DATA REDUCED BY: AR DATE: 6-7-86 DATA FILE: S59436R979
DATA REVIEWED BY: ____ DATE: ____

ENSECO TIC REPORT (PAGE 1)

01457

SAMPLE: 59436-20 BNA H2O 100%/2ML RUN FACTOR: 1.00
CONDITIONS: ST ANALYST: MK

US EPA RECORDS CENTER REGION 5
513845

#	SCAN	G	C	CONCENTRATION IN SAMPLE (UG/ML)	CAS #	COMPOUND
1	314	B	2	10.	108-87-2	CYCLOHEXANE, METHYL-
2	368	B	2	5.8	108-88-3	BENZENE, METHYL- (VOA)
3	392	CB	1	6.0	00-00-0	OXYGENATED HYDROCARBON
4	434	CB	1	6.1	00-00-0	OXYGENATED HYDROCARBON
5	468	CB	1	18.	00-00-0	OXYGENATED HYDROCARBON
6	622	IB	1	9.2	96-19-5	1-PROPENE, 1,2,3-TRICHLORO-
7	863		2	4.9	107-49-3	DIPHOSPHORIC ACID, TETRAETHYL ESTE

editing complete

DATA FILE: S59436R979

ENSECO TIC REPORT (PAGE 2)

01458

CONCENTRATION = AREA(TIC)*CONC(IS)/AREA(IS)

#	FIT	PURITY	INT. STD.	RT	RRT	AREA	HEIGHT	AMOUNT AS ANALYZED (UG/ML)	LIB	LIB #
1	981	885	1	3:55	0.444	45071.	16473.	10.398	NB	1138.
2	991	950	1	4:35	0.519	25219.	10815.	5.818	NB	850.
3	918	799	1	4:53	0.553	26023.	10136.	6.004	BC	2.
4	923	725	1	5:25	0.611	26504.	9896.	6.114	BC	2.
5	810	774	1	5:50	0.659	78343.	29163.	18.073	BC	2.
6	923	758	1	7:46	0.874	39887.	15532.	9.202	NB	6445.
7	975	899	2	10:47	0.910	26699.	6160.	4.924	NB	28301.

TIC SELECTION REPORT

DATA FILE: S59436R979

01459

THE FOLLOWING PEAKS WERE REJECTED BECAUSE AT LEAST 50 % OF THEIR SIZE WAS ACCOUNTED FOR BY TARGET COMPOUNDS ELUTING WITHIN 3 SCANS OF THE PEAK TOP.

SCAN	SIZE	AMOUNT
338	88391.	20.391
517	226335.	52.213
663	243415.	56.153
715	173391.	39.999
821	134228.	30.965
953	216899.	39.999
1175	209451.	38.626
1311	229817.	47.404
1614	193919.	39.999
1950	120613.	24.879
2167	135767.	44.067
2448	123235.	39.999

TOTAL NUMBER OF UNIDENTIFIED PEAKS WITH SIZE GREATER THAN 10 % OF THE CLOSEST INTERNAL STANDARD (WITHOUT INTERFERENCES) = 9

INTERNAL STANDARD DATA IS LISTED BELOW. IS FOR WHICH RIC SIZE DIFFERS FROM THE ESTIMATED RIC SIZE BY MORE THAN 60 % ARE CONSIDERED TO HAVE INTERFERENCES, AND ARE NOT USED FOR QUANTITATION.

#	LIB	LIB#	RIC SIZE	ESTIMATED RIC SIZE	INTERFERENCE
1	S1	1	173391.	158022.	
2	S2	1	216899.	145836.	
3	S3	1	229817.	115295.	*
4	S4	1	193919.	131722.	
5	S5	1	135767.	82605.	*
6	S6	1	123235.	92853.	

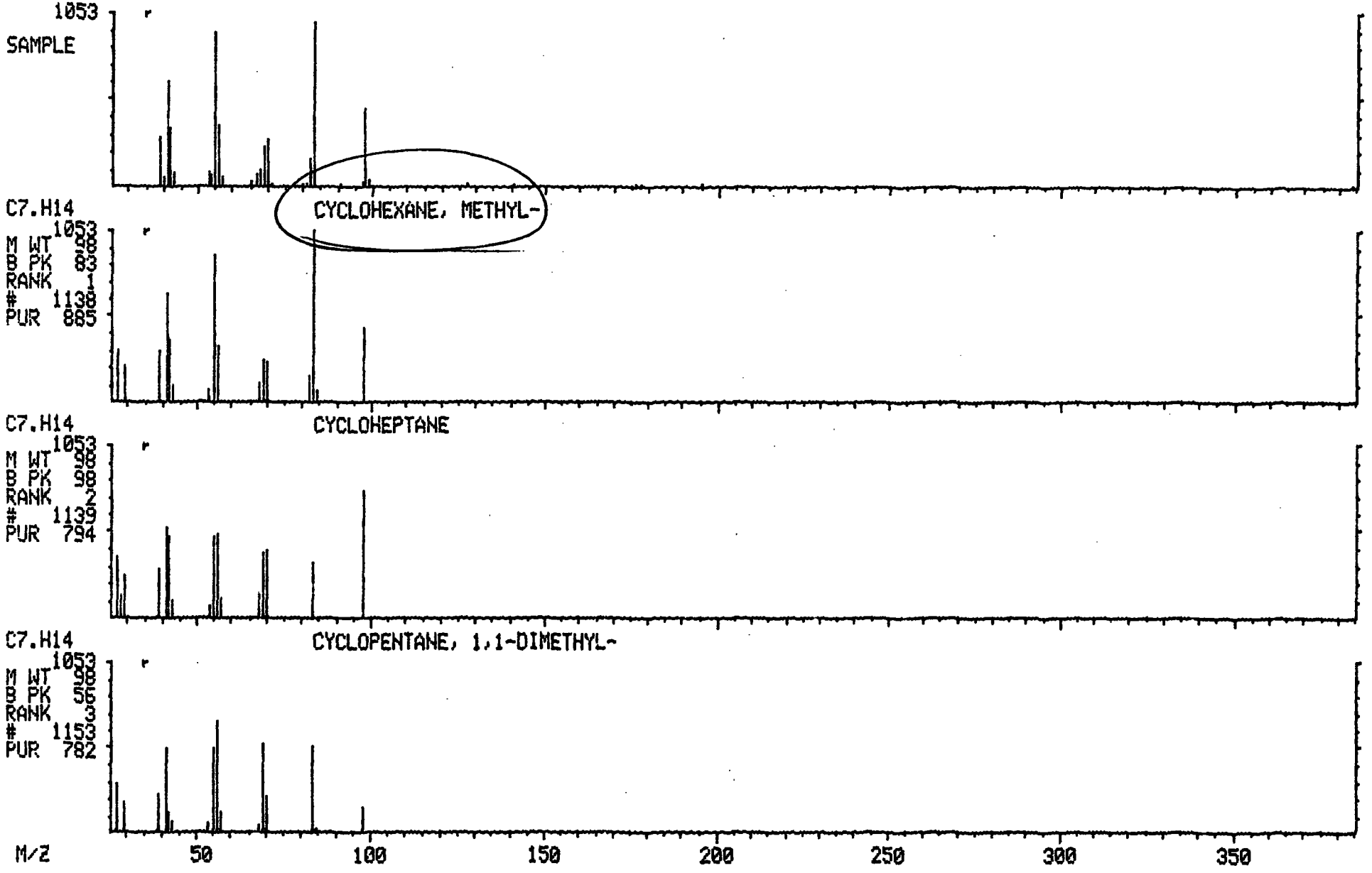
SIZE = AREA

01460

LIBRARY SEARCH
06/02/88 11:17:00 + 3:55
SAMPLE: 59436-20 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R979 # 314
CALI: 060288CR # 5

BASE M/Z: 83
RIC: 13871.

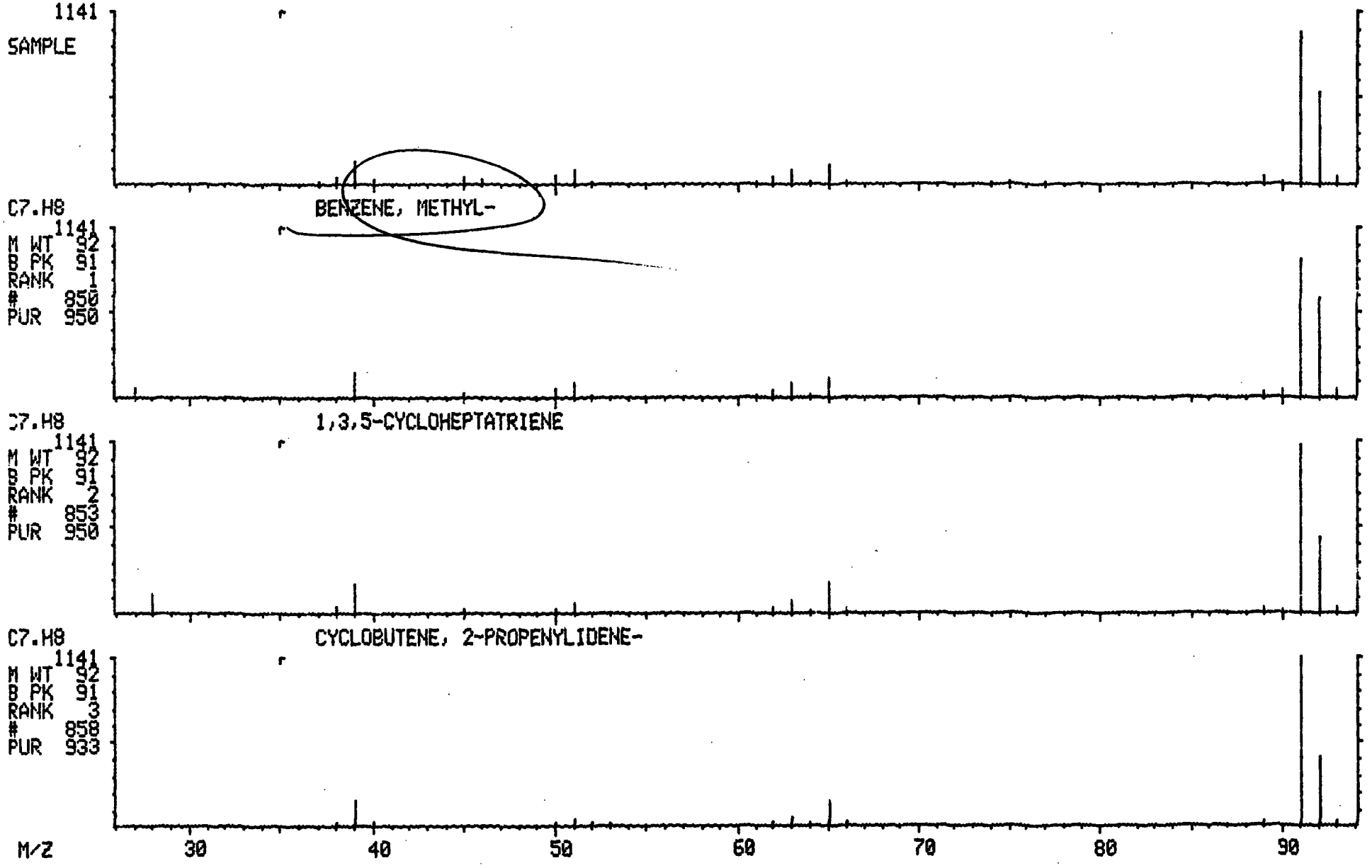


01461

LIBRARY SEARCH
06/02/88 11:17:00 + 4:36
SAMPLE: 59436-20 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R979 # 368
CALI: 060288CR # 5

BASE M/Z: 91
RIC: 8687.

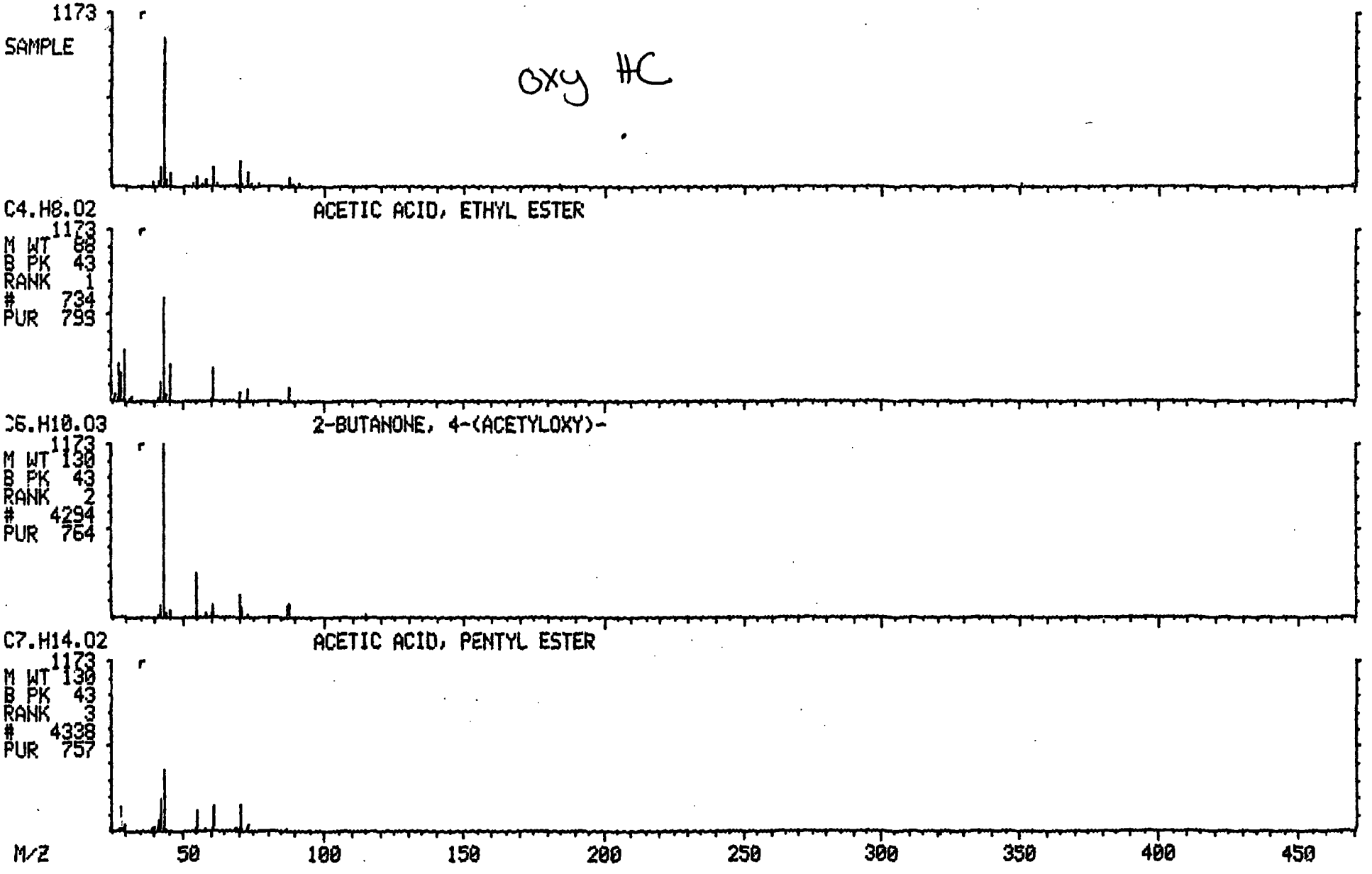


01462

LIBRARY SEARCH
06/02/88 11:17:00 + 4:54
SAMPLE: 59436-20 BNA H20 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R979 # 392
CALI: 060288CR # 5

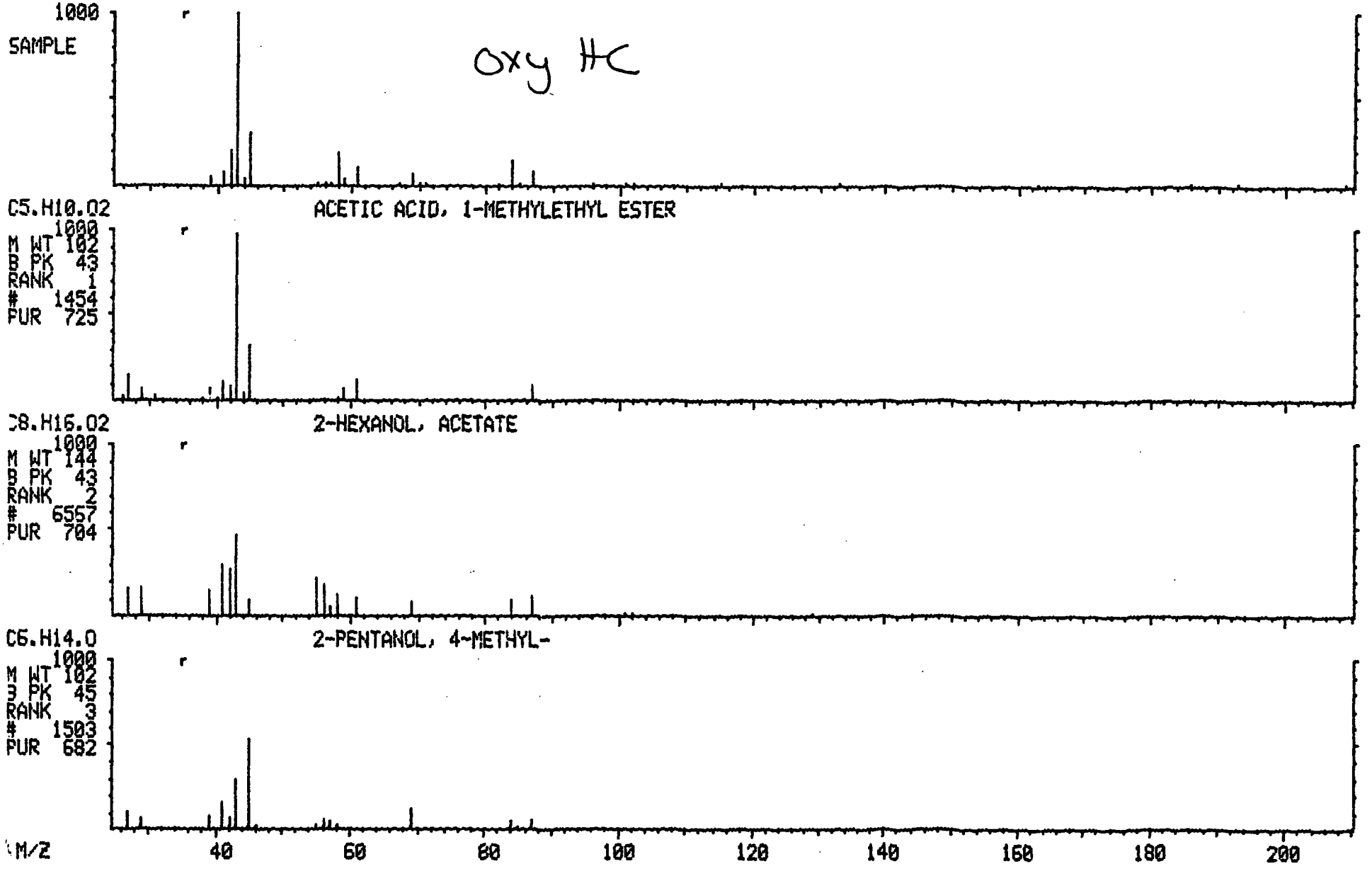
BASE M/Z: 43
RIC: 7855.



LIBRARY SEARCH
06/02/88 11:17:00 + 5:25
SAMPLE: 59436-20 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R979 # 434
CALI: 060288CR # 5

BASE M/Z: 43
RIC: 8175.

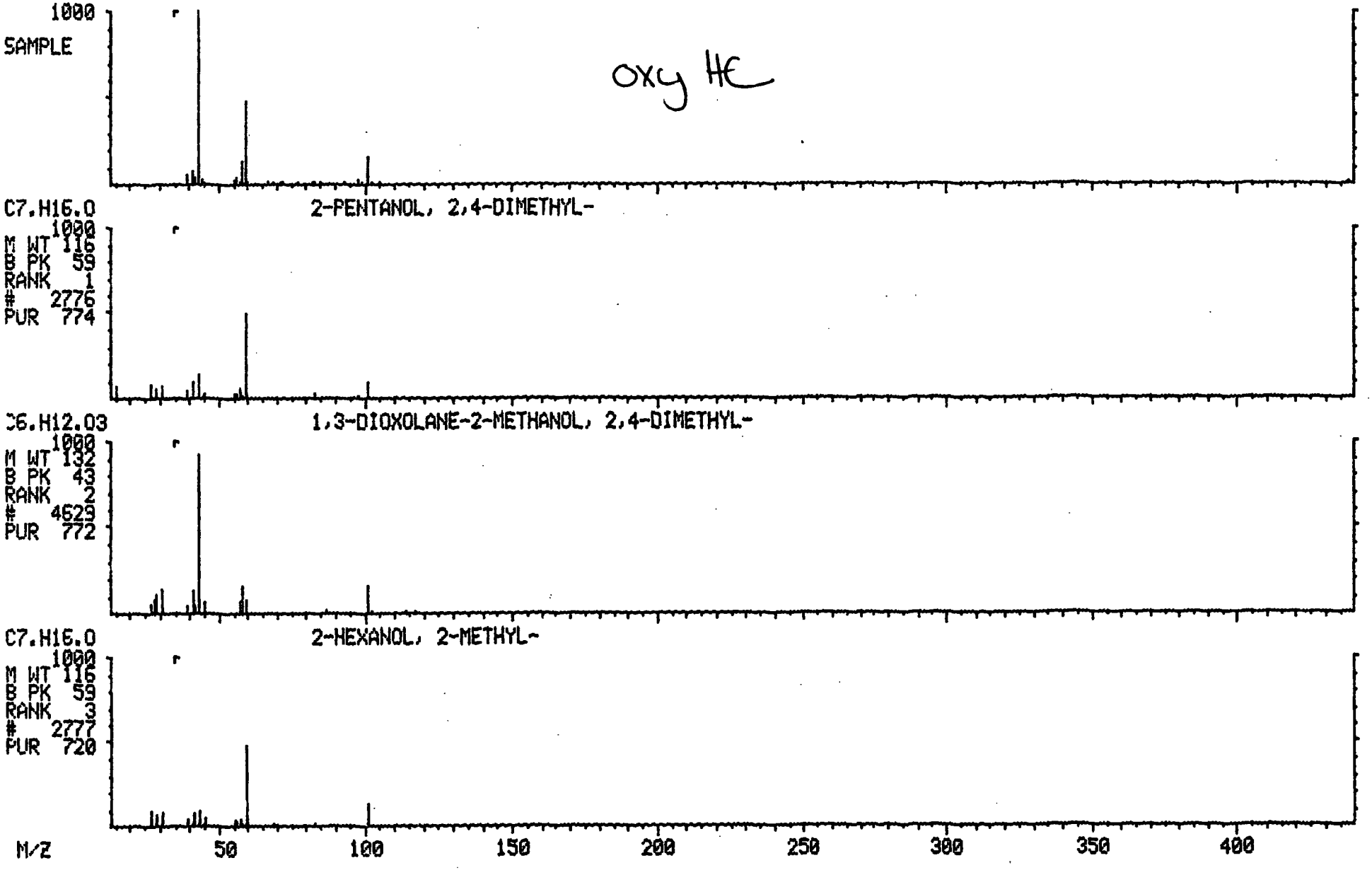


014641

LIBRARY SEARCH
05/02/88 11:17:00 + 5:51
SAMPLE: 59436-20 BNA H2O 100Z/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R979 # 468
CALI: 060288CR # 5

BASE M/Z: 43
RIC: 25439.

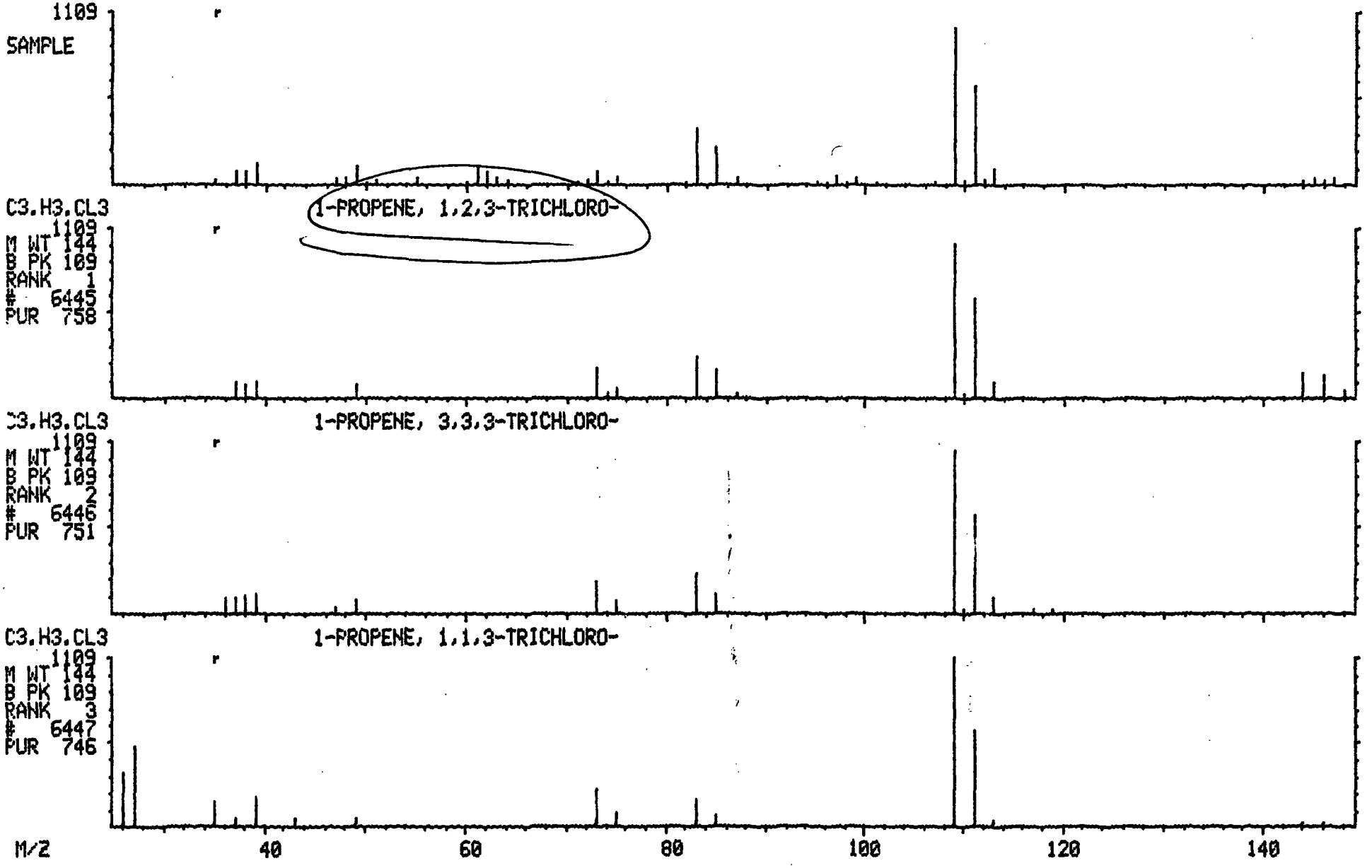


01465

LIBRARY SEARCH
06/02/88 11:17:00 + 7:46
SAMPLE: 59436-20 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R979 # 622
CALI: 060288CR # 5

BASE M/Z: 109
RIC: 13503.

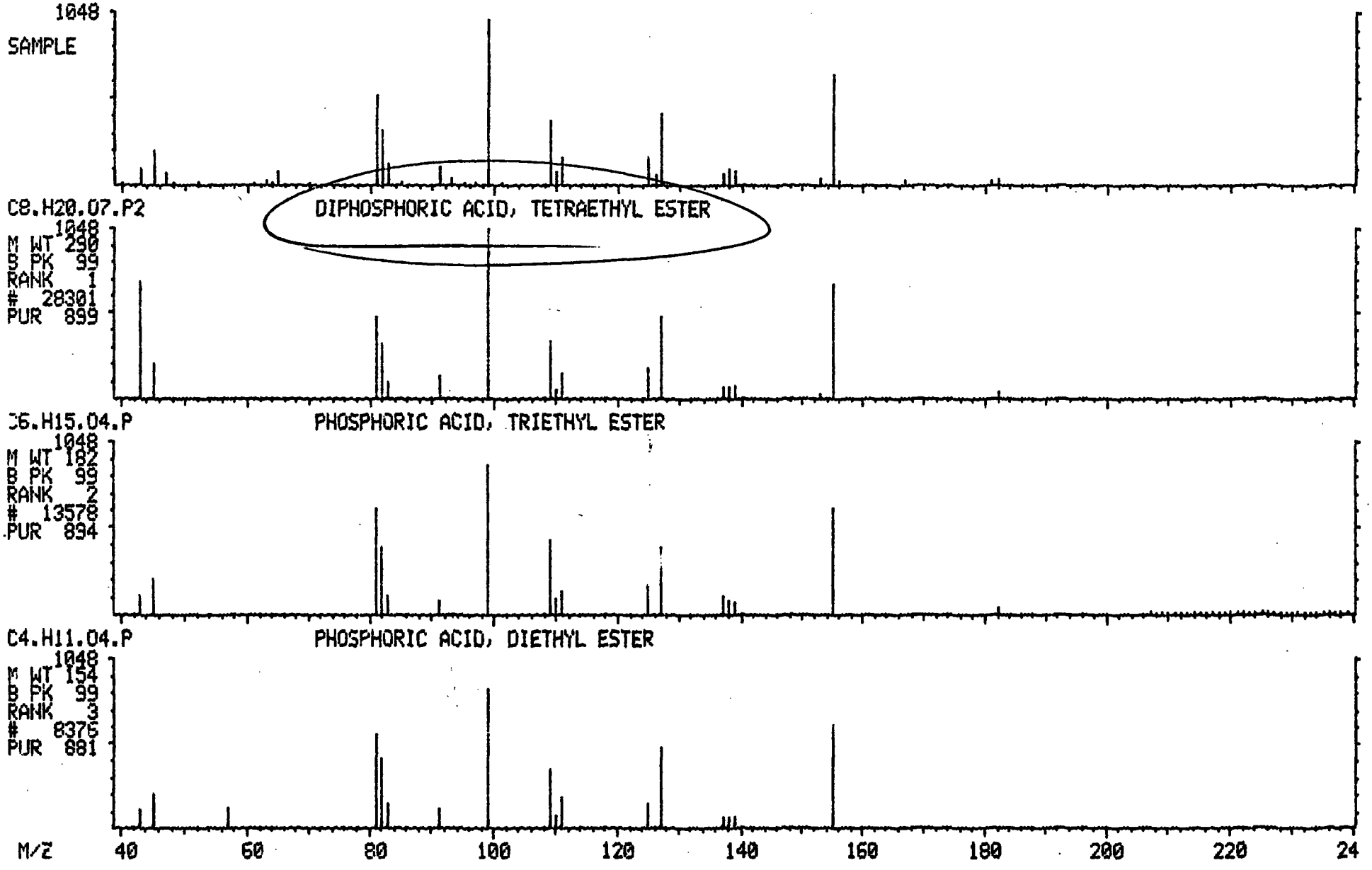


01466

LIBRARY SEARCH
06/02/88 11:17:00 + 10:47
SAMPLE: 59436-20 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R979 # 863
CALI: 060288CR # 5

BASE M/Z: 99
RIC: 5839.



PROCEDURE: TCA DIAGNOSTIC REPORT 6/03/88 18:21:04
DATA FILE: S59436R979
REFERENCE: 11TABLE
NAME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: ISO1

01467

< ---- STANDARDS ----- ><				--- PLUS UNKNOWNS --- ><				- LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	3	0	13	2	1	0	ISO1/TCO1
3	3	2	81	14	3	1	81	ISO2/TCO2

26 COMPOUNDS PROCESSED, 4 FOUND

< COMPOUND ><			---------- SEARCH ---------- >< SAT ><							------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	S1	1	-714	715	715	.	3	976	.	152	715	.	1
2	S1	4	-332	338	338	.	1	975	.	84	338	.	1
3	S1	20	-334	340	.	.	.	.	.	79	.	.	.
4	S1	30	-429	434	.	.	.	.	.	93	.	.	.
5	S1	62	-494	498	.	.	.	.	.	93	497	.	1
6	S1	64	-525	528	.	.	.	.	.	107	.	.	.
7	S1	73	-556	559	.	.	.	.	.	106	.	.	.
8	S1	83	-593	596	.	.	.	.	.	107	.	.	.
9	S1	87	-613	615	.	.	.	.	.	107	.	.	.
10	S1	88	-634	636	.	.	.	.	.	107	.	.	.
11	S1	89	-642	644	.	.	.	.	.	107	646	.	1
12	S1	92	-661	663	.	.	.	.	.	107	.	.	.
13	S1	122	-699	700	.	.	.	.	.	107	.	.	.
14	S2	1	-953	954	953	-1	2	996	.	136	953	.	1
15	S3	1	-1310	1311	1311	.	1	991	.	164	1311	.	1
16	S1	137	-730	731	.	.	.	.	.	106	.	.	.
17	S1	142	-743	744	.	.	.	.	.	106	.	.	.
18	S1	187	-797	798	.	.	.	.	.	108	797	.	1
19	S1	202	-821	822	.	.	.	.	.	106	.	.	.
20	S1	203	-826	827	.	.	.	.	.	106	.	.	.
21	S1	204	-846	847	.	.	.	.	.	122	.	.	.
22	S2	27	-897	898	.	.	.	.	.	107	.	.	.
23	S2	37	-921	922	.	.	.	.	.	107	.	.	.
24	S2	47	-935	936	.	.	.	.	.	107	.	.	.
25	S2	57	-954	955	.	.	.	.	.	107	954	.	1
26	S2	150	-1117	1118	.	.	.	.	.	142	.	.	.

Quantitation Report File: S59436R979

01468

Data: S59436R979.TI
06/02/88 11:17:00
Sample: 59436-20 BNA H2O 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No.: 59436

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

No	Name			
1	CI30 1,4-DICHLOROBENZENE-D4	152	IS1# 01	3855-82-1
2	PYRIDINE-D5	84	S1# 04	
3	PYRIDINE	79	S1# 20	110-86-1
4	2-PICOLINE	93	S1# 30	109-06-8
5	3 & 4-PICOLINE	93	S1# 62	
6	2,6-LUTIDINE	107	S1# 64	
7	2-ETHYL PYRIDINE	106	S1# 73	
8	2,4 & 2,5-LUTIDINE	107	S1# 83	
9	2,3-LUTIDINE	107	S1# 87	
10	3-ETHYL PYRIDINE	107	S1# 88	
11	4-ETHYL PYRIDINE	107	S1# 89	
12	3,5-LUTIDINE	107	S1# 92	
13	3,4-LUTIDINE	107	S1#122	
14	CI40 NAPHTHALENE-D8	136	IS2# 01	1146-65-2
15	CI50 ACENAPHTHENE-D10	164	IS3# 01	15067-26-2
16	2-METHYL-5-ETHYL PYRIDINE	106	S1#137	
17	2-METHYL-3-ETHYL PYRIDINE	106	S1#142	
18	M AND P CRESOLS	108	S2#187	
19	3-ETHYL-4-METHYL PYRIDINE	106	S1#202	
20	3-ETHYL-5-METHYL PYRIDINE	106	S1#203	
21	2,6-DIMETHYL PHENOL	122	S1#204	
22	2,5-DIMETHYL PHENOL	107	S2# 27	
23	3,5-DIMETHYL PHENOL	107	S2# 37	
24	2,3-DIMETHYL PHENOL	107	S2# 47	
25	3,4-DIMETHYL PHENOL	107	S2# 57	
26	1-METHYLNAPHTHALENE	142	S2#150	90-12-0

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	715	8:56	1	1.000	A BV	25835.	40.000 UG/ML	27.75
2	84	338	4:13	1	0.473	A BB	29336.	23.515 UG/ML	16.32
3	NOT FOUND								
4	NOT FOUND								
5	93	497	6:13	1	0.695	A BB	50.	0.042 UG/ML	0.03
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	107	646	8:04	1	0.903	A BB	40.	0.043 UG/ML	0.03
12	NOT FOUND								
13	NOT FOUND								
14	136	953	11:55	14	1.000	A BB	99017.	40.000 UG/ML	27.75
15	164	1311	16:23	15	1.000	A BV	46002.	40.000 UG/ML	27.75
16	NOT FOUND								
17	NOT FOUND								

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
18	108	797	9:58	1	1.115	A BB	72.	0.071	UG/ML	0.05
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	NOT FOUND									
25	107	954	11:55	1	1.334	A BB	557.	0.478	UG/ML	0.33
26	NOT FOUND									

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	4:09	1.02	0.464	1.02	23.51	50.00	0.908	1.932	0.47
3	4:10		0.467						
4	5:22		0.600						
5	6:10	1.01	0.691	1.01	0.04	50.00	0.002	1.865	0.00
6	6:34		0.734						
7	6:57		0.778						
8	7:25		0.829						
9	7:40		0.857						
10	7:55		0.887						
11	8:01	1.01	0.898	1.01	0.04	50.00	0.001	1.438	0.00
12	8:16		0.924						
13	8:44		0.978						
14	11:55	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
15	16:23	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
16	9:07		1.021						
17	9:17		1.039						
18	9:58	1.00	1.115	1.00	0.07	50.00	0.002	1.576	0.00
19	10:16		1.148						
20	10:19		1.155						
21	10:34		1.183						
22	11:13		0.940						
23	11:31		0.965						
24	11:41		0.980						
25	11:55	1.00	1.334	1.00	0.48	50.00	0.017	1.806	0.01
26	13:58		1.171						

TCA FINISHED, 4 FOUND
FINISHED AT: 6/03/88 18:23:47

RF 2.Ø6
SV 2.ØØ
01470

RMAL QUANTITATION SUMMARY FILE: S59436R979
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/ML

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	S1# 1	CI30 1,4-DICHLOROBENZENE	152	715	1	25835.	1.000	40.000
2	S2# 1	CI40 NAPHTHALENE-D8	136	953	2	99017.	1.000	40.000
3	S3# 1	CI50 ACENAPHTHENE-D10	164	1311	3	46002.	1.000	40.000
4	S1# 4	PYRIDINE-D5	84	338	1	29336.	0.908	23.515
5	S1# 20	PYRIDINE	79		1	NOT FOUND		
6	S1# 30	2-PICOLINE	93		1	NOT FOUND		
7	S1# 62	3 & 4-PICOLINE	93		1	NOT FOUND		
8	S1# 64	2,6-LUTIDINE	107		1	NOT FOUND		
9	S1# 73	2-ETHYL PYRIDINE	106		1	NOT FOUND		
10	S1# 83	2,4 & 2,5-LUTIDINE	107		1	NOT FOUND		
11	S1# 87	2,3-LUTIDINE	107		1	NOT FOUND		
12	S1# 88	3-ETHYL PYRIDINE	107		1	NOT FOUND		
13	S1# 89	4-ETHYL PYRIDINE	107		1	NOT FOUND		
14	S1# 92	3,5-LUTIDINE	107		1	NOT FOUND		
15	S1#122	3,4-LUTIDINE	107		1	NOT FOUND		
16	S1#137	2-METHYL-5-ETHYL PYRIDIN	106		1	NOT FOUND		
17	S1#142	2-METHYL-3-ETHYL PYRIDIN	106		1	NOT FOUND		
18	S1#187	M AND P CRESOLS	108		1	NOT FOUND		
19	S1#202	3-ETHYL-4-METHYL PYRIDIN	106		1	NOT FOUND		
20	S1#203	3-ETHYL-5-METHYL PYRIDIN	106		1	NOT FOUND		
21	S1#204	2,6-DIMETHYL PHENOL	122		1	NOT FOUND		
22	S2# 27	2,5-DIMETHYL PHENOL	107		2	NOT FOUND		
23	S2# 37	3,5-DIMETHYL PHENOL	107		2	NOT FOUND		
24	S2# 47	2,3-DIMETHYL PHENOL	107		2	NOT FOUND		
25	S2# 57	3,4-DIMETHYL PHENOL	107		1	NOT FOUND		
26	S2#150	1-METHYLNAPHTHALENE	142		2	NOT FOUND		

RMAL-GC/MS REILLY TAR & CHEMICAL CO. PROJECT PROCESSING PROGRAM
DATAFILE: 2: S59436X869. STARTED : 6/07/88 3:23:47

01471

6/6/88 18:13:40 SCAN 1 OF 3900 RF: $\frac{ng}{ml} \times \frac{0.5ml}{3.82L} = 0.131$ ng/L

Acquisition started

SV=1

Acquire Run 2: S59436X869 ACQUIRING
06/06/88 18:13:00 + 0:04 Free sectors: 10579 Scan: 8 of 3900
Sample: 59436-20 100%/0.5ML PAH WATER RERUN
Conds: 2 UL AUTO INJ
Formula: Instrument: 4500 Weight: 80.000
Submitted by: RMAL Analyst: JGG/GW Acct. No: 59436

********** GC PARAMETERS **********
Loaded GC Desc: PA Current GC oven tmp: 29 DegC Injector : 265 DegC
Current GC Desc: PA GC elapsed time : 0: 3 min Int. oven : 300 DegC

Seq. #	Temp(C)	Rate(C/m)	Time(min)	Total time(min)		Open	Close
1	30 - 30	-	1.0	1.0	Sweep/Split	0.5	0.0
2	30 - 325	10.0	29.5	30.5	Divert	45.5	0.0
3	325 - 325	-	15.0	45.5			
4	325 - 325	-	0.0	45.5			

********** SCAN PARAMETERS **********
***** Mode: Centroid positive ion + R1 (Temp)

MID scan Desc: P1 Mass intervals: 3
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 1024

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL	ION
1	225.500	226.500	0.105	1	100	0	1	1	Pos
2	227.500	228.500	0.105	1	100	0	1	1	Pos
3	239.500	240.500	0.105	1	100	0	1	1	Pos

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	G	
Full scale mass	1024	u
Zero scale mass	1	u
Intensity/ion	2	
Peak Width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(MS)	4	

6/6/88 18:42:04 SCAN 3407 OF 3900

MID scan Desc: P2 Mass intervals: 3
Scan time: 0.500 s Samp. Int.: 0.200 ms Master rate: 1024

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL	ION
1	249.575	250.575	0.105	1	100	0	1	1	Pos
2	251.575	252.575	0.105	1	100	0	1	1	Pos
3	263.579	264.579	0.105	1	100	0	1	1	Pos

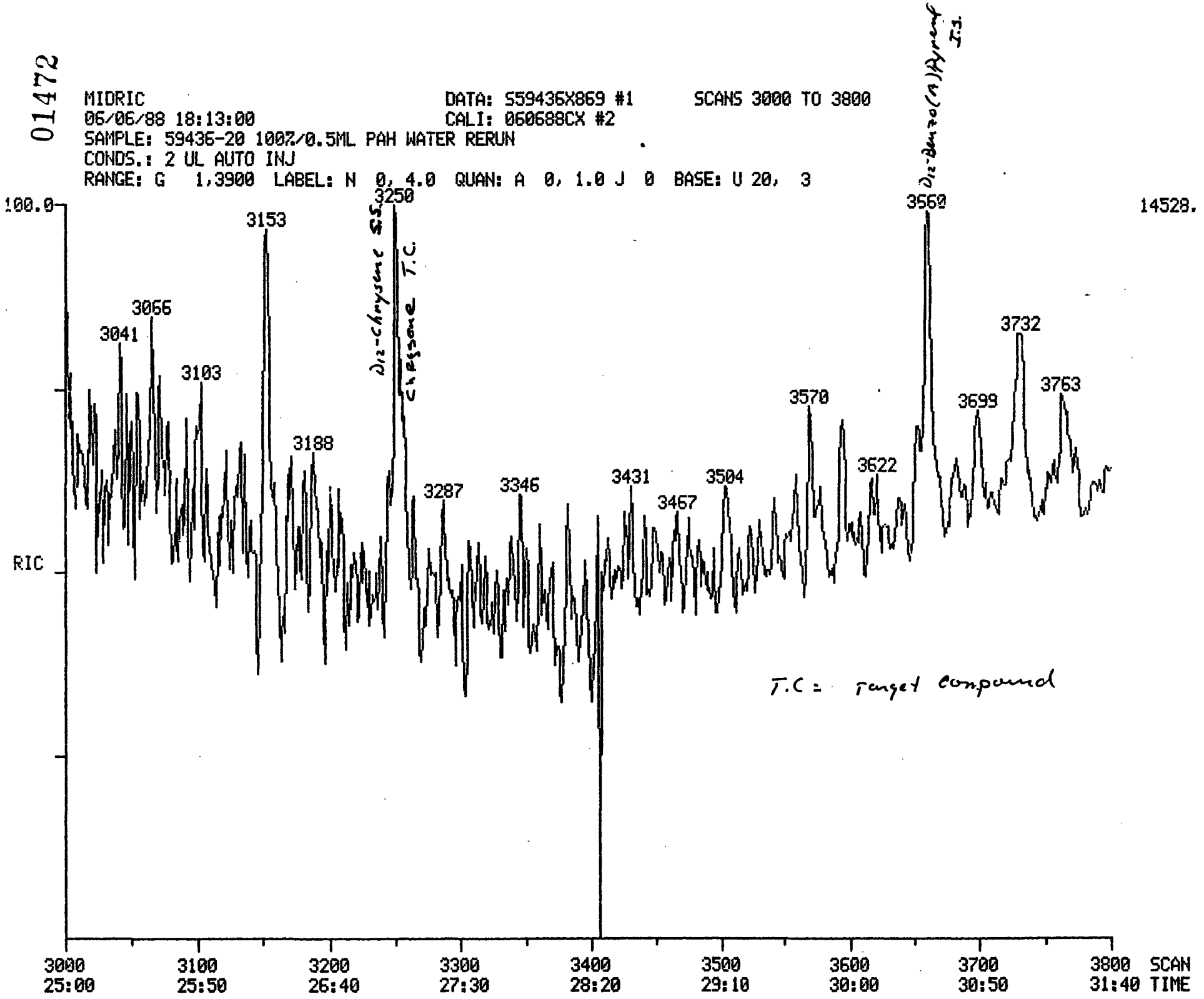
6/6/88 18:46:14
ACQUISITION COMPLETED
SCANS 1 TO 3406 Centroid
SCAN 3407 Suspended
SCANS 3408 TO 3900 Centroid

Mode	Scans	Secs	Out of	%	Peaks per scan	per sec

01472

MIDRIC
06/06/88 18:13:00
SAMPLE: 59436-20 100%/0.5ML PAH WATER RERUN
CONDS.: 2 UL AUTO INJ
RANGE: G 1,3900 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: S59436X869 #1 SCANS 3000 TO 3800
CALI: 060688CX #2



Quantitation Report File: S59436X869

Data: S59436X869.TI
06/06/88 18:13:00
Sample: 59436-20 100%/0.5ML PAH WATER RERUN
Conds.: 2 UL AUTO INJ
Formula: Instrument: 4500 Weight: 80.000
Submitted by: RMAL Analyst: JGG/GW Acct. No.: 59436

01473

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

No	Name	
1	D12-BENZO(A)PYRENE	264IPH# 01
2	D12-CHRYSENE	240SPH# 02
3	BENZO(A)ANTHRACENE	228 PH# 03
4	BENZO(A)ANTHRACENE	226 PH# 04
5	CHRYSENE	228 PH# 05
6	CHRYSENE	226 PH# 06
7	BENZO(B)FLUORANTHENE	252 PH# 07
8	BENZO(B)FLUORANTHENE	250 PH# 08
9	BENZO(K)FLUORANTHENE	252 PH# 09
10	BENZO(K)FLUORANTHENE	250 PH# 10
11	BENZO(J)FLUORANTHENE	252 PH# 11
12	BENZO(J)FLUORANTHENE	250 PH# 12
13	BENZO(A)PYRENE	252 PH# 13
14	BENZO(A)PYRENE	250 PH# 14

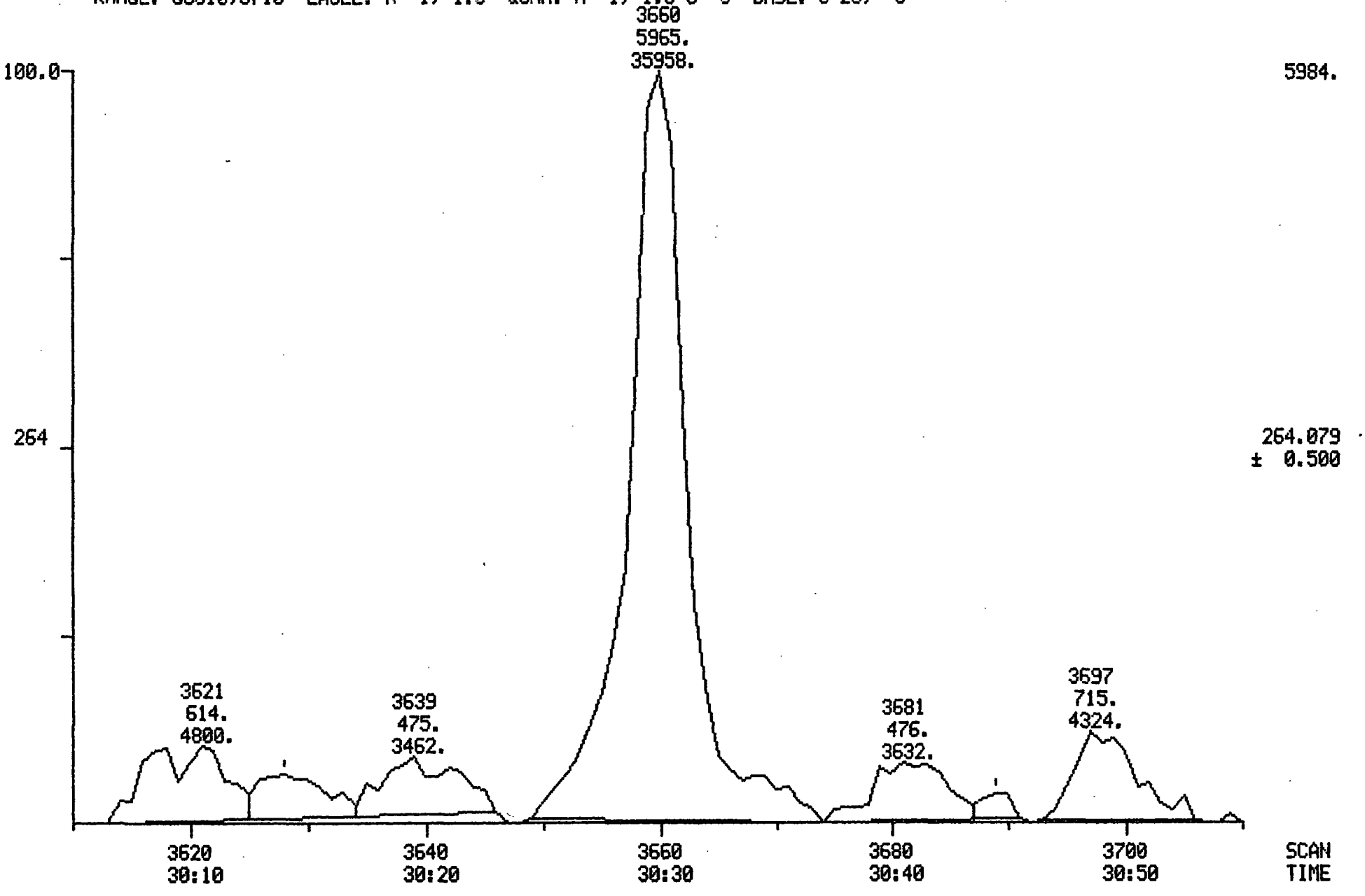
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	264	3660	30:30	1	1.000	A BB	35958.	80.000	NG/ML	18.53
2	240	3250	27:05	1	0.888	A BV	42634.	57.907	NG/ML	13.41
3	228	3245	27:02	1	0.887	A VV	6074.	8.978	NG/ML	2.08
4	226	3239	26:59	1	0.885	A VV	5122.	32.395	NG/ML	7.50
5	228	3255	27:07	1	0.889	A VV	22279.	32.960	NG/ML	7.63
6	226	3257	27:08	1	0.890	A VV	7346.	38.669	NG/ML	8.96
7	252	3570	29:45	1	0.975	A BV	10406.	15.735	NG/ML	3.64
8	250	3570	29:45	1	0.975	A BV	5612.	31.188	NG/ML	7.22
9	252	3578	29:49	1	0.978	A VB	7666.	11.850	NG/ML	2.74
10	250	3579	29:49	1	0.978	A VB	1452.	8.621	NG/ML	2.00
11	252	3595	29:57	1	0.982	A BV	5150.	7.659	NG/ML	1.77
12	250	3595	29:57	1	0.982	A BV	5814.	39.138	NG/ML	9.07
13	252	3664	30:32	1	1.001	A VB	8968.	15.603	NG/ML	3.61
14	250	3664	30:32	1	1.001	A VB	5817.	51.041	NG/ML	11.82

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	30:30	1.00	1.000	1.00	80.00	80.00	1.000	1.000	1.00
2	27:05	1.00	0.888	1.00	57.91	80.00	1.186	1.638	0.72
3	27:02	1.00	0.887	1.00	8.98	80.00	0.169	1.505	0.11
4	27:02	1.00	0.887	1.00	32.39	80.00	0.142	0.352	0.40
5	27:08	1.00	0.890	1.00	32.96	80.00	0.620	1.504	0.41
6	27:08	1.00	0.890	1.00	38.67	80.00	0.204	0.423	0.48
7	29:45	1.00	0.976	1.00	15.73	80.00	0.289	1.471	0.20
8	29:46	1.00	0.976	1.00	31.19	80.00	0.156	0.400	0.39
9	29:50	1.00	0.978	1.00	11.85	80.00	0.213	1.439	0.15
10	29:50	1.00	0.978	1.00	8.62	80.00	0.040	0.375	0.11
11	29:41	1.01	0.982	1.00	7.66	80.00	0.143	1.496	0.10

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	29:41	1.01	0.982	1.00	39.14	80.00	0.162	0.330	0.49
13	30:34	1.00	1.002	1.00	15.60	80.00	0.249	1.279	0.20
14	30:34	1.00	1.002	1.00	51.04	80.00	0.162	0.254	0.64

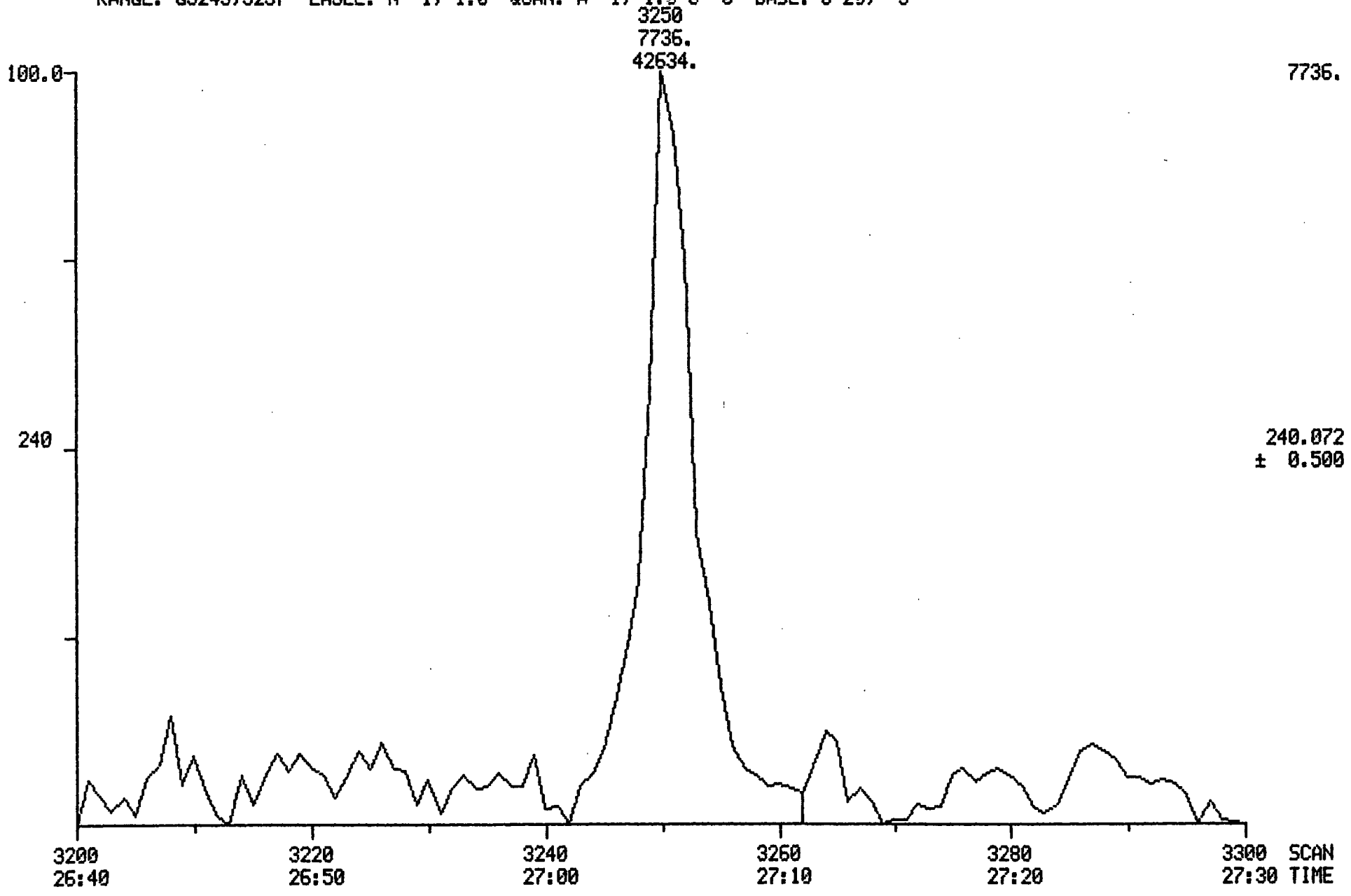
01475

MIDMASS CHROMATOGRAM DATA: 559436X869 #3660 SCANS 3610 TO 3710
06/06/88 18:13:00 CALI: 060688CX #2
SAMPLE: 59436-20 100%/0.5ML PAH WATER RERUN
CONDS.: 2 UL AUTO INJ
D12-BENZO(A)PYRENE 264IPH# 01
RANGE: G3610,3710 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



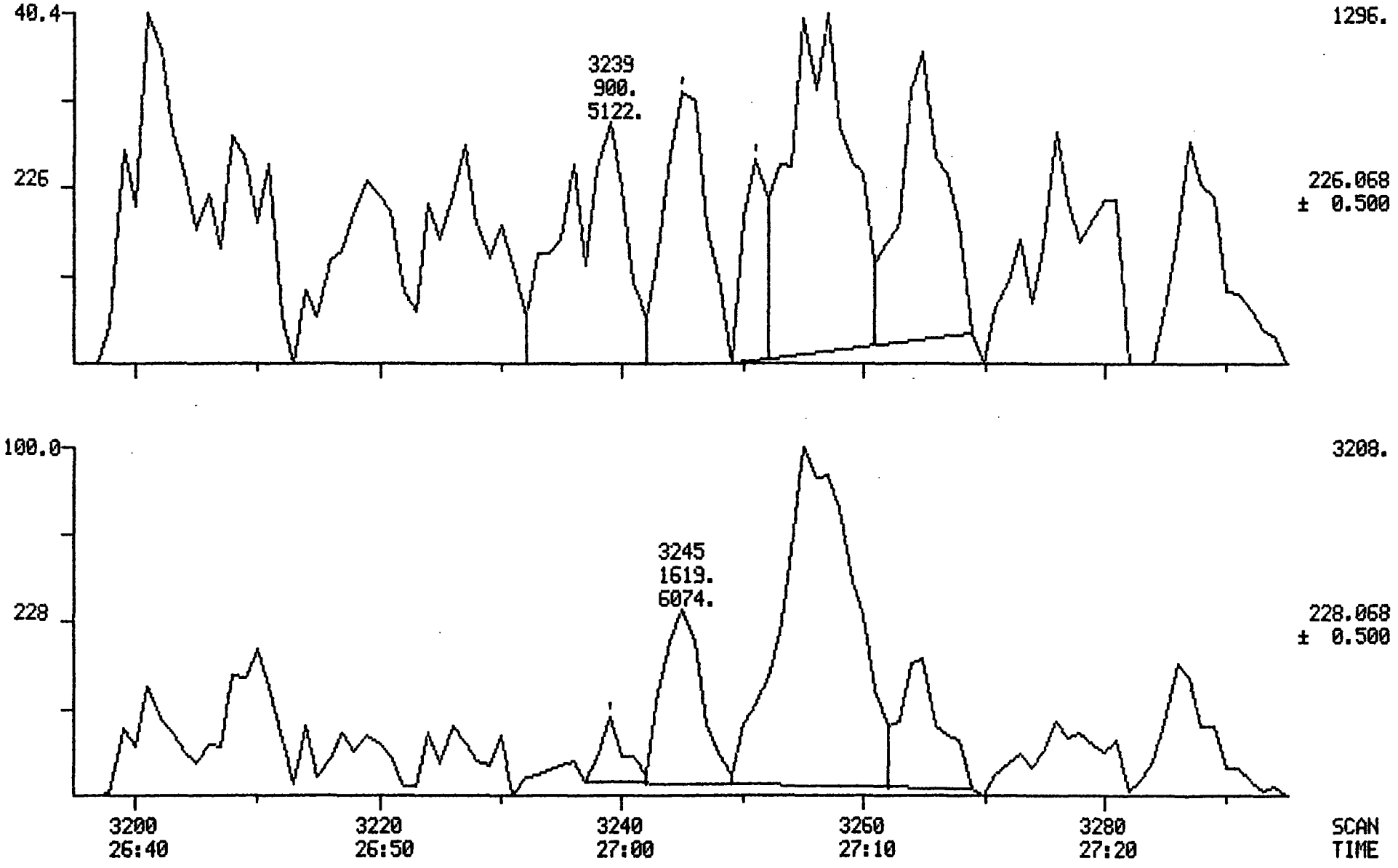
01476

MIDMASS CHROMATOGRAM DATA: S59436X869 #3250 SCANS 3200 TO 3300
06/06/88 18:13:00 CALI: 060688CX #2
SAMPLE: 59436-20 100%/0.5ML PAH WATER RERUN
CONDS.: 2 UL AUTO INJ
D12-CHRYSENE 240SPH# 02
RANGE: G3243,3257 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



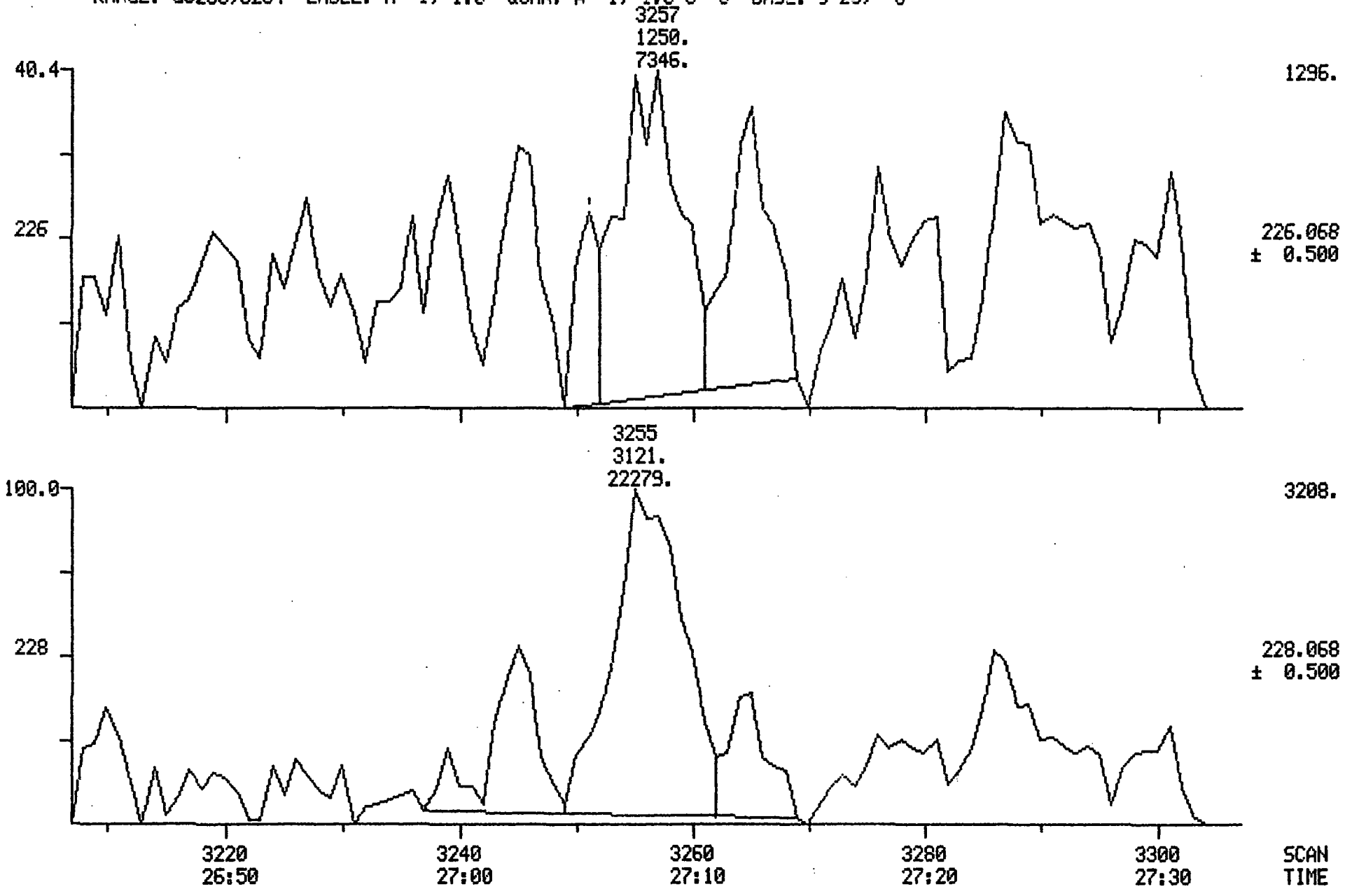
01477

MIDMASS CHROMATOGRAMS DATA: S59436X869 #3245 SCANS 3195 TO 3295
06/06/88 18:13:00 CALI: 060688CX #2
SAMPLE: 59436-20 100%/0.5ML PAH WATER RERUN
CONDS.: 2 UL AUTO INJ
BENZO(A)ANTHRACENE 228 PH# 03
RANGE: G3238,3252 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



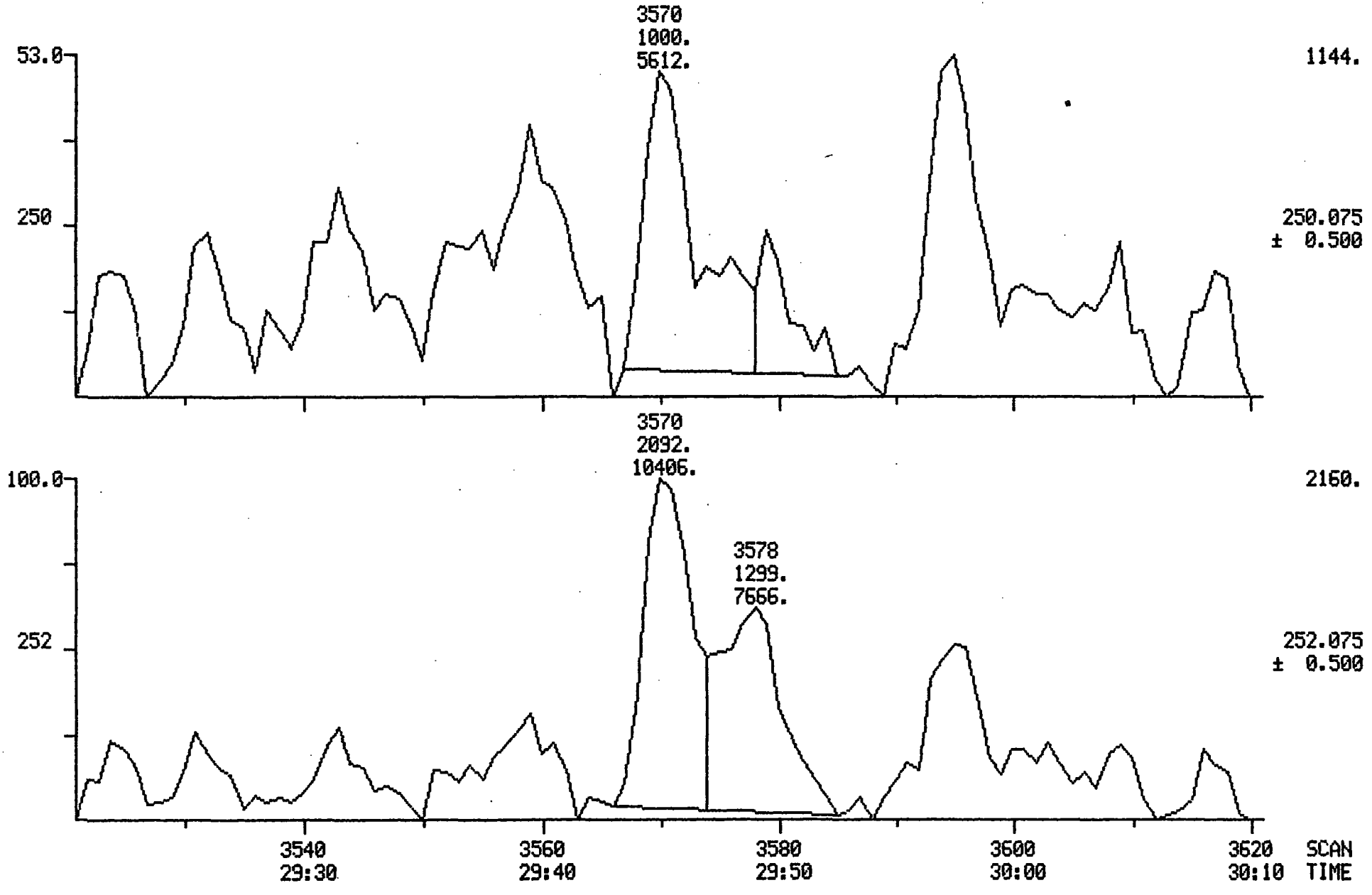
01478

MIDMASS CHROMATOGRAMS DATA: S59436X869 #3257 SCANS 3207 TO 3307
06/06/88 18:13:00 CALI: 060688CX #2
SAMPLE: 59436-20 100%/0.5ML PAH WATER RERUN
CONDS.: 2 UL AUTO INJ
CHRYSENE 228 PH# 05
RANGE: G3250,3264 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



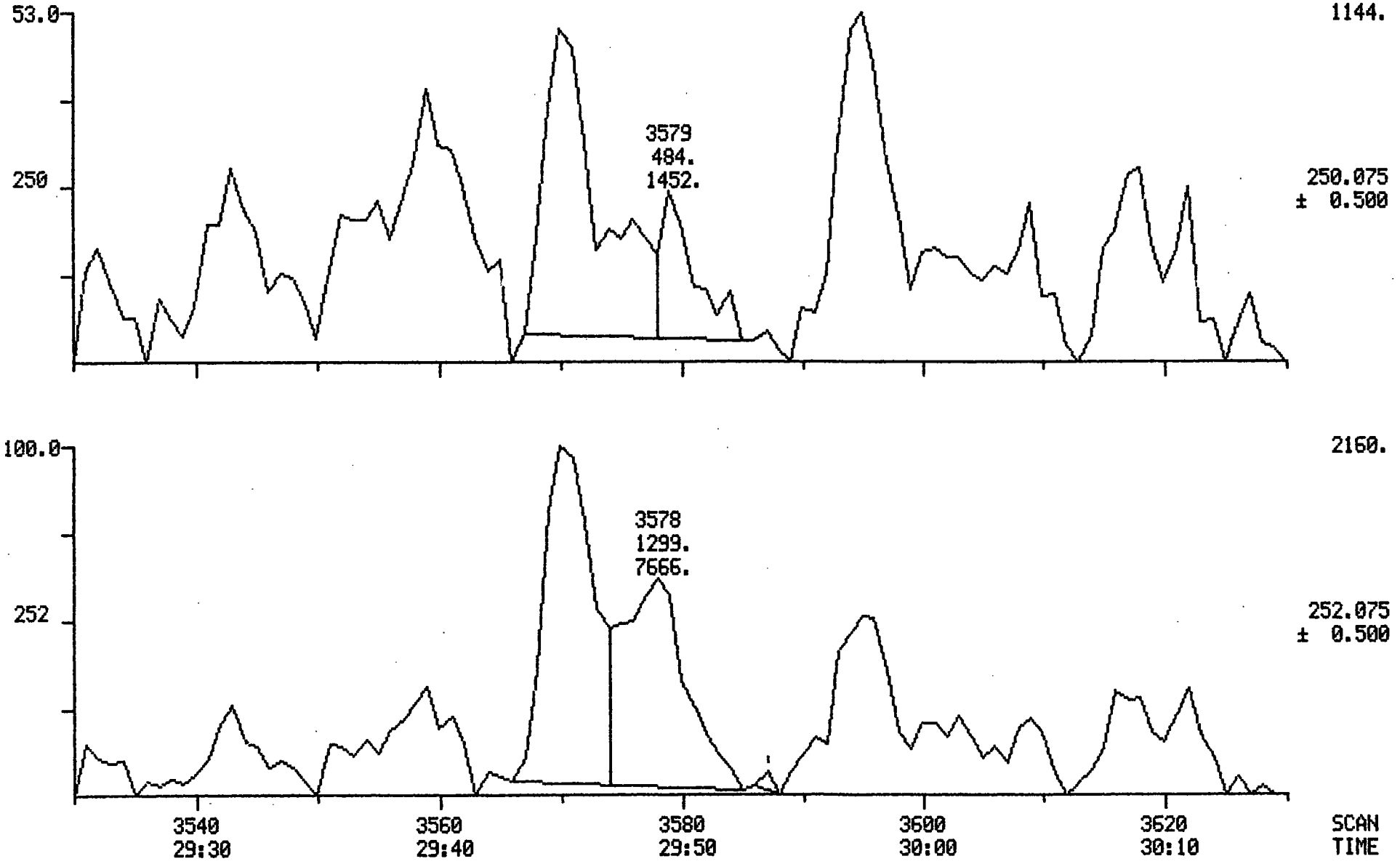
C1479

MIDMASS CHROMATOGRAMS DATA: S59436X869 #3571 SCANS 3521 TO 3621
06/06/88 18:13:00 CALI: 060688CX #2
SAMPLE: 59436-20 100%/0.5ML PAH WATER RERUN
CONDS.: 2 UL AUTO INJ
BENZO(B)FLUORANTHENE 252 PH# 07
RANGE: G3564,3578 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



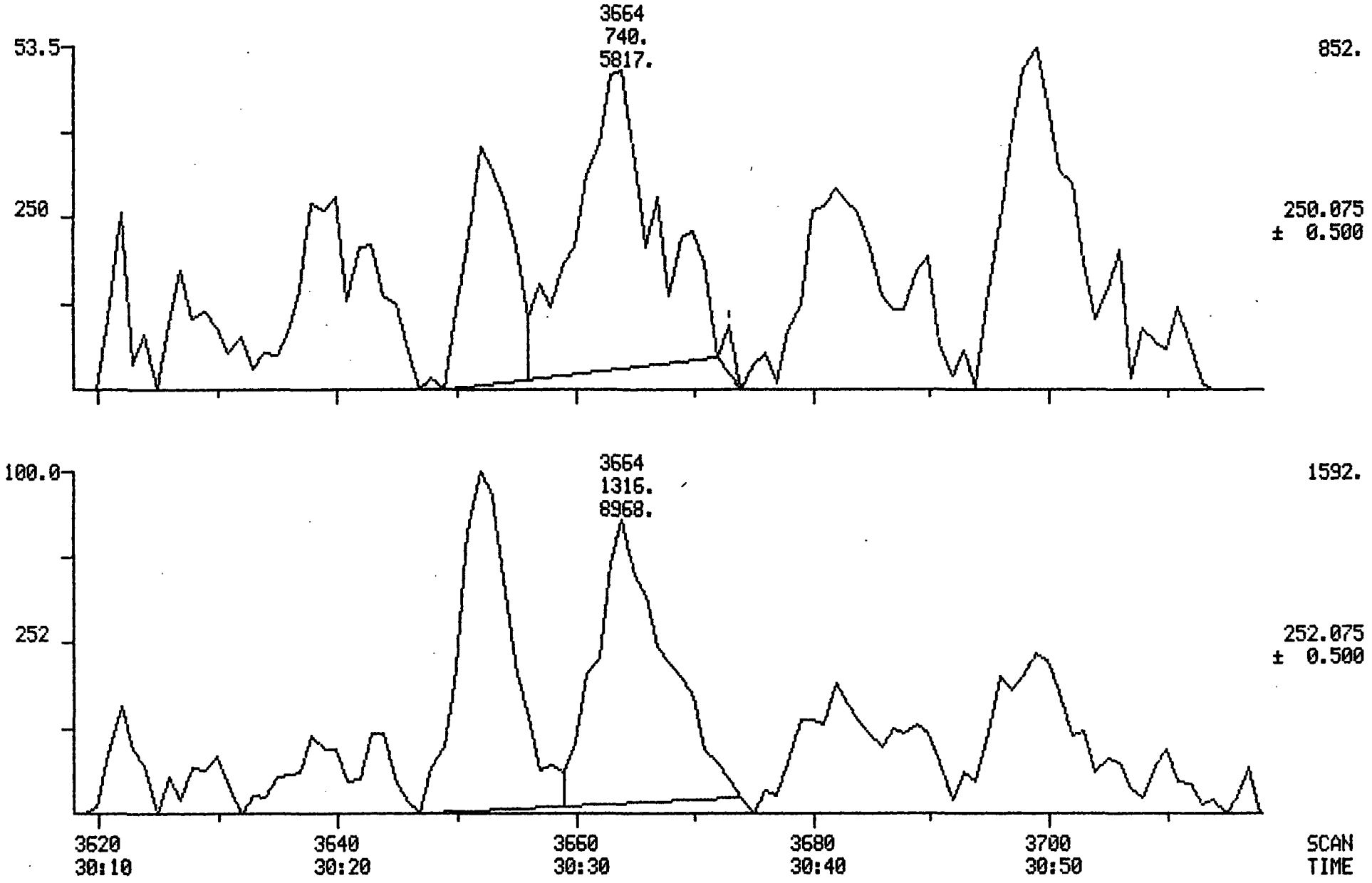
01480

MIDMASS CHROMATOGRAMS DATA: S59436X869 #3580 SCANS 3530 TO 3630
06/06/88 18:13:00 CALI: 060688CX #2
SAMPLE: 59436-20 100%/0.5ML PAH WATER RERUN
CONDS.: 2 UL AUTO INJ
BENZO(K)FLUORANTHENE 252 PH# 09
RANGE: G3573,3587 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



01481

MIDMASS CHROMATOGRAMS DATA: S59436X869 #3668 SCANS 3618 TO 3718
06/06/88 18:13:00 CALI: 060688CX #2
SAMPLE: 59436-20 100%/0.5ML PAH WATER RERUN
CONDS.: 2 UL AUTO INJ
BENZO(A)PYRENE 252 PH# 13
RANGE: G3661,3675 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: S59436X869

01482

Data: S59436X869.TI
06/06/88 18:13:00
Sample: 59436-20 100%/0.5ML PAH WATER RERUN
Conds.: 2 UL AUTO INJ
Formula: Instrument: 4500 Weight: 80.000
Submitted by: RMAL Analyst: JGG/GW Acct. No.: 59436

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

No	Name	
1	D12-BENZO(A)PYRENE	264IPH# 01
2	D12-CHRYSENE	240SPH# 02
3	BENZO(A)ANTHRACENE	228 PH# 03
4	BENZO(A)ANTHRACENE	226 PH# 04
5	CHRYSENE	228 PH# 05
6	CHRYSENE	226 PH# 06
7	BENZO(B)FLUORANTHENE	252 PH# 07
8	BENZO(B)FLUORANTHENE	250 PH# 08
9	BENZO(K)FLUORANTHENE	252 PH# 09
10	BENZO(K)FLUORANTHENE	250 PH# 10
11	BENZO(J)FLUORANTHENE	252 PH# 11
12	BENZO(J)FLUORANTHENE	250 PH# 12
13	BENZO(A)PYRENE	252 PH# 13
14	BENZO(A)PYRENE	250 PH# 14

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	264	3660	30:30	1	1.000	A BB	35958.	80.000	NG/ML	18.53
2	240	3250	27:05	1	0.888	A BV	42634.	57.907	NG/ML	13.41
3	228	3245	27:02	1	0.887	A VV	6074.	8.978	NG/ML	2.08
4	226	3239	26:59	1	0.885	A VV	5122.	32.395	NG/ML	7.50
5	228	3255	27:07	1	0.889	A VV	22279.	32.960	NG/ML	7.63
6	226	3257	27:08	1	0.890	A VV	7346.	38.669	NG/ML	8.96
7	252	3570	29:45	1	0.975	A BV	10406.	15.735	NG/ML	3.64
8	250	3570	29:45	1	0.975	A BV	5612.	31.188	NG/ML	7.22
9	252	3578	29:49	1	0.978	A VB	7666.	11.850	NG/ML	2.74
10	250	3579	29:49	1	0.978	A VB	1452.	8.621	NG/ML	2.00
11	252	3595	29:57	1	0.982	A BV	5150.	7.659	NG/ML	1.77
12	250	3595	29:57	1	0.982	A BV	5814.	39.138	NG/ML	9.07
13	252	3664	30:32	1	1.001	A VB	8968.	15.603	NG/ML	3.61
14	250	3664	30:32	1	1.001	A VB	5817.	51.041	NG/ML	11.82

COLUMN 1: J:AB12641
COLUMN 2: J:BB12641

59436-20
20%

UNITS ON AMOUNT: ug/ml

01483

LIBRARY ENTRY	COMPONENT NAME	COLUMN 1 AMOUNT	COLUMN 1 %DIFF RT	COLUMN 2 AMOUNT	COLUMN 2 %DIFF RT	COLUMN AVERAGE

DBC

A) $\frac{24.5}{24.0}(100\%) = 102\%$

B) $\frac{21.0}{22.0}(100\%) = 95\%$

Lindane

A) $0.0005\ ug/ml \left(\frac{10\ ml}{0.95\ l}\right)\left(\frac{100\%}{20\%}\right) = 0.0263\ ug/l$ ∴ BOL NO(0.05 ug/l)

DBC Recovery = 95%
NO HSL Pests/PCBs detected

NA - COLUMN AVERAGE IS NOT APPLICABLE BECAUSE THE %DIFFERENCE(AMOUNTS) > 10%

RESULT FILE: J:AB12641 05/09/88 59936-20 LIBRARY: J:SS1018

01484

LIB ENT	COMPONENT NAME	RETENTION TIME EXPECTED	RETENTION TIME MEASURED	PEAK NUMB	PEAK AREA	AMOUNT	UNITS
002	LINDANE	1.967	1.917	5	3585	.0005	ug/ml
018	p,p'-DDT	12.767	12.800	8	13020	.0028	ug/ml
022	TOXAPHENE (peak 3)	12.483	12.800	8	13020	.0443	ug/ml
047	DBC (surrogate)	26.833	26.850	9	84637	.0146	ug/ml

~ = CALCULATED BY INTERPOLATION OUTSIDE THE RANGE OF APPLICABILITY

RESULT FILE: J:2612641 05/07/89 59936.20 LIBRARY 01485 MIX9

LIB ENT	COMPONENT NAME	RETENTION TIME EXPECTED	RETENTION TIME MEASURED	PEAK NUMB	PEAK AREA	AMOUNT	UNITS
001	alpha BHC	1.383	1.400	6	943	.0001	ug/ml
004	delta-BHC	2.450	2.467	10	1879	.0002	ug/ml
005	HEPTACHLOR	2.233	2.317	9	1272	.0001	ug/ml
008	gamma-CHLORDANE	4.733	4.633	14	2484	.0021	ug/ml
017	ENDOSULFAN SULFATE	16.550	16.117	16	52542	.0061	ug/ml
024	AROCLOR 1016(peak 2)	1.650	1.633	7	5141	.0088	ug/ml
030	AROCLOR 1242(peak 2)	1.650	1.633	7	5141	.0093	ug/ml
033	AROCLOR 1248(peak 2)	2.833	2.817	11	1540	.0024	ug/ml
048	ENDRIN KETONE	22.267	22.133	17	158909	.0039	ug/ml

~ = CALCULATED BY INTERPOLATION OUTSIDE THE RANGE OF APPLICABILITY

AREA PERCENT REPORT

01486 *

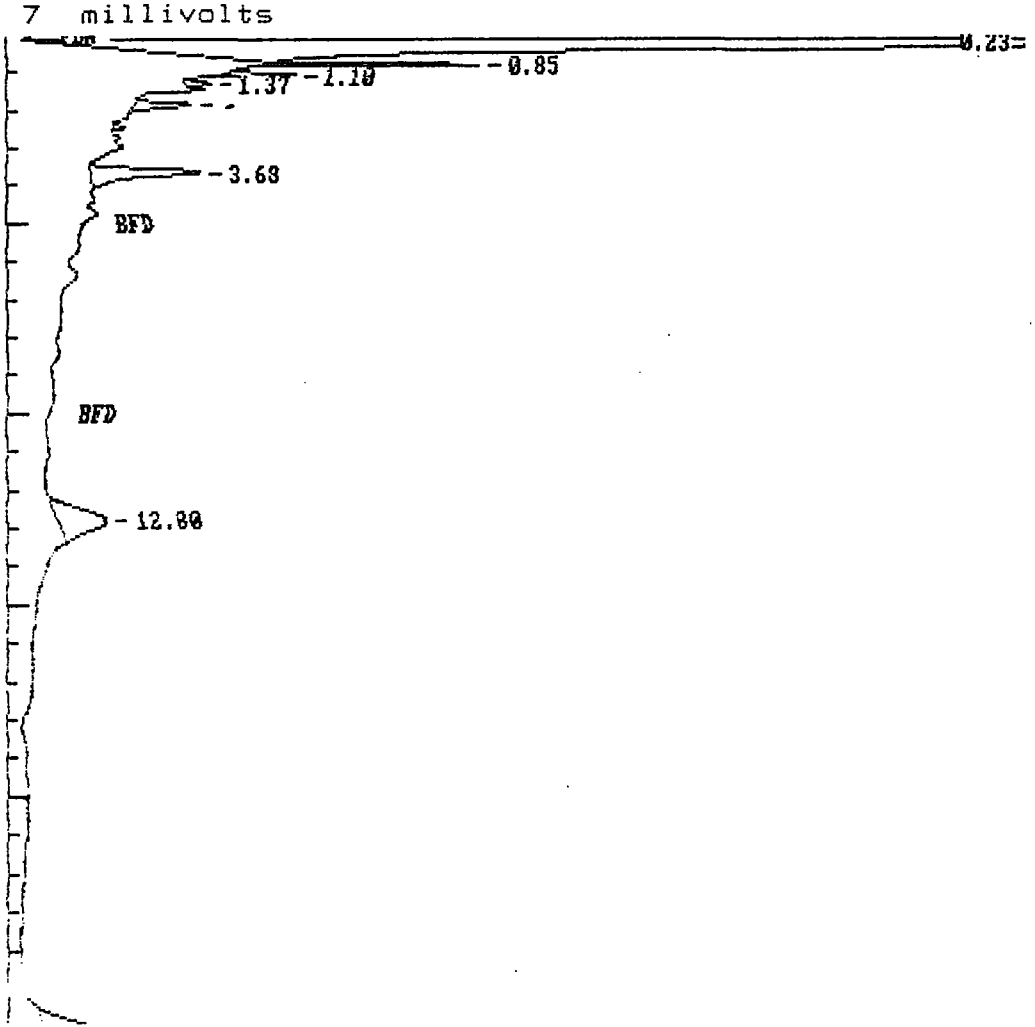
```
******************** 05-08-1988 12:08:51 Version 4.1 ********************
* Sample Name: 59436 20 20%                    Data File: J:AB12641      *
* Date: 05-07-1988 10:10:50 Method: M:ABPI                               *
* Interface: 10  Cycle#:  41   Operator SS  Channel#: 0    Vial#: N.A.   *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100           *
*************************************************************************
* Instrument Type: HP 5880A              Column Type: 6FT X 2MM ID GLASS *
*            Solvent Description: 1.5% SP2250/1.95% SP2401               *
* Conditions: 190 DEGREES ISOTHERMAL                                     *
*            Detector 0: ECD                  Detector 1:               *
* Misc. Information: 4 UL INJECTION                     LPT1:        *  *
*************************************************************************
Starting Delay:   0.00                          Run Time:   35.00
```

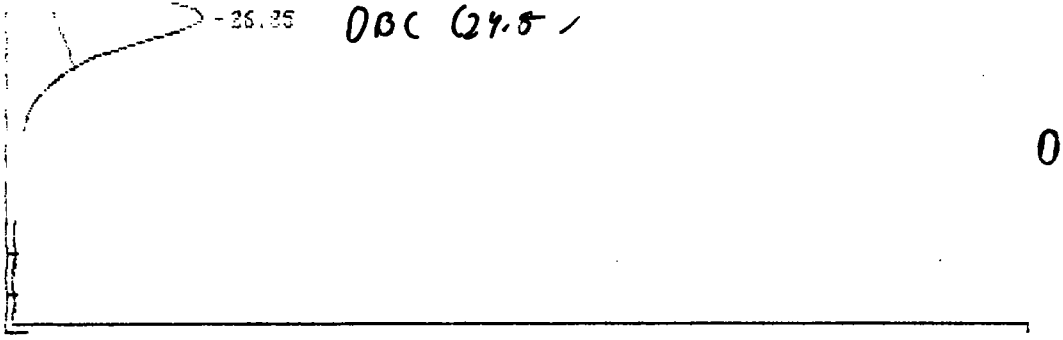
Pk No.	Ret Time	Peak Area	Area %	B L.	Peak Ht.	Normalized %	Area/ Height
1	0.23	607391	83.2223	1	126736	100.000	4.8
2	0.85	5396	0.7393	1	1517	0.888	3.6
3	1.10	2789	0.3821	1	558	0.459	5.0
4	1.37	1190	0.1630	1	161	0.196	7.4
5	1.92	3585	0.4912	1	389	0.590	9.2
7	3.68	11835	1.6215	1	754	1.948	15.7
8	12.80	13020	1.7839	1	337	2.144	38.7
9	26.85	84637	11.5966	1	1017	13.935	83.2

SS
5/12/88

Total Area: 729842 Area Reject: 1000 One sample per 1.000 sec.

