720
PUR 518

M/Z
40 60 80 100 120 140

Library Search Data: 1240 # 592 Base m/z: 59
03/10/84 19:38:00 + 9:52 Cali: 1240 # 3 RIC: 23615. 19
1965
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
119 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	2791	2,4-PENTANEDIOL, 2-METHYL-
2	1326	OXEPANE, 2,2,4-TRIMETHYL-
3	8638	BUTANOIC ACID, 3-OXO-, 1,1-DIMETHYLETHYL ESTER
4	792	HYDROPEROXIDE, 1,1-DIMETHYLETHYL
5	800	1,2-BUTANEDIOL

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C6.H14.O2	118	59	960	987	969
2	C6.H12.O	100	43	831	923	831
3	C8.H14.O3	158	41	738	844	766
4	C4.H10.O2	90	59	738	920	745
5	C4.H10.O2	90	59	732	923	732

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	———	———	———	———	107-41-5
2	———	———	———	———	23120-44-7
3	———	———	———	———	1694-31-1
4	———	———	———	———	75-91-2
5	———	———	———	———	584-03-2

Mass	Inten	1	2	3	4	5
27					43	110
28						32
29			67	131		113
31		97		126	82	883
38					17	
39	63	38	91	150	76	46
40	17		49		14	
41	168	164	326	463	184	294
42	133	132	257	34	59	32
43	640	627	653	360	605	228
44	43	43	38		11	27
45	156	168	56			119
53					9	
55	35	31	46	64	22	18
56	242	256	445	172	25	
57	143	130	112	415	161	61
58	57	30	28	46	174	110
59	1000	1028	516	449	904	1020
60	31	35	27		33	43
61	92	102				215
67	9					
69	6					
71	5					
77	3					
83	5					
84				27		
85	100	107	63	104		
86	5					
87	5					
100	6		27			
101	3			8		

31 000810 027030

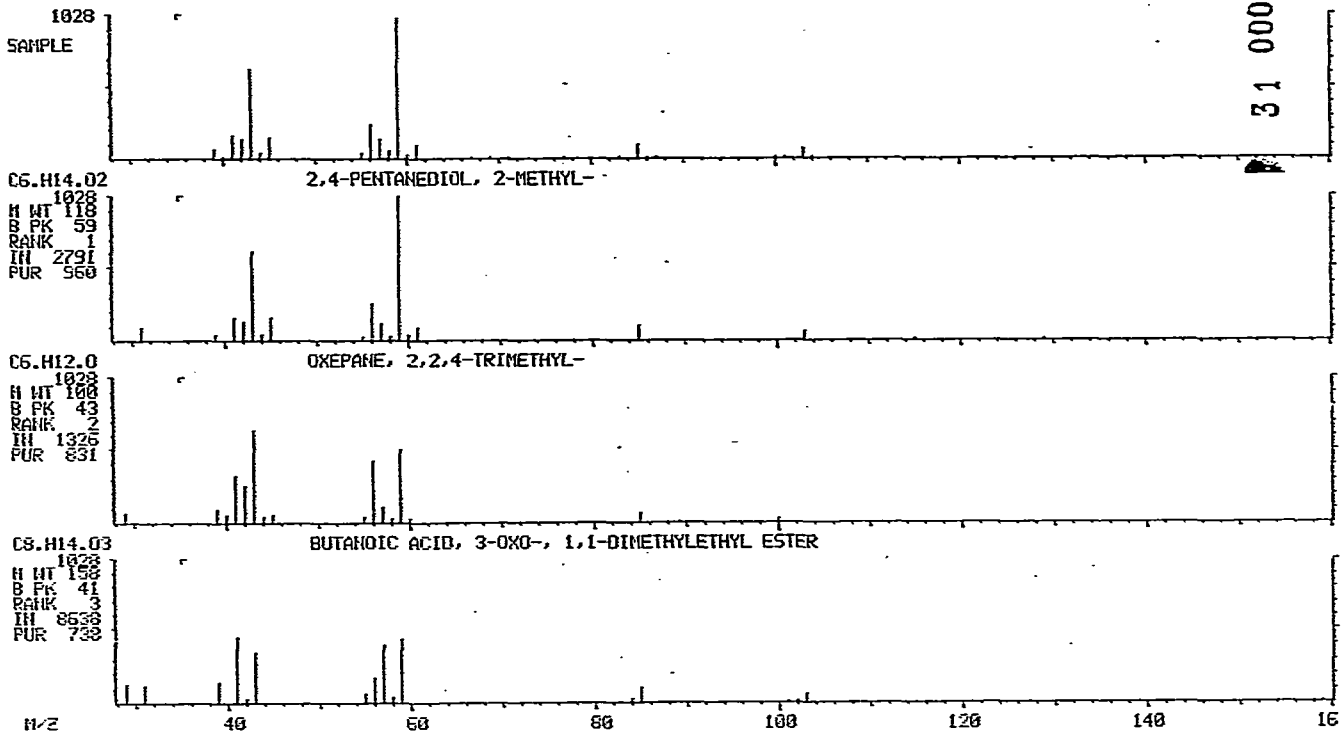
101	5		5
102			14
103	74	65	70
104	2		
115		4	
129		8	
158			6
159			1

LIBRARY SEARCH
03/10/84 19:38:00 + 9:52
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 150 2N 0T)

DATA: 1240 # 592
CALI: 1240 # 3

BASE M/Z: 59
RIC: 23615.

31 000912 027082



Library Search Data: 1240 # 706 Base m/z: 45
03/10/84 19:38:00 + 11:46 Cali: 1240 # 3 RIC: 19615. : 15
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL 1265
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
280 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	1573	2-PROPANOL, 1-METHOXY-2-METHYL-
2	4627	PROPANE, 1,2,3-TRIMETHOXY-
3	2792	1-BUTANOL, 4-ETHOXY-
4	1538	SILANE, METHOXYTRIMETHYL-
5	4438	SILANE, (2-METHOXYETHYL)TRIMETHYL-

UNKNOWN

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C5,H12,O2	104	59	653	819	690
2	C6,H14,O3	134	59	634	768	763
3	C6,H14,O2	118	59	608	662	656
4	C4,H12,O,SI	104	89	584	791	612
5	C6,H16,O,SI	132	89	573	757	658

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	———	———	———	———	3587-64-2
2	———	———	———	———	20637-49-4
3	———	———	———	———	111-73-9
4	———	———	———	———	1825-61-2
5	———	———	———	———	18173-63-2

Mass	Inten	1	2	3	4	5
15					26	
28		47			44	
29		119			34	54
31		231			34	
33		37				
39	46	20				
41	188	72	112	263		
42	555			288		
43	304	85	279	277	72	138
44	59			358	37	39
45	1000	130	668	164	72	131
46	24					
47	125		62			
55	15	32		252		51
56				105		
57	79	116		80		
58	60	24	355		45	78
59	544	686	766	661	538	568
60	17	24	39		46	44
61					28	28
63	5					
71	46	58	94	261		
72	35		41	187		14
73			26	57		176
74					20	16
75	5		49	80		18
79	3					
80	5					
81	3					
82	4					
83	4					

31 000913 X
027083

87		71				
88			87	42		
89	625	450	547	185	616	621
90	35		31	35	43	52
91					19	22
101	12		29			
102			279			
106	2					
107	5					

LIBRARY SEARCH
03/10/84 19:38:00 + 11:46
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UNDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 # 706
CALI: 1240 # 3

BASE M/Z: 45
RIC: 19615.

3 1 0000915 027085

1000
SAMPLE

C5.H12.02 2-PROPANOL, 1-METHOXY-2-METHYL-
1000
M WT 104
B PK 59
RANK 1
IN 1573
PUR 653

C6.H14.03 PROPANE, 1,2,3-TRIMETHOXY-
1000
M WT 134
B PK 59
RANK 2
IN 4627
PUR 634

C6.H14.02 1-BUTANOL, 4-ETHOXY-
1000
M WT 118
B PK 59
RANK 3
IN 2792
PUR 608

M/Z 30 40 50 60 70 80 90 100

Library Search Data: 1240 # 809 Base m/z: 99
03/10/84 19:38:00 + 13:29 Cali: 1240 # 3 RIC: 13951.
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 150 2N 0T)

38752 spectra in LIBRARYNB searched for maximum PURITY
67 matched at least 5 of the 16 largest peaks in the unknown

Rank	In.	Name
1	26168	DIPHOSPHORIC ACID, TETRAETHYL ESTER
2	12710	PHOSPHORIC ACID, TRIETHYL ESTER
3	7910	PHOSPHORIC ACID, DIETHYL ESTER
4	20020	PHOSPHONIC ACID, (3-METHYLENE-2-OXOPENTYL)-, DIETHYL ESTER
5	18945	PHOSPHORIC ACID, DIETHYL PENTYL ESTER

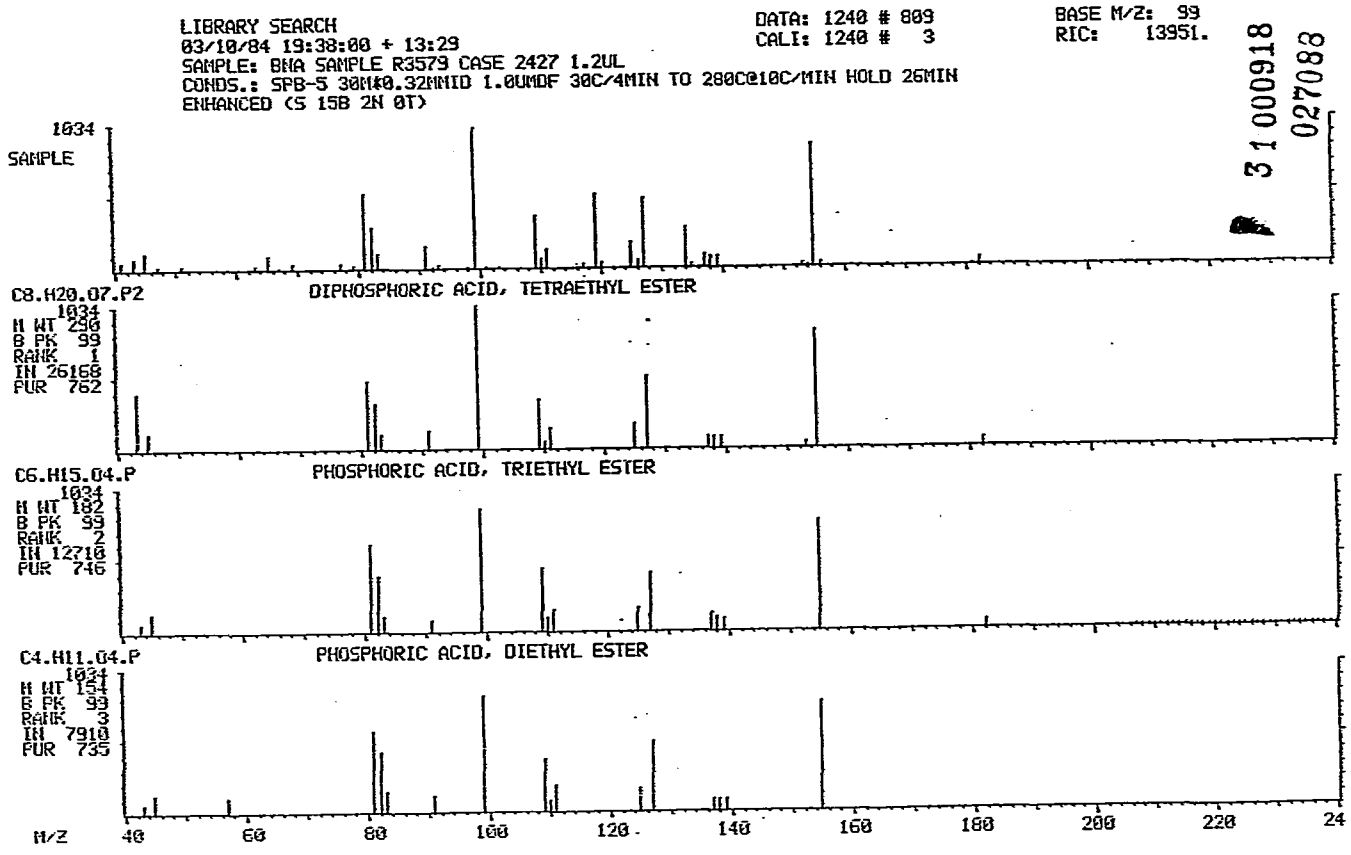
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C8.H20.O7.P2	290	99	762	990	762
2	C6.H15.O4.P	182	99	746	977	757
3	C4.H11.O4.P	154	99	735	982	744
4	C10.H19.O4.P	234	99	675	881	753
5	C9.H21.O4.P	224	99	577	846	612

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	———	———	———	———	107-49-3
2	———	———	———	———	78-40-0
3	———	———	———	———	598-02-7
4	———	———	———	———	54543-03-2
5	———	———	———	———	20195-08-8

Mass	Inten	1	2	3	4	5
27					274	
29					430	
41	51					
43	89	417	75	70	126	
45	124	124	136	140	128	
47	23					
51	21					
57				110		
63	22					
65	101				99	
67	17					
69	36					141
70						103
71						137
77	43					
79	26					
81	542	500	636	592	549	144
82	309	335	405	437	332	56
83	116	104	116	147	213	41
91	168	134	83	120		
92	16					
93	26					
96					81	
98	19					
99	1000	1034	888	845	805	1348
101	12					
103	14					
109	375	358	457	384	445	72
110	66	58	98	80	102	32
111	144	154	145	196	195	37
112						21

31 000916
027086

117	28					
119	527					
120	38					
125	181	183	164	160	159	59
126	49					21
127	498	517	419	514	366	677
134	289					
135	22					
137	91	87	127	86	124	
138	77	80	98	85	125	
139	77	88	83	86	124	
153	27	36			38	
154	14					
155	864	846	783	788	724	859
156	26					30
167	18				41	
179					12	
181	17				16	
182	60	60	60		61	
189					5	
195						3
196						7
206					0	
207			2			
208			1			
209			1			
210			1			
211			1			
212			1			
213			1			
214			1			
215			1			
216			1		33	
217			1			
218			1			
219			1			
220			1			
221			1			
222			1			5
223			1			
224			1			9
225			1			
226			1			
227			1			
228			1			
229			1			
230			1			
231			1			
232			1			
233			1			
234			1		183	
235			1			
236			1			
237			1			
238			1			
239			1			


LIBRARY SEARCH
03/10/84 19:38:00 + 13:29
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)
DATA: 1240 # 809
CALI: 1240 # 3
BASE M/Z: 99
RIC: 13951.
3 1 000918
027088
1034
SAMPLE
C8.H20.07.P2
DIPHOSPHORIC ACID, TETRAETHYL ESTER
1034
M WT 290
B PK 99
RANK 1
IN 26168
PUR 762
C6.H15.04.P
PHOSPHORIC ACID, TRIETHYL ESTER
1034
M WT 182
B PK 99
RANK 2
IN 12710
PUR 746
C4.H11.04.P
PHOSPHORIC ACID, DIETHYL ESTER
1034
M WT 154
B PK 99
RANK 3
IN 7910
PUR 735
M/Z
40
60
80
100
120
140
160
180
200
220
24

Library Search Data: 1240 # 837 Base m/z: 59
03/10/84 19:38:00 + 13:57 Cali: 1240 # 3 RIC: 139775.
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N 0T)

38752 spectra in LIBRARYNB searched for maximum PURITY
74 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	8164	CYCLOHEXANEMETHANOL, .ALPHA.,.ALPHA.,4-TRIMETHYL-
2	11296	1,8-NONANEDIOL, 8-METHYL-
3	4232	2-HEXANOL, 2,5-DIMETHYL-, (S)-
4	8194	CYCLOHEPTANEMETHANOL, .ALPHA.,.ALPHA.-DIMETHYL-
5	8705	2-NONANONE, 9-HYDROXY-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C10.H20.O	156	59	859	995	859
2	C10.H22.O2	174	59	813	918	833
3	C8.H18.O	130	59	703	898	723
4	C10.H20.O	156	59	669	898	669
5	C9.H18.O2	158	43	575	704	584

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	———	———	———	———	498-81-7
2	———	———	———	———	54725-73-4
3	———	———	———	———	3730-60-7
4	———	———	———	———	16624-02-5
5	———	———	———	———	25368-56-3

Mass	Inten	1	2	3	4	5
27				108		
29				94		
31		41		56		
33					36	
39	33	39			25	
41	72	100	113	148	65	58
42	19		35			15
43	96	76	209	194	21	166
44						7
45	21					
54						5
55	99	122	98	93		74
56	59		67	41	33	10
57	26		41	90		6
58	122	133	48	26		143
59	1000	920	824	729	1061	112
60	36	42	24	22	27	
67	20	26			21	11
68	7					
69	17	22	62	33		12
70	6		35	18		
71	22		44	59		37
73	11					
79	5					
81	44	59	27		21	4
82	7					29
83	22		46			13
85	9					
93	2					
94	2					
95	9	11				

027089

31 000919

96	25	19			
97	14	14		14	26
98	3		18		
103	7				
109	1				
115				19	
116				2	
119	1				
123	37	37	40		37
124	3				
137	1				
138	1				
139	1				
141	16	15	13		135
142	1				
159			16		

LIBRARY SEARCH
03/10/84 19:38:00 + 13:57
SAMPLE: BHA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 # 837
CALI: 1240 # 3

BASE M/Z: 59
RIC: 139775.

3 1 000921 A

027091

1000
SAMPLE

C10.H20.O CYCLOHEXANEMETHANOL, .ALPHA...ALPHA..,4-TRIMETHYL-
1000
M WT 156
B PK 59
RANK 1
IN 8164
PUR 859

C10.H22.O2 1,8-NONANEDIOL, 8-METHYL-
1000
M WT 174
B PK 59
RANK 2
IN 11296
PUR 813

C8.H18.O 2-HEXANOL, 2,5-DIMETHYL-, (S)-
1000
M WT 130
B PK 59
RANK 3
IN 4232
PUR 703

M/Z 40 60 80 100 120 140 16

Library Search Data: 1240 # 842 Base m/z: 95
03/10/84 19:38:00 + 14:02 Cali: 1240 # 3 RIC: 60351. LAS
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL V265
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
51 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	7345	BICYCLO[2.2.1]HEPTAN-2-ONE, 1,7,7-TRIMETHYL-
2	7386	CYCLOHEXANONE, 2-METHYL-5-(1-METHYLETHENYL)-, TRANS-
3	7390	CYCLOHEXANONE, 2-METHYL-5-(1-METHYLETHENYL)-
4	7375	BICYCLO[2.2.1]HEPTAN-2-ONE, 5,5,6-TRIMETHYL-, ENDO-
5	7374	BICYCLO[2.2.1]HEPTAN-2-ONE, 5,5,6-TRIMETHYL-, EXO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C10.H16.O	152	95	881	990	888
2	C10.H16.O	152	95	791	929	791
3	C10.H16.O	152	95	766	925	766
4	C10.H16.O	152	108	742	895	773
5	C10.H16.O	152	95	716	870	742

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	———	———	———	———	76-22-2
2	———	———	———	———	5948-04-9
3	———	———	———	———	7764-50-3
4	———	———	———	———	3767-44-0
5	———	———	———	———	3649-86-3

Mass	Inten	1	2	3	4	5
27			172	215		
39	269		278	275	237	
41	566	536	482	556	457	430
42	67					
43	52					
53	127		116			
54	38					
55	318	322	197	197	448	444
65	42					
67	236	173	474	524	352	308
68	171	175	361	353		235
69	435	348	231	187	410	489
70					254	227
77	57					
79	76					
80	166	157				
81	762	739	315	318	316	254
82	138	125	347	314		
83	304	344			165	267
91	42					
93	108	85			215	
94	34					
95	1000	1038	817	762	704	1096
96	88	104	142	154		
97	53		102	141		133
105	5					
108	445	447	210	241	779	117
109	297	301	340	343	187	148
110	158	160	223	218	180	442
111	14				85	104

31 000922

027092

123	9					
124	7					
136		29				
137	36		122	116	120	86
138	5					
150	1					
152	370	368	265	268	262	312
153	34	36	29			

027093

31 000923 x 4

LIBRARY SEARCH
03/10/84 19:38:00 + 14:02
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 # 842
CALI: 1240 # 3

BASE M/Z: 95
RIC: 60351.

3 1000924 027094

1038
SAMPLE

C10.H16.O BICYCLO[2.2.1]HEPTAN-2-ONE, 1,7,7-TRIMETHYL-
1038
M WT 152
B PK 95
RANK 1
IN 7345
PUR 881

C10.H16.O CYCLOHEXANONE, 2-METHYL-5-(1-METHYLETHENYL)-, TRANS-
1038
M WT 152
B PK 95
RANK 2
IN 7386
PUR 791

C10.H16.O CYCLOHEXANONE, 2-METHYL-5-(1-METHYLETHENYL)-
1038
M WT 152
B PK 95
RANK 3
IN 7350
PUR 766

M/Z 40 60 80 100 120 140

Library Search Data: 1240 # 981 Base m/z: 128
03/10/84 19:38:00 + 14:41 Cali: 1240 # 3 RIC: 14687.
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
281 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	22073	OCTANOIC ACID, SILVER(1+) SALT
2	6210	OCTANOIC ACID
3	8675	NONANOIC ACID
4	11422	BUTANEDIOIC ACID, DIETHYL ESTER
5	13666	2H-PYRAN-2-METHANOL, 3,6-DIHYDRO-3-HYDROXY-6-(1-METHYLETHOXY)-

UNKNOWN

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C8.H16.O2.AG	251	60	461	620	534
2	C8.H16.O2	144	60	431	882	462
3	C9.H18.O2	158	60	414	895	437
4	C8.H14.O4	174	29	399	665	413
5	C9.H16.O4	188	86	398	730	403

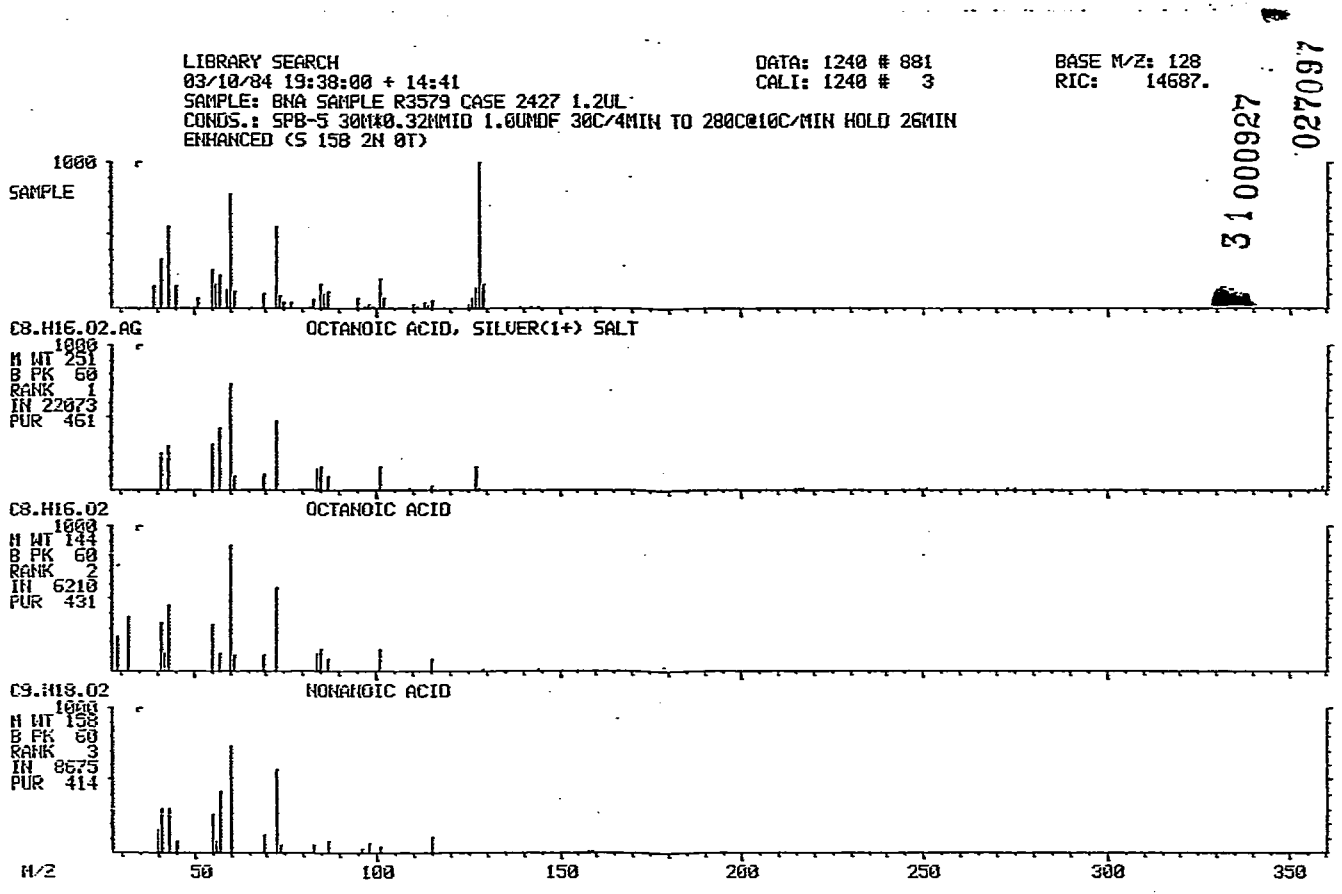
Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	———	———	———	———	24927-67-1
2	———	———	———	———	124-07-2
3	———	———	———	———	112-05-0
4	———	———	———	———	123-25-1
5	———	———	———	———	56196-34-0

Mass	Inten	1	2	3	4	5
27					318	
28					286	
29			244		569	
32			367			
39	143					72
40				161		
41	330	255	334	302		132
42			123			
43	556	303	457	303	93	174
44						52
45	142			86	167	238
51	66					
55	268	317	322	261	249	46
56	166			82	132	
57	226	433	121	423	60	477
59	114					
60	792	735	866	728		
61	102	97	102			
69	93	113	102	123		49
73	556	485	568	578	172	
74	80			52	111	
75	35					
77	43					
83	53			59		71
84		144	120			
85	155	158	150			107
86	91					490
87	109	99	84	83		
95	68					
96				31		
97	18				84	

3 : 000925

027095

98	26			72		38
99	14					102
100					14	
101	196	165	151	46	229	
102	73				27	
109		20				
110	22					
111	15					
113	42					
114	32					
115	56	27	80	102		
125	25					
126	67					
127	133	157				
128	1000	16			38	249
129	164		13		164	164
130					9	
139	9					
142	13					
144	6		6			
147					6	
158				12		
159				1		
174					3	
215		6				
216		10				
217		10				
249		4				
251		4				
273		1				
275		1				
357		13				
359		24				


LIBRARY SEARCH
03/10/84 19:38:00 + 14:41
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)
DATA: 1240 # 881
CALI: 1240 # 3
BASE M/Z: 128
RIC: 14687.
31 000927
027097
1000
SAMPLE
C8.H16.02.AG
OCTANOIC ACID, SILVER(1+) SALT
M WT 251
B PK 60
RANK 1
IN 22073
PUR 461
C8.H16.02
OCTANOIC ACID
M WT 144
B PK 60
RANK 2
IN 6210
PUR 431
C9.H18.02
NONANOIC ACID
M WT 158
B PK 60
RANK 3
IN 8675
PUR 414
M/Z
50
100
150
200
250
300
350

Library Search Data: 1240 # 902 Base m/z: 83
03/10/94 19:38:00 + 15:02 Cali: 1240 # 3 RIC: 31679 1065 :25
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
268 matched at least 6 of the 16 largest peaks in the unknown

UNKNOWN

Rank	In.	Name
1	7401	BICYCLO[3.1.1]HEPTAN-2-ONE, 3,6,6-TRIMETHYL-
2	28943	[1,1'-BICYCLOPROPYL]-2-OCTANOIC ACID, 2'-HEXYL-, METHYL ESTER
3	7398	BICYCLO[3.1.1]HEPTAN-3-ONE, 2,6,6-TRIMETHYL-, (1.ALPHA.,2.BETA.,5.A*
4	7362	BICYCLO[3.1.1]HEPTAN-3-ONE, 2,6,6-TRIMETHYL-, (1.ALPHA.,2.ALPHA.,5.*
5	9972	3,7-DECADIENE, 2,9-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C10.H16.O	152	83	544	950	557
2	C21.H38.O2	322	73	507	716	592
3	C10.H16.O	152	83	506	912	517
4	C10.H16.O	152	83	471	907	495
5	C12.H22	166	55	462	854	473

Rank	Ret. Time	B.P. Int.	VS. Par. 1	VS. Par. 2	C.A.S. #
1	———	———	———	———	16022-08-5
2	———	———	———	———	56687-68-4
3	———	———	———	———	15358-88-0
4	———	———	———	———	547-60-4
5	———	———	———	———	74630-13-0

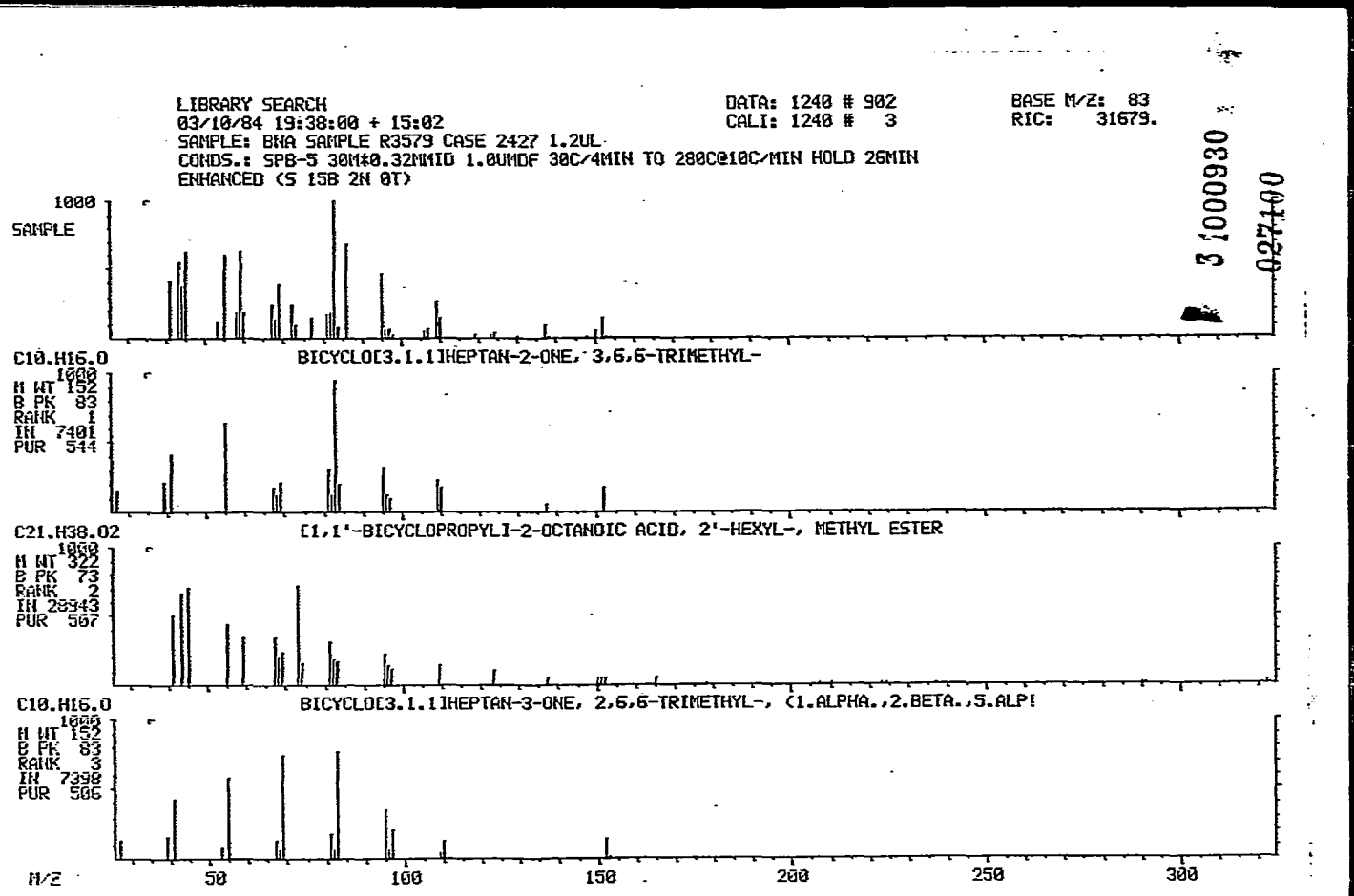
Mass	Inten	1	2	3	4	5
27		153		136		
39		217		161	135	59
41	417	417	512	425	434	259
43	541		663			60
44	373					
45	625		702			
53	115			81	70	44
55	605	642	437	588	612	1007
56						53
58	190					
59	625		352			
60	190					
67	240	179	341	134	96	189
68	127	114	199	71	59	
69	384	208	240	743	606	119
72	241					
73	96		717			
74			165			
77	144					
81	173	304	319	187	197	171
82	192	122	191	69	77	441
83	1000	943	171	771	1069	733
84	82	197			80	
86	674					
95	462	326	230	362	191	128
96	62	122	153	69	79	65
97	70	94	118	219	170	
98	32					
106	53					
107	71					
108	744	224	142	44	———	108

31 000928
027098

110	143	172		130	104	180
111					90	
119	23					
123	32		102			103
124	36					13
130	8					
137	87	59	49			
138	6					
148	8					
150	53		56			
151			59			3
152	153	176	59	146	147	
153	12			19	18	
164						1
165			59			
166						3
178			20			
207			13			
210			11			
223			8			
224			11			
237			10			
290			8			
291			15			
322			31			
323			8			

027099

31 000929x


LIBRARY SEARCH
03/10/84 19:38:00 + 15:02
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)
DATA: 1240 # 902
CALI: 1240 # 3
BASE M/Z: 83
RIC: 31679.
3 1000930
027100
1000
SAMPLE
C10.H16.O
BICYCLO[3.1.1]HEPTAN-2-ONE, 3,6,6-TRIMETHYL-
1000
M WT 152
B PK 83
RANK 1
IN 7401
PUR 544
C21.H38.O2
[1,1'-BICYCLOPROPYL]-2-OCTANOIC ACID, 2'-HEXYL-, METHYL ESTER
1000
M WT 322
B PK 73
RANK 2
IN 28943
PUR 507
C10.H16.O
BICYCLO[3.1.1]HEPTAN-3-ONE, 2,6,6-TRIMETHYL-, (1.ALPHA.,2.BETA.,5.ALP
1000
M WT 152
B PK 83
RANK 3
IN 7398
PUR 505
M/Z
50
100
150
200
250
300

Library Search Data: 1240 # 927 Base m/z: 59
03/10/84 19:38:00 + 15:27 Cali: 1240 # 3 RIC: 33087.
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
199 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	12046	2,5,8,11-TETRAOXADODECANE
2	18408	2,5,8,11,14-PENTAOXAPENTADECANE
3	9694	ETHANOL, 2-[2-(2-METHOXYETHOXY)ETHOXY]-
4	4627	PROPANE, 1,2,3-TRIMETHOXY-
5	6572	ETHENE, (2-ETHOXY-1-METHOXYETHOXY)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C8,H18,O4	178	59	867	943	882
2	C10,H22,O5	222	59	848	918	856
3	C7,H16,O4	164	45	809	884	809
4	C6,H14,O3	134	59	804	922	804
5	C7,H14,O3	146	59	793	917	793

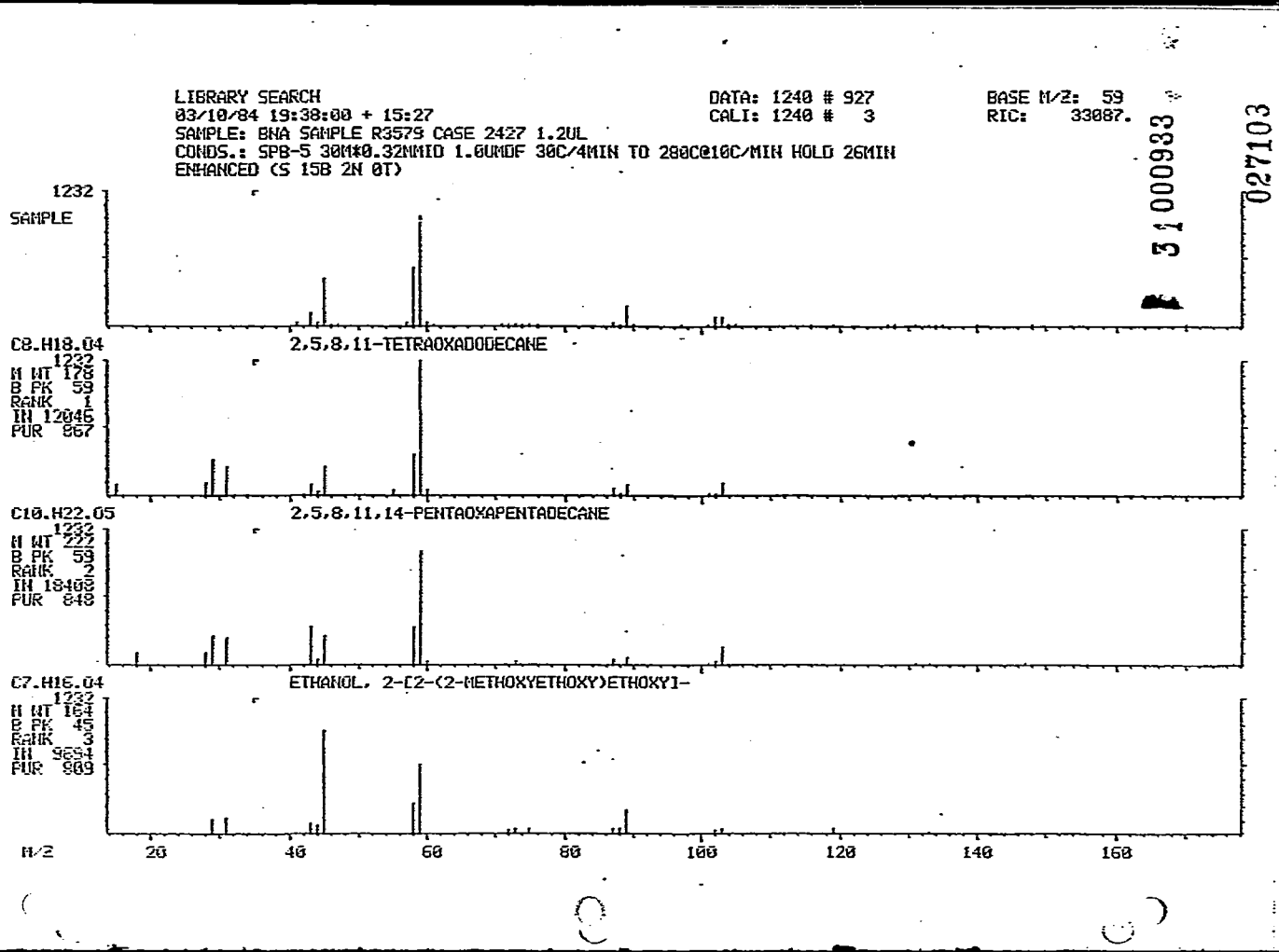
Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	———	———	———	———	112-49-2
2	———	———	———	———	143-24-8
3	———	———	———	———	112-35-6
4	———	———	———	———	20637-49-4
5	———	———	———	———	54063-18-2

Mass	Inten	1	2	3	4	5
15		96				
18			107			
27						101
28		112	119			83
29		334	256	134		276
31		266	240	155		248
41	30				105	59
43	118	103	339	91	261	165
44	30	28	43	87		45
45	425	269	269	932	626	633
46	9					
47	9				60	
55		47				
57	32					67
58	520	372	341	274	332	417
59	1000	1232	1036	629	716	771
60	37	43	39		37	
61	3					
71	5				81	
72	11			38	35	
73	16		31	44	23	42
74	3					
75	21			48	44	
76	15					
87	32	60	57	48		66
88	5	12		50	30	
89	182	95	59	209	189	25
90	7				11	
97	3					
101	23	10	12		9	23
102	84	23	25	38	87	

3 1000931

027101

103	77	114	163	43		18
104	4					
105	4					
116	1					
119	2			47		
127	4					
128	1					
131	1		5			
133	18	18	18	18		
134	4					
135	1					
140	1					
147			4			
148	3					
170	1					
177			4			



Library Search Data: 1240 # 952 Base m/z: 55
03/10/84 19:38:00 + 15:52 Cali: 1240 # 3 RIC: 259583 1265
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
121 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	2241	2H-AZEPIN-2-ONE, HEXAHYDRO-
2	4282	HEXANOIC ACID, 6-AMINO-
3	2226	2,5-PYRROLIDINEDIONE, 1-METHYL-
4	5695	2,5-PYRROLIDINEDIONE, 3-ETHYL-3-METHYL-
5	3765	1,3,2-DIOXABORINANE, 2-ETHYL-4-METHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C6.H11.O.N	113	55	896	992	896
2	C6.H13.O2.N	131	55	886	973	904
3	C5.H7.O2.N	113	56	671	766	719
4	C7.H11.O2.N	141	55	622	723	641
5	C6.H13.O2.B	128	113	616	813	640

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	———	———	———	———	105-60-2
2	———	———	———	———	60-32-2
3	———	———	———	———	1121-07-9
4	———	———	———	———	77-67-8
5	———	———	———	———	57633-65-5

Mass	Inten	1	2	3	4	5
27		126	210			
28		236	431			106
29						127
30		728	306			
39	287	140	377		268	
40	80			34		
41	499	362	504	57	294	
42	565	565	443	224	541	
43	212	191	144	119		408
44	67					
45						149
49					61	
53	48			47	57	
54	54		99	57	53	114
55	1000	1113	894	288	1080	732
56	695	739	752	1201	67	339
57	81	106		250		657
58				273		
59	15					
67	89	77	132			
68	53			25		
69	42				122	
70	24			22	885	
71					49	
72	9					177
82	9					
83	82	46	76			222
84	417	434	336	57	50	209
85	377	410	439	46	166	162
86	21					
87	10					

027104

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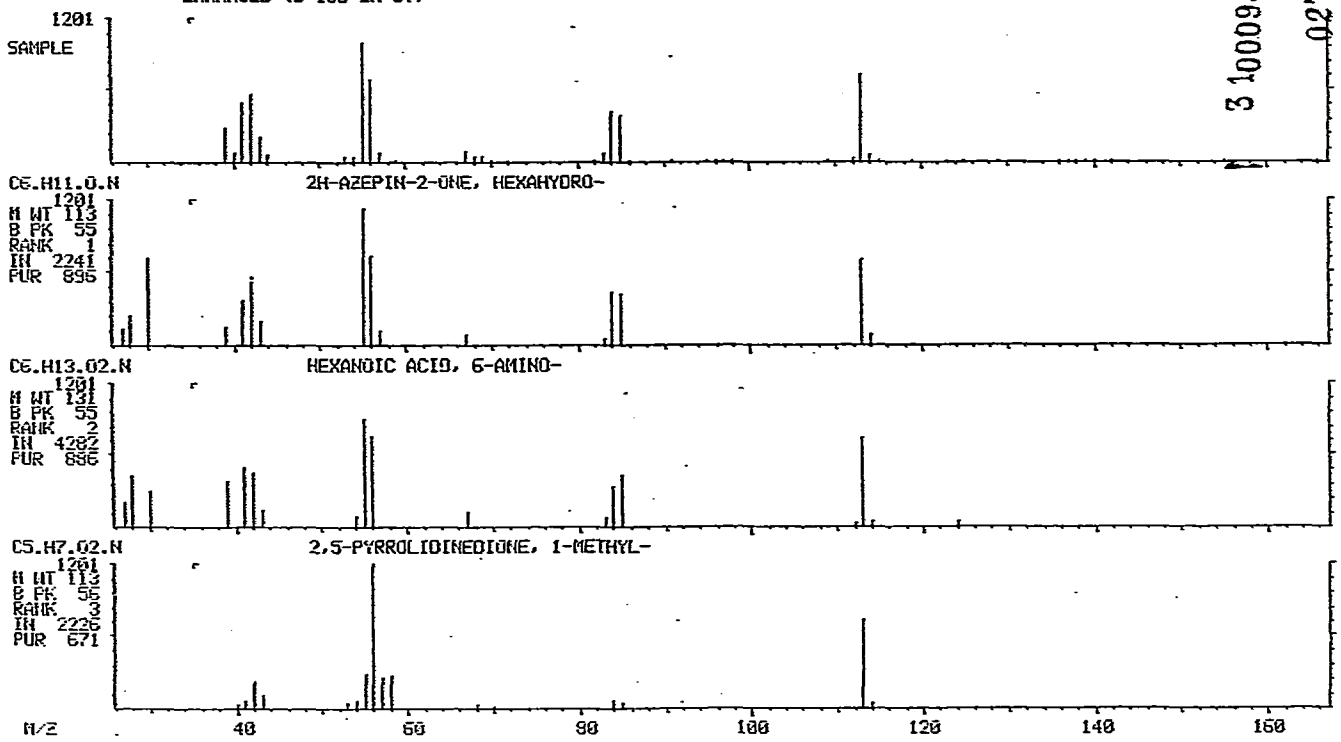
95	6					
96	8					
97	5					
98	10				30	
109	2					
112	39		38			194
113	721	705	738	735	716	738
114	59	74	42	43	46	40
115	4					
119	4					
123	1					
124			55			
125	1					
126					7	
127						17
128						20
129	1					
136	5					
137	1					
138	1					
139	1					
140	1					
141					8	
142	2					
155	0					
166	2					

LIBRARY SEARCH
03/10/84 19:38:00 + 15:52
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SP8-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 # 952
CALI: 1240 # 3

BASE M/Z: 55
RIC: 259583.