Data File = J:AB12641.PTS Printed on 05-08-1988 at 12:09:16
Start time: 0.00 min. Stop time: 35.00 min. Offset: 0 mv.
Full Range: 7 millivolts





01487

********** AREA PERCENT REPORT **********

01488

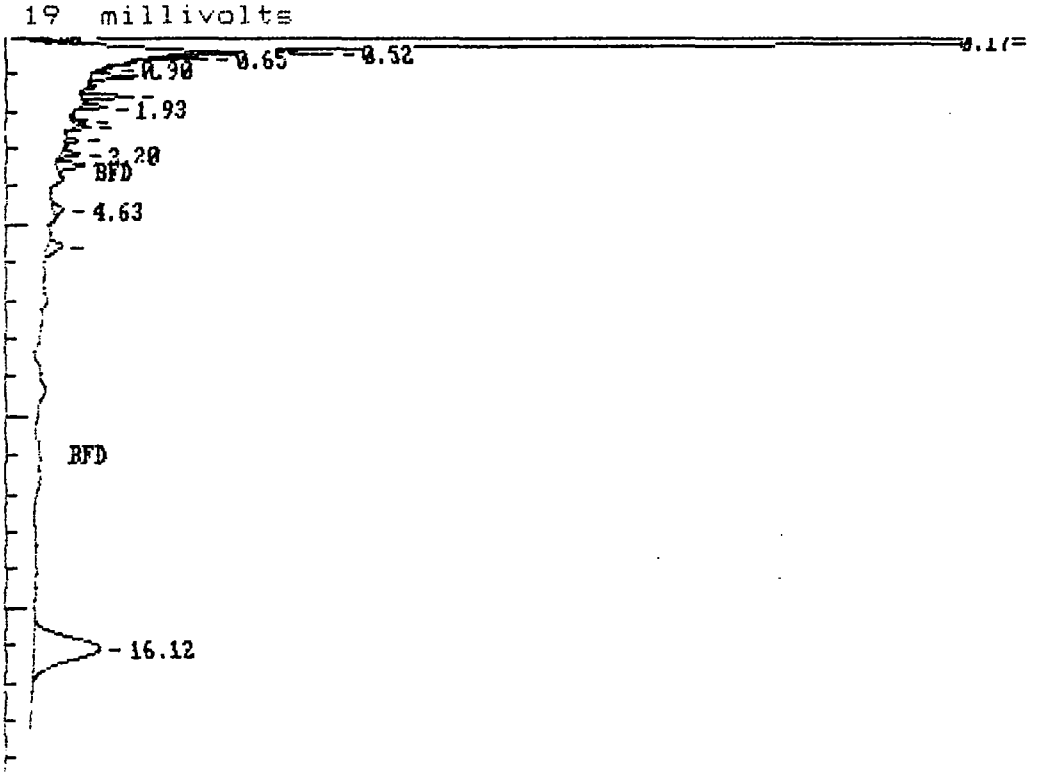
```
******************** 05-08-1988 12:42:06 Version 4.1 ********************
* Sample Name: 59436 20 20%                    Data File: J:8B12641      *
* Date: 05-07-1988 09:35:54 Method: M:SBPI                               *
* Interface: 12  Cycle#:  41   Operator SS  Channel#: 0    Vial#: N.A.   *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100           *
**************************************************************************
* Instrument Type: HP 5880A              Column Type: 6FT X 2MM ID GLASS *
*            Solvent Description: 1.5% SP2250/1.95% SP2401               *
* Conditions: 190 DEG ISOTHERMAL                                         *
*            Detector 0:                        Detector 1: ECD          *
* Misc. Information: 4 UL INJ                                            *
**************************************************************************
Starting Delay:   0.00                          Run Time:   35.00
```

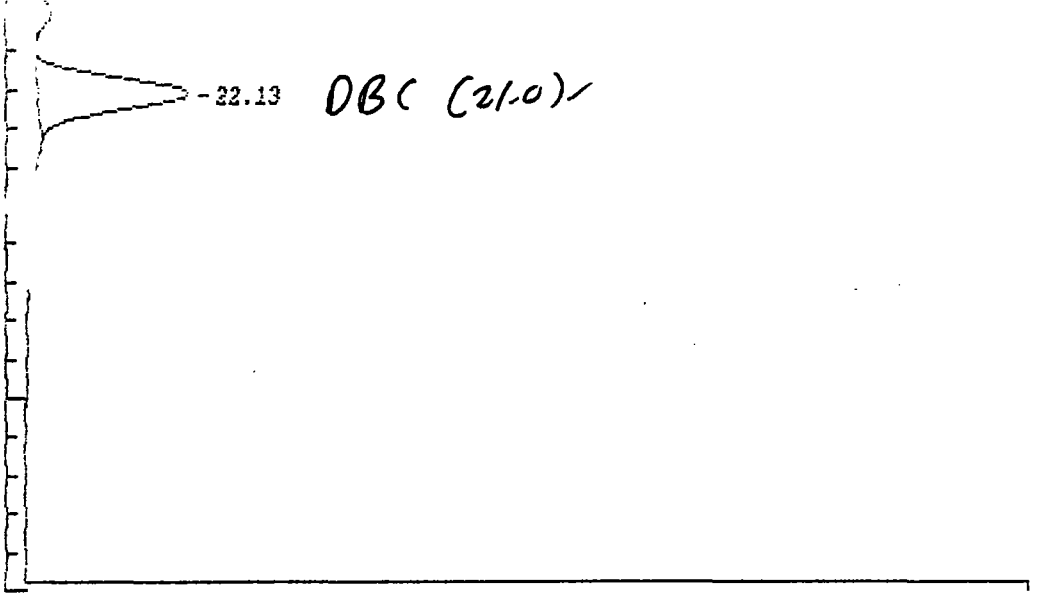
Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	0.17	929613	78.3176	1	210966	100.000	4.4
2	0.52	7269	0.6124	1	2773	0.782	2.6
3	0.65	3490	0.2940	1	1122	0.375	3.1
4	0.90	1173	0.0988	1	219	0.126	5.4
5	1.12	6001	0.5056	1	893	0.646	6.7
7	1.63	5141	0.4331	1	955	0.553	5.4
8	1.93	3255	0.2742	1	535	0.350	6.1
9	2.32	1272	0.1072	1	224	0.137	5.7
10	2.47	1879	0.1583	1	330	0.202	5.7
11	2.82	1540	0.1297	1	252	0.166	6.1
12	3.20	2563	0.2159	1	370	0.276	6.9
13	3.50	5050	0.4255	1	530	0.543	9.5
14	4.63	2484	0.2092	1	193	0.267	12.9
15	5.62	4800	0.4043	1	275	0.516	17.4
16	16.12	52542	4.4265	1	1250	5.652	42.0
17	22.13	158909	13.3877	1	2804	17.094	56.7

SS
5/12/88

Total Area: 1186978 Area Reject: 1000 One sample per 1.000 sec.

Data File = J:8B12641.PTS Printed on 05-08-1988 at 12:42:31
Start time: 0.00 min. Stop time: 35.00 min. Offset: 0 mv.
Full Range: 19 millivolts





01489

ORGANICS ANALYSIS DATA SHEET
(Page 1)

01490

Sample Number : 59436-21

Laboratory Name: Rocky Mountain Analytical Lab
Laboratory Sample ID. Number : 59436-21
Sample Matrix : Water
Data Released Authorized By : JCL

Case Number : N/A
Q.C. Report No: 59436
Contract No. : N/A
Date Sample Rec: 04/20/88

Volatile Compounds

Concentration :	Low
Date Extracted/Prepared :	N/A
Date Analyzed :	04/29/88
Conc./Dilution Factor :	1.0
pH :	7.00
Percent Moisture :	100%
Percent Moisture (Decanted) :	N/A

CAS Number		Value	ug/L	CAS Number		Value	ug/L
74-83-3	Chloromethane		10 U	79-34-5	1,1,2,2-Tetrachloroethane		5 U
74-83-9	Bromomethane		10 U	78-87-5	1,2-Dichloropropane		5 U
75-01-4	VinylChloride		10 U	10061-02-6	Trans-1,3-Dichloropropene		5 U
75-00-3	Chloroethane		10 U	79-10-6	Trichloroethene		5 U
75-09-2	MethyleneChloride	6.0	B	124-48-1	Dibromochloromethane		5 U
67-64-1	Acetone	7.8	J B	79-00-5	1,1,2-Trichloroethane		5 U
75-15-0	CarbonDisulfide		5 U	71-43-2	Benzene		5 U
75-35-4	1,1-Dichloroethene		5 U	10061-01-5	cis-1,3-Dichloropropene		5 U
75-34-3	1,1-Dichloroethane		5 U	110-75-8	2-Chloroethylvinylether		10 U
156-60-5	Trans-1,2-Dichloroethene		5 U	75-25-2	Bromoform		5 U
67-66-3	Chloroform		5 U	591-78-6	2-Hexanone		10 U
107-06-2	1,2-Dichloroethane		5 U	108-10-1	4-Methyl-2-Pentanone		10 U
78-93-3	2-Butanone		10 U	127-18-4	Tetrachloroethene		5 U
71-55-6	1,1,1-Trichloroethane		5 U	108-88-3	Toluene		5 U
56-23-5	CarbonTetrachloride		5 U	108-90-7	Chlorobenzene		5 U
108-05-4	VinylAcetate		10 U	100-41-4	Ethylbenzene		5 U
75-27-4	Bromodichloromethane		5 U	100-42-5	Styrene		5 U
					Total Xylenes		5 U

U - compound was not detected
J - concentration detected is less than the required detection limit
B - compound was detected in the blank
sp - compound was a spike

10/85 Rev

Form I

Laboratory Name: Rocky Mountain Analytical
Case Number: N/A
Q.C. Number: 59436

Sample Number
59436-21

ORGANIC ANALYSIS DATA SHEET
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Conc. ug/l
1.	Unknown	VOA	36	15 B
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
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21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

4/29/88 14:11:53 SCAN 1 OF 730
Acquisition started

01492

Acquire
04/29/88 14:11:00 + 0:03
Sample: 59436-21 VOA H2O 100%/5ML
Conds.: GC DESC V3
Formula:
Submitted by: RMAL

Run 3:S59436W920
Free sectors: 19792
Instrument: 5100
Analyst: DC

Acquiring
Scan: 1 of 730
Weight: 0.026
Acct. No: 59436

*** GC descriptor: V3 ***

GC temperature: 64 DegC
Elapsed time : 0: 3 min

Injector: 50 DegC
Interface: 220 DegC

Seq. #	Temp (DegC)	Rate (C/min)	Time (minutes) period	Time (minutes) total
1	60- 60	-	2.0	2.0
2	60-250	7.0	27.1	29.1
3	250-250	-	10.0	39.1
4	250-250	-	0.0	39.1

Valve times (minutes)

	Open	Close
Sweep/Split	36.1	0.0
Divert	36.1	0.8

*** Scan Parameters ***

Low mass: 40 u
High mass: 260 u

Scan time (s)
Up: 2.95 L*
Down: 0.00 L

Hold time (s)
Top: 0.00
Bottom: 0.05

Cent S/P: 10 Actual: 67
Frag S/P: 10 Actual: 10

Samp int (ms): 0.200
Samp int (ms): 1.400

Peak width: 1000.
Inten/ion: 2

Min peak width: 3
ADC threshold: 1

Min frag width %: 81
Baseline: 0

Min area: 20

MODE: EI (+) Centroid + Temp

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	Q	
Full scale mass	812	u
Zero scale mass	1	u
Intensity/ion	2	
Peak width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(ms)	4	

Current instrument parameters.

	Positive ion mode	Negative ion mode
Resolution (high)	126.00	128.00
Resolution (low)	125.00	128.00
Ion energy	1.88	-4.00
Ion programming	5.41	-4.00
Lens voltage	-80.00	50.20
Extractor voltage	0.94	not used

Electron multiplier voltage: -2106.
Electrometer Range: 10 ^-7
Electrometer zero: -4.4

4/29/88 14:48:27
Acquisition completed
Scans 1 to 730 centroid

Mode	Scans	Secs	out of	%	Peaks per scan	per second	
Centroid	730	45.8	2190.0	2.1	18094.	25.	8.

TIC = Tentatively Identified Compound

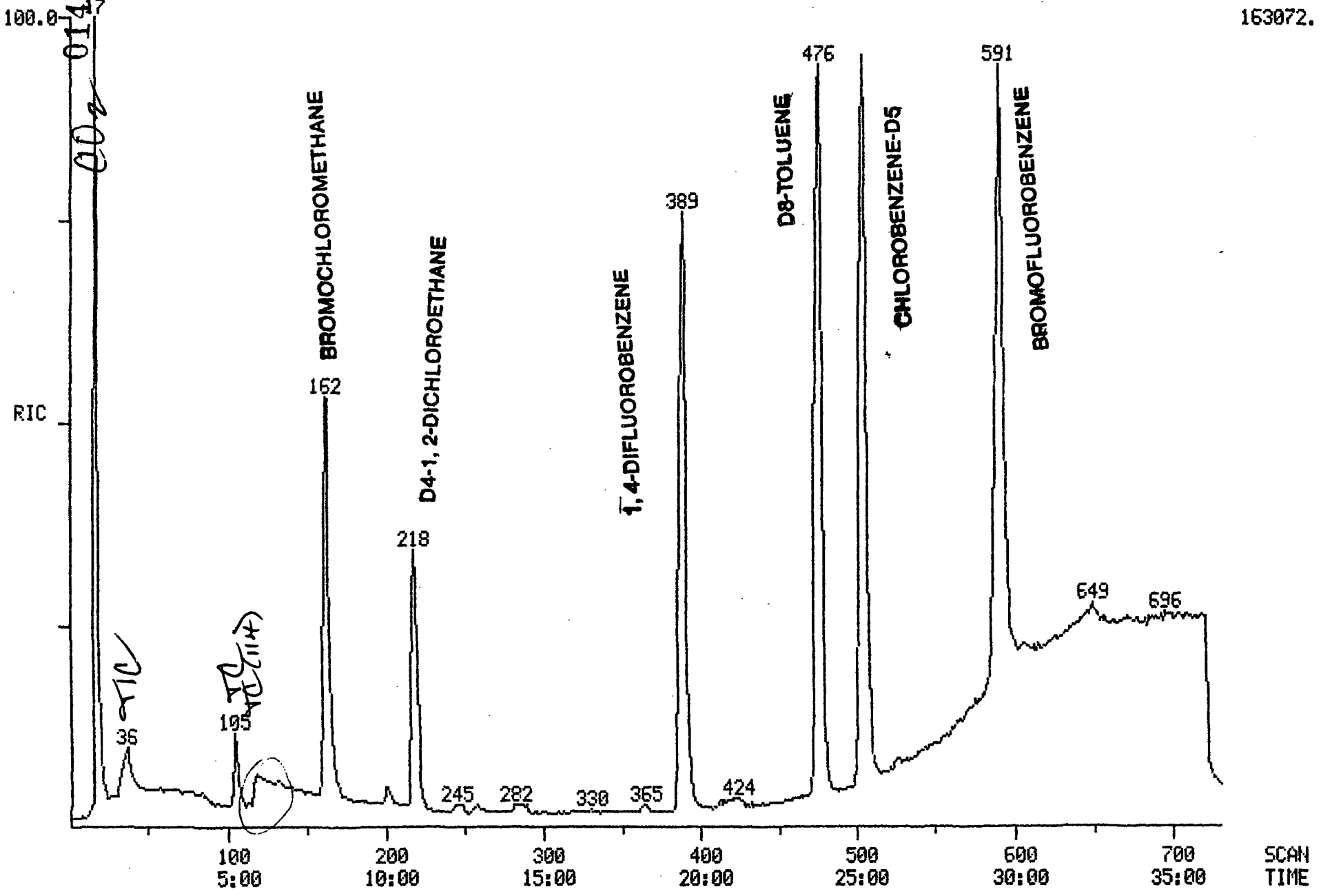
TC = Target Compound

SC = Spike Compound

RIC
04/29/88 14:11:00
SAMPLE: 59436-21 VOA H2O 100%/5ML
CONDS.: GC DESC V3
RANGE: G 1, 730 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 559436W920 #4 SCANS 1 TO 730
CALI: 042988CW #3

01493



PROCEDURE: TCA DIAGNOSTIC REPORT 4/29/88 14:50:52
DATA FILE: S59436W920
REFERENCE: 11TABLE
NAME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: ISO1

< ---- STANDARDS ----- >				< --- PLUS UNKNOWNS --- >				< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	1	0	9	3	8	12	ISO1/TCO1
3	3	6	0	18	6	6	52	ISO2/TCO2
3	3	1	0	12	6	9	110	ISO3/TCO3
1	1	1	0	7	2	1	0	ISO4/TCO4

41 COMPOUNDS PROCESSED, 12 FOUND

< COMPOUND >				< ---------- SEARCH ---------- >				< SAT >	< ------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	V1	1	-161	162	162	.	1	965	.	128	162	.	1
2	V1	10	-28	26	.	.	.	.	.	50	.	.	.
3	V1	15	-44	43	.	.	.	.	.	94	.	.	.
4	V1	25	-56	55	.	.	.	.	.	62	.	.	.
5	V1	35	-70	69	.	.	.	.	.	64	.	.	.
6	V1	45	-105	105	105	.	1	985	.	84	105	.	1
7	V1	50	-114	114	114	.	8	1000	.	58	114	.	1
8	V1	65	-132	132	.	.	.	.	.	76	.	.	.
9	V1	80	-153	154	.	.	.	.	.	96	.	.	.
10	V2	1	-388	389	389	.	2	992	.	114	389	.	1
11	V3	1	-503	504	504	.	3	995	.	117	504	.	1
12	V1	90	-179	179	.	.	.	.	.	63	.	.	.
13	V1	95	-193	193	.	.	.	.	.	96	.	.	.
14	V1	100	-204	205	.	.	.	.	.	83	.	.	.
15	V1	2	-218	219	218	-1	1	987	.	65	218	.	1
16	V2	10	-218	219	218	-1	2	842	.	72	.	.	.
17	V1	110	-220	221	.	.	.	.	.	62	.	.	.
18	V2	15	-248	249	.	.	.	.	.	97	.	.	.
19	V2	20	-256	257	.	.	.	.	.	117	.	.	.
20	V2	25	-259	260	260	.	3	970	.	43	.	.	.
21	V2	30	-267	268	.	.	.	.	.	83	.	.	.
22	V2	35	-298	299	.	.	.	.	.	63	.	.	.
23	V2	40	-304	305	.	.	.	.	.	75	.	.	.
24	V2	45	-316	317	.	.	.	.	.	130	.	.	.
25	V2	60	-329	330	.	.	.	.	.	78	.	.	.
26	V2	50	-330	331	.	.	.	.	.	129	.	.	.
27	V2	65	-333	334	.	.	.	.	.	75	.	.	.
28	V2	55	-333	334	.	.	.	.	.	97	.	.	.
29	V2	80	-393	394	.	.	.	.	.	173	.	.	.
30	V3	10	-404	405	407	2	3	916	.	58	.	.	.
31	V3	15	-441	442	441	-1	3	954	.	58	.	.	.
32	V3	25	-447	448	.	.	.	.	.	83	.	.	.
33	V3	20	-448	449	.	.	.	.	.	164	.	.	.
34	V3	2	-475	476	476	.	1	993	.	98	476	.	1
35	V3	35	-480	481	.	.	.	.	.	92	.	.	.
36	V3	40	-506	507	.	.	.	.	.	112	.	.	.
37	V3	50	-549	549	.	.	.	.	.	106	.	.	.
38	V3	3	-591	591	591	.	1	990	.	95	591	.	1
39	V3	55	-611	611	.	.	.	.	.	104	.	.	.
40	V3	60	-615	615	.	.	.	.	.	106	.	.	.
41	V3	75	-628	628	.	.	.	.	.	106	.	.	.

Quantitation Report File: S59436W920

01495

Data: S59436W920.TI
04/29/88 14:11:00
Sample: 59436-21 VOA H2O 100%/5ML
Conds.: GC DESC V3
Formula: Instrument: 5100 Weight: 0.026
Submitted by: RMAL Analyst: DC Acct. No.: 59436

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

No	Name				
1	CI01 BROMOCHLOROMETHANE	128	IV1#	01	74-97-5
2	C010 CHLOROMETHANE	50	V1#	10SP	74-87-3
3	C015 BROMOMETHANE	94	V1#	15	74-83-9
4	C020 VINYL CHLORIDE	62	V1#	25	75-01-4
5	C025 CHLOROETHANE	64	V1#	35	75-00-3
6	C030 METHYLENE CHLORIDE	84	V1#	45	75-09-2
7	C035 ACETONE	58	V1#	50	67-64-1
8	C040 CARBON DISULFIDE	76	V1#	65	75-15-0
9	C045 1,1-DICHLOROETHENE	61	V1#	80	75-35-4
10	CI10 1,4-DIFLUOROBENZENE	114	IV2#	01	540-36-3
11	CI20 CHLOROBENZENE-D5	117	IV3#	01	3114-55-4
12	C050 1,1-DICHLOROETHANE	63	V1#	90	75-34-3
13	TRANS-1,2-DICHLOROETHENE	61	V1#	95	156-60-5
14	C060 CHLOROFORM	83	V1#	100CC	67-66-3
15	CS15 1,2-DICHLOROETHANE-D4	65	SV1#	02	17060-07-0
16	C110 2-BUTANONE	72	V2#	10	78-93-3
17	C065 1,2-DICHLOROETHANE	62	V1#	110	107-06-2
18	C115 1,1,1-TRICHLOROETHANE	97	V2#	15	71-55-6
19	C120 CARBONTETRACHLORIDE	117	V2#	20	56-23-5
20	C125 VINYL ACETATE	43	V2#	25	108-05-4
21	C130 BROMODICHLOROMETHANE	83	V2#	30	75-27-4
22	C140 1,2-DICHLOROPROPANE	63	V2#	35CC	78-87-5
23	C143 CIS-1,3-DICHLOROPROPENE	75	V2#	40	10061-01-5
24	C150 TRICHLOROETHENE	130	V2#	45	79-01-6
25	C165 BENZENE	78	V2#	60	71-43-2
26	C155 DIBROMOCHLOROMETHANE	129	V2#	50	124-48-1
27	C172 TRANS-1,3-DICHLOROPROPE	75	V2#	65	10061-02-6
28	C160 1,1,2-TRICHLOROETHANE	97	V2#	55	79-00-5
29	C180 BROMOFORM	173	V2#	80	75-25-2
30	C205 4-METHYL-2-PENTANONE	58	V3#	10	108-10-1
31	C210 2-HEXANONE	58	V3#	15	591-78-6
32	C225 1,1,2,2-TETRACHLOROETHA	83	V3#	25SP	79-34-5
33	C220 TETRACHLOROETHENE	164	V3#	20	127-18-4
34	CS05 TOLUENE-D8	98	SV3#	02	2037-26-5
35	C230 TOLUENE	92	V3#	35	108-88-3
36	C235 CHLOROBENZENE	112	V3#	40	108-90-7
37	C240 ETHYLBENZENE	106	V3#	50	100-41-4
38	CS10 BROMOFLUOROBENZENE	95	SV3#	03	460-00-4
39	C245 STYRENE	104	V3#	55	100-42-5
40	M-XYLENE	106	V3#	60	108-38-3
41	O+P XYLENES	106	V3#	75	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	162	8:06	1	1.000	A BB	36625.	50.000 UG/L	16.05
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	84	105	5:15	1	0.648	A BB	9429.	5.989 UG/L	1.92
7	58	114	5:42	1	0.704	A BB	989.	7.803 UG/L	2.50
8	NOT FOUND								
9	NOT FOUND								
10	114	389	19:27	10	1.000	A BB	219778.	50.000 UG/L	16.05
11	117	504	25:12	11	1.000	A BB	211697.	50.000 UG/L	16.05
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	65	218	10:54	1	1.346	A BB	70918.	45.228 UG/L	14.51
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	98	476	23:48	11	0.944	A BB	229884.	50.440 UG/L	16.19
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	95	591	29:33	11	1.173	A BB	135749.	52.178 UG/L	16.74
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:06	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:24		0.173						
3	2:12		0.272						
4	2:48		0.346						
5	3:30		0.432						
6	5:15	1.00	0.648	1.00	5.99	50.00	0.257	2.149	0.12
7	5:42	1.00	0.704	1.00	7.80	50.00	0.027	0.173	0.16
8	6:36		0.815						
9	7:39		0.944						
10	19:27	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
11	25:12	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
12	8:57		1.105						
13	9:39		1.191						

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
14	10:12		1.259						
15	10:54	1.00	1.346	1.00	45.23	50.00	1.936	2.141	0.90
16	10:54		0.560						
17	11:00		1.358						
18	12:24		0.638						
19	12:48		0.658						
20	12:57		0.666						
21	13:21		0.686						
22	14:54		0.766						
23	15:12		0.781						
24	15:48		0.812						
25	16:27		0.846						
26	16:30		0.848						
27	16:39		0.856						
28	16:39		0.856						
29	19:39		1.010						
30	20:12		0.802						
31	22:03		0.875						
32	22:21		0.887						
33	22:24		0.889						
34	23:45	1.00	0.942	1.00	50.44	50.00	1.086	1.076	1.01
35	24:00		0.952						
36	25:18		1.004						
37	27:27		1.089						
38	29:33	1.00	1.173	1.00	52.18	50.00	0.641	0.614	1.04
39	30:33		1.212						
40	30:45		1.220						
41	31:24		1.246						

TCA FINISHED, 12 FOUND
FINISHED AT: 4/29/88 14:55:41

RMAL QUANTITATION SUMMARY FILE: S59436W920
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/L

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	V1# 1	CI01 BROMOCHLOROMETHANE	128	162	1	36625.	1.000	50.000
2	V2# 1	CI10 1,4-DIFLUOROBENZENE	114	389	2	219778.	1.000	50.000
3	V3# 1	CI20 CHLOROBENZENE-D5	117	504	3	211697.	1.000	50.000
4	V3# 2	CS05 TOLUENE-D8	98	476	3	229884.	1.086	50.440
5	V3# 3	CS10 BROMOFLUOROBENZENE	95	591	3	135749.	0.641	52.178
6	V1# 2	CS15 1,2-DICHLOROETHANE-	65	218	1	70918.	1.936	45.228
7	V1# 10	C010 CHLOROMETHANE	50		1	NOT FOUND		
8	V1# 15	C015 BROMOMETHANE	94		1	NOT FOUND		
9	V1# 25	C020 VINYL CHLORIDE	62		1	NOT FOUND		
10	V1# 35	C025 CHLOROETHANE	64		1	NOT FOUND		
11	V1# 45	C030 METHYLENE CHLORIDE	84	105	1	9429.	0.257	5.989 B
12	V1# 50	C035 ACETONE	58	114	1	989.	0.027	7.803 B
13	V1# 65	C040 CARBON DISULFIDE	76		1	NOT FOUND		
14	V1# 80	C045 1,1-DICHLOROETHENE	96		1	NOT FOUND		
15	V1# 90	C050 1,1-DICHLOROETHANE	63		1	NOT FOUND		
16	V1# 95	TRANS-1,2-DICHLOROETHENE	96		1	NOT FOUND		
17	V1#100	C060 CHLOROFORM	83		1	NOT FOUND		
18	V1#110	C065 1,2-DICHLOROETHANE	62		1	NOT FOUND		
19	V2# 10	C110 2-BUTANONE	72		2	NOT FOUND		
20	V2# 15	C115 1,1,1-TRICHLOROETHA	97		2	NOT FOUND		
21	V2# 20	C120 CARBONTETRACHLORIDE	117		2	NOT FOUND		
22	V2# 25	C125 VINYL ACETATE	43		2	NOT FOUND		
23	V2# 30	C130 BROMODICHLOROMETHAN	83		2	NOT FOUND		
24	V2# 35	C140 1,2-DICHLOROPROPANE	63		2	NOT FOUND		
25	V2# 40	C143 CIS-1,3-DICHLOROPRO	75		2	NOT FOUND		
26	V2# 45	C150 TRICHLOROETHENE	130		2	NOT FOUND		
27	V2# 50	C155 DIBROMOCHLOROMETHAN	129		2	NOT FOUND		
28	V2# 55	C160 1,1,2-TRICHLOROETHA	97		2	NOT FOUND		
29	V2# 60	C165 BENZENE	78		2	NOT FOUND		
30	V2# 65	C172 TRANS-1,3-DICHLOROP	75		2	NOT FOUND		
31	V2# 80	C180 BROMOFORM	173		2	NOT FOUND		
32	V3# 10	C205 4-METHYL-2-PENTANON	58		3	NOT FOUND		
33	V3# 15	C210 2-HEXANONE	58		3	NOT FOUND		
34	V3# 20	C220 TETRACHLOROETHENE	164		3	NOT FOUND		
35	V3# 25	C225 1,1,2,2-TETRACHLORO	83		3	NOT FOUND		
36	V3# 35	C230 TOLUENE	92		3	NOT FOUND		
37	V3# 40	C235 CHLOROBENZENE	112		3	NOT FOUND		
38	V3# 50	C240 ETHYLBENZENE	106		3	NOT FOUND		
39	V3# 55	C245 STYRENE	104		3	NOT FOUND		
40	V3# 60	M-XYLENE	106		3	NOT FOUND		
41	V3# 75	O+P XYLENES	106		3	NOT FOUND		

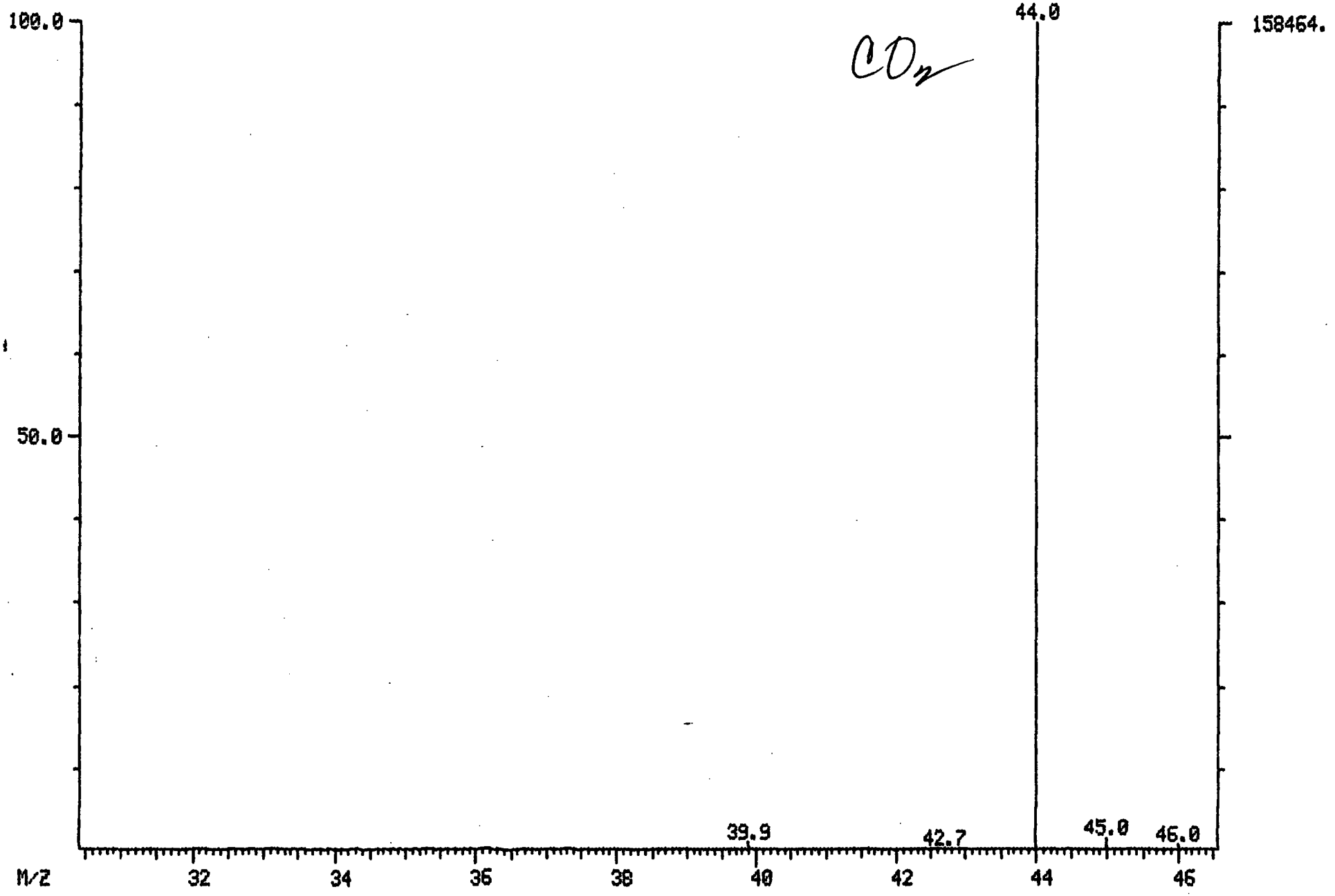
4-5-88

01499

MASS SPECTRUM
04/29/88 14:11:00 + 0:51
SAMPLE: 59436-21 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 64 DEG. C

DATA: 559436W920 #17
CALI: 042988CW #3

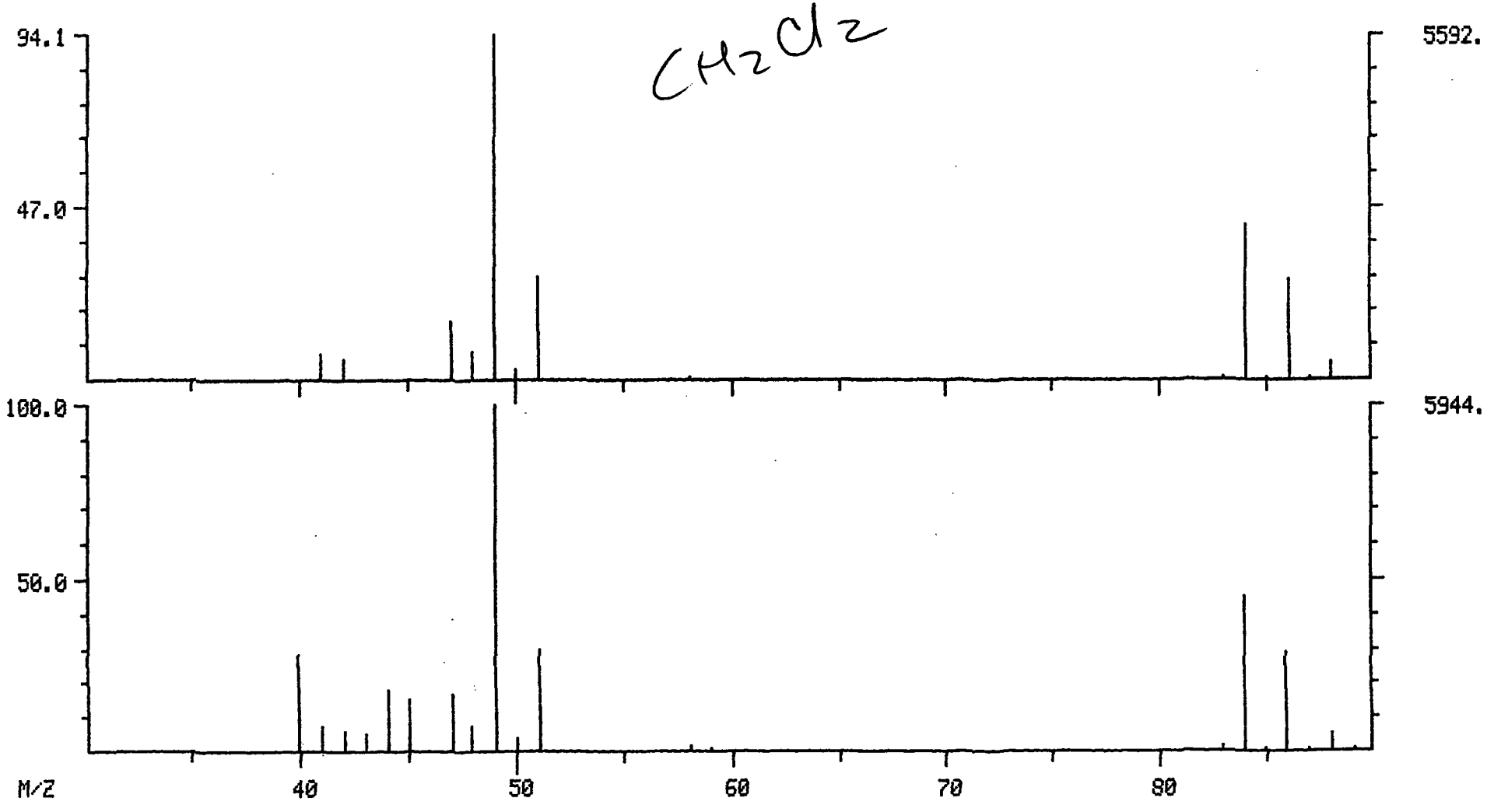
BASE M/Z: 44
RIC: 163072.



01500

DUAL MASS SPECTRUM
04/29/88 14:11:00 + 5:15
SAMPLE: 59436-21 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 83 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W920 #105 BASE M/Z: 49/ 49
CALI: 042988CW #3 RIC: 14063./ 19071.



01501

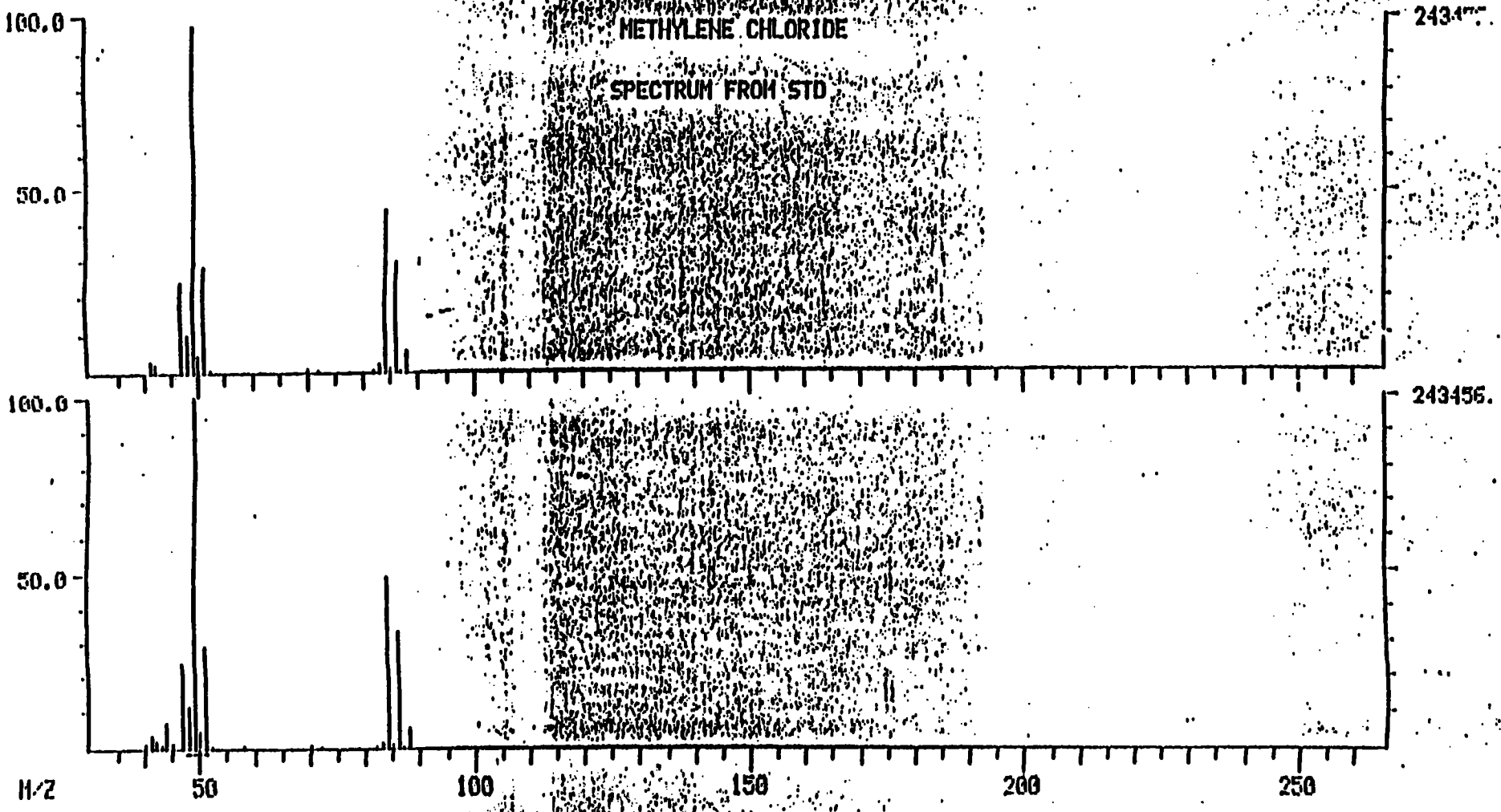
DUAL MASS SPECTRUM
10/13/86 10:38:00 + 6:55
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: STDJ198 #136
CALI: STDJ198 #1

BASE M/Z: 49/ 49
RIC: 615423./ 678911.

METHYLENE CHLORIDE

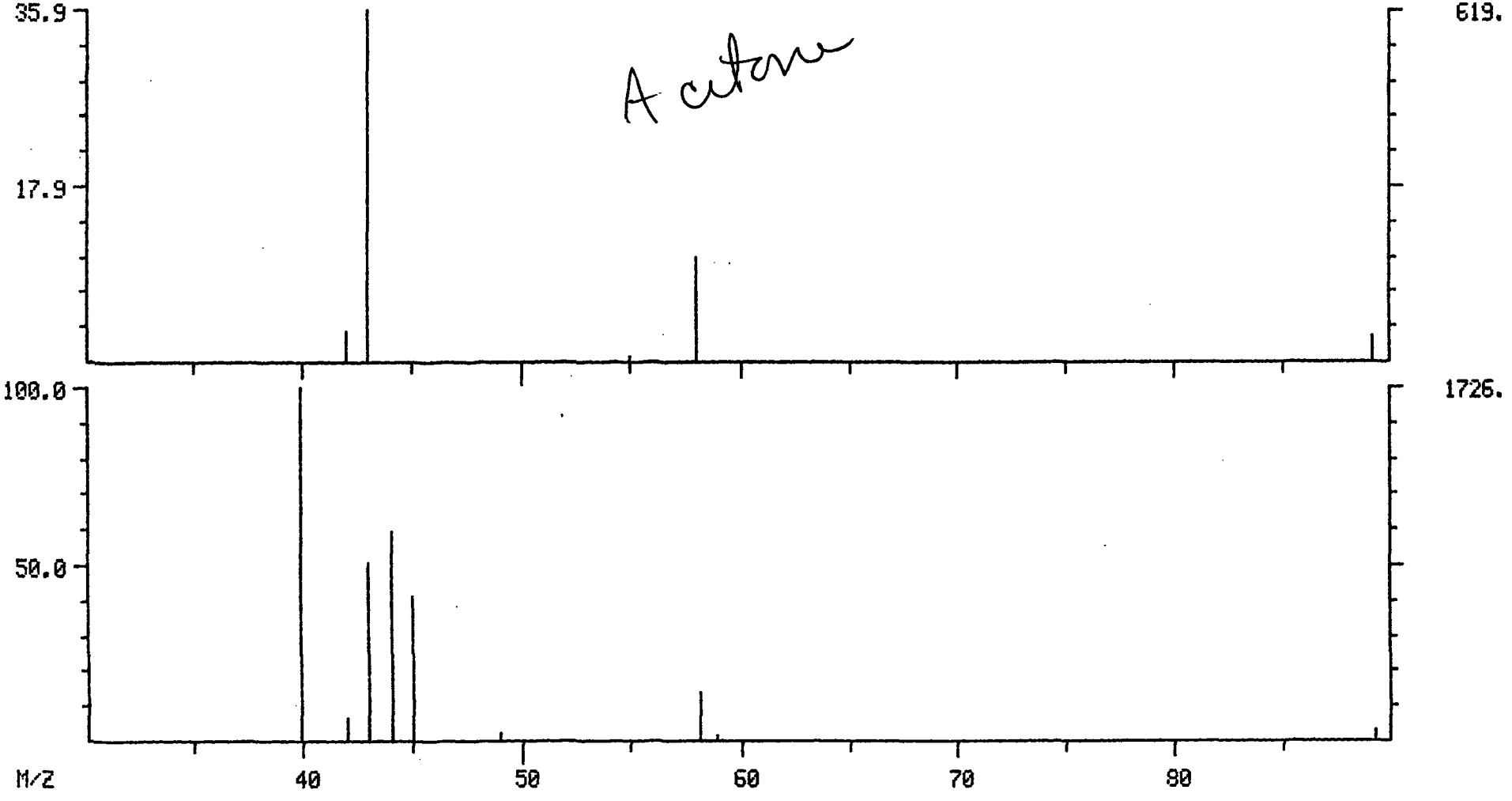
SPECTRUM FROM STD



01502

DUAL MASS SPECTRUM
04/29/88 14:11:00 + 5:42
SAMPLE: 59436-21 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 86 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W920 #114 BASE M/Z: 43/ 40
CALI: 042988CW #3 RIC: 909./ 4815.

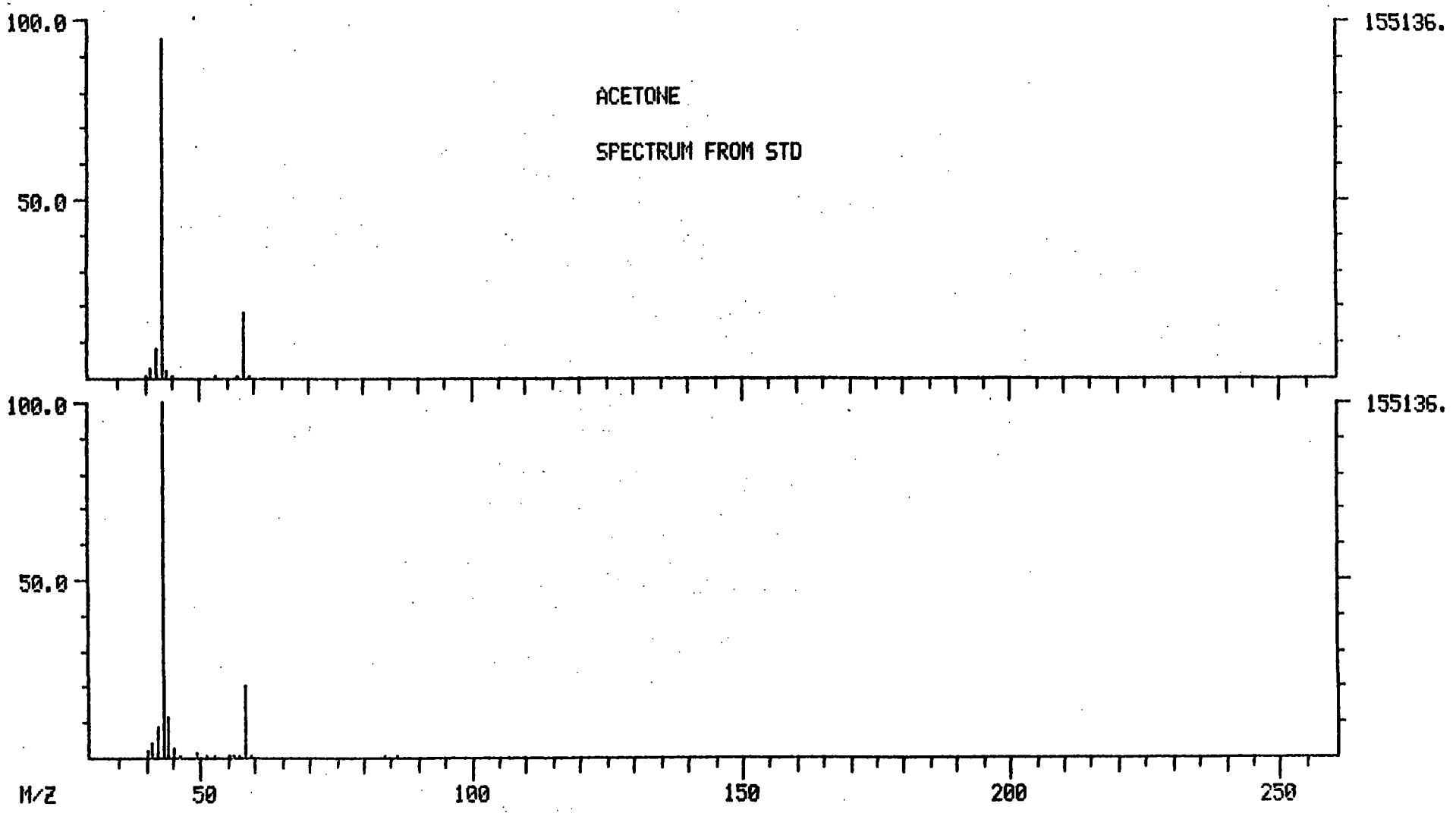


01503

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 7:37
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: STDJ198 #150
CALI: STDJ198 #1

BASE M/Z: 43/ 43
RIC: 199935./ 247807.



Quantitation Report File: TEMP

01504

Data: S59436W920.TI
04/29/88 14:11:00
Sample: 59436-21 VOA H2O 100%/5ML
Conds.: GC DESC V3
Formula: Instrument: 5100 Weight: 0.026
Submitted by: RMAL Analyst: DC Acct. No.: 59436

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

No	CAS #	Name
1	0-00-0	UNKNOWN
2	0-00-0	UNKNOWN
3	0-00-0	UNKNOWN
4	112-50-5	ETHANOL, 2-[2-(2-ETHOXYETHOXY)ETHOXY]-

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	RIC	162	8:06	3	0.321	A BB	345288.	47.296		19.82
2	RIC	389	19:27	3	0.772	A BB	563897.	77.240		32.38
3	RIC	504	25:12	3	1.000	A BB	730056.	100.000		41.92
4	RIC	36	1:48	3	0.071	A VB	102442.	14.032	JB	5.88

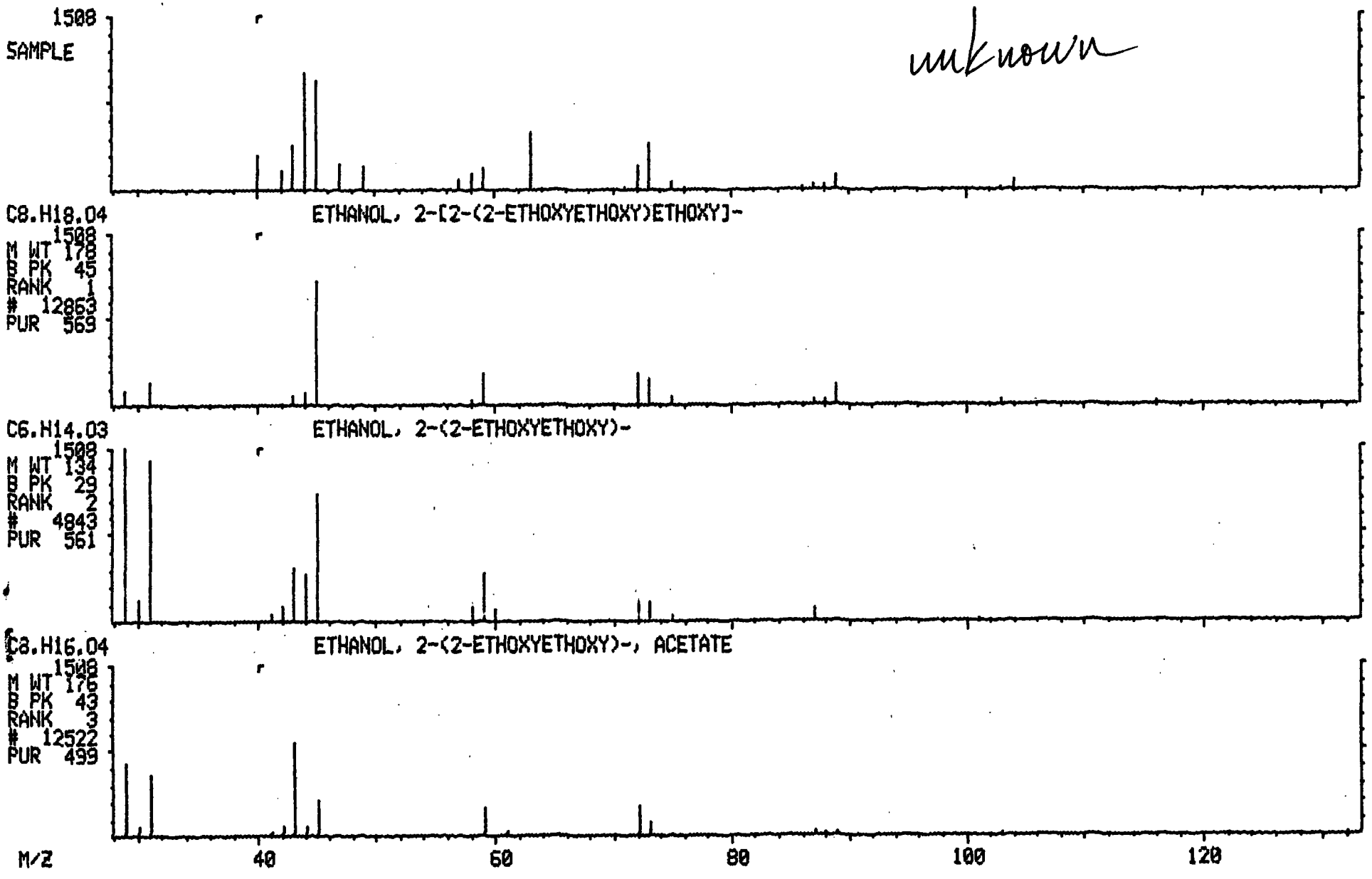
$\frac{102442}{345288} \times 50 = 15$ ug/LB

01505

LIBRARY SEARCH
04/29/88 14:11:00 + 1:48
SAMPLE: 59436-21 VOA H2O 100%/5ML
CONDS.: GC DESC V3
ENHANCED (S 15B 2N 0T)

DATA: S59436W920 # 36
CALI: 042988CW # 3

BASE M/Z: 44
RIC: 8383.



ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number : 59436-22

Laboratory Name: Rocky Mountain Analytical Lab
Laboratory Sample ID. Number : 59436-22
Sample Matrix : Water
Data Released Authorized By : JCL

Case Number : N/A
Q.C. Report No: 59436
Contract No. : N/A
Date Sample Rec: 04/20/88

Volatile Compounds

Concentration :	Low
Date Extracted/Prepared :	N/A
Date Analyzed :	04/29/88
Conc./Dilution Factor :	1.0
pH :	7.00
Percent Moisture :	100%
Percent Moisture (Decanted) :	N/A

CAS Number		Value	ug/L	CAS Number		Value	ug/L
74-83-3	Chloromethane		10 U	79-34-5	1,1,2,2-Tetrachloroethane		5 U
74-83-9	Bromomethane		10 U	78-87-5	1,2-Dichloropropane		5 U
75-01-4	VinylChloride		10 U	10061-02-6	Trans-1,3-Dichloropropene		5 U
75-00-3	Chloroethane		10 U	79-10-6	Trichloroethene		5 U
75-09-2	MethyleneChloride		5 U	124-48-1	Dibromochloromethane		5 U
67-64-1	Acetone	3.8	J B	79-00-5	1,1,2-Trichloroethane		5 U
75-15-0	CarbonDisulfide		5 U	71-43-2	Benzene		5 U
75-35-4	1,1-Dichloroethene		5 U	10061-01-5	cis-1,3-Dichloropropene		5 U
75-34-3	1,1-Dichloroethane		5 U	110-75-8	2-Chloroethylvinylether		10 U
156-60-5	Trans-1,2-Dichloroethene		5 U	75-25-2	Bromoform		5 U
67-66-3	Chloroform		5 U	591-78-6	2-Hexanone		10 U
107-06-2	1,2-Dichloroethane		5 U	108-10-1	4-Methyl-2-Pentanone		10 U
78-93-3	2-Butanone		10 U	127-18-4	Tetrachloroethene		5 U
71-55-6	1,1,1-Trichloroethane	1.1	J	108-88-3	Toluene		5 U
56-23-5	CarbonTetrachloride		5 U	108-90-7	Chlorobenzene		5 U
108-05-4	VinylAcetate		10 U	100-41-4	Ethylbenzene		5 U
75-27-4	Bromodichloromethane		5 U	100-42-5	Styrene		5 U
					Total Xylenes		5 U

U - compound was not detected
J - concentration detected is less than the required detection limit
B - compound was detected in the blank
sp - compound was a spike

10/85 Rev

Laboratory Name: Rocky Mountain Analytical
Case Number: N/A
Q.C. Number: 59436

Sample Number
59436-22

ORGANIC ANALYSIS DATA SHEET
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Conc. ug/l
1.	Unknown	VOA	37	15 B
2.				
3.				
4.				
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30.				

Semivolatile Compounds

Conc.:	Low	GPC Cleanup	No
Date Extracted/Prepared:	04/23/88	Separatory Funnel Extraction	No
Date Analyzed	06/02/88	Continuous Liquid-Liquid Extraction	Yes
Conc/Dil Factor	2.08		
Percent Moisture (Decanted)	N/A		

CAS Number	Compound	Value	ug/L	CAS Number	Compound	Value	ug/L
108-95-2	Phenol		10 U				
111-44-4	bis(-2-Chloroethyl)Ether		10 U	83-32-9	Acenaphthene		10 U
95-57-8	2-Chlorophenol		10 U	51-28-5	2,4-Dinitrophenol		52 U
541-73-1	1,3-Dichlorobenzene		10 U	100-02-7	4-Nitrophenol		52 U
106-46-7	1,4-Dichlorobenzene		10 U	132-64-9	Dibenzofuran		10 U
100-51-6	Benzyl Alcohol		10 U	121-14-2	2,4-Dinitrotoluene		10 U
95-50-1	1,2-Dichlorobenzene		10 U	606-20-2	2,6-Dinitrotoluene		10 U
95-48-7	2-Methylphenol		10 U	84-66-2	Diethylphthalate		10 U
39638-32-9	bis(2-chloroisopropyl)Ether		10 U	7005-72-3	4-Chlorophenyl-phenylether		10 U
106-44-5	4-Methylphenol		10 U	86-73-7	Fluorene		10 U
621-64-7	N-Nitro-Di-n-Propylamine		10 U	100-01-6	4-Nitroaniline		52 U
67-72-1	Hexachloroethane		10 U	534-52-1	4,6-Dinitro-2-Methylphenol		52 U
98-95-3	Nitrobenzene		10 U	86-30-6	N-Nitrosidiphenylamine (1)		10 U
78-59-1	Isophorone		10 U	101-55-3	4-Bromophenyl-phenylether		10 U
88-75-5	2-Nitrophenol		10 U	118-74-1	Hexachlorobenzene		10 U
105-67-9	2,4-Dimethylphenol		10 U	87-86-5	Pentachlorophenol		52 U
65-85-0	Benzoic Acid		52 U	85-01-8	Phenanthrene		10 U
111-91-1	bis(2-Chloroethoxy) Methane		10 U	120-12-7	Anthracene		10 U
120-83-2	2,4-Dichlorophenol		10 U	84-74-2	Di-N-Butylphthalate		10 U
120-82-1	1,2,4-Trichlorobenzene		10 U	206-44-0	Fluoranthene		10 U
91-20-3	Naphthalene		10 U	129-00-0	Pyrene		10 U
106-47-8	4-Chloroaniline		10 U	85-68-7	Butylbenzylphthalate		10 U
87-68-3	Hexachlorobutadiene		10 U	91-94-1	3,3'-Dichlorobenzidine		21 U
59-50-7	4-Chloro-3-Methylphenol		10 U	56-55-3	Benzo(a)Anthracene		10 U
91-57-6	2-Methylnaphthalene		10 U	117-81-7	bis(2-Ethylhexyl)Phthalate	2.8	J B
77-47-4	Hexachlorocyclopentadiene		10 U	218-01-9	Chrysene		10 U
88-06-2	2,4,6-Trichlorophenol		10 U	117-84-0	Di-n-Octylphthalate		10 U
95-95-4	2,4,5-Trichlorophenol		52 U	205-99-2	Benzo(b)Fluoranthene		10 U
91-58-7	2-Chloronaphthalene		10 U	207-08-9	Benzo(k)Fluoranthene		10 U
88-74-4	2-Nitroaniline		52 U	50-32-8	Benzo(a)Pyrene		10 U
131-11-4	Dimethyl Phthalate		10 U	193-39-5	Indeno(1,2,3-cd)Pyrene		10 U
208-96-8	Acenaphthylene		10 U	53-70-3	Dibenzo(a,h)Anthracene		10 U
99-09-2	3-Nitroaniline		52 U	191-24-2	Benzo(g,h,i)Perylene		10 U

(1)-Cannot be separated from diphenylamine.

Laboratory Name: Rocky Mountain Analytical
Case Number: N/A
Q.C. Number: 59436

Sample Number
59436-22

ORGANIC ANALYSIS DATA SHEET
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Conc. ug/l
1. 108-87-2	Methyl Cyclohexane	BNA	314	10 B
2. 108-88-3	Methyl Benzene	BNA	369	5.9 B
3.	Oxygenated Hydrocarbon	BNA	392	6.0 B
4.	Oxygenated Hydrocarbon	BNA	434	7.1 B
5.	Oxygenated Hydrocarbon	BNA	468	19 B
6. 96-19-5	1,2,3-Trichloro-1-Propene	BNA	622	8.8 B
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ROCKY MOUNTAIN ANALYTICAL LABORATORY
ORGANIC MASS SPECTROMETRY DIVISION
TARGET COMPOUND DATA SUMMARY SHEET

Sample: 59436-22
Date Analyzed: 06/02/88

Units: ug/L
Run Factor: 2.08

SURROGATE SPIKE RECOVERIES
PYRIDINES

Compound	Surrogate Amount (ug) Spiked	Measured	% Recovery Measured	QC Limits
Pyridine-D5	100.0	55.5	56	50-150

TARGET COMPOUNDS

Sample Concentration ug/l	Detection Limit(ppb)	Compound	CAS #
	10 U	Pyridine	110-86-1
	10 U	2-Picoline	109-06-8
	10 U	3 & 4-Picoline	
	10 U	2,6-Lutidine	
	10 U	2-Ethyl Pyridine	
	10 U	2,4 & 2,5-Lutidine	
	10 U	2,3-Lutidine	
	10 U	3-Ethyl Pyridine	
	10 U	4-Ethyl Pyridine	
	10 U	3,5-Lutidine	
	10 U	3,4-Lutidine	
	10 U	2-Methyl-5-Ethyl Pyridine	
	10 U	2-Methyl-3-Ethyl Pyridine	
	10 U	M and P Cresols	
	10 U	3-Ethyl-4-Methyl Pyridine	
	10 U	3-Ethyl-5-Methyl Pyridine	
	10 U	2,6-Dimethyl Phenol	
	10 U	2,5-Dimethyl Phenol	
	10 U	3,5-Dimethyl Phenol	
	10 U	2,3-Dimethyl Phenol	
	10 U	3,4-Dimethyl Phenol	
	10 U	1-Methylnaphthalene	90-12-0

FORM I

ROCKY MOUNTAIN ANALYTICAL LABORATORY
ORGANIC MASS SPECTROMETRY DIVISION
TARGET COMPOUND DATA SUMMARY SHEET

Sample: 59436-22
Date Analyzed: 06/03/88

Units: ug/L
Run Factor: 0.133

Surrogate Spike Recoveries

Compound	Surrogate Amount (ug) Spiked	Measured	% Recovery Measured	QC Limits
D12-Chrysene	80.0	89.7	112	10-118

Target Compounds

Scan #	Concentration(ng/l)	Detection Limit (ppt)	Compound
	8.1	J	Benzo(A)Anthracene
	12.0		Chrysene
		10 U	Benzo(B)Fluoranthene
		10 U	Benzo(K)Fluoranthene
	7.9	J	Benzo(A)Pyrene

FORM I

Laboratory Name: Rocky Mountain Analytical Lab
Case No: 59436

Sample Number:
59436-22

ORGANICS ANALYSIS DATA SHEET
(Page 3)

01512

Pesticides/ PCB's:

Concentration : Low
Date Ext./Prep :04/23/88
Date Analyzed :05/07/88
Conc./Dil Factor : 50.5
Percent Moisture :

GPC Cleanup :No
Separatory Funnel Extract.:Yes
Cont. Liquid/Liquid Extr. :No
Sonication Extraction :No

CAS Number	Compound	Value	ug/ L
319-84-6	Alpha-BHC		0.05 U
319-85-7	Beta-BHC		0.05 U
319-86-8	Delta-BHC		0.05 U
58-89-9	Gamma-BHC(Lindane)		0.05 U
76-44-8	Heptachlor		0.05 U
309-00-2	Aldrin		0.05 U
1204-57-3	Heptachlor Epoxide		0.05 U
959-98-8	Endosulfan I		0.05 U
60-57-1	Dieldrin		0.10 U
72-55-9	4,4'-DDE		0.10 U
72-20-8	Endrin		0.10 U
33213-65-9	Endosulfan II		0.10 U
72-54-8	4,4'-DDD		0.10 U
1031-07-8	Endosulfan Sulfate		0.10 U
50-29-3	4,4'-DDT		0.10 U
72-43-5	Methoxychlor		0.51 U
53494-70-5	Endrin Ketone		0.10 U
57-74-9	Chlordane		0.51 U
8001-35-2	Toxaphene		1.00 U
12674-11-2	Aroclor-1016		0.51 U
11104-28-2	Aroclor-1221		0.51 U
11141-16-5	Aroclor-1232		0.51 U
53469-21-9	Aroclor-1242		0.51 U
12672-29-6	Aroclor-1248		0.51 U
11097-69-1	Aroclor-1254		1.00 U
11096-82-5	Arolcor-1260		1.00 U

Vi = Volume of extract injected (ul) Vi = 2ul/4ul
Vs = Volume of water extracted (ml) Vs = 990 ml
Ws = Weight of sample extracted (g) Ws = N/A
Vt = Volume of total extract (ul) Vt = 1000 ul

4/29/88 14:56:48 SCAN 1 OF 730
Acquisition started

Acquire
04/29/88 14:56:00 + 0:03
Sample: 59436-22 VOA H2O 100%/5ML
Conds.: GC DESC V3
Formula:
Submitted by: RMAL

Run 3:S59436W921
Free sectors: 19597
Instrument: 5100
Analyst: DC

Acquiring
Scan: 1 of 730
Weight: 0.026
Acct. No: 59436

*** GC descriptor: V3 ***

GC temperature: 64 DegC
Elapsed time : 0: 7 min

Injector: 50 DegC
Interface: 220 DegC

Seq. #	Temp (DegC)	Rate (C/min)	Time (minutes) period	total
1	60- 60	-	2.0	2.0
2	60-250	7.0	27.1	29.1
3	250-250	-	10.0	39.1
4	250-250	-	0.0	39.1

Valve times (minutes)

	Open	Close
Sweep/Split	36.1	0.0
Divert	36.1	0.8

*** Scan Parameters ***

Low mass: 40 u
High mass: 260 u

Scan time (s)
Up: 2.95 L*
Down: 0.00 L

Hold time (s)
Top: 0.00
Bottom: 0.05

Cent S/P: 10 Actual: 67
Frag S/P: 10 Actual: 10

Samp int (ms): 0.200
Samp int (ms): 1.400

Peak width: 1000.
Inten/ion: 2

Min peak width: 3
ADC threshold: 1

Min frag width %: 81
Baseline: 0

Min area: 20

MODE: EI (+) Centroid + Temp

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	Q	
Full scale mass	812	u
Zero scale mass	1	u
Intensity/ion	2	
Peak width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(ms)	4	

Current instrument parameters.

	Positive ion mode	Negative ion mode
Resolution (high)	126.00	128.00
Resolution (low)	125.00	128.00
Ion energy	1.88	-4.00
Ion programming	5.41	-4.00
Lens voltage	-80.00	50.20
Extractor voltage	0.94	not used

Electron multiplier voltage: -2106.
Electrometer Range: 10 ^-7
Electrometer zero: -4.4

4/29/88 15:33:23
Acquisition completed
Scans 1 to 730 centroid

Mode	Scans	Secs	out of	%	Peaks per scan	per second	
Centroid	730	46.0	2190.0	2.1	18672.	26.	9.

01514

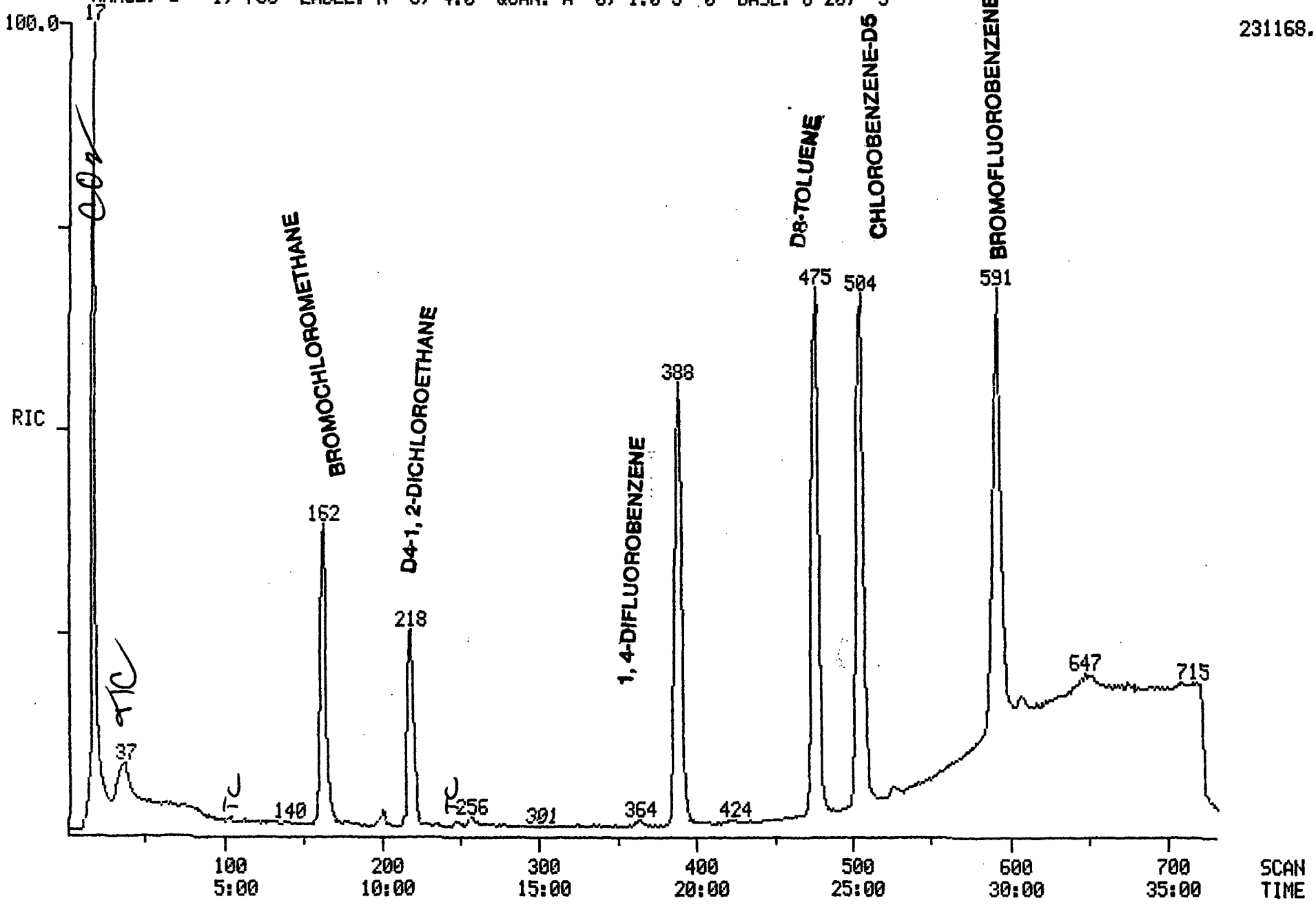
RIC
04/29/88 14:56:00
SAMPLE: 59436-22 VOA H2O 100%/5ML
CONDS.: GC DESC V3
RANGE: G 1, 730 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 559436W921 #4 SCANS 1 TO 730
CALI: 042988CW #3

TIC=Tentatively Identified Compound

TC=Target Compound
SC= Spike Compound

231168.



PROCEDURE: TCA DIAGNOSTIC REPORT 4/29/88 15:35:08
DATA FILE: S59436W921
REFERENCE: 11TABLE
NAME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: ISO1

< ---- STANDARDS ----- >				< --- PLUS UNKNOWNS --- >				< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	1	0	9	3	6	37	ISO1/TCO1
3	3	2	80	18	6	6	125	ISO2/TCO2
3	3	1	80	12	6	6	265	ISO3/TCO3
1	1	1	0	7	2	1	0	ISO4/TCO4

41 COMPOUNDS PROCESSED, 12 FOUND

< COMPOUND >				< ---------- SEARCH ---------- >				< SAT >	< ------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	V1	1	-161	162	162	.	1	953	.	128	161	-1	1
2	V1	10	-28	21	.	.	.	.	.	50	.	.	.
3	V1	15	-44	38	.	.	.	.	.	94	.	.	.
4	V1	25	-56	51	.	.	.	.	.	62	.	.	.
5	V1	35	-70	66	.	.	.	.	.	64	.	.	.
6	V1	45	-105	103	103	.	1	928	.	84	104	1	1
7	V1	50	-114	112	112	.	6	1000	.	58	112	.	1
8	V1	65	-132	131	.	.	.	.	.	76	.	.	.
9	V1	80	-153	153	.	.	.	.	.	96	.	.	.
10	V2	1	-388	389	388	-1	1	993	.	114	388	.	1
11	V3	1	-503	504	504	.	2	996	.	117	504	.	1
12	V1	90	-179	179	.	.	.	.	.	63	178	.	1
13	V1	95	-193	193	.	.	.	.	.	96	.	.	.
14	V1	100	-204	204	.	.	.	.	.	83	.	.	.
15	V1	2	-218	218	217	-1	1	991	.	65	218	1	1
16	V2	10	-218	218	218	.	2	982	.	72	218	.	1
17	V1	110	-220	220	.	.	.	.	.	62	.	.	.
18	V2	15	-248	248	.	.	.	.	.	97	248	.	1
19	V2	20	-256	256	.	.	.	.	.	117	.	.	.
20	V2	25	-259	259	257	-2	3	970	.	43	.	.	.
21	V2	30	-267	267	.	.	.	.	.	83	.	.	.
22	V2	35	-298	298	.	.	.	.	.	63	.	.	.
23	V2	40	-304	304	.	.	.	.	.	75	.	.	.
24	V2	45	-316	316	.	.	.	.	.	130	.	.	.
25	V2	60	-329	329	.	.	.	.	.	78	.	.	.
26	V2	50	-330	330	.	.	.	.	.	129	.	.	.
27	V2	65	-333	332	.	.	.	.	.	75	.	.	.
28	V2	55	-333	332	.	.	.	.	.	97	.	.	.
29	V2	80	-393	392	.	.	.	.	.	173	.	.	.
30	V3	10	-404	403	401	-2	3	919	.	58	.	.	.
31	V3	15	-441	440	436	-4	2	952	.	58	.	.	.
32	V3	25	-447	446	.	.	.	.	.	83	.	.	.
33	V3	20	-448	447	.	.	.	.	.	164	.	.	.
34	V3	2	-475	474	475	1	1	992	.	98	475	.	1
35	V3	35	-480	479	.	.	.	.	.	92	.	.	.
36	V3	40	-506	507	.	.	.	.	.	112	.	.	.
37	V3	50	-549	549	.	.	.	.	.	106	.	.	.
38	V3	3	-591	591	591	.	1	993	.	95	591	.	1
39	V3	55	-611	611	.	.	.	.	.	104	.	.	.
40	V3	60	-615	615	.	.	.	.	.	106	.	.	.
41	V3	75	-628	628	.	.	.	.	.	106	.	.	.

Quantitation Report File: S59436W921

Data: S59436W921.TI
04/29/88 14:56:00
Sample: 59436-22 VOA H2O 100%/5ML
Conds.: GC DESC V3
Formula: Instrument: 5100 Weight: 0.026
Submitted by: RMAL Analyst: DC Acct. No.: 59436

01516

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

No	Name				
1	CI01 BROMOCHLOROMETHANE	128	IV1#	01	74-97-5
2	CO10 CHLOROMETHANE	50	V1#	10SP	74-87-3
3	CO15 BROMOMETHANE	94	V1#	15	74-83-9
4	CO20 VINYL CHLORIDE	62	V1#	25	75-01-4
5	CO25 CHLOROETHANE	64	V1#	35	75-00-3
6	CO30 METHYLENE CHLORIDE	84	V1#	45	75-09-2
7	CO35 ACETONE	58	V1#	50	67-64-1
8	CO40 CARBON DISULFIDE	76	V1#	65	75-15-0
9	CO45 1,1-DICHLOROETHENE	61	V1#	80	75-35-4
10	CI10 1,4-DIFLUOROBENZENE	114	IV2#	01	540-36-3
11	CI20 CHLOROBENZENE-D5	117	IV3#	01	3114-55-4
12	CO50 1,1-DICHLOROETHANE	63	V1#	90	75-34-3
13	TRANS-1,2-DICHLOROETHENE	61	V1#	95	156-60-5
14	CO60 CHLOROFORM	83	V1#	100CC	67-66-3
15	CS15 1,2-DICHLOROETHANE-D4	65	SV1#	02	17060-07-0
16	C110 2-BUTANONE	72	V2#	10	78-93-3
17	CO65 1,2-DICHLOROETHANE	62	V1#	110	107-06-2
18	C115 1,1,1-TRICHLOROETHANE	97	V2#	15	71-55-6
19	C120 CARBONTETRACHLORIDE	117	V2#	20	56-23-5
20	C125 VINYL ACETATE	43	V2#	25	108-05-4
21	C130 BROMODICHLOROMETHANE	83	V2#	30	75-27-4
22	C140 1,2-DICHLOROPROPANE	63	V2#	35CC	78-87-5
23	C143 CIS-1,3-DICHLOROPROPENE	75	V2#	40	10061-01-5
24	C150 TRICHLOROETHENE	130	V2#	45	79-01-6
25	C165 BENZENE	78	V2#	60	71-43-2
26	C155 DIBROMOCHLOROMETHANE	129	V2#	50	124-48-1
27	C172 TRANS-1,3-DICHLOROPROPE	75	V2#	65	10061-02-6
28	C160 1,1,2-TRICHLOROETHANE	97	V2#	55	79-00-5
29	C180 BROMOFORM	173	V2#	80	75-25-2
30	C205 4-METHYL-2-PENTANONE	58	V3#	10	108-10-1
31	C210 2-HEXANONE	58	V3#	15	591-78-6
32	C225 1,1,2,2-TETRACHLOROETHA	83	V3#	25SP	79-34-5
33	C220 TETRACHLOROETHENE	164	V3#	20	127-18-4
34	CS05 TOLUENE-D8	98	SV3#	02	2037-26-5
35	C230 TOLUENE	92	V3#	35	108-88-3
36	C235 CHLOROBENZENE	112	V3#	40	108-90-7
37	C240 ETHYLBENZENE	106	V3#	50	100-41-4
38	CS10 BROMOFLUOROBENZENE	95	SV3#	03	460-00-4
39	C245 STYRENE	104	V3#	55	100-42-5
40	M-XYLENE	106	V3#	60	108-38-3
41	O+P XYLENES	106	V3#	75	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	161	8:03	1	1.000	A BB	37966.	50.000	UG/L	16.12
2	NOT FOUND									
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	84	104	5:12	1	0.646	A BB	572.	0.350	UG/L	0.11
7	58	112	5:36	1	0.696	A BB	497.	3.783	UG/L	1.22
8	NOT FOUND									
9	NOT FOUND									
10	114	388	19:24	10	1.000	A BB	230011.	50.000	UG/L	16.12
11	117	504	25:12	11	1.000	A BB	209955.	50.000	UG/L	16.12
12	63	178	8:54	1	1.106	A BB	1003.	0.357	UG/L	0.12
13	NOT FOUND									
14	NOT FOUND									
15	65	218	10:54	1	1.354	A BB	78888.	48.534	UG/L	15.65
16	72	218	10:54	10	0.562	A BB	88.	0.560	UG/L	0.18
17	NOT FOUND									
18	97	248	12:24	10	0.639	A BB	1769.	1.114	UG/L	0.36
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	NOT FOUND									
29	NOT FOUND									
30	NOT FOUND									
31	NOT FOUND									
32	NOT FOUND									
33	NOT FOUND									
34	98	475	23:45	11	0.942	A BB	230662.	51.031	UG/L	16.46
35	NOT FOUND									
36	NOT FOUND									
37	NOT FOUND									
38	95	591	29:33	11	1.173	A BB	140392.	54.410	UG/L	17.54
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:06	0.99	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:24		0.173						
3	2:12		0.272						
4	2:48		0.346						
5	3:30		0.432						
6	5:15	0.99	0.648	1.00	0.35	50.00	0.015	2.149	0.01
7	5:42	0.98	0.704	0.99	3.78	50.00	0.013	0.173	0.08
8	6:36		0.815						
9	7:39		0.944						
10	19:27	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
11	25:12	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
12	8:57	0.99	1.105	1.00	0.36	50.00	0.026	3.697	0.01
13	9:39		1.191						

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
14	10:12		1.259						
15	10:54	1.00	1.346	1.01	48.53	50.00	2.078	2.141	0.97
16	10:54	1.00	0.560	1.00	0.56	50.00	0.000	0.034	0.01
17	11:00		1.358						
18	12:24	1.00	0.638	1.00	1.11	50.00	0.008	0.345	0.02
19	12:48		0.658						
20	12:57		0.666						
21	13:21		0.686						
22	14:54		0.766						
23	15:12		0.781						
24	15:48		0.812						
25	16:27		0.846						
26	16:30		0.848						
27	16:39		0.856						
28	16:39		0.856						
29	19:39		1.010						
30	20:12		0.802						
31	22:03		0.875						
32	22:21		0.887						
33	22:24		0.889						
34	23:45	1.00	0.942	1.00	51.03	50.00	1.099	1.076	1.02
35	24:00		0.952						
36	25:18		1.004						
37	27:27		1.089						
38	29:33	1.00	1.173	1.00	54.41	50.00	0.669	0.614	1.09
39	30:33		1.212						
40	30:45		1.220						
41	31:24		1.246						

TCA FINISHED, 12 FOUND
FINISHED AT: 4/29/88 15:39:34

01519

RMAL QUANTITATION SUMMARY FILE: S59436W921
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

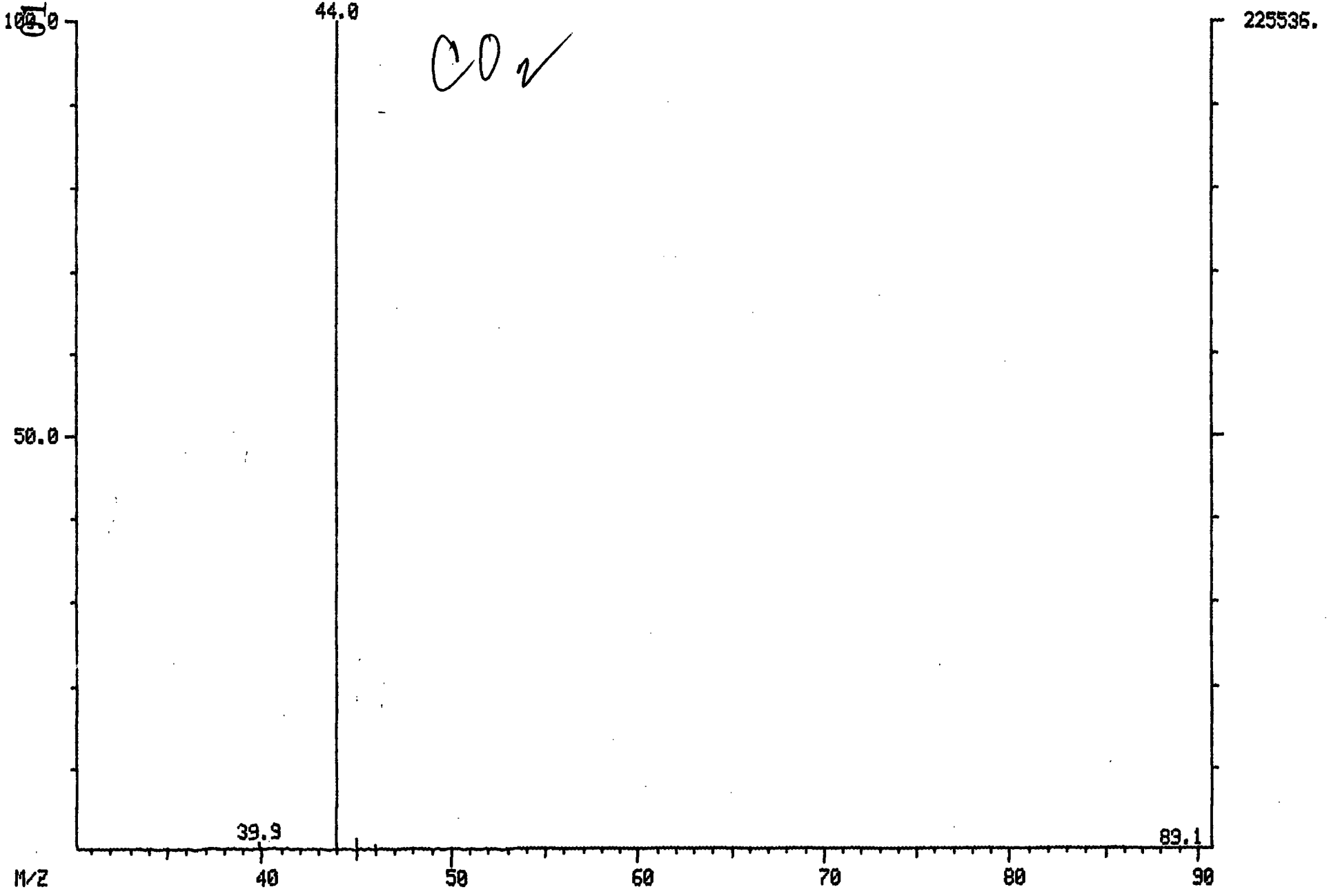
NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	UNITS: UG/L AMOUNT
1	V1# 1	CI01 BROMOCHLOROMETHANE	128	161	1	37966.	1.000	50.000
2	V2# 1	CI10 1,4-DIFLUOROBENZENE	114	388	2	230011.	1.000	50.000
3	V3# 1	CI20 CHLOROBENZENE-D5	117	504	3	209955.	1.000	50.000
4	V3# 2	CS05 TOLUENE-D8	98	475	3	230662.	1.099	51.031
5	V3# 3	CS10 BROMOFLUOROBENZENE	95	591	3	140392.	0.669	54.410
6	V1# 2	CS15 1,2-DICHLOROETHANE-	65	218	1	78888.	2.078	48.534
7	V1# 10	C010 CHLOROMETHANE	50		1	NOT FOUND		
8	V1# 15	C015 BROMOMETHANE	94		1	NOT FOUND		
9	V1# 25	C020 VINYL CHLORIDE	62		1	NOT FOUND		
10	V1# 35	C025 CHLOROETHANE	64		1	NOT FOUND		
11	V1# 45	C030 METHYLENE CHLORIDE	84		1	NOT FOUND		
12	V1# 50	C035 ACETONE	58	112	1	497.	0.013	3.783 B
13	V1# 65	C040 CARBON DISULFIDE	76		1	NOT FOUND		
14	V1# 80	C045 1,1-DICHLOROETHENE	96		1	NOT FOUND		
15	V1# 90	C050 1,1-DICHLOROETHANE	63		1	NOT FOUND		
16	V1# 95	TRANS-1,2-DICHLOROETHENE	96		1	NOT FOUND		
17	V1#100	C060 CHLOROFORM	83		1	NOT FOUND		
18	V1#110	C065 1,2-DICHLOROETHANE	62		1	NOT FOUND		
19	V2# 10	C110 2-BUTANONE	72		2	NOT FOUND		
20	V2# 15	C115 1,1,1-TRICHLOROETHA	97	248	2	1769.	0.008	1.114
21	V2# 20	C120 CARBONTETRACHLORIDE	117		2	NOT FOUND		
22	V2# 25	C125 VINYL ACETATE	43		2	NOT FOUND		
23	V2# 30	C130 BROMODICHLOROMETHAN	83		2	NOT FOUND		
24	V2# 35	C140 1,2-DICHLOROPROPANE	63		2	NOT FOUND		
25	V2# 40	C143 CIS-1,3-DICHLOROPRO	75		2	NOT FOUND		
26	V2# 45	C150 TRICHLOROETHENE	130		2	NOT FOUND		
27	V2# 50	C155 DIBROMOCHLOROMETHAN	129		2	NOT FOUND		
28	V2# 55	C160 1,1,2-TRICHLOROETHA	97		2	NOT FOUND		
29	V2# 60	C165 BENZENE	78		2	NOT FOUND		
30	V2# 65	C172 TRANS-1,3-DICHLOROP	75		2	NOT FOUND		
31	V2# 80	C180 BROMOFORM	173		2	NOT FOUND		
32	V3# 10	C205 4-METHYL-2-PENTANON	58		3	NOT FOUND		
33	V3# 15	C210 2-HEXANONE	58		3	NOT FOUND		
34	V3# 20	C220 TETRACHLOROETHENE	164		3	NOT FOUND		
35	V3# 25	C225 1,1,2,2-TETRACHLORO	83		3	NOT FOUND		
36	V3# 35	C230 TOLUENE	92		3	NOT FOUND		
37	V3# 40	C235 CHLOROBENZENE	112		3	NOT FOUND		
38	V3# 50	C240 ETHYLBENZENE	106		3	NOT FOUND		
39	V3# 55	C245 STYRENE	104		3	NOT FOUND		
40	V3# 60	M-XYLENE	106		3	NOT FOUND		
41	V3# 75	O+P XYLENES	106		3	NOT FOUND		

V.7.88

MASS SPECTRUM
04/29/88 14:56:00 + 0:51
SAMPLE: 59436-22 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 64 DEG. C

DATA: S59436W921 #17
CALI: 042988CW #3

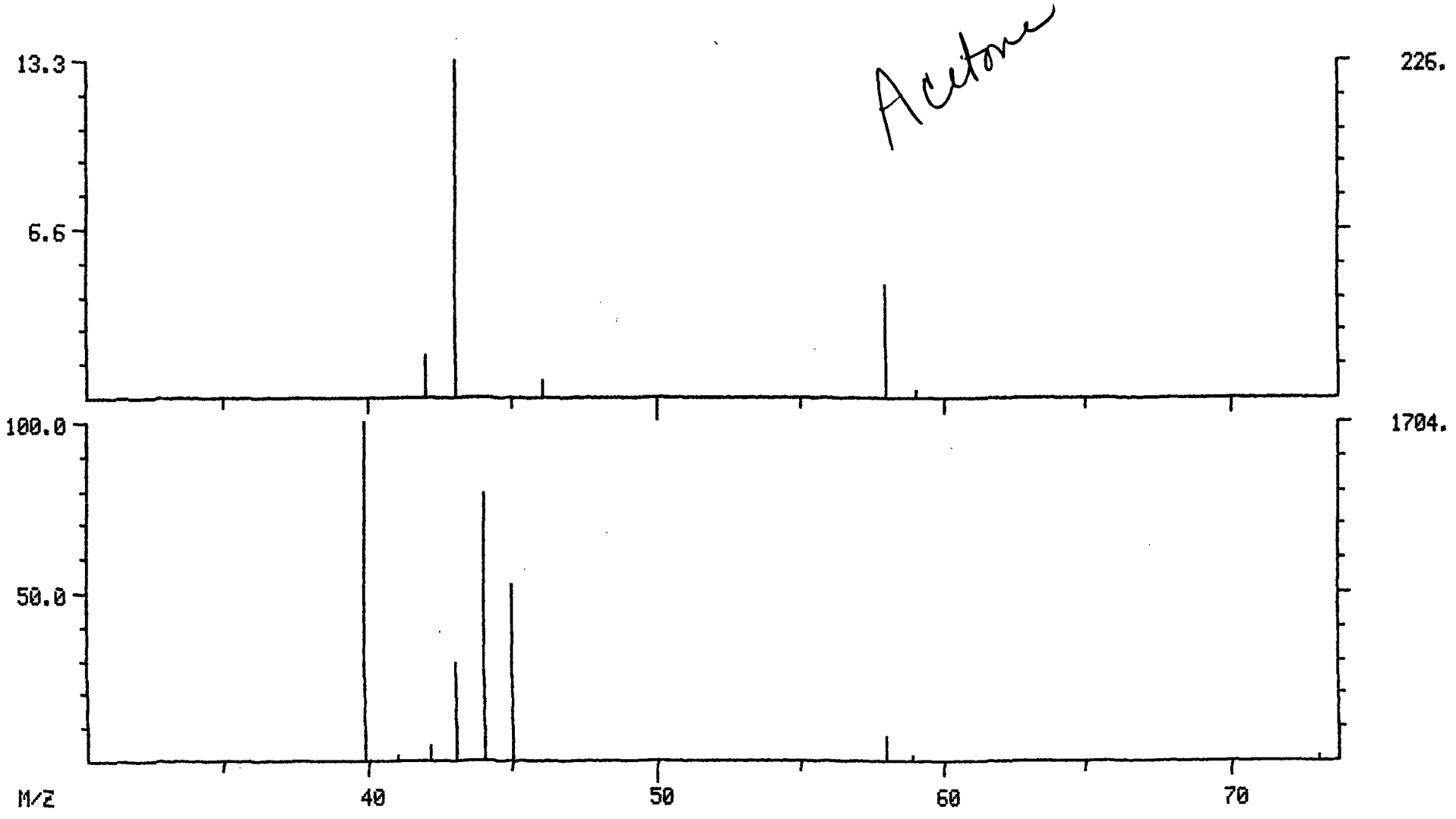
BASE M/Z: 44
RIC: 231424.



01521

DUAL MASS SPECTRUM
04/29/88 14:56:00 + 5:36
SAMPLE: 59436-22 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 86 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W921 #112 BASE M/Z: 43/ 40
CALI: 042988CW #3 RIC: 345./ 4703.

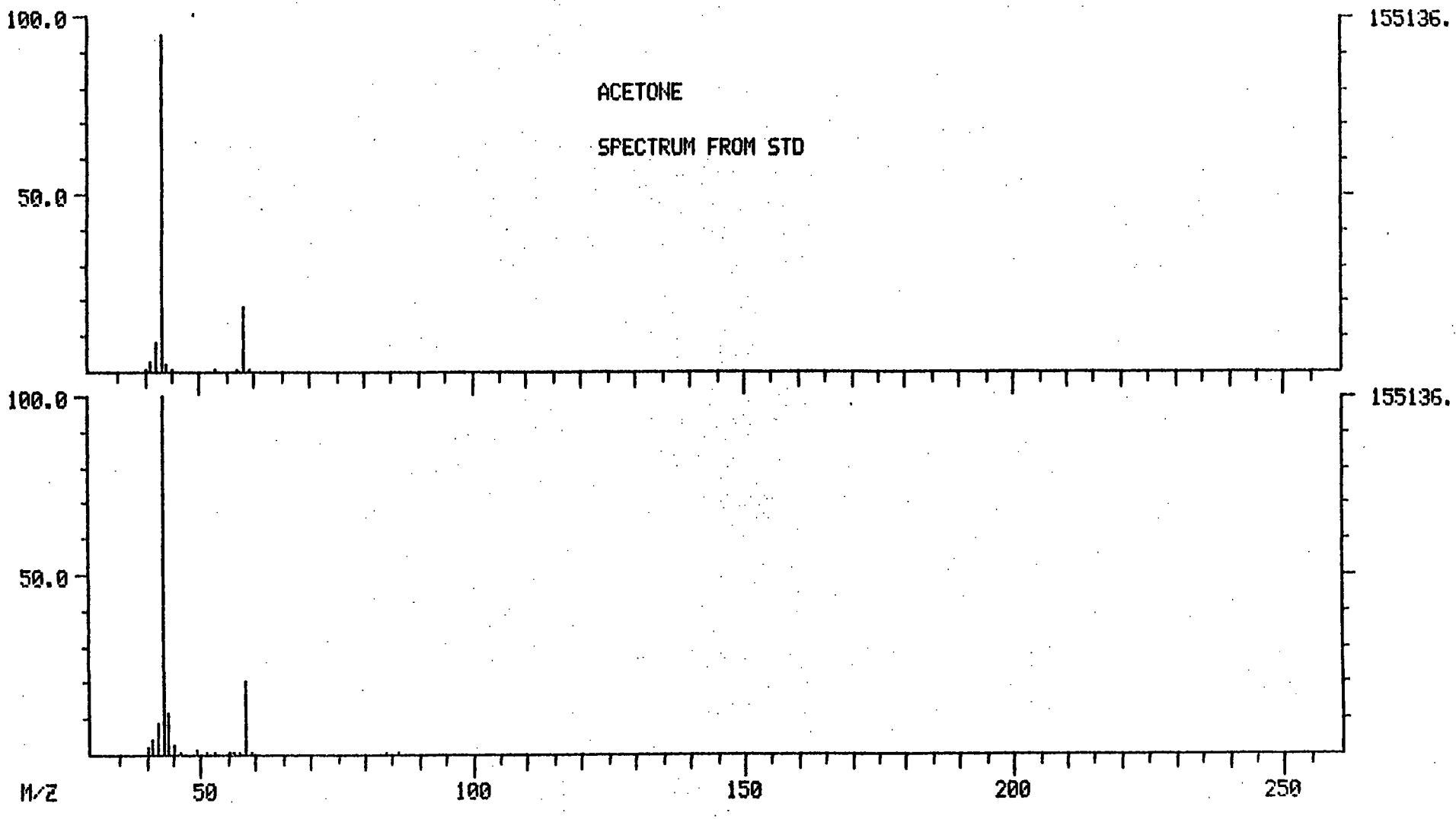


01522

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 7:37
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: STDJ198 #150
CALI: STDJ198 #1

BASE M/Z: 43/ 43
RIC: 199935./ 247807.

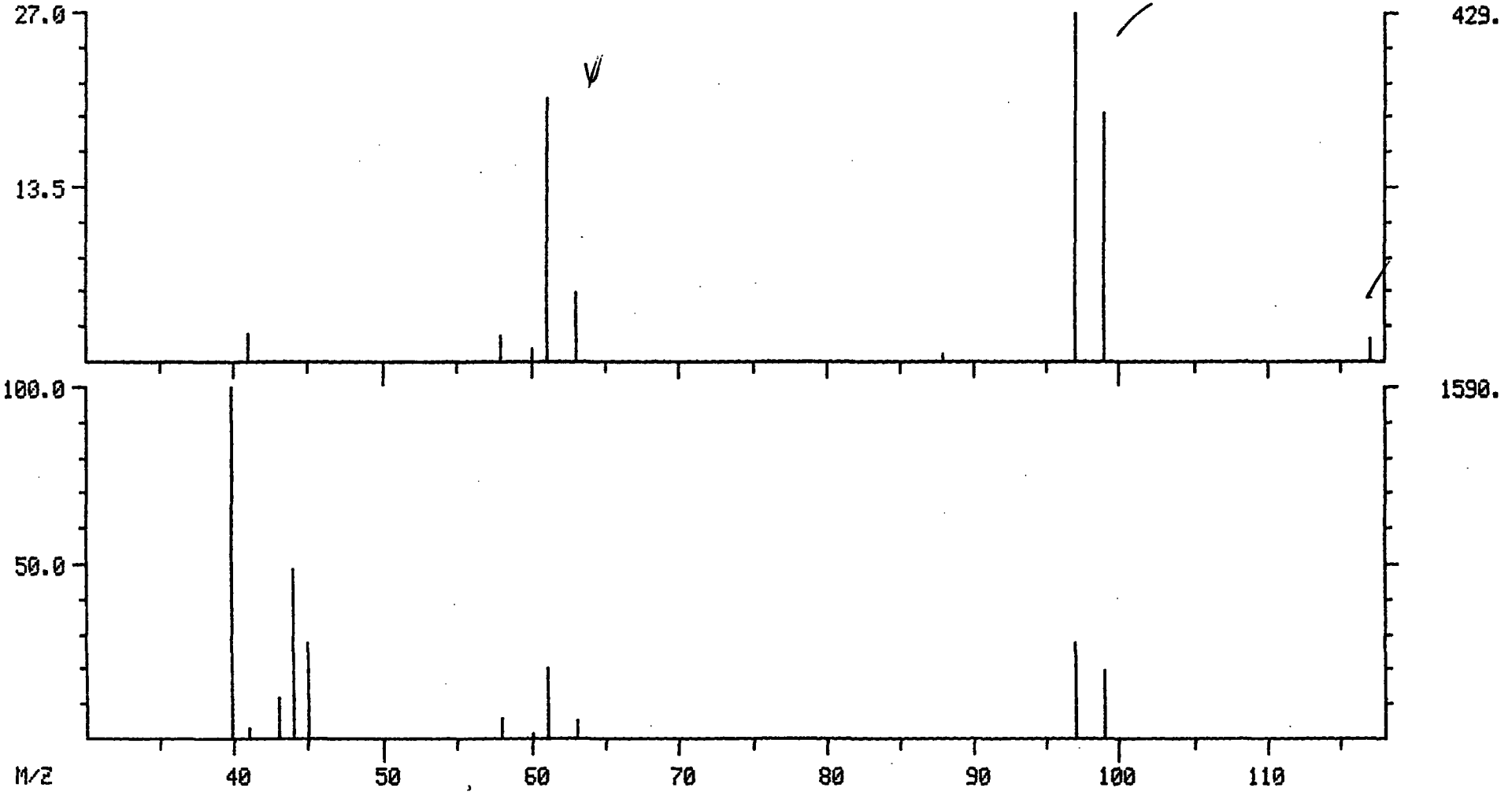


01523

DUAL MASS SPECTRUM
04/29/88 14:56:00 + 12:24
SAMPLE: 59436-22 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 133 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W921 #248 BASE M/Z: 97/ 40
CALI: 042988CW #3 RIC: 1259./ 4319.

1,1,1-Trichloroethane

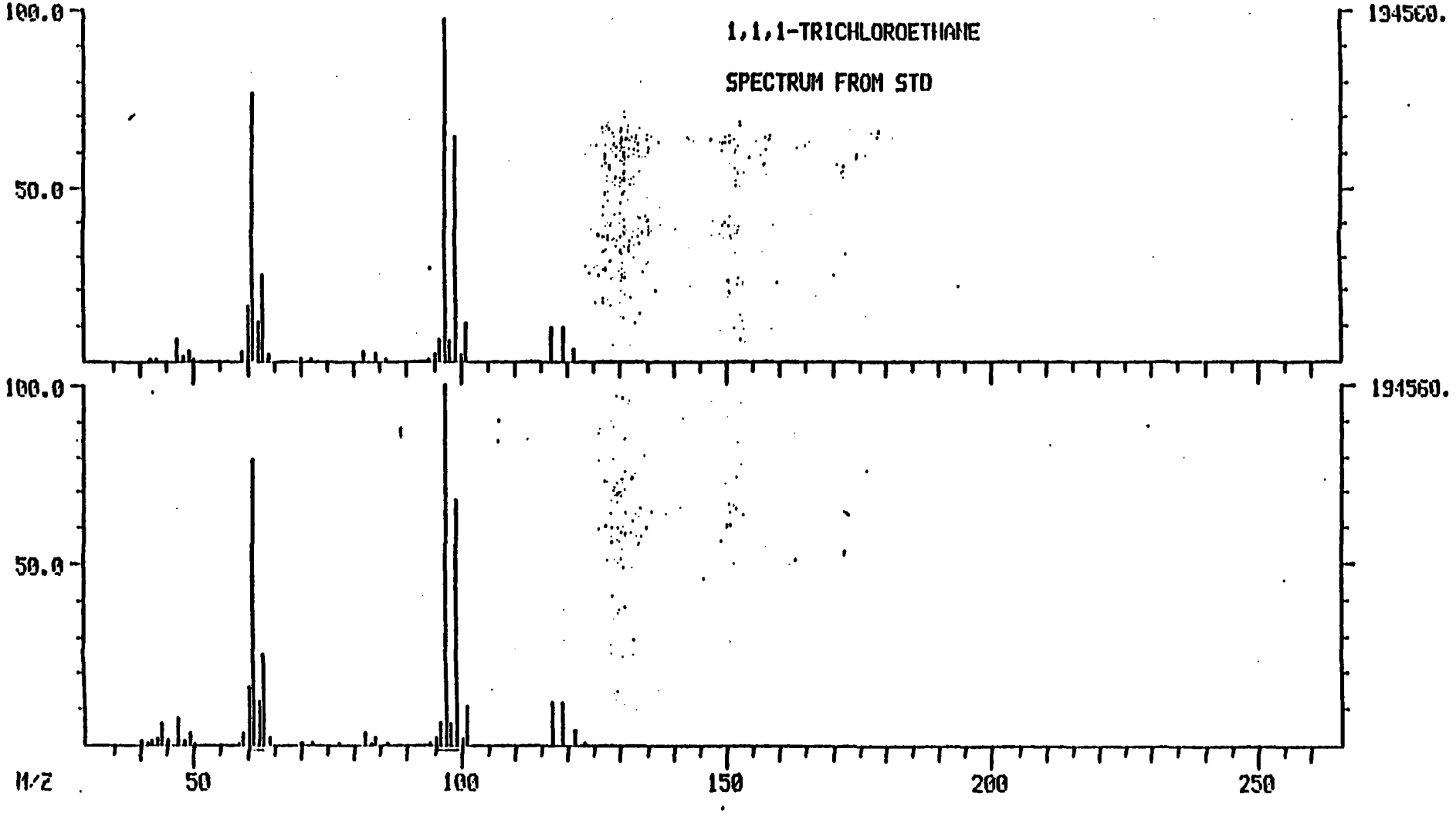


01524

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 14:38
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
CONDS.:
ENHANCED (S 15B 2H 0T)

DATA: STDJ198 #208
CALI: STDJ198 #1

BASE M/Z: 97/ 97
RIC: 705535./ 774143.



Quantitation Report File: TEMP

01525

Data: S59436W921.TI
04/29/88 14:56:00
Sample: 59436-22 VOA H2O 100%/5ML
Cond's.: GC DESC V3
Formula: Instrument: 5100 Weight: 0.026
Submitted by: RMAL Analyst: DC Acct. No.: 59436

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

No	CAS #	Name
1	0-00-0	UNKNOWN
2	0-00-0	UNKNOWN
3	0-00-0	UNKNOWN
4	28871-61-6	SILANE, (FLUOROMETHYL)TRIMETHYL-

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	RIC	162	8:06	3	0.321	A BB	361908.	48.220	19.93
2	RIC	388	19:24	3	0.770	A BB	591856.	78.859	32.59
3	RIC	504	25:12	3	1.000	A BB	750528.	100.000	41.33
4	RIC	37	1:51	3	0.073	A VB	111671.	~~14.879~~ B	6.15

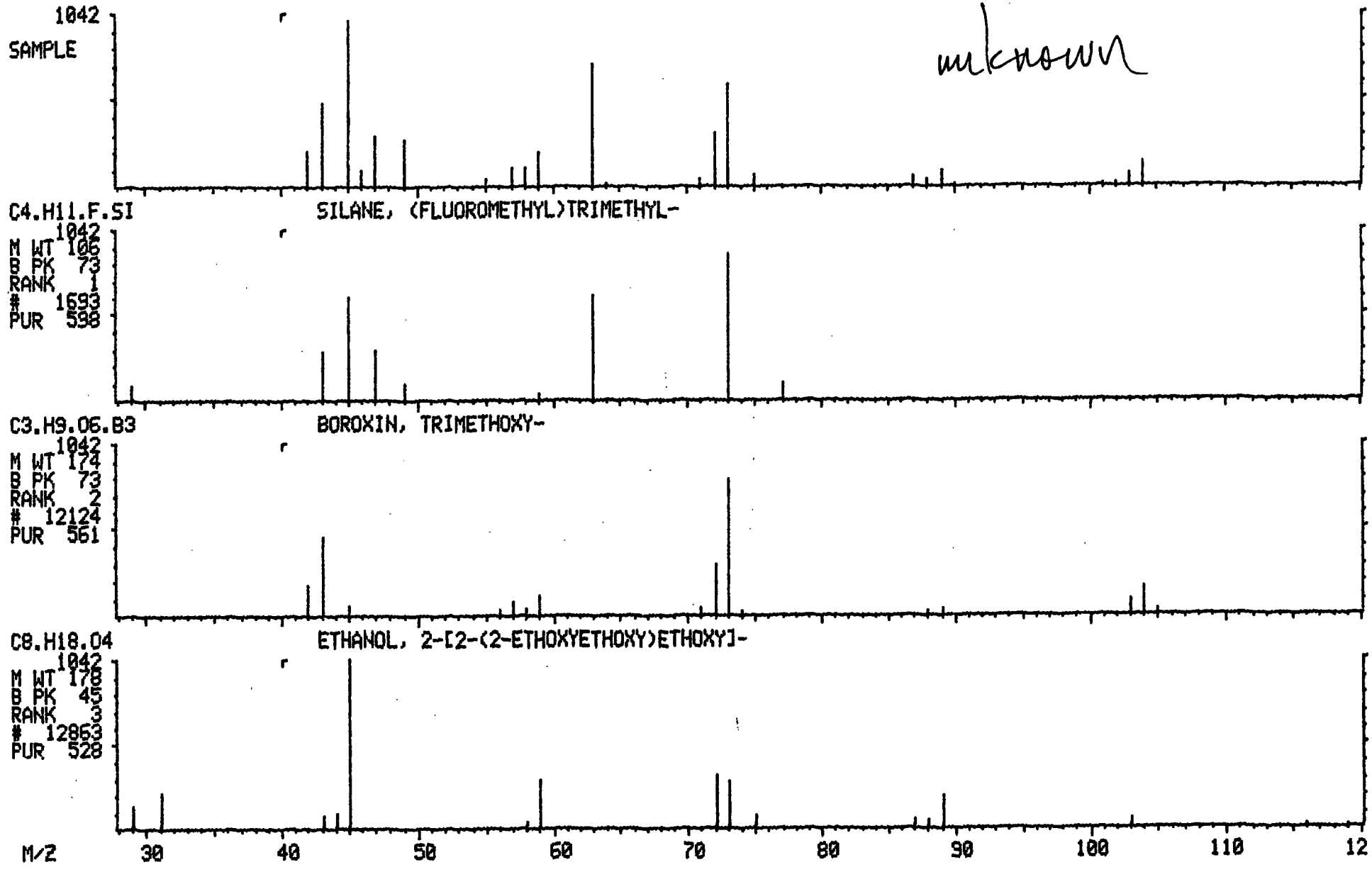
$\frac{111671}{361908} \times 50 = 15$ ug/L B

01526

LIBRARY SEARCH
04/29/88 14:56:00 + 1:51
SAMPLE: 59436-22 VOA H2O 100%/5ML
CONDS.: GC DESC V3
ENHANCED (S 15B 2N 0T)

DATA: S59436W921 # 37
CALI: 042988CW # 3

BASE M/Z: 45
RIC: 7671.



01527

6/2/88 12:58:20 SCAN 1 OF 2850
Acquisition started

cquire Run 0:S59436R980 ACQUIRING
6/02/88 12:57:00 + 0:03 Free sectors: 24874 Scan: 4 of 2850
ample: 59436-22 BNA H2O 100%/2ML
onds.: ST
ormula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No: 59436

********** GC PARAMETERS **********

oaded GC Desc:ST Current GC oven tmp: 30 DegC Injector : 250 DegC
Current GC Desc:ST GC elapsed time : 0: 3 min Int. oven : 275 DegC

eq. #	Temp(C)	Rate(C/m)	Time(min)	Total time(min)		Open	Close
1	30 - 30	-	1.0	1.0	Sweep/Split	0.5	0.0
2	30 - 325	10.0	29.5	30.5	Divert	45.5	0.0
3	325 - 325	-	15.0	45.5			
4	325 - 325	-	0.0	45.5			

********** SCAN PARAMETERS **********

Low mass: 35 Up: 0.70 L* Top: 0.00
High mass: 500 Down: 0.00 L Bottom: 0.05

Cent S/P: 10 Actual: 10 Samp Int (ms): 0.150 Peak Width: 1000.
Frag S/P: 10 Actual: 10 Samp Int (ms): 0.150 Inten/ion: 2

Min Peak Width: 3 Min Frag Width %: 80 Min Area: 20
ADC Threshold: 1 Baseline: 0

***** Mode: Centroid positive ion

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	Q	
Full scale mass	1024	u
Zero scale mass	1	u
Intensity/ion	2	
Peak Width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(MS)	4	

$RF = \frac{2.0\,ml}{.96} = 2.08$

6/2/88 13:34:03
ACQUISITION COMPLETED
SCANS 1 TO 2850 Centroid

Mode	Scans	Secs	Out of	%	Peaks per scan	per sec
Centroid	2850	505.3	2137.5	23.6	66351. 23.	31.

01528

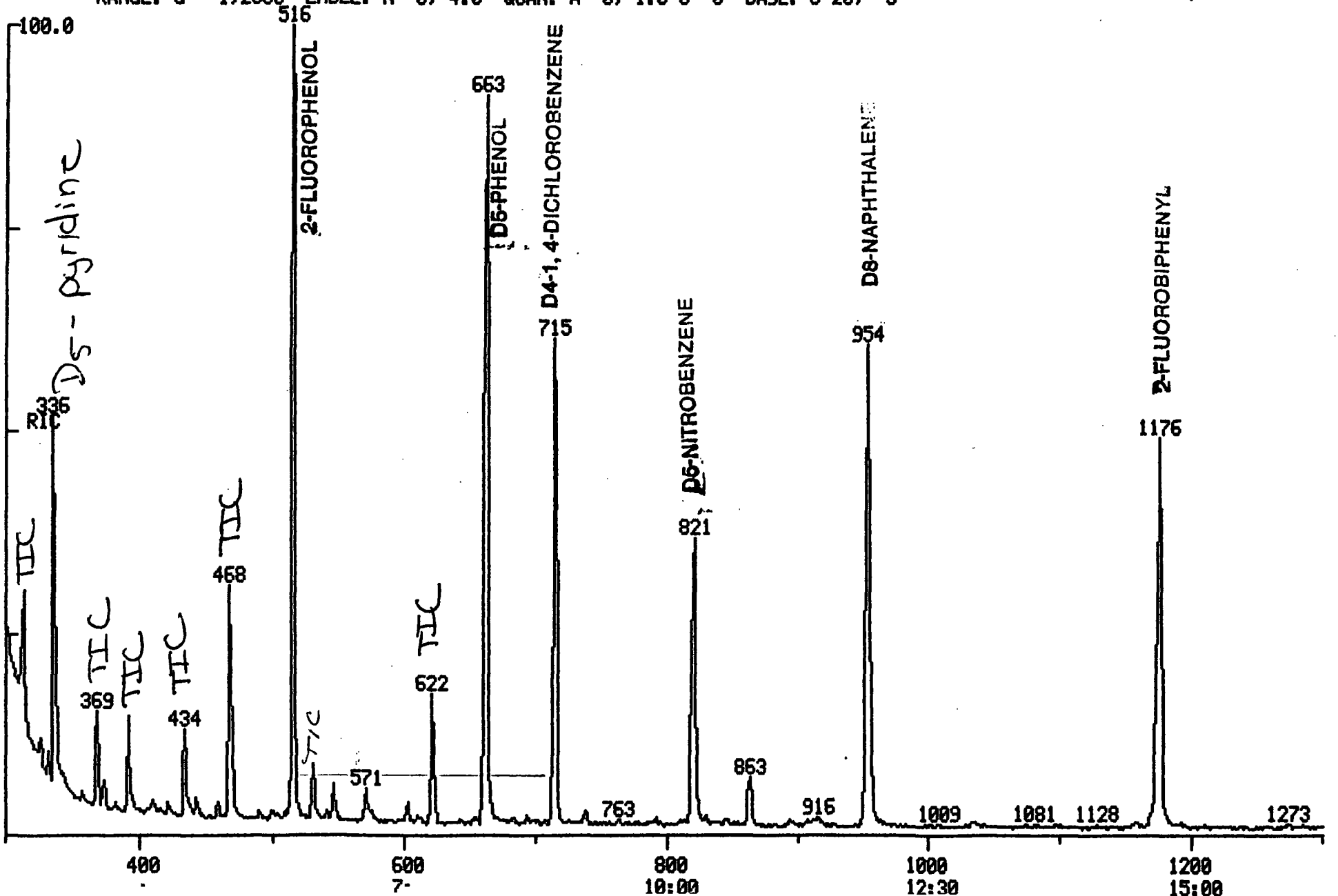
RIC
06/02/88 12:57:00
SAMPLE: 59436-22 BNA H2O 100%/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 559436R980 #4
CALI: 060288CR #5

SCANS 300 TO 1300
OUT OF 300 TO 2850

TC=Target Compound
SC= Spike Compound

T.I.C.-Tent. Ident. Compound



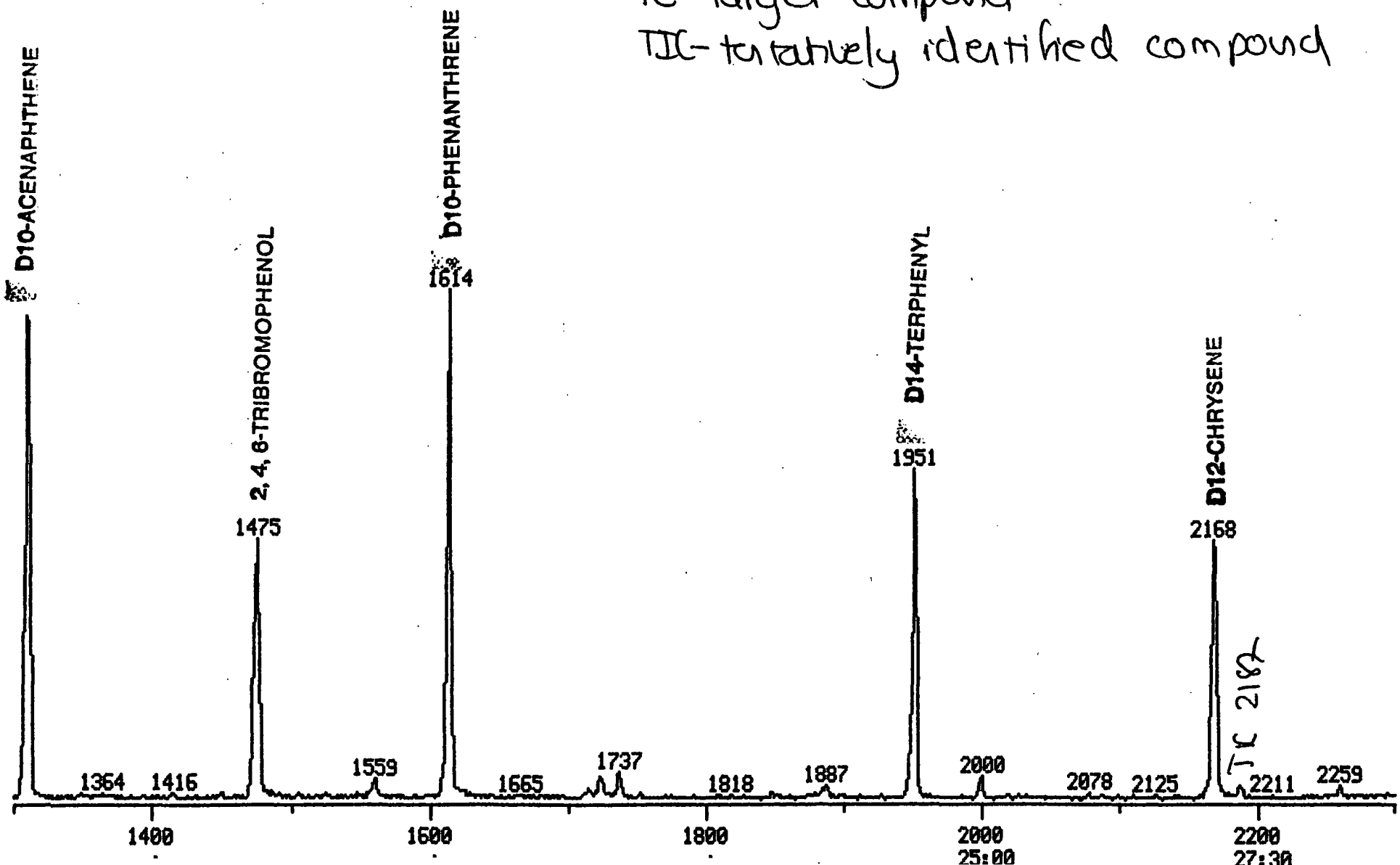
01529

RIC
06/02/88 12:57:00
SAMPLE: 59436-22 BNA H2O 100%/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 559436R980 #4 SCANS 1300 TO 2300
CALI: 060288CR #5 OUT OF 300 TO 2850

100.0

TC- target compound
TIC- tentatively identified compound

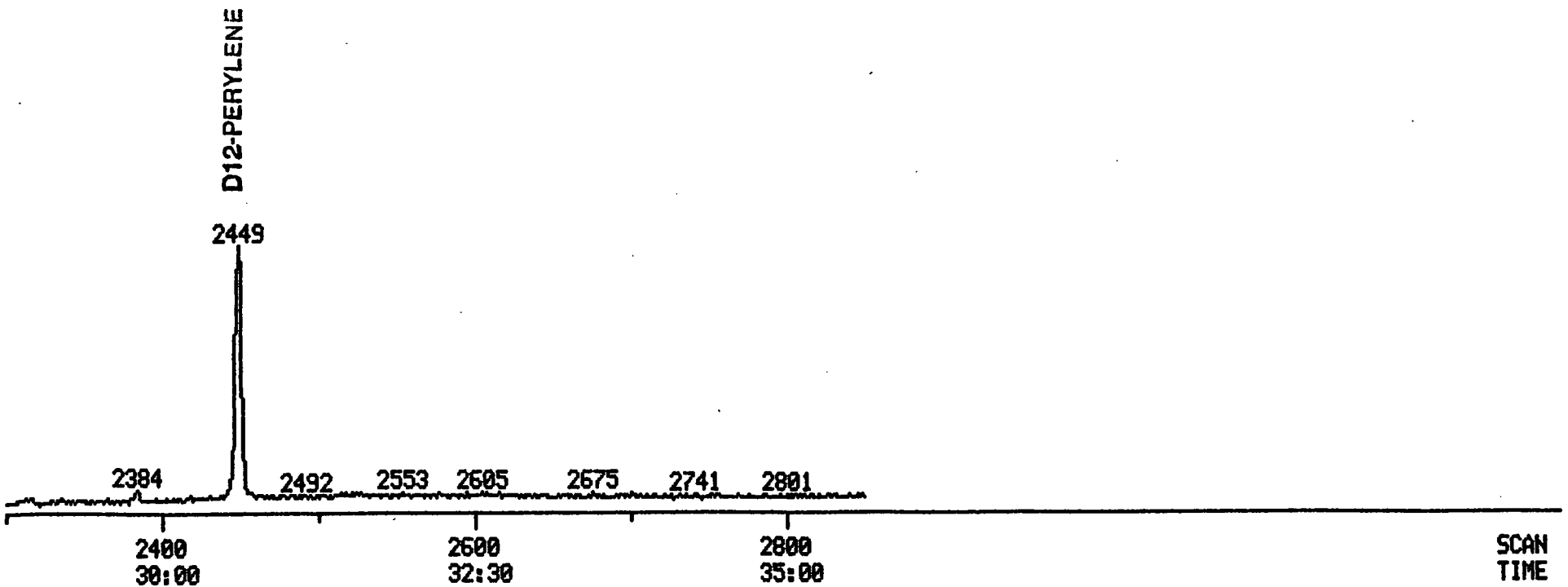


01530

RIC
06/02/88 12:57:00
SAMPLE: 59436-22 BNA H2O 100%/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 559436R980 #4 SCANS 2300 TO 2850
CALI: 060288CR #5 OUT OF 300 TO 2850

100.0 85248.



PROCEDURE: TCA DIAGNOSTIC REPORT 6/02/88 18:51:44
DATA FILE: S59436R980
REFERENCE: 11TABLE
NAME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: IS01

< ---- STANDARDS ----- >				< --- PLUS UNKNOWNS --- >				< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	1	0	7	4	6	117	IS01/TC01
3	3	1	81	18	5	2	130	IS02/TC02
3	3	1	81	12	3	1	81	IS03/TC03
3	3	2	37	18	5	1	301	IS04/TC04
3	3	1	37	10	4	1	66	IS05/TC05
3	3	1	0	8	4	1	61	IS06/TC06
3	3	1	53	14	6	1	58	IS07/TC07
1	1	1	0	4	1	1	0	IS08/TC08

77 COMPOUNDS PROCESSED, 18 FOUND

< COMPOUND >			< ---------- SEARCH ---------- >						< SAT >	< ------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	S1	1	-716	715	715	.	1	970	.	152	715	.	1
2	S1	2	-518	516	516	.	2	993	.	112	516	.	1
3	S1	3	-666	664	663	-1	3	985	.	99	663	.	1
4	S1	105	-668	666	.	.	.	.	.	94	664	.	1
5	S1	110	-680	678	.	.	.	.	.	93	.	.	.
6	S1	115	-687	685	684	-1	1	865	.	128	684	.	1
7	S1	125	-710	708	.	.	.	.	.	146	.	.	.
8	S2	1	-954	953	954	1	1	997	.	136	953	-1	1
9	S3	1	-1312	1311	1311	.	1	994	.	164	1311	.	1
10	S1	130	-720	718	.	.	.	.	.	146	.	.	.
11	S1	145	-748	746	.	.	.	.	.	108	.	.	.
12	S1	150	-753	751	.	.	.	.	.	146	.	.	.
13	S1	160	-771	769	.	.	.	.	.	108	.	.	.
14	S1	165	-776	774	.	.	.	.	.	45	.	.	.
15	S1	185	-798	796	.	.	.	.	.	108	.	.	.
16	S1	190	-804	802	.	.	.	.	.	70	.	.	.
17	S1	200	-808	806	.	.	.	.	.	117	.	.	.
18	S2	2	-823	821	821	.	1	1000	.	82	821	.	1
19	S2	10	-827	825	.	.	.	.	.	77	.	.	.
20	S2	20	-872	871	.	.	.	.	.	82	869	.	1
21	S2	25	-886	885	.	.	.	.	.	139	.	.	.
22	S2	30	-897	896	.	.	.	.	.	107	.	.	.
23	S2	35	-917	916	.	.	.	.	.	93	.	.	.
24	S2	45	-926	925	923	-2	2	865	.	122	.	.	.
25	S2	40	-932	931	.	.	.	.	.	162	.	.	.
26	S2	55	-948	947	.	.	.	.	.	180	.	.	.
27	S2	60	-959	958	.	.	.	.	.	128	958	.	1
28	S2	80	-976	975	.	.	.	.	.	127	.	.	.
29	S2	95	-996	995	.	.	.	.	.	225	.	.	.
30	S2	130	-1074	1073	.	.	.	.	.	107	1075	.	1
31	S2	145	-1097	1096	.	.	.	.	.	142	.	.	.
32	S3	20	-1143	1142	.	.	.	.	.	237	.	.	.
33	S3	25	-1161	1160	.	.	.	.	.	196	.	.	.
34	S4	1	-1615	1614	1614	.	2	989	.	188	1614	.	1
35	S3	30	-1168	1168	.	.	.	.	.	196	.	.	.
36	S3	3	-1177	1177	1176	-1	1	997	.	172	1176	.	1
37	S3	40	-1195	1195	.	.	.	.	.	162	1193	.	1
38	S3	45	-1225	1225	.	.	.	.	.	65	.	.	.
39	S3	55	-1272	1272	.	.	.	.	.	163	.	.	.
40	S3	65	-1281	1281	.	.	.	.	.	152	.	.	.
41	S3	70	-1285	1285	.	.	.	.	.	165	.	.	.
			-							1 B			

43	S3	80	-1320	1320	.	.	.	.	.	153	.	.	.
44	S3	85	-1331	1331	.	.	.	.	.	184	.	.	.
45	S3	95	-1348	1348	1353	5	1	862	.	109	.	.	.
46	S3	90	-1352	1352	.	.	.	.	.	168	1351	.	1
47	S3	105	-1363	1363	.	.	.	.	.	165	.	.	.
48	S3	130	-1418	1418	.	.	.	.	.	149	.	.	.
49	S3	135	-1423	1423	.	.	.	.	.	166	1422	.	1
50	S3	140	-1425	1424	.	.	.	.	.	204	.	.	.
51	S3	150	-1438	1437	.	.	.	.	.	138	.	.	.
52	S4	10	-1447	1446	.	.	.	.	.	198	.	.	.
53	S4	15	-1452	1451	.	.	.	.	.	169	1449	.	1
54	S3	2	-1477	1476	1475	-1	1	911	.	330	1475	.	1
55	S4	30	-1525	1524	.	.	.	.	.	248	.	.	.
56	S4	40	-1554	1553	.	.	.	.	.	284	.	.	.
57	S5	1	-2169	2168	2168	.	1	961	.	240	2168	.	1
58	S4	50	-1591	1590	.	.	.	.	.	266	.	.	.
59	S4	65	-1621	1620	.	.	.	.	.	178	1618	.	1
60	S4	70	-1630	1629	.	.	.	.	.	178	1627	.	1
61	S4	85	-1753	1752	1751	-1	1	853	.	149	1751	.	1
62	S4	110	-1868	1867	.	.	.	.	.	202	.	.	.
63	S6	1	-2449	2449	2449	.	1	992	.	264	2449	.	1
64	S5	15	-1914	1913	.	.	.	.	.	202	1912	.	1
65	S5	2	-1951	1950	1951	1	1	993	.	244	1951	.	1
66	S5	40	-2062	2061	.	.	.	.	.	149	2061	.	1
67	S5	55	-2165	2165	.	.	.	.	.	252	.	.	.
68	S5	50	-2166	2166	.	.	.	.	.	228	.	.	.
69	S5	60	-2176	2176	.	.	.	.	.	228	.	.	.
70	S5	65	-2187	2187	2187	.	1	986	.	149	2187	.	1
71	S6	10	-2310	2310	2309	-1	1	963	.	149	2309	.	1
72	S6	15	-2380	2380	.	.	.	.	.	252	.	.	.
73	S6	25	-2386	2386	.	.	.	.	.	252	.	.	.
74	S6	35	-2440	2440	.	.	.	.	.	252	.	.	.
75	S6	55	-2686	2686	.	.	.	.	.	276	.	.	.
76	S6	60	-2689	2689	.	.	.	.	.	278	.	.	.
77	S6	65	-2753	2753	.	.	.	.	.	276	.	.	.

uantitation Report File: S59436R980

01533

ata: S59436R980.TI
6/02/88 12:57:00
ample: 59436-22 BNA H2O 100%/2ML
onds.: ST
ormula: AUTO INJ Instrument: 4500 Weight: 0.000
ubmitted by: RMAL Analyst: MK Acct. No.: 59436

MOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
esp. fac. from Library Entry

No	Name			
1	CI30	1,4-DICHLOROBENZENE-D4	152IS1# 01	3855-82-1
2	CS50	2-FLUOROPHENOL	112SS1# 02	367-12-4
3	CS45	PHENOL-D5	99SS1# 03	4165-62-2
4	C315	PHENOL	94 S1#105CC	108-95-2
5	C325	BIS(2-CHLOROETHYL)ETHER	93 S1#110	111-44-4
6	C330	2-CHLOROPHENOL	128 S2#115	95-57-8
7	C335	1,3-DICHLOROBENZENE	146 S1#125	541-73-1
8	CI40	NAPHTHALENE-D8	136IS2# 01	1146-65-2
9	CI50	ACENAPHTHENE-D10	164IS3# 01	15067-26-2
10	C340	1,4-DICHLOROBENZENE	146 S1#130CC	106-46-7
11	C345	BENZYL ALCOHOL	108 S1#145	100-51-6
12	C350	1,2-DICHLOROBENZENE	146 S1#150	95-50-1
13	C355	2-METHYLPHENOL	108 S1#160	95-48-7
14	C360	BIS(2-CHLOROISOPROPYL)E	45 S1#165	108-60-1
15	C365	4-METHYLPHENOL	108 S1#185	106-44-5
16	C370	N-NITROSO-DI-N-PROPYLAM	70 S1#190SP	621-64-7
17	C375	HEXACHLOROETHANE	117 S1#200	67-72-1
18	CS20	NITROBENZENE-D5	82SS2# 02	4165-60-0
19	C410	NITROBENZENE	77 S2# 10	98-95-3
20	C415	ISOPHORONE	82 S2# 20	75-59-1
21	C420	2-NITROPHENOL	139 S2# 25CC	88-75-5
22	C425	2,4-DIMETHYLPHENOL	107 S2# 30	105-67-9
23	C435	BIS(2-CHLOROETHOXY)METH	93 S2# 35	111-91-1
24	C430	BENZOIC ACID	122 S2# 45	65-85-0
25	C440	2,4-DICHLOROPHENOL	162 S2# 40	120-83-2
26	C445	1,2,4-TRICHLOROBENZENE	180 S2# 55	120-82-1
27	C450	NAPHTHALENE	128 S2# 60	91-20-3
28	C455	4-CHLOROANALINE	127 S2# 80	106-47-8
29	C460	HEXACHLOROBUTADIENE	225 S2# 95CC	87-68-3
30	C465	4-CHLORO-3-METHYLPHENO	107 S2#130CC	59-50-7
31	C470	2-METHYLNAPHTHALENE	142 S2#145	91-57-6
32	C510	HEXACHLOROCYCLOPENTADI	237 S3# 20	77-47-4
33	C515	2,4,6-TRICHLOROPHENOL	196 S3# 25CC	88-06-2
34	CI60	PHENANTHRENE-D10	188IS4# 01	1517-22-2
35	C520	2,4,5-TRICHLOROPHENOL	196 S3# 30	95-95-4
36	CS25	2-FLUOROBIPHENYL	172SS3# 03	321-60-8
37	C525	2-CHLORONAPHTHALENE	162 S3# 40	91-58-7
38	C530	2-NITROANALINE	65 S3# 45	88-74-4
39	C535	DIMETHYLPHTHALATE	163 S3# 55	131-11-3
40	C540	ACENAPHTHYLENE	152 S3# 65	208-96-8
41	C543	2,6-DINITROTOLUENE	165 S3# 70	606-20-2
42	C545	3-NITROANILINE	138 S3# 75	99-09-2
43	C550	ACENAPHTHENE	153 S3# 80CC	83-32-9
44	C555	2,4-DINITROPHENOL	184 S3# 85SP	51-28-5
45	C560	4-NITROPHENOL	109 S3# 95SP	100-02-7
46	C565	DIBENZOFURAN	168 S3# 90	132-64-9
47	C570	2,4-DINITROTOLUENE	165 S3#105	121-14-2

No	Name			
48	C580 DIETHYLPHTHALATE	149	S3#130	84-66-2
49	C590 FLUORENE	166	S3#135	86-73-7
50	C585 4-CHLOROPHENYL-PHENYLE	204	S3#140	7005-72-3

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	715	8:56	1	1.000	A BV	22197.	40.000 UG/ML	6.93
2	112	516	6:27	1	0.722	A BB	59899.	73.576 UG/ML	12.76
3	99	663	8:17	1	0.927	A BB	82714.	73.153 UG/ML	12.68
4	94	664	8:18	1	0.929	A BB	291.	0.232 UG/ML	0.04
5	NOT FOUND								
6	128	684	8:33	1	0.957	A BB	117.	0.150 UG/ML	0.03
7	NOT FOUND								
8	136	953	11:55	8	1.000	A BB	84669.	40.000 UG/ML	6.93
9	164	1311	16:23	9	1.000	A BB	39494.	40.000 UG/ML	6.93
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	82	821	10:16	8	0.861	A BB	35717.	37.637 UG/ML	6.52
19	NOT FOUND								
20	82	869	10:52	8	0.912	A VB	155.	0.087 UG/ML	0.02
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	128	958	11:58	8	1.005	A BB	78.	0.034 UG/ML	0.01
28	NOT FOUND								
29	NOT FOUND								
30	107	1075	13:26	8	1.128	A BB	79.	0.121 UG/ML	0.02
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	188	1614	20:10	34	1.000	A BV	55050.	40.000 UG/ML	6.93
35	NOT FOUND								
36	172	1176	14:42	9	0.897	A BB	51691.	37.053 UG/ML	6.42
37	162	1193	14:55	9	0.910	A BB	45.	0.035 UG/ML	0.01
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	168	1351	16:53	9	1.031	A BB	55.	0.031 UG/ML	0.01
47	NOT FOUND								
48	NOT FOUND								
49	166	1422	17:46	9	1.085	A BB	50.	0.036 UG/ML	0.01
50	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:58	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	6:28	1.00	0.722	1.00	73.58	100.00	1.079	1.467	0.74
3	8:19	1.00	0.929	1.00	73.15	100.00	1.491	2.038	0.73
4	8:21	0.99	0.932	1.00	0.23	50.00	0.010	2.261	0.00
5	8:30		0.948						
6	8:35	1.00	0.958	1.00	0.15	50.00	0.004	1.410	0.00
7	8:52		0.990						
8	11:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
9	16:25	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
10	9:00		1.004						
11	9:21		1.043						
12	9:25		1.050						
13	9:38		1.075						
14	9:42		1.082						
15	9:58		1.113						
16	10:03		1.121						
17	10:06		1.127						
18	10:17	1.00	0.862	1.00	37.64	50.00	0.337	0.448	0.75
19	10:20		0.866						
20	10:54	1.00	0.913	1.00	0.09	50.00	0.001	0.840	0.00
21	11:04		0.928						
22	11:13		0.939						
23	11:28		0.960						
24	11:34		0.970						
25	11:39		0.976						
26	11:51		0.993						
27	11:59	1.00	1.004	1.00	0.03	50.00	0.001	1.075	0.00
28	12:12		1.022						
29	12:27		1.043						
30	13:25	1.00	1.125	1.00	0.12	50.00	0.001	0.308	0.00
31	13:43		1.149						
32	14:17		0.871						
33	14:31		0.884						
34	20:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
35	14:36		0.890						
36	14:43	1.00	0.896	1.00	37.05	50.00	1.047	1.413	0.74
37	14:56	1.00	0.910	1.00	0.03	50.00	0.001	1.304	0.00
38	15:19		0.933						
39	15:54		0.969						
40	16:01		0.976						
41	16:04		0.979						
42	16:23		0.998						
43	16:30		1.005						
44	16:38		1.014						
45	16:51		1.027						
46	16:54	1.00	1.030	1.00	0.03	50.00	0.001	1.779	0.00
47	17:02		1.038						
48	17:43		1.080						
49	17:47	1.00	1.084	1.00	0.04	50.00	0.001	1.424	0.00
50	17:49		1.085						

Quantitation Report File: S59436R980

Data: S59436R980.TI
06/02/88 12:57:00
Sample: 59436-22 BNA H2O 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No.: 59436

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

No	Name			
51	C595 4-NITROANALINE	138 S3#150	100-01-6
52	C610 4,6-DINITRO-2-METHYLPH	198 S4# 10	534-52-1
53	C615 N-NITROSODIPHENYLAMINE	169 S4# 15CC	87-30-6
54	CS55 2,4,6-TRIBROMOPHENOL	330SS3# 02	118-79-6
55	C625 4-BROMOPHENYL-PHENYLET	248 S4# 30	101-55-3
56	C630 HEXACHLOROBENZENE	284 S4# 40	118-74-1
57	CI70 CHRYSENE-D12	240IS5# 01	1719-03-5
58	C635 PENTACHLOROPHENOL	266 S4# 50	87-86-5
59	C640 PHENANTHRENE	178 S4# 65	85-01-8
60	C645 ANTHRACENE	178 S4# 70	120-12-7
61	C650 DI-N-BUTYLPHTHALATE	149 S4# 85	84-74-2
62	C655 FLUORANTHENE	202 S4#110CC	206-44-0
63	CI75 PERYLENE-D12	164IS6# 01	1520-96-3
64	C715 PYRENE	202 S5# 15	129-00-0
65	CS30 TERPHENYL-D14	244SS5# 02	1718-51-0
66	C720 BUTYLBENZYLPHTHALATE	149 S5# 40	85-68-7
67	C725 3,3'-DICHLOROBENZIDINE	252 S5# 55	91-94-1
68	C730 BENZO(A)ANTHRACENE	228 S5# 50	56-55-3
69	C740 CHRYSENE	228 S5# 60	218-01-9
70	C745 BIS(2-ETHYLHEXYL)PHTHA	149 S5# 65	117-81-7
71	C760 DI-N-OCTYL PHTHALATE	149 S6# 10CC	117-84-0
72	C765 BENZO(B)FLUORANTHENE	252 S6# 15	205-99-2
73	C770 BENZO(K)FLUORANTHENE	252 S6# 25	207-08-9
74	C775 BENZO(A)PYRENE	252 S6# 35	50-32-8
75	C780 INDENO(1,2,3-CD)PYRENE	276 S6# 55	193-39-5
76	C785 DIBENZ(A,H)ANTHRACENE	278 S6# 60	53-70-3
77	C790 BENZO(G,H,I)PERYLENE	276 S6# 65	191-24-2

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								
52	NOT FOUND								
53	169	1449	18:07	34	0.898	A BB	455.	0.535 UG/ML	0.09
54	330	1475	18:26	9	1.125	A BB	10731.	71.911 UG/ML	12.47
55	NOT FOUND								
56	NOT FOUND								
57	240	2168	27:06	57	1.000	A BB	35430.	40.000 UG/ML	6.93
58	NOT FOUND								
59	178	1618	20:13	34	1.002	A BB	153.	0.099 UG/ML	0.02
60	178	1627	20:20	34	1.008	A BB	59.	0.039 UG/ML	0.01
61	149	1751	21:53	34	1.085	A BB	691.	0.349 UG/ML	0.06
62	NOT FOUND								
63	264	2449	30:37	63	1.000	A BB	28360.	40.000 UG/ML	6.93
64	202	1912	23:54	57	0.882	A BB	77.	0.058 UG/ML	0.01
65	244	1951	24:23	57	0.900	A BB	38898.	39.885 UG/ML	6.91
66	149	2061	25:46	57	0.951	A BB	97.	0.135 UG/ML	0.02

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
67	NOT FOUND								
68	NOT FOUND								
69	NOT FOUND								
70	149	2187	27:20	57	1.009	A BB	1368.	1.355 UG/ML	0.23
71	149	2309	28:52	63	0.943	A BB	713.	0.417 UG/ML	0.07
72	NOT FOUND								
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								
76	NOT FOUND								
77	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	17:58		1.095						
52	18:05		0.895						
53	18:09	1.00	0.899	1.00	0.53	50.00	0.007	0.618	0.01
54	18:28	1.00	1.125	1.00	71.91	100.00	0.109	0.151	0.72
55	19:04		0.944						
56	19:25		0.962						
57	27:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
58	19:53		0.985						
59	20:16	1.00	1.003	1.00	0.10	50.00	0.002	1.125	0.00
60	20:22	1.00	1.009	1.00	0.04	50.00	0.001	1.105	0.00
61	21:55	1.00	1.085	1.00	0.35	50.00	0.010	1.440	0.01
62	23:21		1.156						
63	30:37	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
64	23:55	1.00	0.882	1.00	0.06	50.00	0.002	1.489	0.00
65	24:23	1.00	0.899	1.00	39.88	50.00	0.878	1.101	0.80
66	25:46	1.00	0.950	1.00	0.14	50.00	0.002	0.811	0.00
67	27:04		0.998						
68	27:04		0.998						
69	27:12		1.003						
70	27:20	1.00	1.008	1.00	1.36	50.00	0.031	1.140	0.03
71	28:52	1.00	0.943	1.00	0.42	50.00	0.020	2.413	0.01
72	29:45		0.971						
73	29:49		0.974						
74	30:30		0.996						
75	33:34		1.096						
76	33:37		1.098						
77	34:25		1.124						

TCA FINISHED, 18 FOUND
FINISHED AT: 6/02/88 19:01:13

RMAL QUANTITATION SUMMARY FILE: S59436R980
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/ML

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	S1# 1	CI30 1,4-DICHLOROBENZENE	152	715	1	22197.	1.000	40.000
2	S2# 1	CI40 NAPHTHALENE-D8	136	953	2	84669.	1.000	40.000
3	S3# 1	CI50 ACENAPHTHENE-D10	164	1311	3	39494.	1.000	40.000
4	S4# 1	CI60 PHENANTHRENE-D10	188	1614	4	55050.	1.000	40.000
5	S5# 1	CI70 CHRYSENE-D12	240	2168	5	35430.	1.000	40.000
6	S6# 1	CI75 PERYLENE-D12	264	2449	6	28360.	1.000	40.000
7	S2# 2	CS20 NITROBENZENE-D5	82	821	2	35717.	0.337	37.637
8	S3# 3	CS25 2-FLUOROBIPHENYL	172	1176	3	51691.	1.047	37.053
9	S5# 2	CS30 TERPHENYL-D14	244	1951	5	38898.	0.878	39.885
10	S1# 3	CS45 PHENOL-D5	99	663	1	82714.	1.491	73.153
11	S1# 2	CS50 2-FLUOROPHENOL	112	516	1	59899.	1.079	73.576
12	S3# 2	CS55 2,4,6-TRIBROMOPHENO	330	1475	3	10731.	0.109	71.911
13	S1#105	C315 PHENOL	94		1	NOT FOUND		
14	S1#110	C325 BIS(2-CHLOROETHYL)E	93		1	NOT FOUND		
15	S1#115	C330 2-CHLOROPHENOL	128		1	NOT FOUND		
16	S1#125	C335 1,3-DICHLOROBENZENE	146		1	NOT FOUND		
17	S1#130	C340 1,4-DICHLOROBENZENE	146		1	NOT FOUND		
18	S1#145	C345 BENZYL ALCOHOL	108		1	NOT FOUND		
19	S1#150	C350 1,2-DICHLOROBENZENE	146		1	NOT FOUND		
20	S1#160	C355 2-METHYLPHENOL	108		1	NOT FOUND		
21	S1#165	C360 BIS(2-CHLOROISOPROP	45		1	NOT FOUND		
22	S1#185	C365 4-METHYLPHENOL	108		1	NOT FOUND		
23	S1#190	C370 N-NITROSO-DI-N-PROP	70		1	NOT FOUND		
24	S1#200	C375 HEXACHLOROETHANE	117		1	NOT FOUND		
25	S2# 10	C410 NITROBENZENE	77		2	NOT FOUND		
26	S2# 20	C415 ISOPHORONE	82		2	NOT FOUND		
27	S2# 25	C420 2-NITROPHENOL	139		2	NOT FOUND		
28	S2# 30	C425 2,4-DIMETHYLPHENOL	107		2	NOT FOUND		
29	S2# 35	C435 BIS(2-CHLOROETHOXY)	93		2	NOT FOUND		
30	S2# 40	C440 2,4-DICHLOROPHENOL	162		2	NOT FOUND		
31	S2# 45	C430 BENZOIC ACID	122		2	NOT FOUND		
32	S2# 55	C445 1,2,4-TRICHLOROBENZ	180		2	NOT FOUND		
33	S2# 60	C450 NAPHTHALENE	128		2	NOT FOUND		
34	S2# 80	C455 4-CHLOROANALINE	127		2	NOT FOUND		
35	S2# 95	C460 HEXACHLOROBUTADIENE	225		2	NOT FOUND		
36	S2#130	C465 4-CHLORO-3-METHYLPH	107		2	NOT FOUND		
37	S2#145	C470 2-METHYLNAPHTHALENE	142		2	NOT FOUND		
38	S3# 20	C510 HEXACHLOROCYCLOPENT	237		3	NOT FOUND		
39	S3# 25	C515 2,4,6-TRICHLOROPHEN	196		3	NOT FOUND		
40	S3# 30	C520 2,4,5-TRICHLOROPHEN	196		3	NOT FOUND		
41	S3# 40	C525 2-CHLORONAPHTHALENE	162		3	NOT FOUND		
42	S3# 45	C530 2-NITROANALINE	65		3	NOT FOUND		
43	S3# 55	C535 DIMETHYLPHTHALATE	163		3	NOT FOUND		
44	S3# 65	C540 ACENAPHTHYLENE	152		3	NOT FOUND		
45	S3# 70	C543 2,6-DINITROTOLUENE	165		3	NOT FOUND		
46	S3# 75	C545 3-NITROANILINE	138		3	NOT FOUND		
47	S3# 80	C550 ACENAPHTHENE	153		3	NOT FOUND		
48	S3# 85	C555 2,4-DINITROPHENOL	184		3	NOT FOUND		
49	S3# 90	C565 DIBENZOFURAN	168		3	NOT FOUND		
50	S3# 95	C560 4-NITROPHENOL	109		3	NOT FOUND		
51	S3#105	C570 2,4-DINITROTOLUENE	165		3	NOT FOUND		

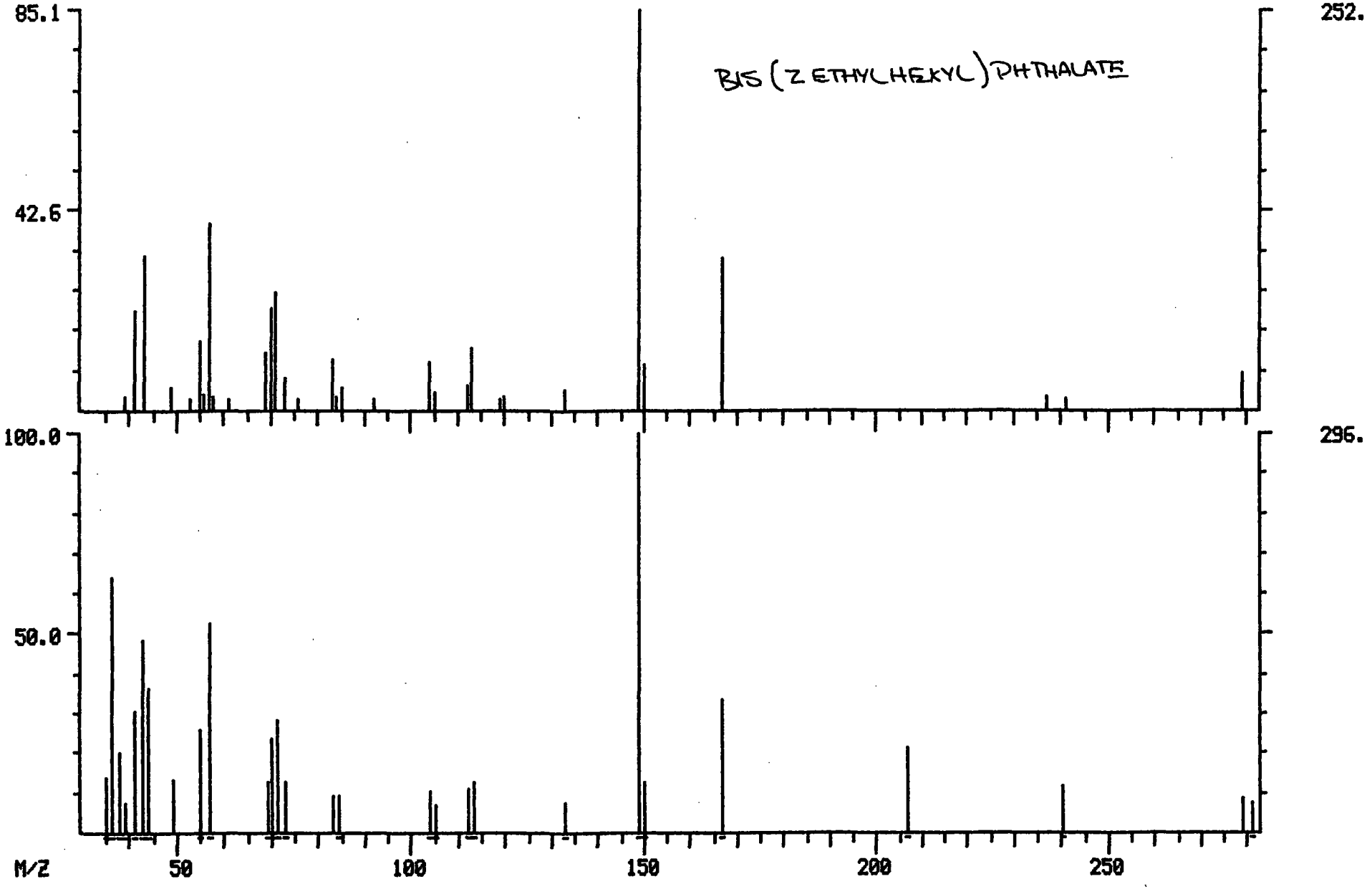
52	S3#130	C580	DIETHYLPHTHALATE	149		3	NOT FOUND			
53	S3#135	C590	FLUORENE	166		3	NOT FOUND			
54	S3#140	C585	4-CHLOROPHENYL-PHEN	204		3	NOT FOUND			
55	S3#150	C595	4-NITROANALINE	138		3	NOT FOUND			
56	S4# 10	C610	4,6-DINITRO-2-METHY	198		4	NOT FOUND			
57	S4# 15	C615	N-NITROSODIPHENYLAM	169		4	NOT FOUND			
58	S4# 30	C625	4-BROMOPHENYL-PHENY	248		4	NOT FOUND			
59	S4# 40	C630	HEXACHLOROBENZENE	284		4	NOT FOUND			
60	S4# 50	C635	PENTACHLOROPHENOL	266		4	NOT FOUND			
61	S4# 65	C640	PHENANTHRENE	178		4	NOT FOUND			
62	S4# 70	C645	ANTHRACENE	178		4	NOT FOUND			
63	S4# 85	C650	DI-N-BUTYLPHTHALATE	149		4	NOT FOUND			
64	S4#110	C655	FLUORANTHENE	202		4	NOT FOUND			
65	S5# 15	C715	PYRENE	202		5	NOT FOUND			
66	S5# 40	C720	BUTYLBENZYLPHTHALAT	149		5	NOT FOUND			
67	S5# 50	C730	BENZO(A)ANTHRACENE	228		5	NOT FOUND			
68	S5# 55	C725	3,3'-DICHLOROBENZID	252		5	NOT FOUND			
69	S5# 60	C740	CHRYSENE	228		5	NOT FOUND			
70	S5# 65	C745	BIS(2-ETHYLHEXYL)PH	149	2187	5	1368.	0.031	1.355	✓
71	S6# 10	C760	DI-N-OCTYL PHTHALAT	149		6	NOT FOUND			
72	S6# 15	C765	BENZO(B)FLUORANTHEN	252		6	NOT FOUND			
73	S6# 25	C770	BENZO(K)FLUORANTHEN	252		6	NOT FOUND			
74	S6# 35	C775	BENZO(A)PYRENE	252		6	NOT FOUND			
75	S6# 55	C780	INDENO(1,2,3-CD)PYR	276		6	NOT FOUND			
76	S6# 60	C785	DIBENZ(A,H)ANTHRACE	278		6	NOT FOUND			
77	S6# 65	C790	BENZO(G,H,I)PERYLEN	276		6	NOT FOUND			

01539

015:10

DUAL MASS SPECTRUM
06/02/88 12:57:00 + 27:20
SAMPLE: 59436-22 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R980 #2187 BASE M/Z: 149/ 149
CALI: 060288CR #5 RIC: 1189./ 1935.

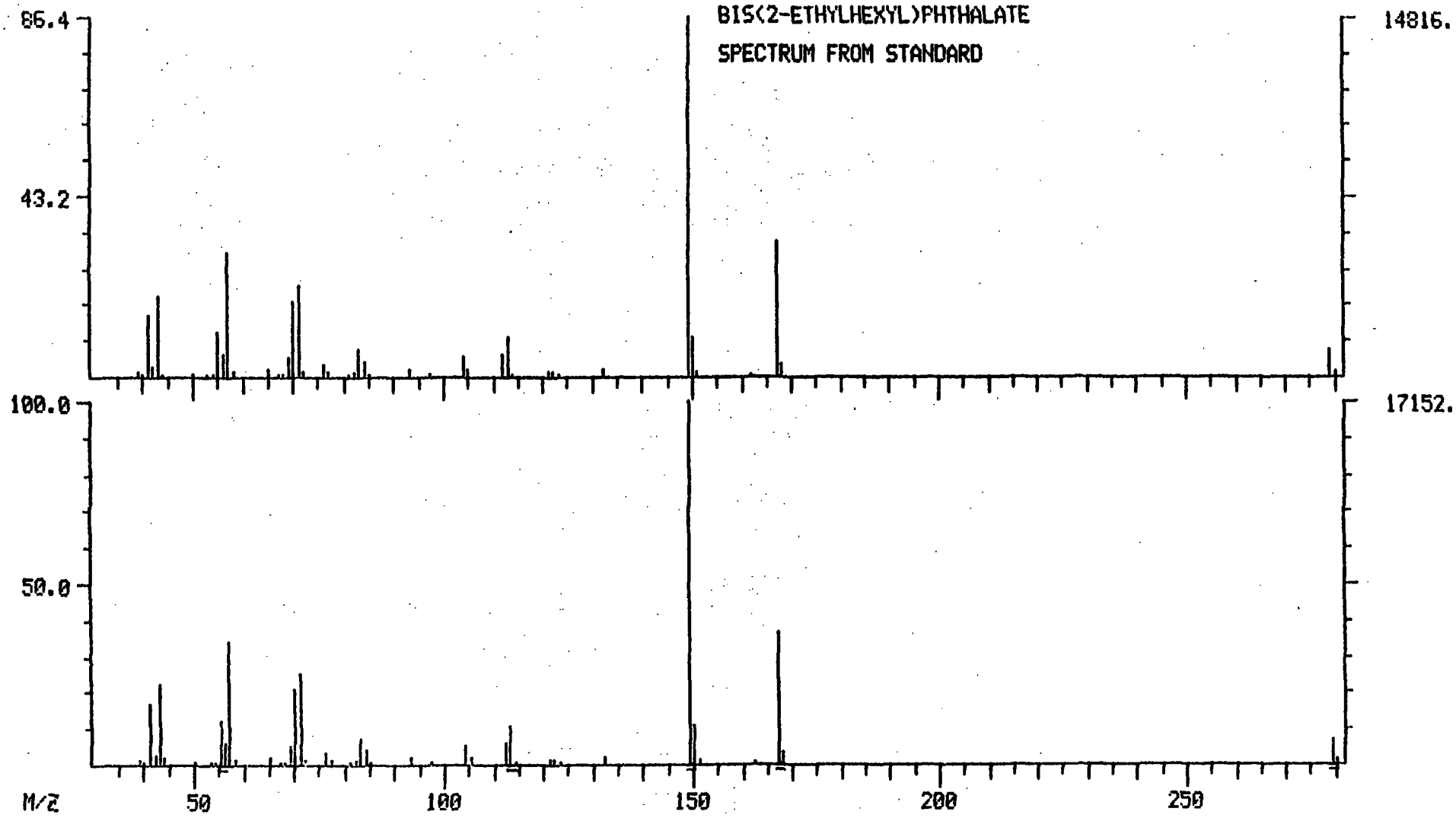


01541

DUAL MASS SPECTRUM
10/29/86 13:35:00 + 30:27
SAMPLE: 50PPM HSL STD
CONDS.: DESC ST
ENHANCED (S 15B 2N 0T)

DATA: STDR810 #2436
CALI: 103086C #5

BASE M/Z: 149/ 149
RIC: 55167./ 63807.



DATA REDUCED BY: DR DATE: 6·7·88 DATA FILE: S59436R980
DATA REVIEWED BY: ____ DATE: ____

01542

ENSECO TIC REPORT (PAGE 1)

SAMPLE: 59436-22 BNA H2O 100%/2ML RUN FACTOR: 1.00
CONDITIONS: ST ANALYST: MK

#	SCAN	Q	C	CONCENTRATION IN SAMPLE (UG/ML)	CAS #	COMPOUND
1	314	B	2	10.	108-87-2	CYCLOHEXANE, METHYL-
2	369	B	2	5.9	108-88-3	BENZENE, METHYL- (VOA)
3	392	CB	1	6.0	00-00-0	OXYGENATED HYDROCARBON
4	434	CB	1	7.1	00-00-0	OXYGENATED HYDROCARBON
5	468	CB	1	19.	00-00-0	OXYGENATED HYDROCARBON
6	622	IB	2	8.8	96-19-5	1-PROPENE, 1,2,3-TRICHLORO-

DATA FILE: S59436R980

01543

ENSECO TIC REPORT (PAGE 2)

CONCENTRATION = AREA(TIC)*CONC(IS)/AREA(IS)

#	FIT	PURITY	INT. STD.	RT	RRT	AREA	HEIGHT	AMOUNT AS ANALYZED (UG/ML)	LIB	LIB #
1	981	893	1	3:55	0.444	38223.	13299.	10.401	NB	1138.
2	994	959	1	4:36	0.521	21638.	10056.	5.888	NB	850.
3	918	801	1	4:53	0.553	21939.	9910.	5.970	BC	2.
4	933	749	1	5:25	0.611	25955.	9264.	7.063	BC	2.
5	816	773	1	5:50	0.659	69189.	24440.	18.827	BC	2.
6	0	766	1	7:46	0.874	32175.	13645.	8.755	NB	6445.

TIC SELECTION REPORT

DATA FILE: S59436R980

01544

THE FOLLOWING PEAKS WERE REJECTED BECAUSE AT LEAST 50 % OF THEIR SIZE WAS ACCOUNTED FOR BY TARGET COMPOUNDS ELUTING WITHIN 3 SCANS OF THE PEAK TOP.

SCAN	SIZE	AMOUNT
336	85703.	23.320
516	219695.	59.781
663	230673.	62.768
715	146999.	39.999
821	101528.	27.626
954	186286.	39.999
1176	157139.	33.741
1311	197846.	49.464
1614	159991.	39.999
1951	116055.	29.015
2168	109973.	44.748
2449	98303.	39.999

TOTAL NUMBER OF UNIDENTIFIED PEAKS WITH SIZE GREATER THAN 10 % OF THE CLOSEST INTERNAL STANDARD (WITHOUT INTERFERENCES) = 7

INTERNAL STANDARD DATA IS LISTED BELOW. IS FOR WHICH RIC SIZE DIFFERS FROM THE ESTIMATED RIC SIZE BY MORE THAN 60 % ARE CONSIDERED TO HAVE INTERFERENCES, AND ARE NOT USED FOR QUANTITATION.

#	LIB	LIB#	RIC SIZE	ESTIMATED RIC SIZE	INTERFERENCE
1	S1	1	146999.	135770.	
2	S2	1	186286.	124704.	
3	S3	1	197846.	98983.	*
4	S4	1	159991.	105846.	
5	S5	1	109973.	68160.	*
6	S6	1	98303.	75929.	

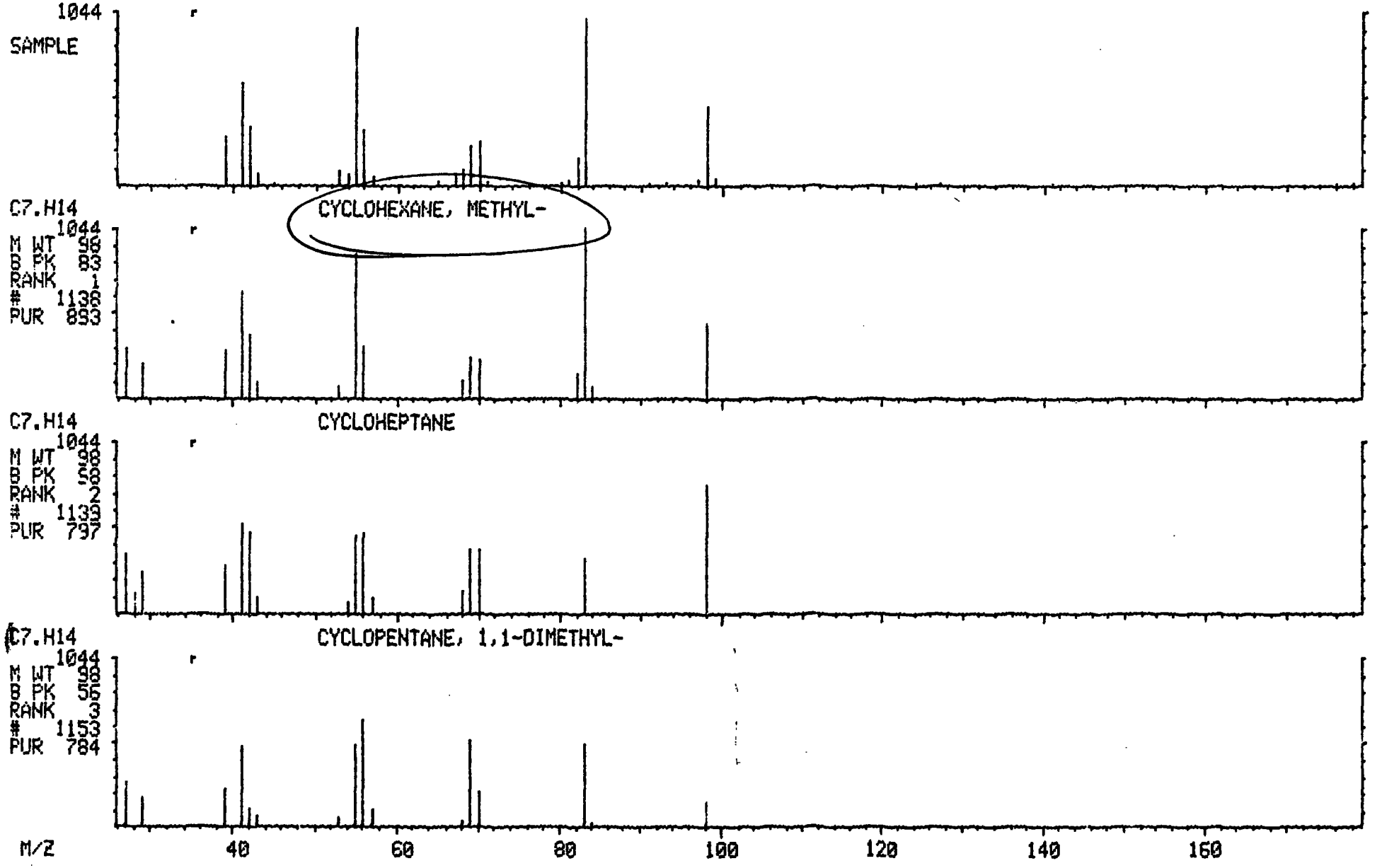
SIZE = AREA

01545

LIBRARY SEARCH
05/02/88 12:57:00 + 3:55
SAMPLE: 59436-22 BNA H2O 100%/2ML
CONDS.: 5T
ENHANCED (5 15B 2N 0T)

DATA: 559436R980 # 314
CALI: 060288CR # 5

BASE M/Z: 83
RIC: 10927.

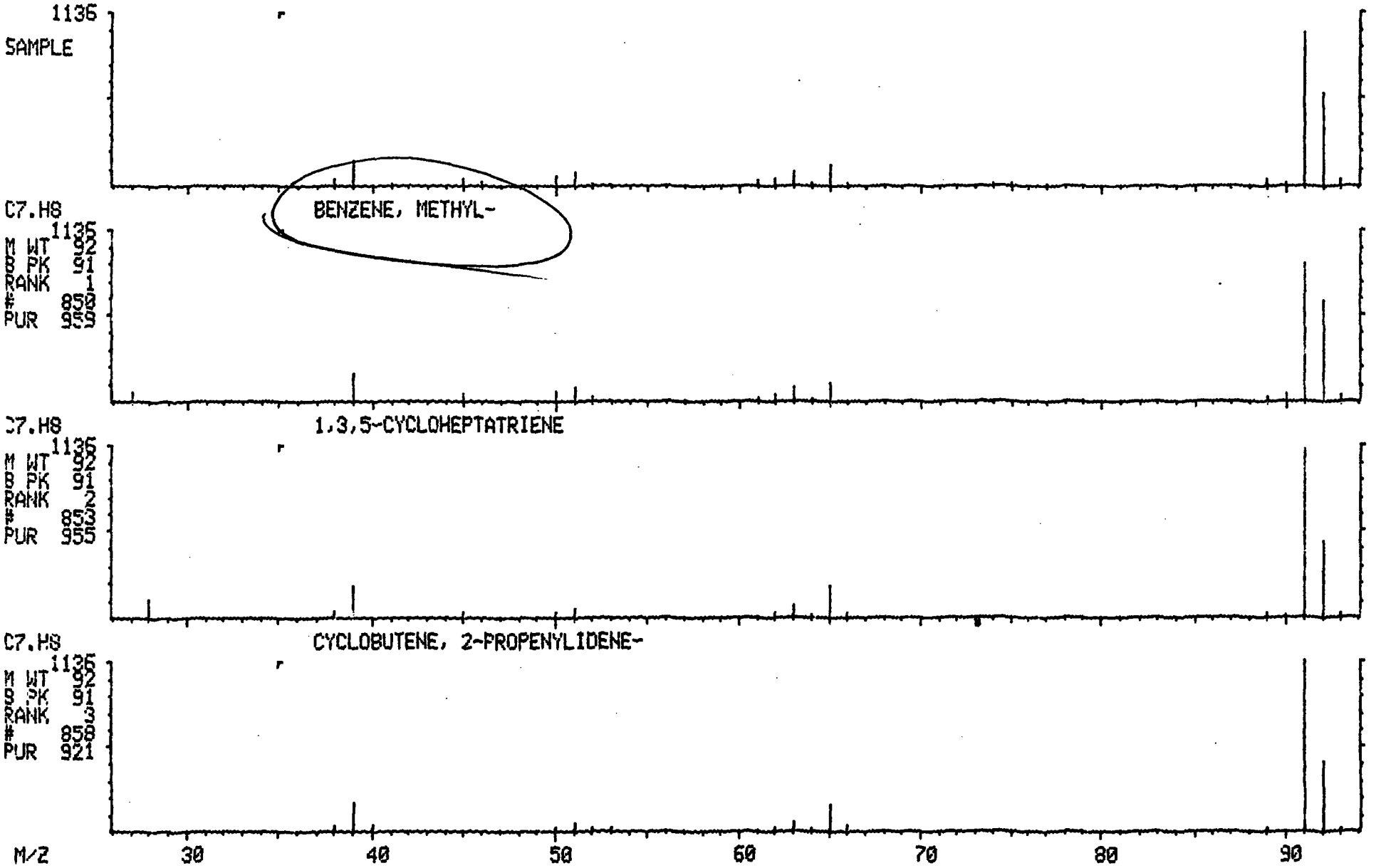


01546

LIBRARY SEARCH
06/02/88 12:57:00 + 4:37
SAMPLE: 59436-22 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R380 # 369
CALI: 060288CR # 5

BASE M/Z: 91
RIC: 7919.



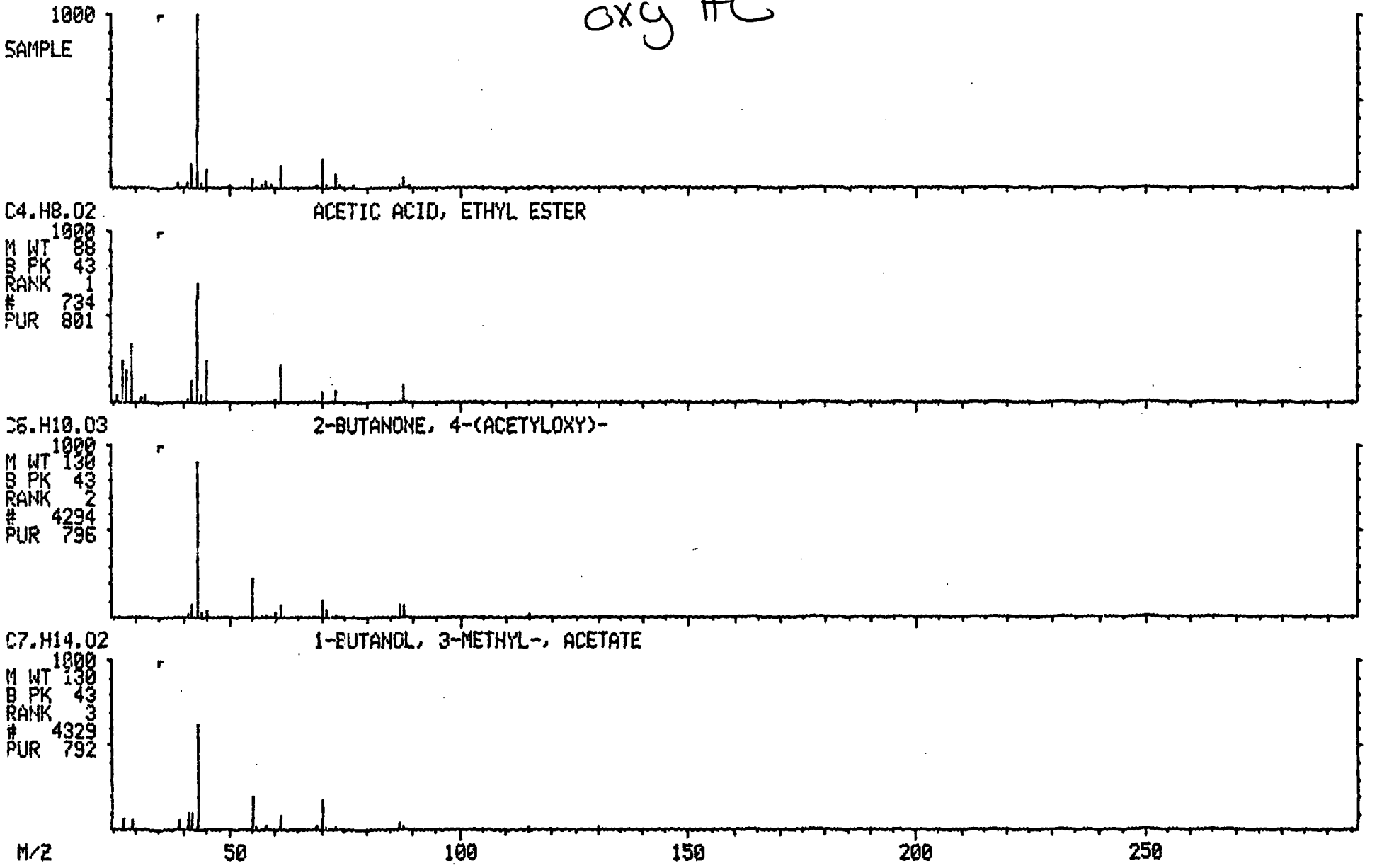
01547

LIBRARY SEARCH
06/02/88 12:57:00 + 4:54
SAMPLE: 59436-22 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R980 # 392
CALI: 060288CR # 5

BASE M/Z: 43
RIC: 7135.

oxg HC

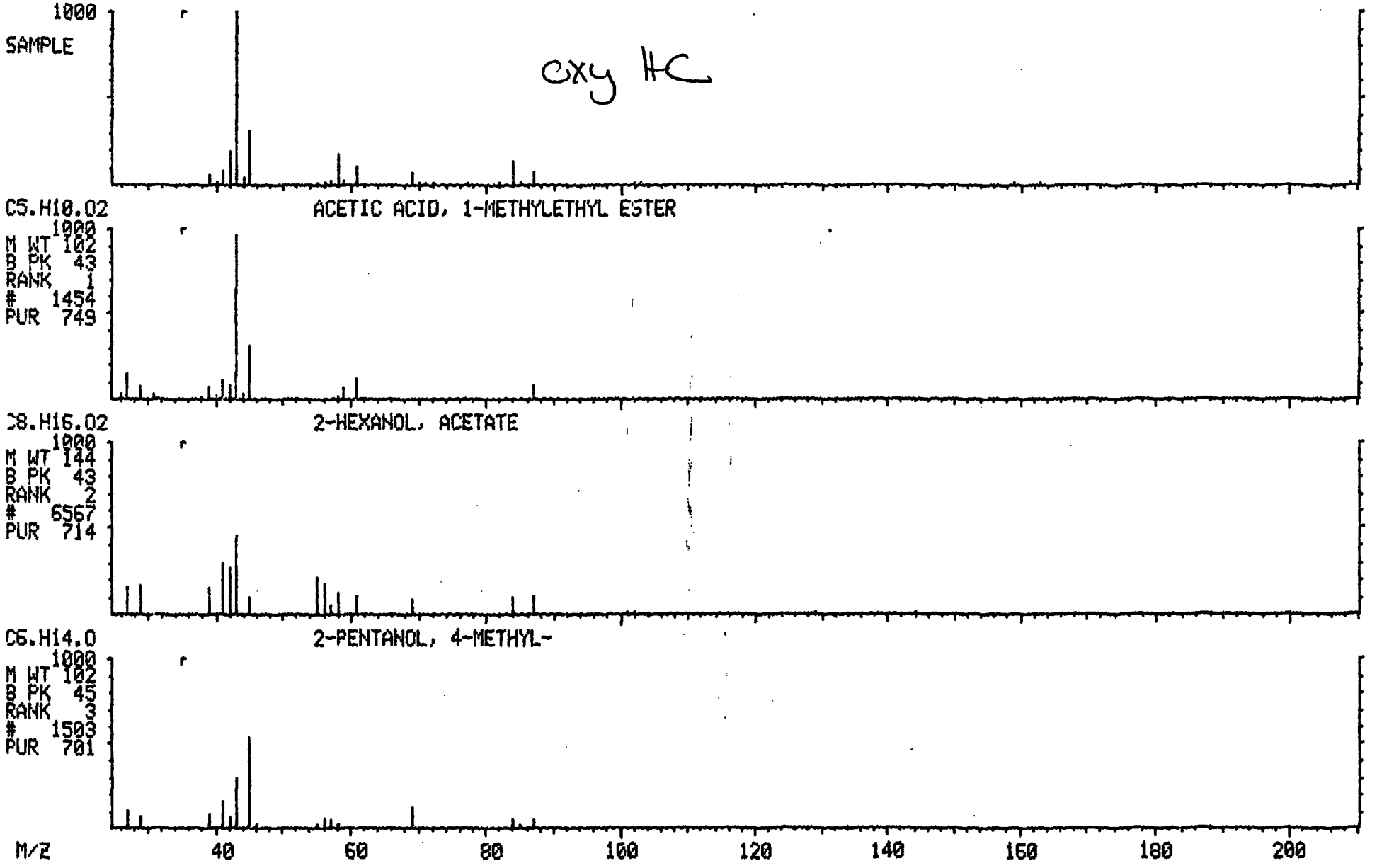


01548

LIBRARY SEARCH
06/02/88 12:57:00 + 5:25
SAMPLE: 59436-22 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R980 # 434
CALI: 060288CR # 5

BASE M/Z: 43
RIC: 7535.

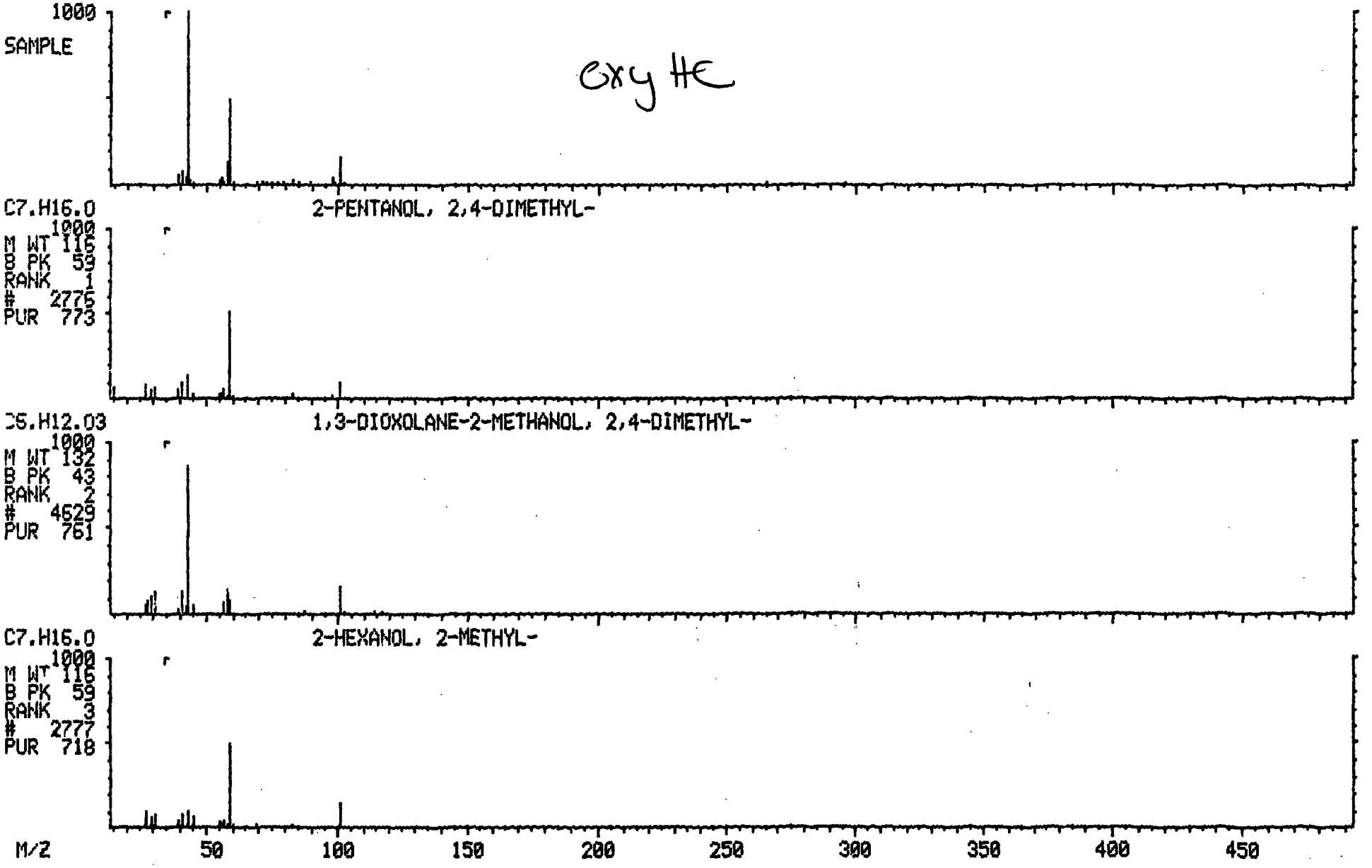


01549

LIBRARY SEARCH
06/02/88 12:57:00 + 5:51
SAMPLE: 59436-22 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R980 # 468
CALI: 060288CR # 5

BASE M/Z: 43
RIC: 21599.

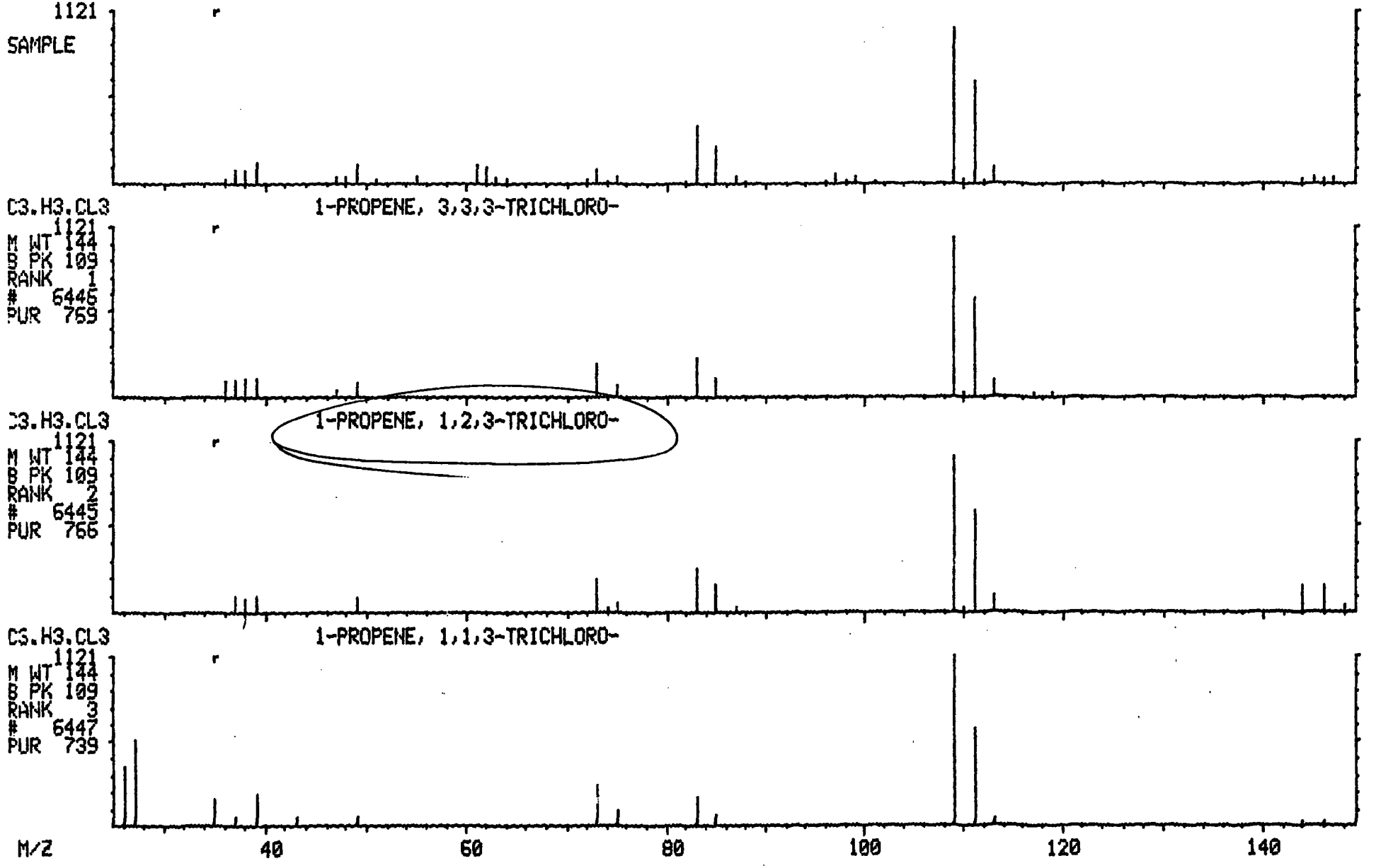


01550

LIBRARY SEARCH
06/02/88 12:57:00 + 7:46
SAMPLE: 59436-22 BNA H2O 100%/2ML
CONDS.: 5T
ENHANCED (5 15B 2N 0T)

DATA: 559436R980 # 622
CALI: 060288CR # 5

BASE M/Z: 109
RIC: 11263.