3 1000936 027106



Library Search Data: 1240 #1178 Base m/z: 73
03/10/84 19:38:00 + 19:38 Cali: 1240 # 3 RIC: 53887. 1205
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N 0T)

38752 spectra in LIBRARYNB searched for maximum PURITY
84 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	15410	DODECANOIC ACID
2	27642	DODECANOIC ACID, SILVER(1+) SALT
3	17453	TRIDECANOIC ACID
4	22672	HEXADECANOIC ACID
5	10982	DECANOIC ACID

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C12.H24.O2	200	73	812	992	818
2	C12.H24.O2.AG	307	73	636	816	656
3	C13.H26.O2	214	73	604	839	690
4	C16.H32.O2	256	43	601	833	700
5	C10.H20.O2	172	60	600	962	603

Rank	Ret. Time	B.P. Int.	VS. Par. 1	VS. Par. 2	C.A.S. #
1	—	—	—	—	143-07-7
2	—	—	—	—	18268-45-6
3	—	—	—	—	638-53-9
4	—	—	—	—	57-10-3
5	—	—	—	—	334-48-5

Mass	Inten	1	2	3	4	5
29		423				317
32					786	
39	137					
41	613	645	572	469	447	583
42	145					
43	691	717	702	689	863	579
45	118					
55	507	497	596	464	499	421
56	130					
57	435	484	604	642	638	499
60	963	942	690	879	740	1064
61	175				194	175
69	264	248	254	256	318	198
70	84					
71	257	280	303	253	325	371
73	1000	947	736	939	815	906
74	77					
82	35					
83	136	144	190	165	206	129
84	90		161			
85	254	257	290	234	195	
86	30					
87	143	143		178		140
95	35					
96	28					
97	99	99	119	111	153	
98	77		183		99	
99	53					
101	108	104				
109	14					
110	17					

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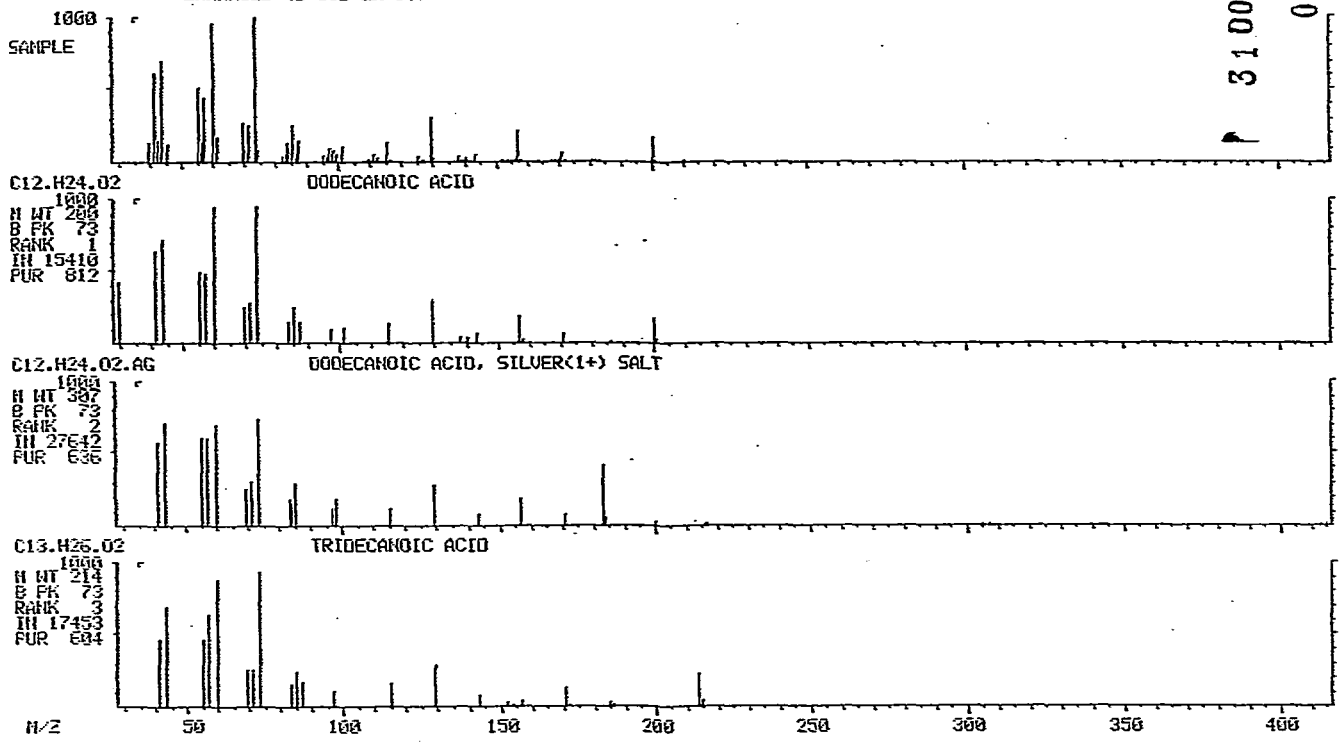
111	52				69	
112	28					81
115	139	140	114	156	91	78
116	9					
125	38					
126	8					
127	5					
129	308	283	283	296	294	306
130	24					25
138	40	42				
139	6					
140	29	45				
141	10					
142	10					
143	59	64	76	76		50
152	2			22		
154	3			17		
155	3					
156	3					
157	208	190	187	37	60	
158	18	22				
164	2					
168	2					
169	1					
170	2					
171	64	62	74	133	64	
172	7			15		95
173						11
181	1					
182	3					
183	4		411			
184			60			
185				24	62	
186		20		3		
194					21	
196					5	
199					13	
200	178	174	26			
201	19	23				
210	3					
213					90	
214				227	10	
215				36		
216			1			
217			1			
227					18	
228					5	
256					75	
257					12	
305			1			
307			1			
413			4			
415			6			

LIBRARY SEARCH
03/10/84 19:38:00 + 19:38
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 #1178
CALI: 1240 # 3

BASE M/Z: 73
RIC: 53887.

31 000939 %
027103



Library Search Data: 1240 #1269 Base m/z: 91
03/10/84 19:38:00 + 21:09 Cali: 1240 # 3 RIC: 15599.
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N 0T)

38752 spectra in LIBRARYNB searched for maximum PURITY
63 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	15334	BENZENESULFONAMIDE, N,N,4-TRIMETHYL-
2	15333	BENZENESULFONAMIDE, N-ETHYL-4-METHYL-
3	13206	BENZENESULFONAMIDE, N,4-DIMETHYL-
4	13901	BENZENESULFONYL CHLORIDE, 2-METHYL-
5	12973	BENZENE, (PHENOXYMETHYL)-

UNKNOWN

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C9.H13.O2.N.S	199	91	649	945	653
2	C9.H13.O2.N.S	199	91	621	934	621
3	C8.H11.O2.N.S	185	91	520	831	537
4	C7.H7.O2.S.CL	190	91	496	808	609
5	C13.H12.O	184	91	473	718	476

Rank	Ret. Time	B.P. Int.	VS. Par. 1	VS. Par. 2	C.A.S. #
1	——	——	——	——	599-69-9
2	——	——	——	——	80-39-7
3	——	——	——	——	640-61-9
4	——	——	——	——	133-59-5
5	——	——	——	——	946-80-5

Mass	Inten	1	2	3	4	5
28				135		41
30				224		
39	99			112	96	117
41	36					
42	28	64				
43		41				
44	193	315				
50	13					22
51	44			66	58	62
52	9					
53	9					
58	13					
62	18					
63	71			102	94	43
64	39			35	49	
65	266	112	266	224	256	266
66	15					9
74	6					
76	3					
77	53			59	53	24
78	17					
79	9					
89	101			139	111	17
90	258			66	209	7
91	1000	958	998	491	972	1053
92	107	144	108	328	114	76
93	8					
94	3					8
104	6					
105	11					5
106	65					5

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106	45					6
107	14					
108	12			54		
109	26				63	
118	7					
120	79			53		
121	12			163		
122				18		
133	15					
134	18	76				
135	5	53				
136	5					
137	57	52			80	
138	4				11	
139				39	18	
145	0					
148	4					
152						3
153	3					3
154	12					
155	362	253	362	335	319	1
156	25	36		44	34	
157	16	36		20	19	
162	2					
165						3
177	4					
181	4					
183	7					
184	145		284			141
185	13			49		17
186	6			6		
190					200	
192					72	
198	7	24				
199	302	279	87			
200	25	39				
201	11	18				
204	2					
221	2					

31 000941 X

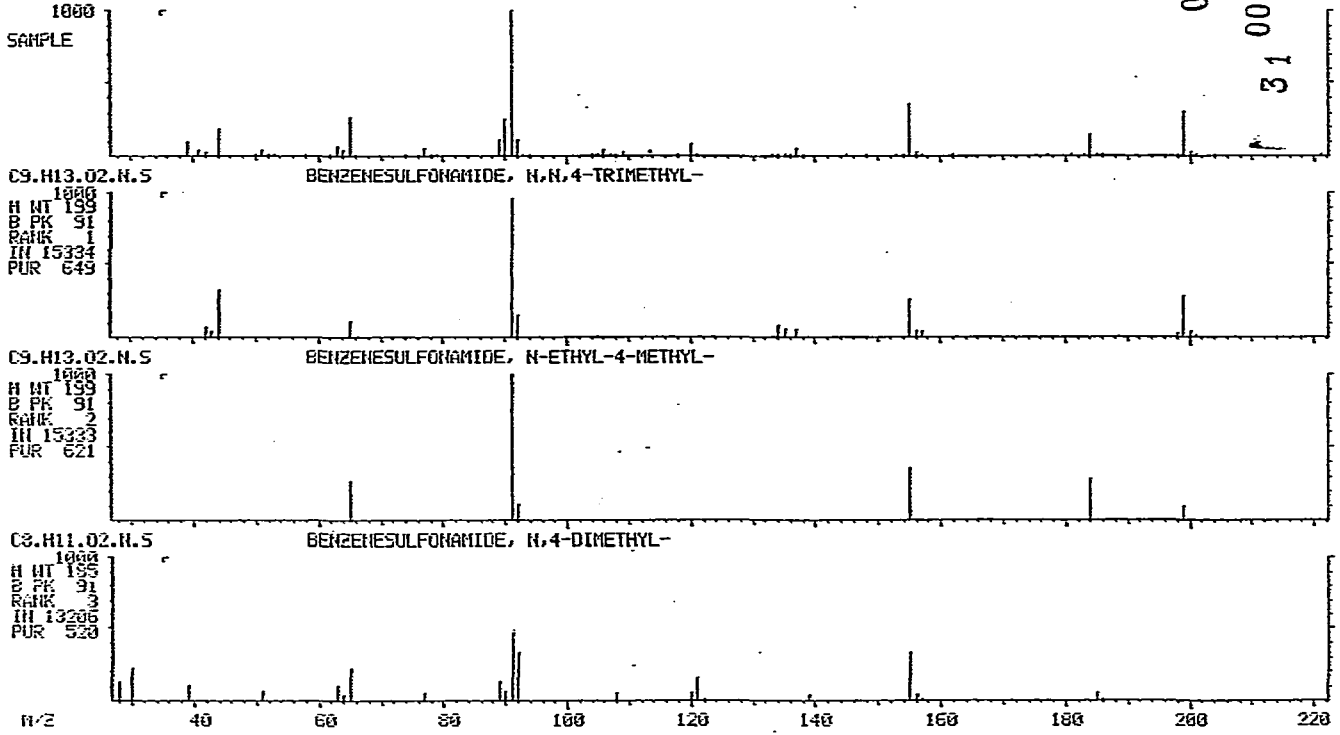
027111

LIBRARY SEARCH
03/10/84 19:38:00 + 21:09
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 #1269
CALI: 1240 # 3

BASE M/Z: 91
RIC: 15390.

02712
31 000942



Library Search Data: 1240 #1319 Base m/z: 73
03/10/84 19:38:00 + 21:59 Call: 1240 # 3 RIC: 11583. = 9
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL 1265
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
159 matched at least 7 of the 16 largest peaks in the unknown

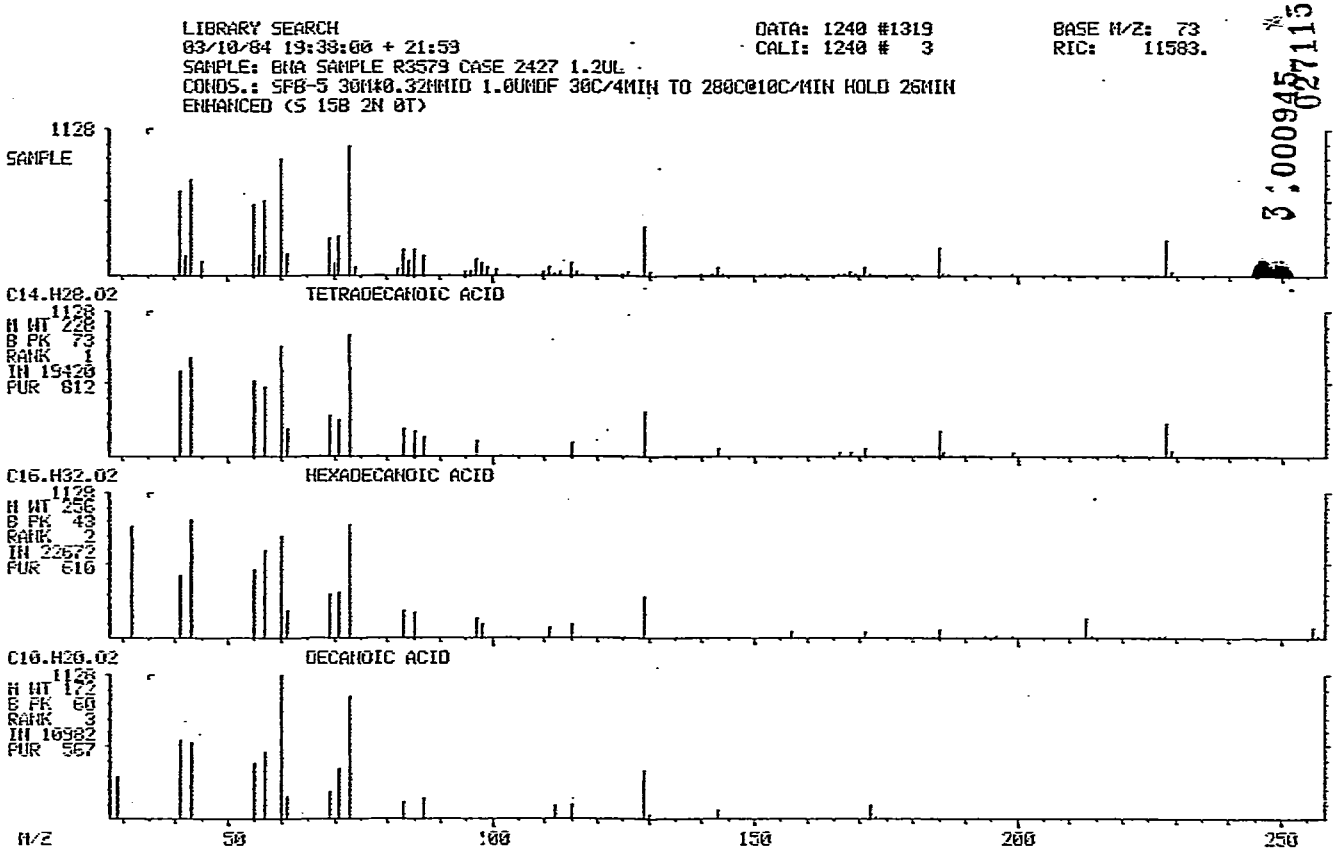
Rank	In.	Name
1	19420	TETRADECANOIC ACID
2	22672	HEXADECANOIC ACID
3	10982	DECANOIC ACID
4	13271	UNDECANOIC ACID
5	15410	DODECANOIC ACID

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C14.H28.O2	228	73	812	993	815
2	C16.H32.O2	256	43	610	774	703
3	C10.H20.O2	172	60	567	961	570
4	C11.H22.O2	186	60	558	916	588
5	C12.H24.O2	200	73	553	863	615

Rank	Ret. Time	B.P. Int.	VS. Par. 1	VS. Par. 2	C.A.S. #
1	———	———	———	———	544-63-8
2	———	———	———	———	57-10-3
3	———	———	———	———	334-48-5
4	———	———	———	———	112-37-8
5	———	———	———	———	143-07-7

Mass	Inten	1	2	3	4	5
29				335	367	387
32			860			
41	648	665	474	611	671	682
42	146					
43	742	771	915	607	742	760
45	112					
55	546	590	527	442	495	522
56	146					
57	573	543	675	523	413	510
60	898	852	781	1128	1050	985
61	170	212	204	186		
69	292	314	334	210	242	258
70	88					
71	297	293	341	393	379	292
72					260	
73	1000	949	869	958	984	992
74	60					
82	48					
83	191	205	212	132	132	141
84	105					
85	202	194	201		212	252
87	145	148		162	171	143
95	31					
96	29					
97	126	123	155			92
98	91		101			
99	57					
101	47					91
110	36					
111	56		76			
112	22			99		

113	27					
115	94	112	101	98	117	138
116	25					
124					37	
125	22					
126	28				52	
129	371	347	310	372	192	303
130	35			30		
138						44
140	8					47
142	8					
143	58	62		59	141	77
144	11				15	
152	9					
156	3					
157	21		38		16	189
158						22
159	9					
166	21	34				
167	16					
168	25	28				
169	6					
171	61	53	41			64
172	9			100		
173				12		
179	20					
181	20					
185	214	191	61			
186	22	28			100	19
187	13				13	
192	7					
194			21			
196			5			
199	21	32	21			
200						192
201						25
207	8					
213			144			
214			17			
219		11				
227			20			
228	274	252	5			
229	27	45				
256			82			
257			13			


LIBRARY SEARCH
03/10/84 19:38:00 + 21:59
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)
DATA: 1240 #1319
CALI: 1240 # 3
BASE M/Z: 73
RIC: 11583.
1128
SAMPLE
C14.H28.02
TETRADECANOIC ACID
M WT 228
B PK 73
RANK 1
IN 15420
PUR 812
C16.H32.02
HEXADECANOIC ACID
M WT 256
B PK 43
RANK 2
IN 22672
PUR 610
C10.H20.02
DECANOIC ACID
M WT 172
B PK 60
RANK 3
IN 10982
PUR 567
M/Z
50
100
150
200
250

Library Search Data: 1240 #1367 Base m/z: 188
03/10/94 19:38:00 + 22:47 Cali: 1240 # 3 RIC: 52671. 41.
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
159 matched at least 4 of the 16 largest peaks in the unknown

UNKNOWN

Rank In. Name
1 13565 DIBENZOTHIOPHENE, 1,2,3,4-TETRAHYDRO-
2 13546 3H-NAPHTHO[1,8-BC]THIOPHEN-3-ONE, 4,5-DIHYDRO-
3 13828 PHENAZINE, DECAHYDRO-
4 13582 BENZENE, 1-(1-CYCLOHEXEN-1-YL)-4-METHOXY-
5 13569 PYRROLO[2,3-B]INDOLE, 1,2,3,3A,8,8A-HEXAHYDRO-3A,8-DIMETHYL-, (3AS-*

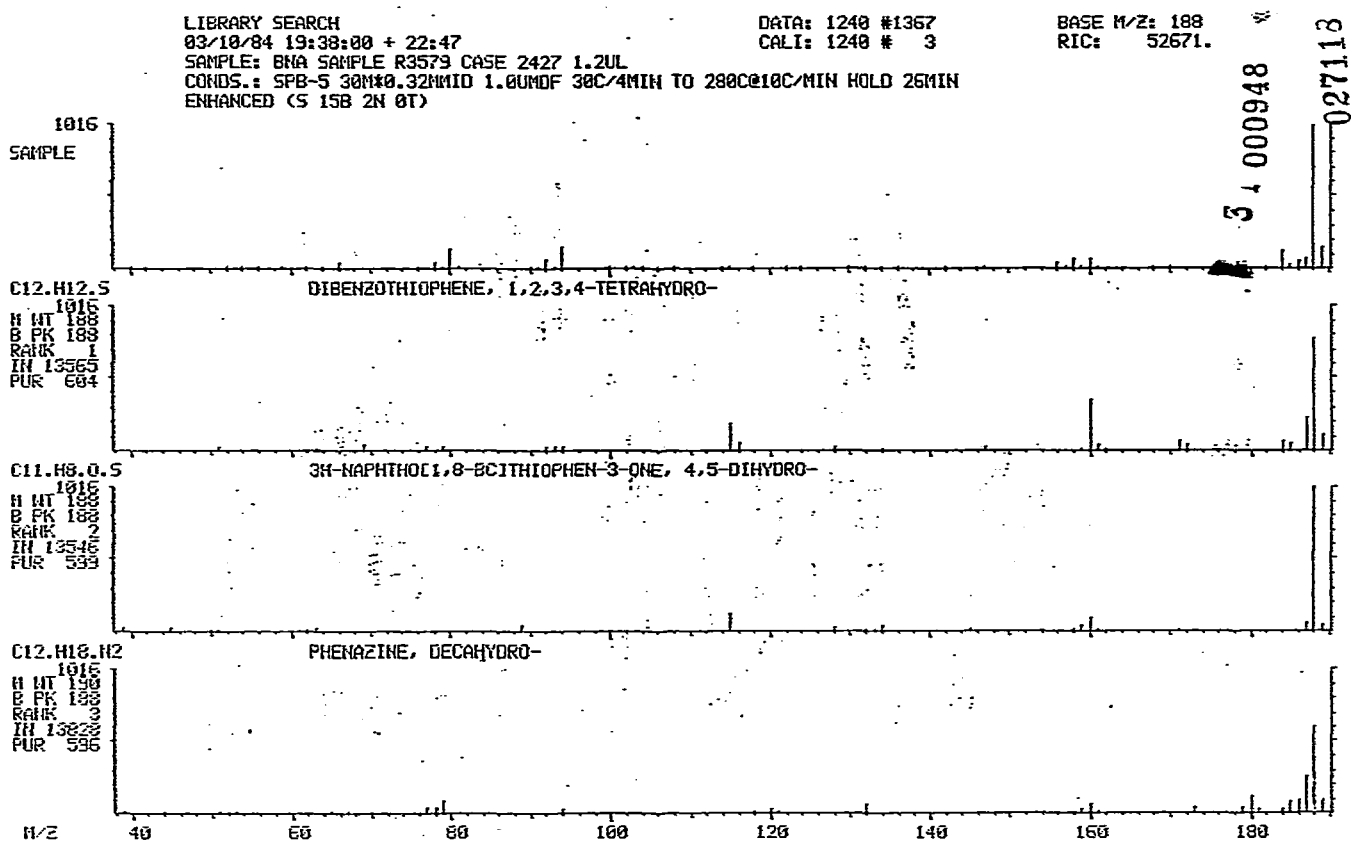
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C12.H12.S	188	188	604	735	674
2	C11.H8.O.S	188	188	599	836	644
3	C12.H18.N2	190	188	596	707	719
4	C13.H16.O	188	188	555	743	684
5	C12.H16.N2	188	188	555	744	685