PROCEDURE: TCA DIAGNOSTIC REPORT 01551 6/03/88 18:24:39
DATA FILE: S59436R980
REFERENCE: 11TABLE
NAME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: ISO1

< ---- STANDARDS ----- >				< --- PLUS UNKNOWNS --- >				< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	1	0	13	2	1	0	ISO1/TCO1
3	3	1	0	14	3	1	0	ISO2/TCO2

26 COMPOUNDS PROCESSED, 4 FOUND

< COMPOUND >			< ---------- SEARCH ---------- >					< SAT >		< ------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	S1	1	-714	715	715	.	1	970	.	152	715	.	1
2	S1	4	-332	336	336	.	1	987	.	84	336	.	1
3	S1	20	-334	338	.	.	.	.	.	79	.	.	.
4	S1	30	-429	432	.	.	.	.	.	93	.	.	.
5	S1	62	-494	497	.	.	.	.	.	93	.	.	.
6	S1	64	-525	527	.	.	.	.	.	107	.	.	.
7	S1	73	-556	558	.	.	.	.	.	106	.	.	.
8	S1	83	-593	595	.	.	.	.	.	107	.	.	.
9	S1	87	-613	615	.	.	.	.	.	107	.	.	.
10	S1	88	-634	636	.	.	.	.	.	107	.	.	.
11	S1	89	-642	644	.	.	.	.	.	107	.	.	.
12	S1	92	-661	662	.	.	.	.	.	107	.	.	.
13	S1	122	-699	700	.	.	.	.	.	107	.	.	.
14	S2	1	-953	954	954	.	1	997	.	136	953	-1	1
15	S3	1	-1310	1311	1311	.	1	994	.	164	1311	.	1
16	S1	137	-730	731	.	.	.	.	.	106	.	.	.
17	S1	142	-743	744	.	.	.	.	.	106	.	.	.
18	S1	187	-797	798	.	.	.	.	.	108	.	.	.
19	S1	202	-821	822	.	.	.	.	.	106	.	.	.
20	S1	203	-826	827	.	.	.	.	.	106	.	.	.
21	S1	204	-846	847	.	.	.	.	.	122	.	.	.
22	S2	27	-897	898	.	.	.	.	.	107	.	.	.
23	S2	37	-921	922	.	.	.	.	.	107	.	.	.
24	S2	47	-935	936	.	.	.	.	.	107	.	.	.
25	S2	57	-954	955	.	.	.	.	.	107	954	.	1
26	S2	150	-1117	1118	.	.	.	.	.	142	.	.	.

Quantitation Report File: S59436R980

01552

Data: S59436R980.TI
06/02/88 12:57:00
Sample: 59436-22 BNA H2O 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No.: 59436

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

No	Name			
1	CI30 1,4-DICHLOROBENZENE-D4	152	IS1# 01	3855-82-1
2	PYRIDINE-D5	84	S1# 04	
3	PYRIDINE	79	S1# 20	110-86-1
4	2-PICOLINE	93	S1# 30	109-06-8
5	3 & 4-PICOLINE	93	S1# 62	
6	2,6-LUTIDINE	107	S1# 64	
7	2-ETHYL PYRIDINE	106	S1# 73	
8	2,4 & 2,5-LUTIDINE	107	S1# 83	
9	2,3-LUTIDINE	107	S1# 87	
10	3-ETHYL PYRIDINE	107	S1# 88	
11	4-ETHYL PYRIDINE	107	S1# 89	
12	3,5-LUTIDINE	107	S1# 92	
13	3,4-LUTIDINE	107	S1#122	
14	CI40 NAPHTHALENE-D8	136	IS2# 01	1146-65-2
15	CI50 ACENAPHTHENE-D10	164	IS3# 01	15067-26-2
16	2-METHYL-5-ETHYL PYRIDINE	106	S1#137	
17	2-METHYL-3-ETHYL PYRIDINE	106	S1#142	
18	M AND P CRESOLS	108	S2#187	
19	3-ETHYL-4-METHYL PYRIDINE	106	S1#202	
20	3-ETHYL-5-METHYL PYRIDINE	106	S1#203	
21	2,6-DIMETHYL PHENOL	122	S1#204	
22	2,5-DIMETHYL PHENOL	107	S2# 27	
23	3,5-DIMETHYL PHENOL	107	S2# 37	
24	2,3-DIMETHYL PHENOL	107	S2# 47	
25	3,4-DIMETHYL PHENOL	107	S2# 57	
26	1-METHYLNAPHTHALENE	142	S2#150	90-12-0

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	715	8:56	1	1.000	A BV	22197.	40.000 UG/ML	27.00
2	84	336	4:12	1	0.470	A BB	29722.	27.729 UG/ML	18.72
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	136	953	11:55	14	1.000	A BB	84669.	40.000 UG/ML	27.00
15	164	1311	16:23	15	1.000	A BB	39494.	40.000 UG/ML	27.00
16	NOT FOUND								
17	NOT FOUND								

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	107	954	11:55	1	1.334	A BB	455.	0.454 UG/ML	0.31
26	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	4:09	1.01	0.464	1.01	27.73	50.00	1.071	1.932	0.55
3	4:10		0.467						
4	5:22		0.600						
5	6:10		0.691						
6	6:34		0.734						
7	6:57		0.778						
8	7:25		0.829						
9	7:40		0.857						
10	7:55		0.887						
11	8:01		0.898						
12	8:16		0.924						
13	8:44		0.978						
14	11:55	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
15	16:23	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
16	9:07		1.021						
17	9:17		1.039						
18	9:58		1.115						
19	10:16		1.148						
20	10:19		1.155						
21	10:34		1.183						
22	11:13		0.940						
23	11:31		0.965						
24	11:41		0.980						
25	11:55	1.00	1.334	1.00	0.45	50.00	0.016	1.806	0.01
26	13:58		1.171						

TCA FINISHED, 4 FOUND
FINISHED AT: 6/03/88 18:27:24

RF 2.081554
SV 2.00

RMAL QUANTITATION SUMMARY FILE: S59436R980
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/ML

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	S1# 1	CI30 1,4-DICHLOROBENZENE	152	715	1	22197.	1.000	40.000
2	S2# 1	CI40 NAPHTHALENE-D8	136	953	2	84669.	1.000	40.000
3	S3# 1	CI50 ACENAPHTHENE-D10	164	1311	3	39494.	1.000	40.000
4	S1# 4	PYRIDINE-D5	84	336	1	29722.	1.071	27.729
5	S1# 20	PYRIDINE	79		1	NOT FOUND		
6	S1# 30	2-PICOLINE	93		1	NOT FOUND		
7	S1# 62	3 & 4-PICOLINE	93		1	NOT FOUND		
8	S1# 64	2,6-LUTIDINE	107		1	NOT FOUND		
9	S1# 73	2-ETHYL PYRIDINE	106		1	NOT FOUND		
10	S1# 83	2,4 & 2,5-LUTIDINE	107		1	NOT FOUND		
11	S1# 87	2,3-LUTIDINE	107		1	NOT FOUND		
12	S1# 88	3-ETHYL PYRIDINE	107		1	NOT FOUND		
13	S1# 89	4-ETHYL PYRIDINE	107		1	NOT FOUND		
14	S1# 92	3,5-LUTIDINE	107		1	NOT FOUND		
15	S1#122	3,4-LUTIDINE	107		1	NOT FOUND		
16	S1#137	2-METHYL-5-ETHYL PYRIDIN	106		1	NOT FOUND		
17	S1#142	2-METHYL-3-ETHYL PYRIDIN	106		1	NOT FOUND		
18	S1#187	M AND P CRESOLS	108		1	NOT FOUND		
19	S1#202	3-ETHYL-4-METHYL PYRIDIN	106		1	NOT FOUND		
20	S1#203	3-ETHYL-5-METHYL PYRIDIN	106		1	NOT FOUND		
21	S1#204	2,6-DIMETHYL PHENOL	122		1	NOT FOUND		
22	S2# 27	2,5-DIMETHYL PHENOL	107		2	NOT FOUND		
23	S2# 37	3,5-DIMETHYL PHENOL	107		2	NOT FOUND		
24	S2# 47	2,3-DIMETHYL PHENOL	107		2	NOT FOUND		
25	S2# 57	3,4-DIMETHYL PHENOL	107		1	NOT FOUND		
26	S2#150	1-METHYLNAPHTHALENE	142		2	NOT FOUND		

RMAL-GC/MS REILLY TAR & CHEMICAL CO. PROJECT PROCESSING PROGRAM 01555
DATAFILE: 2: S59436X838. STARTED : 6/04/88 2:17:13

6/3/88 20:20:05 SCAN 1 OF 3900 $RF = \frac{ng}{ml} \times \frac{0.5ml}{3.75L} = 0.133\ ng/L$
Acquisition started

Acquire Run 2: S59436X838 ACQUIRING
06/03/88 20:20:00 + 0:03 Free sectors: 18894 Scan: 7 of 3900
Sample: 59436-22 PAH WATER 100%/0.5ML
Conds.: 2 UL AUTO INJ
Formula: Instrument: 4500 Weight: 80.000
Submitted by: RMAL Analyst: JGG Acct. No: 59436

********** GC PARAMETERS **********
Loaded GC Desc: PA Current GC oven tmp: 29 DegC Injector : 265 DegC
Current GC Desc: PA GC elapsed time : 0: 3 min Int. oven : 300 DegC

Seq. #	Temp(C)	Rate(C/m)	Time(min)	Total time(min)		Open	Close
1	30 - 30	-	1.0	1.0	Sweep/Split	0.5	0.0
2	30 - 325	10.0	29.5	30.5	Divert	45.5	0.0
3	325 - 325	-	15.0	45.5			
4	325 - 325	-	0.0	45.5			

********** SCAN PARAMETERS **********
***** Mode: Centroid positive ion + R1 (Temp)

MID scan Desc: P1 Mass intervals: 3
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 1024

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL	ION
1	225.500	226.500	0.105	1	100	0	1	1	Pos
2	227.500	228.500	0.105	1	100	0	1	1	Pos
3	239.500	240.500	0.105	1	100	0	1	1	Pos

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	Q	
Full scale mass	1024	u
Zero scale mass	1	u
Intensity/ion	2	
Peak Width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(MS)	4	

6/3/88 20:48:30 SCAN 3407 OF 3900

MID scan Desc: P2 Mass intervals: 3
Scan time: 0.500 s Samp. Int.: 0.200 ms Master rate: 1024

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL	ION
1	249.575	250.575	0.106	1	100	0	1	1	Pos
2	251.575	252.575	0.105	1	100	0	1	1	Pos
3	263.579	264.579	0.106	1	100	0	1	1	Pos

6/3/88 20:52:48
ACQUISITION COMPLETED
SCANS 1 TO 3406 Centroid
SCAN 3407 Suspended
SCANS 3408 TO 3900 Centroid

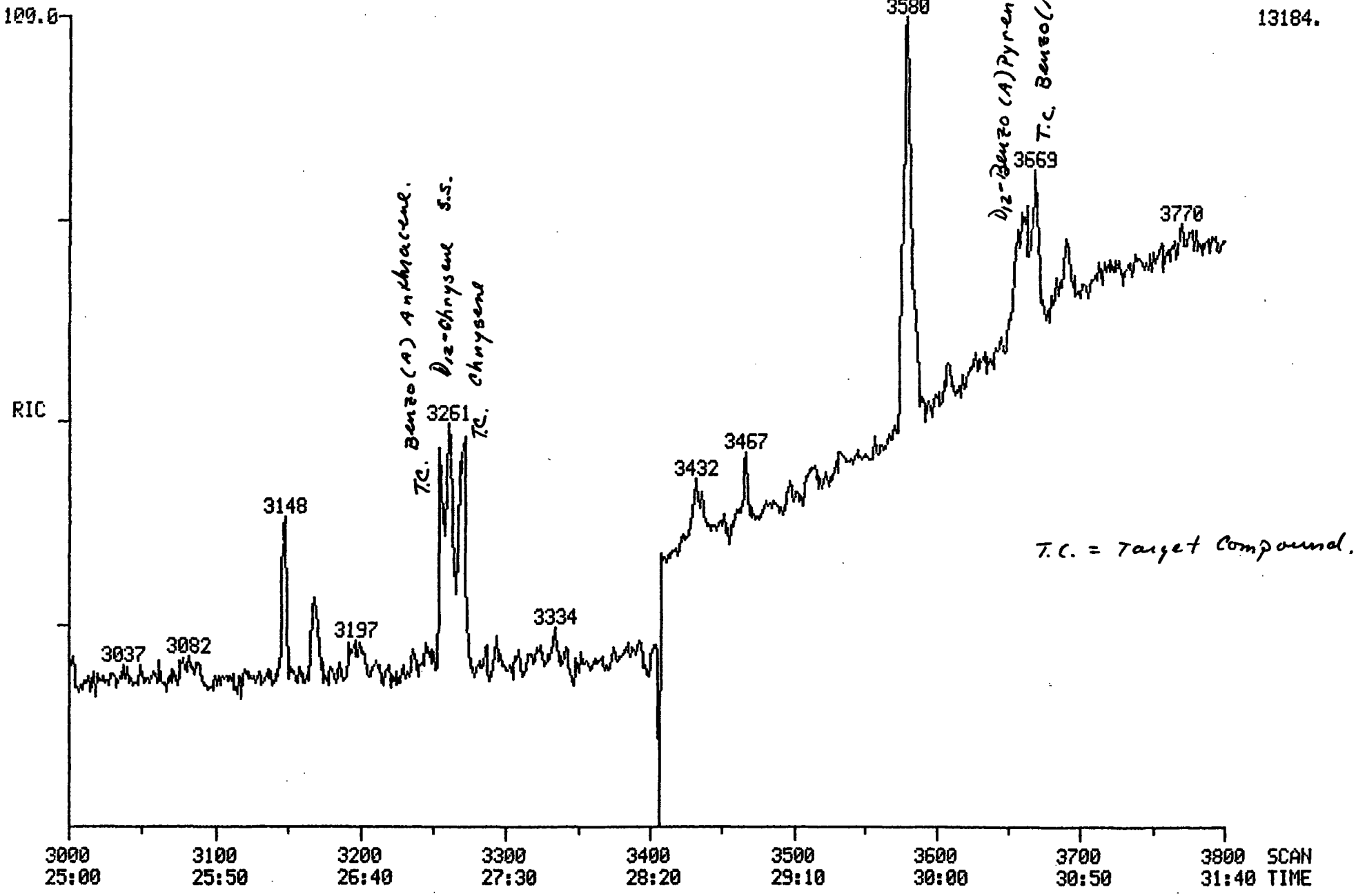
Mode Scans Secs Out of % Peaks per scan per sec

01556

MIDRIC
06/03/88 20:20:00
SAMPLE: 59436-22 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
RANGE: G 1,3900 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: S59436X838 #1
CALI: 060388CX #2

SCANS 3000 TO 3800



T.C. = Target Compound.

Quantitation Report File: S59436X838

Data: S59436X838.TI
06/03/88 20:20:00
Sample: 59436-22 PAH WATER 100%/0.5ML
Conds.: 2 UL AUTO INJ
Formula: Instrument: 4500 Weight: 80.000
Submitted by: RMAL Analyst: JGG Acct. No.: 59436

01557

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

No	Name	
1	D12-BENZO(A)PYRENE	264IPH# 01
2	D12-CHRYSENE	240SPH# 02
3	BENZO(A)ANTHRACENE	228 PH# 03
4	BENZO(A)ANTHRACENE	226 PH# 04
5	CHRYSENE	228 PH# 05
6	CHRYSENE	226 PH# 06
7	BENZO(B)FLUORANTHENE	252 PH# 07
8	BENZO(B)FLUORANTHENE	250 PH# 08
9	BENZO(K)FLUORANTHENE	252 PH# 09
10	BENZO(K)FLUORANTHENE	250 PH# 10
11	BENZO(J)FLUORANTHENE	252 PH# 11
12	BENZO(J)FLUORANTHENE	250 PH# 12
13	BENZO(A)PYRENE	252 PH# 13
14	BENZO(A)PYRENE	250 PH# 14

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	264	3663	30:31	1	1.000	A BB	10950.	80.000	NG/ML	4.99
2	240	3262	27:11	1	0.891	A BB	16600.	89.711	NG/ML	5.60
3	228	3255	27:07	1	0.889	A BV	11563.	61.063	NG/ML	3.81
4	226	3255	27:07	1	0.889	A BV	4553.	94.755	NG/ML	5.91
5	228	3271	27:15	1	0.893	A VB	16655.	87.949	NG/ML	5.49
6	226	3272	27:16	1	0.893	A VB	5313.	110.567	NG/ML	6.90
7	252	3579	29:49	1	0.977	A BB	23560.	114.917	NG/ML	7.17
8	250	3580	29:50	1	0.977	A BB	12614.	277.990	NG/ML	17.34
9	252	3579	29:49	1	0.977	A BB	23560.	133.892	NG/ML	8.35
10	250	3580	29:50	1	0.977	A BB	12614.	425.559	NG/ML	26.55
11	252	3600	30:00	1	0.983	A BV	1428.	6.974	NG/ML	0.44
12	250	3602	30:01	1	0.983	A BB	224.	4.952	NG/ML	0.31
13	252	3669	30:34	1	1.002	A VB	9564.	59.049	NG/ML	3.68
14	250	3669	30:34	1	1.002	A BB	2236.	55.590	NG/ML	3.47

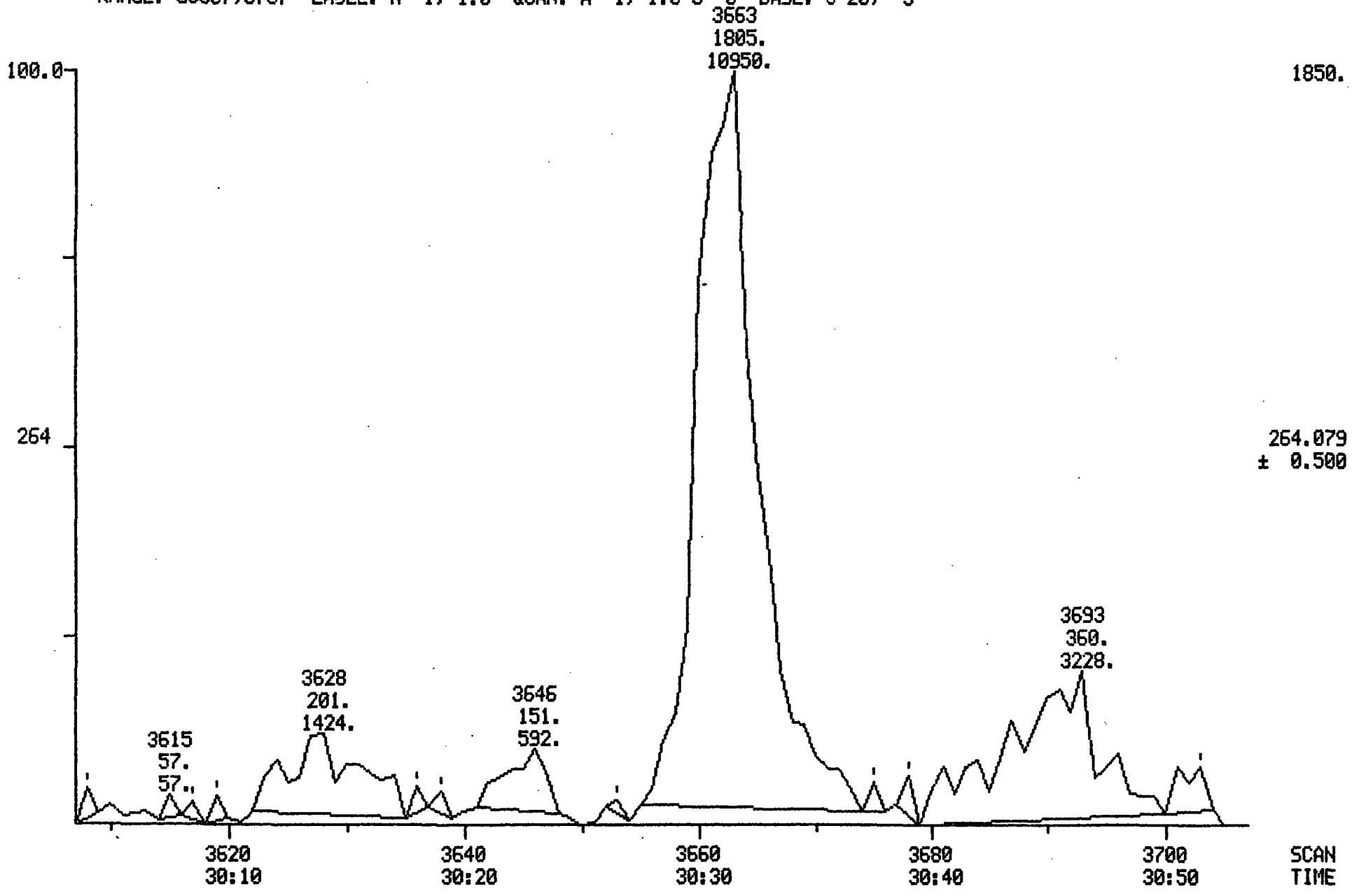
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	30:28	1.00	1.000	1.00	80.00	80.00	1.000	1.000	1.00
2	27:10	1.00	0.891	1.00	89.71	80.00	1.516	1.352	1.12
3	27:07	1.00	0.890	1.00	61.06	80.00	1.056	1.384	0.76
4	27:07	1.00	0.890	1.00	94.75	80.00	0.416	0.351	1.18
5	27:14	1.00	0.894	1.00	87.95	80.00	1.521	1.384	1.10
6	27:14	1.00	0.894	1.00	110.57	80.00	0.485	0.351	1.38
7	29:46	1.00	0.977	1.00	114.92	80.00	2.152	1.498	1.44
8	29:46	1.00	0.977	1.00	277.99	80.00	1.152	0.332	3.47
9	29:50	1.00	0.979	1.00	133.89	80.00	2.152	1.286	1.67
10	29:50	1.00	0.979	1.00	425.56	80.00	1.152	0.217	5.32
11	29:41	1.01	0.982	1.00	6.97	80.00	0.130	1.496	0.09

01558

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	29:41	1.01	0.982	1.00	4.95	80.00	0.020	0.330	0.06
13	30:31	1.00	1.001	1.00	59.05	80.00	0.873	1.183	0.74
14	30:30	1.00	1.001	1.00	55.59	80.00	0.204	0.294	0.69

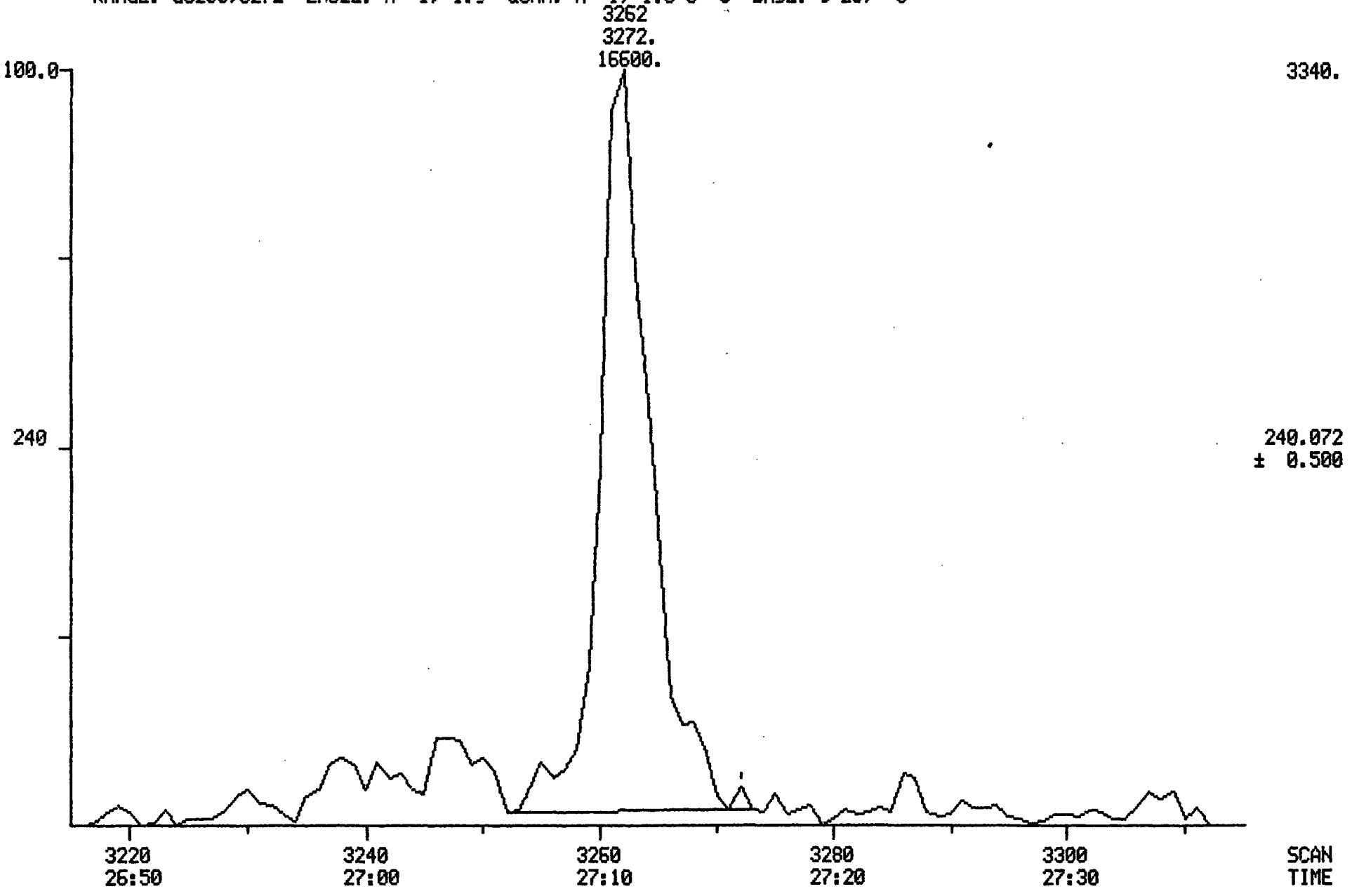
01559

MIDMASS CHROMATOGRAM DATA: S59436X838 #3657 SCANS 3607 TO 3707
06/03/88 20:20:00 CALI: 060388CX #2
SAMPLE: 59436-22 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
D12-BENZO(A)PYRENE 264IPH# 01
RANGE: G3607,3707 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3

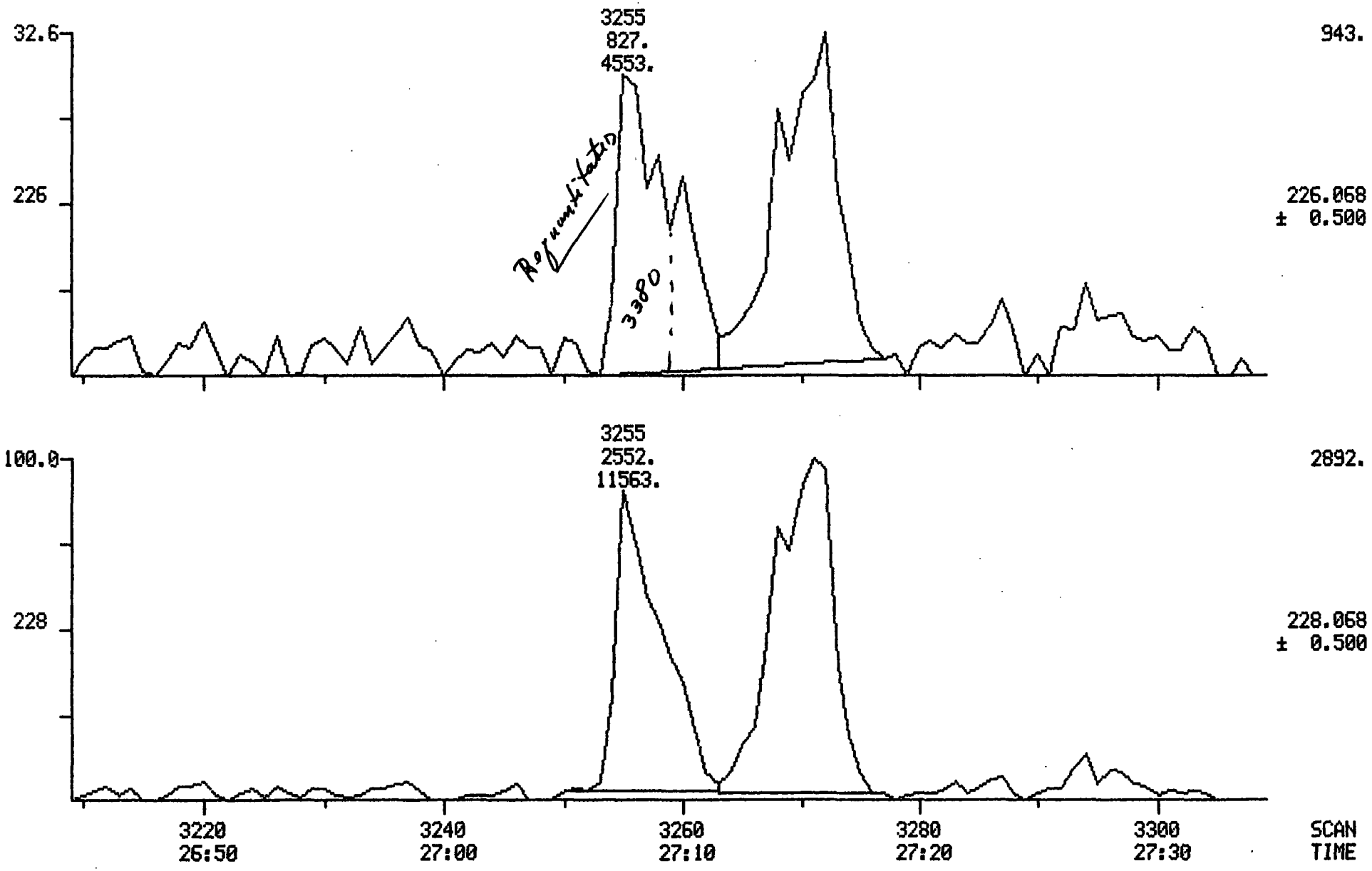


01560

MIDMASS CHROMATOGRAM DATA: S59436X838 #3265 SCANS 3215 TO 3315
06/03/88 20:20:00 CALI: 060388CX #2
SAMPLE: 59436-22 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
D12-CHRYSENE 240SPH# 02
RANGE: G3258,3272 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3

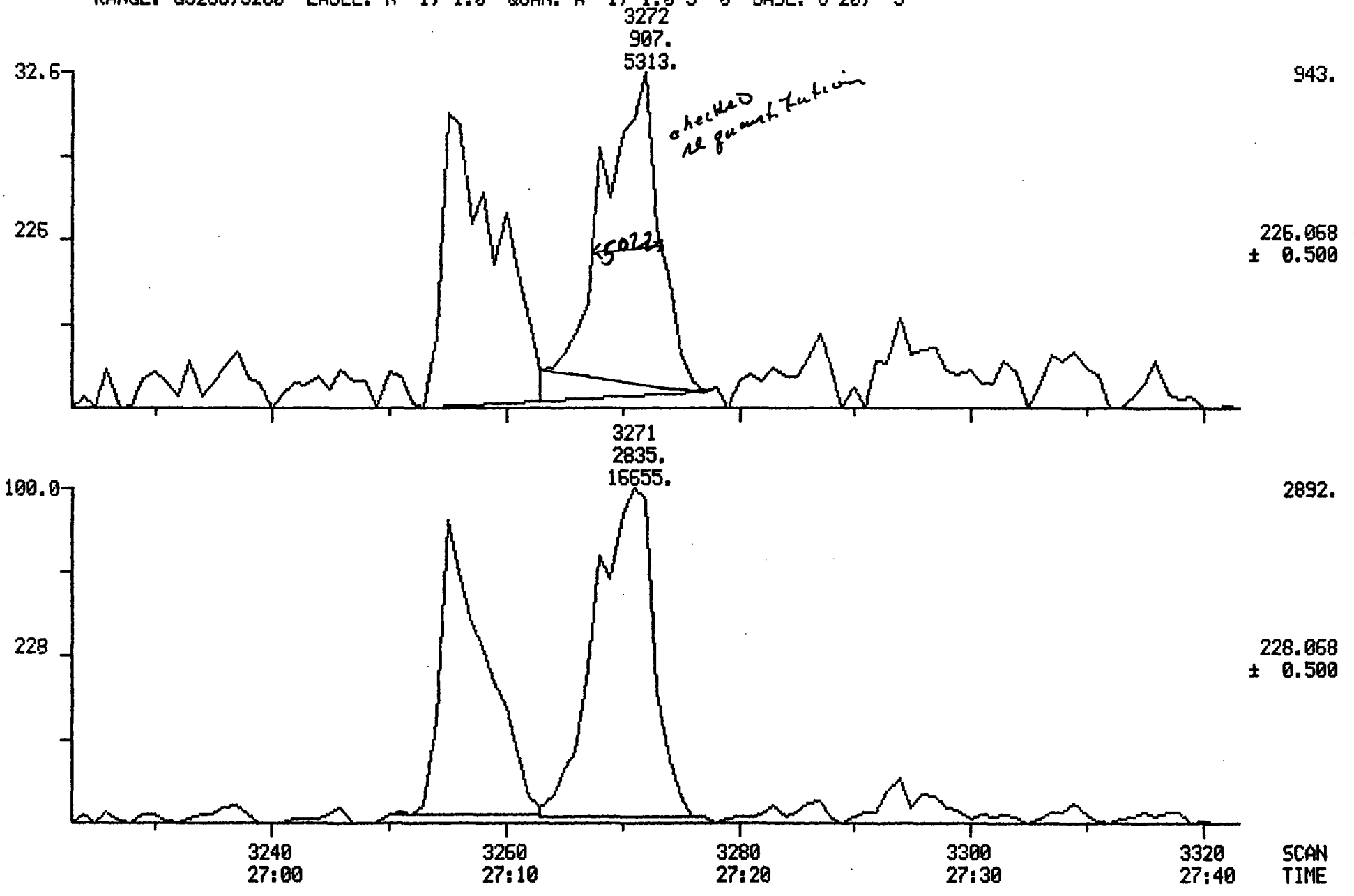


MIDMASS CHROMATOGRAMS DATA: 559436X838 #3259 SCANS 3209 TO 3309
06/03/88 20:20:00 CALI: 060388CX #2
SAMPLE: 59436-22 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(A)ANTHRACENE 228 PH# 03
RANGE: G3252,3266 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



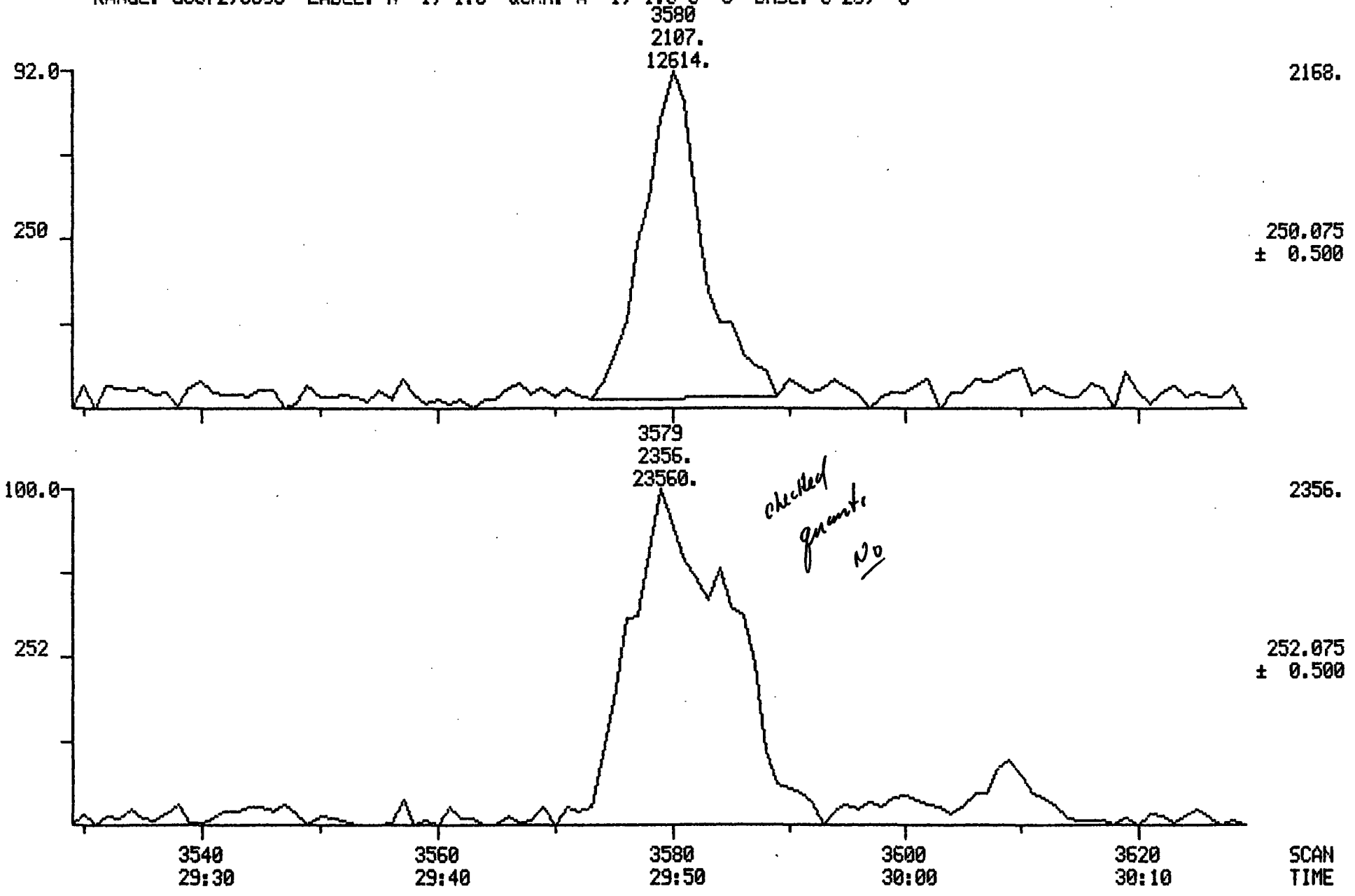
01562

MIDMASS CHROMATOGRAMS DATA: S59436X838 #3273 SCANS 3223 TO 3323
06/03/88 20:20:00 CALI: 060388CX #2
SAMPLE: 59436-22 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
CHRYSENE 228 PH# 05
RANGE: G3266,3280 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



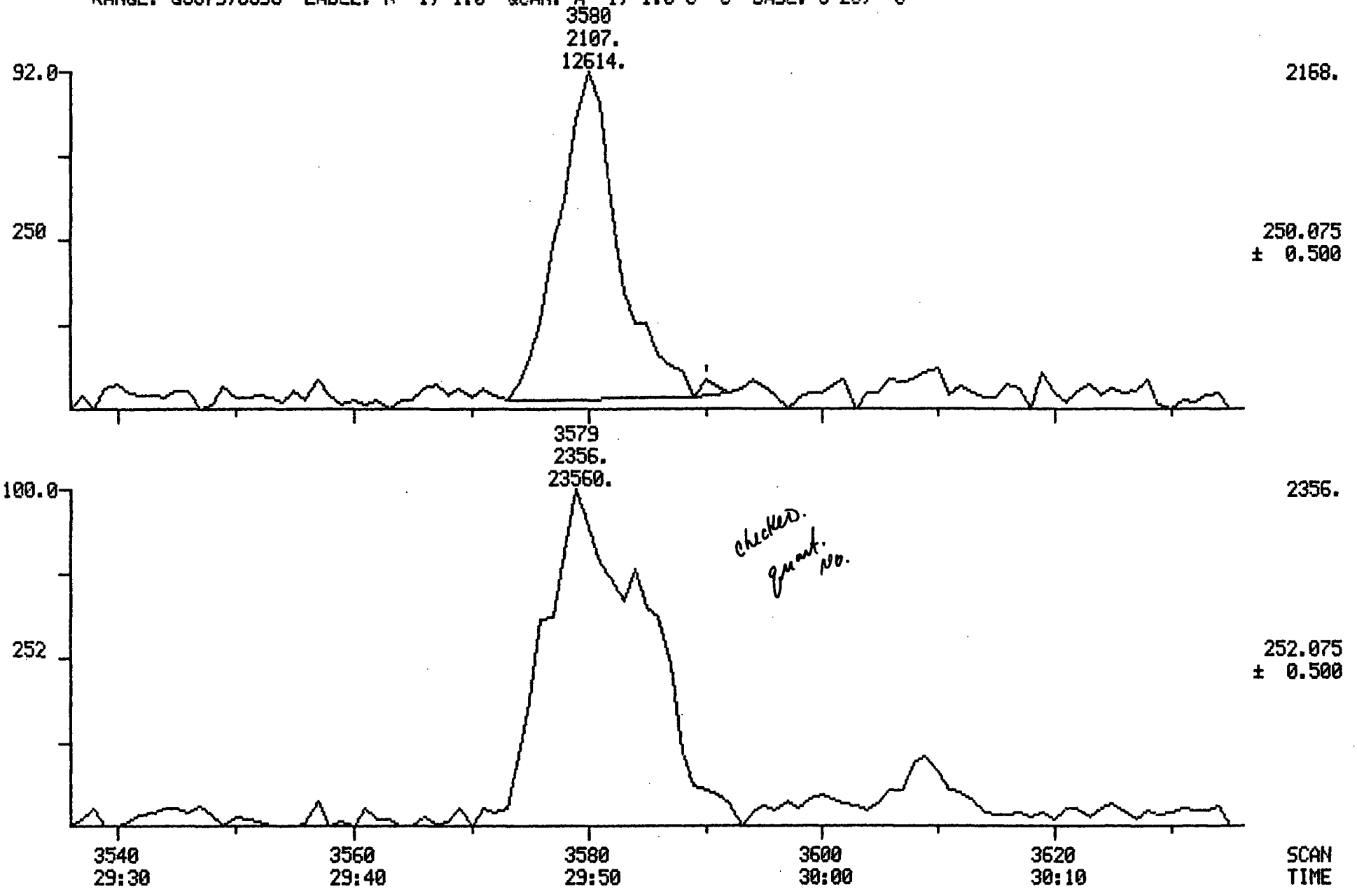
01563

MIDMASS CHROMATOGRAMS DATA: 559436X838 #3579 SCANS 3529 TO 3629
06/03/88 20:20:00 CALI: 060388CX #2
SAMPLE: 59436-22 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(B)FLUORANTHENE 252 PH# 07
RANGE: G3572,3586 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



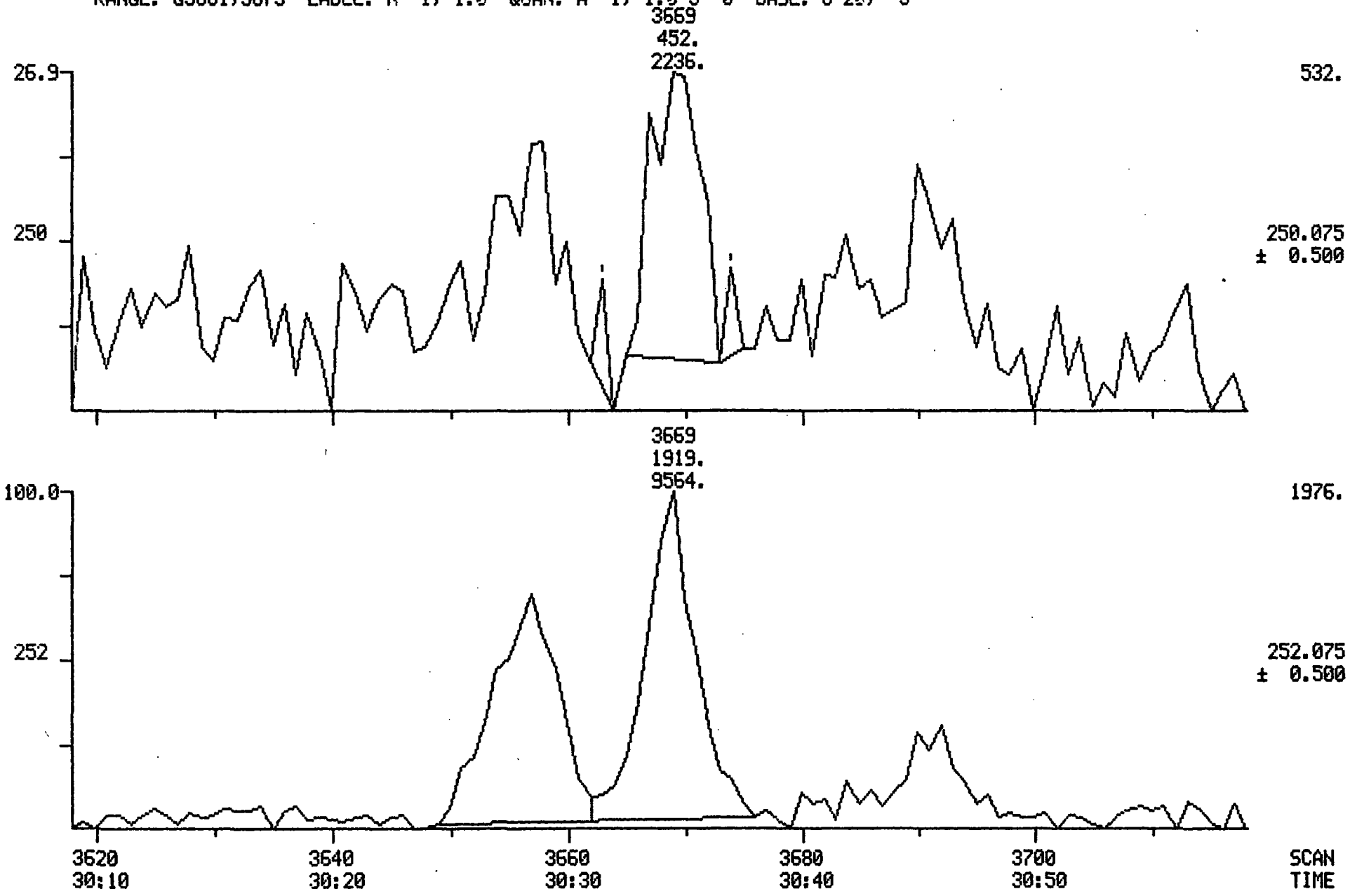
01564

MIDMASS CHROMATOGRAMS DATA: 559436X838 #3586 SCANS 3536 TO 3636
06/03/88 20:20:00 CALI: 060388CX #2
SAMPLE: 59436-22 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(K)FLUORANTHENE 252 PH# 09
RANGE: G3579,3593 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



01565

MIDMASS CHROMATOGRAMS DATA: S59436X838 #3668 SCANS 3618 TO 3718
06/03/88 20:20:00 CALI: 060388CX #2
SAMPLE: 59436-22 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(A)PYRENE 252 PH# 13
RANGE: G3661,3675 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: S59436X838

01566

Data: S59436X838.TI
06/03/88 20:20:00
Sample: 59436-22 PAH WATER 100%/0.5ML
Conds.: 2 UL AUTO INJ
Formula: Instrument: 4500 Weight: 80.000
Submitted by: RMAL Analyst: JGG Acct. No.: 59436

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

No	Name	
1	D12-BENZO(A)PYRENE	264IPH# 01
2	D12-CHRYSENE	240SPH# 02
3	BENZO(A)ANTHRACENE	228 PH# 03
4	BENZO(A)ANTHRACENE	226 PH# 04
5	CHRYSENE	228 PH# 05
6	CHRYSENE	226 PH# 06
7	BENZO(B)FLUORANTHENE	252 PH# 07
8	BENZO(B)FLUORANTHENE	250 PH# 08
9	BENZO(K)FLUORANTHENE	252 PH# 09
10	BENZO(K)FLUORANTHENE	250 PH# 10
11	BENZO(J)FLUORANTHENE	252 PH# 11
12	BENZO(J)FLUORANTHENE	250 PH# 12
13	BENZO(A)PYRENE	252 PH# 13
14	BENZO(A)PYRENE	250 PH# 14

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	264	3663	30:31	1	1.000	A BB	10950.	80.000	NG/ML	5.09
2	240	3262	27:11	1	0.891	A BB	16600.	89.711	NG/ML	5.70
3	228	3255	27:07	1	0.889	A BV	11563.	61.063	NG/ML	3.88
4	226	3255	27:07	1	0.889	M XX	3380.	70.345	NG/ML	4.47
5	228	3271	27:15	1	0.893	A VB	16655.	87.949	NG/ML	5.59
6	226	3272	27:16	1	0.893	M XX	5022.	104.522	NG/ML	6.65
7	252	3579	29:49	1	0.977	A BB	23560.	114.917	NG/ML	7.31
8	250	3580	29:50	1	0.977	A BB	12614.	277.990	NG/ML	17.68
9	252	3579	29:49	1	0.977	A BB	23560.	133.892	NG/ML	8.51
10	250	3580	29:50	1	0.977	A BB	12614.	425.559	NG/ML	27.06
11	252	3600	30:00	1	0.983	A BV	1428.	6.974	NG/ML	0.44
12	250	3602	30:01	1	0.983	A BB	224.	4.952	NG/ML	0.31
13	252	3669	30:34	1	1.002	A VB	9564.	59.049	NG/ML	3.76
14	250	3669	30:34	1	1.002	A BB	2236.	55.590	NG/ML	3.54

COLUMN 1: J:A012645
COLUMN 2: J:B012645

59436-22
20%

UNITS ON 01567 ug/ml

LIBRARY ENTRY	COMPONENT NAME	COLUMN 1 AMOUNT	COLUMN 1 %DIFF RT	COLUMN 2 AMOUNT	COLUMN 2 %DIFF RT	COLUMN AVERAGE
023	AROCLOR 1016(peak 1)	.0056	2.0	.0024	1.3	NA
026	AROCLOR 1221(peak 1)	.0037	2.0	.0014	2.6	NA
027	AROCLOR 1232(peak 1)	.0054	2.0	.0022	2.6	NA
029	AROCLOR 1242(peak 1)	.0050	2.0	.0025	2.6	NA
052	DIALLATE	.0000	1.0	.0000	4.2	.0000

OBC

A) $\frac{25.0}{24.0}(100) = 104\%$

B) $\frac{21.5}{22.0}(100) = 98\%$

Lindane

A) $0.0001\ ug/ml \left(\frac{10.0\ ml}{0.990\ l}\right)\left(\frac{100\%}{20\%}\right) = 0.005\ ug/l$ ∴ BDL NO(0.05 ug/l)

OBC Recovery = 98%
No HSL Pests/PCBs detected

NA - COLUMN AVERAGE IS NOT APPLICABLE BECAUSE THE %DIFFERENCE(AMOUNTS) > 10%

RESULT FILE: [illegible] 59436-22 05/09/88 LIBRARY: [illegible]

01568

LIB ENT	COMPONENT NAME	RETENTION TIME EXPECTED	RETENTION TIME MEASURED	PEAK NUMB	PEAK AREA	AMOUNT	UNITS
002	LINDANE	1.967	1.950	6	912	.0001	ug/ml
018	p,p'-DDT	12.767	12.817	8	12597	.0027	ug/ml
022	TOXAPHENE (peak 3)	12.483	12.817	8	12597	.0429	ug/ml
023	AROCLOR 1016(peak 1)	1.683	1.717	5	808	.0056	ug/ml
026	AROCLOR 1221(peak 1)	1.683	1.717	5	808	.0037	ug/ml
027	AROCLOR 1232(peak 1)	1.683	1.717	5	808	.0054	ug/ml
029	AROCLOR 1242(peak 1)	1.683	1.717	5	808	.0050	ug/ml
043	AROCLOR 1260(peak 4)	13.183	12.817	8	12597	.0282	ug/ml
047	DBC (surrogate)	26.833	26.867	9	90059	.0156	ug/ml
052	DIALLATE	1.700	1.717	5	808	.0000	ug/ml

~ = CALCULATED BY INTERPOLATION OUTSIDE THE RANGE OF APPLICABILITY

01569

LIB ENT	COMPONENT NAME	RETENTION TIME EXPECTED	RETENTION TIME MEASURED	PEAK NUMB	PEAK AREA	AMOUNT	UNITS
004	delta-BHC	2.450	2.467	8	4146	.0004	ug/ml
006	ALDRIN	2.717	2.683	9	1710	.0001	ug/ml
017	ENDOSULFAN SULFATE	16.550	16.117	11	47712	.0056	ug/ml
023	AROCLOR 1016(peak 1)	1.267	1.283	5	697	.0024	ug/ml
024	AROCLOR 1016(peak 2)	1.650	1.650	6	6453	.0110	ug/ml
026	AROCLOR 1221(peak 1)	1.250	1.283	5	697	.0014	ug/ml
027	AROCLOR 1232(peak 1)	1.250	1.283	5	697	.0022	ug/ml
029	AROCLOR 1242(peak 1)	1.250	1.283	5	697	.0025	ug/ml
030	AROCLOR 1242(peak 2)	1.650	1.650	6	6453	.0117	ug/ml
048	ENDRIN KETONE	22.267	22.117	12	163522	.0040	ug/ml
052	DIALLATE	1.230	1.283	5	697	.0000	ug/ml

~ = CALCULATED BY INTERPOLATION OUTSIDE THE RANGE OF APPLICABILITY

********** AREA PERCENT REPORT **********

********** 05-08-1988 12:13:22 Version 4.1 **********
* Sample Name: 59436 22 20% Data File: J:AB12645 *
* Date: 05-07-1988 12:43:03 Method: M:ABPI *
* Interface: 10 Cycle#: 45 Operator SS Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *
****

01570

* Instrument Type: HP 5880A Column Type: 6FT X 2MM ID GLASS *
* Solvent Description: 1.5% SP2250/1.95% SP2401 *
* Conditions: 190 DEGREES ISOTHERMAL *
* Detector 0: ECD Detector 1: *
* Misc. Information: 4 UL INJECTION LPT1: * *
****

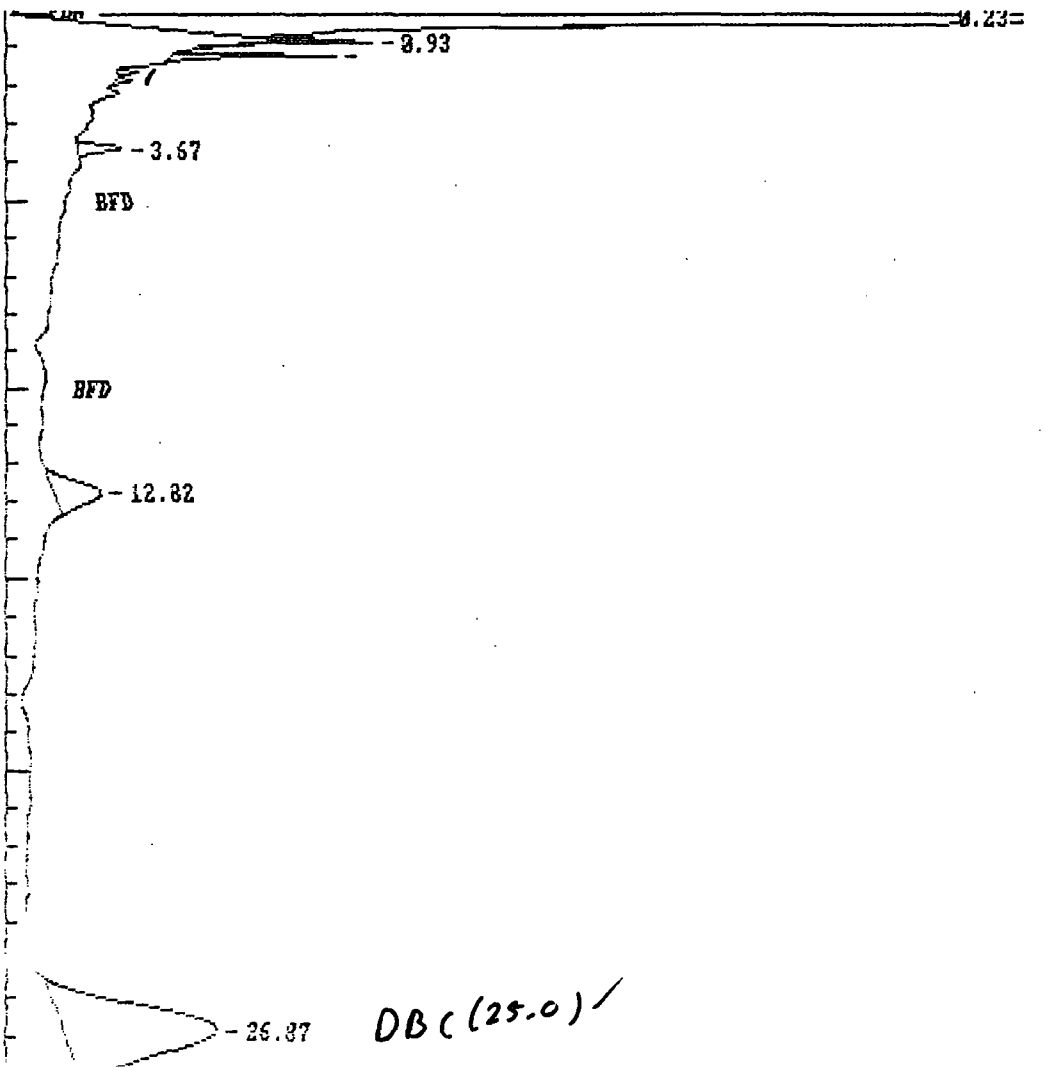
Starting Delay: 0.00 Run Time: 35.00

SS
5/12/88

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	0.23	669470	85.2863	1	130319	100.000	5.1
3	0.93	3087	0.3932	1	816	0.461	3.8
4	1.28	5853	0.7456	1	1136	0.874	5.2
7	3.67	3903	0.4972	1	306	0.583	12.7
8	12.82	12597	1.6048	1	325	1.882	38.8
9	26.87	90059	11.4729	1	1058	13.452	85.1

Total Area: 784968 Area Reject: 1000 One sample per 1.000 sec.

Data File = J:AB12645.PTS Printed on 05-08-1988 at 12:13:49
Start time: 0.00 min. Stop time: 35.00 min. Offset: 0 mv.
Full Range: 7 millivolts



DBC (25.0)

AREA PERCENT REPORT

01572

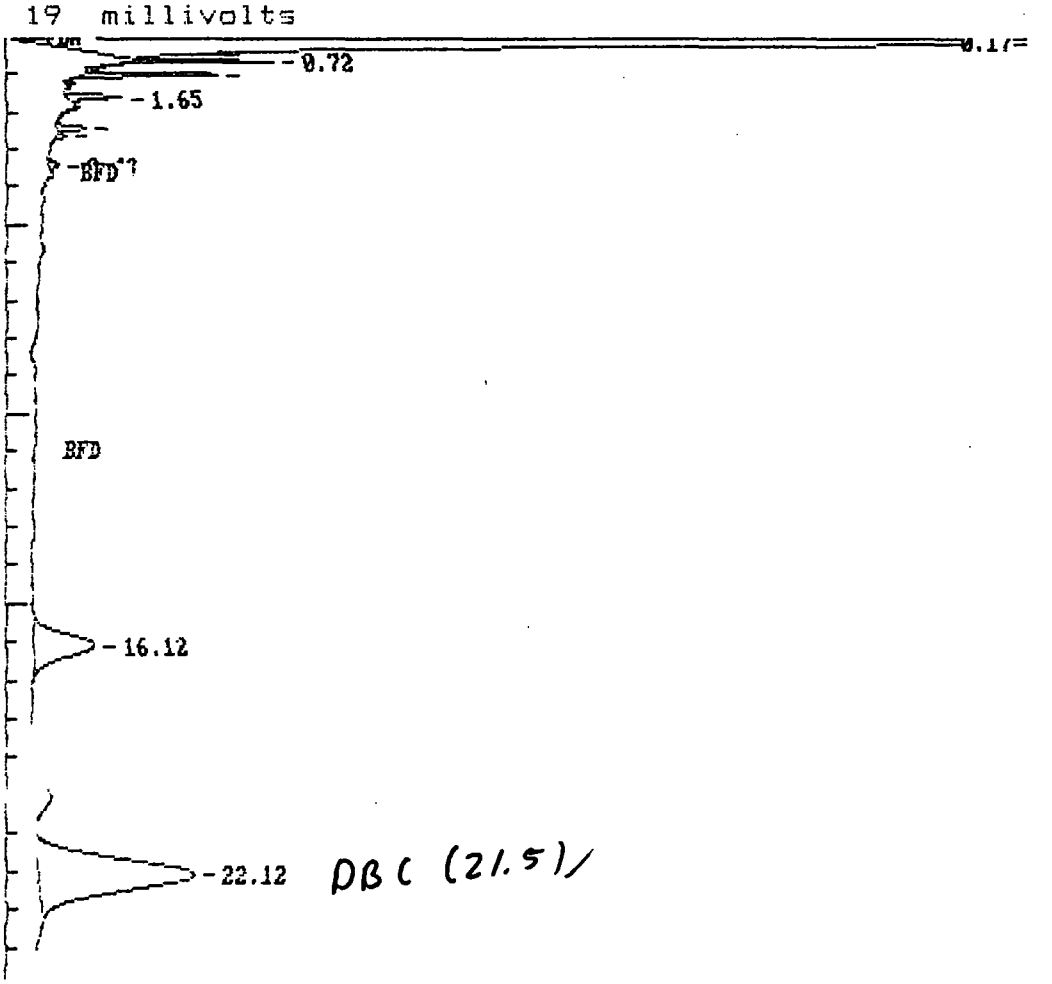
```
******************** 05-08-1988 12:46:35 Version 4.1 ****************
* Sample Name: 59436 22 20%                    Data File: J:BB12645    *
* Date: 05-07-1988 12:08:17 Method: M:BBPI                             *
* Interface: 12  Cycle#:  45   Operator SS  Channel#: 0    Vial#: N.A. *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100         *
************************************************************************
* Instrument Type: HP 5880A              Column Type: 6FT X 2MM ID GLASS *
*            Solvent Description: 1.5% SP2250/1.95% SP2401             *
* Conditions: 190 DEG ISOTHERMAL                                       *
*            Detector 0:                        Detector 1: ECD        *
* Misc. Information: 4 UL INJ                                          *
************************************************************************
Starting Delay:   0.00                          Run Time:   35.00
```

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	0.17	1044957	80.9448	1	221644	100.000	4.7
2	0.72	9012	0.6981	1	2776	0.862	3.2
4	1.07	11803	0.9142	1	2542	1.129	4.6
6	1.65	6453	0.4999	1	1031	0.618	6.3
8	2.47	4146	0.3212	1	561	0.397	7.4
9	2.68	1710	0.1325	1	221	0.164	7.7
10	3.48	1636	0.1267	1	177	0.157	9.2
11	16.12	47712	3.6959	1	1158	4.566	41.2
12	22.12	163522	12.6668	1	2885	15.649	56.7

SS
5/12/88

Total Area: 1290950 Area Reject: 1000 One sample per 1.000 sec.

Data File = J:BB12645.PTS Printed on 05-08-1988 at 12:46:59
Start time: 0.00 min. Stop time: 35.00 min. Offset: 0 mv.
Full Range: 19 millivolts



DBC (21.5)

01573

01574

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number : 59436-23

Laboratory Name: Rocky Mountain Analytical Lab
Laboratory Sample ID. Number : 59436-23
Sample Matrix : Water
Data Released Authorized By : JCL

Case Number : N/A
Q.C. Report No: 59436
Contract No. : N/A
Date Sample Rec: 04/20/88

Volatile Compounds

Concentration :	Low
Date Extracted/Prepared :	N/A
Date Analyzed :	04/29/88
Conc./Dilution Factor :	1.0
pH :	7.00
Percent Moisture :	100%
Percent Moisture (Decanted) :	N/A

CAS Number		Value	ug/L		CAS Number		Value	ug/L	
74-83-3	Chloromethane		10	U	79-34-5	1,1,2,2-Tetrachloroethane		5	U
74-83-9	Bromomethane		10	U	78-87-5	1,2-Dichloropropane		5	U
75-01-4	VinylChloride		10	U	10061-02-6	Trans-1,3-Dichloropropene		5	U
75-00-3	Chloroethane		10	U	79-10-6	Trichloroethene		5	U
75-09-2	MethyleneChloride	2.7		J B	124-48-1	Dibromochloromethane		5	U
67-64-1	Acetone	7.8		J B	79-00-5	1,1,2-Trichloroethane		5	U
75-15-0	CarbonDisulfide		5	U	71-43-2	Benzene		5	U
75-35-4	1,1-Dichloroethene		5	U	10061-01-5	cis-1,3-Dichloropropene		5	U
75-34-3	1,1-Dichloroethane		5	U	110-75-8	2-Chloroethylvinylether		10	U
156-60-5	Trans-1,2-Dichloroethene	1.2		J	75-25-2	Bromoform		5	U
67-66-3	Chloroform		5	U	591-78-6	2-Hexanone		10	U
107-06-2	1,2-Dichloroethane		5	U	108-10-1	4-Methyl-2-Pentanone		10	U
78-93-3	2-Butanone		10	U	127-18-4	Tetrachloroethene	2.2		J
71-55-6	1,1,1-Trichloroethane		5	U	108-88-3	Toluene		5	U
56-23-5	CarbonTetrachloride		5	U	108-90-7	Chlorobenzene		5	U
108-05-4	VinylAcetate		10	U	100-41-4	Ethylbenzene		5	U
75-27-4	Bromodichloromethane		5	U	100-42-5	Styrene		5	U
						Total Xylenes		5	U

U - compound was not detected
J - concentration detected is less than the required detection limit
B - compound was detected in the blank
sp - compound was a spike

10/85 Rev

Form I

Laboratory Name: Rocky Mountain Analytical
Case Number: N/A
Q.C. Number: 59436

Sample Number
59436-23

ORGANIC ANALYSIS DATA SHEET
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Conc. ug/l
1.	No Volatiles Detected	VOA		
2.				
3.				
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Laboratory Name : Rocky Mountain Analytical Lab
Case No: N/A
Q.C.Report No: 59436

Organics Analysis Data Sheet

Sample Number
59436-23

Semivolatile Compounds

Conc.:	Low	GPC Cleanup	No
Date Extracted/Prepared:	04/23/88	Separatory Funnel Extraction	No
Date Analyzed	06/02/88	Continuous Liquid-Liquid Extraction	Yes
Conc/Dil Factor	2.04		
Percent Moisture (Decanted)	N/A		

CAS Number	Compound	Value	ug/L	CAS Number	Compound	Value	ug/L
108-95-2	Phenol	11					
111-44-4	bis(-2-Chloroethyl)Ether		10 U	83-32-9	Acenaphthene		10 U
95-57-8	2-Chlorophenol		10 U	51-28-5	2,4-Dinitrophenol		51 U
541-73-1	1,3-Dichlorobenzene		10 U	100-02-7	4-Nitrophenol		51 U
106-46-7	1,4-Dichlorobenzene		10 U	132-64-9	Dibenzofuran		10 U
100-51-6	Benzyl Alcohol		10 U	121-14-2	2,4-Dinitrotoluene		10 U
95-50-1	1,2-Dichlorobenzene		10 U	606-20-2	2,6-Dinitrotoluene		10 U
95-48-7	2-Methylphenol		10 U	84-66-2	Diethylphthalate		10 U
39638-32-9	bis(2-chloroisopropyl)Ether		10 U	7005-72-3	4-Chlorophenyl-phenylether		10 U
106-44-5	4-Methylphenol		10 U	86-73-7	Fluorene		10 U
621-64-7	N-Nitro-Di-n-Propylamine		10 U	100-01-6	4-Nitroaniline		51 U
67-72-1	Hexachloroethane		10 U	534-52-1	4,6-Dinitro-2-Methylphenol		51 U
98-95-3	Nitrobenzene		10 U	86-30-6	N-Nitrosidiphenylamine (1)		10 U
78-59-1	Isophorone		10 U	101-55-3	4-Bromophenyl-phenylether		10 U
88-75-5	2-Nitrophenol		10 U	118-74-1	Hexachlorobenzene		10 U
105-67-9	2,4-Dimethylphenol		10 U	87-86-5	Pentachlorophenol		51 U
65-85-0	Benzoic Acid		51 U	85-01-8	Phenanthrene		10 U
111-91-1	bis(2-Chloroethoxy) Methane		10 U	120-12-7	Anthracene		10 U
120-83-2	2,4-Dichlorophenol		10 U	84-74-2	Di-N-Butylphthalate		10 U
120-82-1	1,2,4-Trichlorobenzene		10 U	206-44-0	Fluoranthene		10 U
91-20-3	Naphthalene		10 U	129-00-0	Pyrene		10 U
106-47-8	4-Chloroaniline		10 U	85-68-7	Butylbenzylphthalate		10 U
87-68-3	Hexachlorobutadiene		10 U	91-94-1	3,3'-Dichlorobenzidine		20 U
59-50-7	4-Chloro-3-Methylphenol		10 U	56-55-3	Benzo(a)Anthracene		10 U
91-57-6	2-Methylnaphthalene		10 U	117-81-7	bis(2-Ethylhexyl)Phthalate	5.3	J B
77-47-4	Hexachlorocyclopentadiene		10 U	218-01-9	Chrysene		10 U
88-06-2	2,4,6-Trichlorophenol		10 U	117-84-0	Di-n-Octylphthalate		10 U
95-95-4	2,4,5-Trichlorophenol		51 U	205-99-2	Benzo(b)Fluoranthene		10 U
91-58-7	2-Chloronaphthalene		10 U	207-08-9	Benzo(k)Fluoranthene		10 U
88-74-4	2-Nitroaniline		51 U	50-32-8	Benzo(a)Pyrene		10 U
131-11-4	Dimethyl Phthalate		10 U	193-39-5	Indeno(1,2,3-cd)Pyrene		10 U
208-96-8	Acenaphthylene		10 U	53-70-3	Dibenzo(a,h)Anthracene		10 U
99-09-2	3-Nitroaniline		51 U	191-24-2	Benzo(g,h,i)Perylene		10 U

(1)-Cannot be separated from diphenylamine.

Laboratory Name: Rocky Mountain Analytical
Case Number: N/A
Q.C. Number: 59436

Sample Number
59436-23

ORGANIC ANALYSIS DATA SHEET
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Conc. ug/l
1. 108-87-2	Methyl Cyclohexane	BNA	315	9.9 B
2. 108-88-3	Methyl Benzene	BNA	370	5.7 B
3.	Oxygenated Hydrocarbon	BNA	393	8.4 B
4.	Oxygenated Hydrocarbon	BNA	435	6.1 B
5.	Oxygenated Hydrocarbon	BNA	469	18 B
6. 96-19-5	1,2,3-Trichloro-1-Propene	BNA	622	9.4 B
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ROCKY MOUNTAIN ANALYTICAL LABORATORY
ORGANIC MASS SPECTROMETRY DIVISION
TARGET COMPOUND DATA SUMMARY SHEET

01578

Sample: 59436-23
Date Analyzed: 06/02/88

Units: ug/L
Run Factor: 2.04

SURROGATE SPIKE RECOVERIES
PYRIDINES

Compound	Surrogate Amount (ug) Spiked	Measured	% Recovery Measured	QC Limits
Pyridine-D5	100.0	66.3	66	50-150

TARGET COMPOUNDS

Sample Concentration ug/l	Detection Limit(ppb)	Compound	CAS #
	10 U	Pyridine	110-86-1
	10 U	2-Picoline	109-06-8
	10 U	3 & 4-Picoline	
	10 U	2,6-Lutidine	
	10 U	2-Ethyl Pyridine	
	10 U	2,4 & 2,5-Lutidine	
	10 U	2,3-Lutidine	
	10 U	3-Ethyl Pyridine	
	10 U	4-Ethyl Pyridine	
	10 U	3,5-Lutidine	
	10 U	3,4-Lutidine	
	10 U	2-Methyl-5-Ethyl Pyridine	
	10 U	2-Methyl-3-Ethyl Pyridine	
	10 U	M and P Cresols	
	10 U	3-Ethyl-4-Methyl Pyridine	
	10 U	3-Ethyl-5-Methyl Pyridine	
	10 U	2,6-Dimethyl Phenol	
	10 U	2,5-Dimethyl Phenol	
	10 U	3,5-Dimethyl Phenol	
	10 U	2,3-Dimethyl Phenol	
	10 U	3,4-Dimethyl Phenol	
	10 U	1-Methylnaphthalene	90-12-0

FORM I

ROCKY MOUNTAIN ANALYTICAL LABORATORY
ORGANIC MASS SPECTROMETRY DIVISION
TARGET COMPOUND DATA SUMMARY SHEET

Sample: 59436-23
Date Analyzed: 06/03/88

Units: ug/L
Run Factor: 0.133

Surrogate Spike Recoveries

Compound	Surrogate Amount (ug) Spiked	Measured	% Recovery Measured	QC Limits
D12-Chrysene	80.0	94.4	118	10-118

Target Compounds

Scan #	Concentration(ng/l)	Detection Limit (ppt)	Compound
		10 U	Benzo(A)Anthracene
	4.6	J	Chrysene
		10 U	Benzo(B)Fluoranthene
		10 U	Benzo(K)Fluoranthene
		10 U	Benzo(A)Pyrene

FORM I

Laboratory Name: Rocky Mountain Analytical Lab
Case No: 59436

Sample Number: 59436-23

01580

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/ PCB's:

Concentration : Low
Date Ext./Prep :04/23/88
Date Analyzed :05/07/88
Conc./Dil Factor : 51.0
Percent Moisture :

GPC Cleanup :No
Separatory Funnel Extract.:Yes
Cont. Liquid/Liquid Extr. :No
Sonication Extraction :No

CAS Number	Compound	Value	ug/ L
319-84-6	Alpha-BHC		0.05 U
319-85-7	Beta-BHC		0.05 U
319-86-8	Delta-BHC		0.05 U
58-89-9	Gamma-BHC(Lindane)		0.05 U
76-44-8	Heptachlor		0.05 U
309-00-2	Aldrin		0.05 U
1204-57-3	Heptachlor Epoxide		0.05 U
959-98-8	Endosulfan I		0.05 U
60-57-1	Dieldrin		0.10 U
72-55-9	4,4'-DDE		0.10 U
72-20-8	Endrin		0.10 U
33213-65-9	Endosulfan II		0.10 U
72-54-8	4,4'-DDD		0.10 U
1031-07-8	Endosulfan Sulfate		0.10 U
50-29-3	4,4'-DDT		0.10 U
72-43-5	Methoxychlor		0.51 U
53494-70-5	Endrin Ketone		0.10 U
57-74-9	Chlordane		0.51 U
8001-35-2	Toxaphene		1.00 U
12674-11-2	Aroclor-1016		0.51 U
11104-28-2	Aroclor-1221		0.51 U
11141-16-5	Aroclor-1232		0.51 U
53469-21-9	Aroclor-1242		0.51 U
12672-29-6	Aroclor-1248		0.51 U
11097-69-1	Aroclor-1254		1.00 U
11096-82-5	Arolcor-1260		1.00 U

Vi = Volume of extract injected (ul) Vi = 2ul/4ul
Vs = Volume of water extracted (ml) Vs = 980 ml
Ws = Weight of sample extracted (g) Ws = N/A
Vt = Volume of total extract (ul) Vt = 1000 ul

4/29/88 15:47:34 SCAN 1 OF 730

01581

Acquisition started

Acquire
04/29/88 15:47:00 + 0:03
Sample: 59436-23 VOA H2O 100%/5ML
Conds.: GC DESC V3
Formula:
Submitted by: RMAL

Run 3:S59436W922
Free sectors: 19407
Instrument: 5100
Analyst: DC

Acquiring
Scan: 1 of 730
Weight: 0.026
Acct. No: 59436

*** GC descriptor: V3 ***

GC temperature: 63 DegC
Elapsed time : 0: 7 min

Injector: 50 DegC
Interface: 220 DegC

Seq. #	Temp (DegC)	Rate (C/min)	Time (minutes) period	total
1	60- 60	-	2.0	2.0
2	60-250	7.0	27.1	29.1
3	250-250	-	10.0	39.1
4	250-250	-	0.0	39.1

Valve times (minutes)

	Open	Close
Sweep/Split	36.1	0.0
Divert	36.1	0.8

*** Scan Parameters ***

Low mass: 40 u
High mass: 260 u

Scan time (s)
Up: 2.95 L*
Down: 0.00 L

Hold time (s)
Top: 0.00
Bottom: 0.05

Cent S/P: 10 Actual: 67
Frag S/P: 10 Actual: 10

Samp int (ms): 0.200
Samp int (ms): 1.400

Peak width: 1000.
Inten/ion: 2

Min peak width: 3
ADC threshold: 1

Min frag width %: 81
Baseline: 0

Min area: 20

MODE: EI (+) Centroid + Temp

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	Q	
Full scale mass	812	u
Zero scale mass	1	u
Intensity/ion	2	
Peak width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(ms)	4	

Current instrument parameters.

	Positive ion mode	Negative ion mode
Resolution (high)	126.00	128.00
Resolution (low)	125.00	128.00
Ion energy	1.88	-4.00
Ion programming	5.41	-4.00
Lens voltage	-80.00	50.20
Extractor voltage	0.94	not used

Electron multiplier voltage: -2106.
Electrometer Range: 10 ^-7
Electrometer zero: -4.4

4/29/88 16:24:09
Acquisition completed
Scans 1 to 730 centroid

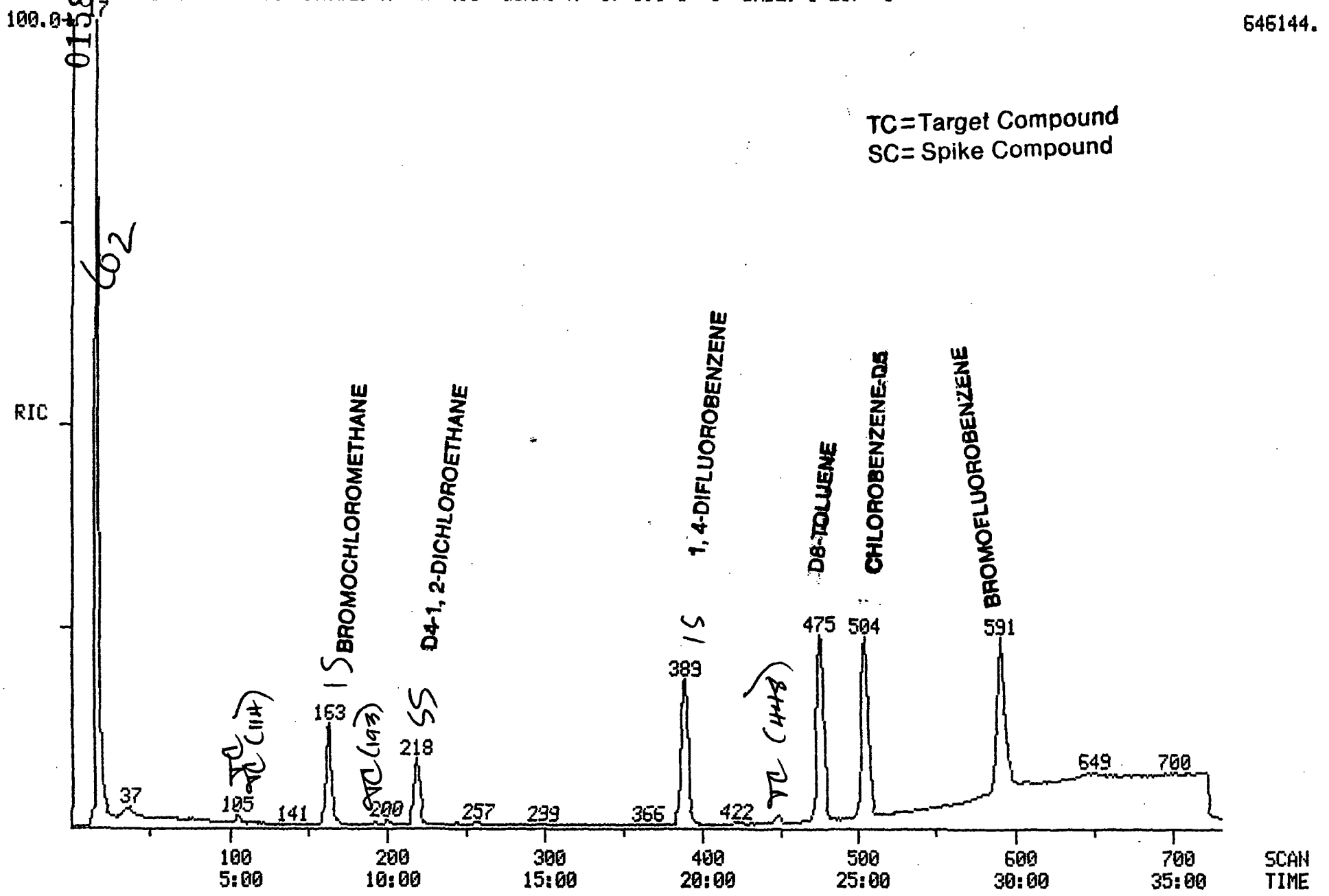
Mode	Scans	Secs	out of	%	Peaks per scan per second		
Centroid	730	46.1	2190.0	2.1	18560.	25.	8.

RIC
04/29/88 15:47:00
SAMPLE: 59436-23 VOA H2O 100%/5ML
CONDS.: GC DESC V3
RANGE: G 1, 730 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 559436W922 #4 SCANS 1 TO 730
CALI: 042988CW #3

TIC = Tentatively Identified Compound

TC = Target Compound
SC = Spike Compound



PROCEDURE: TCA DIAGNOSTIC REPORT 4/29/88 16:25:22
DATA FILE: S59436W922
REFERENCE: 11TABLE
NAME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3 01583
REPORT: ISO1

< ---- STANDARDS ----- >				< --- PLUS UNKNOWNS --- >				< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	1	0	9	3	6	24	ISO1/TCO1
3	3	1	107	18	8	9	157	ISO2/TCO2
3	3	1	107	12	7	8	91	ISO3/TCO3
1	1	1	0	7	2	1	0	ISO4/TCO4

41 COMPOUNDS PROCESSED, 15 FOUND

< COMPOUND >			< ---------- SEARCH ---------- >						< SAT >	< ------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	V1	1	-161	163	163	.	1	947	.	128	162	-1	1
2	V1	10	-28	25	.	.	.	.	.	50	.	.	.
3	V1	15	-44	42	.	.	.	.	.	94	.	.	.
4	V1	25	-56	54	.	.	.	.	.	62	.	.	.
5	V1	35	-70	69	.	.	.	.	.	64	.	.	.
6	V1	45	-105	105	105	.	1	990	.	84	105	.	1
7	V1	50	-114	114	114	.	6	1000	.	58	114	.	1
8	V1	65	-132	133	.	.	.	.	.	76	.	.	.
9	V1	80	-153	155	.	.	.	.	.	96	.	.	.
10	V2	1	-388	389	388	-1	1	997	.	114	388	.	1
11	V3	1	-503	503	504	1	1	994	.	117	504	.	1
12	V1	90	-179	179	.	.	.	.	.	63	.	.	.
13	V1	95	-193	193	193	.	1	924	.	96	193	.	1
14	V1	100	-204	204	205	1	1	932	.	83	204	-1	1
15	V1	2	-218	218	218	.	1	992	.	65	218	.	1
16	V2	10	-218	218	218	.	3	923	.	72	218	.	1
17	V1	110	-220	220	.	.	.	.	.	62	.	.	.
18	V2	15	-248	248	.	.	.	.	.	97	248	.	1
19	V2	20	-256	256	.	.	.	.	.	117	.	.	.
20	V2	25	-259	259	256	-3	3	964	.	43	.	.	.
21	V2	30	-267	267	.	.	.	.	.	83	.	.	.
22	V2	35	-298	298	.	.	.	.	.	63	.	.	.
23	V2	40	-304	304	.	.	.	.	.	75	.	.	.
24	V2	45	-316	316	.	.	.	.	.	130	317	.	1
25	V2	60	-329	329	.	.	.	.	.	78	.	.	.
26	V2	50	-330	330	.	.	.	.	.	129	.	.	.
27	V2	65	-333	334	.	.	.	.	.	75	.	.	.
28	V2	55	-333	334	.	.	.	.	.	97	.	.	.
29	V2	80	-393	393	.	.	.	.	.	173	.	.	.
30	V3	10	-404	404	403	-1	4	921	.	58	402	-1	1
31	V3	15	-441	441	442	1	2	945	.	58	.	.	.
32	V3	25	-447	447	.	.	.	.	.	83	.	.	.
33	V3	20	-448	448	448	.	1	990	.	164	448	.	1
34	V3	2	-475	475	475	.	1	995	.	98	475	.	1
35	V3	35	-480	480	.	.	.	.	.	92	.	.	.
36	V3	40	-506	507	.	.	.	.	.	112	.	.	.
37	V3	50	-549	549	.	.	.	.	.	106	.	.	.
38	V3	3	-591	590	590	.	1	989	.	95	590	.	1
39	V3	55	-611	610	.	.	.	.	.	104	.	.	.
40	V3	60	-615	613	.	.	.	.	.	106	.	.	.
41	V3	75	-628	626	.	.	.	.	.	106	.	.	.