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	---	---	---	---	16587-33-0
2	---	---	---	---	10245-79-1
3	---	---	---	---	72361-10-5
4	---	---	---	---	20758-60-5
5	---	---	---	---	4089-16-1

Mass	Inten	1	2	3	4	5
39			22	7		
40	5					
42	16					
44				18		
45			26			
50			10			
51		29	10	8	33	
52	15			15		
53				13		
54	15					
56	4					
59	10					
61			11			
62	3		20			
63		16	33			
64	12					
65				11	28	
66	40					
67				12		
69		43				
76	18					
77		28		43	51	8
78	35			35		
79	9	26		93	38	
80	132				28	4
81	11					
89			36			
90	17					
91	7				65	7
92	72	25				
93	11	24				

31 000946
027116

94	145	29		23		
100	8					
102	5					
103	3					
104	2					
106	3					
108	4					
114	3					
115	2	190	125		79	10
116		50				
117					48	36
118	3			16		
120				26		
121				16	65	
122	3					
124	1					
128		29	23		46	
129					93	35
130	3					79
131						37
132	11		11	62		
133			20			
134	3	12	37			
136	5					
142	2					
143						26
144						133
145			9		36	110
146	9					26
147	2	24				
156	38					
157	6				19	13
158	66		12		13	98
159	12	12	36	22	73	45
160	70	353	100	62	94	18
161	8	43	20	13	13	
162		17				
168	2					
170	3					
171		71	20			
172		40				
173				39	125	60
179				41		
180				125		
181				26		
182	11					
184	125	70		29		
185	22	50		78		
186	59			91		
187	67	229	49	263	130	135
188	1000	781	1016	615	933	925
189	147	107	37	92	140	141


LIBRARY SEARCH
03/10/84 19:38:00 + 22:47
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)
DATA: 1240 #1367
CALI: 1240 # 3
BASE M/Z: 188
RIC: 52671.
1016
SAMPLE
C12.H12.S
DIBENZOTHIOPHENE, 1,2,3,4-TETRAHYDRO-
1016
M WT 188
B PK 188
RANK 1
IN 13565
PUR 604
C11.H8.0.S
3H-NAPHTHO[1,8-BC]THIOPHEN-3-ONE, 4,5-DIHYDRO-
1016
M WT 188
B PK 188
RANK 2
IN 13546
PUR 599
C12.H18.N2
PHENAZINE, DECAHYDRO-
1016
M WT 190
B PK 190
RANK 3
IN 13828
PUR 596
M/Z
40
60
80
100
120
140
160
180

Library Search Data: 1240 #1449 Base m/z: 73
03/10/84 19:38:00 + 24:09 Cali: 1240 # 3 RIC: 16927 1765 = B.
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
129 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	22672	HEXADECANOIC ACID
2	26829	HEXADECANOIC ACID, 1-METHYLETHYL ESTER
3	17453	TRIDECANOIC ACID
4	15410	DODECANOIC ACID
5	19420	TETRADECANOIC ACID

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C16. H32. O2	256	32	803	992	806
2	C19. H38. O2	298	43	603	772	698
3	C13. H26. O2	214	73	536	916	546
4	C12. H24. O2	200	73	528	927	560
5	C14. H28. O2	228	73	521	888	580

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	———	———	———	———	57-10-3
2	———	———	———	———	142-91-6
3	———	———	———	———	638-53-9
4	———	———	———	———	143-07-7
5	———	———	———	———	544-63-8

Mass	Inten	1	2	3	4	5
29					423	
32		1013				
41	653	508	726	525	715	707
42	142					
43	905	979	1194	771	797	821
45	101					
55	606	561	537	514	548	623
56	151					
57	636	717	575	712	535	575
59	49					
60	820	835	652	978	1039	908
61	209	219				225
69	328	352	407	278	268	330
70	98					
71	338	361	416	275	302	308
73	1000	925	471	1040	1040	1004
74	64					
81	55					
82	44					
83	224	224	360	174	147	215
84	98					
85	218	212	291	246	263	203
87	141			201	155	159
95	28					
96	38					
97	171	168	245	116	99	131
98	94	109	160			
99	60					
101	63				106	
102			603			
103			111			

31

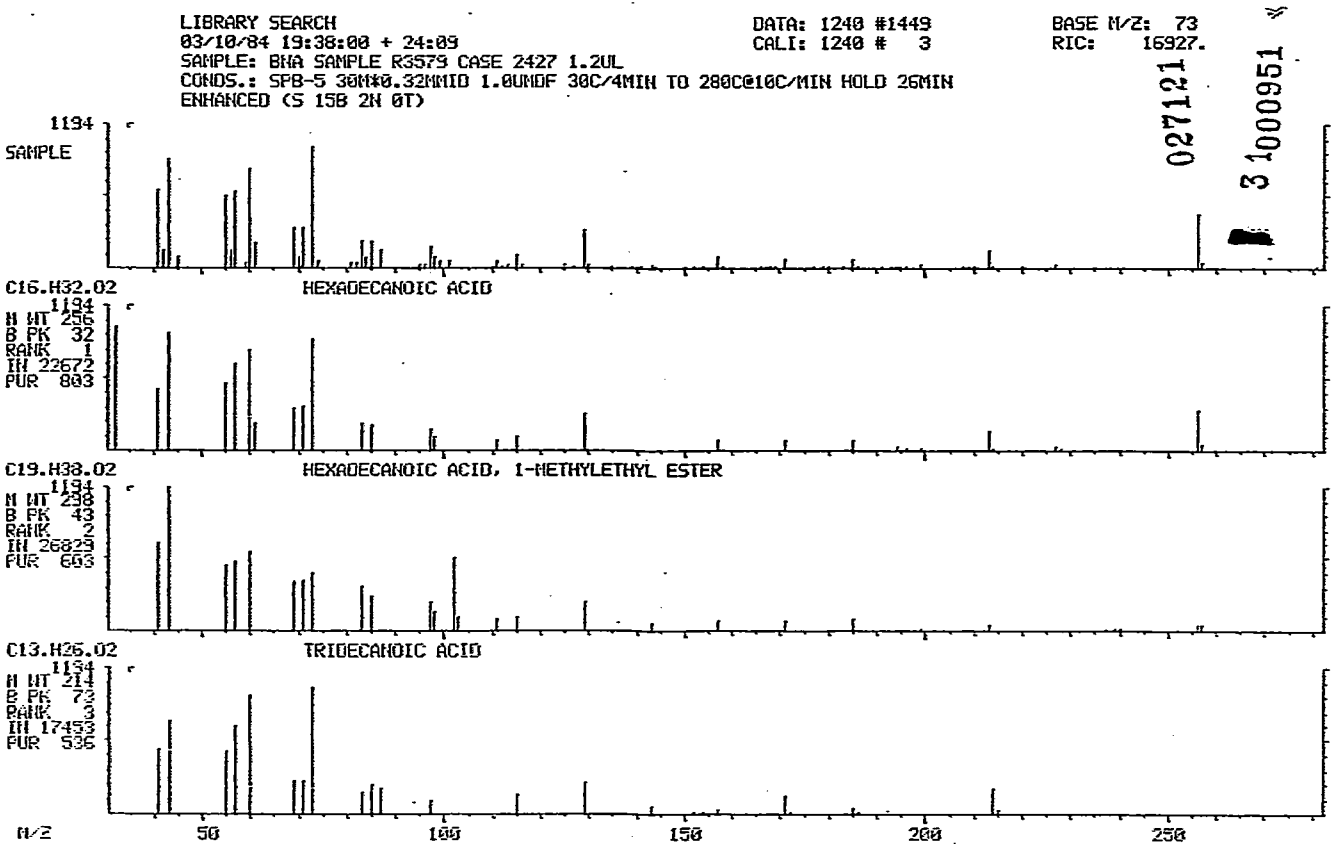
000949

027119

110	21					
111	62	79	103			
112	23					
113	29					
115	115	104	119	167	134	113
116	34					
125	30					
127	15					
129	322	297	241	261	248	308
130	29					
135	23					
138					30	
139	11					
140	12				32	
141	13					
143	35		68	58	45	47
144	17					
150	14					
152	13			21		
154	15			16		
157	88	84	84	31	114	
158	14				13	
166	9					18
167	8					
168	10					15
169	11					
171	86	87	75	144	39	29
172				16		
177	11					
179	9					
180	9					
183	14					
185	87	84	88	48		114
186	12			6	22	16
191	9					
193	11					
194	20	26				
195	7					
196	13	7				
199	30	23	23			16
200					107	
201					14	
208	7					
209	10					
210	4					
213	151	153	53			
214	14	18		209		
215				33		
219						9
220	13					
227	29	30				
228		8				195
229						35
237			6			
239			23			
240			8			
256	451	337	53			
257	55	55	55			
281	7					

31 000950 X

027120


LIBRARY SEARCH
03/10/84 19:38:00 + 24:09
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)
DATA: 1240 #1449
CALI: 1240 # 3
BASE M/Z: 73
RIC: 16927.
027121
1000951
1134
SAMPLE
C16.H32.02
HEXADECANOIC ACID
1134
M WT 256
B PK 32
RANK 1
IN 22672
PUR 803
C19.H38.02
HEXADECANOIC ACID, 1-METHYLETHYL ESTER
1134
M WT 298
B PK 43
RANK 2
IN 26829
PUR 663
C13.H26.02
TRIDECANOIC ACID
1134
M WT 214
B PK 73
RANK 3
IN 17453
PUR 536
M/Z
50
100
150
200
250

Library Search Data: 1240 #1655 Base m/z: 55
03/10/84 19:38:00 + 27:35 Cali: 1240 # 3 RIC: 50495. 40
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL 1265
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
209 matched at least 5 of the 16 largest peaks in the unknown

Rank	In.	Name
1	14952	AZACYCLOTRIDECAN-2-ONE
2	21164	DODECANAMIDE, N-(2-HYDROXYETHYL)-
3	25688	1-OCTANAMINE, N-NITRO-N-OCTYL-
4	17576	DECANAMIDE, N-(2-HYDROXYETHYL)-
5	11110	2,4-IMIDAZOLIDINEDIONE, 5-(4-HYDROXYBUTYL)-

UNKNOWN

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C12.H23.O.N	197	41	460	883	460
2	C14.H29.O2.N	243	85	350	621	351
3	C16.H34.O2.N2	286	43	347	793	380
4	C12.H25.O2.N	215	85	344	739	344
5	C7.H12.O3.N2	172	100	344	863	344

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	———	———	———	———	947-04-6
2	———	———	———	———	142-78-9
3	———	———	———	———	55255-61-3
4	———	———	———	———	7726-08-1
5	———	———	———	———	5458-06-0

Mass	Inten	1	2	3	4	5
18			236		218	
28			131			
29			126		135	164
30		727				
31						218
39				164		
41	621	832	579	512	595	446
42	224			466		277
43	310	399	351	719	307	791
44	363		403	300	431	
54	91					
55	1000	767	492	265	487	549
56	458	316		442		397
57	186		157	211	155	
58	95					
69	154		140	146	138	
70	126			335		257
72	206	382				
73	73	422				
82	84					38
83	161		22			73
84	366	251		339		
85	270		1149	111	1197	48
86	641	345	69		67	
87	87	261				
96	66					
97	366					
98	375	556	453	292	452	
99	190	205	95		96	109
100	374	564				833
101		57				46

31 000952
027122

110	56					
111	163					
112	904	307	74	329	85	352
113	200					285
114	211	241				25
115	38					
124	17		18		21	
125	24					40
126	150	293	59	69	59	36
127	100					
128	250					
129	27					
138	15				26	
139	17					
140	235	152	286	309	272	
141	189		30	35	27	
142	119			117		48
143	61					
152	89					
153	88					
154	196	169	134	13	130	247
155	45			21	16	35
156	63	105				
166	17		15			
167	8					
168	67	88	60	36	103	
169	56					
170	14					
172	10					11
180	8					
181	82					
182	22	18	46	22	18	
183	13		8			
184	27					
185	13					
196	45		34		43	
197	86	90	5			
198	186	11			18	
199	18					
208	5					
209	4					
210	3		8			
211	6					
223	3					
224			6			
225	8					
226	561		2			
227	76					
228	8					
240				102		
241				19		
244	4					
281	8					
331	2					

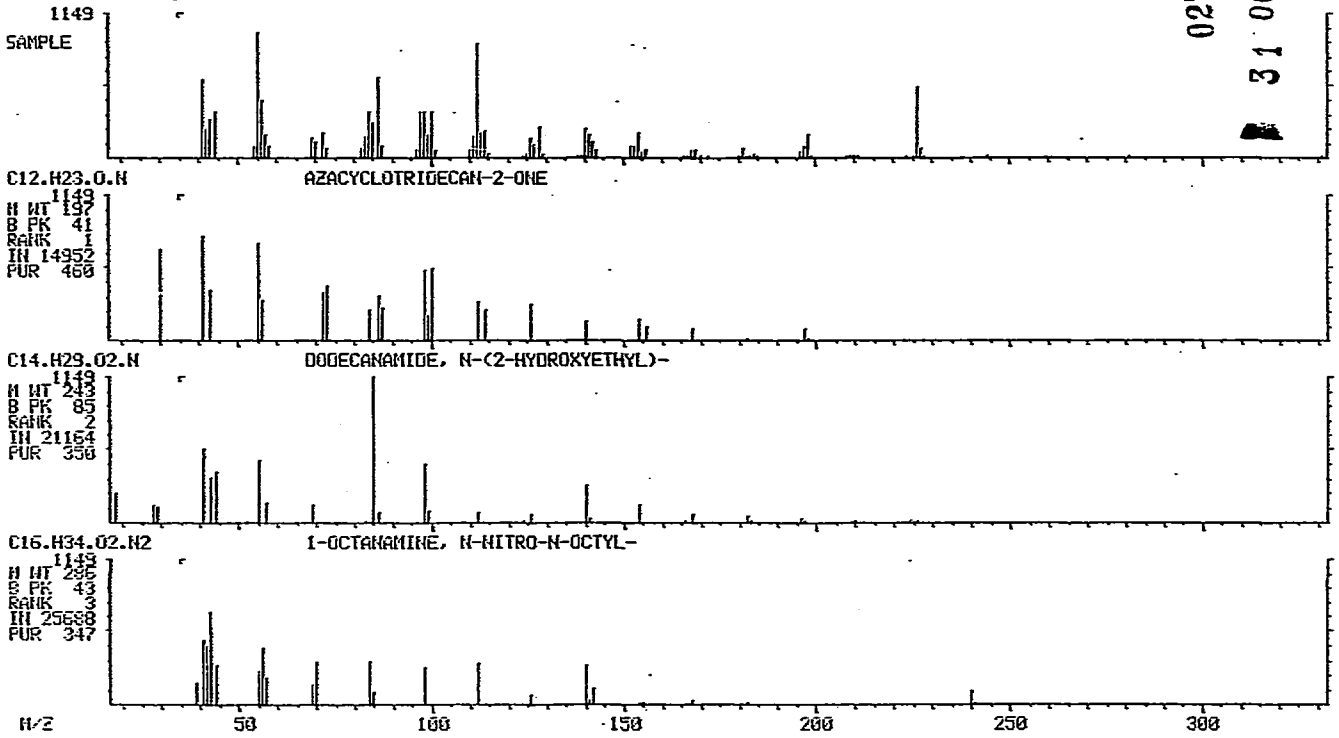
LIBRARY SEARCH
03/10/84 19:38:00 + 27:35
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 #1655
CALI: 1240 # 3

BASE M/Z: 55
RIC: 50495

027124

31 000954



Library Search Data: 1240 #1667 Base m/z: 114
03/10/84 19:38:00 + 27:47 Cali: 1240 # 3 RIC: 22367
Sample: BNA SAMPLE R3579 CASE 2427 1.2UL
Conds.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
Enhanced (S 15B 2N OT)

38752 spectra in LIBRARYNB searched for maximum PURITY
66 matched at least 6 of the 16 largest peaks in the unknown

Rank	lm.	Name
1	10697	PIPERAZINE, 2,3-DIMETHYL-5-(2-METHYLPROPYL)-
2	8503	1-AZIRIDINEPROPANOL, 2-METHYL-3-(1-METHYLETHYL)-, TRANS-
3	15054	MORPHOLINE, 4,4'-ETHENYLIDENEBIS-
4	14966	AZIRIDINE, 2-(1,1-DIMETHYLETHYL)-1-HEXYL-3-METHYL-, TRANS-
5	5704	2,6-PIPERIDINEDIONE, 3-ETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C10.H22.N2	170	114	433	857	447
2	C9.H19.O.N	157	98	376	859	376
3	C10.H18.O2.N2	198	55	356	704	416
4	C13.H27.N	197	56	307	863	309
5	C7.H11.O2.N	141	41	303	677	321

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	---	---	---	---	54410-91-2
2	---	---	---	---	55669-83-5
3	---	---	---	---	14212-87-4
4	---	---	---	---	55669-82-4
5	---	---	---	---	25115-69-9

Mass	Inten	1	2	3	4	5
27			256			
28		306	319			
29			213		170	
30		230				
31			282			
39						229
40		233				79
41	501	301	356	283	445	495
42	186	183	248			362
43	211	232		208	316	
44	267	493			241	
55	536	86	498	543	352	460
56	339	176	457	306	473	212
57	186		162	325	188	
58	89	621				
59	67					
67	83					
69	247				171	144
70	161	337	138		130	257
71	58				136	
72	153					
73	80					
83	55					
84	252	310	260		76	66
85	185			186		358
86	303	79		211		99
87	72			117		
96	121					
97	50					
98	115	73	866		108	41
99	75					

31 000955

027125

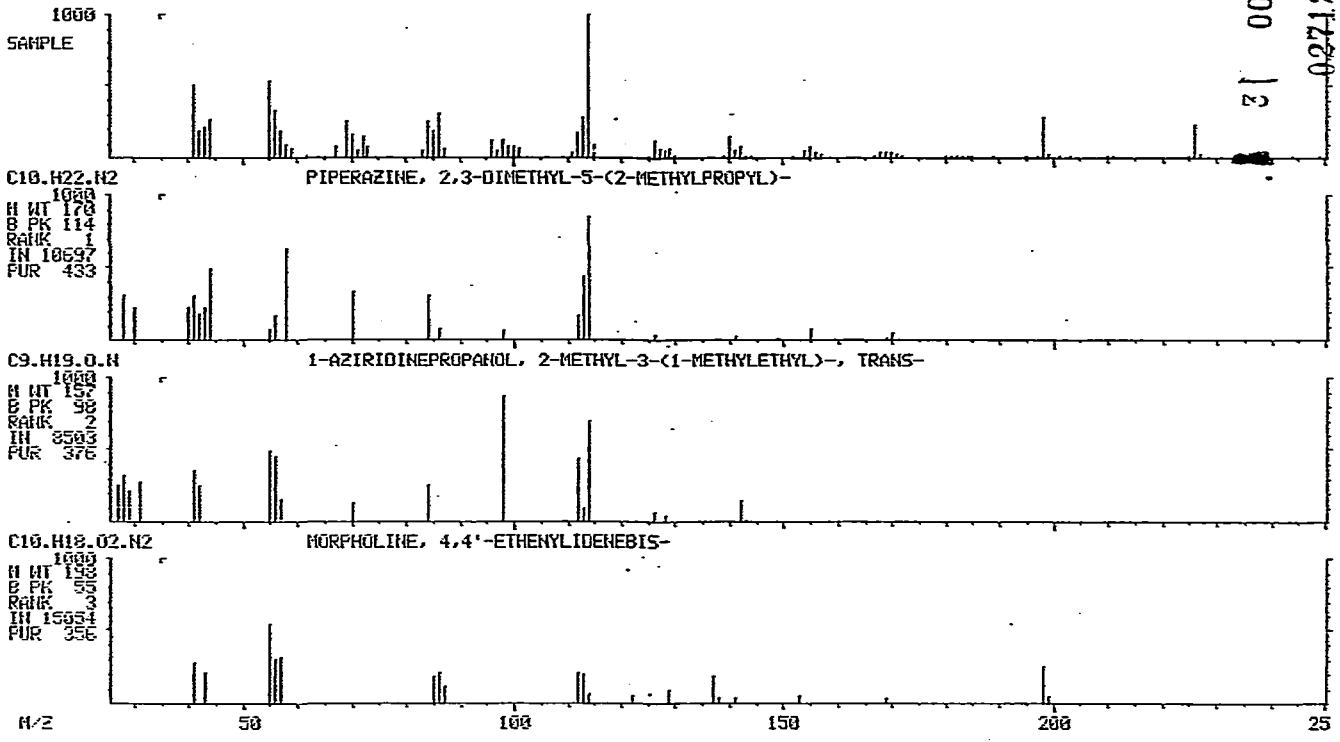
100	77				28	
101	71					
111	35					
112	180	171	434	211	223	
113	282	441	95	201		388
114	1000	856	694	62		35
115	89					
122				52		
125	15					
126	119	40	66		78	29
127	71					
128	58		39			
129	62			88		
130	11					
137				188		
138				36		
139	10					
140	153				171	
141	47	23		34	18	
142	74		145			
143	19		13			
144	9					
149		14				
152	9					
153				52		
154	47				72	
155	81	86			8	
156	39					
157	27					
167	7					
168	43				4	
169	36	12		36		
170	35	54				
171	21					
172	8					
180	6					
181	11					
182	12				158	
183	16				21	
184	14					
185	9					
189	6					
195	3					
196					8	
197	13				7	
198	279			252		
199	28			50		
201	5					
203	1					
210	5					
211	3					
225	8					
226	229					
227	24					
244	5					
249	3					

LIBRARY SEARCH
03/10/84 19:38:00 + 27:47
SAMPLE: BNA SAMPLE R3579 CASE 2427 1.2UL
CONDS.: SPB-5 30M*0.32MMID 1.0UMDF 30C/4MIN TO 280C@10C/MIN HOLD 26MIN
ENHANCED (S 15B 2N 0T)

DATA: 1240 #1667
CALI: 1240 # 3

BASE M/Z: 114
RIC: 22367.

000957
027127



PESTICIDE DATA REDUCTION FORM

Case # 2427 Sample # R3579

Sample Wt/Vol 1000 ml Final Vol 10 ml

% Moisture NA Solid or Liquid L

	Typical RT	Fraction	Dilution	Injection Conc. µg/ml	Light Box	Dilution	Rerun	Injection Conc.	Light Box	Second Column	Lgt. Box	Sample Conc. µg/l
												10
α BHC	3.98	1										
β BHC	4.49	1										
γ BHC	4.67	1										
δ BHC	5.24	1		0.204	+					NO	—	—
Heptachlor	6.88	1										
Aldrin	8.38	1										
Heptachlorepoxide	10.57	1										
α Endosulfan	13.16	1&2										
Dieldrin	14.47	2										
p,p'-DDE	15.72	1										
Endrin	17.67	2										
β Endosulfan	18.77	3										
p,p'-DDD	20.74	1										
Endrin Aldehyde	21.30	2&3										
Endosulfan Sulfate	24.95	3										
p,p'-DDT	26.72	1										
DBC	47.87	1,2&3		0.554	+						=	22%
G3												

d-BHC Not confirmed on Packed Column.

000958

027123

EDIT AUTO SEQ 8:44
PR: AUTO SEQ
OVEN TEMP NOT READY

R 3579 6%
Pest Analysis

[illegible] MAR 13, 1984
R: 1 ATTN = 2:5

1.35

2.32

5.25

10.17

11.16

13.42

14.79

15.74

17.48

18.79

19.28

20.74

21.32

22.82

24.97

26.11

27.31

30.97

OVL START PRGM RATE 1
OVL START FINAL TIME 1

37.99

methoxychlor IS

39.91

41.38

31 000959
027123

48.81

BSA START PREPRATA 20 CM/MIN
[illegible] FINAL TIME 2

RT STOP RUN

[HP] 5890A SAMPLER INJECTION @ 11:09 MAR 13, 1984
SAMPLE # : ID CODE :
91 R3579 6

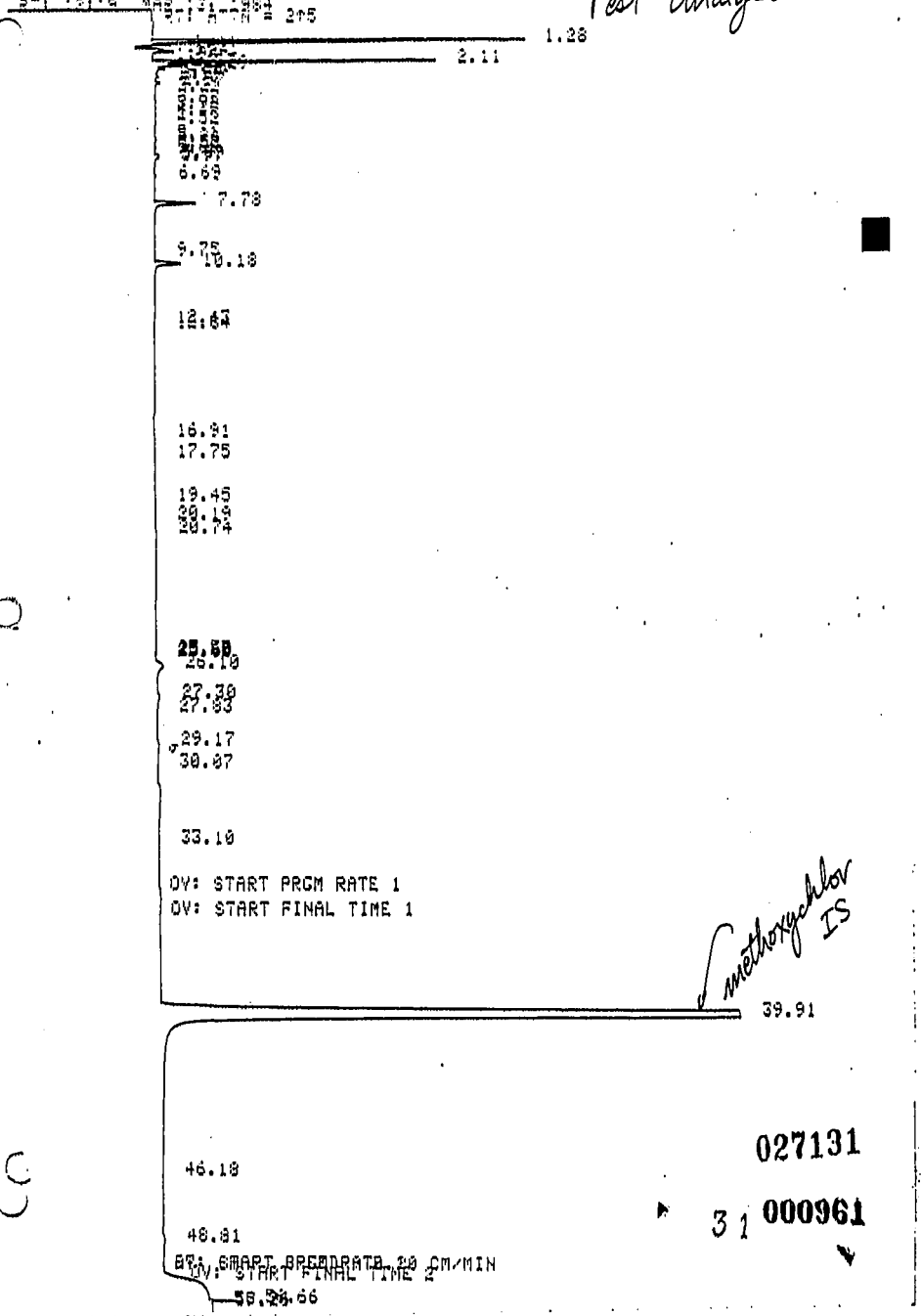
PESTICIDE MIX CALIBRATION CURVE
STD

RT	EXP RT	AREA	TYPE	WIDTH	CAL	AMOUNT	NAME
0.00			BASELINE @ START RUN = 314.80				
0.00			THRESHOLD @ START RUN = -1				
0.00			PEAK WIDTH @ START RUN = 0.08				
0.00			RP: REJECT > 1E+06				
3.50			RP: REJECT > 20				
3.51		37.83	VV	-----		1.135E-03	
3.67		25.15	VV	-----		7.546E-04	
4.39		92.12	BV	0.062		2.763E-03	
5.25	5.25	2871.51	PV	*0.139*	4	0.204	D-BHC
5.88		89.79	VV	-----		2.694E-03	
5.98		40.67	VV	-----		1.220E-03	
6.14		22.76	VV	-----		6.827E-04	
7.78		145.30	VV	0.095		4.359E-03	
10.17		46550.20	VV	*0.106		1.397	
10.71		281.43	VV	-----*		8.443E-03	
11.16		126.21	VV	-----		3.786E-03	
21.32	21.35	25.06	BB	*------*	14	2.452E-03	ENDRALDEHYDE
26.11		63.85	BB	*------*		1.916E-03	
27.31		33.84	BB	------*		1.015E-03	
30.97		56.35	BB	------*		1.691E-03	
35.30		43.95	BV	-----*		1.319E-03	
39.91	39.91	13412.50	BB	0.244*	17	0.353	METHOXYCHLOR
48.81		88.22	BB	0.308		2.647E-03	
50.00			RP: REJECT > 1E+06				

MULTIPLIER = 1

PR: AUTO SEQ
OVEN TEMP NOT READY

R3579 15%
Pest Analysis



027131

31 000961

. RT: STOP RUN

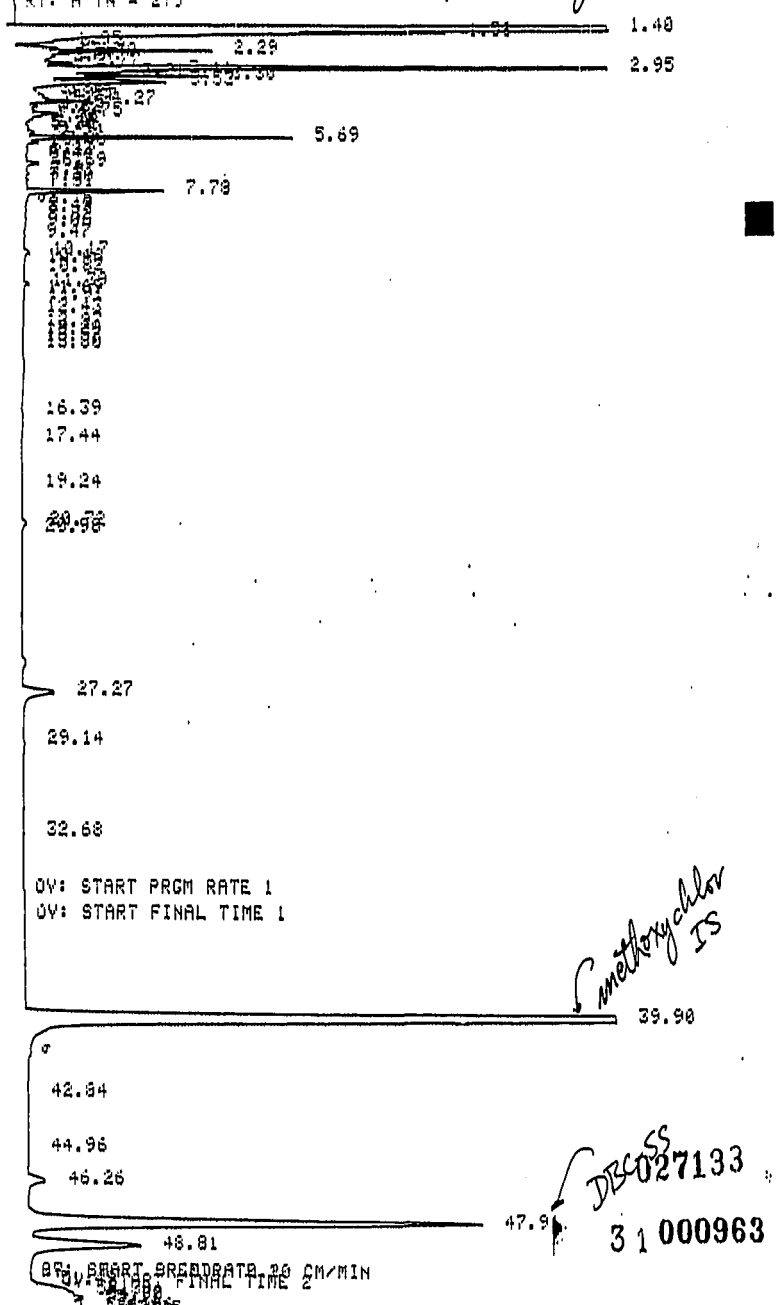
EXP 5880A SAMPLER INJECTION @ 12:19 MAR 13, 1984
SAMPLE # : ID CODE :
92 R3579 15 Pest
PESTICIDE MIX CALIBRATION CURVE
ID

RT	EXP RT	AREA	TYPE	WIDTH	CAL	AMOUNT	NAME
0.00			BASELINE @ START RUN = 315.12				
0.00			THRESHOLD @ START RUN = -1				
0.00			PEAK WIDTH @ START RUN = 0.08				
0.00			RP: REJECT > 1E+06				
3.50			RP: REJECT > 20				
7.78		185.35	BB	0.096		5.561E-03	
10.18		136.08	BB	0.112		4.082E-03	
26.10		82.22	BB	*------*		2.467E-03	
27.30		31.75	BB	------*		9.524E-04	
29.17		27.99	BV	*------*		8.398E-04	
39.91	39.91	16213.90	+ BB	0.240*	17	0.426	METHOXYCHLOR
48.81		37.55	BB	-----		1.126E-03	
50.00			RP: REJECT > 1E+06				

MULTIPLIER = 1

PR: AUTO SEQ
OVEN TEMP NOT READY

R 3579 50%
Pest Analysis



[HP] 5880A SAMPLER INJECTION @ 13:26 MAR 13, 1984
SAMPLE # : ID CODE :
93 R3579 50
PESTICIDE MIX CALIBRATION CURVE
STD

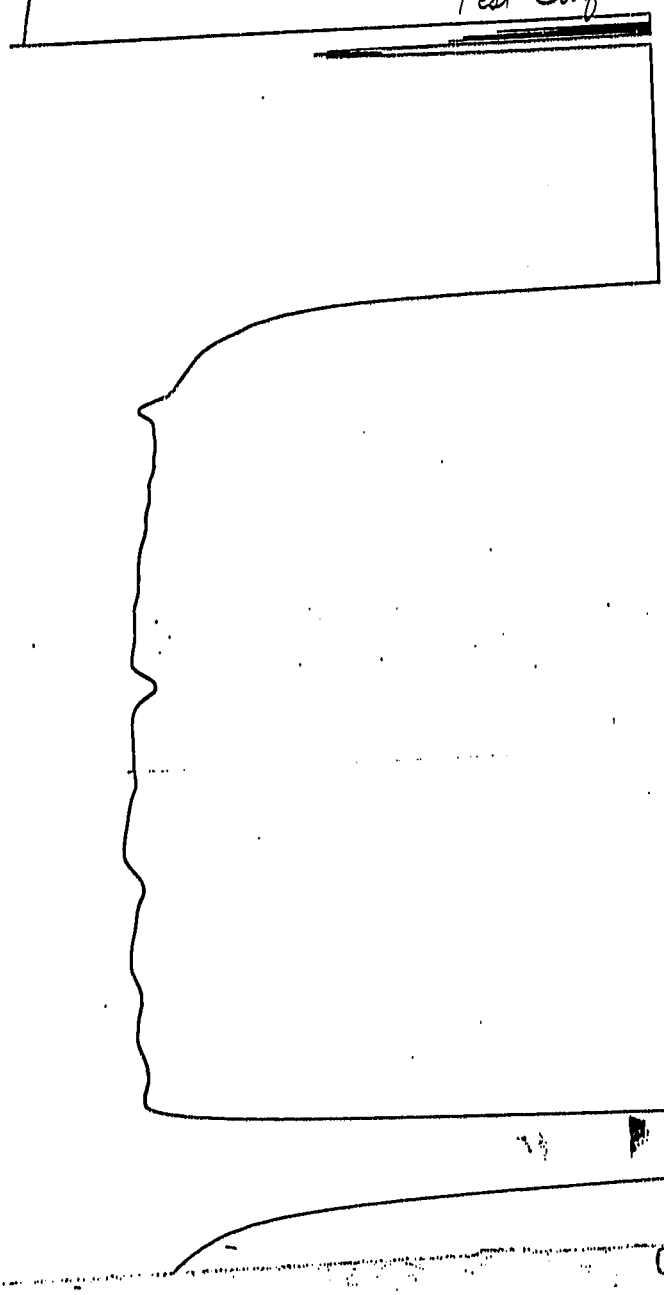
RT	EXP RT	AREA	TYPE	WIDTH	CAL	AMOUNT	NAME
0.00			BASELINE @ START RUN = 315.86				
0.00			THRESHOLD @ START RUN = -1				
0.00			PEAK WIDTH @ START RUN = 0.08				
0.00			RP: REJECT > 1E+06				
3.50			RP: REJECT > 20				
3.53		1287.82	VV	*------*		3.863E-02	
3.86		99.87	VV	------		2.996E-03	
4.05		230.56	VV	*------		6.917E-03	
4.17		134.11	VV	------		4.023E-03	
4.27		266.71	VV	------		8.001E-03	
4.45	4.50	122.11	VV	------	2	1.280E-02	~~B-BHC~~
4.62		83.08	VV	------		2.492E-03	
4.75		243.69	VV	------*		7.311E-03	
4.96		79.83	VV	------		2.395E-03	
5.18		28.44	VV	------		8.531E-04	
5.30	5.25	49.81	VV	------	4	4.166E-03	~~D-BHC~~
5.50		88.88	VV	------		2.667E-03	
5.69		848.03	VV	0.070		2.544E-02	
5.88		79.77	VV	------		2.393E-03	
6.13		28.06	VV	------		8.418E-04	
6.69		72.70	VB	*------		2.181E-03	
7.78		588.07	BP	0.096		1.764E-02	
8.17		43.92	BB	*------		1.318E-03	
11.39		28.64	BB	0.110		8.592E-04	
20.72	20.77	35.30	BB	0.173	13	4.427E-03	~~PP-DDT~~
27.27		387.75	BB	0.275*		1.163E-02	
29.14		24.19	BB	0.268		7.256E-04	
39.90	39.90	15102.30	BV	0.249*	17	0.397	METHOXYCHLOR
46.26		229.03	BB	0.286		6.871E-03	
47.91	47.96	5936.47	BV	*0.293	18	0.554	DIBUTYLCHLOR
48.81		1611.56	VB	0.324*		4.835E-02	
50.00			RP: REJECT > 1E+06				

MULTIPLIER = 1

027134

3 ; 000964

R3579 6%
Pest Confirmatory



31 000965

027135

REPORT # 87 13 MAR, 1984 21:30 PEST

CHANNEL: 0 METHOD: PEST BOTTLE: 5

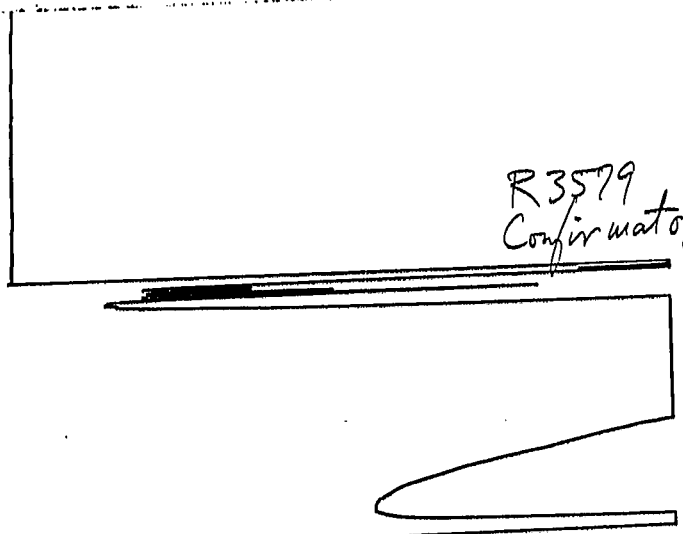
SAMPLE: R3579 6% INJECTED ON: 13 MAR, 1984 20:40

MIN AR	MV/M	DELAY	DVT	FACTOR	LVL	REF-RTW	%RTW
500	.100	0.00	0.00	1.0000E+ 0	0	.30	5

NO REF PK FOUND
ENDED NOT ON BL

RT	ITM	FACTOR	AREA		AREA%	NAME
.59		1.00000	493118	BV	7.446	
.76		1.00000	161866	VV	2.444	
.99		1.00000	27354	VV	.413	
1.15		1.00000	24214	VV	.366	
1.27		1.00000	50480	VV	.762	
1.42		1.00000	6511	VV	.098	
1.52		1.00000	8591	VV	.130	
1.99		1.00000	858351	VV	12.961	
2.89		1.00000	283000	VV	4.273	
3.44		1.00000	313268	VV	4.730	
4.14		1.00000	186570	VV	2.817	
4.63	DBHC	1.00000	304162	VV	4.593	
5.46		1.00000	124198	VV	1.875	
5.68		1.00000	72569	VV	1.096	
6.30		1.00000	441313	VV	6.664	
7.78		1.00000	165334	VV	2.496	
8.37		1.00000	197372	VV	2.980	
10.38		1.00000	1545116	VV	23.331	
16.01		1.00000	11862	VB	.179	
25.35		1.00000	6316	BV	.095	
28.80		1.00000	1381	BV	.021	
33.01		1.00000	9006	VV	.136	
37.29		1.00000	4015	VV	.061	
40.29		1.00000	5161	VV	.078	
43.81		1.00000	1321587	VP	19.955	

TOTAL AREA = 6622709



ATTN 64

REPORT # 95 15 MAR, 1984 13:20 PEST

CHANNEL: 0 METHOD: PEST BOTTLE: 4

SAMPLE: R3579 INJECTED ON: 15 MAR, 1984 12:30

MIN AR	MV/M	DELAY	DVT	FACTOR	ID-LVL	REF-RTN	%RTW
500	.100	0.00	0.00	1.0000E+ 0	0	.30	5

NO REF PK FOUND

PT	ITM	FACTOR	AREA		AREA%	NAME
.59		1.00000	414285	BV	4.781	
.76		1.00000	156600	VV	1.807	
1.01		1.00000	31274	VV	.361	
1.16		1.00000	27040	VV	.312	
1.28		1.00000	48722	VV	.562	
1.43		1.00000	8196	VV	.095	
1.54		1.00000	9333	VV	.108	
2.00		1.00000	445690	VV	5.144	
2.88		1.00000	2459833	VV	28.388	
3.14		1.00000	1786986	VV	20.623	
5.25		1.00000	1753426	VV	20.236	
10.42		1.00000	1388226	VV	16.021	
28.86		1.00000	113647	VV	1.312	
9.97		1.00000	18011	VV	.208	
43.70		1.00000	3638	VB	.042	