Quantitation Report File: S59436W922

Data: S59436W922.TI
04/29/88 15:47:00
Sample: 59436-23 VOA H2O 100%/5ML
Conds.: GC DESC V3
Formula: Instrument: 5100 Weight: 0.026
Submitted by: RMAL Analyst: DC Acct. No.: 59436

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

No	Name				
1	CI01 BROMOCHLOROMETHANE	128	IV1#	01	74-97-5
2	C010 CHLOROMETHANE	50	V1#	10SP	74-87-3
3	C015 BROMOMETHANE	94	V1#	15	74-83-9
4	C020 VINYL CHLORIDE	62	V1#	25	75-01-4
5	C025 CHLOROETHANE	64	V1#	35	75-00-3
6	C030 METHYLENE CHLORIDE	84	V1#	45	75-09-2
7	C035 ACETONE	58	V1#	50	67-64-1
8	C040 CARBON DISULFIDE	76	V1#	65	75-15-0
9	C045 1,1-DICHLOROETHENE	61	V1#	80	75-35-4
10	CI10 1,4-DIFLUOROBENZENE	114	IV2#	01	540-36-3
11	CI20 CHLOROBENZENE-D5	117	IV3#	01	3114-55-4
12	C050 1,1-DICHLOROETHANE	63	V1#	90	75-34-3
13	TRANS-1,2-DICHLOROETHENE	61	V1#	95	156-60-5
14	C060 CHLOROFORM	83	V1#	100CC	67-66-3
15	CS15 1,2-DICHLOROETHANE-D4	65	SV1#	02	17060-07-0
16	C110 2-BUTANONE	72	V2#	10	78-93-3
17	C065 1,2-DICHLOROETHANE	62	V1#	110	107-06-2
18	C115 1,1,1-TRICHLOROETHANE	97	V2#	15	71-55-6
19	C120 CARBONTETRACHLORIDE	117	V2#	20	56-23-5
20	C125 VINYL ACETATE	43	V2#	25	108-05-4
21	C130 BROMODICHLOROMETHANE	83	V2#	30	75-27-4
22	C140 1,2-DICHLOROPROPANE	63	V2#	35CC	78-87-5
23	C143 CIS-1,3-DICHLOROPROPENE	75	V2#	40	10061-01-5
24	C150 TRICHLOROETHENE	130	V2#	45	79-01-6
25	C165 BENZENE	78	V2#	60	71-43-2
26	C155 DIBROMOCHLOROMETHANE	129	V2#	50	124-48-1
27	C172 TRANS-1,3-DICHLOROPROPE	75	V2#	65	10061-02-6
28	C160 1,1,2-TRICHLOROETHANE	97	V2#	55	79-00-5
29	C180 BROMOFORM	173	V2#	80	75-25-2
30	C205 4-METHYL-2-PENTANONE	58	V3#	10	108-10-1
31	C210 2-HEXANONE	58	V3#	15	591-78-6
32	C225 1,1,2,2-TETRACHLOROETHA	83	V3#	25SP	79-34-5
33	C220 TETRACHLOROETHENE	164	V3#	20	127-18-4
34	CS05 TOLUENE-D8	98	SV3#	02	2037-26-5
35	C230 TOLUENE	92	V3#	35	108-88-3
36	C235 CHLOROBENZENE	112	V3#	40	108-90-7
37	C240 ETHYLBENZENE	106	V3#	50	100-41-4
38	CS10 BROMOFLUOROBENZENE	95	SV3#	03	460-00-4
39	C245 STYRENE	104	V3#	55	100-42-5
40	M-XYLENE	106	V3#	60	108-38-3
41	O+P XYLENES	106	V3#	75	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	162	8:06	1	1.000	A BB	36407.	50.000 UG/L	15.80
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	84	105	5:15	1	0.648	A BB	4165.	2.661 UG/L	0.84
7	58	114	5:42	1	0.704	A BB	983.	7.806 UG/L	2.47
8	NOT FOUND								
9	NOT FOUND								
10	114	388	19:24	10	1.000	A BB	217830.	50.000 UG/L	15.80
11	117	504	25:12	11	1.000	A BB	210537.	50.000 UG/L	15.80
12	NOT FOUND								
13	96	193	9:39	1	1.191	A BB	1383.	1.202 UG/L	0.38
14	83	204	10:12	1	1.259	A BB	1103.	0.494 UG/L	0.16
15	65	218	10:54	1	1.346	A BB	71285.	45.735 UG/L	14.45
16	72	218	10:54	10	0.562	A BB	56.	0.376 UG/L	0.12
17	NOT FOUND								
18	97	248	12:24	10	0.639	A BB	294.	0.195 UG/L	0.06
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	130	317	15:51	10	0.817	A BB	1067.	0.772 UG/L	0.24
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	58	402	20:06	11	0.798	A BB	759.	1.187 UG/L	0.38
31	NOT FOUND								
32	NOT FOUND								
33	164	448	22:24	11	0.889	A BB	3357.	2.199 UG/L	0.69
34	98	475	23:45	11	0.942	A BB	229917.	50.725 UG/L	16.03
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	95	590	29:30	11	1.171	A BB	137531.	53.154 UG/L	16.79
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:06	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:24		0.173						
3	2:12		0.272						
4	2:48		0.346						
5	3:30		0.432						
6	5:15	1.00	0.648	1.00	2.66	50.00	0.114	2.149	0.05
7	5:42	1.00	0.704	1.00	7.81	50.00	0.027	0.173	0.16
8	6:36		0.815						
9	7:39		0.944						
10	19:27	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
11	25:12	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
12	8:57		1.105						
13	9:39	1.00	1.191	1.00	1.20	50.00	0.038	1.581	0.02

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
14	10:12	1.00	1.259	1.00	0.49	50.00	0.030	3.063	0.01
15	10:54	1.00	1.346	1.00	45.73	50.00	1.958	2.141	0.91
16	10:54	1.00	0.560	1.00	0.38	50.00	0.000	0.034	0.01
17	11:00		1.358						
18	12:24	1.00	0.638	1.00	0.20	50.00	0.001	0.345	0.00
19	12:48		0.658						
20	12:57		0.666						
21	13:21		0.686						
22	14:54		0.766						
23	15:12		0.781						
24	15:48	1.00	0.812	1.01	0.77	50.00	0.005	0.317	0.02
25	16:27		0.846						
26	16:30		0.848						
27	16:39		0.856						
28	16:39		0.856						
29	19:39		1.010						
30	20:12	1.00	0.802	1.00	1.19	50.00	0.004	0.152	0.02
31	22:03		0.875						
32	22:21		0.887						
33	22:24	1.00	0.889	1.00	2.20	50.00	0.016	0.362	0.04
34	23:45	1.00	0.942	1.00	50.73	50.00	1.092	1.076	1.01
35	24:00		0.952						
36	25:18		1.004						
37	27:27		1.089						
38	29:33	1.00	1.173	1.00	53.15	50.00	0.653	0.614	1.06
39	30:33		1.212						
40	30:45		1.220						
41	31:24		1.246						

TCA FINISHED, 15 FOUND
FINISHED AT: 4/29/88 16:29:21

RMAL QUANTITATION SUMMARY FILE: S59436W922 01587
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/L

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	V1# 1	CI01 BROMOCHLOROMETHANE	128	162	1	36407.	1.000	50.000
2	V2# 1	CI10 1,4-DIFLUOROBENZENE	114	388	2	217830.	1.000	50.000
3	V3# 1	CI20 CHLOROBENZENE-D5	117	504	3	210537.	1.000	50.000
4	V3# 2	CS05 TOLUENE-D8	98	475	3	229917.	1.092	50.725
5	V3# 3	CS10 BROMOFLUOROBENZENE	95	590	3	137531.	0.653	53.154
6	V1# 2	CS15 1,2-DICHLOROETHANE-	65	218	1	71285.	1.958	45.735
7	V1# 10	C010 CHLOROMETHANE	50		1	NOT FOUND		
8	V1# 15	C015 BROMOMETHANE	94		1	NOT FOUND		
9	V1# 25	C020 VINYL CHLORIDE	62		1	NOT FOUND		
10	V1# 35	C025 CHLOROETHANE	64		1	NOT FOUND		
11	V1# 45	C030 METHYLENE CHLORIDE	84	105	1	4165.	0.114	2.661 B
12	V1# 50	C035 ACETONE	58	114	1	983.	0.027	7.806 E
13	V1# 65	C040 CARBON DISULFIDE	76		1	NOT FOUND		
14	V1# 80	C045 1,1-DICHLOROETHENE	96		1	NOT FOUND		
15	V1# 90	C050 1,1-DICHLOROETHANE	63		1	NOT FOUND		
16	V1# 95	TRANS-1,2-DICHLOROETHENE	96	193	1	1383.	0.038	1.202
17	V1#100	C060 CHLOROFORM	83		1	NOT FOUND		
18	V1#110	C065 1,2-DICHLOROETHANE	62		1	NOT FOUND		
19	V2# 10	C110 2-BUTANONE	72		2	NOT FOUND		
20	V2# 15	C115 1,1,1-TRICHLOROETHA	97		2	NOT FOUND		
21	V2# 20	C120 CARBONTETRACHLORIDE	117		2	NOT FOUND		
22	V2# 25	C125 VINYL ACETATE	43		2	NOT FOUND		
23	V2# 30	C130 BROMODICHLOROMETHAN	83		2	NOT FOUND		
24	V2# 35	C140 1,2-DICHLOROPROPANE	63		2	NOT FOUND		
25	V2# 40	C143 CIS-1,3-DICHLOROPRO	75		2	NOT FOUND		
26	V2# 45	C150 TRICHLOROETHENE	130		2	NOT FOUND		
27	V2# 50	C155 DIBROMOCHLOROMETHAN	129		2	NOT FOUND		
28	V2# 55	C160 1,1,2-TRICHLOROETHA	97		2	NOT FOUND		
29	V2# 60	C165 BENZENE	78		2	NOT FOUND		
30	V2# 65	C172 TRANS-1,3-DICHLOROP	75		2	NOT FOUND		
31	V2# 80	C180 BROMOFORM	173		2	NOT FOUND		
32	V3# 10	C205 4-METHYL-2-PENTANON	58	402	3	759.	0.004	~~1.187~~
33	V3# 15	C210 2-HEXANONE	58		3	NOT FOUND		
34	V3# 20	C220 TETRACHLOROETHENE	164	448	3	3357.	0.016	2.199
35	V3# 25	C225 1,1,2,2-TETRACHLORO	83		3	NOT FOUND		
36	V3# 35	C230 TOLUENE	92		3	NOT FOUND		
37	V3# 40	C235 CHLOROBENZENE	112		3	NOT FOUND		
38	V3# 50	C240 ETHYLBENZENE	106		3	NOT FOUND		
39	V3# 55	C245 STYRENE	104		3	NOT FOUND		
40	V3# 60	M-XYLENE	106		3	NOT FOUND		
41	V3# 75	O+P XYLENES	106		3	NOT FOUND		

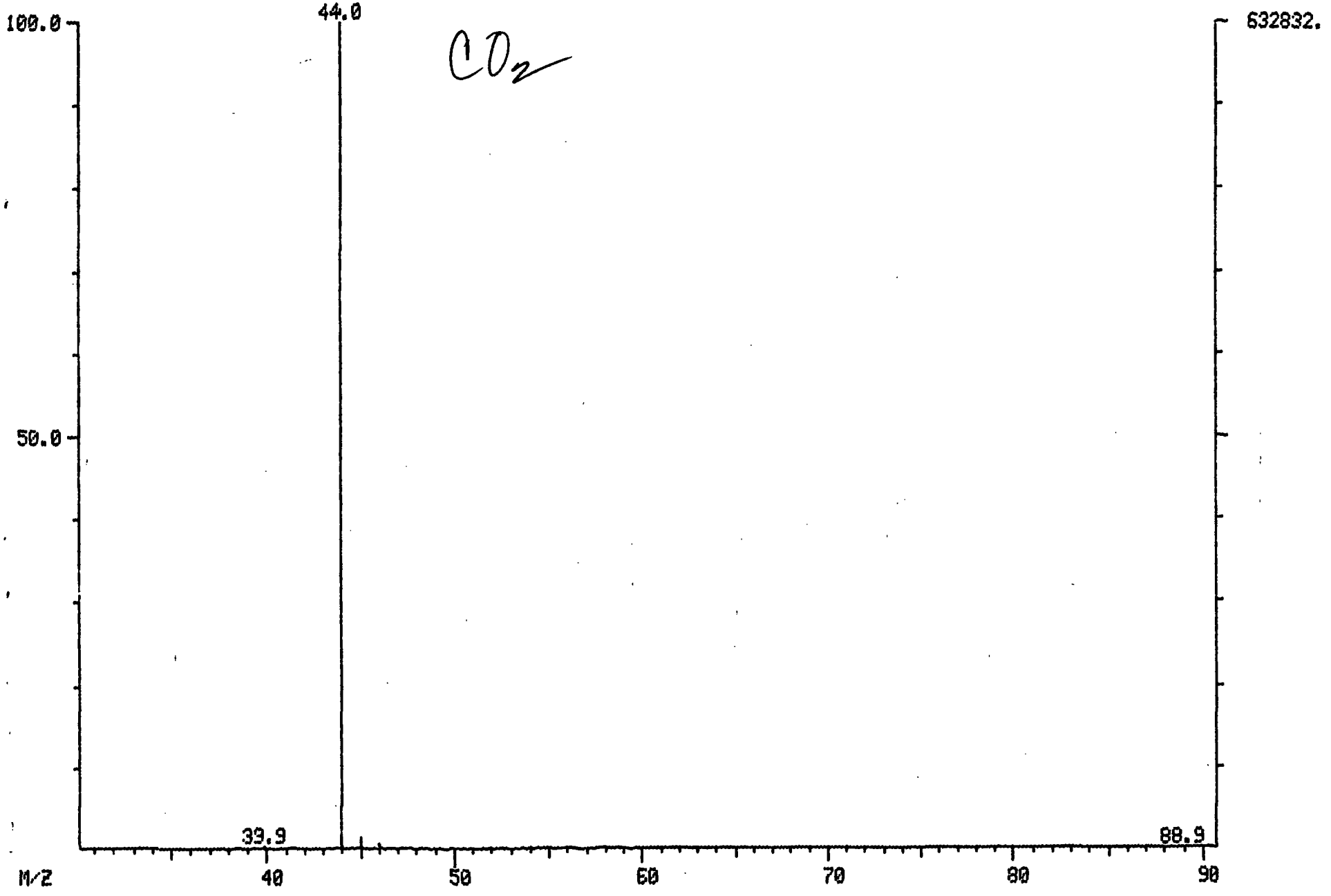
N
6.3.88

01588

MASS SPECTRUM
04/29/88 15:47:00 + 0:51
SAMPLE: 59436-23 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 63 DEG. C

DATA: S59436W922 #17
CALI: 042988CW #3

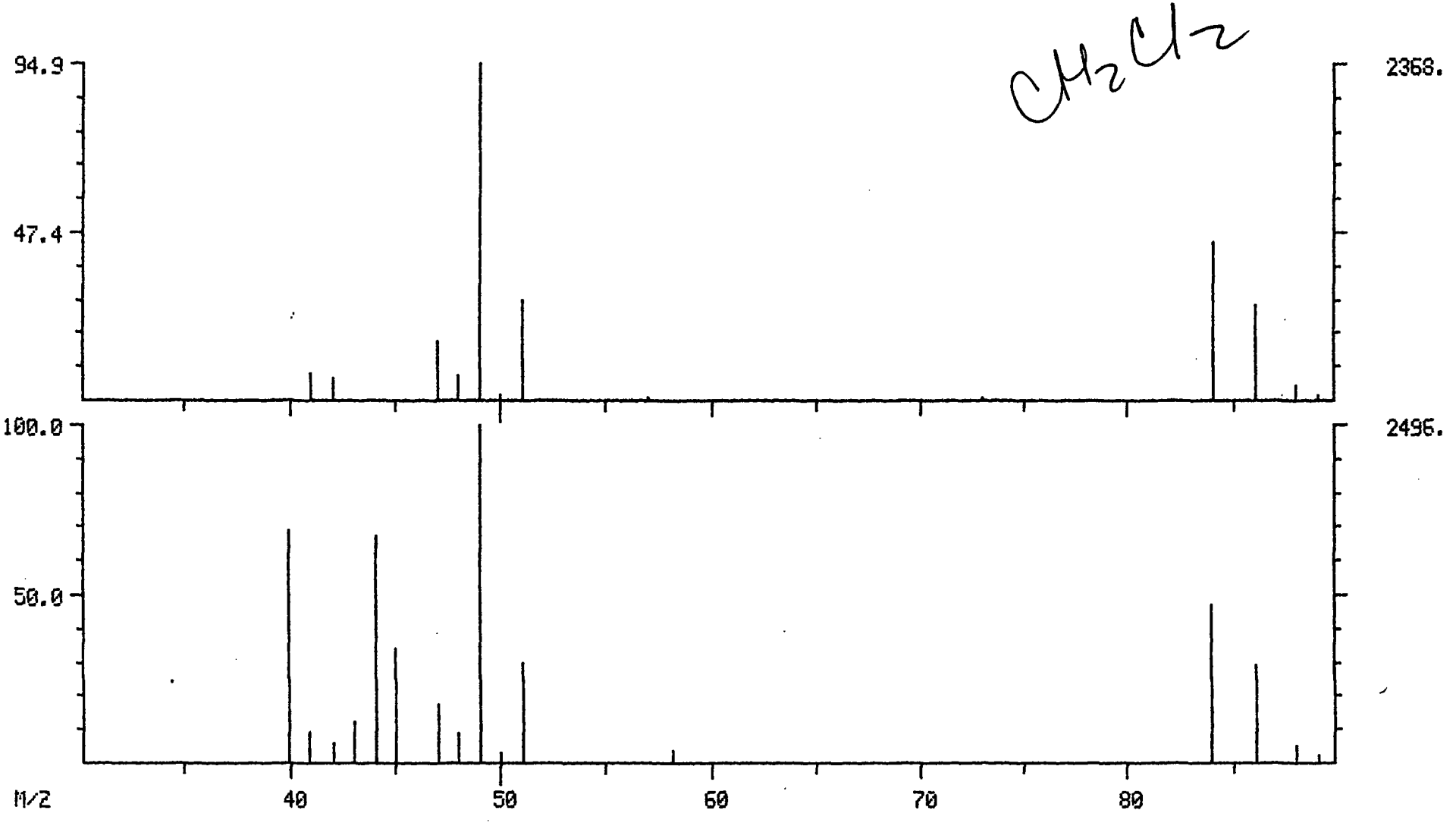
BASE M/Z: 44
RIC: 645120.



01589

DUAL MASS SPECTRUM
04/29/88 15:47:00 + 5:15
SAMPLE: 59436-23 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 83 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W922 #105 BASE M/Z: 49/ 49
CALI: 042988CW #3 RIC: 5999./ 11071.



01590

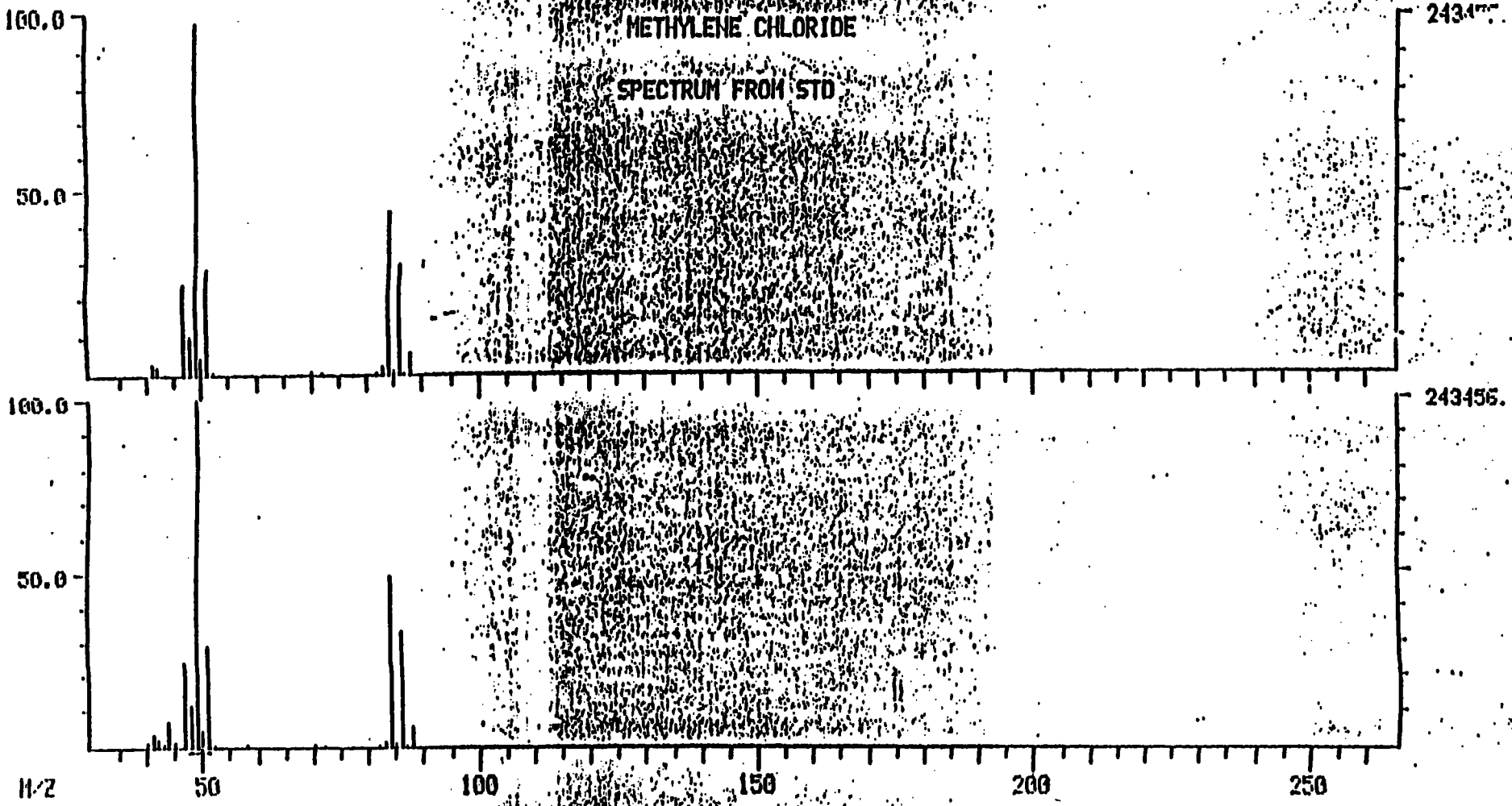
DUAL MASS SPECTRUM
10/13/86 10:38:00 + 6:55
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
COMDS.:
ENHANCED (S 15B 2N 0T)

DATA: STDJ198 #136
CALI: STDJ198 #1

BASE M/Z: 49/ 49
RIC: 615423./ 678911.

METHYLENE CHLORIDE

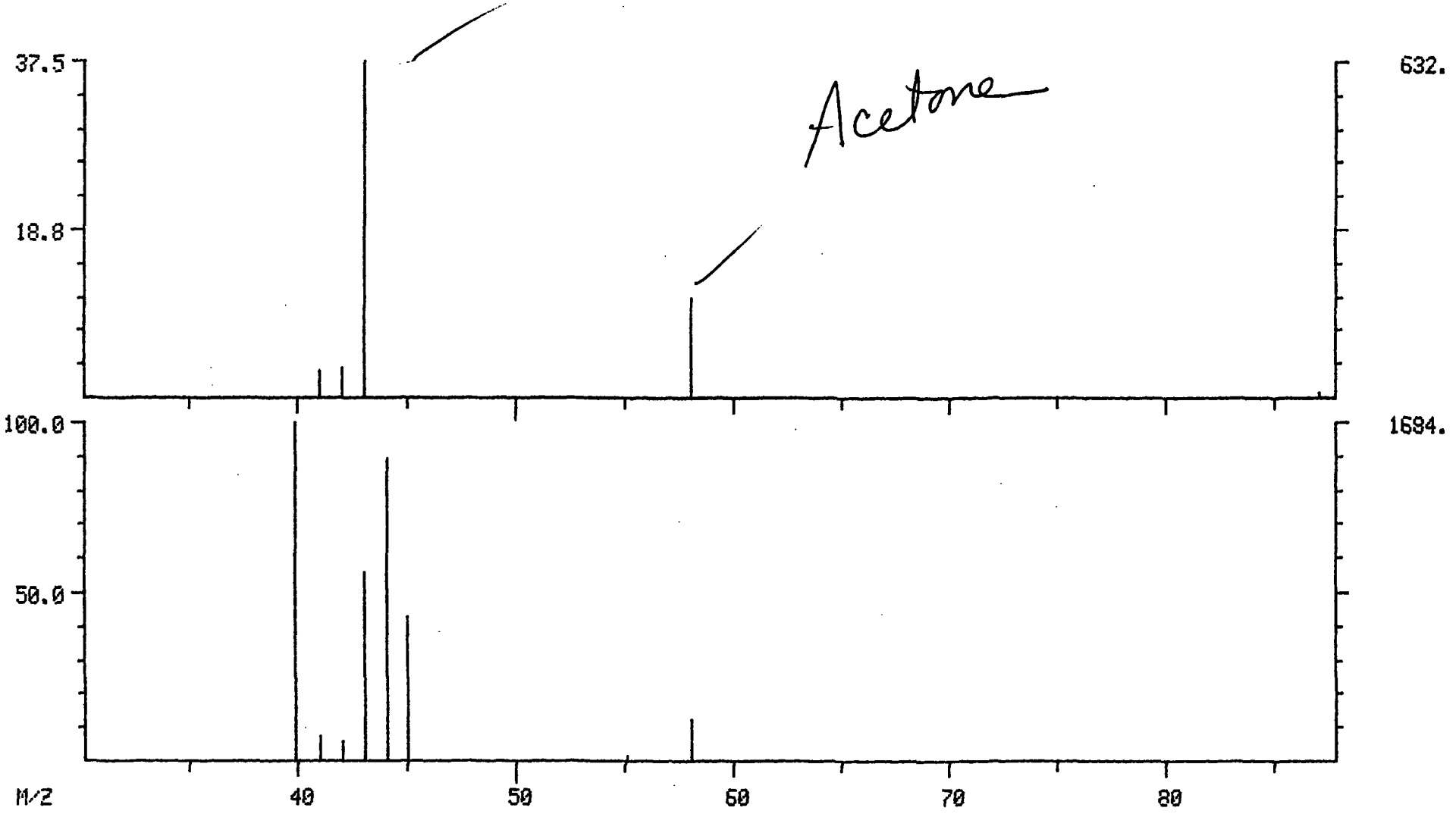
SPECTRUM FROM STD



C1591

DUAL MASS SPECTRUM
04/29/88 15:47:00 + 5:42
SAMPLE: 59436-23 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 86 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 559436W922 #114 BASE M/Z: 43/ 40
CALI:- 042988CW #3 RIC: 927./ 5303.

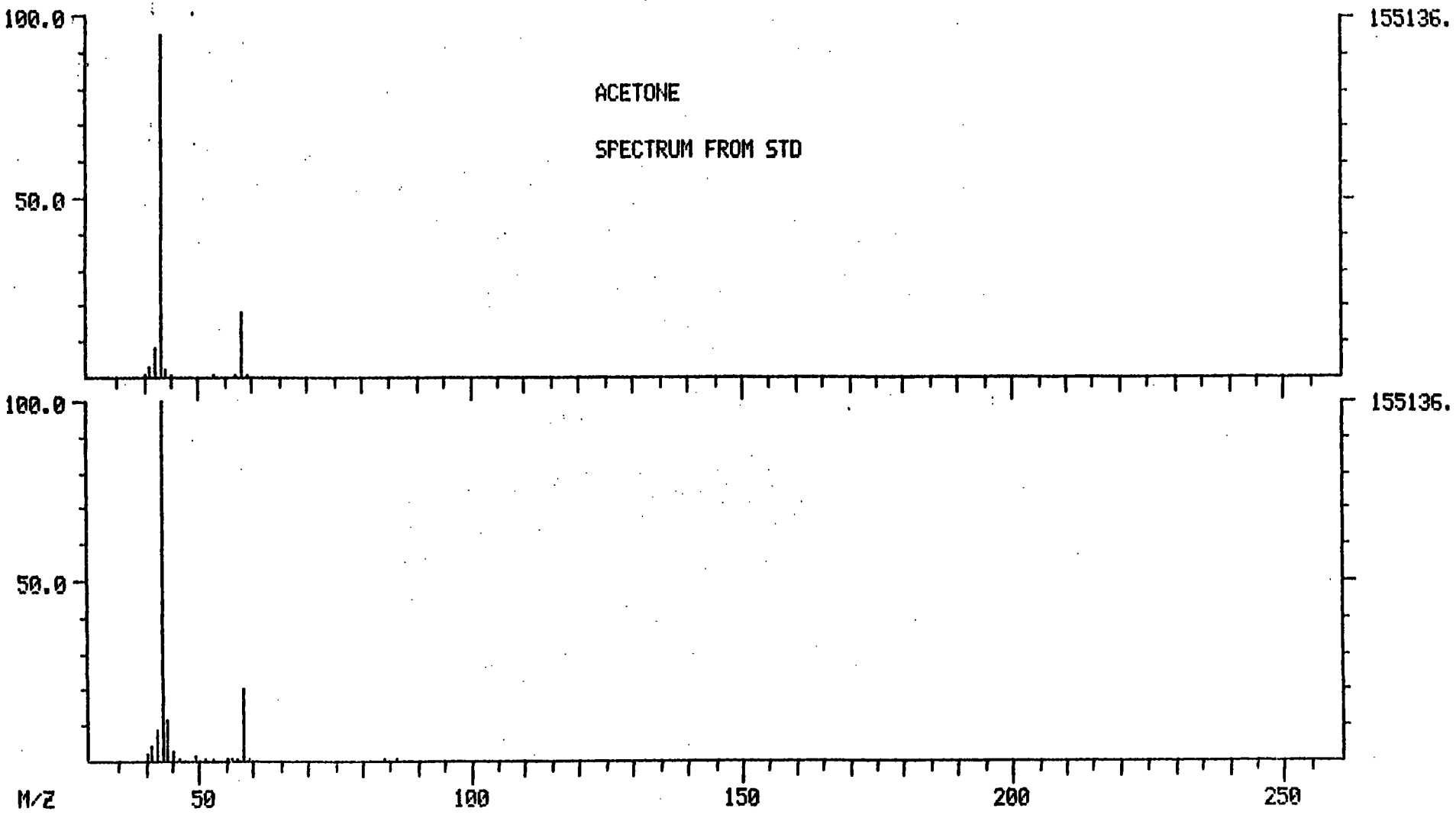


01592

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 7:37
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: STDJ198 #150
CALI: STDJ198 #1

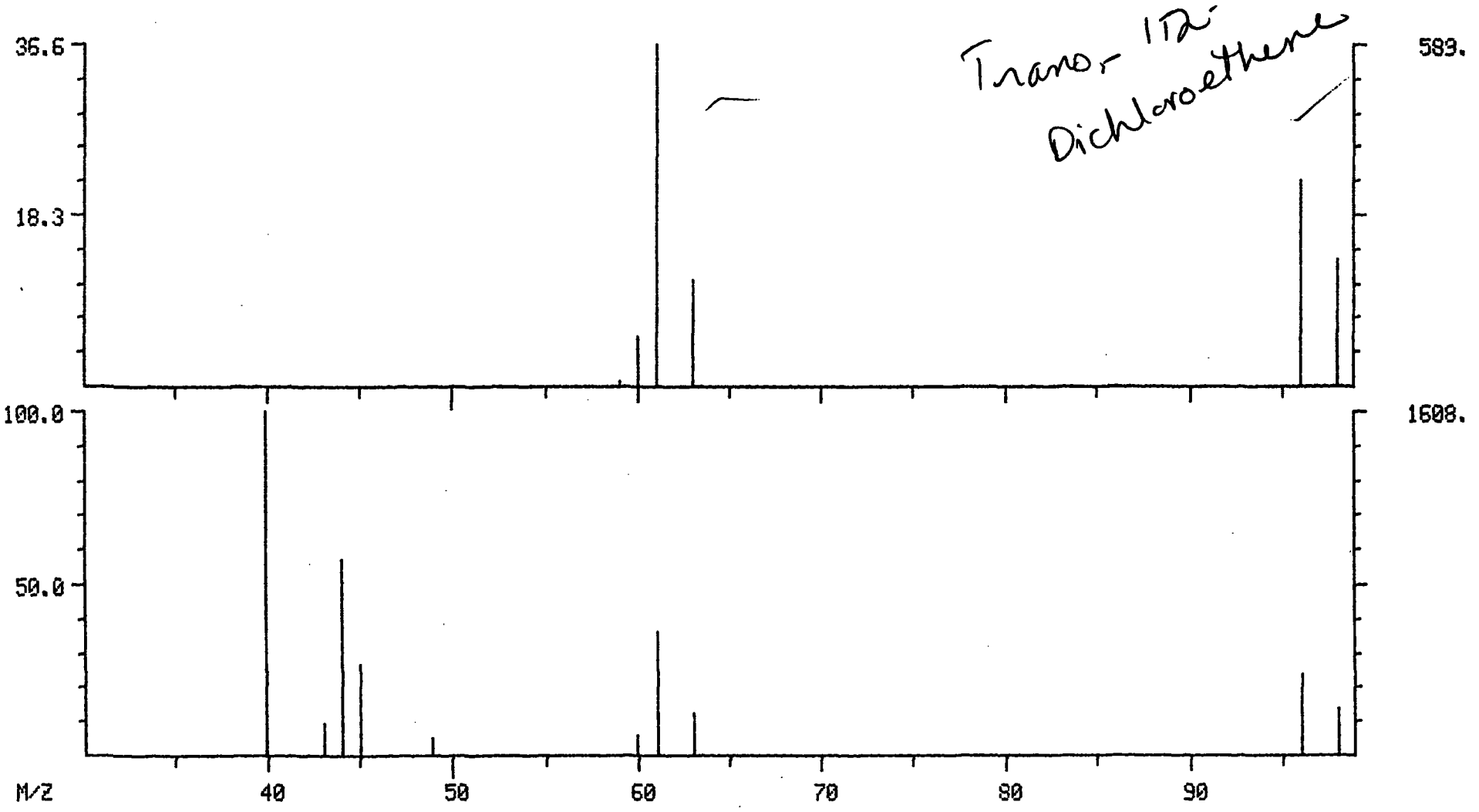
BASE M/Z: 43/ 43
RIC: 199935./ 247807.



01593

DUAL MASS SPECTRUM
04/29/88 15:47:00 + 9:39
SAMPLE: 59436-23 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 114 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W922 #193 BASE M/Z: 61/ 40
CALI: 042988CW #3 RIC: 1437./ 4655.

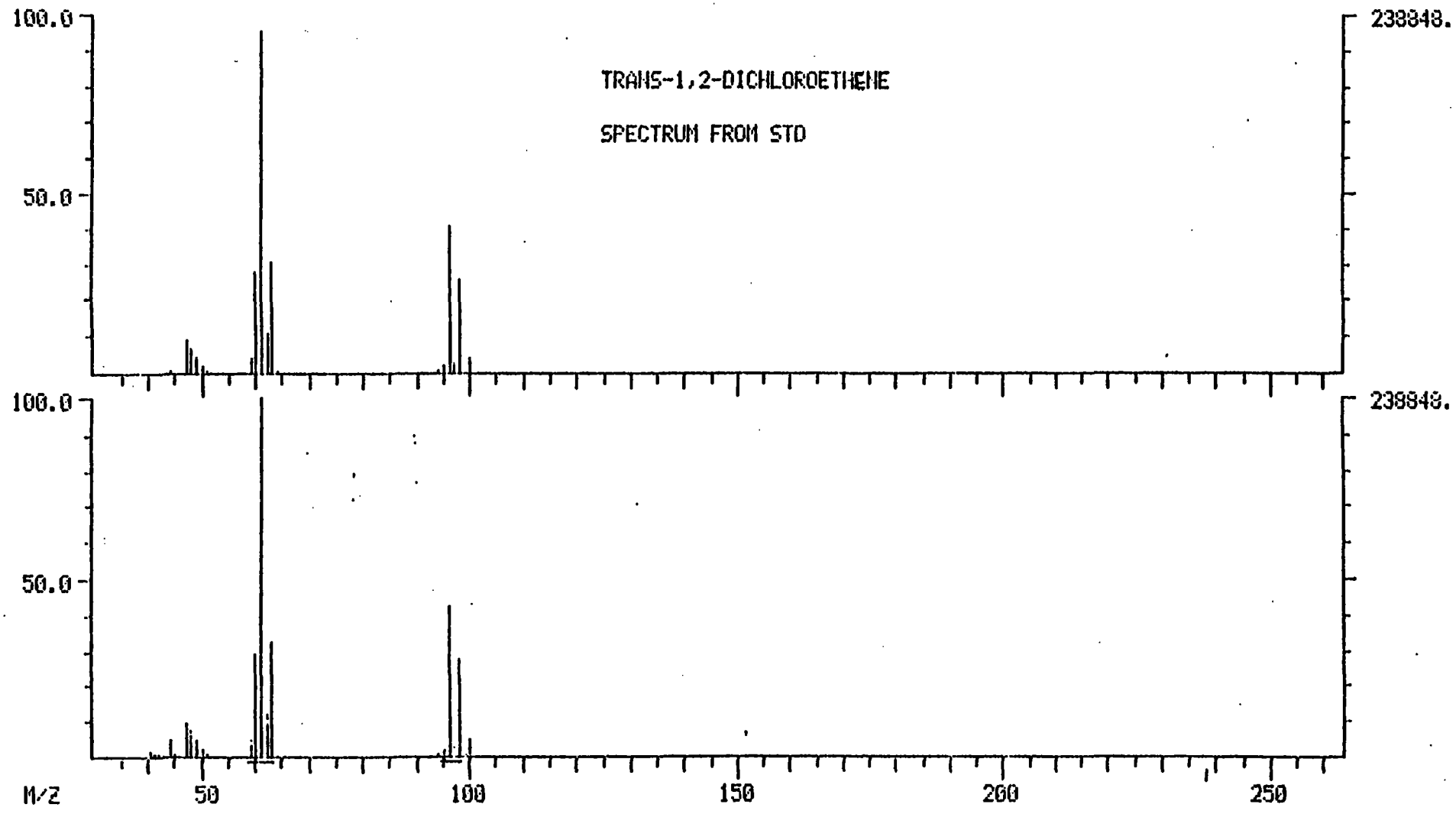


01594

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 11:57
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100Z/5ML
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: STDJ198 #235
CALI: STDJ198 #1

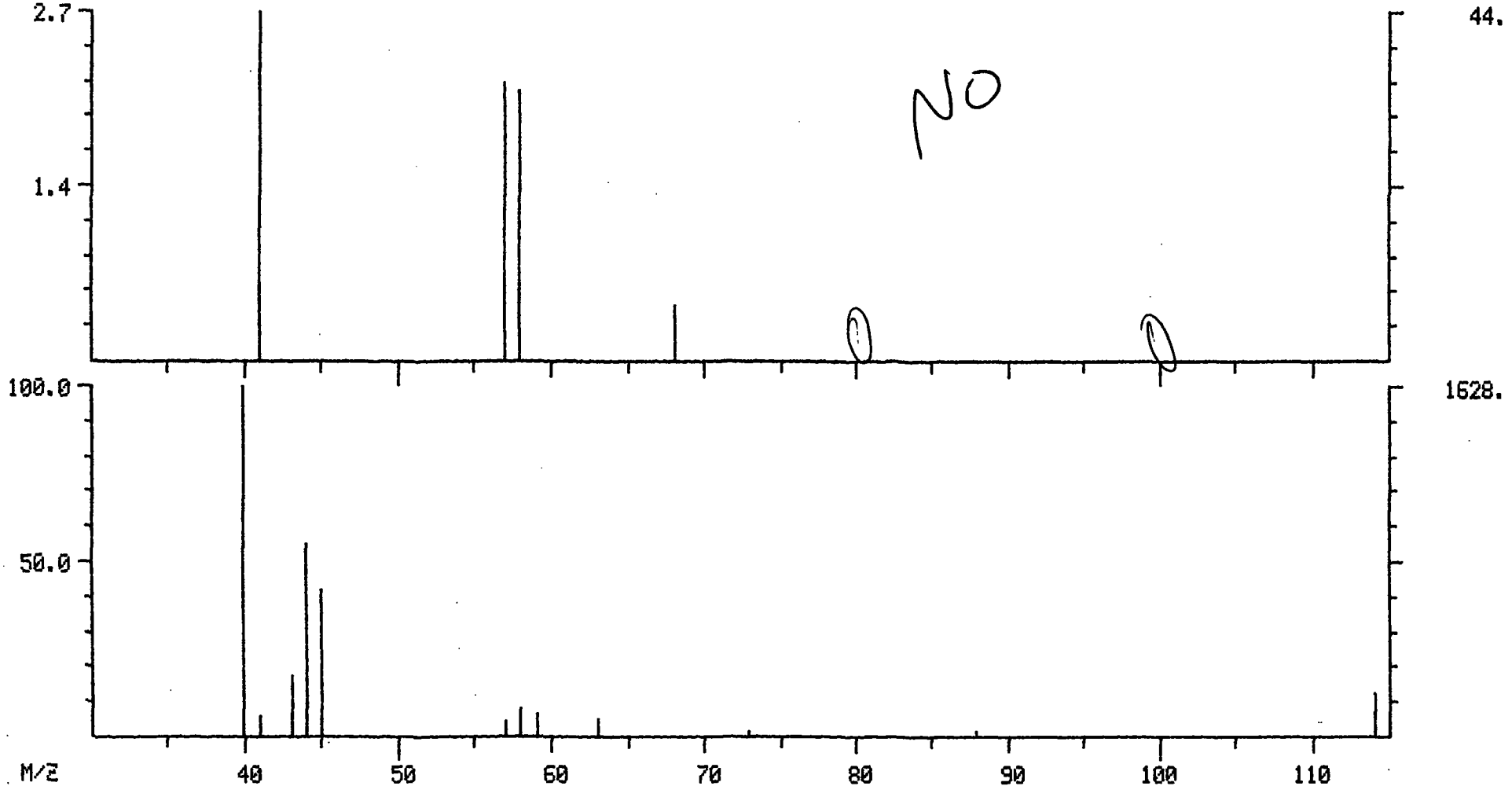
BASE M/Z: 61/ 61
RIC: 647167./ 705535.



01595

DUAL MASS SPECTRUM
04/29/88 15:47:00 + 20:06
SAMPLE: 59436-23 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 187 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W922 #402 BASE M/Z: 41/ 40
CALI: 042988CW #3 RIC: 119./ 4231.

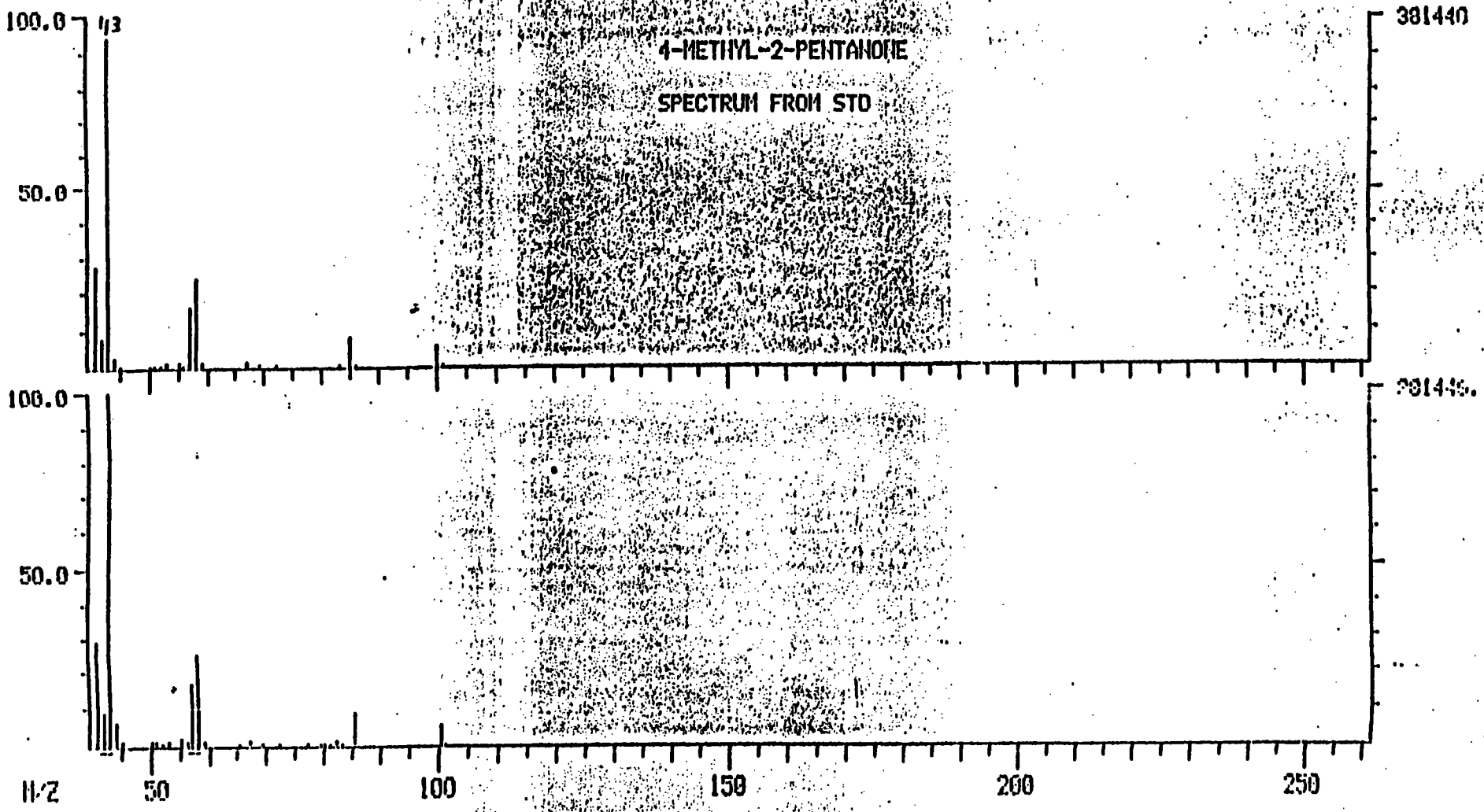


01596

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 21:45
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
CONDS.:
ENHANCED (S 150 2H 0T)

DATA: STDJ198 #428
CALI: STDJ198 #1

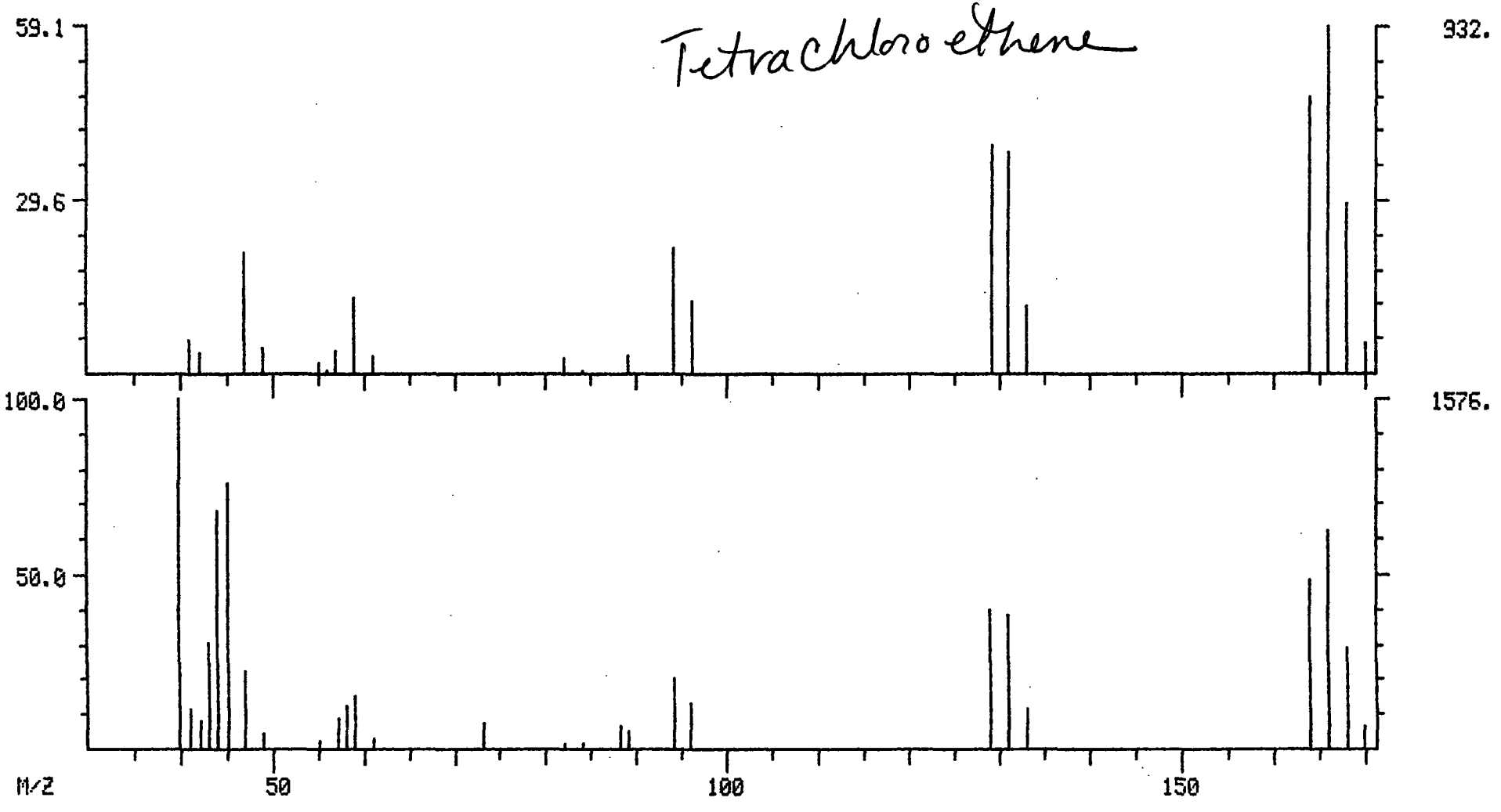
BASE M/Z: 43/ 43
RIC: 759807./ 835583.



01597

DUAL MASS SPECTRUM
04/29/88 15:47:00 + 22:24
SAMPLE: 59436-23 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 204 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W922 #448 BASE M/Z: 166/ 40
CALI: 042988CW #3 RIC: 5111./ 10335.



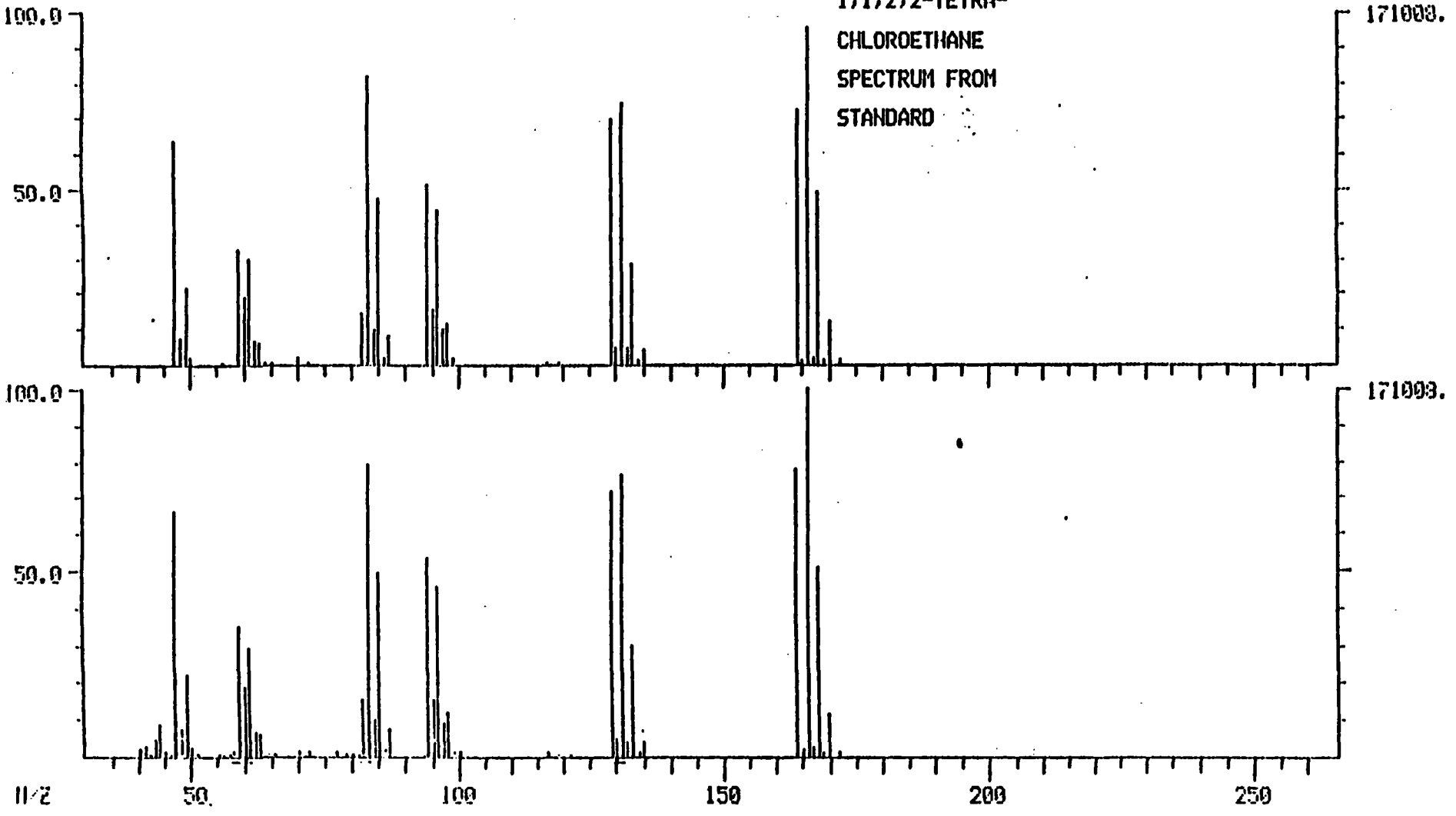
01598

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 23:41
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
CONDS.:
ENHANCED (S 15B 2H 0T)

DATA: STDJ198 #466
CALI: STDJ198 #1

BASE M/Z: 166/ 166
RIC: 1566710./ 1669110.

TETRACHLOROETHENE
COELUTION WITH
1,1,2,2-TETRA-
CHLOROETHANE
SPECTRUM FROM
STANDARD



6/2/88 13:45:56 SCAN 1 OF 2850
Acquisition started

cquire Run 0:S59436R981 ACQUIRING
06/02/88 13:44:00 + 0:03 Free sectors: 24256 Scan: 4 of 2850 01599
Sample: 59436-23 BNA H20 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No: 59436

********** GC PARAMETERS **********

Loaded GC Desc:ST Current GC oven tmp: 31 DegC Injector : 250 DegC
Current GC Desc:ST GC elapsed time : 0: 7 min Int.oven : 275 DegC

Seq.#	Temp(C)	Rate(C/m)	Time(min)	Total time(min)		Open	Close
1	30 - 30	-	1.0	1.0	Sweep/Split	0.5	0.0
2	30 - 325	10.0	29.5	30.5	Divert	45.5	0.0
3	325 - 325	-	15.0	45.5			
4	325 - 325	-	0.0	45.5			

********** SCAN PARAMETERS **********

Low mass: 35 Up: 0.70 L* Top: 0.00
High mass: 500 Down: 0.00 L Bottom: 0.05

Cent S/P: 10 Actual: 10 Samp Int (ms): 0.150 Peak Width: 1000.
Frag S/P: 10 Actual: 10 Samp Int (ms): 0.150 Inten/ion: 2

Min Peak Width: 3 Min Frag Width %: 80 Min Area: 20
ADC Threshold: 1 Baseline: 0

***** Mode: Centroid positive ion

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	Q	
Full scale mass	1024	u
Zero scale mass	1	u
Intensity/ion	2	
Peak Width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(MS)	4	

$RF = \frac{2.0ml}{.98} = 2.04$

6/2/88 14:21:36
ACQUISITION COMPLETED
SCANS 1 TO 2850 Centroid

Mode	Scans	Secs	Out of	%	Peaks per scan	per sec
Centroid	2850	475.8	2137.5	22.3	61120. 21.	29.

TC=Target Compound
SC=Spike Compound

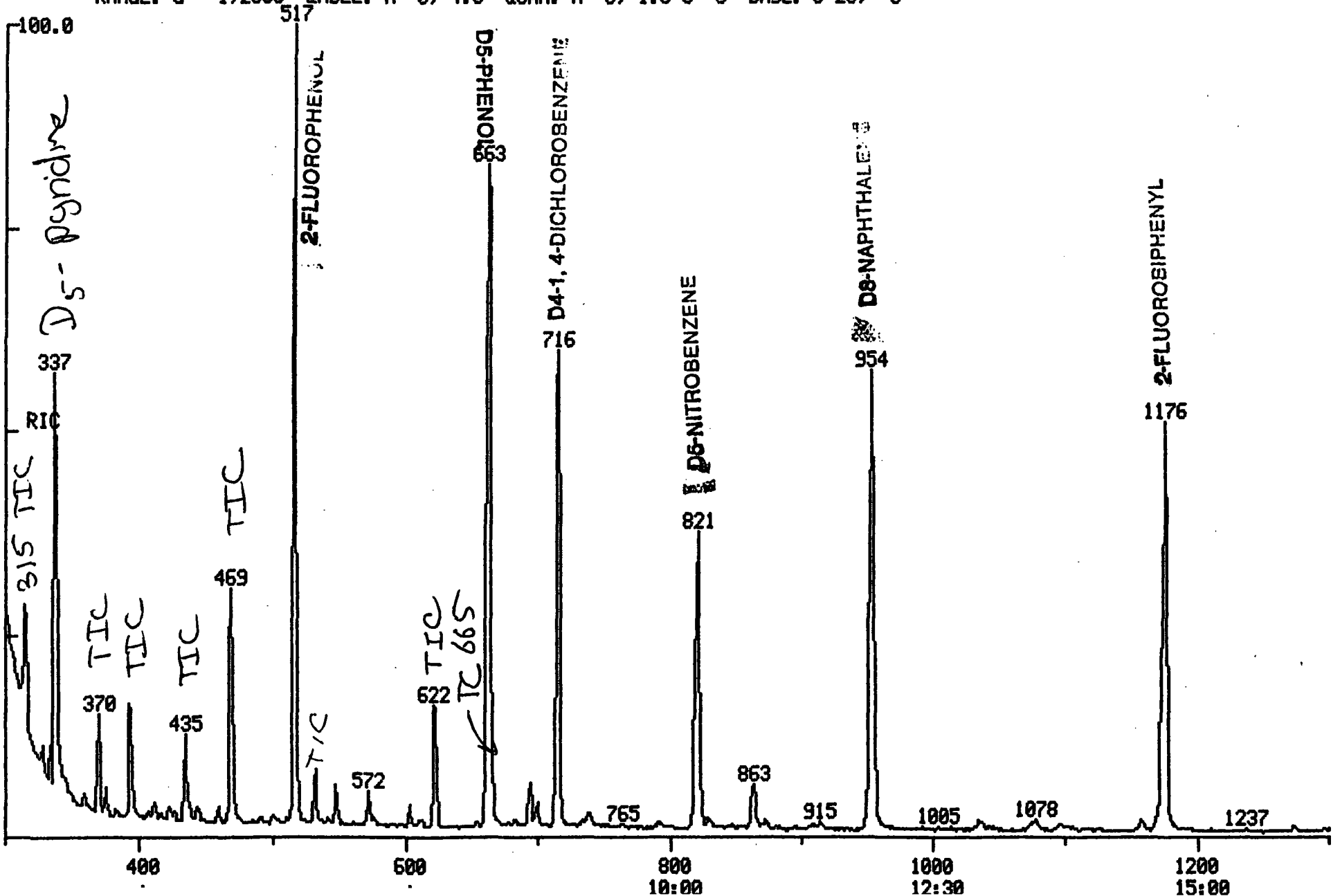
01600

RIC
06/02/88 13:44:00
SAMPLE: 59436-23 BNA H2O 100%/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: S59436R981 #4
CALI: 060288CR #5

SCANS 300 TO 1300
OUT OF 300 TO 2850

T.I.C.-Tent. Ident. Compound



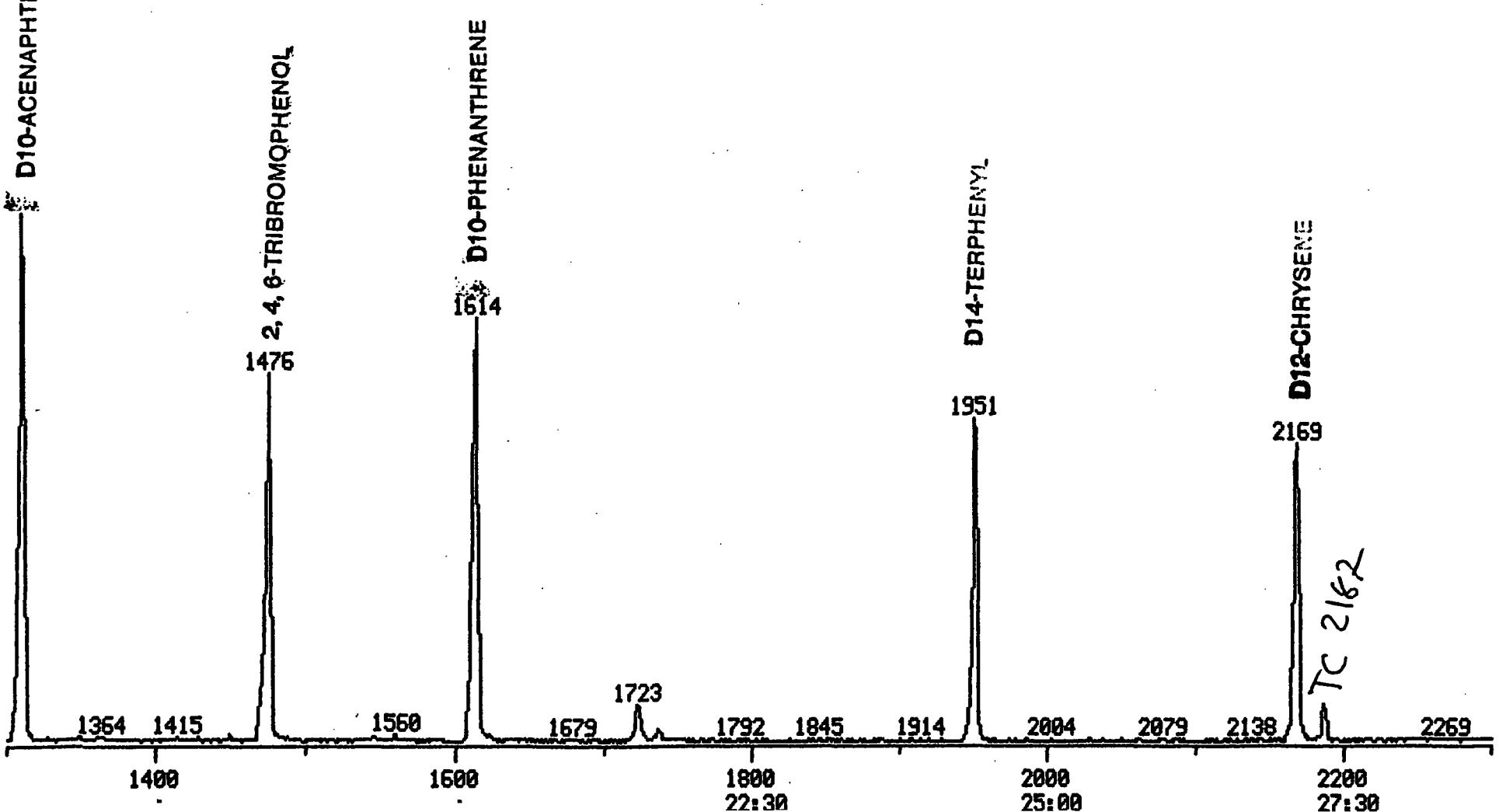
01601

RIC
06/02/88 13:44:00
SAMPLE: 59436-23 BNA H2O 100%/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 559436R981 #4 SCANS 1300 TO 2300
CALI: 060288CR #5 OUT OF 300 TO 2850

100.0

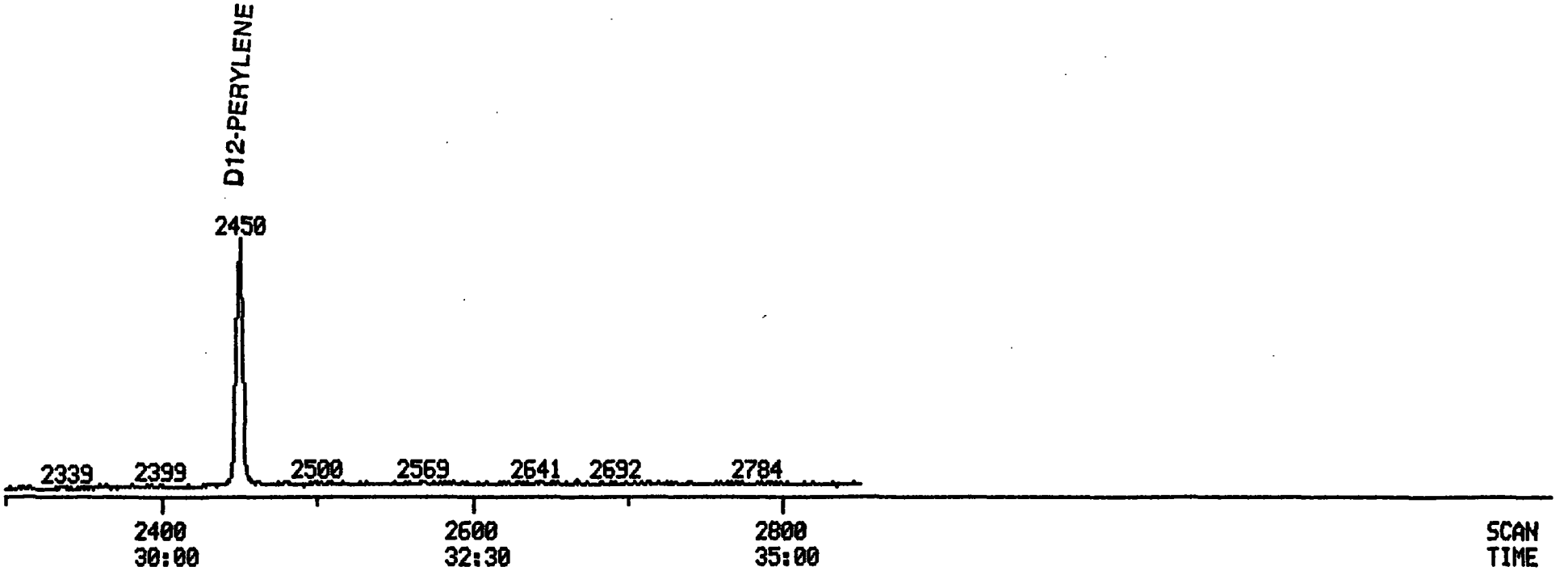
TC- target compond
TIC- tentatively identified compound



02

RIC DATA: 559436R981 #4 SCANS 2300 TO 2850
06/02/88 13:44:00 CALI: 060288CR #5 OUT OF 300 TO 2850
SAMPLE: 59436-23 BNA H2O 100%/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

100.0 98816.



ROCEDURE: TCA DIAGNOSTIC REPORT 6/02/88 19:19:27 01603
ATA FILE: S59436R981
EFERENCE: 11TABLE
AME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: IS01

---- STANDARDS ----- ><				--- PLUS UNKNOWNS --- ><				- LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	4	0	7	4	1	183	IS01/TC01
3	3	1	16	18	4	1	149	IS02/TC02
3	3	1	16	12	3	1	16	IS03/TC03
3	3	2	37	18	5	1	200	IS04/TC04
3	3	1	37	10	5	1	157	IS05/TC05
3	3	1	0	8	3	1	0	IS06/TC06
3	3	2	0	14	6	1	45	IS07/TC07
1	1	1	0	4	1	1	0	IS08/TC08

77 COMPOUNDS PROCESSED, 17 FOUND

COMPOUND ><			---------- SEARCH ---------- >< SAT ><							------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	S1	1	-714	716	716	.	4	977	.	152	716	.	1
2	S1	2	-516	516	517	1	1	995	.	112	517	.	1
3	S1	3	-664	664	663	-1	1	934	.	99	663	.	1
4	S1	105	-666	666	665	-1	1	967	.	94	665	.	1
5	S1	110	-679	679	.	.	.	.	.	93	.	.	.
6	S1	115	-685	685	.	.	.	.	.	128	685	.	1
7	S1	125	-709	709	.	.	.	.	.	146	.	.	.
8	S2	1	-953	954	954	.	1	994	.	136	954	.	1
9	S3	1	-1311	1311	1311	.	1	992	.	164	1311	.	1
10	S1	130	-718	719	.	.	.	.	.	146	.	.	.
11	S1	145	-746	747	.	.	.	.	.	108	.	.	.
12	S1	150	-751	752	.	.	.	.	.	146	.	.	.
13	S1	160	-769	770	.	.	.	.	.	108	.	.	.
14	S1	165	-774	775	.	.	.	.	.	45	.	.	.
15	S1	185	-797	798	.	.	.	.	.	108	.	.	.
16	S1	190	-802	803	.	.	.	.	.	70	.	.	.
17	S1	200	-807	808	.	.	.	.	.	117	.	.	.
18	S2	2	-822	823	821	-2	1	1000	.	82	821	.	1
19	S2	10	-825	826	.	.	.	.	.	77	.	.	.
20	S2	20	-871	872	.	.	.	.	.	82	870	.	1
21	S2	25	-885	886	.	.	.	.	.	139	.	.	.
22	S2	30	-896	897	.	.	.	.	.	107	.	.	.
23	S2	35	-915	916	.	.	.	.	.	93	.	.	.
24	S2	45	-926	927	.	.	.	.	.	122	.	.	.
25	S2	40	-931	932	.	.	.	.	.	162	.	.	.
26	S2	55	-947	948	.	.	.	.	.	180	.	.	.
27	S2	60	-958	959	.	.	.	.	.	128	.	.	.
28	S2	80	-975	976	.	.	.	.	.	127	.	.	.
29	S2	95	-995	996	.	.	.	.	.	225	.	.	.
30	S2	130	-1073	1074	.	.	.	.	.	107	.	.	.
31	S2	145	-1096	1097	.	.	.	.	.	142	.	.	.
32	S3	20	-1142	1143	.	.	.	.	.	237	.	.	.
33	S3	25	-1160	1160	.	.	.	.	.	196	.	.	.
34	S4	1	-1614	1614	1614	.	2	991	.	188	1614	.	1
35	S3	30	-1167	1168	.	.	.	.	.	196	.	.	.
36	S3	3	-1176	1177	1176	-1	1	997	.	172	1176	.	1
37	S3	40	-1194	1195	.	.	.	.	.	162	.	.	.
38	S3	45	-1224	1225	.	.	.	.	.	65	.	.	.
39	S3	55	-1271	1272	.	.	.	.	.	163	.	.	.
40	S3	65	-1280	1281	.	.	.	.	.	152	.	.	.
41	S3	70	-1284	1285	.	.	.	.	.	165	.	.	.
			-1310	1311	.	.	.	.	.	138			

43	S3	80	-1319	1320	.	.	.	.	.	153	.	.	.
44	S3	85	-1330	1331	.	.	.	.	.	184	.	.	.
45	S3	95	-1347	1348	1351	3	1	905	.	109	.	.	.
46	S3	90	-1351	1352	.	.	.	.	.	168	1350	.	1
47	S3	105	-1363	1364	.	.	.	.	.	165	.	.	.
48	S3	130	-1417	1418	.	.	.	.	.	149	.	.	.
49	S3	135	-1423	1424	.	.	.	.	.	166	.	.	.
50	S3	140	-1425	1424	.	.	.	.	.	204	.	.	.
51	S3	150	-1438	1437	.	.	.	.	.	138	.	.	.
52	S4	10	-1446	1445	.	.	.	.	.	198	.	.	.
53	S4	15	-1452	1451	1449	-2	1	900	.	169	1449	.	1
54	S3	2	-1476	1475	1476	1	1	977	.	330	1475	-1	1
55	S4	30	-1524	1523	.	.	.	.	.	248	.	.	.
56	S4	40	-1553	1552	.	.	.	.	.	284	.	.	.
57	S5	1	-2169	2169	2169	.	1	959	.	240	2169	.	1
58	S4	50	-1590	1590	.	.	.	.	.	266	.	.	.
59	S4	65	-1620	1620	.	.	.	.	.	178	1619	.	1
60	S4	70	-1629	1629	.	.	.	.	.	178	1627	.	1
61	S4	85	-1753	1753	.	.	.	.	.	149	1751	.	1
62	S4	110	-1868	1868	.	.	.	.	.	202	.	.	.
63	S6	1	-2450	2450	2450	.	2	997	.	264	2450	.	1
64	S5	15	-1915	1915	.	.	.	.	.	202	1913	.	1
65	S5	2	-1951	1951	1951	.	1	995	.	244	1951	.	1
66	S5	40	-2062	2062	.	.	.	.	.	149	2061	.	1
67	S5	55	-2166	2166	.	.	.	.	.	252	.	.	.
68	S5	50	-2166	2166	.	.	.	.	.	228	2168	.	1
69	S5	60	-2176	2176	.	.	.	.	.	228	.	.	.
70	S5	65	-2188	2188	2187	-1	1	993	.	149	2187	.	1
71	S6	10	-2310	2310	2310	.	1	897	.	149	2310	.	1
72	S6	15	-2381	2381	.	.	.	.	.	252	.	.	.
73	S6	25	-2386	2386	.	.	.	.	.	252	.	.	.
74	S6	35	-2441	2441	.	.	.	.	.	252	.	.	.
75	S6	55	-2688	2688	.	.	.	.	.	276	.	.	.
76	S6	60	-2692	2692	.	.	.	.	.	278	.	.	.
77	S6	65	-2756	2756	.	.	.	.	.	276	.	.	.

uantitation Report File: S59436R981

01605

ata: S59436R981.TI
6/02/88 13:44:00
ample: 59436-23 BNA H2O 100%/2ML
onds.: ST
ormula: AUTO INJ Instrument: 4500 Weight: 0.000
ubmitted by: RMAL Analyst: MK Acct. No.: 59436

MOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
esp. fac. from Library Entry

No	Name			
1	CI30	1,4-DICHLOROBENZENE-D4	152IS1# 01	3855-82-1
2	CS50	2-FLUOROPHENOL	112SS1# 02	367-12-4
3	CS45	PHENOL-D5	99SS1# 03	4165-62-2
4	C315	PHENOL	94 S1#105CC	108-95-2
5	C325	BIS(2-CHLOROETHYL)ETHER	93 S1#110	111-44-4
6	C330	2-CHLOROPHENOL	128 S2#115	95-57-8
7	C335	1,3-DICHLOROBENZENE	146 S1#125	541-73-1
8	CI40	NAPHTHALENE-D8	136IS2# 01	1146-65-2
9	CI50	ACENAPHTHENE-D10	164IS3# 01	15067-26-2
10	C340	1,4-DICHLOROBENZENE	146 S1#130CC	106-46-7
11	C345	BENZYL ALCOHOL	108 S1#145	100-51-6
12	C350	1,2-DICHLOROBENZENE	146 S1#150	95-50-1
13	C355	2-METHYLPHENOL	108 S1#160	95-48-7
14	C360	BIS(2-CHLOROISOPROPYL)E	45 S1#165	108-60-1
15	C365	4-METHYLPHENOL	108 S1#185	106-44-5
16	C370	N-NITROSO-DI-N-PROPYLAM	70 S1#190SP	621-64-7
17	C375	HEXACHLOROETHANE	117 S1#200	67-72-1
18	CS20	NITROBENZENE-D5	82SS2# 02	4165-60-0
19	C410	NITROBENZENE	77 S2# 10	98-95-3
20	C415	ISOPHORONE	82 S2# 20	75-59-1
21	C420	2-NITROPHENOL	139 S2# 25CC	88-75-5
22	C425	2,4-DIMETHYLPHENOL	107 S2# 30	105-67-9
23	C435	BIS(2-CHLOROETHOXY)METH	93 S2# 35	111-91-1
24	C430	BENZOIC ACID	122 S2# 45	65-85-0
25	C440	2,4-DICHLOROPHENOL	162 S2# 40	120-83-2
26	C445	1,2,4-TRICHLOROBENZENE	180 S2# 55	120-82-1
27	C450	NAPHTHALENE	128 S2# 60	91-20-3
28	C455	4-CHLOROANALINE	127 S2# 80	106-47-8
29	C460	HEXACHLOROBUTADIENE	225 S2# 95CC	87-68-3
30	C465	4-CHLORO-3-METHYLPHENO	107 S2#130CC	59-50-7
31	C470	2-METHYLNAPHTHALENE	142 S2#145	91-57-6
32	C510	HEXACHLOROCYCLOPENTADI	237 S3# 20	77-47-4
33	C515	2,4,6-TRICHLOROPHENOL	196 S3# 25CC	88-06-2
34	CI60	PHENANTHRENE-D10	188IS4# 01	1517-22-2
35	C520	2,4,5-TRICHLOROPHENOL	196 S3# 30	95-95-4
36	CS25	2-FLUOROBIPHENYL	172SS3# 03	321-60-8
37	C525	2-CHLORONAPHTHALENE	162 S3# 40	91-58-7
38	C530	2-NITROANALINE	65 S3# 45	88-74-4
39	C535	DIMETHYLPHTHALATE	163 S3# 55	131-11-3
40	C540	ACENAPHTHYLENE	152 S3# 65	208-96-8
41	C543	2,6-DINITROTOLUENE	165 S3# 70	606-20-2
42	C545	3-NITROANILINE	138 S3# 75	99-09-2
43	C550	ACENAPHTHENE	153 S3# 80CC	83-32-9
44	C555	2,4-DINITROPHENOL	184 S3# 85SP	51-28-5
45	C560	4-NITROPHENOL	109 S3# 95SP	100-02-7
46	C565	DIBENZOFURAN	168 S3# 90	132-64-9
47	C570	2,4-DINITROTOLUENE	165 S3#105	121-14-2

No	Name			
48	C580 DIETHYLPHTHALATE	149	S3#130	84-66-2
49	C590 FLUORENE	166	S3#135	86-73-7
50	C585 4-CHLOROPHENYL-PHENYLE	204	S3#140	7005-72-3

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	716	8:57	1	1.000	A BV	25871.	40.000 UG/ML	6.78
2	112	517	6:28	1	0.722	A BB	63570.	71.936 UG/ML	12.19
3	99	663	8:17	1	0.926	A BB	90209.	71.207 UG/ML	12.07
4	94	665	8:19	1	0.929	A BB	7622.	5.512 UG/ML	0.93
5	NOT FOUND								
6	128	685	8:34	1	0.957	A BB	115.	0.131 UG/ML	0.02
7	NOT FOUND								
8	136	954	11:55	8	1.000	A BB	98686.	40.000 UG/ML	6.78
9	164	1311	16:23	9	1.000	A BV	46128.	40.000 UG/ML	6.78
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	82	821	10:16	8	0.861	A BB	43887.	41.039 UG/ML	6.96
19	NOT FOUND								
20	82	870	10:52	8	0.912	A VB	202.	0.101 UG/ML	0.02
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	188	1614	20:10	34	1.000	A BV	67935.	40.000 UG/ML	6.78
35	NOT FOUND								
36	172	1176	14:42	9	0.897	A BB	62156.	38.861 UG/ML	6.59
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	168	1350	16:52	9	1.030	A BB	114.	0.055 UG/ML	0.01
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	6:27	1.00	0.722	1.00	71.94	100.00	0.983	1.366	0.72
3	8:18	1.00	0.929	1.00	71.21	100.00	1.395	1.959	0.71
4	8:19	1.00	0.931	1.00	5.51	50.00	0.236	2.138	0.11
5	8:29		0.950						
6	8:34	1.00	0.958	1.00	0.13	50.00	0.004	1.357	0.00
7	8:52		0.992						
8	11:55	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
9	16:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
10	8:58		1.004						
11	9:19		1.043						
12	9:23		1.050						
13	9:37		1.076						
14	9:40		1.083						
15	9:58		1.115						
16	10:01		1.122						
17	10:05		1.129						
18	10:16	1.00	0.862	1.00	41.04	50.00	0.356	0.433	0.82
19	10:19		0.865						
20	10:53	1.00	0.913	1.00	0.10	50.00	0.002	0.814	0.00
21	11:04		0.928						
22	11:12		0.939						
23	11:26		0.959						
24	11:34		0.971						
25	11:38		0.976						
26	11:50		0.993						
27	11:58		1.004						
28	12:11		1.022						
29	12:26		1.043						
30	13:25		1.125						
31	13:42		1.149						
32	14:16		0.870						
33	14:30		0.884						
34	20:11	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
35	14:35		0.889						
36	14:42	1.00	0.896	1.00	38.86	50.00	1.078	1.387	0.78
37	14:55		0.910						
38	15:18		0.933						
39	15:53		0.969						
40	16:00		0.976						
41	16:03		0.979						
42	16:22		0.998						
43	16:29		1.005						
44	16:37		1.014						
45	16:50		1.027						
46	16:53	1.00	1.030	1.00	0.05	50.00	0.002	1.803	0.00
47	17:02		1.039						
48	17:43		1.080						
49	17:47		1.085						
50	17:49		1.086						

uantitation Report File: S59436R981

01608

ata: S59436R981.TI
/02/88 13:44:00
mple: 59436-23 BNA H2O 100%/2ML
onds.: ST
ormula: AUTO INJ Instrument: 4500 Weight: 0.000
ubmitted by: RMAL Analyst: MK Acct. No.: 59436

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

No	Name			
51	C595	4-NITROANALINE	138 S3#150	100-01-6
52	C610	4,6-DINITRO-2-METHYLPH	198 S4# 10	534-52-1
53	C615	N-NITROSODIPHENYLAMINE	169 S4# 15CC	87-30-6
54	CS55	2,4,6-TRIBROMOPHENOL	330SS3# 02	118-79-6
55	C625	4-BROMOPHENYL-PHENYLET	248 S4# 30	101-55-3
56	C630	HEXACHLOROBENZENE	284 S4# 40	118-74-1
57	CI70	CHRYSENE-D12	240IS5# 01	1719-03-5
58	C635	PENTACHLOROPHENOL	266 S4# 50	87-86-5
59	C640	PHENANTHRENE	178 S4# 65	85-01-8
60	C645	ANTHRACENE	178 S4# 70	120-12-7
61	C650	DI-N-BUTYLPHTHALATE	149 S4# 85	84-74-2
62	C655	FLUORANTHENE	202 S4#110CC	206-44-0
63	CI75	PERYLENE-D12	164IS6# 01	1520-96-3
64	C715	PYRENE	202 S5# 15	129-00-0
65	CS30	TERPHENYL-D14	244SS5# 02	1718-51-0
66	C720	BUTYLBENZYLPHTHALATE	149 S5# 40	85-68-7
67	C725	3,3'-DICHLOROBENZIDINE	252 S5# 55	91-94-1
68	C730	BENZO(A)ANTHRACENE	228 S5# 50	56-55-3
69	C740	CHRYSENE	228 S5# 60	218-01-9
70	C745	BIS(2-ETHYLHEXYL)PHTHA	149 S5# 65	117-81-7
71	C760	DI-N-OCTYL PHTHALATE	149 S6# 10CC	117-84-0
72	C765	BENZO(B)FLUORANTHENE	252 S6# 15	205-99-2
73	C770	BENZO(K)FLUORANTHENE	252 S6# 25	207-08-9
74	C775	BENZO(A)PYRENE	252 S6# 35	50-32-8
75	C780	INDENO(1,2,3-CD)PYRENE	276 S6# 55	193-39-5
76	C785	DIBENZ(A,H)ANTHRACENE	278 S6# 60	53-70-3
77	C790	BENZO(G,H,I)PERYLENE	276 S6# 65	191-24-2

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								
52	NOT FOUND								
53	169	1449	18:07	34	0.898	A BB	429.	0.425 UG/ML	0.07
54	330	1475	18:26	9	1.125	A BB	14087.	78.975 UG/ML	13.39
55	NOT FOUND								
56	NOT FOUND								
57	240	2169	27:07	57	1.000	A BB	42234.	40.000 UG/ML	6.78
58	NOT FOUND								
59	178	1619	20:14	34	1.003	A BB	96.	0.050 UG/ML	0.01
60	178	1627	20:20	34	1.008	A BB	55.	0.030 UG/ML	0.01
61	149	1751	21:53	34	1.085	A BB	741.	0.301 UG/ML	0.05
62	NOT FOUND								
63	264	2450	30:37	63	1.000	A BB	34525.	40.000 UG/ML	6.78
64	202	1913	23:55	57	0.882	A BB	100.	0.064 UG/ML	0.01
65	244	1951	24:23	57	0.899	A BB	43158.	38.298 UG/ML	6.49
66	149	2061	25:46	57	0.950	A BB	101.	0.118 UG/ML	0.02

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
67	NOT FOUND								
68	228	2168	27:06	57	1.000	A BB	141.	0.105 UG/ML	0.02
69	NOT FOUND								
70	149	2187	27:20	57	1.008	A BB	3150.	2.605 UG/ML	0.44
71	149	2310	28:52	63	0.943	A BB	565.	0.260 UG/ML	0.04
72	NOT FOUND								
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								
76	NOT FOUND								
77	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	17:58		1.096						
52	18:04		0.895						
53	18:09	1.00	0.899	1.00	0.43	50.00	0.005	0.594	0.01
54	18:27	1.00	1.125	1.00	78.97	100.00	0.122	0.155	0.79
55	19:03		0.944						
56	19:25		0.962						
57	27:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
58	19:52		0.985						
59	20:15	1.00	1.003	1.00	0.05	50.00	0.001	1.135	0.00
60	20:22	1.00	1.009	1.00	0.03	50.00	0.001	1.072	0.00
61	21:55	1.00	1.085	1.00	0.30	50.00	0.009	1.448	0.01
62	23:21		1.157						
63	30:38	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
64	23:56	1.00	0.882	1.00	0.06	50.00	0.002	1.483	0.00
65	24:23	1.00	0.899	1.00	38.30	50.00	0.817	1.067	0.77
66	25:46	1.00	0.950	1.00	0.12	50.00	0.002	0.812	0.00
67	27:04		0.998						
68	27:04	1.00	0.998	1.00	0.10	50.00	0.003	1.272	0.00
69	27:12		1.003						
70	27:21	1.00	1.008	1.00	2.60	50.00	0.060	1.145	0.05
71	28:52	1.00	0.942	1.00	0.26	50.00	0.013	2.514	0.01
72	29:46		0.971						
73	29:49		0.973						
74	30:31		0.996						
75	33:36		1.097						
76	33:39		1.098						
77	34:27		1.124						

TCA FINISHED, 17 FOUND
FINISHED AT: 6/02/88 19:29:20

RMAL QUANTITATION SUMMARY FILE: S59436R981
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/ML

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	S1# 1	CI30 1,4-DICHLOROBENZENE	152	716	1	25871.	1.000	40.000
2	S2# 1	CI40 NAPHTHALENE-D8	136	954	2	98686.	1.000	40.000
3	S3# 1	CI50 ACENAPHTHENE-D10	164	1311	3	46128.	1.000	40.000
4	S4# 1	CI60 PHENANTHRENE-D10	188	1614	4	67935.	1.000	40.000
5	S5# 1	CI70 CHRYSENE-D12	240	2169	5	42234.	1.000	40.000
6	S6# 1	CI75 PERYLENE-D12	264	2450	6	34525.	1.000	40.000
7	S2# 2	CS20 NITROBENZENE-D5	82	821	2	43887.	0.356	41.039
8	S3# 3	CS25 2-FLUOROBIPHENYL	172	1176	3	62156.	1.078	38.861
9	S5# 2	CS30 TERPHENYL-D14	244	1951	5	43158.	0.817	38.298
10	S1# 3	CS45 PHENOL-D5	99	663	1	90209.	1.395	71.207
11	S1# 2	CS50 2-FLUOROPHENOL	112	517	1	63570.	0.983	71.936
12	S3# 2	CS55 2,4,6-TRIBROMOPHENO	330	1475	3	14087.	0.122	78.975
13	S1#105	C315 PHENOL	94	665	1	7622.	0.236	5.512
14	S1#110	C325 BIS(2-CHLOROETHYL)E	93		1	NOT FOUND		
15	S1#115	C330 2-CHLOROPHENOL	128		1	NOT FOUND		
16	S1#125	C335 1,3-DICHLOROBENZENE	146		1	NOT FOUND		
17	S1#130	C340 1,4-DICHLOROBENZENE	146		1	NOT FOUND		
18	S1#145	C345 BENZYL ALCOHOL	108		1	NOT FOUND		
19	S1#150	C350 1,2-DICHLOROBENZENE	146		1	NOT FOUND		
20	S1#160	C355 2-METHYLPHENOL	108		1	NOT FOUND		
21	S1#165	C360 BIS(2-CHLOROISOPROP	45		1	NOT FOUND		
22	S1#185	C365 4-METHYLPHENOL	108		1	NOT FOUND		
23	S1#190	C370 N-NITROSO-DI-N-PROP	70		1	NOT FOUND		
24	S1#200	C375 HEXACHLOROETHANE	117		1	NOT FOUND		
25	S2# 10	C410 NITROBENZENE	77		2	NOT FOUND		
26	S2# 20	C415 ISOPHORONE	82		2	NOT FOUND		
27	S2# 25	C420 2-NITROPHENOL	139		2	NOT FOUND		
28	S2# 30	C425 2,4-DIMETHYLPHENOL	107		2	NOT FOUND		
29	S2# 35	C435 BIS(2-CHLOROETHOXY)	93		2	NOT FOUND		
30	S2# 40	C440 2,4-DICHLOROPHENOL	162		2	NOT FOUND		
31	S2# 45	C430 BENZOIC ACID	122		2	NOT FOUND		
32	S2# 55	C445 1,2,4-TRICHLOROBENZ	180		2	NOT FOUND		
33	S2# 60	C450 NAPHTHALENE	128		2	NOT FOUND		
34	S2# 80	C455 4-CHLOROANALINE	127		2	NOT FOUND		
35	S2# 95	C460 HEXACHLOROBUTADIENE	225		2	NOT FOUND		
36	S2#130	C465 4-CHLORO-3-METHYLPH	107		2	NOT FOUND		
37	S2#145	C470 2-METHYLNAPHTHALENE	142		2	NOT FOUND		
38	S3# 20	C510 HEXACHLOROCYCLOPENT	237		3	NOT FOUND		
39	S3# 25	C515 2,4,6-TRICHLOROPHEN	196		3	NOT FOUND		
40	S3# 30	C520 2,4,5-TRICHLOROPHEN	196		3	NOT FOUND		
41	S3# 40	C525 2-CHLORONAPHTHALENE	162		3	NOT FOUND		
42	S3# 45	C530 2-NITROANALINE	65		3	NOT FOUND		
43	S3# 55	C535 DIMETHYLPHTHALATE	163		3	NOT FOUND		
44	S3# 65	C540 ACENAPHTHYLENE	152		3	NOT FOUND		
45	S3# 70	C543 2,6-DINITROTOLUENE	165		3	NOT FOUND		
46	S3# 75	C545 3-NITROANILINE	138		3	NOT FOUND		
47	S3# 80	C550 ACENAPHTHENE	153		3	NOT FOUND		
48	S3# 85	C555 2,4-DINITROPHENOL	184		3	NOT FOUND		
49	S3# 90	C565 DIBENZOFURAN	168		3	NOT FOUND		
50	S3# 95	C560 4-NITROPHENOL	109		3	NOT FOUND		
51	S3#105	C570 2,4-DINITROTOLUENE	165		3	NOT FOUND		

See Report — Updated to wrong std

01611

52	S3#130	C580	DIETHYLPHTHALATE	149		3	NOT FOUND			
53	S3#135	C590	FLUORENE	166		3	NOT FOUND			
54	S3#140	C585	4-CHLOROPHENYL-PHEN	204		3	NOT FOUND			
55	S3#150	C595	4-NITROANALINE	138		3	NOT FOUND			
56	S4# 10	C610	4,6-DINITRO-2-METHY	198		4	NOT FOUND			
57	S4# 15	C615	N-NITROSODIPHENYLAM	169		4	NOT FOUND			
58	S4# 30	C625	4-BROMOPHENYL-PHENY	248		4	NOT FOUND			
59	S4# 40	C630	HEXACHLOROBENZENE	284		4	NOT FOUND			
60	S4# 50	C635	PENTACHLOROPHENOL	266		4	NOT FOUND			
61	S4# 65	C640	PHENANTHRENE	178		4	NOT FOUND			
62	S4# 70	C645	ANTHRACENE	178		4	NOT FOUND			
63	S4# 85	C650	DI-N-BUTYLPHTHALATE	149		4	NOT FOUND			
64	S4#110	C655	FLUORANTHENE	202		4	NOT FOUND			
65	S5# 15	C715	PYRENE	202		5	NOT FOUND			
66	S5# 40	C720	BUTYLBENZYLPHTHALAT	149		5	NOT FOUND			
67	S5# 50	C730	BENZO(A)ANTHRACENE	228		5	NOT FOUND			
68	S5# 55	C725	3,3'-DICHLOROBENZID	252		5	NOT FOUND			
69	S5# 60	C740	CHRYSENE	228		5	NOT FOUND			
70	S5# 65	C745	BIS(2-ETHYLHEXYL)PH	149	2187	5	3150.	0.060	2.605	
71	S6# 10	C760	DI-N-OCTYL PHTHALAT	149		6	NOT FOUND			
72	S6# 15	C765	BENZO(B)FLUORANTHEN	252		6	NOT FOUND			
73	S6# 25	C770	BENZO(K)FLUORANTHEN	252		6	NOT FOUND			
74	S6# 35	C775	BENZO(A)PYRENE	252		6	NOT FOUND			
75	S6# 55	C780	INDENO(1,2,3-CD)PYR	276		6	NOT FOUND			
76	S6# 60	C785	DIBENZ(A,H)ANTHRACE	278		6	NOT FOUND			
77	S6# 65	C790	BENZO(G,H,I)PERYLEN	276		6	NOT FOUND			

See Resort
updated on wrong std.