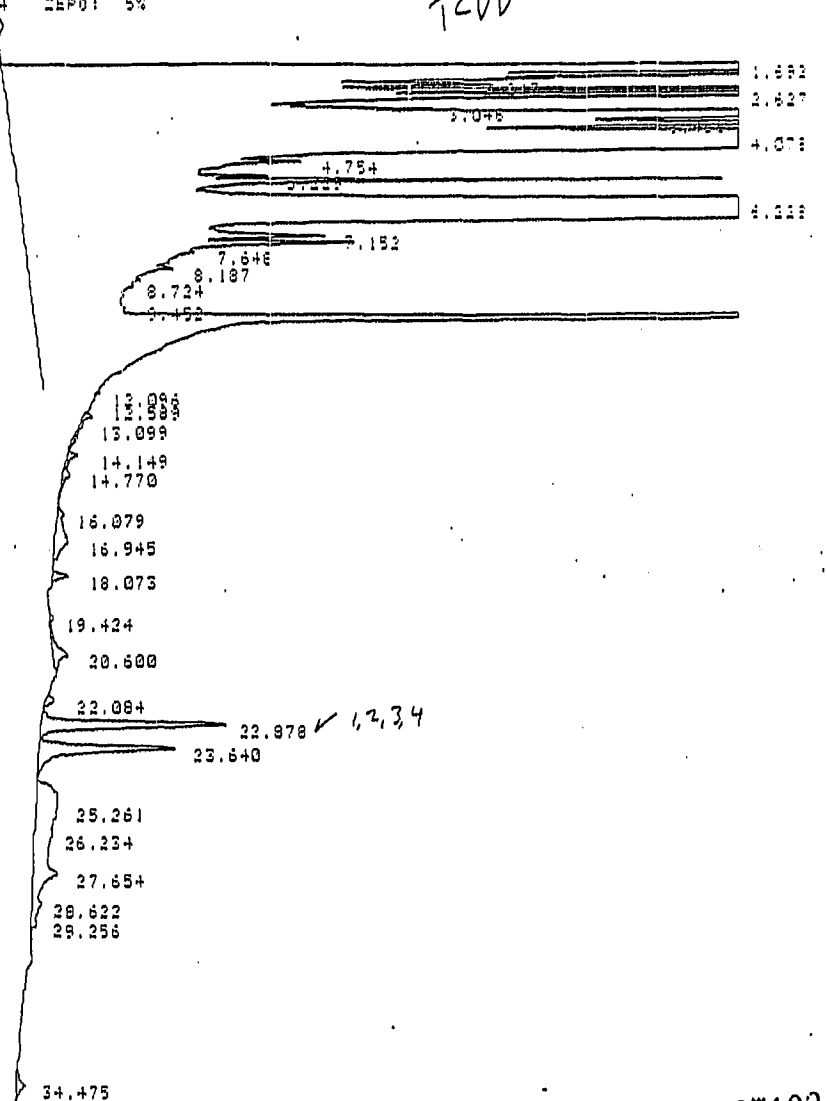
TOTAL AREA = 8664910

31 000968

027138

R3579
TCDD

CHART SPEED 0.6 CM MIN
ATT NO. 64 ZERO: 5%



027139

31 000969

TITLE: CASE 2437 TIDD 6:14 14 MAR 84

CHANNEL NO: 1 SAMPLE: P 3573 METHOD: TODD

PEAK NO.	PEAK NAME	RESULT	TIME (MINS)	AREA (COUNTS)	SEP CODE
		15.12	1.812	6638750	BV
		2.07	1.952	910123	VV
		0.78	2.073	344539	VV
4		0.33	2.247	145629	VV
5		0.46	2.252	200846	VV
6		1.69	2.438	742493	VV
7		2.91	2.627	1279160	VV
8		0.22	2.937	95644	VV
9		0.46	3.046	202977	VV
10		2.70	3.177	1195090	VV
11		0.15	3.300	66300	VV
12		1.07	3.357	468062	VV
13		0.30	3.466	130548	VV
14		2.19	3.541	962724	VV
15		17.30	4.078	7593960	VV
16		0.91	4.754	400209	VV
17		0.22	5.074	96208	VV
18		0.35	5.229	151304	VV
19		1.24	5.347	546787	VV
20		14.18	6.238	6224430	VV
21		14.83	6.288	6508810	VV
22		1.00	7.152	440639	VV
23		0.87	7.365	380264	VV
24		0.64	7.648	279145	VV
25		0.21	7.971	91328	VV
26		0.55	8.187	239861	VV
27		0.22	8.543	97276	VV
28		0.29	8.724	129298	VV
29		0.27	9.017	119082	VV
30		0.33	9.452	144541	VV
31		14.08	9.752	6182370	VV
32		0.01	12.914	4945	T
33		0.01	13.059	3458	T
34		0.01	13.469	2763	T
35		0.02	14.149	9464	T
36		0.03	14.770	12245	T
37		0.02	16.079	7972	BV
38		0.12	16.945	50869	VV
39		0.03	18.073	13339	VB
40		0.02	19.434	7213	BV
41		0.08	20.600	37057	VB
42		0.02	22.064	8629	BV
43		0.49	22.878	216388	VV
44		0.41	23.640	181437	VV
45		0.34	25.261	147576	VV
46		0.19	26.234	82898	VV
47		0.17	27.854	75460	VV
48		0.05	28.622	20759	VV
49		0.02	29.256	6857	VB
50		0.04	34.475	16834	BB
TOTALS:		100.02		43904900	

MULTIPLIER: 1.00000

RACK: 8 VIAL: 7 INJ: 1

ERRORS:
ADC OVERANGE

NOTES:
COLUMN:DB-5 CAPILLARY
DETECTOR:ECD
OVEN TEMP PROGRAM:ISOTHERMAL @ 195°C
RUN TIME:35.00 MINUTES
SPLITTER, HE CARRIER, N2 MAKEUP
DETECTOR TEMP:300°C, INJECTOR TEMP:250°C

3: 000970

027140

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
R3580

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: VERSAR INC.
Lab Sample ID No: 5811a
Sample Matrix: LOW LEVEL AQUEOUS
Data Release Authorized By: [signature]

Case No: 2427
QC Report No: 2427
Contract No: ~~68-01-6756 (324)~~ - 68-01-6757 (325)
Date Sample Received: 2-17-84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-17-84
DATE ANALYZED: 03-10-84
PERCENT MOISTURE: Aq
CONC./DILUTION FACTOR: none

FP #	CAS #		(ug/l) or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10 u
(22A)	59-50-7	p-chloro-m-cresol	10 u
(29A)	95-57-8	2-chlorophenol	10 u
(31A)	120-83-2	2,4-dichlorophenol	10 u
(34A)	105-67-9	2,4-dimethylphenol	10 u
(57A)	88-75-5	2-nitrophenol	20 u
A)	100-02-7	4-nitrophenol	50 u
(59A)	51-28-5	2,4-dinitrophenol	50 u
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 u
(64A)	87-86-5	pentachlorophenol	10 u
(65A)	108-95-2	phenol	10 u
	65-85-0	benzoic acid	100 u
	95-48-7	2-methylphenol	5 u
	108-39-4	4-methylphenol	5 u
	95-95-4	2,4,5-trichlorophenol	100 u
(1B)	83-32-9	acenaphthene	10 u
(5B)	92-87-5	benzidine	40 u
(8B)	120-82-1	1,2,4-trichlorobenzene	10 u
(9B)	118-74-1	hexachlorobenzene	10 u
(12B)	67-72-1	hexachloroethane	10 u
(18B)	111-44-4	bis(2-chloroethyl)ether	10 u
(20B)	91-58-7	2-chloronaphthalene	10 u
(25B)	95-50-1	1,2-dichlorobenzene	10 u
(26B)	541-73-1	1,3-dichlorobenzene	10 u
(27B)	106-46-7	1,4-dichlorobenzene	10 u
(28B)	91-94-1	3,3'-dichlorobenzidine	20 u
(35B)	121-14-2	2,4-dinitrotoluene	20 u
(36B)	606-20-2	2,6-dinitrotoluene	20 u
(37B)	122-66-7	1,2-diphenylhydrazine	20 u
3B)	206-44-0	fluoranthene	10 u
40B)	7005-72-3	4-chlorophenyl phenyl ether	10 u
(41B)	101-55-3	4-bromophenyl phenyl ether	10 u
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 u
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 u

FP #	CAS #		(ug/l) or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10 u
(53B)	77-47-4	hexachlorocyclopentadiene	10 u
(54B)	78-59-1	isophorone	10 u
(55B)	91-20-3	naphthalene	10 u
(56B)	98-95-3	nitrobenzene	10 u
(62B)	86-30-6	N-nitrosodiphenylamine	10 u
(63B)	621-64-7	N-nitrosodipropylamine	10 u
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10 u
(67B)	85-68-7	benzyl butyl phthalate	10 u
(68B)	84-74-2	di-n-butyl phthalate	10 u
(69B)	117-84-0	di-n-octyl phthalate	10 u
(70B)	84-66-2	diethyl phthalate	10 u
(71B)	131-11-3	dimethyl phthalate	10 u
(72B)	56-55-3	benzo(a)anthracene	10 u
(73B)	50-32-8	benzo(a)pyrene	20 u
(74B)	205-99-2	benzo(b)fluoranthene	20 u
(75B)	207-08-9	benzo(k)fluoranthene	20 u
(76B)	218-01-9	chrysene	20 u
(77B)	208-96-8	acenaphthylene	10 u
(78B)	120-12-7	anthracene	10 u
(79B)	191-24-2	benzo(ghi)perylene	20 u
(80B)	86-73-7	fluorene	10 u
(81B)	85-01-8	phenanthrene	10 u
(82B)	53-70-3	dibenzo(a,h)anthracene	20 u
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20 u
(84B)	129-00-0	pyrene	10 u
	62-53-3	aniline	5 u
	100-51-6	benzyl alcohol	20 u
	106-47-8	4-chloroaniline	50 u
	132-64-9	dibenzofuran	10 u
	91-57-6	2-methylnaphthalene	20 u
	88-74-4	2-nitroaniline	100 u
	99-09-2	3-nitroaniline	100 u
	100-01-6	4-nitroaniline	027141

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
R3580

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: VERSAR INC.
Lab Sample ID No: 5811o
Sample Matrix: LOW LEVEL AQUEOUS
Data Release Authorized By: Acf

Case No: 2427
QC Report No: 2427
Contract No.: ~~68-01-5756 (824)~~ - 68-01-6757 (825
Date Sample Received: 2-17-84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-22-84
DATE ANALYZED: 2-22-84
PERCENT MOISTURE: —
CONC./DILUTION FACTOR: —

FF #	CAS #		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100 u
(3V)	107-13-1	acrylonitrile	100 u
(4V)	71-43-2	benzene	5 u
(6V)	56-23-5	carbon tetrachloride	5 u
(7V)	108-90-7	chlorobenzene	5 u
(10V)	107-06-2	1,2-dichloroethane	1 u
(11V)	71-55-6	1,1,1-trichloroethane	5 u
(13V)	75-34-3	1,1-dichloroethane	5 u
(14V)	79-00-5	1,1,2-trichloroethane	5 u
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 u
V)	75-00-3	chloroethane	10 u
(19V)	110-75-8	2-chloroethylvinyl ether	10 u
(23V)	67-66-3	chloroform	5 u
(29V)	75-35-4	1,1-dichloroethene	5 u
(30V)	156-60-5	trans-1,2-dichloroethene	5 u
(32V)	78-87-5	1,2-dichloropropane	10 u
(33V)	10061-02-6	trans-1,3-dichloropropene	5 u
	10061-01-05	cis-1,3-dichloropropene	5 u
(38V)	100-41-4	ethylbenzene	5 u
(44V)	75-09-2	methylene chloride	5 u
(45V)	74-87-3	chloromethane	10 u
(46V)	74-83-9	bromomethane	10 u
(47V)	75-25-2	bromoform	10 u
(48V)	75-27-4	bromodichloromethane	5 u
(49V)	75-69-4	fluorotrichloromethane	5 u
(50V)	75-71-8	dichlorodifluoromethane	5 u
(51V)	124-48-1	chlorodibromomethane	5 u
(85V)	127-18-4	tetrachloroethene	5 u
(86V)	108-88-3	toluene	5 u
(87V)	79-01-6	trichloroethene	5 u
(88V)	75-01-4	vinyl chloride	10 u
	67-64-1	acetone	5 u
	78-93-3	2-butanone	5 u
	75-15-0	carbondisulfide	1 u
	519-78-6	2-hexanone	5 u
	108-10-1	4-methyl-2-pentanone	5 u
	100-42-5	styrene	5 u
	108-05-4	vinyl acetate	5 u
	1330-20-7	total xylenes	5 u

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-20-84
DATE ANALYZED: 3-13-84
PERCENT MOISTURE: —
CONC./DILUTION FACTOR: 1l → 10 ml

FF #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.005u
(90P)	60-57-1	dieldrin	0.005u
(91P)	57-74-9	chlordane	0.050u
(92P)	50-29-3	4,4'-DDT	0.010u
(93P)	72-55-9	4,4'-DDE	0.005u
(94P)	72-54-8	4,4'-DDD	0.010u
(95P)	115-29-7	α-endosulfan	0.005u
(96P)	115-29-7	β-endosulfan	0.005u
(97P)	1031-07-8	endosulfan sulfate	0.010u
(98P)	72-20-8	endrin	0.005u
(99P)	7421-93-4	endrin aldehyde	0.010u
(100P)	76-44-8	heptachlor	0.005u
(101P)	1024-57-3	heptachlor epoxide	0.005u
(102P)	319-84-6	α-BHC	0.005u
(103P)	319-85-7	β-BHC	0.005u
(104P)	319-86-8	δ-BHC ** 0.055	(1)
(105P)	58-89-9	γ-BHC (lindane)	0.005u
(106P)	53469-21-9	PCB-1242	0.050u
(107P)	11097-69-1	PCB-1254	0.100u
(108P)	11104-28-2	PCB-1221	0.100u
(109P)	11141-16-5	PCB-1232	0.100u
(110P)	12672-29-6	PCB-1248	0.100u
(111P)	11096-82-5	PCB-1260	0.200u
(112P)	12674-11-2	PCB-1016	0.050u
(113P)	8001-35-2	toxaphene	0.050u

(1) D-BHC FSCC ID - tentatively confirmed on packed column WID

DIOXINS CC

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-20-84
DATE ANALYZED: 3-13-84
PERCENT MOISTURE: —
CONC./DILUTION FACTOR: 1000 → 5

FF #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.005u

ORGANICS ANALYSIS DATA SHEET - Page 3

Sample Number: R3580

Laboratory Name: VERSAR INC. Case No: 2427

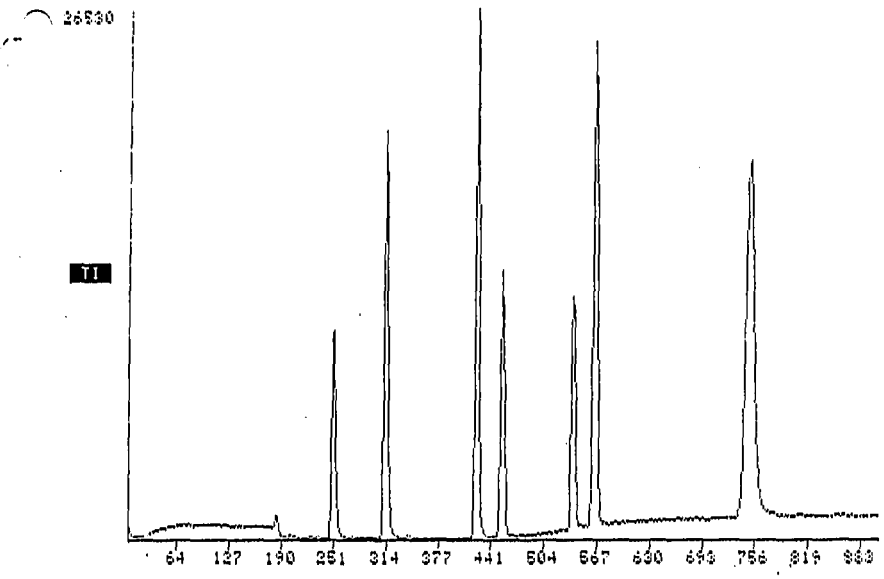
QC Report No: 2427

B. Tentatively Identified Compounds

	CAS #	Compound Name	Fraction	Scan No. or Retention Time	% Maximum Score Attained Mass Matching Routines (Specify:_____)	Estimated Concentration (ug/L or ug/kg)
1.		None Detected				
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						
24.						
25.						
26.						
27.						
28.						
29.						
30.						

4/82

NAME VOA SAMPLE#58146 EML EPA#8530 CASE 3427 FRN 24998
MISC 24998 33 10019 934 1124 1 32'84 MB PM



AREA TABLE ENTRIES: FRN 24998

Entry	Time	Mass	Area	%	× R.F. = conc (µg/L)	
1	10.7	127.7	7091.	100.0		IS
2	13.0	64.7	25552.	360.4	× 0.277 = 100	SS
~~MB 3~~	~~8.8~~	~~40.7~~	~~595.~~	~~8.4~~	Below Reporting Level OK BB 3/2/84	

~~MB — methylene chloride~~

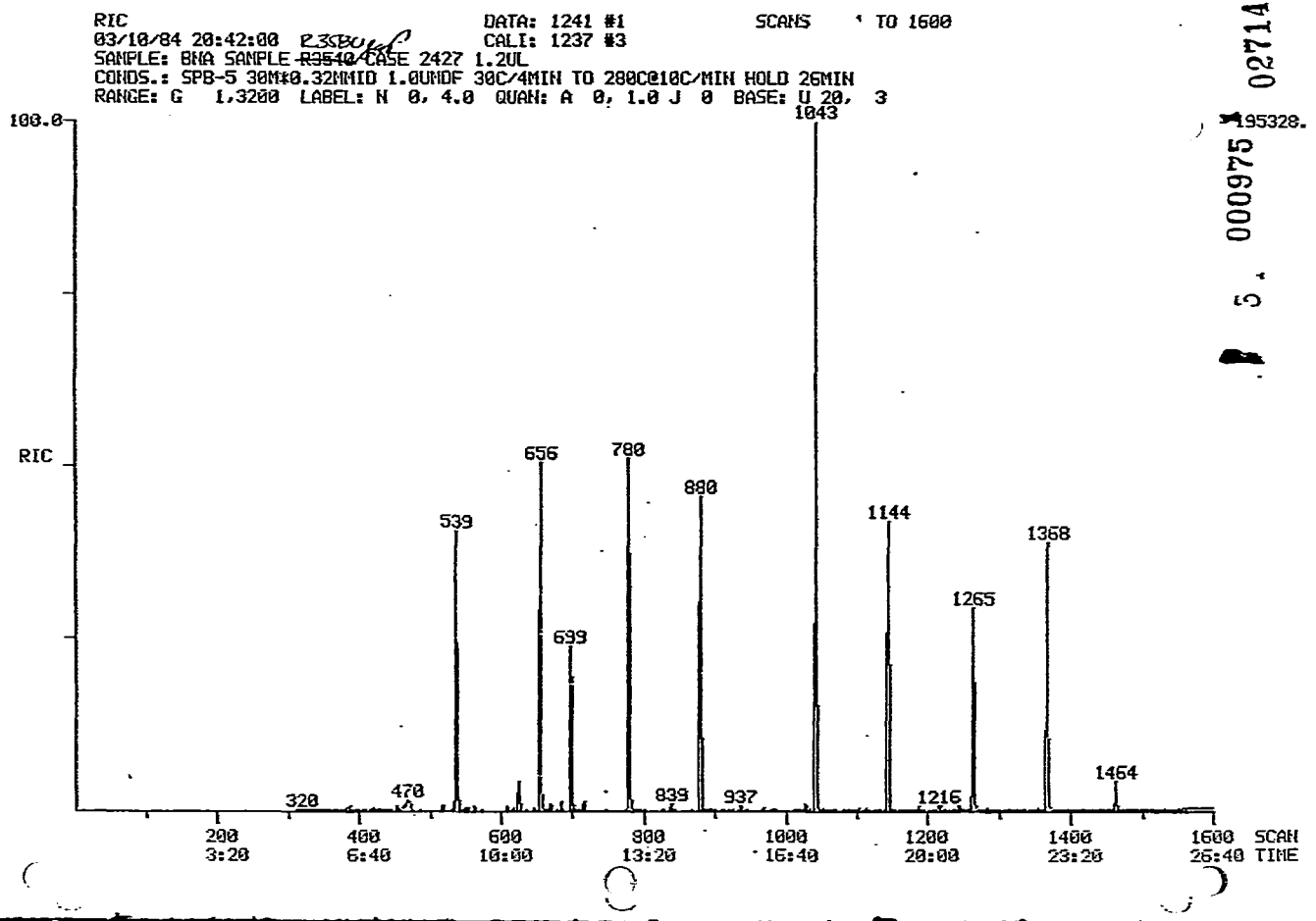
CALCULATE % ON ENTRY #:
AREA TABLE ENTRIES: FRN 24998

Entry	Time	Mass	Area	%		
1	16.4	76.7	13692.	100.0		IS
2	17.3	83.7	46111.	336.8	× 0.304 = 102	SS

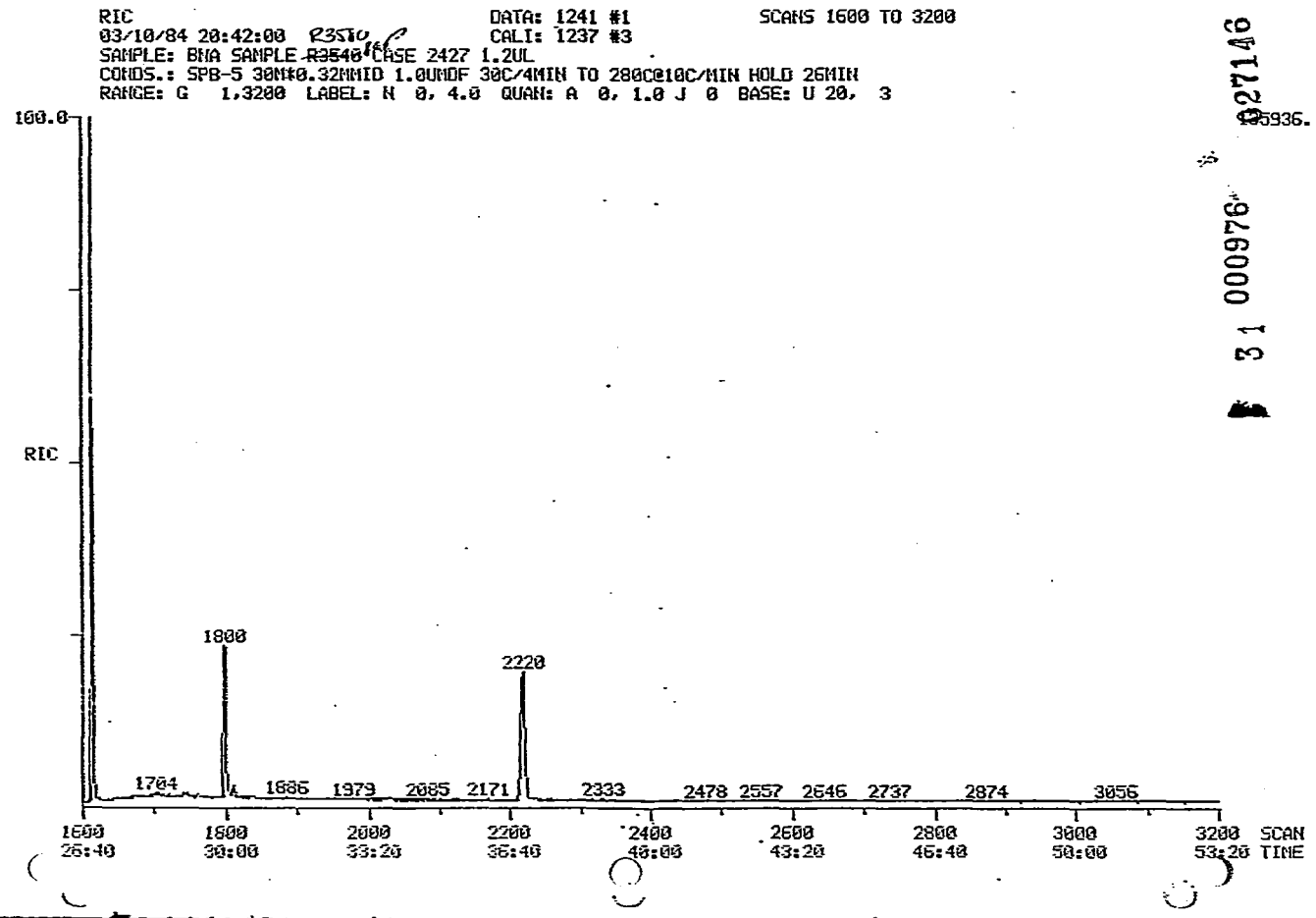
CALCULATE % ON ENTRY #:
AREA TABLE ENTRIES: FRN 24998

Entry	Time	Mass	Area	%		
1	21.7	54.7	14280.	100.0		IS
2	22.7	97.7	36201.	253.5	× 0.427 = 108.	SS
3	30.0	94.7	38458.	269.3	× 0.419 = 113.	SS

CALCULATE % ON ENTRY #:



5. 000975 027145



Quantitation Report File: 1241

Data: 1241.TI
03/10/84 20:42:00 R3504P
Sample: BNA SAMPLE ~~R3540~~ CASE 2427 1.2UL
Submitted by: VERSAR Analyst: SEP

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

NONE DETECTED.
NO LIBRARY SEARCHES.