Quantitation Report File: S59436R981

Data: S59436R981.TI
06/02/88 13:44:00
Sample: 59436-23 BNA H2O 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No.: 59436

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

No	Name			
1	CI30 1,4-DICHLOROBENZENE-D4	152	IS1# 01	3855-82-1
2	CI40 NAPHTHALENE-D8	136	IS2# 01	1146-65-2
3	CI50 ACENAPHTHENE-D10	164	IS3# 01	15067-26-2
4	CI60 PHENANTHRENE-D10	188	IS4# 01	1517-22-2
5	CI70 CHRYSENE-D12	240	IS5# 01	1719-03-5
6	CI75 PERYLENE-D12	164	IS6# 01	1520-96-3
7	CS20 NITROBENZENE-D5	82	SS2# 02	4165-60-0
8	CS25 2-FLUOROBIPHENYL	172	SS3# 03	321-60-8
9	CS30 TERPHENYL-D14	244	SS5# 02	1718-51-0
10	CS45 PHENOL-D5	99	SS1# 03	4165-62-2
11	CS50 2-FLUOROPHENOL	112	SS1# 02	367-12-4
12	CS55 2,4,6-TRIBROMOPHENOL	330	SS3# 02	118-79-6
13	C315 PHENOL	94	S1#105CC	108-95-2
14	C325 BIS(2-CHLOROETHYL)ETHER	93	S1#110	111-44-4
15	C330 2-CHLOROPHENOL	128	S2#115	95-57-8
16	C335 1,3-DICHLOROBENZENE	146	S1#125	541-73-1
17	C340 1,4-DICHLOROBENZENE	146	S1#130CC	106-46-7
18	C345 BENZYL ALCOHOL	108	S1#145	100-51-6
19	C350 1,2-DICHLOROBENZENE	146	S1#150	95-50-1
20	C355 2-METHYLPHENOL	108	S1#160	95-48-7
21	C360 BIS(2-CHLOROISOPROPYL)E	45	S1#165	108-60-1
22	C365 4-METHYLPHENOL	108	S1#185	106-44-5
23	C370 N-NITROSO-DI-N-PROPYLAM	70	S1#190SP	621-64-7
24	C375 HEXACHLOROETHANE	117	S1#200	67-72-1
25	C410 NITROBENZENE	77	S2# 10	98-95-3
26	C415 ISOPHORONE	82	S2# 20	75-59-1
27	C420 2-NITROPHENOL	139	S2# 25CC	88-75-5
28	C425 2,4-DIMETHYLPHENOL	107	S2# 30	105-67-9
29	C435 BIS(2-CHLOROETHOXY)METH	93	S2# 35	111-91-1
30	C440 2,4-DICHLOROPHENOL	162	S2# 40	120-83-2
31	C430 BENZOIC ACID	122	S2# 45	65-85-0
32	C445 1,2,4-TRICHLOROBENZENE	180	S2# 55	120-82-1
33	C450 NAPHTHALENE	128	S2# 60	91-20-3
34	C455 4-CHLOROANALINE	127	S2# 80	106-47-8
35	C460 HEXACHLOROBUTADIENE	225	S2# 95CC	87-68-3
36	C465 4-CHLORO-3-METHYLPHENO	107	S2#130CC	59-50-7
37	C470 2-METHYLNAPHTHALENE	142	S2#145	91-57-6
38	C510 HEXACHLOROCYCLOPENTADI	237	S3# 20	77-47-4
39	C515 2,4,6-TRICHLOROPHENOL	196	S3# 25CC	88-06-2
40	C520 2,4,5-TRICHLOROPHENOL	196	S3# 30	95-95-4
41	C525 2-CHLORONAPHTHALENE	162	S3# 40	91-58-7
42	C530 2-NITROANALINE	65	S3# 45	88-74-4
43	C535 DIMETHYLPHTHALATE	163	S3# 55	131-11-3
44	C540 ACENAPHTHYLENE	152	S3# 65	208-96-8
45	C543 2,6-DINITROTOLUENE	165	S3# 70	606-20-2
46	C545 3-NITROANILINE	138	S3# 75	99-09-2
47	C550 ACENAPHTHENE	153	S3# 80CC	83-32-9

No	Name				
48	C555 2,4-DINITROPHENOL	184	S3# 85SP	51-28-5	
49	C565 DIBENZOFURAN	168	S3# 90	132-64-9	
50	C560 4-NITROPHENOL	109	S3# 95SP	100-02-7	

01613

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	716	8:57	1	1.000	A BV	25871.	40.000 UG/ML	6.91
2	136	954	11:55	2	1.000	A BB	98686.	40.000 UG/ML	6.91
3	164	1311	16:23	3	1.000	A BV	46128.	40.000 UG/ML	6.91
4	188	1614	20:10	4	1.000	A BV	67935.	40.000 UG/ML	6.91
5	240	2169	27:07	5	1.000	A BB	42234.	40.000 UG/ML	6.91
6	264	2450	30:37	6	1.000	A BB	34525.	40.000 UG/ML	6.91
7	82	821	10:16	2	0.861	A BB	43887.	39.678 UG/ML	6.85
8	172	1176	14:42	3	0.897	A BB	62156.	38.147 UG/ML	6.59
9	244	1951	24:23	5	0.899	A BB	43158.	37.123 UG/ML	6.41
10	99	663	8:17	1	0.926	A BB	90209.	68.452 UG/ML	11.82
11	112	517	6:28	1	0.722	A BB	63570.	66.996 UG/ML	11.57
12	330	1475	18:26	3	1.125	A BB	14087.	80.826 UG/ML	13.96
13	94	665	8:19	1	0.929	A BB	7622.	5.211 UG/ML	0.90
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
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	NOT FOUND								

01614

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:58	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	11:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	16:25	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	20:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	27:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	30:37	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	10:17	1.00	0.862	1.00	39.68	50.00	0.356	0.448	0.79
8	14:43	1.00	0.896	1.00	38.15	50.00	1.078	1.413	0.76
9	24:23	1.00	0.899	1.00	37.12	50.00	0.817	1.101	0.74
10	8:19	1.00	0.929	1.00	68.45	100.00	1.395	2.038	0.68
11	6:28	1.00	0.722	1.00	67.00	100.00	0.983	1.467	0.67
12	18:28	1.00	1.125	1.00	80.83	100.00	0.122	0.151	0.81
13	8:21	1.00	0.932	1.00	5.21	50.00	0.236	2.261	0.10
14	8:30		0.948						
15	8:35		0.958						
16	8:52		0.990						
17	9:00		1.004						
18	9:21		1.043						
19	9:25		1.050						
20	9:38		1.075						
21	9:42		1.082						
22	9:58		1.113						
23	10:03		1.121						
24	10:06		1.127						
25	10:20		0.866						
26	10:54		0.913						
27	11:04		0.928						
28	11:13		0.939						
29	11:28		0.960						
30	11:39		0.976						
31	11:34		0.970						
32	11:51		0.993						
33	11:59		1.004						
34	12:12		1.022						
35	12:27		1.043						
36	13:25		1.125						
37	13:43		1.149						
38	14:17		0.871						
39	14:31		0.884						
40	14:36		0.890						
41	14:56		0.910						
42	15:19		0.933						
43	15:54		0.969						
44	16:01		0.976						
45	16:04		0.979						
46	16:23		0.998						
47	16:30		1.005						
48	16:38		1.014						
49	16:54		1.030						
50	16:51		1.027						

uantitation Report File: S59436R981

ata: S59436R981.TI
6/02/88 13:44:00
ample: 59436-23 BNA H2O 100%/2ML
onds.: ST
ormula: AUTO INJ Instrument: 4500 Weight: 0.000
ubmitted by: RMAL Analyst: MK Acct. No.: 59436

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

No	Name				
51	C570	2,4-DINITROTOLUENE	165	S3#105	121-14-2
52	C580	DIETHYLPHTHALATE	149	S3#130	84-66-2
53	C590	FLUORENE	166	S3#135	86-73-7
54	C585	4-CHLOROPHENYL-PHENYLE	204	S3#140	7005-72-3
55	C595	4-NITROANALINE	138	S3#150	100-01-6
56	C610	4,6-DINITRO-2-METHYLPH	198	S4# 10	534-52-1
57	C615	N-NITROSODIPHENYLAMINE	169	S4# 15CC	87-30-6
58	C625	4-BROMOPHENYL-PHENYLET	248	S4# 30	101-55-3
59	C630	HEXACHLOROBENZENE	284	S4# 40	118-74-1
60	C635	PENTACHLOROPHENOL	266	S4# 50	87-86-5
61	C640	PHENANTHRENE	178	S4# 65	85-01-8
62	C645	ANTHRACENE	178	S4# 70	120-12-7
63	C650	DI-N-BUTYLPHTHALATE	149	S4# 85	84-74-2
64	C655	FLUORANTHENE	202	S4#110CC	206-44-0
65	C715	PYRENE	202	S5# 15	129-00-0
66	C720	BUTYLBENZYLPHTHALATE	149	S5# 40	85-68-7
67	C730	BENZO(A)ANTHRACENE	228	S5# 50	56-55-3
68	C725	3,3'-DICHLOROBENZIDINE	252	S5# 55	91-94-1
69	C740	CHRYSENE	228	S5# 60	218-01-9
70	C745	BIS(2-ETHYLHEXYL)PHTHA	149	S5# 65	117-81-7
71	C760	DI-N-OCTYL PHTHALATE	149	S6# 10CC	117-84-0
72	C765	BENZO(B)FLUORANTHENE	252	S6# 15	205-99-2
73	C770	BENZO(K)FLUORANTHENE	252	S6# 25	207-08-9
74	C775	BENZO(A)PYRENE	252	S6# 35	50-32-8
75	C780	INDENO(1,2,3-CD)PYRENE	276	S6# 55	193-39-5
76	C785	DIBENZ(A,H)ANTHRACENE	278	S6# 60	53-70-3
77	C790	BENZO(G,H,I)PERYLENE	276	S6# 65	191-24-2

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								
52	NOT FOUND								
53	NOT FOUND								
54	NOT FOUND								
55	NOT FOUND								
56	NOT FOUND								
57	NOT FOUND								
58	NOT FOUND								
59	NOT FOUND								
60	NOT FOUND								
61	NOT FOUND								
62	NOT FOUND								
63	NOT FOUND								
64	NOT FOUND								
65	NOT FOUND								
66	NOT FOUND								

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
67	NOT FOUND								
68	NOT FOUND								
69	NOT FOUND								
70	149	2187	27:20	5	1.008	A BB	3150.	2.618 UG/ML	0.45
71	NOT FOUND								
72	NOT FOUND								
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								
76	NOT FOUND								
77	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	17:02		1.038						
52	17:43		1.080						
53	17:47		1.084						
54	17:49		1.085						
55	17:58		1.095						
56	18:05		0.895						
57	18:09		0.899						
58	19:04		0.944						
59	19:25		0.962						
60	19:53		0.985						
61	20:16		1.003						
62	20:22		1.009						
63	21:55		1.085						
64	23:21		1.156						
65	23:55		0.882						
66	25:46		0.950						
67	27:04		0.998						
68	27:04		0.998						
69	27:12		1.003						
70	27:20	1.00	1.008	1.00	2.62	50.00	0.060	1.140	0.05
71	28:52		0.943						
72	29:45		0.971						
73	29:49		0.974						
74	30:30		0.996						
75	33:34		1.096						
76	33:37		1.098						
77	34:25		1.124						

MAL QUANTITATION SUMMARY FILE: S59436R981 01617
OMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/ML

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	S1# 1	CI30 1,4-DICHLOROBENZENE	152	716	1	25871.	1.000	40.000
2	S2# 1	CI40 NAPHTHALENE-D8	136	954	2	98686.	1.000	40.000
3	S3# 1	CI50 ACENAPHTHENE-D10	164	1311	3	46128.	1.000	40.000
4	S4# 1	CI60 PHENANTHRENE-D10	188	1614	4	67935.	1.000	40.000
5	S5# 1	CI70 CHRYSENE-D12	240	2169	5	42234.	1.000	40.000
6	S6# 1	CI75 PERYLENE-D12	264	2450	6	34525.	1.000	40.000
7	S2# 2	CS20 NITROBENZENE-D5	82	821	2	43887.	0.356	39.678
8	S3# 3	CS25 2-FLUOROBIPHENYL	172	1176	3	62156.	1.078	38.147
9	S5# 2	CS30 TERPHENYL-D14	244	1951	5	43158.	0.817	37.123
10	S1# 3	CS45 PHENOL-D5	99	663	1	90209.	1.395	68.452
11	S1# 2	CS50 2-FLUOROPHENOL	112	517	1	63570.	0.983	66.996
12	S3# 2	CS55 2,4,6-TRIBROMOPHENO	330	1475	3	14087.	0.122	80.826
13	S1#105	C315 PHENOL	94	665	1	7622.	0.236	5.211
14	S1#110	C325 BIS(2-CHLOROETHYL)E	93		1	NOT FOUND		
15	S1#115	C330 2-CHLOROPHENOL	128		1	NOT FOUND		
16	S1#125	C335 1,3-DICHLOROBENZENE	146		1	NOT FOUND		
17	S1#130	C340 1,4-DICHLOROBENZENE	146		1	NOT FOUND		
18	S1#145	C345 BENZYL ALCOHOL	108		1	NOT FOUND		
19	S1#150	C350 1,2-DICHLOROBENZENE	146		1	NOT FOUND		
20	S1#160	C355 2-METHYLPHENOL	108		1	NOT FOUND		
21	S1#165	C360 BIS(2-CHLOROISOPROP	45		1	NOT FOUND		
22	S1#185	C365 4-METHYLPHENOL	108		1	NOT FOUND		
23	S1#190	C370 N-NITROSO-DI-N-PROP	70		1	NOT FOUND		
24	S1#200	C375 HEXACHLOROETHANE	117		1	NOT FOUND		
25	S2# 10	C410 NITROBENZENE	77		2	NOT FOUND		
26	S2# 20	C415 ISOPHORONE	82		2	NOT FOUND		
27	S2# 25	C420 2-NITROPHENOL	139		2	NOT FOUND		
28	S2# 30	C425 2,4-DIMETHYLPHENOL	107		2	NOT FOUND		
29	S2# 35	C435 BIS(2-CHLOROETHOXY)	93		2	NOT FOUND		
30	S2# 40	C440 2,4-DICHLOROPHENOL	162		2	NOT FOUND		
31	S2# 45	C430 BENZOIC ACID	122		2	NOT FOUND		
32	S2# 55	C445 1,2,4-TRICHLOROBENZ	180		2	NOT FOUND		
33	S2# 60	C450 NAPHTHALENE	128		2	NOT FOUND		
34	S2# 80	C455 4-CHLOROANALINE	127		2	NOT FOUND		
35	S2# 95	C460 HEXACHLOROBUTADIENE	225		2	NOT FOUND		
36	S2#130	C465 4-CHLORO-3-METHYLPH	107		2	NOT FOUND		
37	S2#145	C470 2-METHYLNAPHTHALENE	142		2	NOT FOUND		
38	S3# 20	C510 HEXACHLOROCYCLOPENT	237		3	NOT FOUND		
39	S3# 25	C515 2,4,6-TRICHLOROPHEN	196		3	NOT FOUND		
40	S3# 30	C520 2,4,5-TRICHLOROPHEN	196		3	NOT FOUND		
41	S3# 40	C525 2-CHLORONAPHTHALENE	162		3	NOT FOUND		
42	S3# 45	C530 2-NITROANALINE	65		3	NOT FOUND		
43	S3# 55	C535 DIMETHYLPHTHALATE	163		3	NOT FOUND		
44	S3# 65	C540 ACENAPHTHYLENE	152		3	NOT FOUND		
45	S3# 70	C543 2,6-DINITROTOLUENE	165		3	NOT FOUND		
46	S3# 75	C545 3-NITROANILINE	138		3	NOT FOUND		
47	S3# 80	C550 ACENAPHTHENE	153		3	NOT FOUND		
48	S3# 85	C555 2,4-DINITROPHENOL	184		3	NOT FOUND		
49	S3# 90	C565 DIBENZOFURAN	168		3	NOT FOUND		
50	S3# 95	C560 4-NITROPHENOL	109		3	NOT FOUND		
51	S3#105	C570 2,4-DINITROTOLUENE	165		3	NOT FOUND		
52	S3#130	C580 DIETHYLPHTHALATE	149		3	NOT FOUND		
	5 5	D FLUORENE	166		3	NOT FOUND		

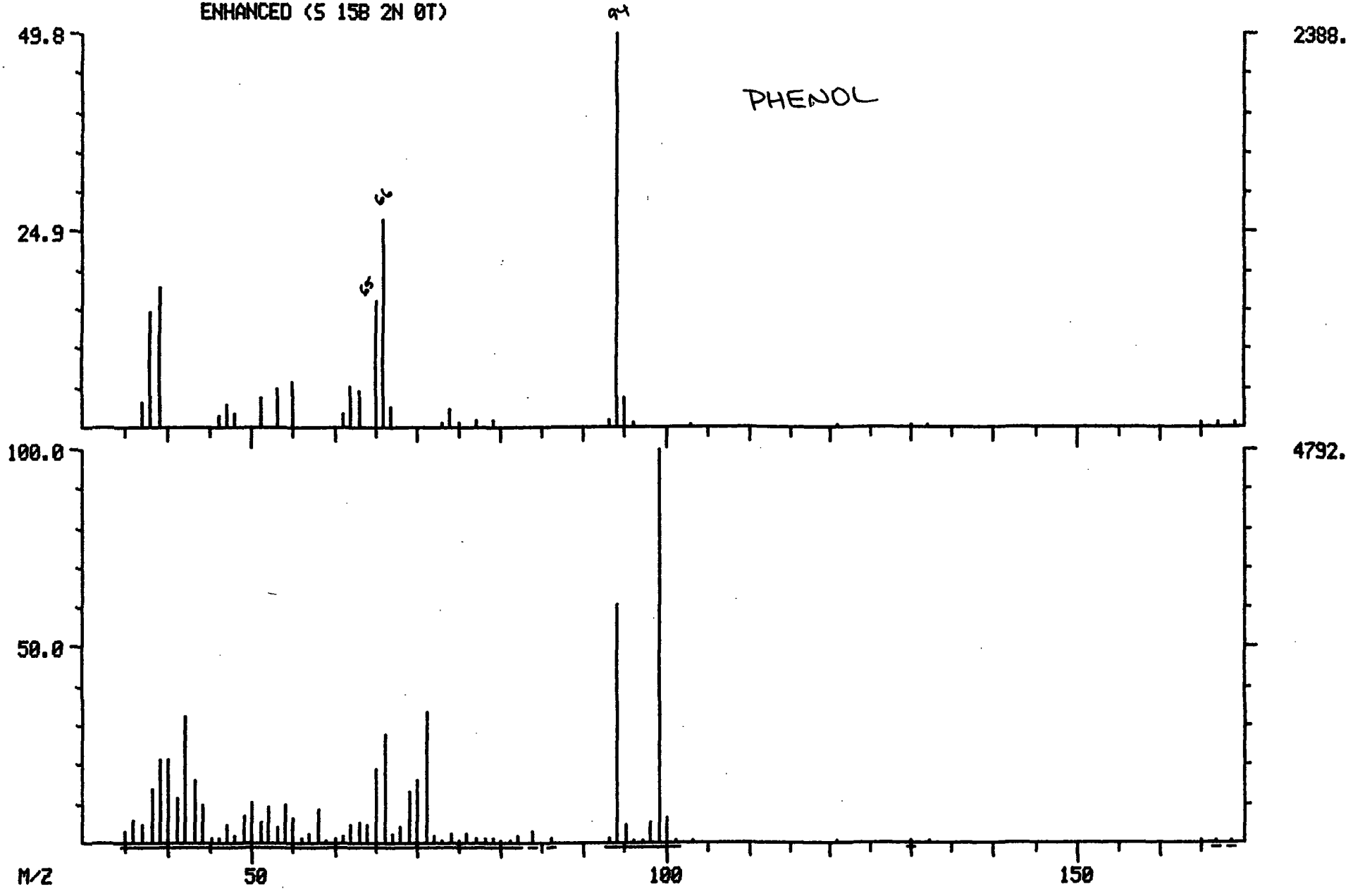
01618

54	S3#140	C585	4-CHLOR PHENYL-PHEN	20			N				
55	S3#150	C595	4-NITROANALINE	138		3	NOT FOUND				
56	S4# 10	C610	4,6-DINITRO-2-METHY	198		4	NOT FOUND				
57	S4# 15	C615	N-NITROSODIPHENYLAM	169		4	NOT FOUND				
58	S4# 30	C625	4-BROMOPHENYL-PHENY	248		4	NOT FOUND				
59	S4# 40	C630	HEXACHLOROBENZENE	284		4	NOT FOUND				
60	S4# 50	C635	PENTACHLOROPHENOL	266		4	NOT FOUND				
61	S4# 65	C640	PHENANTHRENE	178		4	NOT FOUND				
62	S4# 70	C645	ANTHRACENE	178		4	NOT FOUND				
63	S4# 85	C650	DI-N-BUTYLPHTHALATE	149		4	NOT FOUND				
64	S4#110	C655	FLUORANTHENE	202		4	NOT FOUND				
65	S5# 15	C715	PYRENE	202		5	NOT FOUND				
66	S5# 40	C720	BUTYLBENZYLPHTHALAT	149		5	NOT FOUND				
67	S5# 50	C730	BENZO(A)ANTHRACENE	228		5	NOT FOUND				
68	S5# 55	C725	3,3'-DICHLOROBENZID	252		5	NOT FOUND				
69	S5# 60	C740	CHRYSENE	228		5	NOT FOUND				
70	S5# 65	C745	BIS(2-ETHYLHEXYL)PH	149	2187	5	3150.	0.060	2.618		
71	S6# 10	C760	DI-N-OCTYL PHTHALAT	149		6	NOT FOUND				
72	S6# 15	C765	BENZO(B)FLUORANTHEN	252		6	NOT FOUND				
73	S6# 25	C770	BENZO(K)FLUORANTHEN	252		6	NOT FOUND				
74	S6# 35	C775	BENZO(A)PYRENE	252		6	NOT FOUND				
75	S6# 55	C780	INDENO(1,2,3-CD)PYR	276		6	NOT FOUND				
76	S6# 60	C785	DIBENZ(A,H)ANTHRACE	278		6	NOT FOUND				
77	S6# 65	C790	BENZO(G,H,I)PERYLEN	276		6	NOT FOUND				

01619

DUAL MASS SPECTRUM
06/02/88 13:44:00 + 8:19
SAMPLE: 59436-23 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (5 15B 2N 0T)

DATA: 559436R981 #665 BASE M/Z: 94/ 99
CALI: 060288CR #5 RIC: 8447./ 26495.

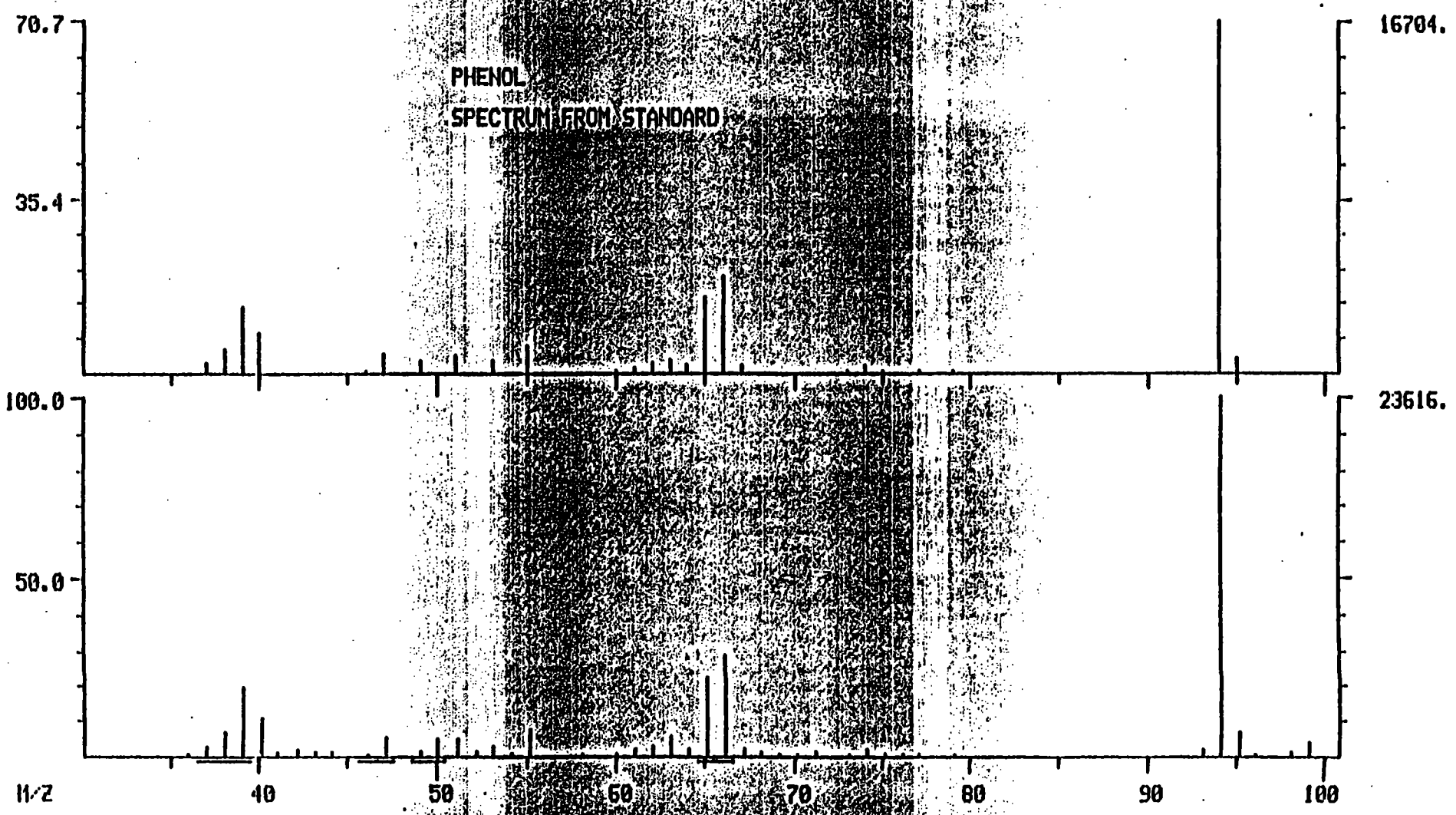


C1620

DUAL MASS SPECTRUM
10/29/86 13:35:00 + 7:27
SAMPLE: 50PPM HSL STD
CONDS.: DESC ST
ENHANCED (S 15B 2H 0T)

DATA: STDR810 #596
CALI: 103086C #5

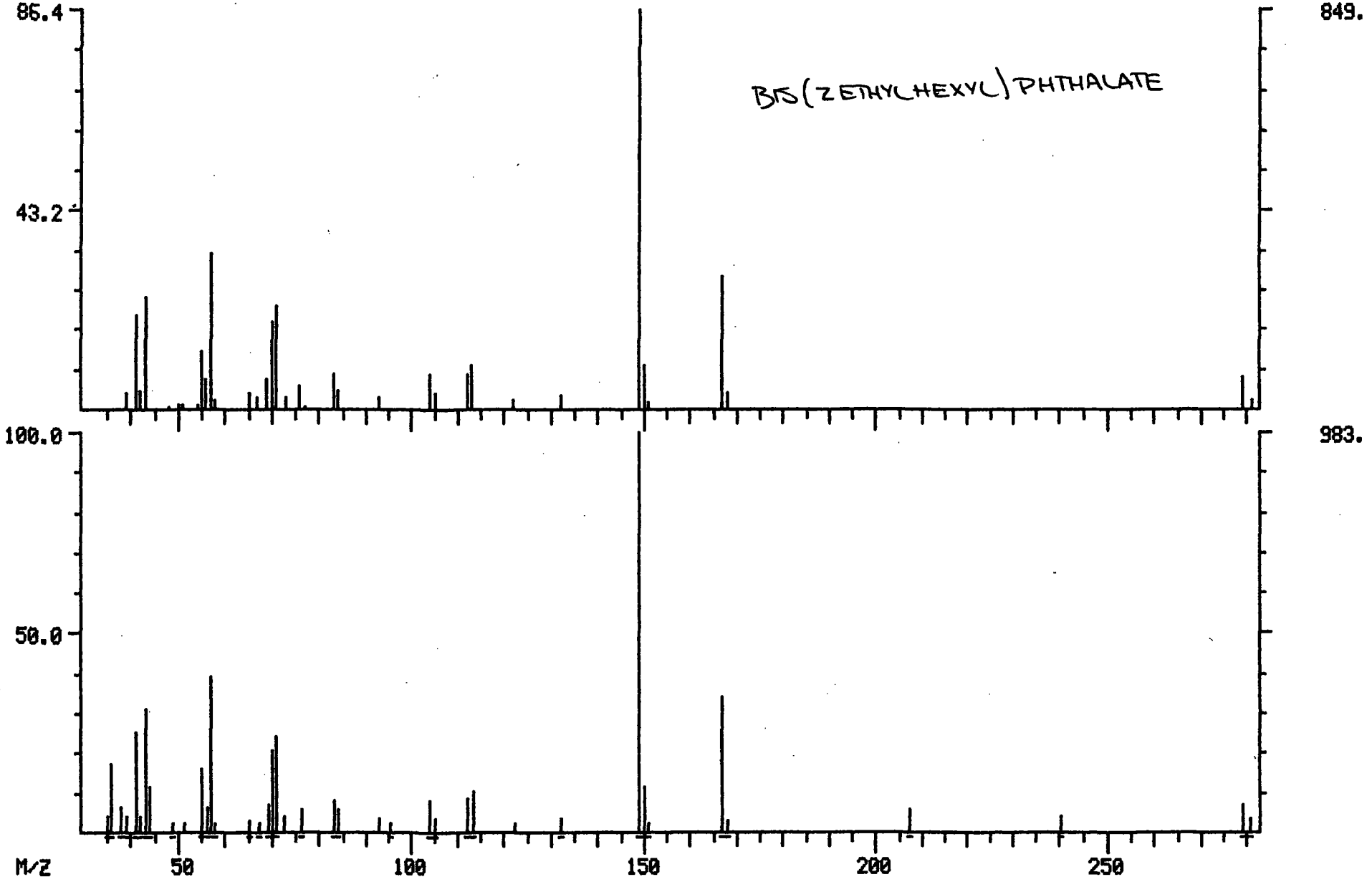
BASE M/Z: 94/ 94
RIC: 39359./ 63039.



01621

DUAL MASS SPECTRUM
06/02/88 13:44:00 + 27:20
SAMPLE: 59436-23 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R981 #2187 BASE M/Z: 149/ 149
CALI: 060288CR #5 RIC: 3535./ 4599.

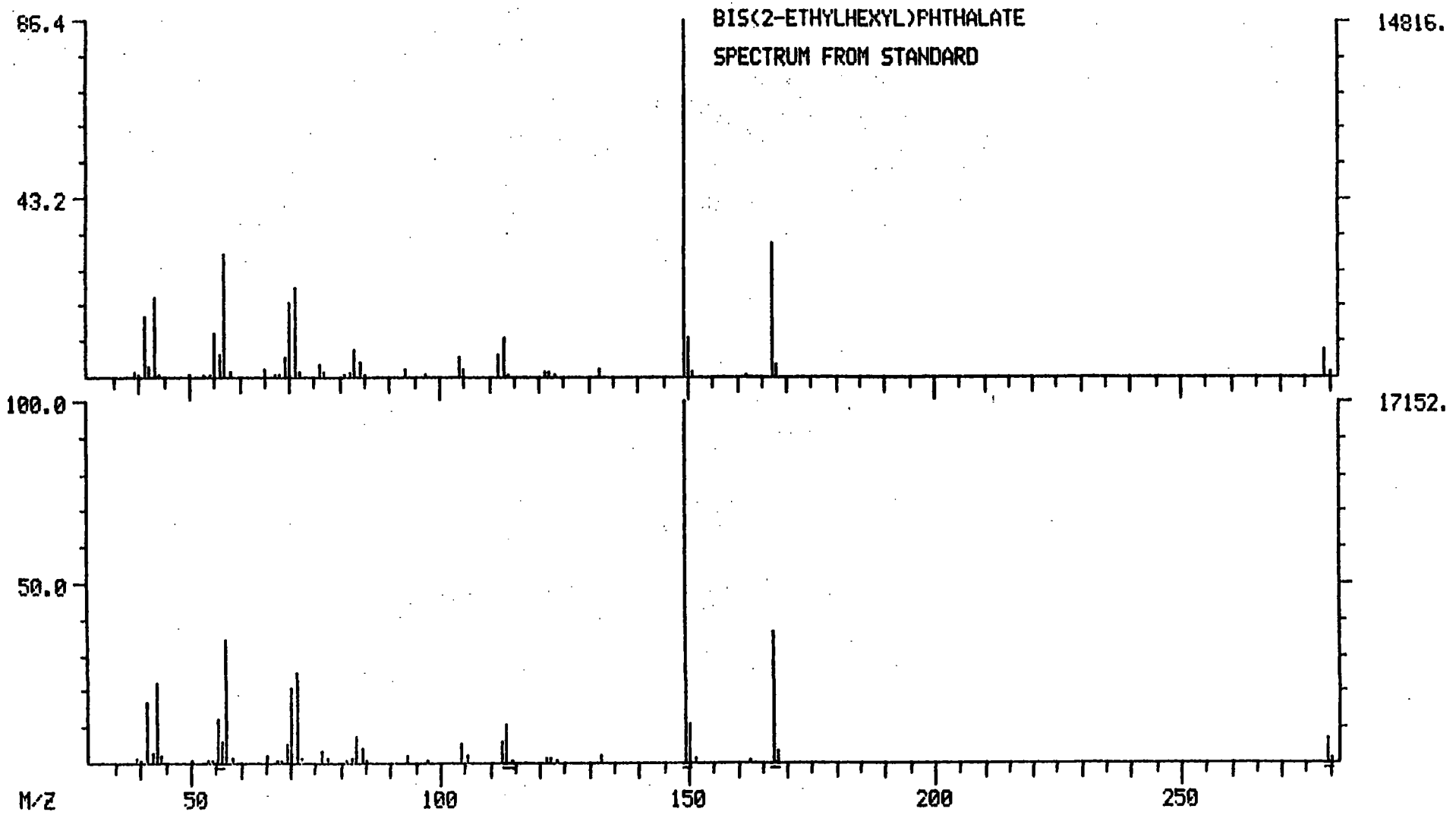


01622

DUAL MASS SPECTRUM
10/29/86 13:35:00 + 30:27
SAMPLE: 50PPM HSL STD
CONDS.: DESC ST
ENHANCED (S 15B 2N 0T)

DATA: STDR810 #2436
CALI: 103086C #5

BASE M/Z: 149/ 149
RIC: 55167./ 63807.



DATA REDUCED BY: [illegible] DATE: 6-7-88 DATA FILE: S59436R981
DATA REVIEWED BY: ____ DATE: ____

01623

ENSECO TIC REPORT (PAGE 1)

SAMPLE: 59436-23 BNA H20 100%/2ML RUN FACTOR: 1.00
CONDITIONS: ST ANALYST: MK

#	SCAN	Q	C	CONCENTRATION IN SAMPLE (UG/ML)	CAS #	COMPOUND
1	315	B	2	9.9	108-87-2	CYCLOHEXANE, METHYL-
2	370	B	2	5.7	108-88-3	BENZENE, METHYL-(VOA)
3	393	CB	1	8.4	00-00-0	OXYGENATED HYDROCARBON
4	435	CB	1	6.1	00-00-0	OXYGENATED HYDROCARBON
5	469	CB	1	18.	00-00-0	OXYGENATED HYDROCARBON
6	622	IB	1	9.4	96-19-5	1-PROPENE, 1,2,3-TRICHLORO-

DATA FILE: S59436R981

ENSECO TIC REPORT (PAGE 2) 01624

CONCENTRATION = AREA(TIC)*CONC(IS)/AREA(IS)

#	FIT	PURITY	INT. STD.	RT	RRT	AREA	HEIGHT	AMOUNT AS ANALYZED (UG/ML)	LIB	LIB #
1	981	899	1	3:56	0.444	43487.	13775.	9.904	NB	1138.
2	994	957	1	4:37	0.521	25091.	11967.	5.714	NB	850.
3	857	820	1	4:54	0.553	37043.	13978.	8.436	BC	2.
4	932	770	1	5:26	0.612	26669.	10401.	6.074	BC	2.
5	802	766	1	5:51	0.660	79005.	28430.	17.993	BC	2.
6	0	755	1	7:46	0.873	41296.	14858.	9.405	NB	6445.

TIC SELECTION REPORT

DATA FILE: S59436R981

THE FOLLOWING PEAKS WERE REJECTED BECAUSE AT LEAST 50 % OF THEIR SIZE WAS ACCOUNTED FOR BY TARGET COMPOUNDS ELUTING WITHIN 3 SCANS OF THE PEAK TOP.

SCAN	SIZE	AMOUNT
337	118543.	26.997
517	233955.	53.281
663	275367.	62.712
716	175638.	39.999
821	133609.	30.428
954	221093.	39.999
1176	187683.	33.955
1311	228947.	48.200
1614	189995.	39.999
1951	127350.	26.811
2169	131435.	45.083
2187	12502.	4.288
2450	116615.	39.999

TOTAL NUMBER OF UNIDENTIFIED PEAKS WITH SIZE GREATER THAN 10 % OF THE CLOSEST INTERNAL STANDARD (WITHOUT INTERFERENCES) = 7

INTERNAL STANDARD DATA IS LISTED BELOW. IS FOR WHICH RIC SIZE DIFFERS FROM THE ESTIMATED RIC SIZE BY MORE THAN 60 % ARE CONSIDERED TO HAVE INTERFERENCES, AND ARE NOT USED FOR QUANTITATION.

#	LIB	LIB#	RIC SIZE	ESTIMATED RIC SIZE	INTERFERENCE
1	S1	1	175638.	158242.	
2	S2	1	221093.	145349.	
3	S3	1	228947.	115610.	*
4	S4	1	189995.	130621.	
5	S5	1	131435.	81250.	*
6	S6	1	116615.	92437.	

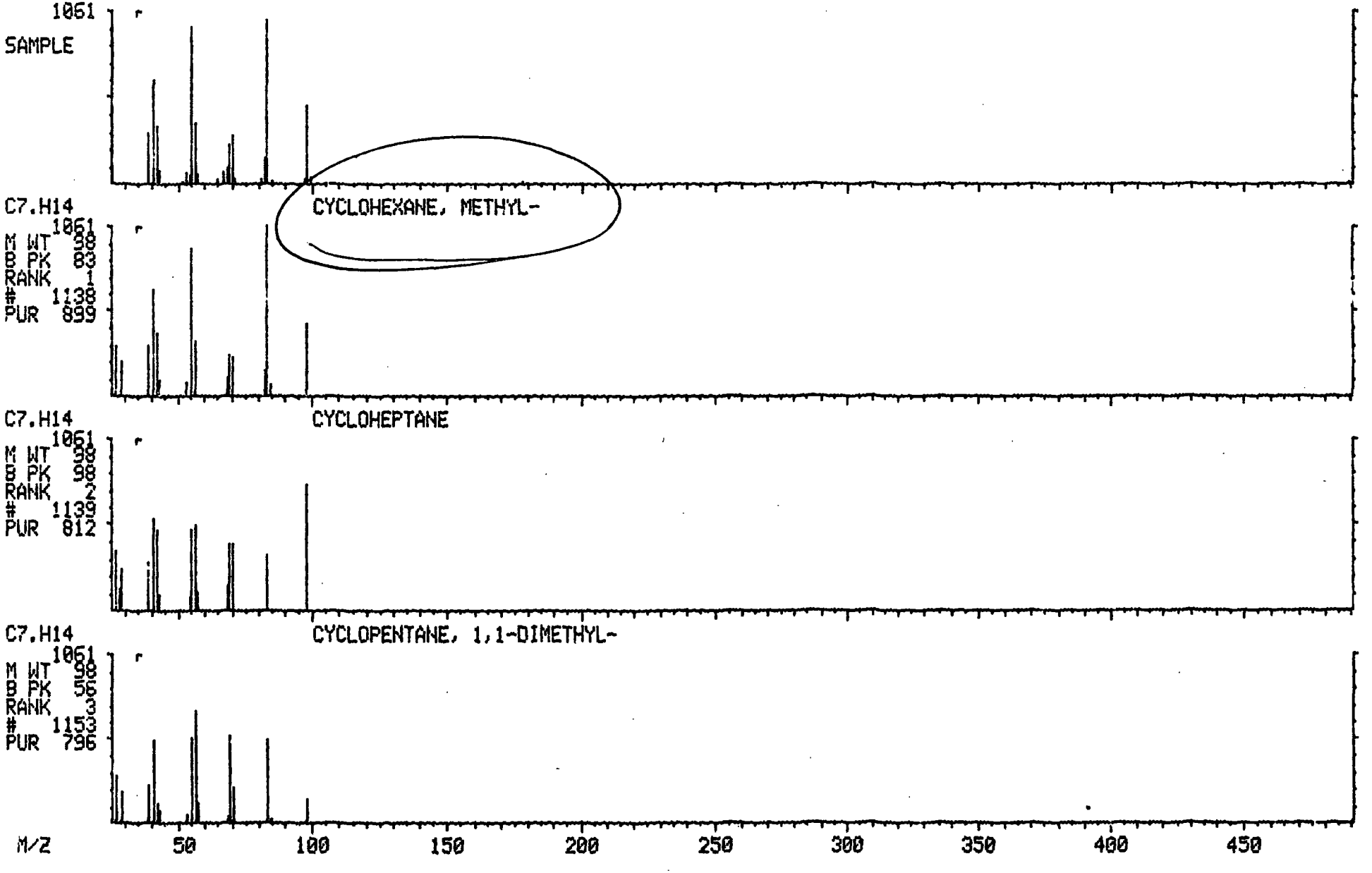
SIZE = AREA

01626

LIBRARY SEARCH
06/02/88 13:44:00 + 3:56
SAMPLE: 59436-23 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R981 # 315
CALI: 060288CR # 5

BASE M/Z: 83
RIC: 12415.

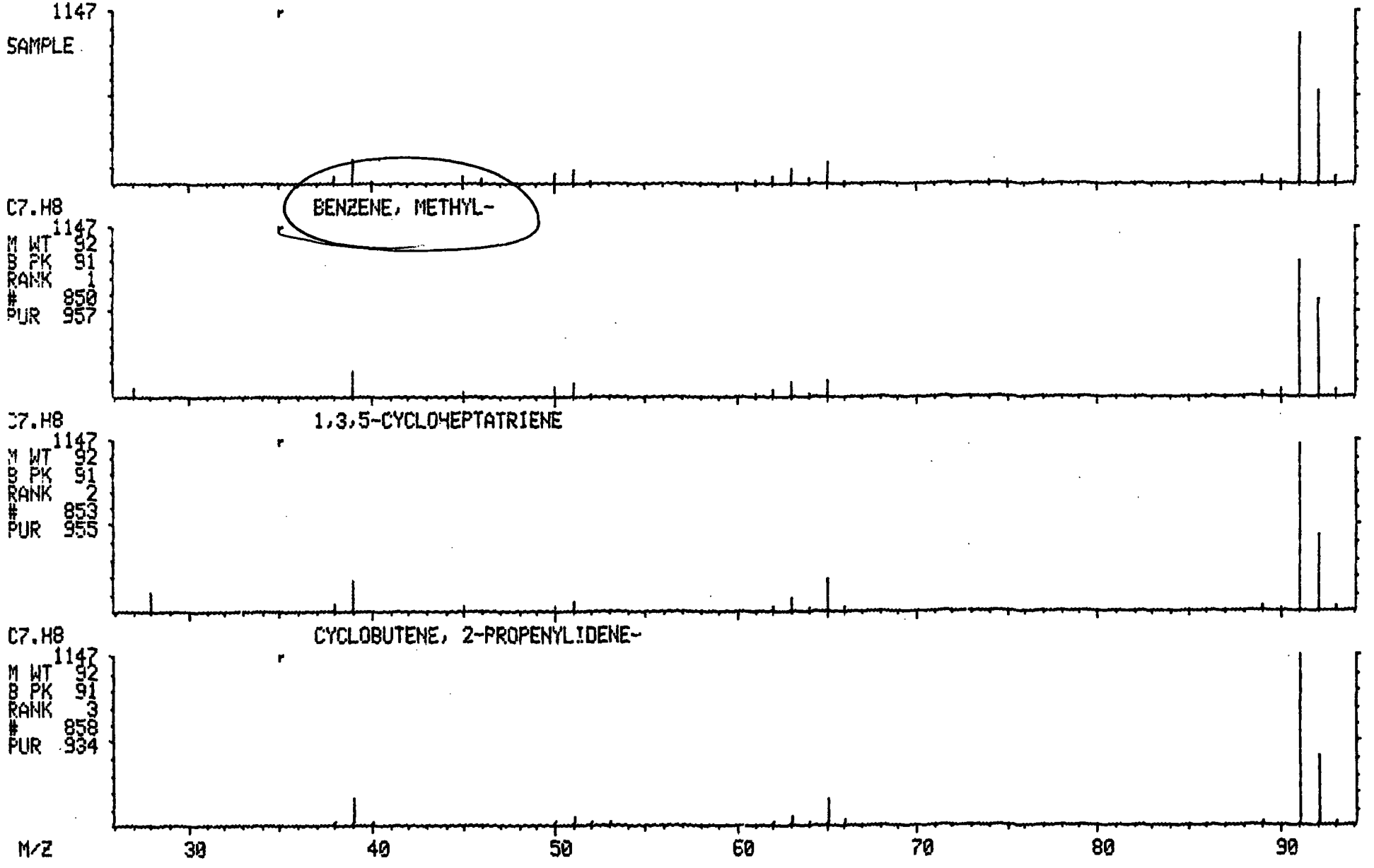


016627

LIBRARY SEARCH
06/02/88 13:44:00 + 4:37
SAMPLE: 59436-23 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R981 # 370
CALI: 060288CR # 5

BASE M/Z: 91
RIC: 9039.

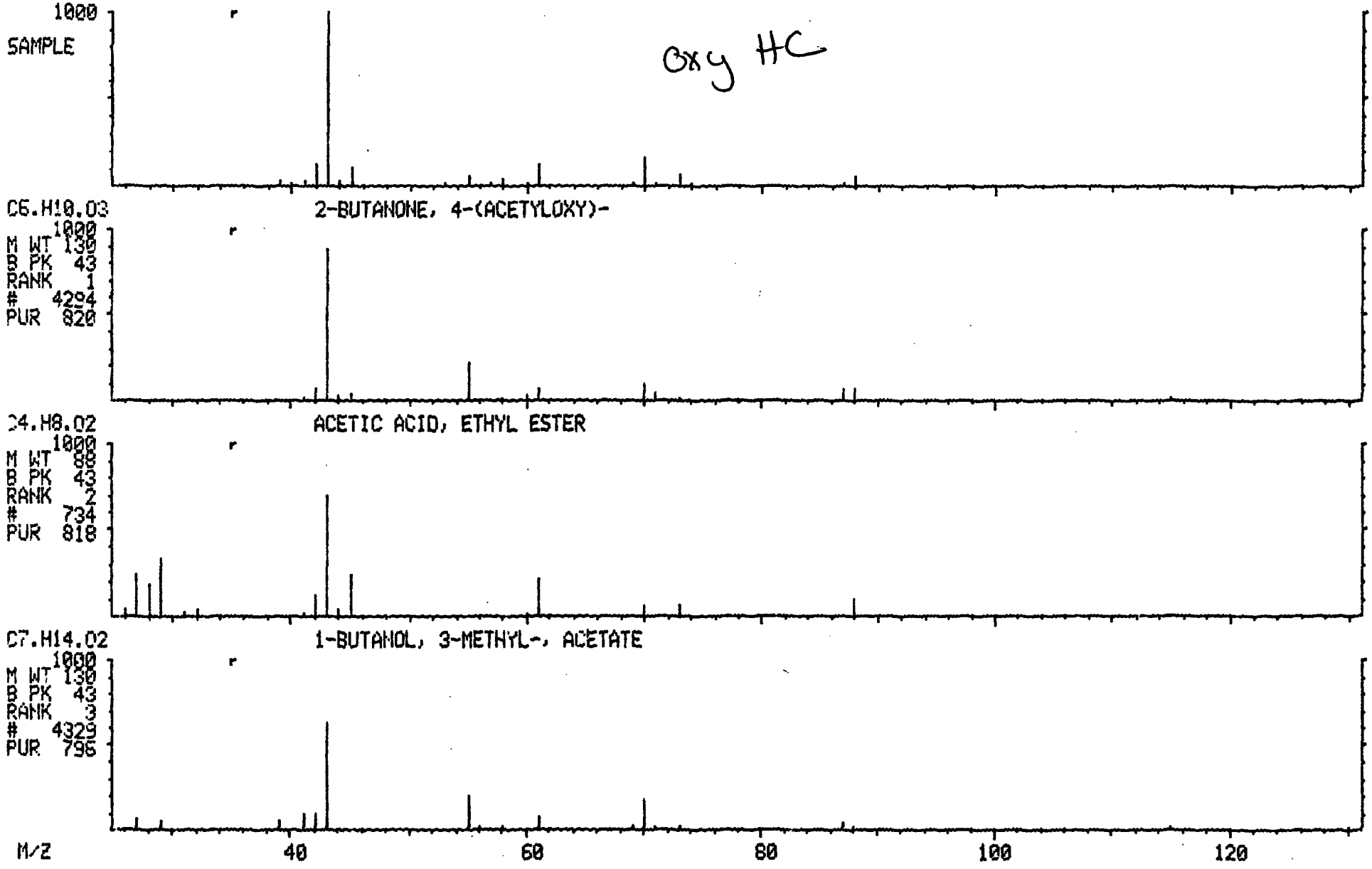


01628

LIBRARY SEARCH
06/02/88 13:44:00 + 4:55
SAMPLE: 59436-23 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R981 # 393
CALI: 060288CR # 5

BASE M/Z: 43
RIC: 10311.

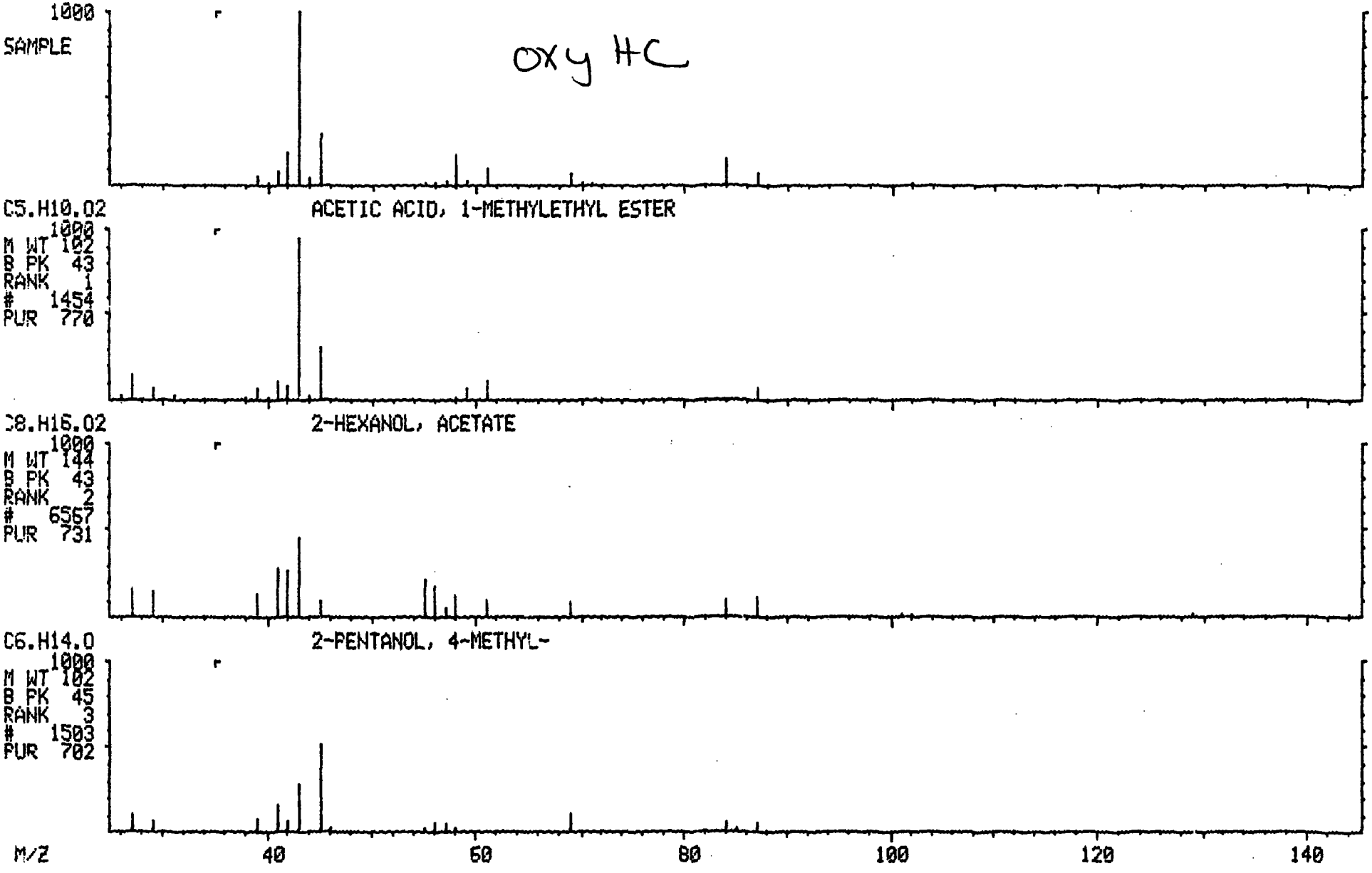


01629

LIBRARY SEARCH
06/02/88 13:44:00 + 5:26
SAMPLE: 59436-23 BNA H2O 100%/2ML
CONDS.: 5T
ENHANCED (S 15B 2N 0T)

DATA: 559436R981 # 435
CALI: 060288CR # 5

BASE M/Z: 43
RIC: 8607.

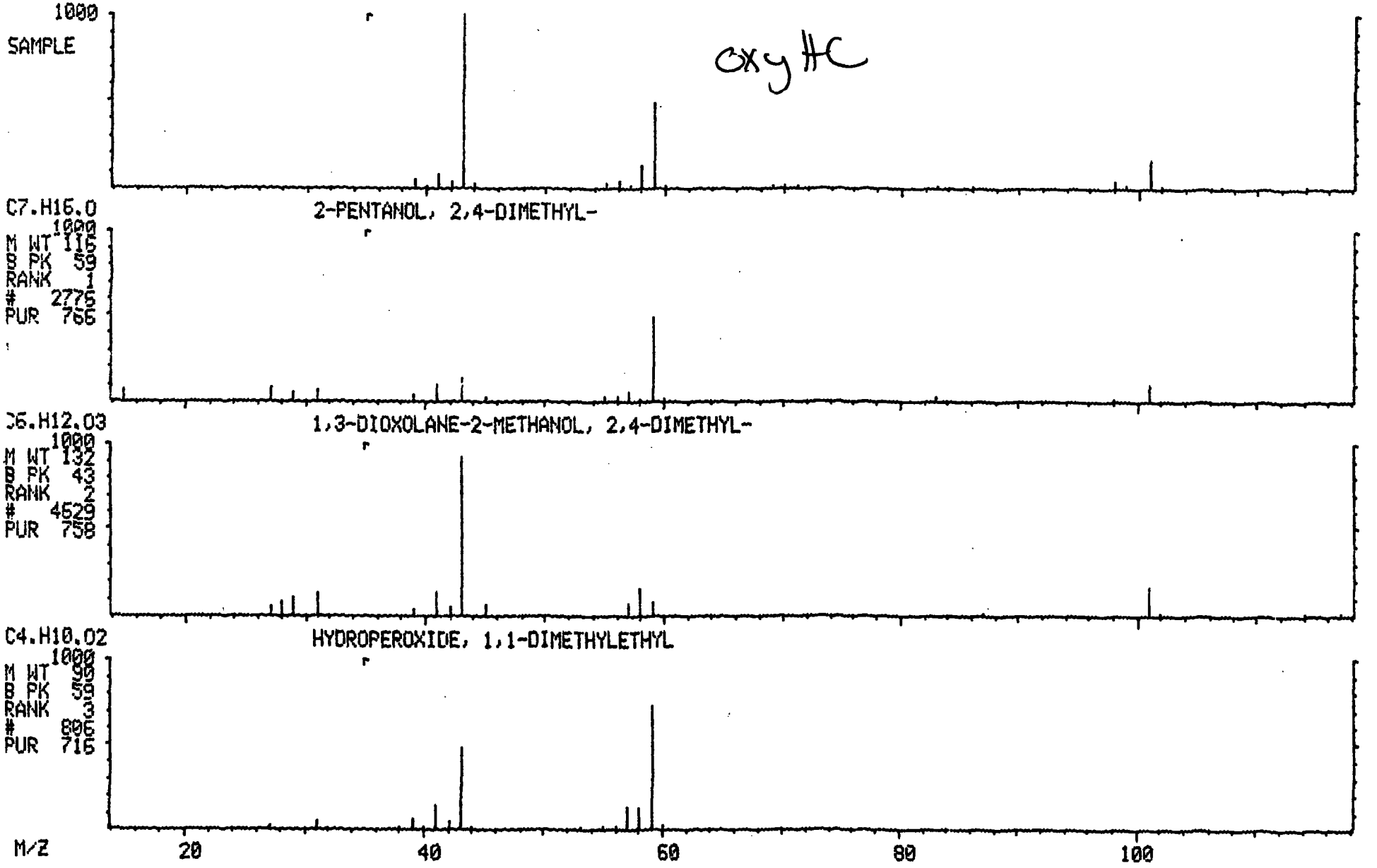


01630

LIBRARY SEARCH
06/02/88 13:44:00 + 5:52
SAMPLE: 59436-23 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 158 2N 0T)

DATA: 559436R981 # 469
CALI: 060288CR # 5

BASE M/Z: 43
RIC: 25183.

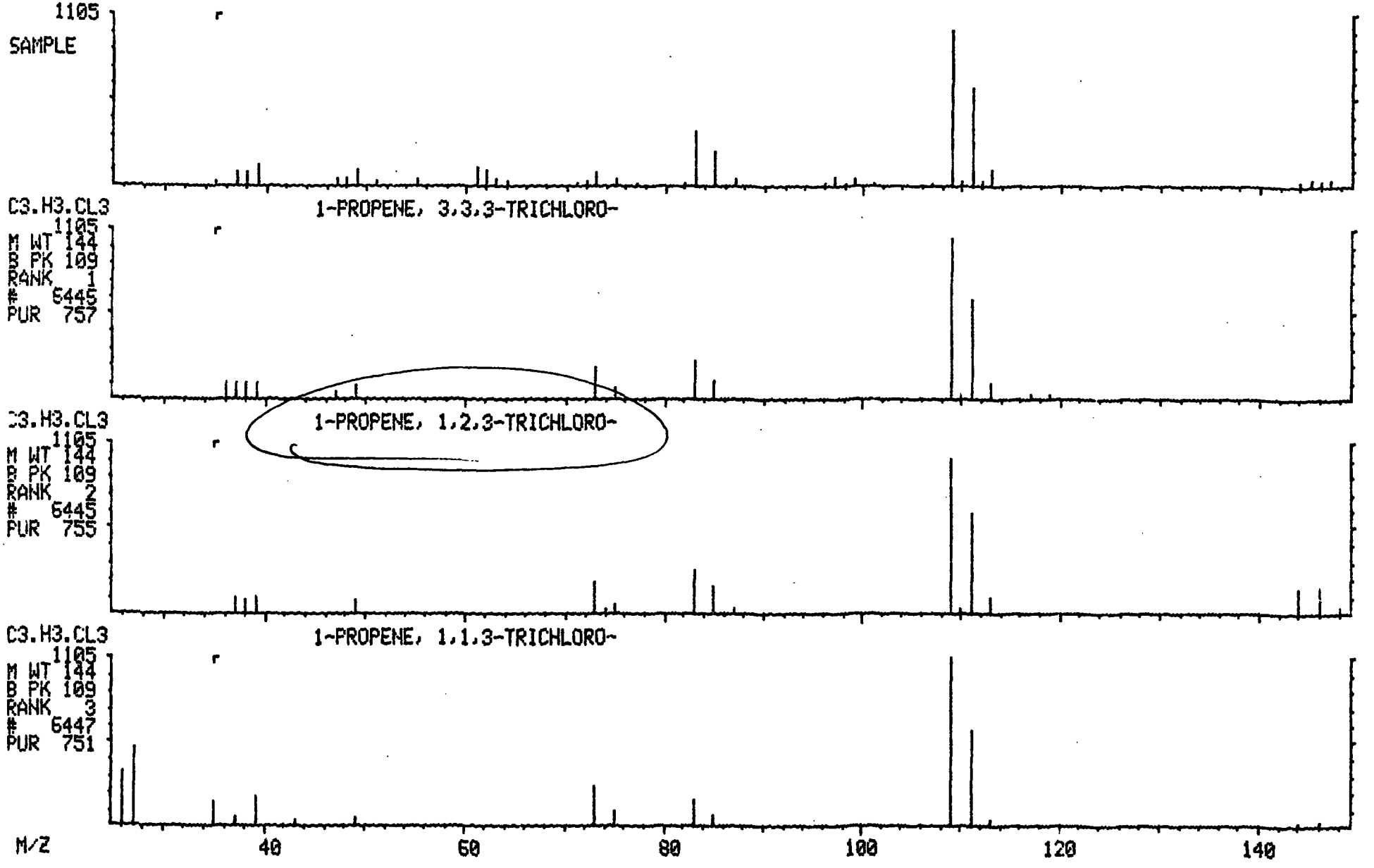


01631

LIBRARY SEARCH
06/02/88 13:44:00 + 7:46
SAMPLE: 59436-23 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R981 # 622
CALI: 060288CR # 5

BASE M/Z: 109
RIC: 13071.



PROCEDURE: TCA DIAGNOSTIC REPORT 6/03/88 18:28:16
DATA FILE: S59436R981
REFERENCE: 11TABLE
NAME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: ISO1

01632

< ---- STANDARDS ----- >				< --- PLUS UNKNOWNS --- >				< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	4	0	13	2	1	0	ISO1/TCO1
3	3	1	49	14	3	1	49	ISO2/TCO2

26 COMPOUNDS PROCESSED, 4 FOUND

< COMPOUND >			< ---------- SEARCH ---------- >						< SAT >	< ------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	S1	1	-714	716	716	.	4	977	.	152	716	.	1
2	S1	4	-332	337	337	.	1	991	.	84	337	.	1
3	S1	20	-334	339	.	.	.	.	.	79	.	.	.
4	S1	30	-429	433	.	.	.	.	.	93	.	.	.
5	S1	62	-494	498	.	.	.	.	.	93	.	.	.
6	S1	64	-525	528	.	.	.	.	.	107	.	.	.
7	S1	73	-556	559	.	.	.	.	.	106	.	.	.
8	S1	83	-593	596	.	.	.	.	.	107	.	.	.
9	S1	87	-613	616	.	.	.	.	.	107	.	.	.
10	S1	88	-634	637	.	.	.	.	.	107	.	.	.
11	S1	89	-642	645	.	.	.	.	.	107	.	.	.
12	S1	92	-661	663	.	.	.	.	.	107	.	.	.
13	S1	122	-699	701	.	.	.	.	.	107	.	.	.
14	S2	1	-953	954	954	.	1	994	.	136	954	.	1
15	S3	1	-1310	1311	1311	.	1	992	.	164	1311	.	1
16	S1	137	-730	732	.	.	.	.	.	106	.	.	.
17	S1	142	-743	745	.	.	.	.	.	106	.	.	.
18	S1	187	-797	799	.	.	.	.	.	108	.	.	.
19	S1	202	-821	823	.	.	.	.	.	106	.	.	.
20	S1	203	-826	828	.	.	.	.	.	106	.	.	.
21	S1	204	-846	848	.	.	.	.	.	122	.	.	.
22	S2	27	-897	898	.	.	.	.	.	107	.	.	.
23	S2	37	-921	922	.	.	.	.	.	107	.	.	.
24	S2	47	-935	936	.	.	.	.	.	107	.	.	.
25	S2	57	-954	955	.	.	.	.	.	107	954	.	1
26	S2	150	-1117	1118	.	.	.	.	.	142	.	.	.

Quantitation Report File: S59436R981

01633

Data: S59436R981.TI
06/02/88 13:44:00
Sample: 59436-23 BNA H2O 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No.: 59436

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

No	Name			
1	CI30 1,4-DICHLOROBENZENE-D4	152	IS1# 01	3855-82-1
2	PYRIDINE-D5	84	S1# 04	
3	PYRIDINE	79	S1# 20	110-86-1
4	2-PICOLINE	93	S1# 30	109-06-8
5	3 & 4-PICOLINE	93	S1# 62	
6	2,6-LUTIDINE	107	S1# 64	
7	2-ETHYL PYRIDINE	106	S1# 73	
8	2,4 & 2,5-LUTIDINE	107	S1# 83	
9	2,3-LUTIDINE	107	S1# 87	
10	3-ETHYL PYRIDINE	107	S1# 88	
11	4-ETHYL PYRIDINE	107	S1# 89	
12	3,5-LUTIDINE	107	S1# 92	
13	3,4-LUTIDINE	107	S1#122	
14	CI40 NAPHTHALENE-D8	136	IS2# 01	1146-65-2
15	CI50 ACENAPHTHENE-D10	164	IS3# 01	15067-26-2
16	2-METHYL-5-ETHYL PYRIDINE	106	S1#137	
17	2-METHYL-3-ETHYL PYRIDINE	106	S1#142	
18	M AND P CRESOLS	108	S2#187	
19	3-ETHYL-4-METHYL PYRIDINE	106	S1#202	
20	3-ETHYL-5-METHYL PYRIDINE	106	S1#203	
21	2,6-DIMETHYL PHENOL	122	S1#204	
22	2,5-DIMETHYL PHENOL	107	S2# 27	
23	3,5-DIMETHYL PHENOL	107	S2# 37	
24	2,3-DIMETHYL PHENOL	107	S2# 47	
25	3,4-DIMETHYL PHENOL	107	S2# 57	
26	1-METHYLNAPHTHALENE	142	S2#150	90-12-0

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	716	8:57	1	1.000	A BV	25871.	40.000 UG/ML	26.05
2	84	337	4:13	1	0.471	A BB	41426.	33.160 UG/ML	21.59
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	136	954	11:55	14	1.000	A BB	98686.	40.000 UG/ML	26.05
15	164	1311	16:23	15	1.000	A BV	46128.	40.000 UG/ML	26.05
16	NOT FOUND								
17	NOT FOUND								

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	107	954	11:55	1	1.332	A BB	494.	0.423 UG/ML	0.28
26	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	4:09	1.02	0.464	1.01	33.16	50.00	1.281	1.932	0.66
3	4:10		0.467						
4	5:22		0.600						
5	6:10		0.691						
6	6:34		0.734						
7	6:57		0.778						
8	7:25		0.829						
9	7:40		0.857						
10	7:55		0.887						
11	8:01		0.898						
12	8:16		0.924						
13	8:44		0.978						
14	11:55	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
15	16:23	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
16	9:07		1.021						
17	9:17		1.039						
18	9:58		1.115						
19	10:16		1.148						
20	10:19		1.155						
21	10:34		1.183						
22	11:13		0.940						
23	11:31		0.965						
24	11:41		0.980						
25	11:55	1.00	1.334	1.00	0.42	50.00	0.015	1.806	0.01
26	13:58		1.171						

RF 2.04 01635
SV 2.00

TCA FINISHED, 4 FOUND
FINISHED AT: 6/03/88 18:30:59

RMAL QUANTITATION SUMMARY FILE: S59436R981
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/ML

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	S1# 1	CI30 1,4-DICHLOROBENZENE	152	716	1	25871.	1.000	40.000
2	S2# 1	CI40 NAPHTHALENE-D8	136	954	2	98686.	1.000	40.000
3	S3# 1	CI50 ACENAPHTHENE-D10	164	1311	3	46128.	1.000	40.000
4	S1# 4	PYRIDINE-D5	84	337	1	41426.	1.281	33.160
5	S1# 20	PYRIDINE	79		1	NOT FOUND		
6	S1# 30	2-PICOLINE	93		1	NOT FOUND		
7	S1# 62	3 & 4-PICOLINE	93		1	NOT FOUND		
8	S1# 64	2,6-LUTIDINE	107		1	NOT FOUND		
9	S1# 73	2-ETHYL PYRIDINE	106		1	NOT FOUND		
10	S1# 83	2,4 & 2,5-LUTIDINE	107		1	NOT FOUND		
11	S1# 87	2,3-LUTIDINE	107		1	NOT FOUND		
12	S1# 88	3-ETHYL PYRIDINE	107		1	NOT FOUND		
13	S1# 89	4-ETHYL PYRIDINE	107		1	NOT FOUND		
14	S1# 92	3,5-LUTIDINE	107		1	NOT FOUND		
15	S1#122	3,4-LUTIDINE	107		1	NOT FOUND		
16	S1#137	2-METHYL-5-ETHYL PYRIDIN	106		1	NOT FOUND		
17	S1#142	2-METHYL-3-ETHYL PYRIDIN	106		1	NOT FOUND		
18	S1#187	M AND P CRESOLS	108		1	NOT FOUND		
19	S1#202	3-ETHYL-4-METHYL PYRIDIN	106		1	NOT FOUND		
20	S1#203	3-ETHYL-5-METHYL PYRIDIN	106		1	NOT FOUND		
21	S1#204	2,6-DIMETHYL PHENOL	122		1	NOT FOUND		
22	S2# 27	2,5-DIMETHYL PHENOL	107		2	NOT FOUND		
23	S2# 37	3,5-DIMETHYL PHENOL	107		2	NOT FOUND		
24	S2# 47	2,3-DIMETHYL PHENOL	107		2	NOT FOUND		
25	S2# 57	3,4-DIMETHYL PHENOL	107		1	NOT FOUND		
26	S2#150	1-METHYLNAPHTHALENE	142		2	NOT FOUND		

RMAL-GC/MS REILLY TAR & CHEMICAL CO. PROJECT PROCESSING PROGRAM
DATAFILE: 2: S59436X839. STARTED : 6/04/88 2:23:00

01636

6/3/88 21:09:57 SCAN 1 OF 3900 $RF = \frac{ng}{ml} \times \frac{0.5 mL}{3.83 L} = 0.130 ng/L$

Acquisition started

Acquire Run 2: S59436X839 ACQUIRING
06/03/88 21:09:00 + 0:03 Free sectors: 18626 Scan: 7 of 3900
Sample: 59436-23 PAH WATER 100%/0.5ML
Conds.: 2 UL AUTO INJ
Formula: Instrument: 4500 Weight: 80.000
Submitted by: RMAL Analyst: JGG Acct. No: 59436

********** GC PARAMETERS **********
Loaded GC Desc: PA Current GC oven tmp: 29 DegC Injector : 265 DegC
Current GC Desc: PA GC elapsed time : 0: 3 min Int. oven : 300 DegC

Seq. #	Temp(C)	Rate(C/m)	Time(min)	Total time(min)		Open	Close
1	30 - 30	-	1.0	1.0	Sweep/Split	0.5	0.0
2	30 - 325	10.0	29.5	30.5	Divert	45.5	0.0
3	325 - 325	-	15.0	45.5			
4	325 - 325	-	0.0	45.5			

********** SCAN PARAMETERS **********
***** Mode: Centroid positive ion + R1 (Temp)

MID scan Desc: P1 Mass intervals: 3
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 1024

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL	ION
1	225.500	226.500	0.105	1	100	0	1	1	Pos
2	227.500	228.500	0.105	1	100	0	1	1	Pos
3	239.500	240.500	0.105	1	100	0	1	1	Pos

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	Q	
Full scale mass	1024	u
Zero scale mass	1	u
Intensity/ion	2	
Peak Width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(MS)	4	

6/3/88 21:38:22 SCAN 3407 OF 3900

MID scan Desc: P2 Mass intervals: 3
Scan time: 0.500 s Samp. Int.: 0.200 ms Master rate: 1024

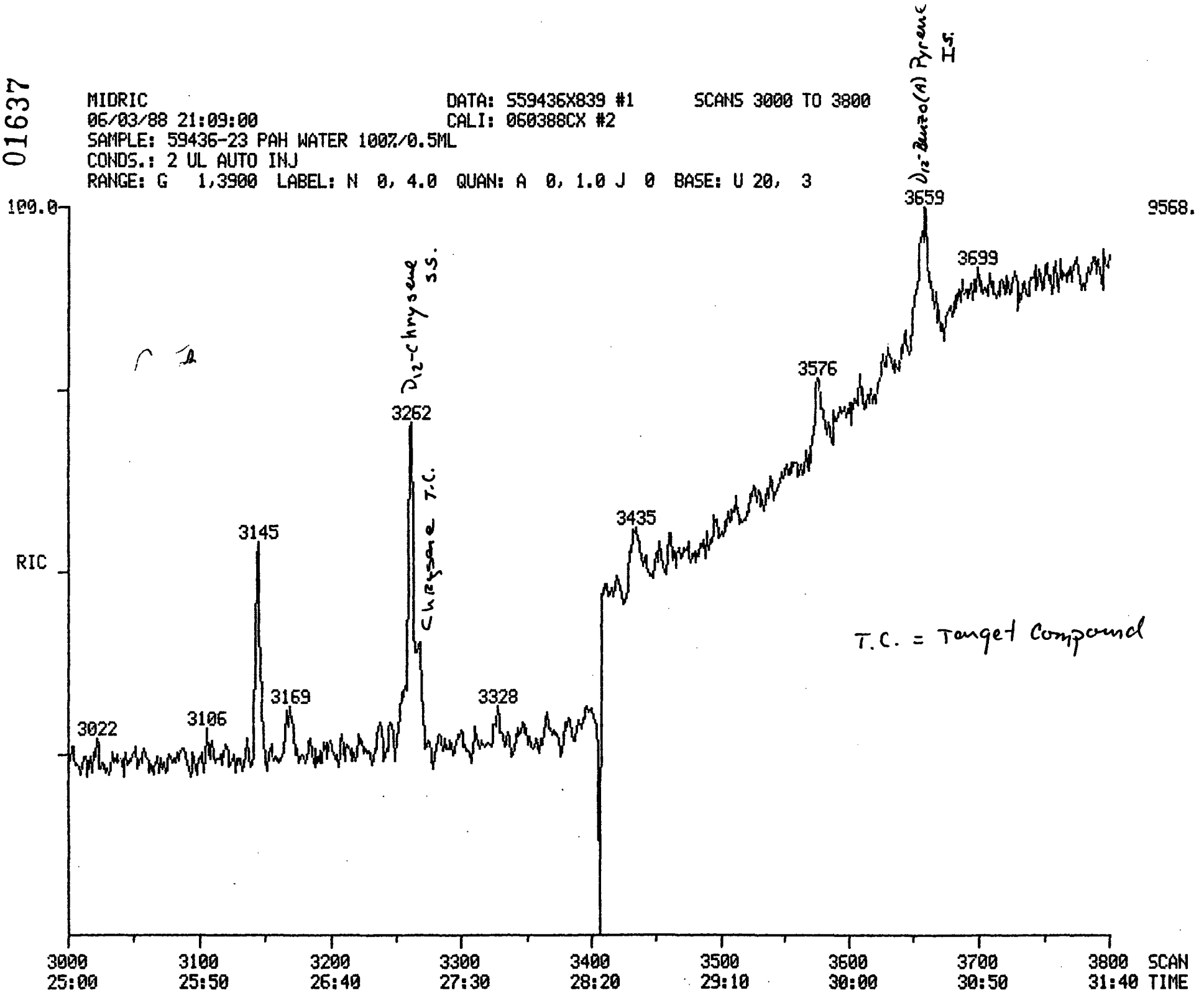
Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL	ION
1	249.575	250.575	0.106	1	100	0	1	1	Pos
2	251.575	252.575	0.105	1	100	0	1	1	Pos
3	263.579	264.579	0.106	1	100	0	1	1	Pos

6/3/88 21:42:39
ACQUISITION COMPLETED
SCANS 1 TO 3406 Centroid
SCAN 3407 Suspended
SCANS 3408 TO 3900 Centroid

Mode	Scans	Secs	Out of	%	Peaks per scan	per sec

01637

MIDRIC DATA: 559436X839 #1 SCANS 3000 TO 3800
06/03/88 21:09:00 CALI: 060388CX #2
SAMPLE: 59436-23 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
RANGE: G 1,3900 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: S59436X839

C1638

Data: S59436X839.TI
06/03/88 21:09:00
Sample: 59436-23 PAH WATER 100%/0.5ML
Conds.: 2 UL AUTO INJ
Formula: Instrument: 4500 Weight: 80.000
Submitted by: RMAL Analyst: JGG Acct. No.: 59436

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

No	Name	
1	D12-BENZO(A)PYRENE	264IPH# 01
2	D12-CHRYSENE	240SPH# 02
3	BENZO(A)ANTHRACENE	228 PH# 03
4	BENZO(A)ANTHRACENE	226 PH# 04
5	CHRYSENE	228 PH# 05
6	CHRYSENE	226 PH# 06
7	BENZO(B)FLUORANTHENE	252 PH# 07
8	BENZO(B)FLUORANTHENE	250 PH# 08
9	BENZO(K)FLUORANTHENE	252 PH# 09
10	BENZO(K)FLUORANTHENE	250 PH# 10
11	BENZO(J)FLUORANTHENE	252 PH# 11
12	BENZO(J)FLUORANTHENE	250 PH# 12
13	BENZO(A)PYRENE	252 PH# 13
14	BENZO(A)PYRENE	250 PH# 14

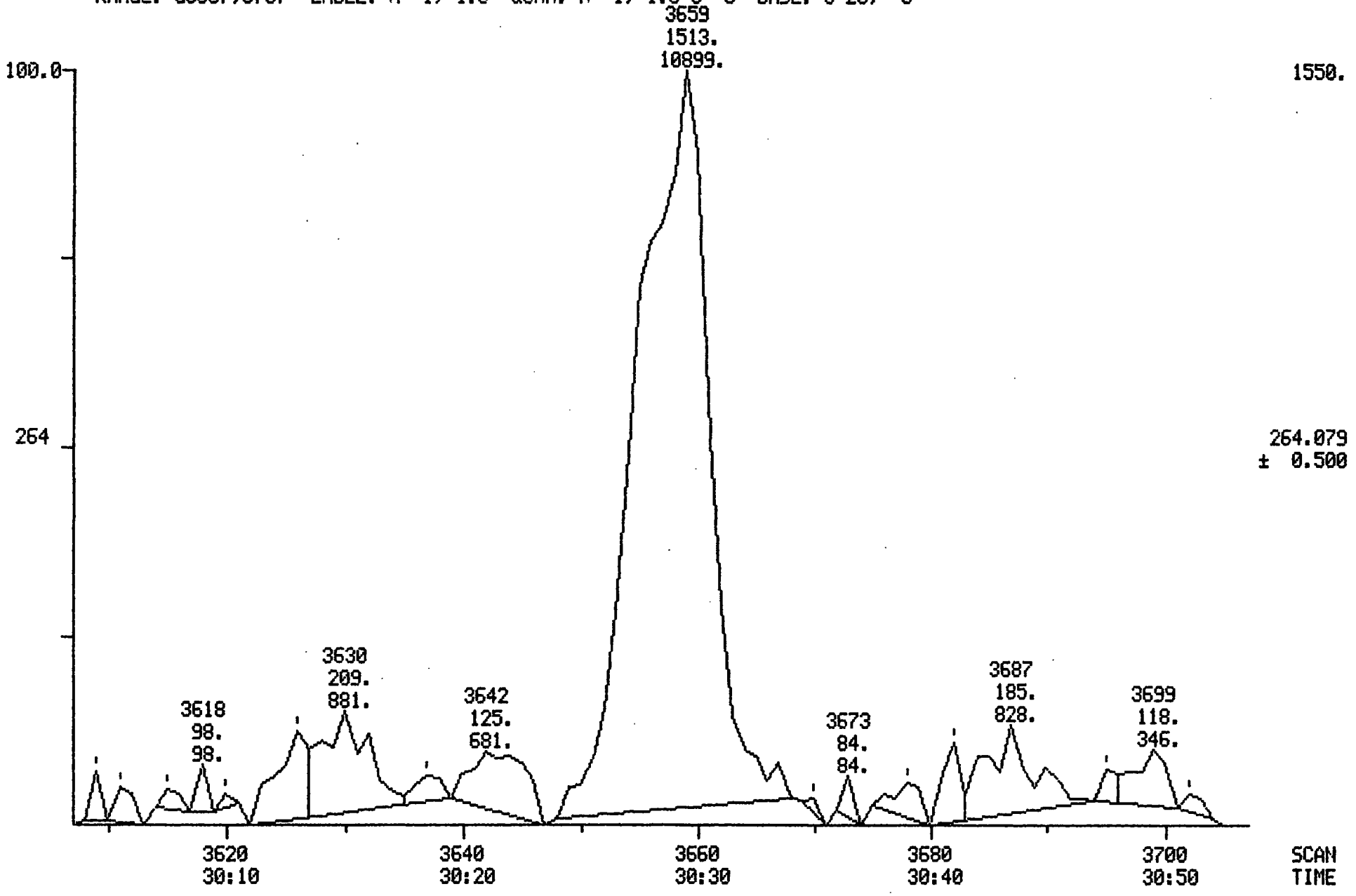
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	264	3659	30:29	1	1.000	A BB	10899.	80.000	NG/ML	14.25
2	240	3262	27:11	1	0.892	A BB	17387.	94.404	NG/ML	16.82
3	228	3254	27:07	1	0.889	A BV	2792.	14.812	NG/ML	2.64
4	226	3254	27:07	1	0.889	A BV	1250.	26.130	NG/ML	4.66
5	228	3268	27:14	1	0.893	A VB	6689.	35.488	NG/ML	6.32
6	226	3267	27:13	1	0.893	A VB	2546.	53.245	NG/ML	9.49
7	252	3575	29:47	1	0.977	A BB	4506.	22.081	NG/ML	3.93
8	250	3576	29:48	1	0.977	A BB	2676.	59.250	NG/ML	10.56
9	252	3575	29:47	1	0.977	A BB	4506.	25.728	NG/ML	4.58
10	250	3576	29:48	1	0.977	A BB	2676.	90.703	NG/ML	16.16
11	252	3596	29:58	1	0.983	A BB	908.	4.455	NG/ML	0.79
12	250	3590	29:55	1	0.981	A BB	828.	18.389	NG/ML	3.28
13	252	3667	30:33	1	1.002	A VB	1988.	12.331	NG/ML	2.20
14	250	3664	30:32	1	1.001	A VB	969.	24.197	NG/ML	4.31

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	30:28	1.00	1.000	1.00	80.00	80.00	1.000	1.000	1.00
2	27:10	1.00	0.891	1.00	94.40	80.00	1.595	1.352	1.18
3	27:07	1.00	0.890	1.00	14.81	80.00	0.256	1.384	0.19
4	27:07	1.00	0.890	1.00	26.13	80.00	0.115	0.351	0.33
5	27:14	1.00	0.894	1.00	35.49	80.00	0.614	1.384	0.44
6	27:14	1.00	0.894	1.00	53.24	80.00	0.234	0.351	0.67
7	29:46	1.00	0.977	1.00	22.08	80.00	0.413	1.498	0.28
8	29:46	1.00	0.977	1.00	59.25	80.00	0.246	0.332	0.74
9	29:50	1.00	0.979	1.00	25.73	80.00	0.413	1.286	0.32
10	29:50	1.00	0.979	1.00	90.70	80.00	0.246	0.217	1.13
11	29:41	1.01	0.982	1.00	4.46	80.00	0.083	1.496	0.06

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
12	29:41	1.01	0.982	1.00	18.39	80.00	0.076	0.330	0.23
13	30:31	1.00	1.001	1.00	12.33	80.00	0.182	1.183	0.15
14	30:30	1.00	1.001	1.00	24.20	80.00	0.089	0.294	0.30

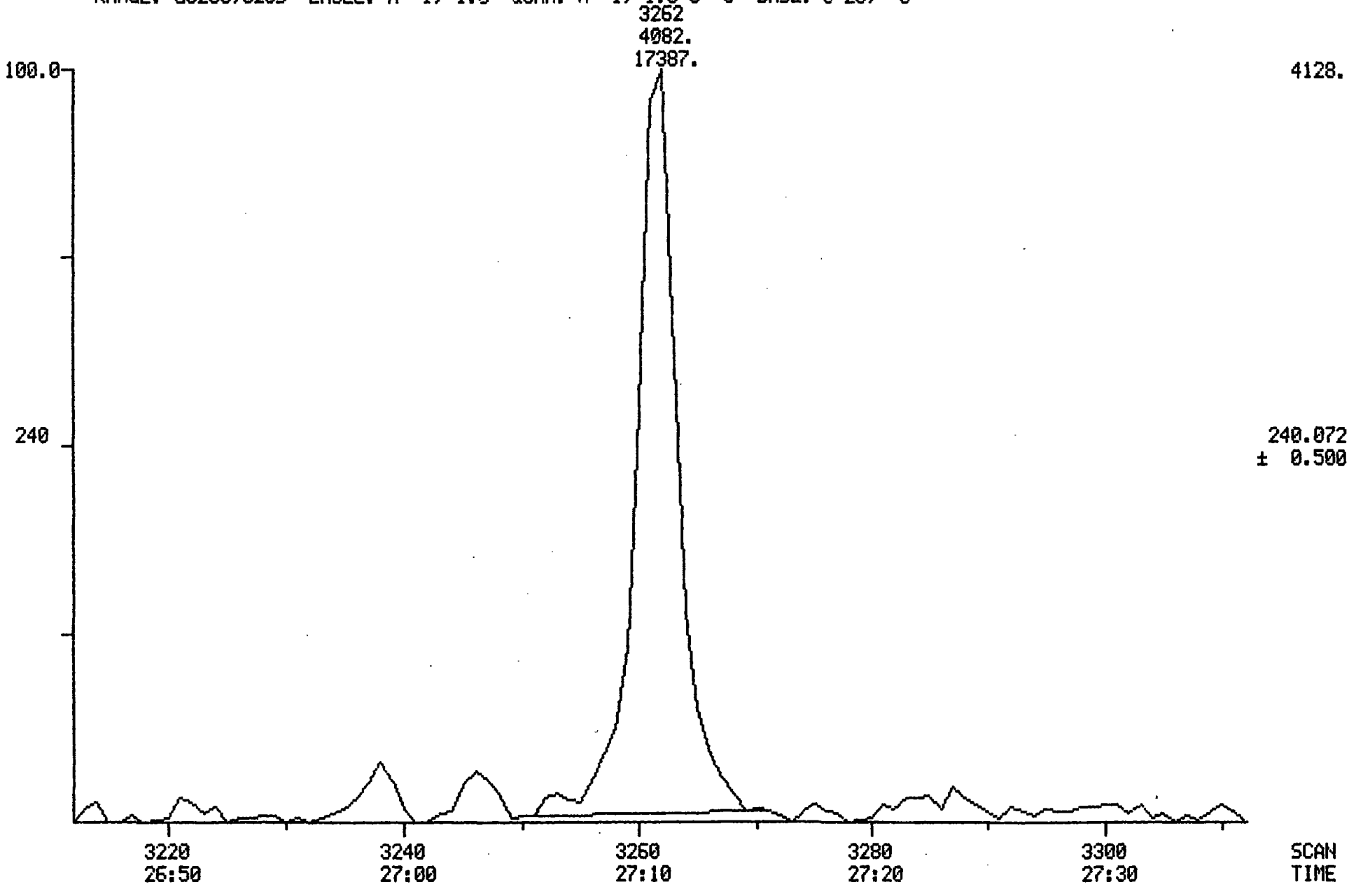
016.10

MIDMASS CHROMATOGRAM DATA: S59436X839 #3657 SCANS 3607 TO 3707
06/03/88 21:09:00 CALI: 060388CX #2
SAMPLE: 59436-23 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
D12-BENZO(A)PYRENE 264IPH# 01
RANGE: G3607,3707 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



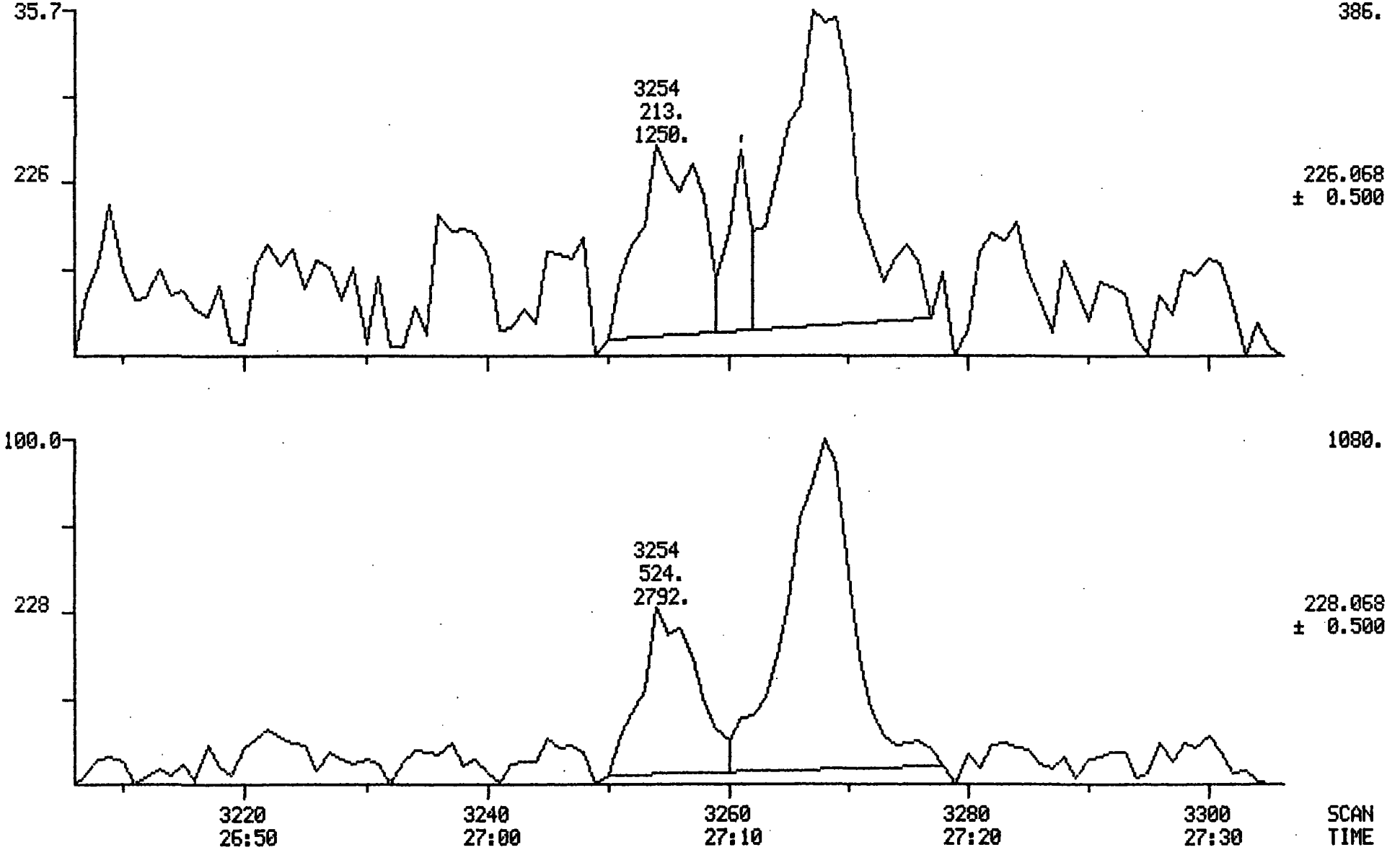
01641

MIDMASS CHROMATOGRAM DATA: S59436X839 #3262 SCANS 3212 TO 3312
06/03/88 21:09:00 CALI: 060388CX #2
SAMPLE: 59436-23 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
D12-CHRYSENE 240SPH# 02
RANGE: G3255,3269 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



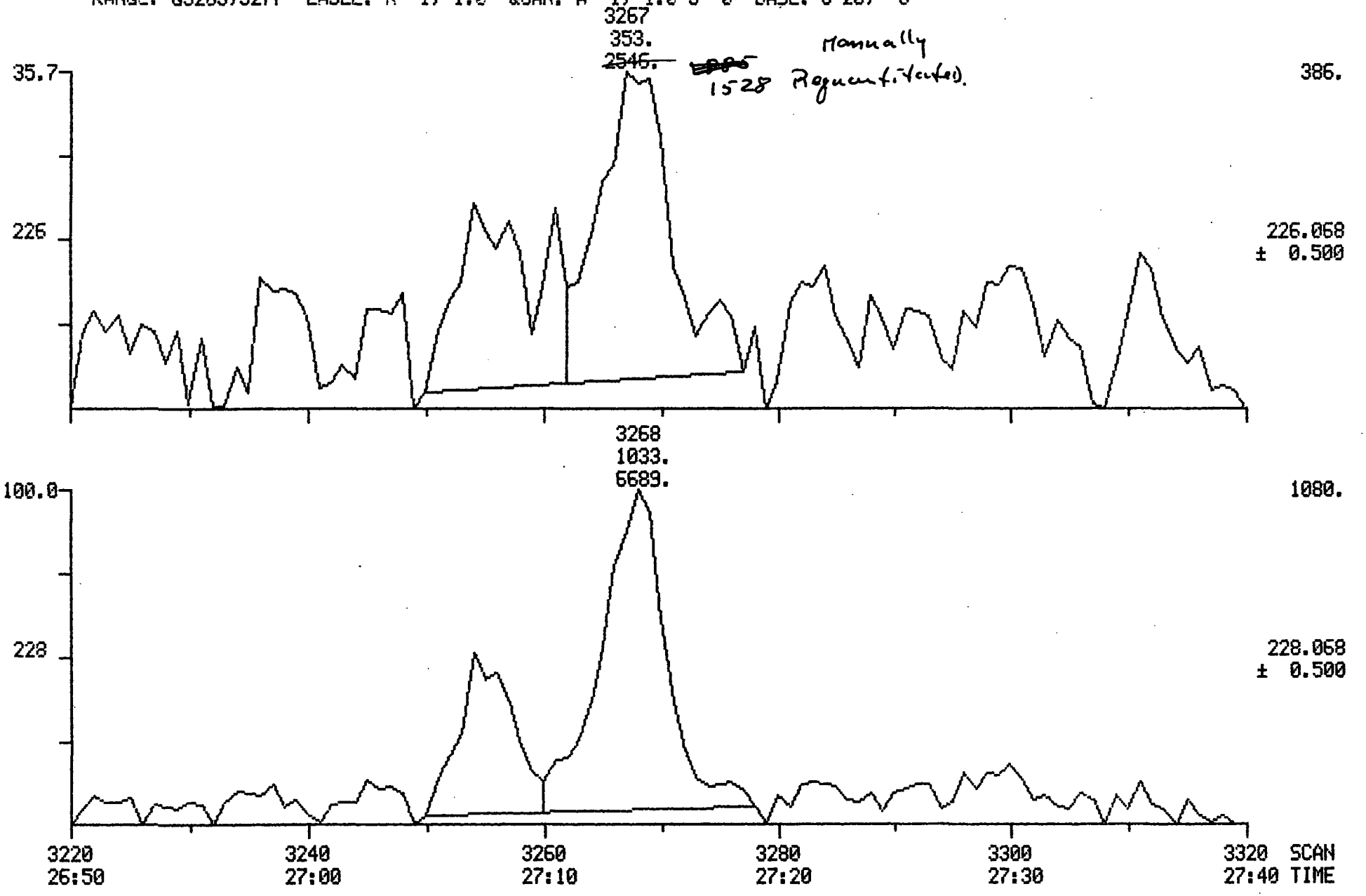
01642

MIDMASS CHROMATOGRAMS DATA: S59436X839 #3256 SCANS 3206 TO 3306
06/03/88 21:09:00 CALI: 060388CX #2
SAMPLE: 59436-23 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(A)ANTHRACENE 228 PH# 03
RANGE: G3249,3263 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



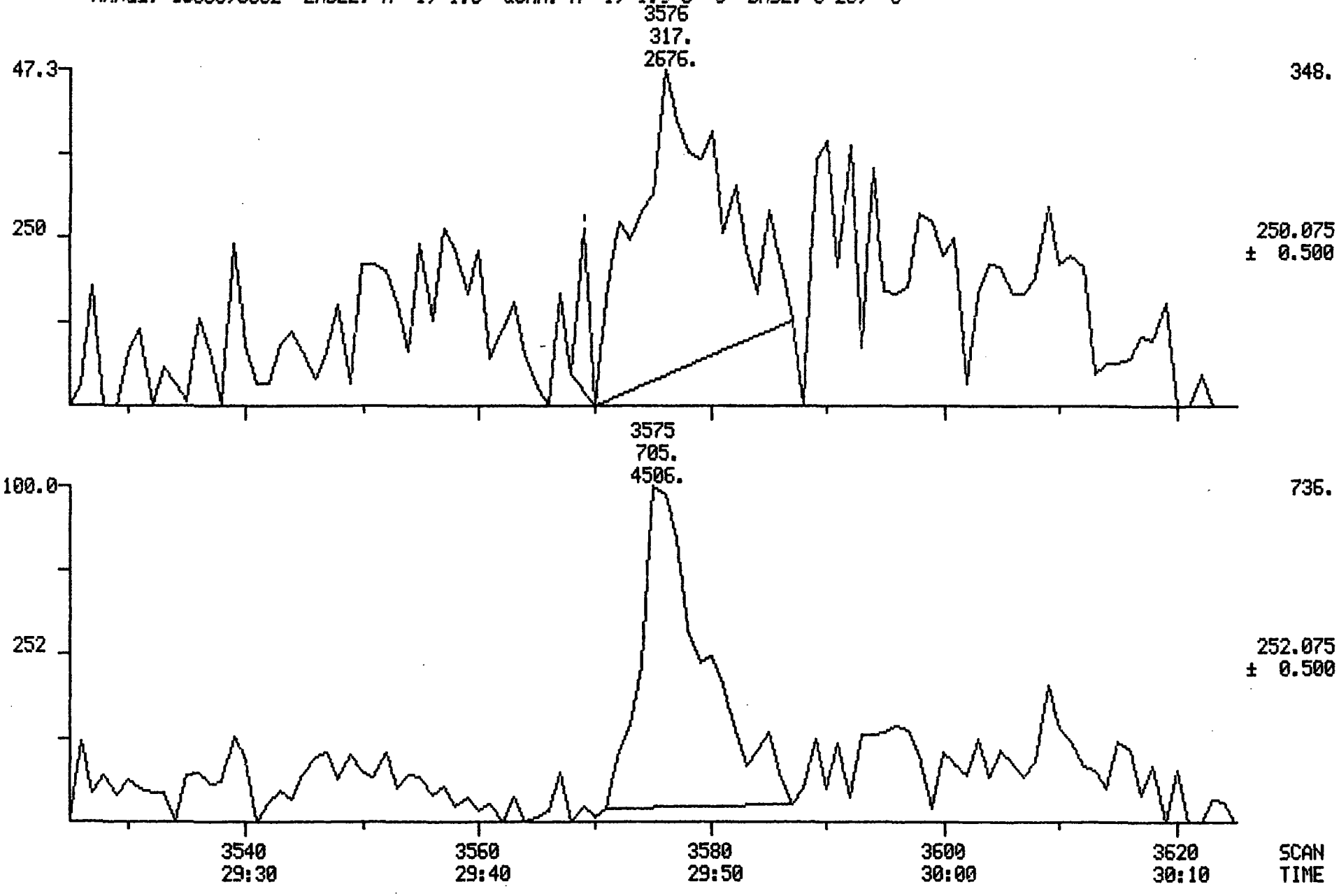
01643

MIDMASS CHROMATOGRAMS DATA: S59436X839 #3270 SCANS 3220 TO 3320
06/03/88 21:09:00 CALI: 060388CX #2
SAMPLE: 59436-23 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
CHRYSENE 228 PH# 05
RANGE: G3263,3277 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



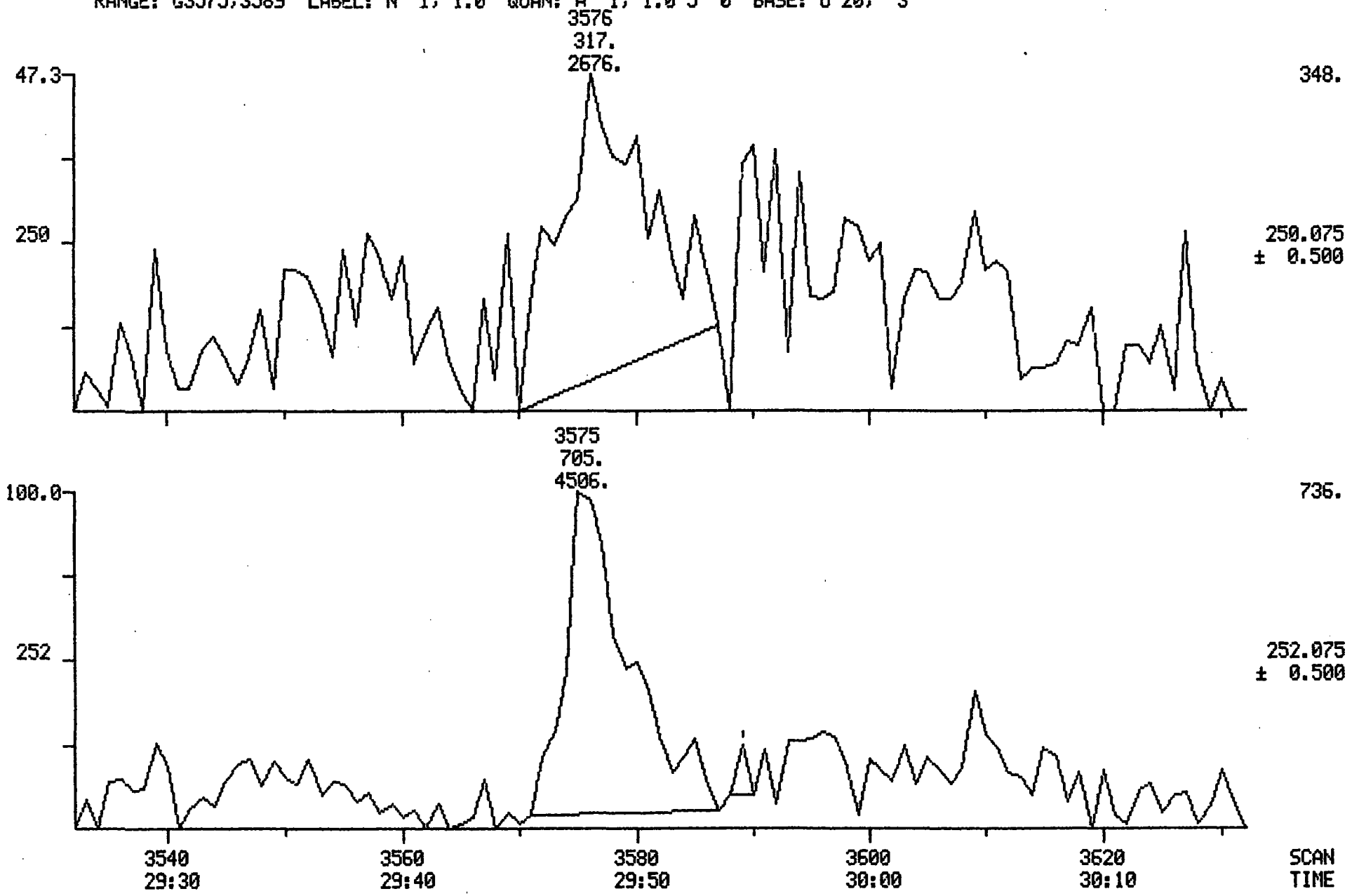
01644

MIDMASS CHROMATOGRAMS DATA: S59436X839 #3575 SCANS 3525 TO 3625
06/03/88 21:09:00 CALI: 060388CX #2
SAMPLE: 59436-23 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(B)FLUORANTHENE 252 PH# 07
RANGE: G3568,3582 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



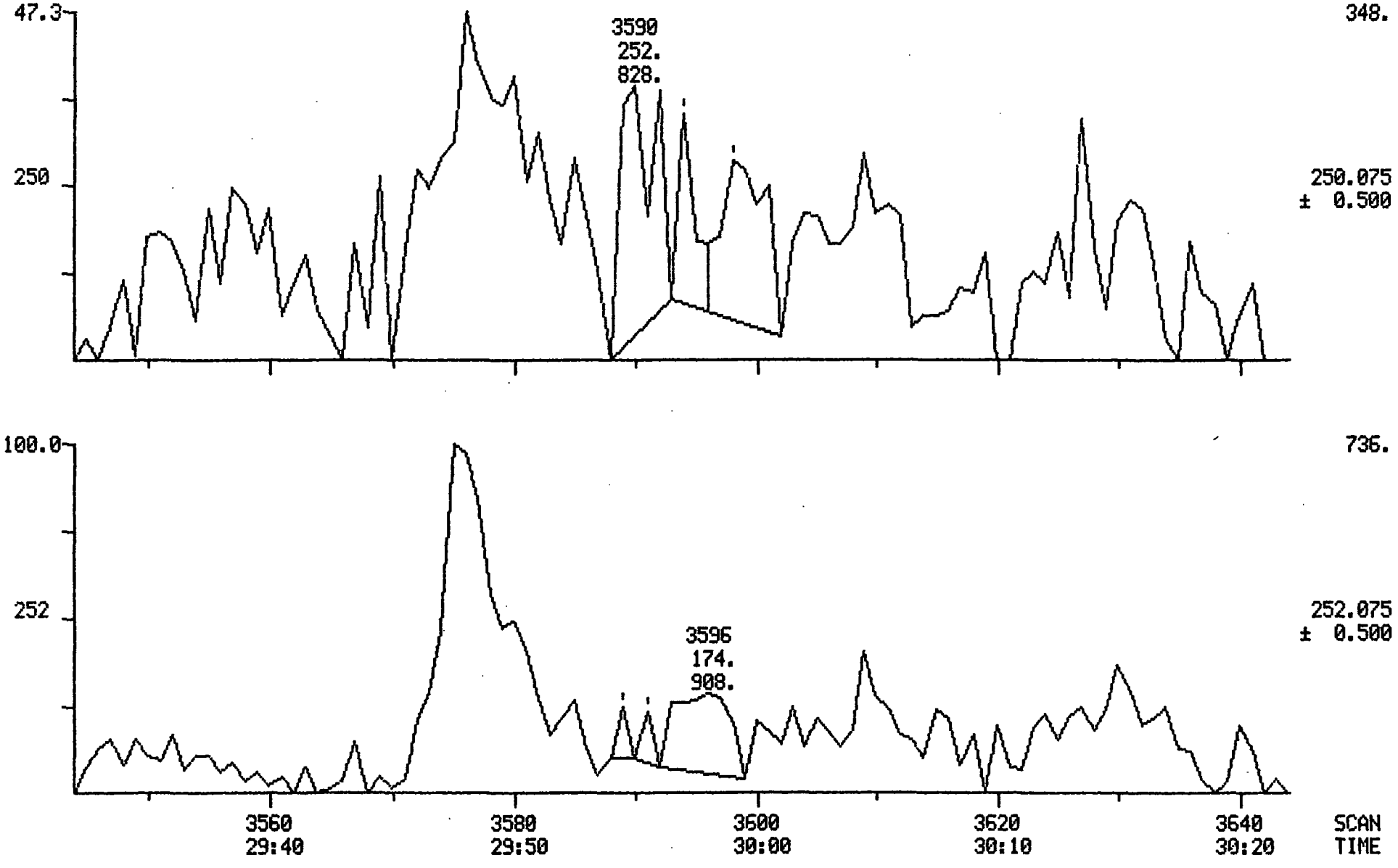
01645

MIDMASS CHROMATOGRAMS DATA: 559436X839 #3582 SCANS 3532 TO 3632
06/03/88 21:09:00 CALI: 060388CX #2
SAMPLE: 59436-23 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(K)FLUORANTHENE 252 PH# 09
RANGE: G3575,3589 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



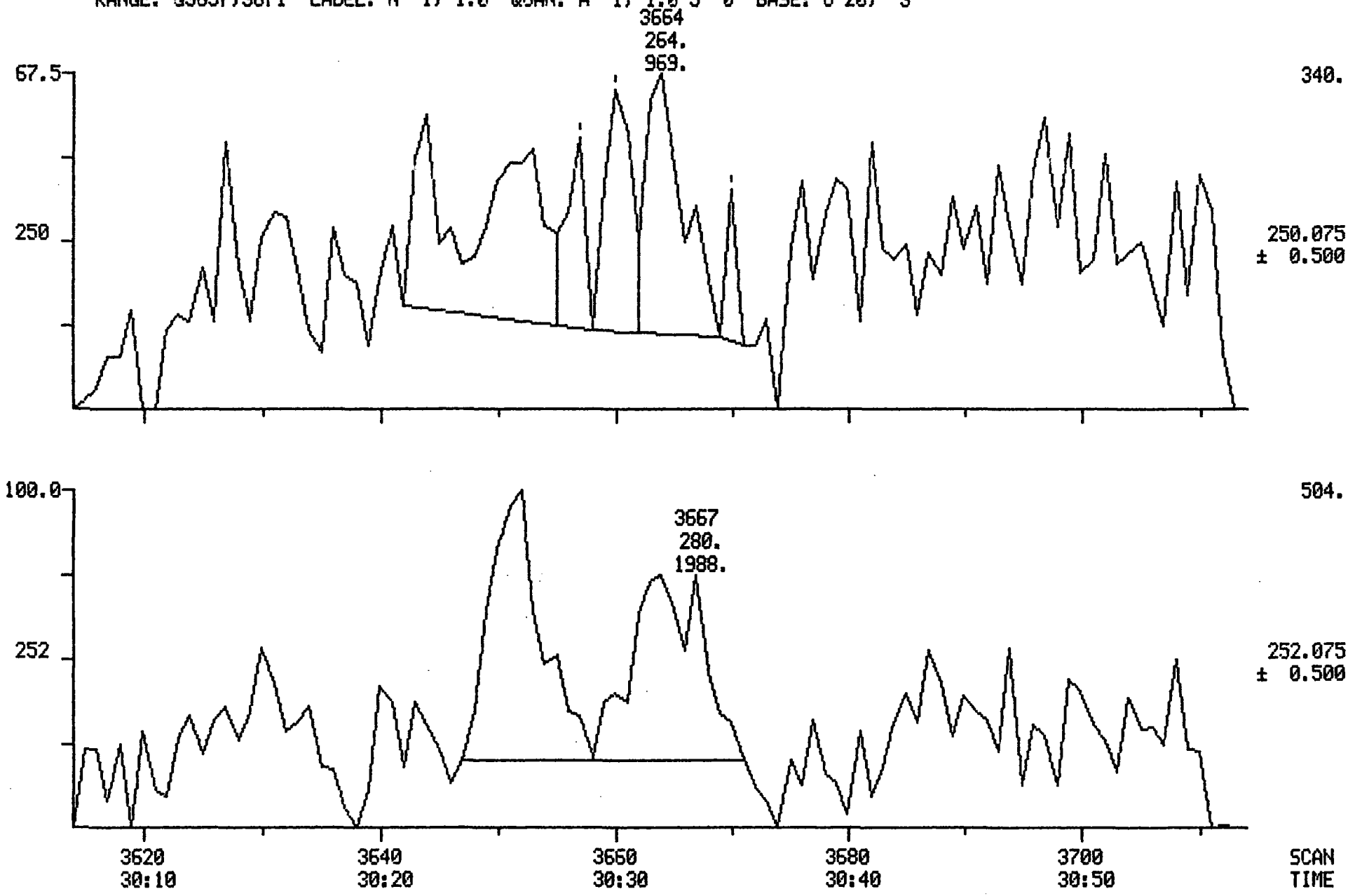
01646

MIDMASS CHROMATOGRAMS DATA: S59436X839 #3594 SCANS 3544 TO 3644
06/03/88 21:09:00 CALI: 060388CX #2
SAMPLE: 59436-23 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(J)FLUORANTHENE 252 PH# 11
RANGE: G3587,3601 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



01647

MIDMASS CHROMATOGRAMS DATA: 559436X839 #3664 SCANS 3614 TO 3714
06/03/88 21:09:00 CALI: 060388CX #2
SAMPLE: 59436-23 PAH WATER 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(A)PYRENE 252 PH# 13
RANGE: G3657,3671 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: S59436X839

Data: S59436X839.TI
06/03/88 21:09:00
Sample: 59436-23 PAH WATER 100%/0.5ML
Conds.: 2 UL AUTO INJ
Formula: Instrument: 4500 Weight: 80.000
Submitted by: RMAL Analyst: JGG Acct. No.: 59436

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

No	Name	
1	D12-BENZO(A)PYRENE	264IPH# 01
2	D12-CHRYSENE	240SPH# 02
3	BENZO(A)ANTHRACENE	228 PH# 03
4	BENZO(A)ANTHRACENE	226 PH# 04
5	CHRYSENE	228 PH# 05
6	CHRYSENE	226 PH# 06
7	BENZO(B)FLUORANTHENE	252 PH# 07
8	BENZO(B)FLUORANTHENE	250 PH# 08
9	BENZO(K)FLUORANTHENE	252 PH# 09
10	BENZO(K)FLUORANTHENE	250 PH# 10
11	BENZO(J)FLUORANTHENE	252 PH# 11
12	BENZO(J)FLUORANTHENE	250 PH# 12
13	BENZO(A)PYRENE	252 PH# 13
14	BENZO(A)PYRENE	250 PH# 14

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	264	3659	30:29	1	1.000	A BB	10899.	80.000	NG/ML	14.82
2	240	3262	27:11	1	0.892	A BB	17387.	94.404	NG/ML	17.48
3	228	3254	27:07	1	0.889	A BV	2792.	14.812	NG/ML	2.74
4	226	3254	27:07	1	0.889	A BV	1250.	26.130	NG/ML	4.84
5	228	3268	27:14	1	0.893	A VB	6689.	35.488	NG/ML	6.57
6	226	3269	27:14	1	0.893	M XX	1528.	31.947	NG/ML	5.92
7	252	3575	29:47	1	0.977	A BB	4506.	22.081	NG/ML	4.09
8	250	3576	29:48	1	0.977	A BB	2676.	59.250	NG/ML	10.97
9	252	3575	29:47	1	0.977	A BB	4506.	25.728	NG/ML	4.77
10	250	3576	29:48	1	0.977	A BB	2676.	90.703	NG/ML	16.80
11	252	3596	29:58	1	0.983	A BB	908.	4.455	NG/ML	0.83
12	250	3590	29:55	1	0.981	A BB	828.	18.389	NG/ML	3.41
13	252	3667	30:33	1	1.002	A VB	1988.	12.331	NG/ML	2.28
14	250	3664	30:32	1	1.001	A VB	969.	24.197	NG/ML	4.48

COLUMN 1: [illegible]
COLUMN 2: [illegible]

59436-23
20%

UNITS ON AMOUNT: [illegible]

01649

LIBRARY ENTRY	COMPONENT NAME	COLUMN 1 AMOUNT	COLUMN 1 %DIFF RT	COLUMN 2 AMOUNT	COLUMN 2 %DIFF RT	COLUMN AVERAGE

DBC

A) $\frac{27.0'}{24.0'}$ (100%) = 112 %

B) $\frac{23.0'}{22.0'}$ (100%) = 105 %

DBC Recovery = 105%
NO HSL Pests/PCBs detected

NA - COLUMN AVERAGE IS NOT APPLICABLE BECAUSE THE %DIFFERENCE(AMOUNTS) > 10%

RESULT FILE: J1A9[illegible]6 05/09/9[illegible] 59436-23 LIBRARY: LIBR 9[illegible]9

01650

LIB ENT	COMPONENT NAME	RETENTION TIME EXPECTED	RETENTION TIME MEASURED	PEAK NUMB	PEAK AREA	AMOUNT	UNITS
003	beta-BHC OUT	1.800	1.750	5	422	.0002	ug/ml
018	p,p'-DDT	12.767	12.817	10	14340	.0031	ug/ml
022	TOXAPHENE (peak 3) ND	12.483	12.817	10	14340	.0488	ug/ml
043	AROCLOR 1260(peak 4) ND	13.183	12.817	10	14340	.0321	ug/ml
047	DBC (surrogate)	26.833	26.867	11	96215	.0166	ug/ml
052	DIALLATE NA	1.700	1.750	5	422	.0000	ug/ml

~ = CALCULATED BY INTERPOLATION OUTSIDE THE RANGE OF APPLICABILITY

RESULT FILE: J1351264e 05/09/95 59436-23 LIBRARY: LIBRARY2

01651

LIB ENT	COMPONENT NAME	RETENTION TIME EXPECTED	RETENTION TIME MEASURED	PEAK NUMB	PEAK AREA	AMOUNT	UNITS
001	alpha BHC	1.383	1.400	3	305	.0000	ug/ml
004	delta-BHC	2.450	2.483	5	9361	.0007	ug/ml
017	ENDOSULFAN SULFATE	16.550	16.117	10	52109	.0061	ug/ml
024	AROCLOR 1016(peak 2)	1.650	1.650	4	6467	.0111	ug/ml
030	AROCLOR 1242(peak 2)	1.650	1.650	4	6467	.0117	ug/ml
035	AROCLOR 1254(peak 1)	5.017	4.900	8	4149	.0040	ug/ml
048	ENDRIN KETONE	22.267	22.117	11	172470	.0043	ug/ml

~ = CALCULATED BY INTERPOLATION OUTSIDE THE RANGE OF APPLICABILITY

AREA PERCENT REPORT

01652

```
******************** 05-08-1988 12:14:32 Version 4.1 ****************
* Sample Name: 59436 23 20%                    Data File: J:AB12646  *
* Date: 05-07-1988 13:21:28 Method: M:ABPI                           *
* Interface: 10  Cycle#:  46   Operator SS  Channel#: 0    Vial#: N.A.  *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100       *
**********************************************************************
* Instrument Type: HP 5880A              Column Type: 6FT X 2MM ID GLASS  *
*            Solvent Description: 1.5% SP2250/1.95% SP2401              *
* Conditions: 190 DEGREES ISOTHERMAL                                    *
*            Detector 0: ECD                  Detector 1:               *
* Misc. Information: 4 UL INJECTION                     LPT1:      *    *
**********************************************************************
Starting Delay:   0.00                          Run Time:   35.00
```

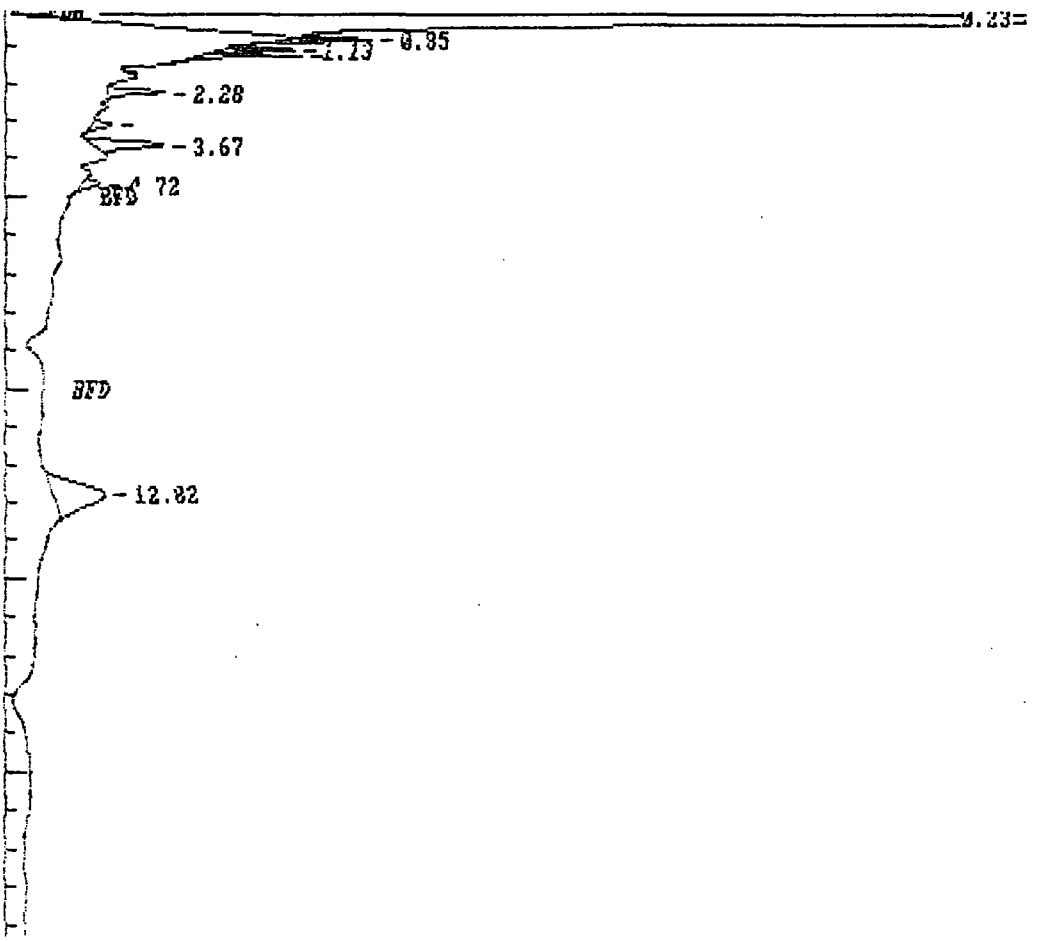
SS

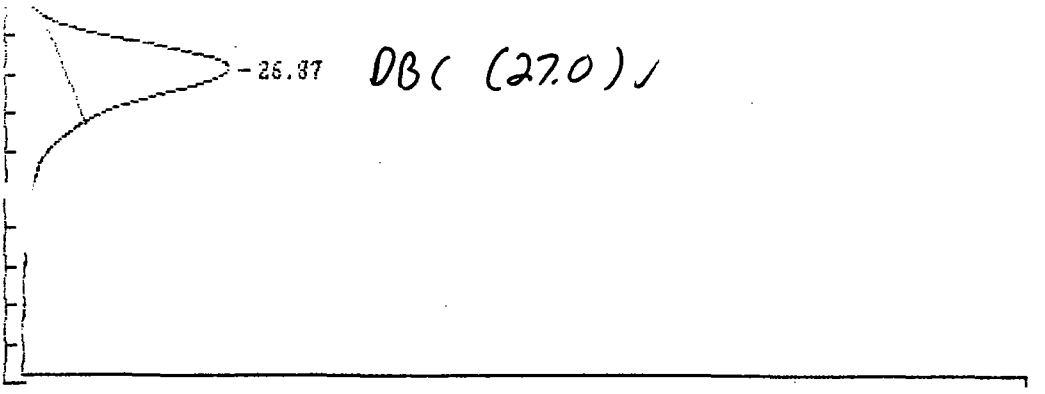
5/12/88

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	0.23	744669	84.7765	1	128472	100.000	5.8
2	0.85	4093	0.4660	1	615	0.550	6.7
3	1.13	2940	0.3347	1	512	0.395	5.7
4	1.28	3579	0.4074	1	709	0.481	5.0
6	2.28	3197	0.3640	1	390	0.429	8.2
7	3.15	1629	0.1855	1	147	0.219	11.1
8	3.67	6020	0.6853	1	488	0.808	12.3
9	4.72	1710	0.1947	1	132	0.230	13.0
10	12.82	14340	1.6325	1	357	1.926	40.2
11	26.87	96215	10.9535	1	1130	12.920	85.1

Total Area: 878391 Area Reject: 1000 One sample per 1.000 sec.

Data File = J:AB12646.PTS Printed on 05-08-1988 at 12:14:59
Start time: 0.00 min. Stop time: 35.00 min. Offset: 0 mv.
Full Range: 7 millivolts





DB((27.0)