NO	NAME
1	1,4-DICHLOROBENZENE D4 ***INTERNAL STANDARD#1***
2	N-NITROSODIMETHYLAMINE
3	ANILINE
4	2-CHLOROPHENOL
5	PHENOL
6	BIS(2-CHLOROETHYL)ETHER
7	1,3-DICHLOROBENZENE
8	1,4-DICHLOROBENZENE
9	1,2-DICHLOROBENZENE
10	BENZYL ALCOHOL
11	BIS(2-CHLOROISOPROPYL)ETHER
12	2-METHYLPHENOL
13	HEXACHLOROETHANE
14	4-METHYLPHENOL
15	N-NITROSO-DI-N-PROPYLAMINE
16	NITROBENZENE
17	NAPHTHALENE D8 ***INTERNAL STANDARD#2***
18	ISOPHORONE
19	2-NITROPHENOL
20	2,4-DIMETHYLPHENOL
21	BIS(2-CHLOROETHOXY)METHANE
22	2,4-DICHLOROPHENOL
23	1,2,4-TRICHLOROBENZENE
24	NAPHTHALENE
25	BENZOIC ACID
26	4-CHLOROANILINE
27	HEXACHLOROBUTADIENE
28	4-CHLORO-M-CRESOL
29	2-METHYLNAPHTHALENE
30	ACENAPHTHENE D10 ***INTERNAL STANDARD#3***
31	HEXACHLOROCYCLOPENTADIENE
32	2,4,6-TRICHLOROPHENOL
33	2,4,5-TRICHLOROPHENOL
34	2-CHLORONAPHTHALENE
35	2-NITROANILINE
36	ACENAPHTHYLENE
37	DIMETHYLPHTHALATE
38	2,6-DINITROTOLUENE
39	ACENAPHTHENE
40	3-NITROANILINE
41	2,4-DINITROPHENOL
42	DIBENZOFURAN
43	4-NITROPHENOL
44	2,4-DINITROTOLUENE
45	FLUORENE
46	4-CHLOROPHENYLPHENYLETHER
47	DIETHYLPHTHALATE
48	4-NITROANILINE
49	4,6-DINITRO-O-CRESOL
50	DIPHENYLAMINE

31 000977 X

027147

1241

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	699	11:39	1	1.000	A BB	17470.	24.000 NG/UL	33.01
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	NOT FOUND								
16	NOT FOUND								
17	136	880	14:40	17	1.000	A BB	86017.	24.000 NG/UL	33.01
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	164	1144	19:04	30	1.000	A BB	50381.	24.000 NG/UL	33.01
31	NOT FOUND								
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~~	~~169~~	~~1244~~	~~20:44~~	~~30~~	~~1.087~~	~~A BB~~	~~673.~~	~~ND 0.768 NG~~	~~1.06~~

31000978
027148

Quantitation Report File: 1241

Data: 1241.TI
03/10/84 20:42:00 R2550
Sample: BNA SAMPLE ~~R2540~~ CASE 2427 1.2UL
Submitted by: VERSAR Analyst: SEP

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

NO	NAME
51	PHENANTHRENE D10 ***INTERNAL STANDARD#4***
52	1,2-DIPHENYLHYDRAZINE
53	4-BROMOPHENYLPHENYLETHER
54	HEXACHLOROBENZENE
55	PENTACHLOROPHENOL
56	PHENANTHRENE
57	ANTHRACENE
58	DIBUTYLPHTHALATE
59	FLUORANTHENE
60	BENZIDINE
61	PYRENE
62	CHRYSENE D12***INTERNAL STANDARD#5***
63	BUTYL BENZYL PHTHALATE
64	BENZO(A)ANTHRACENE
65	CHRYSENE
66	3,3'-DICHLOROBENZIDINE
67	BIS(2-ETHYLHEXYL)PHTHALATE
68	BENZO(A)PYRENE D12 ***INTERNAL STANDARD#6***
69	DIOCTYLPHTHALATE
70	BENZO(B)FLUORANTHENE
71	BENZO(K)FLUORANTHENE
72	BENZO(A)PYRENE
73	INDENO(1,2,3-CD)PYRENE
74	DIBENZO(A,H)ANTHRACENE
75	BENZO(GHI)PERYLENE

1241

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	188	1368	22:48	51	1.000	A BB	78467.	24.000 NG/UL	23.62
52	NOT FOUND								
53	NOT FOUND								
54	NOT FOUND								
55	NOT FOUND								
56	NOT FOUND								
57	NOT FOUND								
~~58~~	~~147~~	~~1464~~	~~24:24~~	~~51~~	~~1.070~~	~~A BB~~	~~11017. NP~~	~~3.984 NG~~	~~3.72~~
59	NOT FOUND								
60	NOT FOUND								
61	NOT FOUND								
62	240	1800	30:00	62	1.000	A BB	32427.	24.000 NG/UL	23.62
63	NOT FOUND								
64	NOT FOUND								
65	NOT FOUND								
66	NOT FOUND								
~~67~~	~~147~~	~~1811~~	~~30:11~~	~~62~~	~~1.006~~	~~A BB~~	~~2633. NP~~	~~1.627 NG~~	~~1.60~~
68	264	2220	37:00	68	1.000	A BB	56640.	48.000 NG/UL	47.25
69	NOT FOUND								
70	NOT FOUND								
71	NOT FOUND								
72	NOT FOUND								
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								

3: 000980 *
027150

Quantitation Report File: 1241Q

Data: 1241.TI
03/10/84 20:42:00 R3580 SEP
Sample: BNA SAMPLE ~~R3540~~ CASE 2427 1.2UL
Submitted by: VERSAR Analyst: SEP

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)* 1.670
Resp. fac. from linear fit to the 3 closest data points in..RL

NO	NAME
1	1,4-DICHLOROBENZENE D4 ***INTERNAL STANDARD#1***
2	2-FLUOROPHENOL *ACID SURROGATE*
3	PHENOL D5 *ACID SURROGATE*
4	NAPHTHALENE D8 ***INTERNAL STANDARD#2***
5	NITROBENZENE D5 *BN SURROGATE*
6	ACENAPHTHENE D10 ***INTERNAL STANDARD#3***
7	2-FLUOROBIPHENYL *BN SURROGATE*
8	PHENANTHRENE D10 ***INTERNAL STANDARD#4***
9	2,4,6-TRIBROMOPHENOL *ACID SURROGATE*
10	CHRYSENE D12***INTERNAL STANDARD#5***
11	P-TERPHENYL D14 *BN SURROGATE*

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	152	699	11:39	1	1.000	A BB	17470.	40.080	NG/UL	6.42
2	112	539	8:59	1	0.771	A BV	62415.	83.126	NG	13.31
3	99	656	10:56	1	0.938	A BB	80131.	81.501	NG	13.05
4	136	880	14:40	4	1.000	A BB	86017.	40.080	NG/UL	6.42
5	82	780	13:00	4	0.886	A BB	62181.	70.763	NG	11.33
6	164	1144	19:04	6	1.000	A BB	50381.	40.080	NG/UL	6.42
7	172	1043	17:23	6	0.912	A BB	136458.	61.386	NG	9.83
8	188	1368	22:48	8	1.000	A BB	78467.	40.080	NG/UL	6.42
9	330	1264	21:04	8	0.924	A BB	21932.	59.535	NG	9.54
10	240	1800	30:00	10	1.000	A BB	32427.	40.080	NG/UL	6.42
11	244	1614	26:54	10	0.897	A BB	137836.	67.635	NG	10.83

PESTICIDE DATA REDUCTION FORM

Case # 2427 Sample # R3580

Sample Wt/Vol 1000ml Final Vol 10ml

% Moisture Solid or Liquid C

	Typical RT	Fraction	Dilution	Injection Conc. (µg/5ml)	Light Box	Dilution	Rerun	Injection Conc.	Light Box	Second Column	Lgt. Box	Sample Conc. (µg/l)
α BHC	3.98	1										
β BHC	4.49	1										
γ BHC	4.67	1										
δ BHC	5.24	1		0.0055	+					—	+	0.055
Heptachlor	6.88	1										
Aldrin	8.38	1										
Heptachlorepoxide	10.57	1										
α Endosulfan	13.16	1&2										
Dieldrin	15.47	2										
p,p'-DDE	15.72	1										
Endrin	17.67	2										
β Endosulfan	18.77	3										
p,p'-DDD	20.74	1		0.0026	+					No		
Endrin Aldehyde	21.30	2&3										
Endosulfan Sulfate	24.95	3										
p,p'-DDT	26.72	1										
DBC	47.87	1,2&3		0.0								0%

EDIT AUTO SEQ 6,99
PR: AUTO SEQ
OVEN TEMP NOT READY

R 3580 6%
Peat Analysis

1.35
2.33
7.78
10.17
14.43
16.38
17.80
20.72
26.09
27.28
29.17
39.91
44.98
45.93
48.81

methoxychlor IS

3 1 000983 *
027153

RUN

EXP# 5880A SAMPLER INJECTION @ 14:33 MAR 13, 1984
SAMPLE # : ID CODE :
95 R3580 6 Pest
STICIDE MIX CALIBRATION CURVE
-ATD

RT	EXP RT	AREA	TYPE	WIDTH	CAL	AMOUNT	NAME
0.00		BASELINE @ START RUN = 316.29					
0.00		THRESHOLD @ START RUN = -1					
0.00		PEAK WIDTH @ START RUN = 0.08					
0.00		RP: REJECT > 1E+06					
3.50		RP: REJECT > 20					
3.69		32.74	VV	-----		9.823E-04	
5.24	5.25	65.23	VV	0.069	4	5.457E-03	D-BHC
5.50		31.02	VB	*-----		9.307E-04	
5.88		21.77	PV	-----		6.530E-04	
6.19		20.22	VB	-----*		6.066E-04	
6.69		125.90	BV	*-----		3.774E-03	
7.78		536.54	VV	0.095		1.610E-02	
8.01		36.29	VB	-----		1.089E-03	
10.17		246.41	BV	0.118		7.392E-03	
12.98		24.19	BP	-----		7.257E-04	
13.44		69.75	PV	*-----		2.093E-03	
20.72	20.78	20.52	BB	0.184	13	2.574E-03	PP-DDD
22.82		28.68	BB	-----*		8.604E-04	
26.09		70.27	BV	0.288		2.108E-03	
27.28		96.53	BB	0.271*		2.896E-03	
29.17		32.74	BB	-----*		9.821E-04	
39.91	39.91	17425.10 +	BV	0.245*	17	0.458	METHOXYCHLOR
48.81		119.15	BB	0.297		3.574E-03	
50.00		RP: REJECT > 1E+06					

MULTIPLIER = 1

PR: AUTO SEQ
OVEN TEMP NOT READY

R 3580 15%
Pest Analysis

ST: 15:40 MAR 17, 1984
RT: ATTN = 215

1.29

2.29

7.78

8.88

10.17

11.21

12.42

13.43

14.44

15.37

16.42

18.14

19.28

20.74

22.81

26.10

26.79

27.30

29.17

30.99

33.18

OVL START PRGM RATE 1
35.58
OVL START FINAL TIME 1

methoxyclor IS

39.92

42.08

42.76

OUT OF PAPER

000985 X

027155

STOP RUN

5880A SAMPLER INJECTION @ 15:40 MAR 13, 1984
SAMPLE # : ID CODE :
96 R3580 15 Pest
PESTICIDE MIX CALIBRATION CURVE
ESTD

RT	EXP RT	AREA	TYPE	WIDTH	CAL	AMOUNT	NAME
0.00		BASELINE @ START RUN = 315.12					
0.00		THRESHOLD @ START RUN = -1					
0.00		PEAK WIDTH @ START RUN = 0.08					
0.00		RP: REJECT > 1E+06					
3.50		RP: REJECT > 20					
5.97		22.98	VV	------		6.894E-04	
6.69		86.80	VV	*------		2.604E-03	
7.78		329.78	BB	0.10 *		9.893E-03	
8.88		20.03	BB	0.101		6.010E-04	
10.17		62.65	BV	0.114		1.880E-03	
13.43		20.58	PB	*------		6.175E-04	
16.42		20.12	BB	------		6.035E-04	
26.10		99.12	BP	0.287		2.974E-03	
26.79	26.79	20.14	PV	------	16	2.763E-03	~~PP DDT~~
27.30		70.49	VB	------		2.115E-03	
29.17		39.37	BB	------*		1.181E-03	
30.99		83.93	BB	------*		2.518E-03	
39.92	39.92	24650.40 *	BP	0.25 *	17	0.648	METHOXYCHLOR
42.08		61.63	PV	------*		1.849E-03	
44.99		20.24	BB	0.279		6.073E-04	
48.82		60.80	BB	0.330		1.824E-03	
50.00		RP: REJECT > 1E+06					

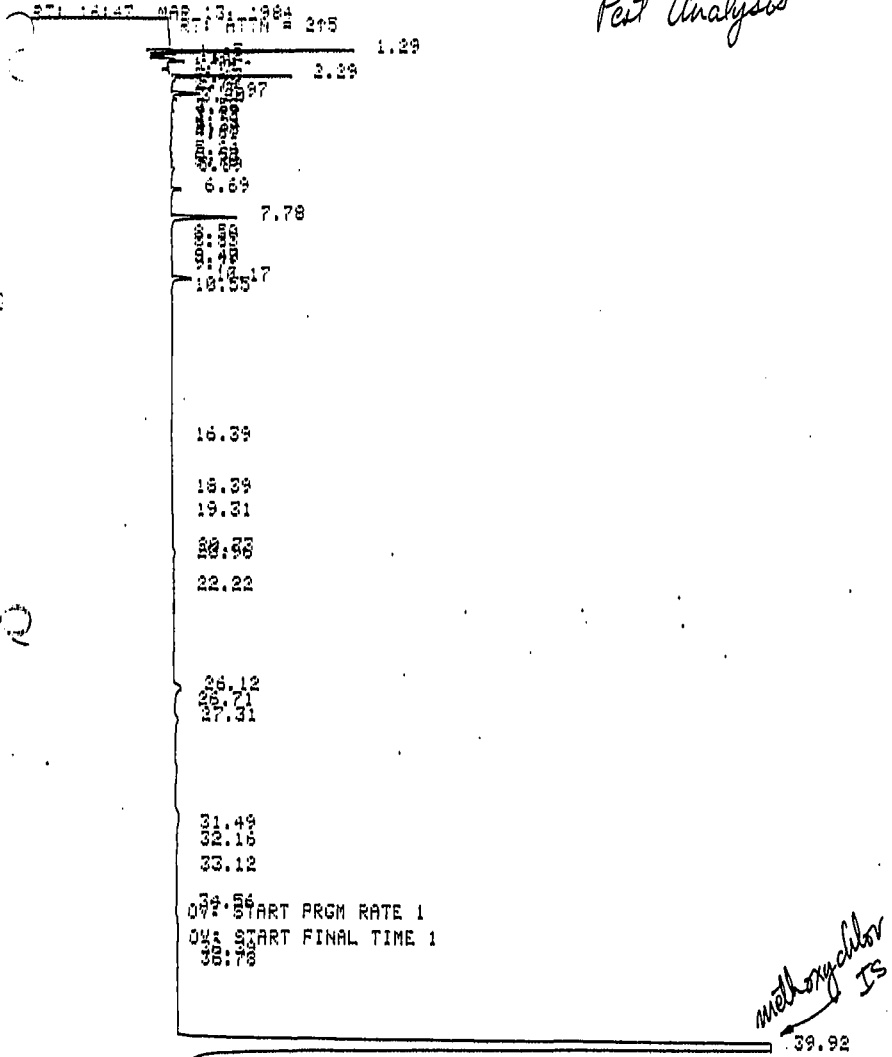
MULTIPLIER = 1

31 000986

027156

PR: AUTO SEQ
OVEN TEMP NOT READY

R3580 50%
Peat Analysis



31 000987 X

027157

HP 5880A SAMPLER INJECTION @ 16:47 MAR 13, 1984
SAMPLE # : ID CODE :
97 R3580 50 Pest
PESTICIDE MIX CALIBRATION CURVE
STD

RT	EXP RT	AREA	TYPE	WIDTH	CAL	AMOUNT	NAME
0.00		BASELINE @ START RUN = 313.74					
0.00		THRESHOLD @ START RUN = -1					
0.00		PEAK WIDTH @ START RUN = 0.08					
0.00		RP: REJECT > 1E+06					
3.50		RP: REJECT > 20					
6.69		41.99	BV	0.083		1.260E-03	
7.78		286.04	BB	0.096		8.581E-03	
10.17		98.92	BB	0.110		2.968E-03	
26.12		85.07	BB	------*		2.552E-03	
27.31		36.93	BB	*------*		1.108E-03	
39.92	39.92	18956.50	+ BB	0.245*	17	0.499	METHOXYCHLOR
48.84		38.69	BB	0.311		1.161E-03	
50.00		RP: REJECT > 1E+06					

MULTIPLIER = 1

31 000988

027158

REPORT # 88 13 MAR, 1984 22:22 PEST

CHANNEL: 0 METHOD: PEST BOTTLE: 7

SAMPLE: R3580 6% INJECTED ON: 13 MAR, 1984 21:32

MIN AR	MV/M	DELAY	DVT	FACTOR	ID-LVL	REF-RTW	%RTW
500	.100	0.00	0.00	1.0000E+ 0	0	.30	5

NO REF PK FOUND
ENDED NOT ON BL

RT	ITN	FACTOR	AREA		AREA%	NAME
.59		1.00000	527261	BV	23.148	
.83		1.00000	6782	VV	.298	
.92		1.00000	5628	VV	.247	
1.04		1.00000	7385	VV	.324	
1.15		1.00000	22482	VV	.984	
1.27		1.00000	104733	VV	4.598	
1.64		1.00000	1900	VV	.083	
1.98		1.00000	4393	VV	.193	
2.21		1.00000	5754	VV	.253	
2.61		1.00000	2725	VV	.120	
2.89		1.00000	845	VV	.037	
3.10		1.00000	2319	VV	.102	
3.45		1.00000	5854	VV	.257	
3.64		1.00000	4507	VV	.198	
4.48		1.00000	8455	VV	.371	
5.48		1.00000	7249	VV	.318	
6.28		1.00000	41542	VV	1.824	
8.65		1.00000	5516	VB	.242	
9.55		1.00000	508	BV	.022	
10.38		1.00000	5974	VV	.262	
11.77		1.00000	4298	VB	.189	
16.06		1.00000	4717	BV	.207	
16.95		1.00000	2175	VV	.095	
18.07		1.00000	882	VB	.039	
19.27		1.00000	755	BB	.033	
21.65		1.00000	910	BB	.040	
25.34		1.00000	6951	BB	.305	
28.89		1.00000	6812	BV	.299	
33.00		1.00000	21749	VV	.955	
40.26		1.00000	22089	VV	.970	
43.81		1.00000	1434707	VB	62.987	

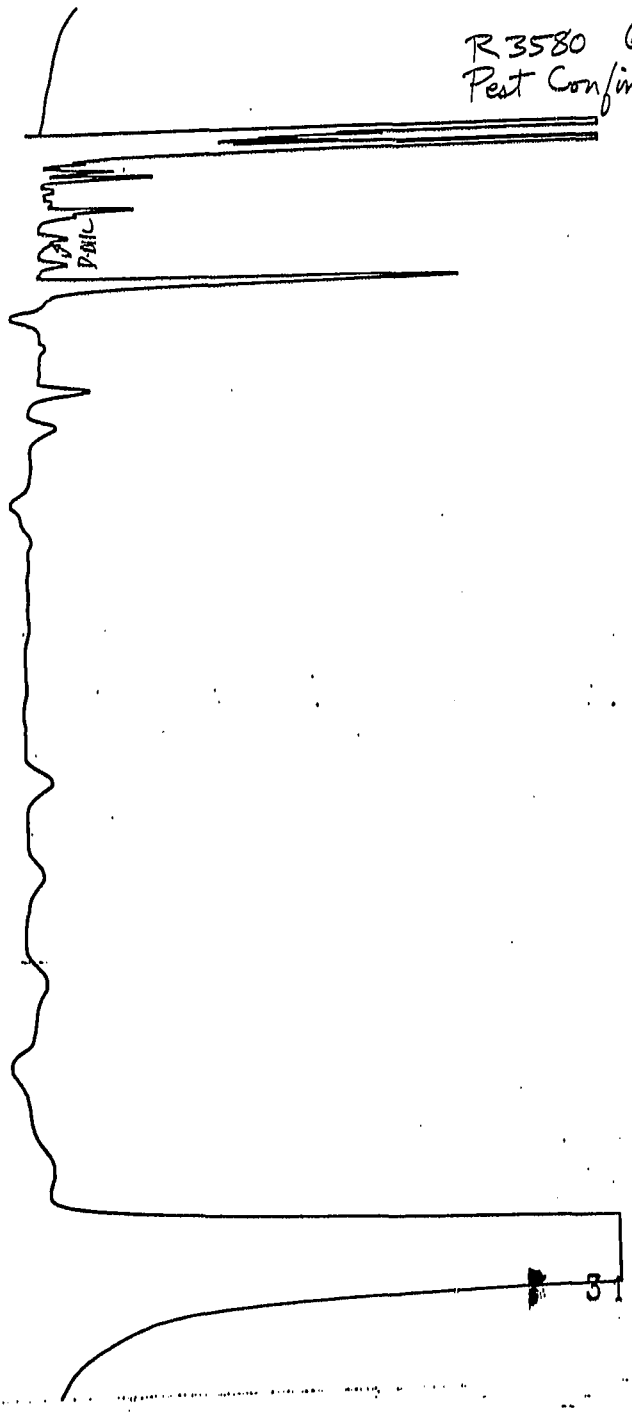
TOTAL AREA = 2277800

D-BHC is shoulder on this peak WTD

31 000989

027153

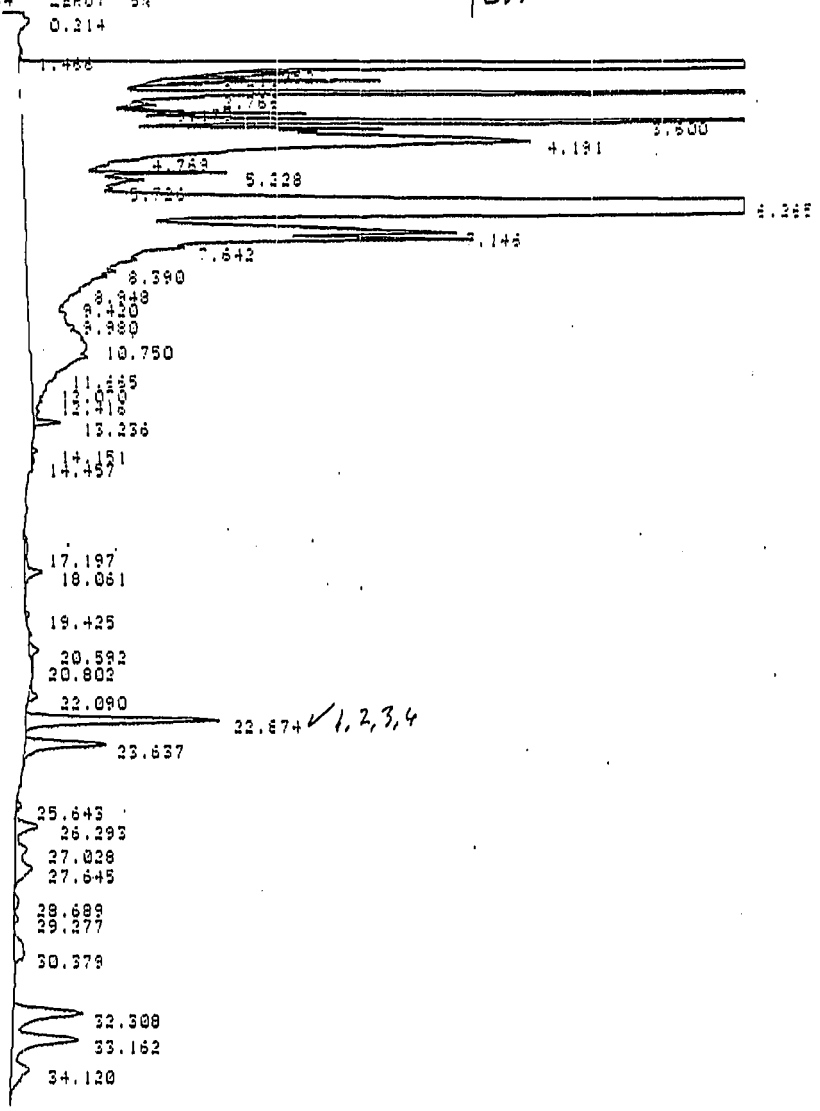
R3580 6%
Peat Confirmatory



000990

027160

R3580
TCDD



1, 2, 3, 4

31 000991

027161

TITLE: CASE 2437 TODD 8:53 14 MAR 84

CHANNEL NO: 1 SAMPLE: P 3580 METHOD: TODD

PEAK NO.	PEAK NAME	RESULT	TIME (MIN)	APEAK COUNTS	SEP CODE
		37.29	1.700	7429880	VV
		0.08	2.017	17055	T
		0.08	2.087	15822	T
4		0.08	2.105	17289	T
5		0.38	2.248	79519	T
6		0.09	2.369	17455	T
7		8.58	2.633	1754760	VV
8		0.02	2.766	3810	T
9		0.03	2.989	6354	T
10		0.05	3.038	9243	T
11		0.02	3.175	4198	T
12		0.03	3.229	6899	T
13		0.49	3.316	99883	VV
14		2.97	3.540	606919	VV
15		0.87	3.600	178628	VV
16		0.83	3.798	169207	VV
17		0.54	3.866	110936	VV
18		6.41	4.191	1310940	VV
19		0.31	4.769	63216	VV
20		0.29	4.896	59106	VV
21		0.19	5.041	38625	VV
22		0.53	5.228	108769	VV
23		0.80	5.441	163786	VV
24		0.27	5.736	55325	VV
25		9.39	6.265	1921350	VV
26		13.21	6.309	2702880	VV
27		3.47	7.146	709281	VV
28		2.14	7.356	436952	VV
29		1.10	7.642	224459	VV
30		0.86	8.007	176519	VV
31		0.35	8.350	70924	VV
32		0.40	8.542	80825	VV
33		0.35	8.703	71979	VV
34		0.51	8.948	103577	VV
35		0.06	9.420	12999	VV
36		0.07	9.496	14367	VV
37		0.23	9.755	48028	VV
38		0.13	9.960	26892	VV
39		0.20	10.165	41514	VV
40		0.05	10.217	9571	VV
41		0.71	10.750	145489	VV
42		0.29	10.816	58543	VV
43		0.63	11.137	129863	VV
44		0.04	11.665	8344	VV
45		0.16	11.734	32263	VV
46		0.08	12.070	16158	VV
47		0.02	12.315	5054	VV
48		0.05	12.416	9585	VV
49		0.01	12.661	2039	VV
50		0.03	12.864	6267	VV
51		0.10	13.236	20295	VB
52		0.03	14.151	5353	BV
53		0.01	14.351	1495	VV
54		0.01	14.457	1324	VB
55		0.05	17.197	10841	BV
56		0.12	18.061	25405	VV
57		0.02	19.425	3135	BB
58		0.05	20.592	10298	BV
59		0.01	20.802	2782	VB
60		0.05	22.050	10291	BB
61		1.04	22.874	213292	BB
62		0.51	23.627	104004	BB
63		0.03	25.643	6967	BV
64		0.18	26.293	36202	VV
65		0.11	27.028	22725	VV
66		0.21	27.645	43645	VB
67		0.04	28.669	8561	BV
68		0.02	29.277	4764	VB
69		0.15	30.379	31105	BB
70		0.63	32.308	129229	BV
71		0.62	33.162	126022	VV
72		0.25	34.120	51778	VB

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027162

STANDARDS PACKET

Versar INC. VOA CROSS REFERENCE ; Injection Log.

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592.25/824 (825.1) / Case 2427

2/17/84 VOA

TIME	FRN	CRN	AREA	SCAN TIME	SWRLG FILE	SAMPLE NO.	SAMPLE VOL.	ISSS NO.	ISSS VOL.	RUN TIME	DESCRIPTION	OPER
0910	24950	32	AR2	692	10020	Std 1145	2µl	–	–	15	BFB 50ng Meets EPA Criteria	MS/PM
1000	24951	32	AR2	511	10019	Blank	5ml	1605	5µl	35	Reagent Blank	MS/PM
1046	24952	32	AR2	488	10019	Std 1829	5ml	1605	5µl	36	20 ppb Standard	MS/PM
1130	24953	32	AR2	462	10019	Std 1830	5ml	1603	5µl	36	100 ppb Standard	MS/PM
1215	24954	32	AR2	431	10019	1831	5ml	1603	5µl	36	200 ppb Standard	MS/PM
1300	24955	32	AR2	398	10019	5710B	5ml	1603	5µl	36	Town Hall Building Duplicate	MS/PM
1345	24956	32	AR2	375	10019	5713A	5ml	1605	5µl	36	109 Tapawingo Rd, SW	MS/PM
1430	24957	32	AR2	354	10019	WP 781 #2	5ml	1605	5µl	36	EPA Ref. Std. WP 781#2	MS/PM
1529	24958	32	AR2	321	10019	5801D	5ml	1603	5µl	36	R3545	MS/PM
1610	24959	32	AR2	304	10019	5802C	5ml	1603	5µl	36	R3546	MS/PM
1700	24960	32	AR2	280	10019	5803C	5ml	1603	5µl	36	R3563	MB/PM
1800	24961	32	AR2	327	10017	Std 1145	2µl	–	–	14	BFB 50ng	MS
1845	24962	32	AR2		~~10020~~	Std 1145	2µl	–	–	14	BFB 50ng	MS

2/20/84 VOA (825.1) 824/Case 2427

TIME	FRN	CRN	AREA	SCAN TIME	SWRLG FILE	SAMPLE NO.	SAMPLE VOL.	ISSS NO.	ISSS VOL.	RUN TIME	DESCRIPTION	OPER
0845	24965	32	AR2	307	10020	Std 1145	2µl	–	–	15	BFB 50ng	MS/PM
0915	24966	32	AR2	299	10020	Std 1145	2µl	–	–	15	BFB 50ng	MS/PM
0940	24967	32	AR2	294	10020	Std 1145	2µl	–	–	15	BFB 50ng	MS/PM
1005	24968	32	AR2	289	10020	1145	2µl	–	–	14	~~BFB 50ng~~	MS/PM
1030	24969	32	AR2	263	10020	Std 1145	2µl	–	–	12.5	BFB 50ng Meets EPA Criteria	MS/PM
1055	24970	32	AR2	209	10019	Blank	5ml	1605	5µl	36	Reagent Blank	MS/PM
1145	24971	32	AR2	194	10019	Std 1830	5ml	1605	5µl	36	100 ppb Standard	MS/PM
1243	24972	32	AR2	171	10019	5804C	5ml	1605	5µl	36	R3564	MS/PM
1330	24973	32	AR2	156	10019	5805D	5ml	1603	5µl	36	R3565	MB/PM
1410	24974	32	AR2	142	10019	5806D	5ml	1605	5µl	36	R3566	MS/PM
1505	24975 ~~24974~~	32	AR2	126	10019	5807D	5ml	1603	5µl	36	R3567	MS/MB
~~[illegible]~~	24976	32	AR2	106	10019	5808D	5ml	1603	5µl	36	R3568	MS/MB
					~~10019~~	~~5809D~~	~~5ml~~	~~1603~~	~~5µl~~	~~36~~	~~R3569~~	

SIGNED D. Bassett 3/15/84

027163

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Versar INC. VOA

324 (315.1) 33

2-21-84 VOA

case 2427

TIME	FRN	GRN	AREA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	DESCRIPTION	OPER
0830	24980	32	ARL	118	10020	std 1145	2 µl	–	–		BFB 50 ng	MB/PM
0910	24981	32	AR2	113	10020	1145	2 µl	–	–		BFB 50 ng meets EPA criteria	MB/PM
1000	24982	33	AR3	519	10019	std 1830	5 ml	1603	5 µl	36	100 ppb Std	MB/PM
1040	24983	33	AR5	486	10019	Reagent Blank	5 ml	1605	5 µl	36	Reagent Blank	MB/PM
1135	24984	33	AR3		10019	58090	5 ml	1603	5 µl	36	R3569	MB/PM
1231	24985	33	AR3	454	10019	58100	5 ml	1603	5 µl	36	R3570	MB/PM
1320	24986	33	AR3		10019	58110	5 ml	1603	5 µl	36	R3571	MB/PM
1400	24987	33	AR3	442	10019	58120	5 ml	1603	5 µl	36	R3572	MB/PM
1458	24988	33	AR3	407	10019	MS 5812D	5 ml	1603	5 µl	36	R3572 Matrix Spike	MB/PM
1540	24989	33	AR3	390	10019	MS dup 5812D	5 ml	1603	5 µl	36	R3572 Matrix Spike Dup	MB/PM
1630	24990	33	AR3	373	10019	58130	5 ml	1603	5 µl	36	R3573	MB/PM
1720	24991	33	AR3	354	10019	5814C	5 ml	1603	5 µl	36	R3574	MB/PM
1758	24992	33	AR3		10019	59150	5 ml	1603	5 µl	36	R3579	MB/PM
	2/22/84						VOA				(315.1) 324/case 2427	
0900	24995	33	AR3	426	10020	std 1145	2 µl	–	–	15	BFB 50 ng meets EPA criteria	MB/PM
0945	24996	33	AR5	313	10019	std 1830	5 ml	1605	5 µl	36	100 ppb standard	MB/PM
1035	24997	33	AR3	287	10019	Reagent Blank	5 ml	1603	5 µl	36	Reagent Blank	MB/PM
1124	24998	33	AR3	275	10019	59160	5 ml	1603	5 µl	36	R3580	MB/PM
1209	24999	33	AR3		10019	1/20 5807C	5 ml	1603	5 µl	36	R3567 1/20 Dilution	MB/PM
1305	~~24~~ 25000	33	AR3	244	10019	5805C	5 ml	1603	5 µl	36	R3545 1/20 Dilution	MB/PM
1350	25001	33	AR3	228	10019	1/20 5803D	5 ml	1605	5 µl	36	R3565 1/20 Dilution	MB/PM
~~1900~~	~~25002~~	~~33~~	~~AR3~~	~~213~~	~~10019~~	~~6104~~	~~5 ml~~	~~1603~~	~~5 µl~~	~~36~~	~~Trip blank 830.~~	MB/PM

See next page

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[signature] 3/15/85

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Versar INC. BNA CROSS REFERENCE, INJECTION LOG

2-29-84 THRU 3-1-84 : BNA EPA CASE 2427 LOW WATERS 19 825.1

FILE	DISC	FMT	FILE	STR	SAMPLE	EPA #	CASE	VOL EXTRACT	VOL TO CONC	EXT FINAL VOLUME	STD/SEP SS VOL	AS INJ VOL	COMMENTS
1192	W43			5	CALGAS							–	FC43 CALI.
1193					STD1867		51	442	TOO CLOSE TO LIMIT			1.2	DFTPP 50ng Meets
1194					STD1867		"	"	"	"	"		DFTPP 50ng Meets
1195													DIPED QUAD RECALIBRATED Price
1196					~~STD1867~~		"	"	TOO CLOSE TO LIMITS				DFTPP 50ng Meets EPA
1197													FC43 Cal.
1198													DFTPP 50ng.
1199													DFTPP 50ng
1200													DFTPP 50ng
1201													DFTPP 50ng
1202													DFTPP 50ng Meets Criteria
(R) 1203													INTERNAL STANDARD MIX QC CHECK
	3-1-84												
1204				5									DFTPP 50ng Meets EPA IAC
	3-2-84												
1205				5	STD1867								FC43 Cali
1206					STD1867								DFTPP
1207													DFTPP
1208													DFTPP
1209													DFTPP 50ng. Meets QC
1210					STD1814						20µl		BAN SURROGATES 50ppm
1211					STD1872						20µl		BAN 50ppm
	3-5-84												
1212					STD1867								DFTPP 50ng MINI REZ ADJUST
1213					STD1867								DFTPP 50ng DIP QUAD RETUNE.
✓ 1214				5	STD1867								DFTPP 50ng Meets QC
					INITIAL CALIBRATION								
1215					STD 1873								BNA's 20NG
1216					STD 1874								BNA's 50NG
1217					STD 1875								BNA's 120NG
1218					STD1876								BNA's 200NG

INITIAL CALIBRATION MEETS SPECS

[signature] 3-5-84

027165

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3 000995

Versar INC. BNA

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3-8-84 BNA ANALYSIS CASE 2427 WATERS 825.1

TILL	DISC	FMT · FILE	STD.	SAMPLE	EPA #	CASE	EXT VOL	COMB VOL	FIN EXT VL	mL 1ST	mL INT	B DE	Description
1219	WH-3		5	STD 1867						20	1.2		DFTPP 50ng OK
✓1220	WH-3		5	STD 1867		2427					1.2		DFTPP 50ng meets CRITERIA
1221	WH-3		5	STD 1878		2427				20	1.2		BNA SCANCHECK STD
1222	WH-3		5	RB	RB	2427	1ml	0.5ml	1ml	20	1.2	1.67	REAGANT BLANK
1223	WH-3		5	M.STD		2427	1ml	0.5ml	1ml	20	1.2	1.67	METHOD STANDARD
1224	WH-3		5	STD P109, P110		2427	1ml	0.5ml	1ml	20	1.2		SURROGATE STD.
1225	WH-3		5	R3571 MS	R3571MS	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA W. Sample QC
1226	WH 3		5		R3571MSD	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA W. Sample QC
~~WP 1227~~		NOT RUN 3-11-84		HOLDS ELUATE	R3541	2427	1ml	0.5ml	1ml	20	1.2		BNA W. Sample
1228	WH-3		5	STD 1867							1.2		DFTPP 50ng
(R)1229				STD 1863		2427	1ml			20	1.2		BNA STD 50ng.
				BENZIDINE	N.D.	---"		CHECK STD					NEEDS RERUN.
1230			5	STD 1867									DFTPP 50ng
1231			5	STD 1867									DFTPP 50ng.
1232			5	STD 1867									DFTPP 50ng.
(E)1233				STD 1854									BNA CHECK STD 50ng
				BENZIDINE	BZ TOO	LOW.	CORRECTIVE ACTION:						
	SAMPLING D CAL,	INT.	POINT	LINER	CLEATING D K		NEW STANDARD						
	3-10-84												
W/1234	WH-3		5	STD 1867							1.2		DFTPP 50ng
1235			5	STD 1855							1.2		BNA CHECK STD 50ng
1236			5		R3571	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA SAMPLE
1237			5		R3572	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA SAMPLE
1238			5		R3573	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA SAMPLE
1239			5		R3574	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA SAMPLE
1240			5		R3579	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA SAMPLE
1241			5		R3580	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA SAMPLE
✓1242			5	STD 1867									DFTPP 50ng
1243			5	STD 1855							1.2		BNA CHECK STD 50ng
1244		3-11-84	5		R3570	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA SAMPLE
1245	WH-3		5		R3569	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA
RRE-1246(R)			5		R3568	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA
RRE-1247(R)			5		R3566	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA
RRE-1248(R)			5		R3565	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA
RRE-1249(R)			5		R3564	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA
RRE-1250(R)			5		R3546	2427	1ml	0.5ml	1ml	20	1.2	1.67	BNA
1251			5	STD 1867									DFTPP 50ng.

RRE = Rerun Extract.

3-14-84

027166

Versar INC. BNA

3-12-84 BNA ANALYSIS CASE 2427 825.1

FILE	DISC	EMT	FILE	STD	STD OR SAMPLE	CASE EPA #	EXT VOL	CONC VOL	FIN VOL	Vol of ISS 1849	µl Vol INJ	DF	DESCRIPTION
1252	W4-3			5	STD1886						1.2		DFTPP 50NG
				Shared bet 51 + 198 on Low TWEEK QUAD.								IT	MEETS EPA CRITERIA.
1253				5	STD1886								DFTPP 50NG MEETS EPA Criteria
1254				5	STD1887	CS2427							BNA CAL. CHECK 50NG
1255				5	R3546	CS2427	1ml	0.5ml	1ml	20µl	1.2	B1.67	BNA SAMPLE.
1256				5	R3564	CS2427	1ml	0.5ml	1ml	20µl	1.2	B1.67	BNA SAMPLE
1257				5	R3565	CS2427	1ml	0.5ml	1ml	20µl	1.2	B1.67	BNA SAMPLE
1258				5	R3566	CS2427	1ml	0.5ml	1ml	20µl	1.2	B1.67	BNA SAMPLE
1259				5	R3568	CS2427	1ml	0.5ml	1ml	20µl	1.2	B1.67	BNA SAMPLE OK
1260				5	R3595	CS2427	1ml	0.25A 0.5B	1ml	20µl	1.2	B 10.67 / 1.67	BNA SAMPLE OK
(K) 1261	DISC FULL				R3567	CS2427	1ml	100µl	1ml	20µl	1.2	B10.67	BNA SAMPLE 1/5
~~1262~~	N R				R3563	CS2427	5ml A 1ml BN	20µl 100µl	1ml	20µl	1.2	.	BNA SAMPLE 1/20
~~1263~~					STD1886	CS2427	1ml	.	.	2	1.2		DFTPP 50ng
K FILES 1246-1250	3-13-84												
1264	W4-3			5	STD1886						1.2µl		DFTPP 50ng. MEETS EPA CRITERIA
1265				5	STD1887						1.2		BNA CHECK STD 50ng
1266				5	R3567	CS2427	1/10ml of 1ml from 1261	200µl 1.0	1ml 7*5	16µl *5*	1.2	B	BNA SAMPLE 1/50 DILUTION 100µl → 1ml 1ml ← 200µl
				RUN TERMINATED BY 1/OS ERROR OP 43 CODE 31 / K.FILE & RESTARTED.									
1267				5	R3563	CS2427	1/20A 1/10B from 1262	100µl	1ml	18µl	1.2		BNA SAMPLE
										DILUTION SCHEME			ACID = 1/200: 50µl/3ml → 100µl/1ml → 1ml; BN = 1/100: 100µl/1ml → 100µl/1ml → 1ml
	3-14-84			CASE 2427 RERUNS									
1268	W4-3			5	STD1886								DFTPP 50ng
1269				5	STD1887								BNA CHECK STD 50ng
1270				5	R3571MS	CS2427	1ml	0.25ml	1ml	10µl	2.4	1/2	BNA QC MATRIX SPIKE
1271				5	R3571DMS	CS2427	1ml	0.25ml	1ml	10µl	2.4	1/2	BNA QC MATRIX Spike QC DUPLICATE
1273				5	Method Standard		1ml	0.25ml	1ml	20µl	2.4	1/4	Method Standard

DSD W4-3 TO STREAMER # 5
& VERIFIED 3-14-84

[signature]
5-14-84

027167

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