01653

AREA PERCENT REPORT

01654

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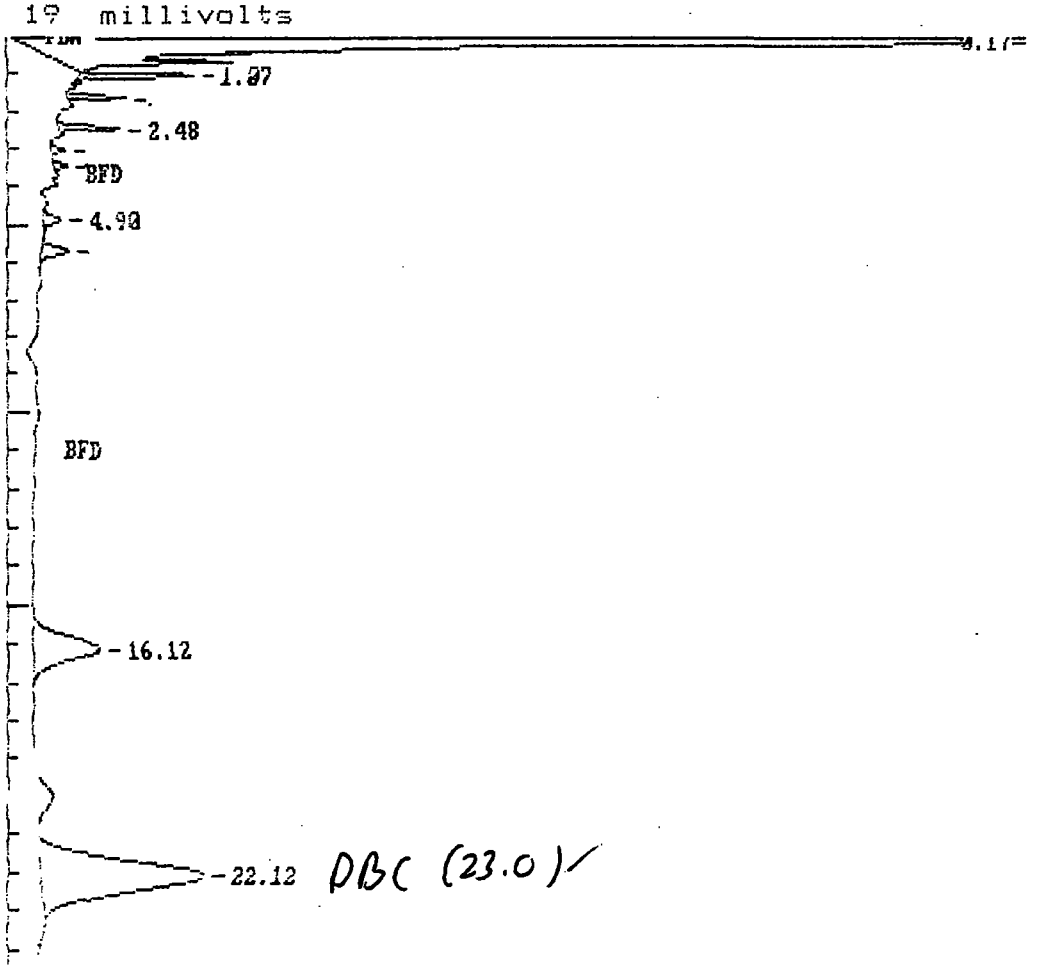
****************** 05-08-1988 12:47:41 Version 4.1 ******************
* Sample Name: 59436 23 20%                    Data File: J:BB12646    *
* Date: 05-07-1988 12:45:55 Method: M:3BPI                             *
* Interface: 12  Cycle#:  46   Operator SS  Channel#: 0    Vial#: N.A. *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100         *
************************************************************************
* Instrument Type: HP 5880A              Column Type: 6FT X 2MM ID GLASS *
*            Solvent Description: 1.5% SP2250/1.95% SP2401             *
* Conditions: 190 DEG ISOTHERMAL                                       *
*            Detector 0:                      Detector 1: ECD          *
* Misc. Information: 4 UL INJ                                          *
************************************************************************
Starting Delay:   0.00                          Run Time:   35.00
```

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	0.17	1187032	81.5573	1	227980	100.000	5.2
2	1.07	12945	0.8894	1	2136	1.091	6.1
4	1.65	6467	0.4443	1	1093	0.545	5.9
5	2.48	8361	0.5745	1	1152	0.704	7.3
6	3.08	1950	0.1340	1	249	0.164	7.8
7	3.48	2152	0.1479	1	269	0.181	8.0
8	4.90	4149	0.2850	1	330	0.349	12.6
9	5.72	7824	0.5376	1	513	0.659	15.3
10	16.12	52109	3.5802	1	1247	4.390	41.8
11	22.12	172470	11.8498	1	3043	14.529	56.7

SS
5/12/88

Total Area: 1455458 Area Reject: 1000 One sample per 1.000 sec.

Data File = J:BB12646.PTS Printed on 05-08-1988 at 12:48:05
Start time: 0.00 min. Stop time: 35.00 min. Offset: 0 mv.
Full Range: 19 millivolts



DBC (23.0)

01655

01656

STANDARDS DATA PACKAGE

01657

INITIAL CALIBRATION
VOA COMPOUNDS

CASE NO: ~~8869~~ 59436 AV 6/16/88
CONTRACTOR: RMAL
CONTRACT NO: NA

INSTRUMENT ID: W
CALIBRATION DATE: 3-28-88

MINIMUM RF FOR SPCC IS 0.300 MAXIMUM % RSD FOR CCC IS ~~25%~~ 30% AV 5/9/88

LABORATORY ID: STDW443S STDW441S STDW446S STDW447S STDW449S

COMPOUND	RF 20.	RF 50.	RF 100.	RF 150.	RF 200.	AVG RF	%RSD	CC
CHLOROMETHANE	2.598	2.399	2.439	2.429	2.338	2.441	3.9	
BROMOMETHANE	1.413	1.532	1.524	1.512	1.493	1.495	3.2	
VINYL CHLORIDE	2.148	2.228	2.208	2.219	2.108	2.182	2.8	*
CHLORETHANE	1.330	1.242	1.250	1.314	1.216	1.271	3.8	*
METHYLENE CHLORIDE	2.399	1.812	1.643	1.735	1.590	1.836	17.7	
ACETONE	0.251	0.173	0.136	0.138	0.122	0.164	31.7	
CARBON DISULFIDE	4.246	4.183	4.056	4.386	3.905	4.155	4.4	
1,1-DICHLOROETHENE	1.401	1.332	1.312	1.345	1.274	1.333	3.4	*
1,1-DICHLOROETHANE	3.261	3.351	3.390	3.369	3.370	3.348	1.5	*
TRANS-1,2-DICHLOROETHENE	1.347	1.407	1.395	1.317	1.378	1.369	2.6	
CHLOROFORM	2.510	2.470	2.624	2.492	2.658	2.551	3.3	*
1,2-DICHLOROETHANE	1.930	1.860	1.869	1.877	1.947	1.897	2.0	
D4-1,2-DICHLOROETHANE	1.578	1.717	1.774	1.910	2.065	1.809	10.2	
2-BUTANONE	0.038	0.038	0.035	0.033	0.034	0.036	6.1	
1,1,1-TRICHLOROETHANE	0.354	0.342	0.334	0.352	0.348	0.346	2.3	
CARBONTETRACHLORIDE	0.342	0.341	0.333	0.352	0.351	0.344	2.3	
VINYL ACETATE	1.156	1.094	1.088	1.158	1.151	1.129	3.1	
BROMODICHLOROMETHANE	0.525	0.518	0.503	0.534	0.541	0.524	2.7	
1,2-DICHLOROPROPANE	0.521	0.513	0.511	0.539	0.540	0.525	2.6	*
TRANS-1,3-DICHLOROPROPENE	0.376	0.369	0.363	0.391	0.391	0.378	3.3	
TRICHLORETHENE	0.362	0.353	0.342	0.365	0.361	0.357	2.3	
DIBROMOCHLOROMETHANE	0.404	0.396	0.406	0.437	0.449	0.419	5.3	
1,1,2-TRICHLOROETHANE	0.309	0.296	0.302	0.321	0.335	0.312	4.9	
BENZENE	1.053	1.037	1.022	1.072	1.064	1.050	1.9	
CIS-1,3-DICHLOROPROPENE	0.665	0.652	0.647	0.682	0.680	0.665	2.4	
2-CHLOROETHYL VINYL ETHER	0.201	0.187	0.189	0.190	0.200	0.194	3.4	
BROMOFORM	0.323	0.311	0.333	0.342	0.355	0.333	5.0	
2-HEXANONE	0.228	0.171	0.187	0.170	0.172	0.186	13.1	
4-METHYL-2-PENTANONE	0.219	0.175	0.181	0.175	0.178	0.186	10.2	
TETRACHLOROETHENE	0.408	0.387	0.397	0.394	0.391	0.396	1.9	*
1,1,2,2-TETRACHLOROETHANE	0.655	0.569	0.634	0.638	0.656	0.630	5.6	
TOLUENE	0.737	0.696	0.693	0.684	0.682	0.698	3.2	*
CHLOROBENZENE	0.889	0.864	0.843	0.844	0.829	0.854	2.7	*
ETHYLBENZENE	0.476	0.439	0.441	0.425	0.427	0.442	4.6	*
STYRENE	1.034	0.957	0.931	0.940	0.889	0.950	5.3	
O-XYLENE	0.606	0.547	0.539	0.527	0.502	0.544	7.0	
BROMOFLUOROBENZENE	0.725	0.706	0.682	0.687	0.662	0.692	3.3	
D8-TOLUENE	1.151	1.130	1.137	1.113	1.127	1.132	1.3	
M-XYLENE	0.615	0.569	0.556	0.557	0.523	0.564	5.9	

Form VI

INITIAL CALIBRATION
VOLATILES COMPOUNDS

CASE NO: 59436
CONTRACTOR: RMAL
CONTRACT NO: NA

INSTRUMENT ID: Z
CALIBRATION DATE: 04/13/88

01658

MINIMUM RF FOR SPCC IS 0.300 MAXIMUM % RSD FOR CCC IS ~~25%~~ 30% MHK 6/9/88

LABORATORY ID:	AGSTDZ53	AGSTDZ53	AGSTDZ53	AGSTDZ53	AGSTDZ53			
COMPOUND	RF 20.	RF 50.	RF 100.	RF 150.	RF 200.	AVG RF	%RSD	CCSP
1,2-DICHLOROETHANE-D4	1.245	1.281	1.342	1.235	1.223	1.265	3.8	
TOLUENE-D8	1.088	1.085	1.069	1.078	1.075	1.079	0.7	
BROMOFLUOROBENZENE	0.591	0.592	0.567	0.574	0.581	0.581	1.8	
CHLOROMETHANE	0.947	0.984	0.982	0.932	0.959	0.961	2.3	**
BROMOMETHANE	1.052	1.148	1.146	1.124	1.108	1.116	3.5	
DICHLORODIFLUOROMETHANE	6.264	4.101	6.660	5.544	6.937	5.901	19.2	
VINYL CHLORIDE	1.048	1.146	1.107	1.082	1.090	1.095	3.2	*
CHLOROETHANE	0.740	0.794	0.819	0.787	0.780	0.784	3.6	
METHYLENE CHLORIDE	2.227	1.787	1.662	1.531	1.500	1.742	16.9	
ACETONE	0.042	0.055	0.057	0.058	0.059	0.054	12.6	
CARBON DISULFIDE	3.769	3.841	3.873	3.468	3.541	3.698	4.9	
TRICHLOROFLUOROMETHANE	2.373	2.552	2.523	2.377	2.455	2.456	3.3	
1,1-DICHLOROETHENE	1.192	1.290	1.294	0.880	1.155	1.162	14.5	*
1,1-DICHLOROETHANE	2.620	2.662	2.725	2.679	2.656	2.668	1.4	**
TRANS-1,2-DICHLOROETHENE	1.379	1.451	1.476	1.405	1.410	1.424	2.7	
CHLOROFORM	2.529	2.534	2.591	2.513	2.458	2.525	1.8	*
TRICHLORO-TRIFLUORO-ETHANE	0.000	0.000	0.000	0.000	0.000	0.000	0.1	
1,2-DICHLOROETHANE	1.360	1.395	1.449	1.436	1.445	1.417	2.7	
2-BUTANONE	0.014	0.016	0.017	0.021	0.019	0.017	15.2	
1,1,1-TRICHLOROETHANE	0.316	0.310	0.321	0.310	0.308	0.313	1.7	
CARBON TETRACHLORIDE	0.312	0.303	0.327	0.322	0.319	0.317	2.9	
VINYL ACETATE	0.462	0.455	0.472	0.478	0.493	0.472	3.1	
BROMODICHLOROMETHANE	0.435	0.420	0.447	0.450	0.453	0.441	3.0	
1,2-DICHLOROPROPANE	0.373	0.363	0.389	0.391	0.396	0.382	3.6	*
CIS-1,3-DICHLOROPROPENE	0.466	0.454	0.480	0.484	0.491	0.475	3.1	
TRICHLOROETHENE	0.348	0.347	0.367	0.359	0.362	0.357	2.4	
DIBROMOCHLOROMETHANE	0.384	0.370	0.389	0.392	0.406	0.388	3.3	
1,1,2-TRICHLOROETHANE	0.270	0.265	0.273	0.279	0.292	0.276	3.6	
BENZENE	0.877	0.841	0.885	0.873	0.873	0.870	1.9	
TRANS-1,3-DICHLOROPROPENE	0.344	0.342	0.362	0.370	0.376	0.359	4.2	
1,2-DIBROMOETHANE	0.000	0.000	0.000	0.000	0.000	0.000	0.1	
2-CHLOROETHYL VINYL ETHER	0.066	0.119	0.105	0.121	0.127	0.108	22.9	
BROMOFORM	0.303	0.287	0.308	0.312	0.325	0.307	4.4	**
4-METHYL-2-PENTANONE	0.123	0.103	0.103	0.105	0.108	0.108	7.5	
2-HEXANONE	0.091	0.087	0.093	0.097	0.103	0.094	6.3	
TETRACHLOROETHENE	0.371	0.383	0.387	0.378	0.382	0.380	1.5	
1,1,2,2-TETRACHLOROETHANE	0.504	0.468	0.484	0.490	0.512	0.492	3.5	**
TOLUENE	0.650	0.645	0.662	0.650	0.644	0.650	1.1	*
CHLOROBENZENE	0.862	0.854	0.872	0.860	0.855	0.860	0.8	**

Form VI

COMPOUND	RF 20.	RF 50.	RF 100.	RF 150.	RF 200.	AVG RF	%RSD	CCSP
ETHYLBENZENE	0.404	0.404	0.411	0.402	0.403	0.405	0.8	*
STYRENE	0.872	0.879	0.887	0.873	0.871	0.876	0.7	
M-XYLENE	0.494	0.501	0.504	0.499	0.496	0.499	0.7	
O+P XYLENES	0.497	0.504	0.513	0.498	0.499	0.502	1.2	
M-DICHLOROBENZENE	1.307	1.237	1.333	1.346	1.325	1.309	3.2	
O-DICHLOROBENZENE	1.316	1.220	1.323	1.332	1.317	1.302	3.5	
P-DICHLOROBENZENE	1.347	1.288	1.382	1.396	1.382	1.359	3.2	

01659

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**)
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VI

01660

INITIAL CALIBRATION
BNA COMPOUNDS

CASE NO: - 59436
CONTRACTOR: RMAL
CONTRACT NO: --NA--

INSTRUMENT ID: R
CALIBRATION DATE: 04/16/87

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM % RSD FOR CCC IS ~~25%~~ 30% MHK 6/14/88

LABORATORY ID: STDR096 STDR097 STDR099 STDR095 STDR098

COMPOUND		RF	20. RF	50. RF	80. RF	120. RF	160.	AVG RF	%RSD	CCSP
N-NITROSODIMETHYLAMINE		1.431	1.495	1.340	1.473	1.415	1.431	4.1		
PHENOL		2.359	2.459	2.402	2.554	2.525	2.460	3.3	*	
ANILINE		2.475	2.595	2.486	2.725	2.606	2.577	3.9		
BIS(2-CHLOROETHYL)ETHER		1.898	1.946	1.834	1.967	1.862	1.902	2.9		
2-CHLOROPHENOL		1.706	1.681	1.660	1.766	1.674	1.697	2.4		
1,3-DICHLOROBENZENE		1.719	1.600	1.679	1.803	1.715	1.703	4.3		
1,4-DICHLOROBENZENE		1.793	1.688	1.741	1.876	1.801	1.780	3.9	*	
BENZYL ALCOHOL	#	0.000	0.986	0.911	1.002	0.944	0.961	4.2		
1,2-DICHLOROBENZENE		1.655	1.607	1.588	1.727	1.629	1.641	3.2		
2-METHYLPHENOL		1.318	1.371	1.342	1.444	1.378	1.371	3.4		
BIS(2-CHLOROISOPROPYL)ETHER		2.553	2.732	2.453	2.778	2.727	2.649	5.2		
4-METHYLPHENOL		1.490	1.495	1.485	1.596	1.480	1.509	3.2		
N-NITROSO-DI-N-PROPYLAMINE		1.212	1.247	1.179	1.305	1.233	1.235	3.7		**
HEXACHLOROETHANE		0.707	0.686	0.680	0.710	0.684	0.693	2.0		
NITROBENZENE		0.446	0.468	0.451	0.486	0.473	0.465	3.4		
ISOPHORONE		0.816	0.894	0.858	0.913	0.838	0.864	4.6		
2-NITROPHENOL		0.237	0.234	0.235	0.248	0.235	0.238	2.4	*	
2,4-DIMETHYLPHENOL		0.365	0.374	0.368	0.385	0.369	0.372	2.1		
BIS(2-CHLOROETHOXY)METHANE		0.530	0.534	0.528	0.549	0.533	0.535	1.5		
BENZOIC ACID	#	0.000	0.168	0.190	0.176	0.224	0.190	12.9		
2,4-DICHLOROPHENOL		0.279	0.292	0.293	0.314	0.299	0.296	4.3	*	
1,2,4-TRICHLOROBENZENE		0.311	0.295	0.307	0.318	0.302	0.306	2.8		
NAPHTHALENE		1.227	1.209	1.223	1.244	1.065	1.193	6.1		
4-CHLOROANILINE		0.417	0.460	0.478	0.507	0.498	0.472	7.5		
HEXACHLOROBUTADIENE		0.136	0.131	0.135	0.139	0.131	0.134	2.6	*	
4-CHLORO-3-METHYLPHENOL		0.308	0.312	0.321	0.345	0.338	0.325	5.0	*	
2-METHYLNAPHTHALENE		0.629	0.660	0.685	0.726	0.685	0.677	5.3		
HEXACHLOROCYCLOPENTADIENE		0.300	0.278	0.275	0.276	0.271	0.280	4.0		**
2,4,6-TRICHLOROPHENOL		0.399	0.392	0.381	0.397	0.405	0.395	2.2	*	
2,4,5-TRICHLOROPHENOL		0.393	0.380	0.358	0.348	0.334	0.363	6.5		
2-CHLORONAPHTHALENE		1.365	1.318	1.311	1.340	1.315	1.330	1.6		
2-NITROANALINE	#	0.000	0.426	0.425	0.417	0.435	0.426	1.7		
DIMETHYLPHTHALATE		1.407	1.310	1.368	1.341	1.366	1.358	2.6		
ACENAPHTHYLENE		2.170	2.140	2.175	2.230	2.121	2.167	1.9		
2,6-DINITROTOLUENE		0.373	0.354	0.362	0.357	0.361	0.361	1.9		
3-NITROANILINE	#	0.000	0.385	0.392	0.375	0.386	0.385	1.8		
ACENAPHTHENE		1.309	1.274	1.298	1.269	1.259	1.282	1.6	*	
2,4-DINITROPHENOL		0.189	0.206	0.209	0.208	0.223	0.207	5.8		**
4-NITROPHENOL	#	0.000	0.133	0.141	0.123	0.136	0.133	5.5		**

Form VI

COMPOUND	RF 20.	RF 50.	RF 80.	RF 120.	RF 160.	AVG RF	%RSD	CCSP
DIBENZOFURAN	1.700	1.642	1.651	1.701	1.617	1.662	2.2	
2,4-DINITROTOLUENE	0.465	0.427	0.432	0.418	0.418	0.432	4.4	
DIETHYLPHTHALATE	1.448	1.358	1.381	1.325	1.349	1.372	3.4	
FLUORENE	1.424	1.373	1.405	1.409	1.388	1.400	1.4	
4-CHLOROPHENYL-PHENYLETHER	0.561	0.563	0.561	0.573	0.543	0.560	1.9	
4-NITROANILINE	0.305	0.349	0.347	0.310	0.183	0.299	22.6	
4,6-DINITRO-2-METHYLPHENOL	0.176	0.190	0.184	0.193	0.192	0.187	3.6	
N-NITROSODIPHENYLAMINE(1)	0.660	0.655	0.648	0.668	0.650	0.656	1.2	*
4-BROMOPHENYL-PHENYLETHER	0.189	0.189	0.187	0.201	0.179	0.189	4.1	
HEXACHLOROBENZENE	0.195	0.199	0.202	0.209	0.197	0.201	2.8	
PENTACHLOROPHENOL	0.126	0.134	0.139	0.139	0.140	0.136	4.0	*
PHENANTHRENE	1.276	1.248	1.235	1.290	1.242	1.258	1.8	
ANTHRACENE	1.275	1.225	1.242	1.258	1.204	1.241	2.2	
DI-N-BUTYLPHTHALATE	1.621	1.594	1.650	1.639	1.525	1.606	3.0	
FLUORANTHENE	1.082	1.094	1.070	1.101	1.038	1.077	2.2	*
BENZIDINE	0.136	0.205	0.360	0.385	0.550	0.327	49.4	
PYRENE	1.847	1.742	1.756	1.817	1.645	1.761	4.4	
BUTYLBENZYLPHTHALATE	1.002	1.015	1.018	1.073	1.002	1.022	2.8	
3,3'-DICHLOROBENZIDINE	0.386	0.393	0.405	0.436	0.432	0.410	5.5	
BENZO(A)ANTHRACENE	1.344	1.310	1.322	1.365	1.347	1.338	1.6	
CHRYSENE	1.234	1.196	1.178	1.220	1.129	1.191	3.4	
BIS(2-ETHYLHEXYL)PHTHALATE	1.366	1.387	1.435	1.490	1.489	1.433	3.9	
DI-N-OCTYL PHTHALATE	3.087	3.192	3.270	3.316	3.102	3.193	3.1	*
BENZO(B)FLUORANTHENE	1.624	1.565	1.597	1.699	1.811	1.659	5.9	
BENZO(K)FLUORANTHENE	1.182	1.108	1.265	1.128	0.991	1.135	8.8	
BENZO(A)PYRENE	1.328	1.285	1.376	1.396	1.341	1.345	3.2	*
INDENO(1,2,3-CD)PYRENE	1.191	1.242	1.258	1.384	1.169	1.249	6.7	
DIBENZ(A,H)ANTHRACENE	0.949	0.987	1.039	1.134	1.008	1.023	6.8	
BENZO(G,H,I)PERYLENE	0.969	0.977	0.999	1.140	0.979	1.013	7.1	
NITROBENZENE-D5	0.438	0.449	0.410	0.453	0.437	0.437	3.8	
2-FLUOROBIPHENYL	1.477	1.329	1.386	1.370	1.350	1.382	4.1	
TERPHENYL-D14	0.970	0.920	0.905	0.940	0.864	0.920	4.3	
PHENOL-D5	2.005	2.099	2.018	2.189	2.038	2.070	3.6	
2-FLUOROPHENOL	1.581	1.632	1.580	1.621	1.425	1.568	5.3	
2,4,6-TRIBROMOPHENOL	0.129	0.117	0.120	0.113	0.117	0.119	4.7	
AZOBENZENE	0.000	0.000	0.000	0.000	0.000	0.000	0.1	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**)
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VI

INITIAL CALIBRATION
SEMIVOLATILES COMPOUNDS

CASE NO: -59436
CONTRACTOR: RMAL
CONTRACT NO: -N/A

INSTRUMENT ID: U 3-15-88
CALIBRATION DATE: ~~3-25-88~~ 01662

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM % RSD FOR CCC IS ~~25%~~ 30% AV 6/16/88

LABORATORY ID: STDUU927 STDUU928 STDUU929 STDUU930 STDUU931

COMPOUND		RF	20.RF	50.RF	80.RF	120.RF	160.	AVG RF	%RSD	C
N-NITROSODIMETHYLAMINE		1.258	1.236	1.231	1.225	1.290	1.248	2.1		
PHENOL		2.191	2.329	2.605	2.854	2.731	2.542	10.8		*
ANILINE		2.523	2.823	2.992	3.240	3.265	2.969	10.4		
BIS(2-CHLOROETHYL)ETHER		1.828	1.823	1.853	1.984	2.042	1.906	5.2		
2-CHLOROPHENOL		1.548	1.545	1.515	1.635	1.701	1.589	4.8		
1,3-DICHLOROBENZENE		1.618	1.581	1.616	1.797	1.835	1.689	6.9		
1,4-DICHLOROBENZENE		1.706	1.758	1.831	1.907	1.997	1.840	6.3		*
BENZYL ALCOHOL	#	0.000	0.967	0.956	1.129	1.194	1.062	11.1		
1,2-DICHLOROBENZENE		1.600	1.616	1.653	1.786	1.881	1.707	7.1		
2-METHYLPHENOL		1.370	1.406	1.417	1.461	1.568	1.444	5.2		
BIS(2-CHLOROISOPROPYL)ETHER		2.926	3.001	3.053	3.296	3.480	3.151	7.3		
4-METHYLPHENOL		1.443	1.508	1.517	1.554	1.315	1.467	6.4		
N-NITROSO-DI-N-PROPYLAMINE		1.259	1.315	1.315	1.545	1.511	1.389	9.3		*
HEXACHLOROETHANE		0.648	0.667	0.687	0.773	0.791	0.713	9.0		
NITROBENZENE		0.431	0.441	0.452	0.499	0.517	0.468	8.0		
ISOPHORONE		0.846	0.844	0.845	0.874	0.902	0.862	2.9		
2-NITROPHENOL		0.224	0.224	0.235	0.250	0.266	0.240	7.4		*
2,4-DIMETHYLPHENOL		0.335	0.341	0.360	0.365	0.380	0.356	5.1		
BIS(2-CHLOROETHOXY)METHANE		0.508	0.509	0.529	0.565	0.589	0.540	6.6		
BENZOIC ACID	#	0.000	0.262	0.272	0.295	0.306	0.284	7.1		
2,4-DICHLOROPHENOL		0.287	0.294	0.302	0.318	0.328	0.306	5.5		*
1,2,4-TRICHLOROBENZENE		0.303	0.307	0.320	0.325	0.356	0.322	6.4		
NAPTHALENE		1.171	1.145	1.233	1.329	1.367	1.249	7.7		
4-CHLOROANILINE		0.443	0.485	0.494	0.524	0.536	0.496	7.3		
HEXACHLOROBUTADIENE		0.152	0.150	0.158	0.163	0.166	0.158	4.3		*
4-CHLORO-3-METHYLPHENOL		0.313	0.323	0.330	0.354	0.360	0.336	5.9		*
2-METHYLNAPTHALENE		0.693	0.714	0.728	0.789	0.814	0.748	6.9		
HEXACHLOROCYCLOPENTADIENE		0.307	0.289	0.309	0.310	0.324	0.308	4.0		*
2,4,6-TRICHLOROPHENOL		0.372	0.359	0.355	0.367	0.378	0.366	2.5		*
2,4,5-TRICHLOROPHENOL		0.416	0.390	0.411	0.423	0.443	0.417	4.5		
2-CHLORONAPTHALENE		1.265	1.198	1.281	1.307	1.344	1.279	4.2		
2-NITROANILINE	#	0.000	0.448	0.467	0.478	0.503	0.474	4.7		
DIMETHYL PHTHALATE		1.447	1.404	1.445	1.491	1.481	1.454	2.3		
ACENAPTHYLENE		2.003	1.948	2.004	2.072	2.130	2.031	3.4		
2,6-DINITROTOLUENE		0.373	0.369	0.370	0.386	0.383	0.376	2.1		
3-NITROANILINE	#	0.000	0.431	0.429	0.471	0.451	0.445	4.4		
ACENAPTHENE		1.281	1.231	1.253	1.312	1.359	1.287	3.9		*
2,4-DINITROPHENOL		0.205	0.212	0.213	0.240	0.240	0.222	7.5		
4-NITROPHENOL	#	0.000	0.162	0.163	0.182	0.177	0.171	5.9		*

Form VI

01663

COMPOUND		RF	20.RF	50.RF	80.RF	120.RF	160.	AVG RF	%RSD	C
DIBENZOFURAN		1.681	1.670	1.745	1.857	1.886	1.768		5.6	
2,4-DINITROTOLUENE		0.490	0.465	0.462	0.481	0.480	0.475		2.5	
DIETHYLPHTHALATE		1.542	1.436	1.527	1.684	1.734	1.585		7.6	
FLUORENE		1.436	1.433	1.475	1.608	1.652	1.521		6.7	
4-CHLOROPHENYL-PHENYLETHER		0.613	0.626	0.647	0.685	0.684	0.651		5.0	
4-NITROANILINE	#	0.000	0.406	0.392	0.423	0.409	0.408		3.1	
4,6-DINITRO-2-METHYLPHENOL		0.186	0.193	0.204	0.224	0.236	0.209		10.0	
DIPHENYLAMINE		0.635	0.658	0.690	0.758	0.804	0.709		9.9	*
4-BROMOPHENYL-PHENYLETHER		0.212	0.216	0.214	0.231	0.240	0.222		5.5	
HEXACHLOROBENZENE		0.231	0.227	0.238	0.244	0.253	0.239		4.4	
PENTACHLOROPHENOL		0.160	0.164	0.168	0.176	0.181	0.170		5.1	*
PHENANTHRENE		1.189	1.240	1.259	1.345	1.327	1.272		5.0	
ANTHRACENE		1.258	1.272	1.323	1.383	1.414	1.330		5.1	
DI-N-BUTYLPHTHALATE		1.680	1.736	1.809	1.968	1.946	1.828		6.9	
FLUORANTHENE		1.214	1.153	1.208	1.251	1.308	1.227		4.6	*
BENZIDINE		0.790	0.969	1.034	1.230	1.035	1.012		15.5	
PYRENE		1.446	1.489	1.314	1.485	1.176	1.382		9.7	
BUTYLBENZYLPHTHALATE		0.856	0.887	0.792	0.895	0.789	0.844		6.0	
3,3'-DICHLOROBENZIDINE		0.873	0.899	1.006	0.944	0.970	0.938		5.7	
BENZO(A)ANTHRACENE		1.306	1.299	1.302	1.300	1.255	1.292		1.6	
CHRYSENE		1.212	1.149	1.228	1.209	1.218	1.203		2.5	
BIS(2-ETHYLHEXYL)PHTHALATE		1.201	1.293	1.168	1.387	1.199	1.250		7.2	
DI-N-OCTYL PHTHALATE		2.616	2.216	1.948	2.387	2.548	2.343		11.5	*
BENZO(B)FLUORANTHENE		1.437	1.321	1.401	1.801	1.788	1.550		14.6	
BENZO(K)FLUORANTHENE		1.516	1.396	1.432	1.191	1.442	1.395		8.7	
BENZO(A)PYRENE		1.261	1.212	1.263	1.288	1.331	1.271		3.4	*
INDENO(1,2,3-CD)PYRENE		1.220	1.532	1.479	1.464	1.326	1.404		9.1	
DIBENZ(A,H)ANTHRACENE		0.977	1.239	1.222	1.202	1.093	1.147		9.6	
BENO(GHI)PERYLENE		1.002	1.261	1.198	1.135	0.982	1.115		10.8	
D5-NITROBENZENE		0.419	0.423	0.439	0.458	0.476	0.443		5.4	
2-FLUOROBIPHENYL		1.355	1.307	1.373	1.401	1.476	1.382		4.5	
D14-TERPHENYL		0.881	0.932	0.799	0.900	0.701	0.843		11.0	
D5-PHENOL		1.907	2.048	2.065	2.359	2.432	2.162		10.3	
2-FLUOROPHENOL		1.415	1.493	1.545	1.696	1.764	1.583		9.0	
2,4,6-TRIBROMOPHENOL		0.163	0.152	0.156	0.158	0.155	0.157		2.5	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form II

INITIAL CALIBRATION
PYRIDINES COMPOUNDS

01664

CASE NO: -59436
CONTRACTOR: RMAL
CONTRACT NO: -NA

INSTRUMENT ID: R
CALIBRATION DATE: 10-26-87

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM % RSD FOR CCC IS ~~14%~~ 30% AV 6/1/88

LABORATORY ID:		STDR103	STDR104	STDR105	STDR106	STDR107		
COMPOUND		RF 20.RF	50.RF	80.RF	120.RF	160.	AVG RF	%RSD
PYRIDINE-D5	8	1.581	2.351	1.698	1.583	1.710	1.784	18.
PYRIDINE		1.561	1.948	1.904	1.745	1.842	1.800	8.
2-PICOLINE		1.813	2.024	1.866	1.775	1.827	1.861	5.
3 & 4-PICOLINE		1.530	1.735	1.627	1.630	1.532	1.611	5.
2,6-LUTIDINE		1.883	2.047	2.129	1.915	2.005	1.996	4.
2-ETHYL PYRIDINE		2.194	2.292	2.361	2.211	2.259	2.263	2.
2,4 & 2,5-LUTIDINE		1.565	1.737	1.798	1.603	1.678	1.676	5.
2,3-LUTIDINE		1.730	1.782	1.869	1.759	1.760	1.780	2.
3-ETHYL PYRIDINE		1.155	1.292	1.283	1.178	1.123	1.206	6.
4-ETHYL PYRIDINE		1.272	1.240	1.459	1.368	1.361	1.340	6.
3,5-LUTIDINE		1.409	1.504	1.530	1.261	1.277	1.396	8.
3,4-LUTIDINE		1.309	1.229	1.216	0.991	0.972	1.144	13.
2-METHYL-5-ETHYL PYRIDINE		2.056	2.045	1.692	1.542	1.570	1.781	14.
2-METHYL-3-ETHYL PYRIDINE		1.408	1.506	1.644	1.411	1.391	1.472	7.
M AND P CRESOLS		1.445	1.411	1.470	1.367	1.315	1.402	4.
3-ETHYL-4-METHYL PYRIDINE		1.482	1.400	1.549	1.439	1.374	1.449	4.
3-ETHYL-5-METHYL PYRIDINE		1.500	1.400	1.549	1.439	1.370	1.452	5.
2,6-DIMETHYL PHENOL		1.180	1.116	1.163	1.088	1.100	1.130	3.
2,5-DIMETHYL PHENOL		0.336	0.325	0.335	0.321	0.320	0.327	2.
3,5-DIMETHYL PHENOL		0.309	0.296	0.315	0.293	0.287	0.300	3.
2,3-DIMETHYL PHENOL		0.308	0.295	0.314	0.302	0.304	0.305	2.
3,4-DIMETHYL PHENOL		1.424	1.417	1.463	1.341	1.261	1.381	5.
1-METHYLNAPHTHALENE		0.761	0.718	0.756	0.724	0.737	0.739	2.

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOU
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VI

INITIAL CALIBRATION
PYRIDINES COMPOUNDS

CASE NO: -59436
CONTRACTOR: RMAL
CONTRACT NO: -N/A

INSTRUMENT ID: U
CALIBRATION DATE: 06/01/87

01665

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM % RSD FOR CCC IS ~~28%~~ 30%

LABORATORY ID:		STDU081	STDU082	STDU083	STDUU930	STDUU931			
COMPOUND		RF	20. RF	50. RF	80. RF	120. RF	160.	AVG RF	%RSD CCSF
PYRIDINE-D5	8	1.439	1.554	1.995	1.824	1.763	1.715	12.8	
PYRIDINE		1.159	1.438	1.645	1.732	1.831	1.561	17.1	
2-PICOLINE		1.411	1.526	1.687	1.586	1.637	1.570	6.7	
3 & 4-PICOLINE		1.151	1.339	1.581	1.413	1.530	1.403	12.1	
2,6-LUTIDINE		1.769	1.841	1.979	1.977	2.057	1.925	6.0	
2-ETHYL PYRIDINE		2.129	2.130	2.370	2.299	2.379	2.261	5.4	
2,4 & 2,5-LUTIDINE		1.537	1.374	1.652	1.567	1.576	1.541	6.6	
2,3-LUTIDINE		1.660	1.583	1.844	1.785	1.802	1.735	6.2	
3-ETHYL PYRIDINE		1.039	1.214	1.305	1.187	1.255	1.200	8.3	
4-ETHYL PYRIDINE		0.950	0.994	1.400	1.405	1.290	1.208	18.2	
3,5-LUTIDINE		1.116	1.205	1.514	1.406	1.482	1.344	13.0	
3,4-LUTIDINE		0.934	1.336	0.934	1.351	1.014	1.114	19.0	
2-METHYL-5-ETHYL PYRIDINE		1.901	1.914	1.906	1.980	1.792	1.899	3.5	
2-METHYL-3-ETHYL PYRIDINE		1.240	1.266	1.374	1.391	1.343	1.323	5.0	
M AND P CRESOLS		1.285	1.342	1.457	1.359	1.390	1.367	4.6	
3-ETHYL-4-METHYL PYRIDINE		1.455	1.199	1.327	1.280	1.343	1.321	7.0	
3-ETHYL-5-METHYL PYRIDINE		1.455	1.199	1.327	1.280	1.343	1.321	7.0	
2,6-DIMETHYL PHENOL		1.170	1.171	1.285	1.255	1.225	1.221	4.1	
2,5-DIMETHYL PHENOL		0.322	0.338	0.363	0.358	0.360	0.348	4.9	
3,5-DIMETHYL PHENOL		0.338	0.340	0.361	0.342	0.348	0.346	2.7	
2,3-DIMETHYL PHENOL		0.343	0.348	0.385	0.371	0.376	0.365	4.9	
3,4-DIMETHYL PHENOL		1.551	1.542	1.665	1.569	1.453	1.556	4.8	
1-METHYLNAPHTHALENE		0.696	0.663	0.802	0.771	0.777	0.742	8.0	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

INITIAL CALIBRATION
SEMIVOLATILES COMPOUNDS

CASE NO: 59436
CONTRACTOR: RMAL
CONTRACT NO: --Dk

INSTRUMENT ID: X
CALIBRATION DATE: 10-20-87

01666

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM % RSD FOR CCC IS 35%

LABORATORY ID: STDX743 STDX746 STDX744 STDX742 STDX745

COMPOUND		RF 40.	RF 80.	RF 200.	RF 400.	RF 800.	AVG RF	%RSD	CCSF
D12-CHRYSENE	240SP	1.630	1.602	1.679	1.790	1.668	1.674	4.2	
BENZO(A)ANTHRACENE	228 P	1.528	1.533	1.820	1.907	1.751	1.708	10.0	*
CHRYSENE	228 P	1.646	1.633	1.855	1.953	1.783	1.774	7.7	*
BENZO(B)FLUORANTHENE	252 P	1.567	1.555	1.696	1.718	1.705	1.648	4.8	*
BENZO(K)FLUORANTHENE	252 P	1.281	1.427	1.567	1.682	1.534	1.498	10.1	*
BENZO(A)PYRENE	252 P	1.095	1.150	1.312	1.367	1.331	1.251	9.6	*

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VI

CONTINUING CALIBRATION CHECK
VOLATILES COMPOUNDS

CASE NO: 59436
CONTRACTOR: RMAL
CONTRACT NO: N/A
INSTRUMENT ID: Z

CALIBRATION DATE: 04/27/88
TIME: 11:38
LABORATORY ID: AQSTDZ80~~7~~ 01667
INITIAL CALIBRATION DATE: 04/13/88

MINIMUM RF FOR SPCC IS 0.300 MAXIMUM %D FOR CCC IS 25%

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
1,2-DICHLOROETHANE-D4	1.265	0.996	21.2		
TOLUENE-D8	1.079	1.017	5.7		
BROMOFLUOROBENZENE	0.581	0.671	-15.5		
CHLOROMETHANE	0.961	0.654	31.8		**
BROMOMETHANE	1.116	1.068	4.2		
DICHLORODIFLUOROMETHANE	5.901	0.000	~~99.9~~	Not in STD CR 4/30	
VINYL CHLORIDE	1.095	0.831	24.0	*	
CHLOROETHANE	0.784	0.671	14.4		
METHYLENE CHLORIDE	1.742	1.771	-1.6		
ACETONE	0.054	0.066	-21.4		
CARBON DISULFIDE	3.698	4.191	-13.3		
TRICHLOROFLUOROMETHANE	2.456	0.000	~~99.9~~	Not in STD CR 4/30	
1,1-DICHLOROETHENE	1.162	1.249	-7.4	*	
1,1-DICHLOROETHANE	2.668	2.479	7.0		**
TRANS-1,2-DICHLOROETHENE	1.424	1.365	4.1		
CHLOROFORM	2.525	2.239	11.3	*	
TRICHLORO-TRIFLUORO-ETHANE	0.000	0.000	0.0		
1,2-DICHLOROETHANE	1.417	1.108	21.7		
2-BUTANONE	0.017	0.019	-7.2		
1,1,1-TRICHLOROETHANE	0.313	0.300	4.3		
CARBON TETRACHLORIDE	0.317	0.271	14.2		
VINYL ACETATE	0.472	0.434	8.1		
BROMODICHLOROMETHANE	0.441	0.509	-15.3		
1,2-DICHLOROPROPANE	0.382	0.364	4.8	*	
CIS-1,3-DICHLOROPROPENE	0.475	0.406	14.4		
TRICHLOROETHENE	0.357	0.340	4.6		
DIBROMOCHLOROMETHANE	0.388	0.448	-15.5		
1,1,2-TRICHLOROETHANE	0.276	0.269	2.3		
BENZENE	0.870	0.744	14.4		
TRANS-1,3-DICHLOROPROPENE	0.359	0.301	16.1		
1,2-DIBROMOETHANE	0.000	0.000	0.0		
2-CHLOROETHYL VINYL ETHER	0.108	0.000	~~99.9~~	Not in STD CR 4/30	
BROMOFORM	0.307	0.384	-24.8		**
4-METHYL-2-PENTANONE	0.108	0.094	13.4		
2-HEXANONE	0.094	0.080	14.6		
TETRACHLOROETHENE	0.380	0.372	2.2		
1,1,2,2-TETRACHLOROETHANE	0.492	0.513	-4.3		**
TOLUENE	0.650	0.591	9.0	*	
CHLOROBENZENE	0.860	0.754	12.4		**

FORM VII

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
ETHYLBENZENE	0.405	0.349	13.7	*	
STYRENE	0.876	0.748	14.6		
M-XYLENE	0.499	0.433	13.1		
O+P XYLENES	0.502	0.427	14.9		
M-DICHLOROBENZENE	1.309	0.000	~~99.9~~		
O-DICHLOROBENZENE	1.302	0.000	~~99.9~~		
P-DICHLOROBENZENE	1.359	0.000	~~99.9~~		

01668

not calculated CK 4/30

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**)
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

FORM VII

Processed VOA CLP

01669

CONTINUING CALIBRATION CHECK
VOA COMPOUNDS

CASE NO: 59436
CONTRACTOR: RMAL
CONTRACT NO: NA
INSTRUMENT ID: W

CALIBRATION DATE: 4-28-88
TIME: 10:14
LABORATORY ID: STDW893A
INITIAL CALIBRATION DATE: 3-28-88

MINIMUM RF FOR SPCC IS 0.300 MAXIMUM %D FOR CCC IS 25%

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
1,2-DICHLOROETHANE-D4	1.780	1.979	-11.1		
TOLUENE-D8	1.140	1.034	9.2		
BROMOFLUOROBENZENE	0.672	0.580	13.6		
CHLOROMETHANE	2.349	2.423	-3.1		**
BROMOMETHANE	1.485	1.489	-0.3		
DICHLORODIFLUOROMETHANE	1.182	0.000	99.9		
VINYL CHLORIDE	2.011	2.065	-2.6	*	
CHLOROETHANE	1.180	1.271	-7.7		
METHYLENE CHLORIDE	1.778	2.114	-18.9		
ACETONE	0.121	0.167	-37.8		
CARBON DISULFIDE	3.928	3.994	-1.6		
TRICHLOROFLUOROMETHANE	1.866	0.000	99.9		
1,1-DICHLOROETHENE	1.320	1.362	-3.1	*	
1,1-DICHLOROETHANE	3.280	3.439	-4.8		**
TRANS-1,2-DICHLOROETHENE	1.330	1.487	-11.8		
CHLOROFORM	2.517	2.886	-14.6	*	
TRICHLORO-TRIFLUORO-ETHANE	1.482	0.000	99.9		
1,2-DICHLOROETHANE	1.855	2.125	-14.4		
2-BUTANONE	0.036	0.032	11.7		
1,1,1-TRICHLOROETHANE	0.347	0.322	7.3		
CARBON TETRACHLORIDE	0.338	0.299	11.4		
VINYL ACETATE	1.079	1.174	-8.8		
BROMODICHLOROMETHANE	0.521	0.464	10.9		
1,2-DICHLOROPROPANE	0.522	0.453	13.2	*	
CIS-1,3-DICHLOROPROPENE	0.583	0.520	10.6		
TRICHLOROETHENE	0.357	0.324	9.1		
DIBROMOCHLOROMETHANE	0.419	0.370	11.8		
1,1,2-TRICHLOROETHANE	0.308	0.259	15.8		
BENZENE	1.050	0.961	8.3		
TRANS-1,3-DICHLOROPROPENE	0.494	0.441	10.7		
1,2-DIBROMOETHANE	0.092	0.000	99.4		
2-CHLOROETHYL VINYL ETHER	0.190	0.000	99.7		
BROMOFORM	0.334	0.312	6.5		**
4-METHYL-2-PENTANONE	0.175	0.139	20.7		
2-HEXANONE	0.173	0.134	22.1		
TETRACHLOROETHENE	0.399	0.350	12.2		
1,1,2,2-TETRACHLOROETHANE	0.629	0.543	13.6		**
TOLUENE	0.702	0.636	9.4	*	**
CHLOROBENZENE	0.856	0.775	9.4		

Form VII

COMPOUND	AVG RF	RF 50.	% DIFF	CCC
ETHYLBENZENE	0.446	0.388	13.0	*
STYRENE	0.936	0.703	24.8	
M-XYLENE	0.537	0.425	20.8	
O+P XYLENES	0.513	0.418	18.4	
M-DICHLOROBENZENE	0.566	0.000	99.9	
O-DICHLOROBENZENE	0.762	0.000	99.9	
P-DICHLOROBENZENE	0.711	0.000	99.9	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMAN
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT L

Form VII

Processed VOACLP

CONTINUING CALIBRATION CHECK
VOA COMPOUNDS

CASE NO: 59436
CONTRACTOR: RMAL
CONTRACT NO: NA
INSTRUMENT ID: W

CALIBRATION DATE: 4-28-88
TIME: 18:08
LABORATORY ID: STDW902
INITIAL CALIBRATION DATE: 3-28-88

01671

MINIMUM RF FOR SPCC IS 0.300 MAXIMUM %D FOR CCC IS 25%

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
1,2-DICHLOROETHANE-D4	1.780	2.038	-14.4		
TOLUENE-D8	1.140	1.076	5.5		
BROMOFLUOROBENZENE	0.672	0.617	8.1		
CHLOROMETHANE	2.349	2.442	-3.9		**
BROMOMETHANE	1.485	1.536	-3.4		
DICHLORODIFLUOROMETHANE	1.182	0.000	99.9		
VINYL CHLORIDE	2.011	2.150	-6.8	*	
CHLOROETHANE	1.180	1.429	-21.0		
METHYLENE CHLORIDE	1.778	2.269	-27.6		
ACETONE	0.121	0.178	-46.4		
CARBON DISULFIDE	3.928	4.240	-7.9		
TRICHLOROFLUOROMETHANE	1.866	0.000	99.9		
1,1-DICHLOROETHENE	1.320	1.421	-7.6	*	
1,1-DICHLOROETHANE	3.280	3.643	-11.0		**
TRANS-1,2-DICHLOROETHENE	1.330	1.563	-17.5		
CHLOROFORM	2.517	3.013	-19.7	*	
TRICHLORO-TRIFLUORO-ETHANE	1.482	0.000	99.9		
1,2-DICHLOROETHANE	1.855	2.214	-19.3		
2-BUTANONE	0.036	0.036	-1.6		
1,1,1-TRICHLOROETHANE	0.347	0.339	2.3		
CARBON TETRACHLORIDE	0.338	0.308	8.8		
VINYL ACETATE	1.079	1.290	-19.6		
BROMODICHLOROMETHANE	0.521	0.491	5.7		
1,2-DICHLOROPROPANE	0.522	0.488	6.5	*	
CIS-1,3-DICHLOROPROPENE	0.583	0.567	2.7		
TRICHLOROETHENE	0.357	0.330	7.4		
DIBROMOCHLOROMETHANE	0.419	0.386	8.0		
1,1,2-TRICHLOROETHANE	0.308	0.293	4.8		
BENZENE	1.050	1.029	1.9		
TRANS-1,3-DICHLOROPROPENE	0.494	0.478	3.3		
1,2-DIBROMOETHANE	0.092	0.000	99.4		
2-CHLOROETHYL VINYL ETHER	0.190	0.000	99.7		
BROMOFORM	0.334	0.311	6.8		**
4-METHYL-2-PENTANONE	0.175	0.158	9.9		
2-HEXANONE	0.173	0.167	3.4		
TETRACHLOROETHENE	0.399	0.362	9.2		
1,1,2,2-TETRACHLOROETHANE	0.629	0.603	4.0		**
TOLUENE	0.702	0.694	1.1	*	
CHLOROBENZENE	0.856	0.817	4.5		**

Form VII

1 & 2

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
ETHYLBENZENE	0.446	0.428	4.0	*	✓
STYRENE	0.936	0.807	13.7		
M-XYLENE	0.537	0.467	12.9		
O+P XYLENES	0.513	0.458	10.6		
M-DICHLOROBENZENE	0.566	0.000	99.9		
O-DICHLOROBENZENE	0.762	0.000	99.9		
P-DICHLOROBENZENE	0.711	0.000	99.9		

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
VOA COMPOUNDS

CASE NO: -59436
CONTRACTOR: RMAL
CONTRACT NO: NA
INSTRUMENT ID: W

CALIBRATION DATE: 4-29-88
TIME: 09:48
LABORATORY ID: STDW915
INITIAL CALIBRATION DATE: 3-28-88

MINIMUM RF FOR SPCC IS 0.300 MAXIMUM %D FOR CCC IS 25%

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
1,2-DICHLOROETHANE-D4	1.780	2.141	-20.2		
TOLUENE-D8	1.140	1.076	5.5		
BROMOFLUOROBENZENE	0.672	0.614	8.5		
CHLOROMETHANE	2.349	2.290	2.5		**
BROMOMETHANE	1.485	1.498	-0.8		
DICHLORODIFLUOROMETHANE	1.182	0.000	99.9		
VINYL CHLORIDE	2.011	2.094	-4.1	*	
CHLOROETHANE	1.180	1.325	-12.2		
METHYLENE CHLORIDE	1.778	2.149	-20.9		
ACETONE	0.121	0.173	-42.7		
CARBON DISULFIDE	3.926	4.155	-5.7		
TRICHLOROFLUOROMETHANE	1.866	0.000	99.9		
1,1-DICHLOROETHENE	1.320	1.413	-7.0	*	
1,1-DICHLOROETHANE	3.280	3.697	-12.7		**
TRANS-1,2-DICHLOROETHENE	1.330	1.581	-18.8		
CHLOROFORM	2.517	3.063	-21.7	*	
TRICHLORO-TRIFLUORO-ETHANE	1.482	0.000	99.9		
1,2-DICHLOROETHANE	1.855	2.321	-25.1		
2-BUTANONE	0.036	0.034	4.7		
1,1,1-TRICHLOROETHANE	0.347	0.345	0.5		
CARBON TETRACHLORIDE	0.338	0.316	6.6		
VINYL ACETATE	1.079	1.240	-15.0		
BROMODICHLOROMETHANE	0.521	0.482	7.4		
1,2-DICHLOROPROPANE	0.522	0.461	11.7	*	
CIS-1,3-DICHLOROPROPENE	0.583	0.536	7.9		
TRICHLOROETHENE	0.357	0.317	11.0		
DIBROMOCHLOROMETHANE	0.419	0.375	10.6		
1,1,2-TRICHLOROETHANE	0.308	0.280	9.1		
BENZENE	1.050	0.976	7.0		
TRANS-1,3-DICHLOROPROPENE	0.494	0.466	5.7		
1,2-DIBROMOETHANE	0.092	0.000	99.4		
2-CHLOROETHYL VINYL ETHER	0.190	0.000	99.7		
BROMOFORM	0.334	0.323	3.5		**
4-METHYL-2-PENTANONE	0.175	0.152	13.4		
2-HEXANONE	0.173	0.159	7.6		
TETRACHLOROETHENE	0.399	0.362	9.0		
1,1,2,2-TETRACHLOROETHANE	0.629	0.576	8.4		**
TOLUENE	0.702	0.670	4.6	*	
CHLOROBENZENE	0.856	0.801	6.4		**

Form VII

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
ETHYLBENZENE	0.446	0.414	7.0	*	
STYRENE	0.936	0.761	18.6		
M-XYLENE	0.537	0.449	16.3		
O+P XYLENES	0.513	0.433	15.4		
M-DICHLOROBENZENE	0.566	0.000	99.9		
O-DICHLOROBENZENE	0.762	0.000	99.9		
P-DICHLOROBENZENE	0.711	0.000	99.9		

01674

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
BNA COMPOUNDS

CASE NO: -59436
CONTRACTOR: RMAL
CONTRACT NO: ---NA---
INSTRUMENT ID: R

CALIBRATION DATE: 06/01/88 01675
TIME: 11:47
LABORATORY ID: STDR961
INITIAL CALIBRATION DATE: 04/16/87

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 25%

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
N-NITROSODIMETHYLAMINE	1.431	2.021	-41.2		
PHENOL	2.460	2.262	8.0	*	
ANILINE	2.577	3.769	-46.2		
BIS(2-CHLOROETHYL)ETHER	1.902	1.672	12.0		
2-CHLOROPHENOL	1.697	1.407	17.1		
1,3-DICHLOROBENZENE	1.703	1.525	10.4		
1,4-DICHLOROBENZENE	1.780	1.564	12.1	*	
BENZYL ALCOHOL	0.961	0.919	4.3		
1,2-DICHLOROBENZENE	1.641	1.473	10.2		
2-METHYLPHENOL	1.371	1.301	5.0		
BIS(2-CHLOROISOPROPYL)ETHER	2.649	2.566	3.1		
4-METHYLPHENOL	1.509	1.389	7.9		
N-NITROSO-DI-N-PROPYLAMINE	1.235	1.258	-1.8		**
HEXACHLOROETHANE	0.693	0.601	13.3		
NITROBENZENE	0.465	0.444	4.5		
ISOPHORONE	0.864	0.838	2.9		
2-NITROPHENOL	0.238	0.200	16.0	*	
2,4-DIMETHYLPHENOL	0.372	0.326	12.4		
BIS(2-CHLOROETHOXY)METHANE	0.535	0.489	8.4		
BENZOIC ACID	0.190	0.205	-8.2		
2,4-DICHLOROPHENOL	0.296	0.281	4.9	*	
1,2,4-TRICHLOROBENZENE	0.306	0.296	3.3		
NAPHTHALENE	1.193	1.060	11.1		
4-CHLOROANILINE	0.472	0.439	6.9		
HEXACHLOROBUTADIENE	0.134	0.148	-9.8	*	
4-CHLORO-3-METHYLPHENOL	0.325	0.309	4.7	*	
2-METHYLNAPHTHALENE	0.677	0.634	6.3		
HEXACHLOROCYCLOPENTADIENE	0.280	0.308	-10.0		**
2,4,6-TRICHLOROPHENOL	0.395	0.387	2.0	*	
2,4,5-TRICHLOROPHENOL	0.363	0.396	-9.0		
2-CHLORONAPHTHALENE	1.330	1.291	2.8		
2-NITROANALINE	0.426	0.556	-30.4		
DIMETHYLPHTHALATE	1.358	1.463	-7.6		
ACENAPHTHYLENE	2.167	2.069	4.5		
2,6-DINITROTOLUENE	0.361	0.371	-2.5		
3-NITROANILINE	0.385	0.424	-10.1		
ACENAPHTHENE	1.282	1.221	4.7	*	
2,4-DINITROPHENOL	0.207	0.189	8.8		**
4-NITROPHENOL	0.133	0.179	-33.8		**

Form VII

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
DIBENZOFURAN	1.662	1.786	-7.4		
2,4-DINITROTOLUENE	0.432	0.461	-6.6		
DIETHYLPHTHALATE	1.372	1.452	-5.8		
FLUORENE	1.400	1.438	-2.7		
4-CHLOROPHENYL-PHENYLETHER	0.560	0.624	-11.3		
4-NITROANILINE	0.299	0.361	-20.7		
4,6-DINITRO-2-METHYLPHENOL	0.187	0.163	13.0		
N-NITROSODIPHENYLAMINE(1)	0.656	0.605	7.8	*	
4-BROMOPHENYL-PHENYLETHER	0.189	0.212	-12.0		
HEXACHLOROBENZENE	0.201	0.235	-16.9		
PENTACHLOROPHENOL	0.136	0.145	-6.7	*	
PHENANTHRENE	1.258	1.136	9.7		
ANTHRACENE	1.241	1.143	7.8		
DI-N-BUTYLPHTHALATE	1.606	1.492	7.0		
FLUORANTHENE	1.077	1.057	1.8	*	
BENZIDINE	0.327	0.028	91.3		
PYRENE	1.761	1.422	19.2		
BUTYLBENZYLPHTHALATE	1.022	0.818	19.9		
3,3'-DICHLOROBENZIDINE	0.410	0.406	1.0		
BENZO(A)ANTHRACENE	1.338	1.237	7.5		
CHRYSENE	1.191	0.948	20.3		
BIS(2-ETHYLHEXYL)PHTHALATE	1.433	1.129	21.2		
DI-N-OCTYL PHTHALATE	3.193	2.509	21.4	*	
BENZO(B)FLUORANTHENE	1.659	1.378	16.9		
BENZO(K)FLUORANTHENE	1.135	1.250	-10.1		
BENZO(A)PYRENE	1.345	1.256	6.5	*	
INDENO(1,2,3-CD)PYRENE	1.249	1.119	10.4		
DIBENZ(A,H)ANTHRACENE	1.023	0.902	11.8		
BENZO(G,H,I)PERYLENE	1.013	0.922	8.9		
NITROBENZENE-D5	0.437	0.442	-1.0		
2-FLUOROBIPHENYL	1.382	1.402	-1.4		
TERPHENYL-D14	0.920	1.072	-16.5		
PHENOL-D5	2.070	2.026	2.1		
2-FLUOROPHENOL	1.568	1.423	9.2		
2,4,6-TRIBROMOPHENOL	0.119	0.159	-32.9		
AZOBENZENE	0.000	0.000	0.0		

01676

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**)
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
BNA COMPOUNDS

CASE NO: -59436
CONTRACTOR: RMAL
CONTRACT NO: ----NA
INSTRUMENT ID: R

CALIBRATION DATE: 06/02/88
TIME: 7:16
LABORATORY ID: STDR975
INITIAL CALIBRATION DATE: 04/16/87

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 25%

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
N-NITROSODIMETHYLAMINE	1.431	1.749	~~-22.2~~	NTC	
PHENOL	2.460	2.261	8.0	*	
ANILINE	2.577	3.261	~~-26.5~~	NTC	
BIS(2-CHLOROETHYL)ETHER	1.902	1.718	9.6		
2-CHLOROPHENOL	1.697	1.410	16.9		
1,3-DICHLOROBENZENE	1.703	1.536	9.8		
1,4-DICHLOROBENZENE	1.780	1.604	9.9	*	
BENZYL ALCOHOL	0.961	0.929	3.3		
1,2-DICHLOROBENZENE	1.641	1.484	9.5		
2-METHYLPHENOL	1.371	1.285	6.2		
BIS(2-CHLOROISOPROPYL)ETHER	2.649	2.601	1.8		
4-METHYLPHENOL	1.509	1.422	5.7		
N-NITROSO-DI-N-PROPYLAMINE	1.235	1.278	-3.4		**
HEXACHLOROETHANE	0.693	0.605	12.7		
NITROBENZENE	0.465	0.455	2.0		
ISOPHORONE	0.864	0.840	2.7		
2-NITROPHENOL	0.238	0.207	13.0	*	
2,4-DIMETHYLPHENOL	0.372	0.327	12.0		
BIS(2-CHLOROETHOXY)METHANE	0.535	0.497	6.9		
BENZOIC ACID	0.190	0.174	8.4		
2,4-DICHLOROPHENOL	0.296	0.280	5.2	*	
1,2,4-TRICHLOROBENZENE	0.306	0.297	3.1		
NAPHTHALENE	1.193	1.075	9.9		
4-CHLOROANILINE	0.472	0.441	6.5		
HEXACHLOROBUTADIENE	0.134	0.144	-7.2	*	
4-CHLORO-3-METHYLPHENOL	0.325	0.308	5.0	*	
2-METHYLNAPHTHALENE	0.677	0.640	5.4		
HEXACHLOROCYCLOPENTADIENE	0.280	0.300	-6.9		**
2,4,6-TRICHLOROPHENOL	0.395	0.429	-8.6	*	
2,4,5-TRICHLOROPHENOL	0.363	0.342	5.8		
2-CHLORONAPHTHALENE	1.330	1.304	1.9		
2-NITROANALINE	0.426	0.515	-20.9		
DIMETHYLPHTHALATE	1.358	1.445	-6.3		
ACENAPHTHYLENE	2.167	2.061	4.8		
2,6-DINITROTOLUENE	0.361	0.349	3.5		
3-NITROANILINE	0.385	0.378	1.6		
ACENAPHTHENE	1.282	1.226	4.3	*	
2,4-DINITROPHENOL	0.207	0.153	25.8		**
4-NITROPHENOL	0.133	0.156	-17.0		**

Form VII

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
DIBENZOFURAN	1.662	1.779	-7.0		
2,4-DINITROTOLUENE	0.432	0.426	1.3		
DIETHYLPHTHALATE	1.372	1.439	-4.8		
FLUORENE	1.400	1.424	-1.7		
4-CHLOROPHENYL-PHENYLETHER	0.560	0.635	-13.4		
4-NITROANILINE	0.299	0.347	-16.1		
4,6-DINITRO-2-METHYLPHENOL	0.187	0.136	27.1		
N-NITROSODIPHENYLAMINE(1)	0.656	0.618	5.7	*	
4-BROMOPHENYL-PHENYLETHER	0.189	0.210	-11.0		
HEXACHLOROBENZENE	0.201	0.234	-16.8		
PENTACHLOROPHENOL	0.136	0.127	6.3	*	
PHENANTHRENE	1.258	1.125	10.5		
ANTHRACENE	1.241	1.105	10.9		
DI-N-BUTYLPHTHALATE	1.606	1.440	10.3		
FLUORANTHENE	1.077	0.958	11.0	*	
BENZIDINE	0.327	0.029	~~91.0~~	NTC	
PYRENE	1.761	1.489	15.4		
BUTYLBENZYLPHTHALATE	1.022	0.811	20.6		
3,3'-DICHLOROBENZIDINE	0.410	0.392	4.3		
BENZO(A)ANTHRACENE	1.338	1.271	4.9		
CHRYSENE	1.191	0.926	22.2		
BIS(2-ETHYLHEXYL)PHTHALATE	1.433	1.140	20.4		
DI-N-OCTYL PHTHALATE	3.193	2.413	24.4	*	
BENZO(B)FLUORANTHENE	1.659	1.400	15.5		
BENZO(K)FLUORANTHENE	1.135	1.114	1.8		
BENZO(A)PYRENE	1.345	1.150	14.5	*	
INDENO(1,2,3-CD)PYRENE	1.249	1.079	13.5		
DIBENZ(A,H)ANTHRACENE	1.023	0.885	13.5		
BENZO(G,H,I)PERYLENE	1.013	0.863	14.7		
NITROBENZENE-D5	0.437	0.448	-2.4		
2-FLUOROBIPHENYL	1.382	1.413	-2.2		
TERPHENYL-D14	0.920	1.101	-19.7		
PHENOL-D5	2.070	2.038	1.5		
2-FLUOROPHENOL	1.568	1.467	6.4		
2,4,6-TRIBROMOPHENOL	0.119	0.151	-26.5		
AZOBENZENE	~~0.000~~	~~0.000~~	~~0.0~~	NTC	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**)
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) * - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
BNA COMPOUNDS

CASE NO: -59436
CONTRACTOR: RMAL
CONTRACT NO: ---- N/A
INSTRUMENT ID: R

CALIBRATION DATE: 06/02/88
TIME: 17:53
LABORATORY ID: STDR991
INITIAL CALIBRATION DATE: 04/16/87

MINIMUM RF FOR SPCC IS *45.0 MAXIMUM %D FOR CCC IS 25%

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
N-NITROSODIMETHYLAMINE	1.431	1.752	-22.4		
PHENOL	2.460	2.138	13.0	*	
ANILINE	2.577	3.268	-26.7		
BIS(2-CHLOROETHYL)ETHER	1.902	1.631	14.2		
2-CHLOROPHENOL	1.697	1.357	20.0		
1,3-DICHLOROBENZENE	1.703	1.528	10.3		
1,4-DICHLOROBENZENE	1.780	1.573	11.6	*	
BENZYL ALCOHOL	0.961	0.870	9.4		
1,2-DICHLOROBENZENE	1.641	1.459	11.1		
2-METHYLPHENOL	1.371	1.226	10.5		
BIS(2-CHLOROISOPROPYL)ETHER	2.649	2.612	1.3		
4-METHYLPHENOL	1.509	1.328	11.9		
N-NITROSO-DI-N-PROPYLAMINE	1.235	1.217	1.4		**
HEXACHLOROETHANE	0.693	0.583	15.9		
NITROBENZENE	0.465	0.439	5.4		
ISOPHORONE	0.864	0.814	5.7		
2-NITROPHENOL	0.238	0.200	16.1	*	
2,4-DIMETHYLPHENOL	0.372	0.323	13.1		
BIS(2-CHLOROETHOXY)METHANE	0.535	0.473	11.6		
BENZOIC ACID	0.190	0.169	10.6		
2,4-DICHLOROPHENOL	0.296	0.283	4.3	*	
1,2,4-TRICHLOROBENZENE	0.306	0.290	5.3		
NAPHTHALENE	1.193	1.051	11.9		
4-CHLOROANILINE	0.472	0.425	9.9		
HEXACHLOROBUTADIENE	0.134	0.142	-5.6	*	
4-CHLORO-3-METHYLPHENOL	0.325	0.295	9.0	*	
2-METHYLNAPHTHALENE	0.677	0.641	5.3		
HEXACHLOROCYCLOPENTADIENE	0.280	0.289	-3.3		**
2,4,6-TRICHLOROPHENOL	0.395	0.397	-0.5	*	
2,4,5-TRICHLOROPHENOL	0.363	0.396	-9.1		
2-CHLORONAPHTHALENE	1.330	1.288	3.1		
2-NITROANALINE	0.426	0.521	-22.2		
DIMETHYLPHTHALATE	1.358	1.472	-8.3		
ACENAPHTHYLENE	2.167	2.074	4.2		
2,6-DINITROTOLUENE	0.361	0.357	1.2		
3-NITROANILINE	0.385	0.396	-2.8		
ACENAPHTHENE	1.282	1.271	0.8	*	
2,4-DINITROPHENOL	0.207	0.156	24.3		**
4-NITROPHENOL	0.133	0.133	0.3		**

Form VII

01680

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
DIBENZOFURAN	1.662	1.803	-8.4		
2,4-DINITROTOLUENE	0.432	0.444	-2.8		
DIETHYLPHTHALATE	1.372	1.460	-6.3		
FLUORENE	1.400	1.469	-4.9		
4-CHLOROPHENYL-PHENYLETHER	0.560	0.630	-12.5		
4-NITROANILINE	0.299	0.370	-23.7		
4,6-DINITRO-2-METHYLPHENOL	0.187	0.141	24.5		
N-NITROSODIPHENYLAMINE(1)	0.656	0.594	9.5	*	
4-BROMOPHENYL-PHENYLETHER	0.189	0.204	-7.9		
HEXACHLOROBENZENE	0.201	0.209	-4.2		
PENTACHLOROPHENOL	0.136	0.121	11.0	*	
PHENANTHRENE	1.258	1.135	9.7		
ANTHRACENE	1.241	1.072	13.6		
DI-N-BUTYLPHTHALATE	1.606	1.448	9.8		
FLUORANTHENE	1.077	0.956	11.2	*	
BENZIDINE	0.327	0.027	91.5		
PYRENE	1.761	1.483	15.7		
BUTYLBENZYLPHTHALATE	1.022	0.812	20.5		
3,3'-DICHLOROBENZIDINE	0.410	0.409	0.3		
BENZO(A)ANTHRACENE	1.338	1.272	4.8		
CHRYSENE	1.191	0.912	23.4		
BIS(2-ETHYLHEXYL)PHTHALATE	1.433	1.145	20.0		
DI-N-OCTYL PHTHALATE	3.193	2.514	21.2	*	
BENZO(B)FLUORANTHENE	1.659	1.331	19.7		
BENZO(K)FLUORANTHENE	1.135	1.246	-9.8		
BENZO(A)PYRENE	1.345	1.196	11.0	*	
INDENO(1,2,3-CD)PYRENE	1.249	1.145	8.3		
DIBENZ(A,H)ANTHRACENE	1.023	0.956	6.5		
FINISHED WITH DATA ACQUISITION					

BENZO(G,H,I)PERYLENE	1.013	0.956	5.6		
NITROBENZENE-D5	0.437	0.433	0.9		
2-FLUOROBIPHENYL	1.382	1.387	-0.3		
TERPHENYL-D14	0.920	1.067	-16.0		
PHENOL-D5	2.070	1.959	5.3		
2-FLUOROPHENOL	1.568	1.366	12.8		
2,4,6-TRIBROMOPHENOL	0.119	0.155	-29.5		
AZOBENZENE	0.000	0.000	0.0		

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOU
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
BNA COMPOUNDS

01681

ASE NO: - 59436
ONTRACTOR: RMAL
ONTRACT NO: ---
INSTRUMENT ID: R

CALIBRATION DATE: 06/03/88
TIME: 10:41
LABORATORY ID: STDR007
INITIAL CALIBRATION DATE: 04/16/87

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 25%

OMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
-NITROSODIMETHYLAMINE	1.431	1.583	-10.6		
PHENOL	2.460	2.109	14.2	*	
ANILINE	2.577	2.951	-14.5		
BIS(2-CHLOROETHYL)ETHER	1.902	1.647	13.3		
2-CHLOROPHENOL	1.697	1.443	14.9		
1,3-DICHLOROBENZENE	1.703	1.523	10.5		
1,4-DICHLOROBENZENE	1.780	1.573	11.6	*	
BENZYL ALCOHOL	0.961	0.905	5.7		
1,2-DICHLOROBENZENE	1.641	1.505	8.2		
2-METHYLPHENOL	1.371	1.317	3.9		
BIS(2-CHLOROISOPROPYL)ETHER	2.649	2.702	-2.0		
4-METHYLPHENOL	1.509	1.420	5.8		
N-NITROSO-DI-N-PROPYLAMINE	1.235	1.166	5.6		**
HEXACHLOROETHANE	0.693	0.569	17.9		
NITROBENZENE	0.465	0.366	21.2		
ISOPHORONE	0.864	0.742	14.0		
2-NITROPHENOL	0.238	0.204	14.4	*	
2,4-DIMETHYLPHENOL	0.372	0.305	18.1		
BIS(2-CHLOROETHOXY)METHANE	0.535	0.471	11.8		
BENZOIC ACID	0.190	0.159	16.0		
2,4-DICHLOROPHENOL	0.296	0.279	5.6	*	
1,2,4-TRICHLOROBENZENE	0.306	0.274	10.4		
NAPHTHALENE	1.193	1.054	11.6		
4-CHLOROANILINE	0.472	0.446	5.6		
HEXACHLOROBUTADIENE	0.134	0.123	8.3	*	
4-CHLORO-3-METHYLPHENOL	0.325	0.287	11.5	*	
2-METHYLNAPHTHALENE	0.677	0.646	4.6		
HEXACHLOROCYCLOPENTADIENE	0.280	0.250	10.7		**
2,4,6-TRICHLOROPHENOL	0.395	0.355	10.0	*	
2,4,5-TRICHLOROPHENOL	0.363	0.358	1.3		
2-CHLORONAPHTHALENE	1.330	1.271	4.4		
2-NITROANALINE	0.426	0.403	5.3		
DIMETHYLPHTHALATE	1.358	1.354	0.3		
ACENAPHTHYLENE	2.167	2.038	5.9		
2,6-DINITROTOLUENE	0.361	0.323	10.6		
3-NITROANILINE	0.385	0.354	8.0		
ACENAPHTHENE	1.282	1.193	6.9	*	
2,4-DINITROPHENOL	0.207	0.136	34.0		**
4-NITROPHENOL	0.133	0.104	21.9		**

Form VII

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
DIBENZOFURAN	1.662	1.735	-4.3		
2,4-DINITROTOLUENE	0.432	0.394	8.8		
DIETHYLPHTHALATE	1.372	1.287	6.2		
FLUORENE	1.400	1.316	5.9		
4-CHLOROPHENYL-PHENYLETHER	0.560	0.582	-3.9		
4-NITROANILINE	0.299	0.341	-14.1		
4,6-DINITRO-2-METHYLPHENOL	0.187	0.139	25.3		
N-NITROSODIPHENYLAMINE(1)	0.656	0.648	1.3	*	
4-BROMOPHENYL-PHENYLETHER	0.189	0.200	-5.9		
HEXACHLOROBENZENE	0.201	0.202	-0.5		
PENTACHLOROPHENOL	0.136	0.116	14.3	*	
PHENANTHRENE	1.258	1.160	7.7		
ANTHRACENE	1.241	1.135	8.5		
DI-N-BUTYLPHTHALATE	1.606	1.504	6.3		
FLUORANTHENE	1.077	1.001	7.0	*	
BENZIDINE	0.327	0.027	91.6		
PYRENE	1.761	1.550	11.9		
BUTYLBENZYLPHTHALATE	1.022	0.865	15.2		
3,3'-DICHLOROBENZIDINE	0.410	0.378	7.8		
BENZO(A)ANTHRACENE	1.338	1.210	9.5		
CHRYSENE	1.191	1.010	15.2		
BIS(2-ETHYLHEXYL)PHTHALATE	1.433	1.288	10.1		
DI-N-OCTYL PHTHALATE	3.193	2.442	23.5	*	
BENZO(B)FLUORANTHENE	1.659	1.258	24.1		
BENZO(K)FLUORANTHENE	1.135	1.108	2.3		
BENZO(A)PYRENE	1.345	1.137	15.4	*	
INDENO(1,2,3-CD)PYRENE	1.249	1.194	4.3		
DIBENZ(A,H)ANTHRACENE	1.023	0.950	7.1		
BENZO(G,H,I)PERYLENE	1.013	1.009	0.3		
NITROBENZENE-D5	0.437	0.373	14.6		
2-FLUOROBIPHENYL	1.382	1.336	3.3		
TERPHENYL-D14	0.920	1.083	-17.7		
PHENOL-D5	2.070	1.921	7.1		
2-FLUOROPHENOL	1.568	1.359	13.3		
2,4,6-TRIBROMOPHENOL	0.119	0.116	2.4		
AZOBENZENE	0.000	0.000	0.0		

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**)
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
SEMIVOLATILES COMPOUNDS

01683

CASE NO: - 59436
CONTRACTOR: RMAL
CONTRACT NO: -
INSTRUMENT ID: U

CALIBRATION DATE: 6-1-88
TIME: ~~9:46:00~~ 15:47 AV 6/15/88
LABORATORY ID: STDU534
INITIAL CALIBRATION DATE: ~~4-4-88~~ 3-15-88 AV 6/15/88

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 25%

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
N-NITROSODIMETHYLAMINE	1.231	3.409	-176.9		
PHENOL	2.541	2.005	21.1	*	
ANILINE	2.949	6.357	-115.5		
BIS(2-CHLOROETHYL)ETHER	1.879	1.541	18.0		
2-CHLOROPHENOL	1.589	1.470	7.4		
1,3-DICHLOROBENZENE	1.686	1.600	5.0		
1,4-DICHLOROBENZENE	1.832	1.665	9.1	*	
BENZYL ALCOHOL	1.048	0.808	22.8		
1,2-DICHLOROBENZENE	1.697	1.484	12.5		
2-METHYLPHENOL	1.435	1.104	23.0		
BIS(2-CHLOROISOPROPYL)ETHER	3.149	2.444	22.3		
4-METHYLPHENOL	1.508	1.254	16.8		
N-NITROSO-DI-N-PROPYLAMINE	1.387	1.071	22.7		**
HEXACHLOROETHANE	0.713	0.621	12.8		
NITROBENZENE	0.468	0.402	13.9		
ISOPHORONE	0.852	0.711	16.5		
2-NITROPHENOL	0.239	0.221	7.5	*	
2,4-DIMETHYLPHENOL	0.355	0.307	13.3		
BIS(2-CHLOROETHOXY)METHANE	0.538	0.442	17.9		
BENZOIC ACID	0.284	0.162	43.0		
2,4-DICHLOROPHENOL	0.305	0.302	0.9	*	
1,2,4-TRICHLOROBENZENE	0.322	0.310	3.7		
NAPHTHALENE	1.245	1.086	12.7		
4-CHLOROANILINE	0.494	0.434	12.1		
HEXACHLOROBUTADIENE	0.158	0.162	-2.5	*	
4-CHLORO-3-METHYLPHENOL	0.335	0.259	22.5	*	
2-METHYLNAPHTHALENE	0.747	0.633	15.2		
HEXACHLOROCYCLOPENTADIENE	0.308	0.310	-0.8		**
2,4,6-TRICHLOROPHENOL	0.365	0.413	-13.1	*	
2,4,5-TRICHLOROPHENOL	0.413	0.427	-3.5		
2-CHLORONAPHTHALENE	1.274	1.296	-1.7		
2-NITROANALINE	0.473	0.454	3.9		
DIMETHYLPHTHALATE	1.452	1.464	-0.8		
ACENAPHTHYLENE	2.032	2.030	0.1		
2,6-DINITROTOLUENE	0.376	0.354	5.9		
3-NITROANILINE	0.444	0.425	4.1		
ACENAPHTHENE	1.286	1.228	4.4	*	
2,4-DINITROPHENOL	0.222	0.193	13.1		**
4-NITROPHENOL	0.171	0.178	-3.9		**

Form VII

01684

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
DIBENZOFURAN	1.768	1.743	1.4		
2,4-DINITROTOLUENE	0.474	0.427	9.8		
DIETHYLPHTHALATE	1.588	1.560	1.7		
FLUORENE	1.519	1.383	8.9		
4-CHLOROPHENYL-PHENYLETHER	0.651	0.615	5.4		
4-NITROANILINE	0.405	0.347	14.2		
4,6-DINITRO-2-METHYLPHENOL	0.209	0.174	16.6		
N-NITROSODIPHENYLAMINE(1)	0.708	0.621	12.2	*	
4-BROMOPHENYL-PHENYLETHER	0.222	0.201	9.4		
HEXACHLOROBENZENE	0.239	0.207	13.2		
PENTACHLOROPHENOL	0.170	0.141	17.1	*	
PHENANTHRENE	1.270	1.128	11.2		
ANTHRACENE	1.322	1.151	12.9		
DI-N-BUTYLPHTHALATE	1.827	1.521	16.7		
FLUORANTHENE	1.225	0.992	19.0	*	
BENZIDINE	0.505	0.073	85.3		
PYRENE	1.378	1.649	-19.6		
BUTYLBENZYLPHTHALATE	0.841	0.945	-12.3		
3,3'-DICHLOROBENZIDINE	0.468	0.395	15.6		
BENZO(A)ANTHRACENE	1.285	1.253	2.4		
CHRYSENE	1.168	1.000	14.3		
BIS(2-ETHYLHEXYL)PHTHALATE	1.254	1.390	-10.8		
DI-N-OCTYL PHTHALATE	2.345	2.735	-16.6	*	
BENZO(B)FLUORANTHENE	1.490	1.285	13.7		
BENZO(K)FLUORANTHENE	1.331	1.187	10.7		
BENZO(A)PYRENE	1.255	1.216	3.1	*	
INDENO(1,2,3-CD)PYRENE	1.409	1.673	-18.7		
DIBENZ(A,H)ANTHRACENE	1.111	1.306	-17.5		
BENZO(G,H,I)PERYLENE	1.098	1.486	-35.2		
NITROBENZENE-D5	0.440	0.375	14.7		
2-FLUOROBIPHENYL	1.381	1.463	-5.9		
TERPHENYL-D14	0.840	1.089	-29.5		
PHENOL-D5	2.151	1.779	17.2		
2-FLUOROPHENOL	1.583	1.443	8.8		
2,4,6-TRIBROMOPHENOL	0.157	0.128	18.1		
AZOBENZENE	1.334	0.000	99.9		

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

SEMIVOLATILES COMPOUNDS

CASE NO: -5943-
CONTRACTOR: RMAL
CONTRACT NO: -NA
INSTRUMENT ID: U

CALIBRATION DATE: 6-3-88
TIME: ~~9:46:00~~ 15:32 AV 6/14/88
LABORATORY ID: STDU557
INITIAL CALIBRATION DATE: ~~4-4-88~~ AV 6/16/88 3-15-88

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 25%

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
N-NITROSODIMETHYLAMINE	1.231	2.608	-111.9		
PHENOL	2.541	1.910	24.8	*	
ANILINE	2.949	4.864	-64.9		
BIS(2-CHLOROETHYL)ETHER	1.879	1.530	18.5		
2-CHLOROPHENOL	1.589	1.389	12.5		
1,3-DICHLOROBENZENE	1.686	1.571	6.8		
1,4-DICHLOROBENZENE	1.832	1.625	11.3	*	
BENZYL ALCOHOL	1.048	0.760	27.5		
1,2-DICHLOROBENZENE	1.697	1.505	11.3		
2-METHYLPHENOL	1.435	1.137	20.7		
BIS(2-CHLOROISOPROPYL)ETHER	3.149	2.757	12.4		
4-METHYLPHENOL	1.508	1.172	22.2		
N-NITROSO-DI-N-PROPYLAMINE	1.387	1.032	25.5		**
HEXACHLOROETHANE	0.713	0.592	16.9		
NITROBENZENE	0.468	0.423	9.6		
ISOPHORONE	0.852	0.773	9.2		
2-NITROPHENOL	0.239	0.228	4.5	*	
2,4-DIMETHYLPHENOL	0.355	0.301	15.3		
BIS(2-CHLOROETHOXY)METHANE	0.538	0.465	13.6		
BENZOIC ACID	0.284	0.178	37.3		
2,4-DICHLOROPHENOL	0.305	0.308	-0.9	*	
1,2,4-TRICHLOROBENZENE	0.322	0.338	-4.9		
NAPHTHALENE	1.245	1.107	11.0		
4-CHLOROANILINE	0.494	0.439	11.1		
HEXACHLOROBUTADIENE	0.158	0.162	-2.4	*	
4-CHLORO-3-METHYLPHENOL	0.335	0.265	20.8	*	
2-METHYLNAPHTHALENE	0.747	0.649	13.1		
HEXACHLOROCYCLOPENTADIENE	0.308	0.289	5.9		**
2,4,6-TRICHLOROPHENOL	0.365	0.414	-13.4	*	
2,4,5-TRICHLOROPHENOL	0.413	0.439	-6.3		
2-CHLORONAPHTHALENE	1.274	1.359	-6.6		
2-NITROANALINE	0.473	0.466	1.4		
DIMETHYLPHTHALATE	1.452	1.392	4.1		
ACENAPHTHYLENE	2.032	1.999	1.5		
2,6-DINITROTOLUENE	0.376	0.342	9.0		
3-NITROANILINE	0.444	0.366	17.6		
ACENAPHTHENE	1.286	1.214	5.6	*	
2,4-DINITROPHENOL	0.222	0.176	20.4		**
4-NITROPHENOL	0.171	0.140	17.9		**

Form VII

01686

COMPOUND	AVG RF	RF 50.	% DIFF	CCC	SPCC
DIBENZOFURAN	1.768	1.747	1.2		
2,4-DINITROTOLUENE	0.474	0.416	12.2		
DIETHYLPHTHALATE	1.588	1.416	10.8		
FLUORENE	1.519	1.346	11.3		
4-CHLOROPHENYL-PHENYLETHER	0.651	0.595	8.5		
4-NITROANILINE	0.405	0.312	22.9		
4,6-DINITRO-2-METHYLPHENOL	0.209	0.166	20.3		
N-NITROSODIPHENYLAMINE(1)	0.708	0.615	13.0	*	
4-BROMOPHENYL-PHENYLETHER	0.222	0.191	14.0		
HEXACHLOROBENZENE	0.239	0.187	21.7		
PENTACHLOROPHENOL	0.170	0.137	19.4	*	
PHENANTHRENE	1.270	1.096	13.7		
ANTHRACENE	1.322	1.161	12.2		
DI-N-BUTYLPHTHALATE	1.827	1.364	25.3		
FLUORANTHENE	1.225	0.997	18.6	*	
BENZIDINE	0.505	0.049	90.2		
PYRENE	1.378	1.361	1.2		
BUTYLBENZYLPHTHALATE	0.841	0.728	13.4		
3,3'-DICHLOROBENZIDINE	0.468	0.411	12.2		
BENZO(A)ANTHRACENE	1.285	1.208	6.0		
CHRYSENE	1.168	1.044	10.5		
BIS(2-ETHYLHEXYL)PHTHALATE	1.254	1.041	17.0		
DI-N-OCTYL PHTHALATE	2.345	1.772	24.4	*	
BENZO(B)FLUORANTHENE	1.490	1.341	9.9		
BENZO(K)FLUORANTHENE	1.331	1.366	-2.6		
BENZO(A)PYRENE	1.255	1.419	-13.0	*	
INDENO(1,2,3-CD)PYRENE	1.409	1.767	-25.4		
DIBENZ(A,H)ANTHRACENE	1.111	1.472	-32.4		
BENZO(G,H,I)PERYLENE	1.098	1.464	-33.3		
NITROBENZENE-D5	0.440	0.413	6.1		
2-FLUOROBIPHENYL	1.381	1.491	-8.0		
TERPHENYL-D14	0.840	0.857	-2.0		
PHENOL-D5	2.151	1.699	21.0		
2-FLUOROPHENOL	1.583	1.364	13.7		
2,4,6-TRIBROMOPHENOL	0.157	0.106	32.2		
AZOBENZENE	1.334	0.000	99.9		

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
PYRIDINES COMPOUNDS

01687

CASE NO: - 59436
CONTRACTOR: RMAL
CONTRACT NO: - N/A
INSTRUMENT ID: R

CALIBRATION DATE: 6-1-88
TIME: 13:37
LABORATORY ID: STDR962
INITIAL CALIBRATION DATE: 10-26-87

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 14%

COMPOUND		AVG RF	RF 50.	% DIFF	CCC SPCC
PYRIDINE-D5	8	1.784	2.234	-25.1	
PYRIDINE		1.800	1.958	-8.7	
2-PICOLINE		1.861	1.929	-3.6	
3 & 4-PICOLINE		1.611	1.774	-10.1	
2,6-LUTIDINE		1.996	2.046	-2.4	
2-ETHYL PYRIDINE		2.263	2.397	-5.9	
2,4 & 2,5-LUTIDINE		1.676	1.688	-0.6	
2,3-LUTIDINE		1.780	1.803	-1.2	
3-ETHYL PYRIDINE		1.206	1.282	-6.2	
4-ETHYL PYRIDINE		1.340	1.445	-7.8	
3,5-LUTIDINE		1.396	1.600	-14.6	
3,4-LUTIDINE		1.144	1.605	-40.3	
2-METHYL-5-ETHYL PYRIDINE		1.781	2.162	-21.3	
2-METHYL-3-ETHYL PYRIDINE		1.472	1.512	-2.6	
M AND P CRESOLS		1.402	1.522	-8.6	
3-ETHYL-4-METHYL PYRIDINE		1.449	0.418	71.1	
3-ETHYL-5-METHYL PYRIDINE		1.452	1.339	7.7	
2,6-DIMETHYL PHENOL		1.130	1.198	-6.0	
2,5-DIMETHYL PHENOL		0.327	0.355	-8.3	
3,5-DIMETHYL PHENOL		0.300	0.347	-15.5	
2,3-DIMETHYL PHENOL		0.305	0.370	-21.5	
3,4-DIMETHYL PHENOL		1.381	1.861	-34.7	
1-METHYLNAPHTHALENE		0.739	0.698	5.5	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUN
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
PYRIDINES COMPOUNDS

CASE NO: - 59436
CONTRACTOR: RMAL
CONTRACT NO: -
INSTRUMENT ID: R

CALIBRATION DATE: 6-2-88
TIME: ~~8:34~~ 8:33 AV 6-15-88
LABORATORY ID: STDR976
INITIAL CALIBRATION DATE: 10-26-87

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 15%

COMPOUND		AVG RF	RF 50.	% DIFF	CCC	SPCC
PYRIDINE-D5	8	1.784	1.932	-8.2		
PYRIDINE		1.800	1.908	-6.0		
2-PICOLINE		1.861	1.883	-1.1		
3 & 4-PICOLINE		1.611	1.865	-15.8		
2,6-LUTIDINE		1.996	2.008	-0.6		
2-ETHYL PYRIDINE		2.263	2.360	-4.2		
2,4 & 2,5-LUTIDINE		1.676	1.707	-1.8		
2,3-LUTIDINE		1.780	1.835	-3.0		
3-ETHYL PYRIDINE		1.206	1.295	-7.3		
4-ETHYL PYRIDINE		1.340	1.438	-7.3		
3,5-LUTIDINE		1.396	1.586	-13.6		
3,4-LUTIDINE		1.144	1.612	-40.9		
2-METHYL-5-ETHYL PYRIDINE		1.781	2.158	-21.1		
2-METHYL-3-ETHYL PYRIDINE		1.472	1.540	-4.6		
M AND P CRESOLS		1.402	1.576	-12.4		
3-ETHYL-4-METHYL PYRIDINE		1.449	0.365	74.8		
3-ETHYL-5-METHYL PYRIDINE		1.452	1.676	-15.4		
2,6-DIMETHYL PHENOL		1.130	1.226	-8.5		
2,5-DIMETHYL PHENOL		0.327	0.353	-7.7		
3,5-DIMETHYL PHENOL		0.300	0.359	-19.7		
2,3-DIMETHYL PHENOL		0.305	0.380	-24.5		
3,4-DIMETHYL PHENOL		1.381	1.806	-30.7		
1-METHYLNAPHTHALENE		0.739	0.699	5.3		

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
PYRIDINES COMPOUNDS

CASE NO: -59436
CONTRACTOR: RMAL
CONTRACT NO: -
INSTRUMENT ID: R

CALIBRATION DATE: 6-2-88
TIME: 18:58
LABORATORY ID: STDR992
INITIAL CALIBRATION DATE: 10-26-87

01689

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 25%

COMPOUND		AVG RF	RF 50.	% DIFF	CCC SPCC
PYRIDINE-D5	S	1.784	1.763	1.2	
PYRIDINE		1.800	1.820	-1.1	
2-PICOLINE		1.861	1.798	3.4	
3 & 4-PICOLINE		1.611	1.717	-6.5	
2,6-LUTIDINE		1.996	1.884	5.6	
2-ETHYL PYRIDINE		2.263	2.243	0.9	
2,4 & 2,5-LUTIDINE		1.676	1.583	5.5	
2,3-LUTIDINE		1.780	1.695	4.7	
3-ETHYL PYRIDINE		1.206	1.183	1.8	
4-ETHYL PYRIDINE		1.340	1.326	1.0	
3,5-LUTIDINE		1.396	1.425	-2.0	
3,4-LUTIDINE		1.144	1.445	-26.3	
2-METHYL-5-ETHYL PYRIDINE		1.753	1.954	-11.4	
2-METHYL-3-ETHYL PYRIDINE		1.471	1.413	3.9	
M AND P CRESOLS		1.402	1.423	-1.5	
3-ETHYL-4-METHYL PYRIDINE		0.590	0.280	52.4	
3-ETHYL-5-METHYL PYRIDINE		0.998	1.259	-26.1	
2,6-DIMETHYL PHENOL		1.130	1.155	-2.2	
2,5-DIMETHYL PHENOL		0.327	0.326	0.4	
3,5-DIMETHYL PHENOL		0.300	0.336	-11.8	
2,3-DIMETHYL PHENOL		0.305	0.351	-15.2	
3,4-DIMETHYL PHENOL		1.381	1.696	-22.7	
1-METHYLNAPHTHALENE		0.739	0.686	7.2	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
PYRIDINES COMPOUNDS

01690

CASE NO: - 59436
CONTRACTOR: RMAL
CONTRACT NO: - N/A
INSTRUMENT ID: R

CALIBRATION DATE: 6-3-88
TIME: 12:22
LABORATORY ID: STDR008
INITIAL CALIBRATION DATE: 10-26-87

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 25%

COMPOUND		AVG RF	RF 50.	% DIFF	CCC	SPCC
PYRIDINE-D5	8	1.784	1.805	-1.1		
PYRIDINE		1.800	1.769	1.7		
2-PICOLINE		1.861	1.770	4.9		
3 & 4-PICOLINE		1.611	1.740	-8.0		
2,6-LUTIDINE		1.996	1.932	3.2		
2-ETHYL PYRIDINE		2.263	2.239	1.0		
2,4 & 2,5-LUTIDINE		1.676	1.667	0.5		
2,3-LUTIDINE		1.780	1.766	0.8		
3-ETHYL PYRIDINE		1.206	1.212	-0.4		
4-ETHYL PYRIDINE		1.340	1.424	-6.2		
3,5-LUTIDINE		1.396	1.542	-10.4		
3,4-LUTIDINE		1.144	1.554	-35.8		
2-METHYL-5-ETHYL PYRIDINE		1.781	2.003	-12.4		
2-METHYL-3-ETHYL PYRIDINE		1.472	1.424	3.2		
M AND P CRESOLS		1.402	1.538	-9.7		
3-ETHYL-4-METHYL PYRIDINE		1.449	0.366	74.6		
3-ETHYL-5-METHYL PYRIDINE		1.452	1.204	17.0		
2,6-DIMETHYL PHENOL		1.130	1.258	-11.3		
2,5-DIMETHYL PHENOL		0.327	0.320	2.1		
3,5-DIMETHYL PHENOL		0.300	0.321	-7.1		
2,3-DIMETHYL PHENOL		0.305	0.341	-12.0		
3,4-DIMETHYL PHENOL		1.381	1.606	-16.2		
1-METHYLNAPHTHALENE		0.739	0.713	3.5		

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUN
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK

SEMIVOLATILES COMPOUNDS

CASE NO: -59436
CONTRACTOR: RMAL
CONTRACT NO: - N/A
INSTRUMENT ID: U

CALIBRATION DATE: 6-3-88
TIME: 16:45
LABORATORY ID: STDU558
INITIAL CALIBRATION DATE: 6-1-88

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 25%

COMPOUND		AVG RF	RF 50.	% DIFF	CCC SPCC
PYRIDINE-D5	8	1.715	1.783	-3.9	
PYRIDINE		1.561	1.535	1.6	
2-PICOLINE		1.570	1.440	8.2	
3 & 4-PICOLINE		1.403	1.630	-16.2	
2,6-LUTIDINE		1.925	1.828	5.0	
2-ETHYL PYRIDINE		2.261	2.165	4.2	
2,4 & 2,5-LUTIDINE		1.541	1.549	-0.5	
2,3-LUTIDINE		1.735	1.692	2.4	
3-ETHYL PYRIDINE		1.200	1.190	0.8	
4-ETHYL PYRIDINE		1.208	1.223	-1.2	
3,5-LUTIDINE		1.344	1.416	-5.3	
3,4-LUTIDINE		1.114	1.380	-23.8	
2-METHYL-5-ETHYL PYRIDINE		1.899	1.893	0.3	
2-METHYL-3-ETHYL PYRIDINE		1.323	1.309	1.0	
M AND P CRESOLS		1.367	1.396	-2.1	
3-ETHYL-4-METHYL PYRIDINE		1.321	0.095	92.7	
3-ETHYL-5-METHYL PYRIDINE		1.321	1.511	-14.3	
2,6-DIMETHYL PHENOL		1.221	1.204	1.3	
2,5-DIMETHYL PHENOL		0.348	0.334	4.0	
3,5-DIMETHYL PHENOL		0.346	0.338	2.2	
2,3-DIMETHYL PHENOL		0.365	0.358	1.8	
3,4-DIMETHYL PHENOL		1.556	1.594	-2.4	
1-METHYLNAPHTHALENE		0.742	0.736	0.8	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUN
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

8D
PESTICIDE EVALUATION STANDARDS SUMMARY

01692

Lab Name: Rocky Mountain Analytical Contract: 68-01-0069

Lab Code: Enseco Case No.: — SAS No.: — SDG No.: —

Instrument ID: B GC Column ID: 3% SP2100

Dates of Analyses: 05-06-1988 to 05-07-1988

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (</= 10.0%)
*ALDRIN	4.8×10^3 ✓	5.5×10^3 ✓	4.8×10^3 ✓	8.0% ✓
*ENDRIN	1.7×10^3 ✓	2.0×10^3 ✓	1.7×10^3 ✓	7.6% ✓
*4,4'-DDT	9.5×10^2 ✓	1.1×10^3 ✓	9.8×10^2 ✓	7.9% ✓ (1)
*DBC	6.0×10^2 ✓	7.0×10^2 ✓	5.9×10^2 ✓	9.7% ✓

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

* Done by Peak height.

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

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
	INITIAL					
01	EVAL MIX B	05-06-1988	08:58 ✓	9.1% ✓	11% ✓	5.4% ✓
02	EVAL MIX B	05-06-1988	20:05 ✓	10% ✓	12% ✓	6.1% ✓
03	EVAL MIX B	05-07-1988	03:44 ✓	11% ✓	13% ✓	6.9% ✓
04	EVAL MIX B	05-07-1988	11:26 ✓	7.8% ✓	8.8% ✓	4.5% ✓
05	EVAL MIX B					
06	EVAL MIX B					
07	EVAL MIX B					
08	EVAL MIX B					
09	EVAL MIX B					
10	EVAL MIX B					
11	EVAL MIX B					
12	EVAL MIX B					
13	EVAL MIX B					
14	EVAL MIX B					

(2) See Form instructions.

DBC R.T. = ~~26.38~~ 26.83

PESTICIDE EVALUATION STANDARDS SUMMARY

Evaluation of Retention Time Shifts for Dibutylchlorendate

55 6/2/88

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract:

Lab Code: Case No.: 59436 SAS No.: SDG 01693

Instrument ID: B GC Column ID: 3% SP 2100

Dates of Analyses: 05-06-1988 to 05-07-1988

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE OF ANALYSIS	TIME OF ANALYSIS	% D	#
1	EVALUATION MIX A		05-06-1988	08:12	—	
2	EVALUATION MIX B		05-06-1988	08:58	0	
3	EVALUATION MIX C		05-06-1988	09:36	0	
4	INDIVIDUAL MIX A		05-06-1988	10:15	0 ~~0.075~~	
5	INDIVIDUAL MIX B		05-06-1988	10:55	0.075	
6	TOXAPHENE .25		05-06-1988	11:36	0.075 .1	
7	TECHNICAL CHLORDANE		05-06-1988	12:15	.075	
8	AROCLOR 1016/1260		05-06-1988	12:56	.11 1.6	
9	AROCLOR 1221		05-06-1988	13:37	.19 1.5	
10	AROCLOR 1232		05-06-1988	14:22	.14	—
11	AROCLOR 1242		05-06-1988	15:01	.037	
12	AROCLOR 1248		05-06-1988	15:35	.19	
13	AROCLOR 1254		05-06-1988	16:15		1
14	59436 01		05-06-1988	16:54	0	
15	59436 02		05-06-1988	17:32	.075	
16	59436 03		05-06-1988	18:11	.075	
17	59436 04		05-06-1988	18:49	0	
18	59436 BLANK		05-06-1988	19:27	0.15	
19	EVALUATION MIX B		05-06-1988	20:05	0.075	
20	59436 05		05-06-1988	20:44	0.15	
21	59436 06		05-06-1988	21:22	0	
22	59436 07		05-06-1988	22:00	0	
23	59436 08		05-06-1988	22:38	.037	
24	HEXANE		05-06-1988	23:16	—	1
25	INDIVIDUAL MIX A		05-06-1988	23:54	0.075	
26	59436 09		05-07-1988	00:34		1
27	59436 10		05-07-1988	01:11	.075	
28	59436 11		05-07-1988	01:50	.075	
29	59436 12		05-07-1988	02:28	.037	
30	HEXANE		05-07-1988	03:07		1
31	EVALUATION MIX B		05-07-1988	03:44	0.075	
32	59436 13		05-07-1988	04:23	0.075	
33	59436 14		05-07-1988	05:02	0.19	
34	59436 15		05-07-1988	05:40	~~0.075~~	1
35	59436 16		05-07-1988	06:17	1.8 0.075	
36	HEXANE		05-07-1988	06:55	—	1
37	INDIVIDUAL MIX B		05-07-1988	07:33	0.15 .71	
38	59436 17		05-07-1988	08:13	.71	—
39	59436 18		05-07-1988	08:53		1
40	59436 19		05-07-1988	09:31	.19	

* Values outside of QC limits (2.0% for packed columns, .3% for capillary columns)

1 - DBC was not added to the sample

2 - There was coeluting interference

FORM VIII PEST-2 10/86

PESTICIDE EVALUATION STANDARDS SUMMARY

SJ 6/2/89

Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 01694

Lab Code: Case No.: 59436 SAS No.: SDG No.:

Instrument ID: B GC Column ID: 3% SP 2100

Dates of Analyses: 05-06-1988 to 05-07-1988

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE OF ANALYSIS	TIME OF ANALYSIS	% D	*
41	59436 20		05-07-1988	10:10	~~1.0~~ .025	
42	HEXANE		05-07-1988	10:49		1
43	EVALUATION MIX B		05-07-1988	11:26	~~1.0~~ 0.15	
44	59436 21		05-07-1988	12:05		1
45	59436 22		05-07-1988	12:43	~~1.0~~ 0.15	
46	59436 23		05-07-1988	13:21	~~1.0~~ .15	
47	59436 CPS		05-07-1988	14:00	~~2.0~~ 0.26	
48	HEXANE		05-07-1988	14:40		1
49	INDIVIDUAL MIX A		05-07-1988	15:17	~~1.0~~ .15	
50						
51						
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53						
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80						

* Values outside of QC limits (2.0% for packed columns, .3% for capillary columns)

1 - DBC was not added to the sample

2 - There was coeluting interference

8D

PESTICIDE EVALUATION STANDARDS SUMMARY

01695

Lab Name: Rocky Mountain Analytical Contract: 68-01-0069

Lab Code: ENSECO Case No.: — SAS No.: — SDG No.: —

Instrument ID: B GC Column ID: 1.5% SP2250/1.95% SP2401

Dates of Analyses: 05-06-1988 to 05-07-1988

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (</= 10.0%)
ALDRIN	2.9×10^6 ✓	3.4×10^6 ✓	3.1×10^6 ✓	8.0% ✓
* ENDRIN	9.4×10^2 ✓	1.1×10^3 ✓	9.8×10^2 ✓	8.3% ✓
* 4,4'-DDT	5.2×10^2 ✓	6.3×10^2 ✓	5.6×10^2 ✓	9.8% ✓ (1)
DBC	2.3×10^6 ✓	2.7×10^6 ✓	2.3×10^6 ✓	9.5% ✓

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

* Done by Peak Height.

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

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
	INITIAL					
01	EVAL MIX B	05-06-1988	08:55 ✓	0% ✓	3.1%	—
02	EVAL MIX B	05-06-1988	19:47 ✓	0% ✓	2.9% ✓	—
03	EVAL MIX B	05-07-1988	03:18 ✓	0% ✓	2.8% ✓	—
04	EVAL MIX B	05-07-1988	10:52 ✓	0% ✓	2.7% ~~0.0%~~ KB	—
05	EVAL MIX B					
06	EVAL MIX B					
07	EVAL MIX B					
08	EVAL MIX B					
09	EVAL MIX B					
10	EVAL MIX B					
11	EVAL MIX B					
12	EVAL MIX B					
13	EVAL MIX B					
14	EVAL MIX B					

(2) See Form instructions.

DBC ~~Recovery~~ R.T. = 22.37

PESTICIDE EVALUATION STANDARDS SUMMARY

55 6/2/88

Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 01696

Lab Code: Case No.: 59436 SAS No.: SDG No.:

Instrument ID: B GC Column ID: 1.5% SP 2250/1.9% SP 2401

Dates of Analyses: 05-06-1988 to 05-07-1988

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE OF ANALYSIS	TIME OF ANALYSIS	% D	*
1	EVALUATION MIX A		05-06-1988	08:18	-	
2	EVALUATION MIX B		05-06-1989	08:55	.045	
3	EVALUATION MIX C		05-06-1999	09:33	.045	
4	INDIVIDUAL MIX A		05-06-1988	10:11	.045	
5	INDIVIDUAL MIX B		05-06-1988	10:51	.045 ~~0.045~~	
6	TOXAPHENE .25		05-06-1988	11:30	.18	
7	TECHNICAL CHLORDANE		05-06-1988	12:11	0	
8	AROCLOR 1016/1260		05-06-1988	12:47	0	
9	AROCLOR 1221		05-06-1988	13:35	0	
10	AROCLOR 1232		05-06-1988	14:05	0	
11	AROCLOR 1242		05-06-1988	14:44	.18	
12	AROCLOR 1248		05-06-1988	15:23	.18	
13	AROCLOR 1254		05-06-1988	16:02		1
14	59436 01		05-06-1988	16:40	.22	
15	59436 02		05-06-1988	17:17	.22	
16	59436 03		05-06-1988	17:55	.22	
17	59436 04		05-06-1988	18:32	.31	
18	59436 BLANK		05-06-1988	19:10	~~.31~~	
19	EVALUATION MIX B		05-06-1988	19:47	.40	
20	59436 05		05-06-1988	20:25	.45	
21	59436 06		05-06-1988	21:03	.45	
22	59436 07		05-06-1988	21:40	.54	
23	59436 08		05-06-1988	22:18	.54	
24	HEXANE		05-06-1988	22:55	~~.63~~	1
25	INDIVIDUAL MIX A		05-06-1988	23:32	4 ~~2.63~~	
26	59436 09		05-07-1988	00:12		1
27	59436 10		05-07-1988	00:49	.63	
28	59436 11		05-07-1988	01:26	.67	
29	59436 12		05-07-1988	02:04	.63	
30	HEXANE		05-07-1988	02:41		1
31	EVALUATION MIX B		05-07-1988	03:18	0.76	
32	59436 13		05-07-1988	03:56	0.76	
33	59436 14		05-07-1988	04:34	0.85	
34	59436 15		05-07-1988	05:12		1
35	59436 16		05-07-1988	05:49	0.89	
36	HEXANE		05-07-1988	06:26	0.	1
37	INDIVIDUAL MIX B		05-07-1988	07:04	1.3	
38	59436 17		05-07-1988	07:42	0.89	
39	59436 18		05-07-1988	08:21		1
40	59436 19		05-07-1988	08:58	1.1	

* Values outside of QC limits (2.0% for packed columns, .3% for capillary columns)

1 - DBC was not added to the sample

2 - There was coeluting interference

PESTICIDE EVALUATION STANDARDS SUMMARY

ST 6/2/88

Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 01697

Lab Code: Case No.: 59436 SAS No.: SDG No.:

Instrument ID: B GC Column ID: 1.5% SP 2250/1.9% SP 2401

Dates of Analyses: 05-06-1988 to 05-07-1988

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE OF ANALYSIS	TIME OF ANALYSIS	% D	*
41	59436 20		05-07-1988	09:35	1.1	+
42	HEXANE		05-07-1988	10:13	—	1
43	EVALUATION MIX B		05-07-1988	10:52	1.1	+
44	59436 21		05-07-1988	11:30	—	1
45	59436 22		05-07-1988	12:08	1.1	+
46	59436 23		05-07-1988	12:45	1.1	+
47	59436 CPS		05-07-1988	13:24	1.5	+
48	HEXANE		05-07-1988	14:03	0.76	1
49	INDIVIDUAL MIX A		05-07-1988	14:43	12	+
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* Values outside of QC limits (2.0% for packed columns, .3% for capillary columns)

1 - DBC was not added to the sample

2 - There was coeluting interference

8D
PESTICIDE EVALUATION STANDARDS SUMMARY

01698

Lab Name: Rocky Mountain Analytical Contract: 68-01-0069

Lab Code: ENSECO Case No.: — SAS No.: — SDG No.: —

Instrument ID: B GC Column ID: 3% SP2100

Dates of Analyses: 05-12-1988 to 05-12-1988

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (</= 10.0%)	
ALDRIN	3.6×10^6	3.7×10^6	3.8×10^6	2.7	
ENDRIN	2.3×10^6	2.4×10^6	2.4×10^6	2.4	
4,4'-DDT	2.3×10^6	2.5×10^6	2.6×10^6	6.3	(1)
DBC	3.0×10^6	3.4×10^6	3.5×10^6	8.0	

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

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

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
	INITIAL					
01	EVAL MIX B	05-12-1988	09:08	20%	15%	11%
02	EVAL MIX B	05-13-1988	08:16	18%	14%	10%
03	EVAL MIX B	05-13-1988	08:40	17%	14%	10%
04	EVAL MIX B					
05	EVAL MIX B					
06	EVAL MIX B					
07	EVAL MIX B					
08	EVAL MIX B					
09	EVAL MIX B					
10	EVAL MIX B					
11	EVAL MIX B					
12	EVAL MIX B					
13	EVAL MIX B					
14	EVAL MIX B					

(2) See Form instructions.

DBC RT: 26.78

PESTICIDE EVALUATION STANDARDS SUMMARY

Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 01699

Lab Code: Case No.: 59436 SAS No.: SDG No.:

Instrument ID: B GC Column ID: 3% SP 2100

Dates of Analyses: 05-12-1988 to 05-13-1988

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE OF ANALYSIS	TIME OF ANALYSIS	% D	*
1	EVALUATION MIX A		05-12-1988	08:29	-	
2	EVALUATION MIX B		05-12-1988	09:08	0	
3	EVALUATION MIX C		05-12-1988	09:47	0	
4	INDIVIDUAL MIX A		05-12-1988	10:30	.075	
5	INDIVIDUAL MIX B		05-12-1988	11:10	0	
6	TOXAPHENE .25		05-12-1988	11:46	.15	
7	TECHNICAL CHLORDANE		05-12-1988	12:26	.075	
8	AROCLOR 1016/1260		05-12-1988	13:09	.11	
9	AROCLOR 1221		05-12-1988	13:46	.075	
10	AROCLOR 1232		05-12-1988	14:25	.075	
11	AROCLOR 1242		05-12-1988	15:05	.075	
12	AROCLOR 1248		05-12-1988	15:44	.11	
13	AROCLOR 1254		05-12-1988	16:24		1
14	59450 01		05-13-1988	08:03		1
15	59450 02		05-13-1988	08:05	.15	
16	59450 03		05-13-1988	08:10	.15	
17	59450 04		05-13-1988	08:12		1
18	59450 BLANK		05-13-1988	08:14	.19	
19	EVALUATION MIX B		05-13-1988	08:16	.15	
20	59450 05		05-13-1988	08:18	.15	
21	59450 0170		05-13-1988	08:20		1
22	59450 0190		05-13-1988	08:22		1
23	59450 0270		05-13-1988	08:24	.075	
24	59434 BLANK		05-13-1988	08:26	.075	
25	INDIVIDUAL MIX A		05-13-1988	08:28	.075	
26	59450 0290		05-13-1988	08:30	.15	
27	59450 CPS		05-13-1988	08:32	.26	
28	59434 02		05-13-1988	08:34	.19	
29	59434 03		05-13-1988	08:36		1
30	HEXANE		05-13-1988	08:38		1
31	EVALUATION MIX B		05-13-1988	08:40	.26	
32	59434 04		05-13-1988	08:41		1
33	59434 0470		05-13-1988	08:43		1
34	59434 0490		05-13-1988	08:45		1
35	59450 06		05-13-1988	08:47	.19	
36	59436 09		05-13-1988	08:49	.15	
37	INDIVIDUAL MIX B		05-13-1988	08:51	.15	
38						
39						
40						

* Values outside of QC limits (2.0% for packed columns, .3% for capillary columns)

1 - DBC was not added to the sample

2 - There was coeluting interference

8D

PESTICIDE EVALUATION STANDARDS SUMMARY

Lab Name: Rocky Mountain Analytical Contract: 68-01-0069 01700

Lab Code: ENSECO Case No.: — SAS No.: — SDG No.: —

Instrument ID: B GC Column ID: 1.5% SP2250/1.9% SP2401

Dates of Analyses: 05-12-1988 to 05-12-1988

Evaluation Check for Linearity

PESTICIDE	CALIBRATION FACTOR EVAL MIX A	CALIBRATION FACTOR EVAL MIX B	CALIBRATION FACTOR EVAL MIX C	%RSD (</= 10.0%)	
ALDRIN	4.0×10^6	4.2×10^6	4.3×10^6	3.7	
ENDRIN	3.4×10^6	3.6×10^6	3.5×10^6	2.9	
4,4'-DDT	3.4×10^6	3.6×10^6	3.6×10^6	3.3	(1)
DBC	3.4×10^6	3.5×10^6	3.4×10^6	1.7	

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

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

		DATE ANALYZED	TIME ANALYZED	ENDRIN	4,4'-DDT	COMBINED (2)
	INITIAL					
01	EVAL MIX B	05-12-1988	09:05	3.3%	4.6%	—
02	EVAL MIX B	05-13-1988	07:17	3.0%	4.2%	—
03	EVAL MIX B	05-13-1988	07:51	2.3%	4.2%	—
04	EVAL MIX B					
05	EVAL MIX B					
06	EVAL MIX B					
07	EVAL MIX B					
08	EVAL MIX B					
09	EVAL MIX B					
10	EVAL MIX B					
11	EVAL MIX B					
12	EVAL MIX B					
13	EVAL MIX B					
14	EVAL MIX B					

(2) See Form instructions.

DBC RT: 22.62

PESTICIDE EVALUATION STANDARDS SUMMARY

Evaluation of Retention Time Shift for Dibutylchlorendate

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 01701

Lab Code: Case No.: 59436 SAS No.: SDG No.:

Instrument ID: B GC Column ID: 1.5% SP 2250/1.9% SP 2401

Dates of Analyses: 05-12-1988 to 05-13-1988

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE OF ANALYSIS	TIME OF ANALYSIS	% D	*
1	EVALUATION MIX A		05-12-1988	08:26	-	
2	EVALUATION MIX B		05-12-1988	09:05	0	
3	EVALUATION MIX C		05-12-1988	09:43	.044	
4	INDIVIDUAL MIX A		05-12-1988	10:22	.13	
5	INDIVIDUAL MIX B		05-12-1988	11:04	.088	
6	TOXAPHENE .25		05-12-1988	11:40	.044	
7	TECHNICAL CHLORDANE		05-12-1988	12:18	.22	
8	AROCLOR 1016/1260		05-12-1988	13:07	.22	
9	AROCLOR 1221		05-12-1988	13:39	.27	
10	AROCLOR 1232		05-12-1988	14:16	.27	
11	AROCLOR 1242		05-12-1988	14:55	.27	
12	AROCLOR 1248		05-12-1988	15:34	.35	
13	AROCLOR 1254		05-12-1988	16:13		1
14	59450 01		05-12-1988	16:52	.35	
15	59450 02		05-13-1988	07:08	.27	
16	59450 03		05-13-1988	07:10	.27	
17	59450 04		05-13-1988	07:12	.13	
18	59450 BLANK		05-13-1988	07:15	.22	
19	EVALUATION MIX B		05-13-1988	07:17	.13	
20	59450 05		05-13-1988	07:19	.13	
21	59450 0170		05-13-1988	07:21	0	
22	59450 0190		05-13-1988	07:23	0	
23	59450 0270		05-13-1988	07:25	.088	
24	59434 BLANK		05-13-1988	07:27	.088	
25	INDIVIDUAL MIX A		05-13-1988	07:29	.088	
26	59450 0290		05-13-1988	07:39	.18	
27	59450 CPS		05-13-1988	07:43	.40	
28	59434 02		05-13-1988	07:45	.22	
29	59434 03		05-13-1988	07:47		1
30	HEXANE		05-13-1988	07:49		1
31	EVALUATION MIX B		05-13-1988	07:51	.22	
32	59434 04		05-13-1988	07:53		1
33	59434 0470		05-13-1988	07:55		1
34	59434 0490		05-13-1988	07:57		1
35	59450 06		05-13-1988	08:00	.31	
36	59436 09		05-13-1988	08:01	.22	
37	INDIVIDUAL MIX B		05-13-1988	08:08	.53	
38						
39						
40						

* Values outside of QC limits (2.0% for packed columns, .3% for capillary columns)

1 - DBC was not added to the sample

2 - There was coeluting interference

PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: Rocky Mountain Analytical Contract: 68-01-0069

Lab Code: ENSECO Case No.: — SAS No.: — SDG No.: 01702

Instrument ID: B GC Column ID: 3% SP2100

DATE(S) OF ANALYSIS	FROM: 05-06-1988	TO: 05-07-1988	DATE OF ANALYSIS	05-06-1988	
TIME(S) OF ANALYSIS	FROM: 08:16	TO: 15:17	TIME OF ANALYSIS	23:54	
			EPA SAMPLE NO. (STANDARD)	Individual Mix A	

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	1.65	1.63	1.67					
beta-BHC	1.80	1.78	1.82					
delta-BHC	2.05	2.02	2.08					
gamma-BHC	1.97	1.94	2.00	3.8 x10⁶	1.97	3.8 x10⁶		0
Heptaclor	3.27	3.25	3.29	4.9 x10⁶	3.27	5.0 x10⁶		2.0
Aldrin	4.10	4.07	4.13	3.7 x10⁶	4.10	3.8 x10⁶		2.7
Hept. epoxide	5.07	5.04	5.10	4.1 x10⁶	5.07	4.3 x10⁶		4.9
Endosulfan I	6.37	6.34	6.40	3.2 x10⁶	6.37	3.3 x10⁶		3.1
Dieldrin	7.48	7.45	7.51	3.3 x10⁶	~~7.48~~ 7.50 AB	3.5 x10⁶		6.1
4,4'-DDE	7.58	7.53	7.63					
Endrin	8.42	8.37	8.47					
Endosulfan II	8.60	8.54	8.66	2.2 x10⁶	8.57	2.4 x10⁶		9.1
4,4'-DDD	9.67	9.62	9.72					
Endo.sulfate	11.20	11.15	11.25					
4,4'-DDT	12.77	12.77	12.82	2.3 x10⁶	12.78	2.4 x10⁶		4.3
Methoxychlor	19.50	19.42	19.58	1.5 x10⁶	19.57	1.6 x10⁶		6.2
Endrin ketone	14.48	14.40	14.56					
a. Chlordane	6.52	6.50	6.54					
g. Chlordane	5.85	5.82	5.88					
Toxaphene	9.25	9.20	9.30					
Aroclor-1016	2.87	2.87	2.90					
Aroclor-1221	1.68	1.66	1.70					
Aroclor-1232	2.87	2.84	2.90					
Aroclor-1242	2.87	2.84	2.90					
Aroclor-1248	2.87	2.84	2.90					
Aroclor-1254	6.32	6.26	6.38					
Aroclor-1260	13.18	13.12	13.24					

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

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

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

PESTICIDE/PCB STANDARDS SUMMARY

01703

Lab Name: Rocky Mountain Analytical Contract: 68-01-0069

Lab Code: ENSECO Case No.: — SAS No.: — SDG No.: —

Instrument ID: B GC Column ID: 1.5% SP2250 / 1.9% SP2401

DATE(S) OF ANALYSIS FROM: 05-06-1988 TO: 05-07-1988
TIME(S) OF ANALYSIS FROM: 08:18 TO: 14:43

DATE OF ANALYSIS 05-06-1988
TIME OF ANALYSIS 23:32.
EPA SAMPLE NO. (STANDARD) Individual Mix A

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	1.38	1.36	1.40					
beta-BHC	2.10	2.08	2.12					
delta-BHC	2.45	2.43	2.47					
gamma-BHC	1.80	1.78	1.82	3.3×10^6	1.78	3.4×10^6		3.0
Heptaclor	2.23	2.21	2.25	5.0×10^6	2.22	5.0×10^6		0
Aldrin	2.72	2.70	2.74	3.3×10^6	2.72	3.4×10^6		3.0
Hept. epoxide	4.25	4.23	4.27	3.4×10^6	4.23	3.6×10^6		5.9
Endosulfan I	5.40	5.37	5.43	2.7×10^6	5.38	2.8×10^6		3.7
Dieldrin	6.65	6.63	6.67	3.4×10^6	6.62	3.6×10^6		5.9
4,4'-DDE	6.32	6.29	6.35					
Endrin	8.12	8.09	8.15					
Endosulfan II	9.95	9.92	9.98	2.6×10^6	9.90	2.8×10^6		7.7
4,4'-DDD	9.93	9.90	9.96					
Endo.sulfate	16.55	16.50	16.66					
4,4'-DDT	12.00	11.97	12.03	2.4×10^6	11.93	2.6×10^6		8.3
Methoxychlor	23.60	23.54	23.66	7.1×10^5	23.45	7.7×10^5		8.4 8.5
Endrin ketone	22.27	22.22	22.32					
a. Chlordane	5.20	5.17	5.23					
g. Chlordane	4.73	4.71	4.75					
Toxaphene	10.17	10.14	10.20					
Aroclor-1016	2.20	2.18	2.22					
Aroclor-1221	1.25	1.23	1.27					
Aroclor-1232	2.20	2.18	2.22					
Aroclor-1242	2.20	2.18	2.22					
Aroclor-1248	2.20	2.18	2.22					
Aroclor-1254	6.88	6.85	6.91					
Aroclor-1260	10.20	10.14	10.26					

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

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

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

PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: Rocky Mountain Analytical Contract: 68-01-0069 01704

Lab Code: ENSECO Case No.: — SAS No.: — SDG No.: —

Instrument ID: B GC Column ID: 3% SP2100

DATE(S) OF ANALYSIS FROM: 05-06-1988 TO: 05-07-1988
TIME(S) OF ANALYSIS FROM: 08:16 TO: 15:17

DATE OF ANALYSIS 05-07-1988
TIME OF ANALYSIS 07:33
EPA SAMPLE NO. (STANDARD) Individual Mix B

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	1.65	1.63	1.67	1.6×10^6	1.65	1.5×10^6		6.2
beta-BHC	1.80	1.78	1.82	9.3×10^5	1.80	9.3×10^5		0
delta-BHC	2.05	2.02	2.08	1.8×10^6	2.05	1.7×10^6		5.6
gamma-BHC	1.97	1.94	2.00					
Heptaclor	3.27	3.25	3.29					
Aldrin	4.10	4.07	4.13	5.3×10^3	4.10	5.1×10^3		3.8
Hept. epoxide	5.07	5.04	5.10					
Endosulfan I	6.37	6.34	6.40					
Dieldrin	7.48	7.45	7.51					
4,4'-DDE	7.58	7.53	7.63	2.1×10^6	7.60	2.0×10^6		4.8
Endrin	8.42	8.37	8.47	2.2×10^3	8.42	2.0×10^3		9.1
Endosulfan II	8.60	8.54	8.66					
4,4'-DDD	9.67	9.62	9.72	1.9×10^6	9.67	1.8×10^6		5.3
Endo.sulfate	11.20	11.15	11.25	1.7×10^6	11.22	1.7×10^6		0
4,4'-DDT	12.77	12.72	12.82					
Methoxychlor	19.50	19.42	19.58					
Endrin ketone	14.48	14.40	14.56	3.3×10^6	14.48	3.2×10^6		3.0
a. Chlordane	6.52	6.50	6.54					
g. Chlordane	5.85	5.82	5.88					
Toxaphene	9.25	9.20	9.30					
Aroclor-1016	2.87	2.84	2.90					
Aroclor-1221	1.68	1.66	1.70					
Aroclor-1232	2.87	2.84	2.90					
Aroclor-1242	2.87	2.84	2.90					
Aroclor-1248	2.87	2.84	2.90					
Aroclor-1254	6.32	6.26	6.38					
Aroclor-1260	13.18	13.12	13.24					

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

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

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

PESTICIDE/PCB STANDARDS SUMMARY

01705

Lab Name: Rocky Mountain Analytical Contract: 68-01-0069

Lab Code: ENSECO Case No.: — SAS No.: — SDG No.: —

Instrument ID: B GC Column ID: 1.5% SP2250 / 1.9% SP2401

DATE(S) OF ANALYSIS FROM: 05-06-1988 TO: 05-07-1988
TIME(S) OF ANALYSIS FROM: 08:18 TO: 14:43

DATE OF ANALYSIS 05-07-1988
TIME OF ANALYSIS 07:04
EPA SAMPLE NO. (STANDARD) Individual Mix B

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	1.38	1.36	1.40	3.6×10^6	1.38	4.0×10^6		11.
beta-BHC	2.10	2.08	2.12	2.0×10^6	2.08	2.1×10^6		5.0
delta-BHC	2.45	2.43	2.47	2.9×10^6	2.43	3.2×10^6		10.
gamma-BHC	1.80	1.78	1.82					
Heptaclor	2.23	2.21	2.25					
Aldrin	2.72	2.70	2.74	3.2×10^6	2.70	3.4×10^6		6.2
Hept. epoxide	4.25	4.23	4.27					
Endosulfan I	5.40	5.37	5.43					
Dieldrin	6.65	6.63	6.67					
4,4'-DDE	6.32	6.29	6.35	3.0×10^6	6.27	3.1×10^6		3.3
Endrin	8.12	8.09	8.15	2.9×10^6	8.05	3.0×10^6		3.4
Endosulfan II	9.95	9.92	9.98					
4,4'-DDD	9.93	9.90	9.96	2.9×10^6	9.83	3.1×10^6		6.9
Endo.sulfate	16.55	16.50	16.66	2.2×10^6	16.42	2.5×10^6		14
4,4'-DDT	12.00	11.97	12.03					
Methoxychlor	23.60	23.54	23.66					
Endrin ketone	22.27	22.22	22.32	1.0×10^7	22.07	1.1×10^7		10
a. Chlordane	5.20	5.17	5.23					
g. Chlordane	4.73	4.71	4.75					
Toxaphene	10.17	10.14	10.20					
Aroclor-1016	2.20	2.18	2.22					
Aroclor-1221	1.25	1.23	1.27					
Aroclor-1232	2.20	2.18	2.22					
Aroclor-1242	2.20	2.18	2.22					
Aroclor-1248	2.20	2.18	2.22					
Aroclor-1254	6.88	6.85	6.91					
Aroclor-1260	10.20	10.14	10.26					

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

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

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

PESTICIDE/PCB STANDARDS SUMMARY

01706

Lab Name: Rocky Mountain Analytical Contract: 68-01-0069

Lab Code: ENSECO Case No.: — SAS No.: — SDG No.: —

Instrument ID: B GC Column ID: 3% SP2100

DATE(S) OF ANALYSIS FROM: 05-06-1988 TO: 05-07-1988
TIME(S) OF ANALYSIS FROM: 08:16 TO: 15:17

DATE OF ANALYSIS 05-07-1988
TIME OF ANALYSIS 15:17
EPA SAMPLE NO. (STANDARD) Individual Mix A

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	1.65	1.63	1.67					
beta-BHC	1.80	1.78	1.82					
delta-BHC	2.05	2.02	2.08					
gamma-BHC	1.97	1.94	2.00	3.8×10^6	1.97	4.0×10^6		5.3
Heptaclor	3.27	3.25	3.29	4.9×10^6	3.28	5.3×10^6		8.2
Aldrin	4.10	4.07	4.13	3.7×10^6	4.10	4.0×10^6		8.1
Hept. epoxide	5.07	5.04	5.10	4.1×10^6	5.08	4.5×10^6		9.8
Endosulfan I	6.37	6.34	6.40	3.2×10^6	6.37	3.5×10^6		9.4
Dieldrin	7.48	7.45	7.51	3.3×10^6	7.50	3.6×10^6		9.1
4,4'-DDE	7.58	7.53	7.63					
Endrin	8.42	8.37	8.47					
Endosulfan II	8.60	8.54	8.66	1.8×10^3	8.58	2.0×10^3		11
4,4'-DDD	9.67	9.62	9.72					
Endo.sulfate	11.20	11.15	11.25					
4,4'-DDT	12.77	12.77	12.82	2.3×10^6	12.78	2.5×10^6		8.7
Methoxychlor	19.50	19.42	19.58	4.4×10^2	19.53	4.8×10^2		9.1
Endrin ketone	14.48	14.40	14.56					
a. Chlordane	6.52	6.50	6.54					
g. Chlordane	5.85	5.82	5.88					
Toxaphene	9.25	9.20	9.30					
Aroclor-1016	2.87	2.84	2.90					
Aroclor-1221	1.68	1.66	1.70					
Aroclor-1232	2.87	2.84	2.90					
Aroclor-1242	2.87	2.84	2.90					
Aroclor-1248	2.87	2.84	2.90					
Aroclor-1254	6.32	6.26	6.38					
Aroclor-1260	13.18	13.12	13.24					

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

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

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

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PESTICIDE/PCB STANDARDS SUMMARY

01707

Lab Name: Rocky Mountain Analytical Contract: 68-01-0069

Lab Code: ENSECO Case No.: — SAS No.: — SDG No.: —

Instrument ID: B GC Column ID: 1.5% SP2250 / 1.9% SP2401

DATE(S) OF ANALYSIS FROM: 05-06-1988 TO: 05-07-1988
TIME(S) OF ANALYSIS FROM: 08:18 TO: 14:43

DATE OF ANALYSIS 05-07-1988
TIME OF ANALYSIS 14:43
EPA SAMPLE NO. (STANDARD) Individual Mix A

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	1.38	1.36	1.40					
beta-BHC	2.10	2.08	2.12					
delta-BHC	2.45	2.43	2.47					
gamma-BHC	1.80	1.78	1.82	3.3×10^6	1.78	3.6×10^6		9.1
Heptaclor	2.23	2.21	2.25	5.0×10^6	2.22	5.1×10^6		2.0
Aldrin	2.72	2.70	2.74	3.3×10^6	2.70	3.6×10^6		9.1
Hept. epoxide	4.25	4.23	4.27	3.4×10^6	4.20	3.8×10^6		12
Endosulfan I	5.40	5.37	5.43	2.7×10^6	5.35	3.0×10^6		11
Dieldrin	6.65	6.63	6.67	3.4×10^6	6.58	3.8×10^6		12
4,4'-DDE	6.32	6.29	6.35					
Endrin	8.12	8.09	8.15					
Endosulfan II	9.95	9.92	9.98	2.6×10^6	9.85	3.0×10^6		15
4,4'-DDD	9.93	9.90	9.96					
Endo.sulfate	16.55	16.50	16.66					
4,4'-DDT	12.00	11.97	12.03	2.4×10^6	11.87	2.8×10^6		17
Methoxychlor	23.60	23.54	23.66	2.1×10^2	23.33	2.4×10^2		14
Endrin ketone	22.27	22.22	22.32					
a. Chlordane	5.20	5.17	5.23					
g. Chlordane	4.73	4.71	4.75					
Toxaphene	10.17	10.14	10.20					
Aroclor-1016	2.20	2.18	2.22					
Aroclor-1221	1.25	1.23	1.27					
Aroclor-1232	2.20	2.18	2.22					
Aroclor-1242	2.20	2.18	2.22					
Aroclor-1248	2.20	2.18	2.22					
Aroclor-1254	6.88	6.85	6.91					
Aroclor-1260	10.20	10.14	10.26					

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

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

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

PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: Rocky Mountain Analytical / Contract: 68-01-0069 01708

Lab Code: Enseco Case No.: — SAS No.: — SDG No.: —

Instrument ID: B GC Column ID: 3% SP2100

DATE(S) OF ANALYSIS FROM: 05-12-1988 TO: 05-13-1988
TIME(S) OF ANALYSIS FROM: 08:29 TO: 08:51

DATE OF ANALYSIS 05-13-1988
TIME OF ANALYSIS 08:28
EPA SAMPLE NO. (STANDARD) Individual Mix A

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	1.65	1.63	1.67					
beta-BHC	1.78	1.76	1.80					
delta-BHC	2.05	2.02	2.08					
gamma-BHC	1.97	1.94	2.00	4.6×10^6	1.97	5.0×10^6	N	8.7
Heptaclor	3.27	3.25	3.29	5.8×10^6	3.27	6.3×10^6	N	8.6
Aldrin	4.10	4.07	4.13	4.5×10^6	4.10	4.9×10^6	N	8.9
Hept. epoxide	5.07	5.04	5.10	5.2×10^6	5.07	5.8×10^6	N	12
Endosulfan I	6.35	6.32	6.38	3.9×10^6	6.37	4.4×10^6	N	13
Dieldrin	7.48	7.45	7.51	4.2×10^6	7.48	4.6×10^6	N	9.5
4,4'-DDE	7.58	7.53	7.63					
Endrin	8.40	8.35	8.45					
Endosulfan II	8.57	8.51	8.63	2.9×10^6	8.57	3.2×10^6	N	10
4,4'-DDD	9.65	9.60	9.70					
Endo.sulfate	11.18	11.13	11.23					
4,4'-DDT	12.75	12.70	12.80	3.0×10^6	12.77	3.2×10^6	N	6.7
Methoxychlor	19.48	19.40	19.56	2.0×10^6	19.50	2.2×10^6	N	10
Endrin ketone	14.45	14.37	14.53					
a. Chlordane	6.52	6.50	6.54					
g. Chlordane	5.83	5.80	5.86					
Toxaphene	9.25	9.20	9.30					
Aroclor-1016	2.87	2.84	2.90					
Aroclor-1221	1.68	1.66	1.70					
Aroclor-1232	2.87	2.84	2.90					
Aroclor-1242	2.87	2.84	2.90					
Aroclor-1248	2.87	2.84	2.90					
Aroclor-1254	6.30	6.24	6.36					
Aroclor-1260	13.15	13.09	13.21					

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

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

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

PESTICIDE/PCB STANDARDS SUMMARY

01709

Lab Name: Rocky Mountain Analytical | Contract: 68-01-0069

Lab Code: Enseco Case No.: - SAS No.: - SDG No.: -

Instrument ID: B GC Column ID: 1.5%SP2250/1.95% SP2401

DATE(S) OF ANALYSIS FROM: 05-12-1988 TO: 05-13-1988
TIME(S) OF ANALYSIS FROM: 08:26 TO: 08:08

DATE OF ANALYSIS 05-13-1988
TIME OF ANALYSIS 07:29
EPA SAMPLE NO. (STANDARD) Individual/Mix A

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	1.42	1.40	1.44					
beta-BHC	2.13	2.11	2.15					
delta-BHC	2.50	2.48	2.52					
gamma-BHC	1.83	1.81	1.85	6.3×10^6	1.83	6.5×10^6	Y	3.2
Heptaclor	2.27	2.25	2.29	8.3×10^6	2.27	7.7×10^6	Y	7.2
Aldrin	2.77	2.75	2.79	5.1×10^6	2.77	5.4×10^6	Y	5.9
Hept. epoxide	4.32	4.30	4.34	5.5×10^6	4.32	5.7×10^6	Y	3.6
Endosulfan I	5.50	5.47	5.53	4.2×10^6	5.48	4.5×10^6	Y	7.1
Dieldrin	6.77	6.75	6.79	5.4×10^6	6.75	5.7×10^6	Y	5.6
4,4'-DDE	6.42	6.39	6.45					
Endrin	8.25	8.22	8.28					
Endosulfan II	10.12	10.09	10.15	4.2×10^6	10.08	4.6×10^6	Y	9.5
4,4'-DDD	10.08	10.05	10.11					
Endo.sulfate	16.85	16.80	16.90					
4,4'-DDT	12.17	12.14	12.20	4.1×10^6	12.15	4.2×10^6	Y	2.4
Methoxychlor	23.93	23.87	23.99	1.2×10^6	23.87	1.3×10^6	Y	8.3
Endrin ketone	22.60	22.55	22.65					
a. Chlordane	5.28	5.25	5.31					
g. Chlordane	4.82	4.80	4.84					
Toxaphene	10.35	10.32	10.38					
Aroclor-1016	2.25	2.23	2.27					
Aroclor-1221	1.28	1.26	1.30					
Aroclor-1232	2.25	2.23	2.27					
Aroclor-1242	2.25	2.23	2.27					
Aroclor-1248	2.25	2.23	2.27					
Aroclor-1254	7.02	6.99	7.05					
Aroclor-1260	10.37	10.31	10.43					

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

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

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

FORM IX PEST 1/87 Rev.

PESTICIDE/PCB STANDARDS SUMMARY

01710

Lab Name: Rocky Mountain Analytical / Contract: 68-01-0069

Lab Code: Enseco Case No.: — SAS No.: — SDG No.: —

Instrument ID: B GC Column ID: 3% SP2100

DATE(S) OF ANALYSIS FROM: 05-12-1988 TO: 05-13-1988
TIME(S) OF ANALYSIS FROM: 08:29 TO: 08:51

DATE OF ANALYSIS 05-13-1988
TIME OF ANALYSIS 08:51
EPA SAMPLE NO. (STANDARD) Individual Mix B

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	1.65	1.63	1.67	1.7×10^6	1.65	2.0×10^6	N	18
beta-BHC	1.78	1.76	1.80	9.9×10^5	1.78	1.1×10^6	N	11
delta-BHC	2.05	2.02	2.08	1.9×10^6	2.05	2.2×10^6	N	16
gamma-BHC	1.97	1.94	2.00					
Heptaclor	3.27	3.25	3.29					
Aldrin	4.10	4.07	4.13	3.7×10^6	4.10	4.3×10^6	N	16
Hept. epoxide	5.07	5.04	5.10					
Endosulfan I	6.35	6.32	6.38					
Dieldrin	7.48	7.45	7.51					
4,4'-DDE	7.58	7.53	7.63	2.1×10^6	7.58	2.4×10^6	N	14
Endrin	8.40	8.35	8.45	2.4×10^6	8.40	2.9×10^6	N	21
Endosulfan II	8.57	8.51	8.63					
4,4'-DDD	9.65	9.60	9.70	2.1×10^6	9.65	2.3×10^6	N	9.5
Endo.sulfate	11.18	11.13	11.23	1.9×10^6	11.18	2.1×10^6	N	11
4,4'-DDT	12.75	12.70	12.80					
Methoxychlor	19.48	19.40	19.56					
Endrin ketone	14.45	14.37	14.53	3.7×10^6	14.47	4.1×10^6	N	11
a. Chlordane	6.52	6.50	6.54					
g. Chlordane	5.83	5.80	5.86					
Toxaphene	9.25	9.20	9.30					
Aroclor-1016	2.87	2.84	2.90					
Aroclor-1221	1.68	1.66	1.70					
Aroclor-1232	2.87	2.84	2.90					
Aroclor-1242	2.87	2.84	2.90					
Aroclor-1248	2.87	2.84	2.90					
Aroclor-1254	6.30	6.24	6.36					
Aroclor-1260	13.15	13.09	13.21					

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

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

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

PESTICIDE/PCB STANDARDS SUMMARY

Lab Name: Rocky Mountain Analytical | Contract: 68-01-0066 01711

Lab Code: Enseco Case No.: - SAS No.: - SDG No.: -

Instrument ID: B GC Column ID: 1.5% SP2250 / 1.95% SP2401

DATE(S) OF ANALYSIS FROM: 05-12-1988 TO: 05-13-1988
TIME(S) OF ANALYSIS FROM: 08:26 TO: 08:08

DATE OF ANALYSIS 05-13-1988
TIME OF ANALYSIS 08:08
EPA SAMPLE NO. (STANDARD) Individual Mix B

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	RT	CALIBRATION FACTOR	QNT Y/N	%D
alpha-BHC	1.42	1.40	1.44	4.7×10^6	1.42	5.0×10^6	Y	6.4
beta-BHC	2.13	2.11	2.15	2.8×10^6	2.12	2.8×10^6	Y	0.0
delta-BHC	2.50	2.48	2.52	4.0×10^6	2.48	4.3×10^6	Y	7.5
gamma-BHC	1.83	1.81	1.85					
Heptaclor	2.27	2.25	2.29					
Aldrin	2.77	2.75	2.79	4.2×10^6	2.77	4.6×10^6	Y	9.5
Hept. epoxide	4.32	4.30	4.34					
Endosulfan I	5.50	5.47	5.53					
Dieldrin	6.77	6.75	6.79					
4,4'-DDE	6.42	6.39	6.45	4.0×10^6	6.38	4.4×10^6	Y	10
Endrin	8.25	8.22	8.28	3.2×10^6	8.22	3.7×10^6	N	16
Endosulfan II	10.12	10.09	10.15					
4,4'-DDD	10.08	10.05	10.11	3.9×10^6	10.03	4.2×10^6	Y	7.7
Endo.sulfate	16.85	16.80	16.90	3.0×10^6	16.78	3.3×10^6	Y	10
4,4'-DDT	12.17	12.14	12.20					
Methoxychlor	23.93	23.87	23.99					
Endrin ketone	22.60	22.55	22.65	1.4×10^7	22.50	1.5×10^7	Y	7.1
a. Chlordane	5.28	5.25	5.31					
g. Chlordane	4.82	4.80	4.84					
Toxaphene	10.35	10.32	10.38					
Aroclor-1016	2.25	2.23	2.27					
Aroclor-1221	1.28	1.26	1.30					
Aroclor-1232	2.25	2.23	2.27					
Aroclor-1242	2.25	2.23	2.27					
Aroclor-1248	2.25	2.23	2.27					
Aroclor-1254	7.02	6.99	7.05					
Aroclor-1260	10.37	10.31	10.43					

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

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

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

FORM IX PEST 1/87 Rev.

CONTINUING CALIBRATION CHECK
SEMIVOLATILES COMPOUNDS

PAH CALIB
01712

CASE NO: 59436
CONTRACTOR: RMAL
CONTRACT NO: --Dh
INSTRUMENT ID: X

CALIBRATION DATE: 6-2-88
TIME: 16:23
LABORATORY ID: STDX816
INITIAL CALIBRATION DATE: 10-20-87

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 35%

COMPOUND		AVG RF	RF 80.	% DIFF	CCC	SPCC
D12-CHRYSENE	240SP	1.674	1.535	8.3		
BENZO(A)ANTHRACENE	228 P	1.708	1.619	5.1	*	
CHRYSENE	228 P	1.774	1.696	4.4	*	
BENZO(B)FLUORANTHENE	252 P	1.648	1.680	-1.9	*	
BENZO(K)FLUORANTHENE	252 P	1.498	1.680	-12.1	*	
BENZO(A)PYRENE	252 P	1.251	1.390	-11.1	*	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
SEMIVOLATILES COMPOUNDS

PAHC84B
01713

CASE NO: 59436
CONTRACTOR: RMAL
CONTRACT NO: DK
INSTRUMENT ID: X

CALIBRATION DATE: 6-3-88
TIME: 9:22
LABORATORY ID: STDX827
INITIAL CALIBRATION DATE: 10-20-87

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 35%

COMPOUND		AVG RF	RF 80.	% DIFF	CCC	SPCC
D12-CHRYSENE	240SP	1.674	1.311	21.6		
BENZO(A)ANTHRACENE	228 P	1.708	1.395	18.3	*	
CHRYSENE	228 P	1.774	1.428	19.5	*	
BENZO(B)FLUORANTHENE	252 P	1.648	1.625	1.4	*	
BENZO(K)FLUORANTHENE	252 P	1.498	1.625	-8.4	*	
BENZO(A)PYRENE	252 P	1.251	1.331	-6.3	*	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
SEMIVOLATILES COMPOUNDS

01714

CASE NO: 59436
CONTRACTOR: RMAL
CONTRACT NO: --- NA
INSTRUMENT ID: X

CALIBRATION DATE: 6-3-88
TIME: 15:31
LABORATORY ID: STDX833
INITIAL CALIBRATION DATE: 10-20-87

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 35%

COMPOUND		AVG RF	RF 80.	% DIFF	CCC	SPCC
D12-CHRYSENE	240SP	1.674	1.352	19.2		
BENZO(A)ANTHRACENE	228 P	1.708	1.384	18.9	*	
CHRYSENE	228 P	1.774	1.384	21.9	*	
BENZO(B)FLUORANTHENE	252 P	1.648	1.498	9.1	*	
BENZO(K)FLUORANTHENE	252 P	1.498	1.286	14.1	*	
BENZO(A)PYRENE	252 P	1.251	1.183	5.3	*	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**)
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
SEMIVOLATILES COMPOUNDS

CASE NO: 59436
CONTRACTOR: RMAL
CONTRACT NO: N/A
INSTRUMENT ID: X

CALIBRATION DATE: 6-6-88
TIME: 15:30
LABORATORY ID: STDX866
INITIAL CALIBRATION DATE: 10-20-87

01715

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 35%

COMPOUND		AVG RF	RF 80.	% DIFF	CCC	SPCC
D12-CHRYSENE	240SP	1.674	1.638	2.1		
BENZO(A)ANTHRACENE	228 P	1.708	1.505	11.8	*	
CHRYSENE	228 P	1.774	1.504	15.2	*	
BENZO(B)FLUORANTHENE	252 P	1.648	1.471	10.7	*	
BENZO(K)FLUORANTHENE	252 P	1.498	1.439	3.9	*	
BENZO(A)PYRENE	252 P	1.251	1.279	-2.2	*	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**)
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

CONTINUING CALIBRATION CHECK
SEMIVOLATILES COMPOUNDS

01716

CASE NO: 59436
CONTRACTOR: RMAL
CONTRACT NO: --- N/A
INSTRUMENT ID: X

CALIBRATION DATE: 6-7-88
TIME: 9:51
LABORATORY ID: STDX880
INITIAL CALIBRATION DATE: 10-20-87

MINIMUM RF FOR SPCC IS 0.050 MAXIMUM %D FOR CCC IS 35%

COMPOUND		AVG RF	RF 80.	% DIFF	CCC	SPCC
D12-CHRYSENE	240SP	1.674	1.391	16.8		
BENZO(A)ANTHRACENE	228 P	1.708	1.383	18.9	*	
CHRYSENE	228 P	1.774	1.364	23.1	*	
BENZO(B)FLUORANTHENE	252 P	1.648	1.590	3.5	*	
BENZO(K)FLUORANTHENE	252 P	1.498	1.391	7.1	*	
BENZO(A)PYRENE	252 P	1.251	1.332	-6.4	*	

AVG RF - AVERAGE RESPONSE FACTOR SPCC - SYSTEM PERFORMANCE CHECK COMPOUND(**
%RSD - PERCENT RELATIVE STANDARD DEVIATION
CCC - CALIBRATION CHECK COMPOUNDS(*) # - NOT DETECTABLE AT LOW LEVEL

Form VII

ROCKY MOUNTAIN ANALYTICAL LABORATORY
ORGANIC MASS SPECTROMETRY DIVISION
TARGET COMPOUND DATA SUMMARY SHEET

Sample: 59436-08
Date Analyzed: 06/01/88

Units: ug/L
Run Factor: 2.04

SURROGATE SPIKE RECOVERIES
PYRIDINES

Compound	Surrogate Amount (ug) Spiked	Measured	% Recovery Measured	QC Limits
Pyridine-D5	100.0	59.8	60	50-150

TARGET COMPOUNDS

Sample Concentration ug/l	Detection Limit(ppb)	Compound	CAS #
	10 U	Pyridine	110-86-1
	10 U	2-Picoline	109-06-8
	10 U	3 & 4-Picoline	
	10 U	2,6-Lutidine	
	10 U	2-Ethyl Pyridine	
	10 U	2,4 & 2,5-Lutidine	
	10 U	2,3-Lutidine	
	10 U	3-Ethyl Pyridine	
	10 U	4-Ethyl Pyridine	
	10 U	3,5-Lutidine	
	10 U	3,4-Lutidine	
	10 U	2-Methyl-5-Ethyl Pyridine	
	10 U	2-Methyl-3-Ethyl Pyridine	
	10 U	M and P Cresols	
	10 U	3-Ethyl-4-Methyl Pyridine	
	10 U	3-Ethyl-5-Methyl Pyridine	
	10 U	2,6-Dimethyl Phenol	
	10 U	2,5-Dimethyl Phenol	
	10 U	3,5-Dimethyl Phenol	
	10 U	2,3-Dimethyl Phenol	
	10 U	3,4-Dimethyl Phenol	
	10 U	1-Methylnaphthalene	90-12-0

FORM I

ROCKY MOUNTAIN ANALYTICAL LABORATORY
ORGANIC MASS SPECTROMETRY DIVISION
TARGET COMPOUND DATA SUMMARY SHEET

Sample: 59436-08
Date Analyzed: 06/03/88

Units: ug/L
Run Factor: 0.132

Surrogate Spike Recoveries

Compound	Surrogate Amount (ug) Spiked	Measured	% Recovery Measured	QC Limits
D12-Chrysene	80.0	74.4	93	10-118

Target Compounds

Sample Concentration(ng/l)	Detection Limit (ppt)	Compound
	10 U	Benzo(A)Anthracene
3.5	J	Chrysene
	10 U	Benzo(B)Fluoranthene
	10 U	Benzo(K)Fluoranthene
	10 U	Benzo(A)Pyrene

Laboratory Name: Rocky Mountain Analytical Lab
Case No: 59436

Sample Number:
59436-08

00582

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/ PCB's:

Concentration : Low
Date Ext./Prep :04/23/88
Date Analyzed :05/06/88
Conc./Dil Factor : 50.5
Percent Moisture :

GPC Cleanup :No
Separatory Funnel Extract.:Yes
Cont. Liquid/Liquid Extr. :No
Sonication Extraction :No

CAS Number	Compound	Value	ug/ L
319-84-6	Alpha-BHC		0.05 U
319-85-7	Beta-BHC		0.05 U
319-86-8	Delta-BHC		0.05 U
58-89-9	Gamma-BHC(Lindane)		0.05 U
76-44-8	Heptachlor		0.05 U
309-00-2	Aldrin		0.05 U
1204-57-3	Heptachlor Epoxide		0.05 U
959-98-8	Endosulfan I		0.05 U
60-57-1	Dieldrin		0.10 U
72-55-9	4,4'-DDE		0.10 U
72-20-8	Endrin		0.10 U
33213-65-9	Endosulfan II		0.10 U
72-54-8	4,4'-DDD		0.10 U
1031-07-8	Endosulfan Sulfate		0.10 U
50-29-3	4,4'-DDT		0.10 U
72-43-5	Methoxychlor		0.51 U
53494-70-5	Endrin Ketone		0.10 U
57-74-9	Chlordane		0.51 U
8001-35-2	Toxaphene		1.00 U
12674-11-2	Aroclor-1016		0.51 U
11104-28-2	Aroclor-1221		0.51 U
11141-16-5	Aroclor-1232		0.51 U
53469-21-9	Aroclor-1242		0.51 U
12672-29-6	Aroclor-1248		0.51 U
11097-69-1	Aroclor-1254		1.00 U
11096-82-5	Arolcor-1260		1.00 U

Vi = Volume of extract injected (ul) Vi = 2ul/4ul
Vs = Volume of water extracted (ml) Vs = 990 ml
Ws = Weight of sample extracted (g) Ws = N/A
Vt = Volume of total extract (ul) Vt = 1000 ul

4/29/88 17:56:54 SCAN 1 OF 730

Acquisition started

00583 OR

Acquire
04/29/88 17:56:00 + 0:03
Sample: 59436-08 VOA H2O 100%/5ML
Conds.: GC DESC V3
Formula:
Submitted by: RMAL

Run 3:S59436W924
Free sectors: 19040
Instrument: 5100
Analyst: DC

Acquiring
Scan: 1 of 730
Weight: 0.026
Acct. No: 59436

*** GC descriptor: V3 ***

GC temperature: 60 DegC
Elapsed time : 0: 7 min

Injector: 50 DegC
Interface: 220 DegC

Seq. #	Temp (DegC)	Rate (C/min)	Time (minutes) period	total
1	60- 60	-	2.0	2.0
2	60-250	7.0	27.1	29.1
3	250-250	-	10.0	39.1
4	250-250	-	0.0	39.1

Valve times (minutes)

	Open	Close
Sweep/Split	36.1	0.0
Divert	36.1	0.8

*** Scan Parameters ***

Low mass: 40 u
High mass: 260 u

Scan time (s)
Up: 2.95 L*
Down: 0.00 L

Hold time (s)
Top: 0.00
Bottom: 0.05

Cent S/P: 10 Actual: 67
Frag S/P: 10 Actual: 10

Samp int (ms): 0.200
Samp int (ms): 1.400

Peak width: 1000.
Inten/ion: 2

Min peak width: 3
ADC threshold: 1

Min frag width %: 81
Baseline: 0

Min area: 20

MODE: EI (+) Centroid + Temp

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	Q	
Full scale mass	812	u
Zero scale mass	1	u
Intensity/ion	2	
Peak width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(ms)	4	

Current instrument parameters.

	Positive ion mode	Negative ion mode
Resolution (high)	126.00	128.00
Resolution (low)	125.00	128.00
Ion energy	1.88	-4.00
Ion programming	5.41	-4.00
Lens voltage	-80.00	50.20
Extractor voltage	0.94	not used

Electron multiplier voltage: -2106.
Electrometer Range: 10 ^-7
Electrometer zero: -4.4

4/29/88 18:33:27

Acquisition completed
Scans 1 to 730 centroid

Mode	Scans	Secs	out of	%	Peaks per scan	per second	
Centroid	730	47.7	2190.0	2.2	18426.	25.	8.

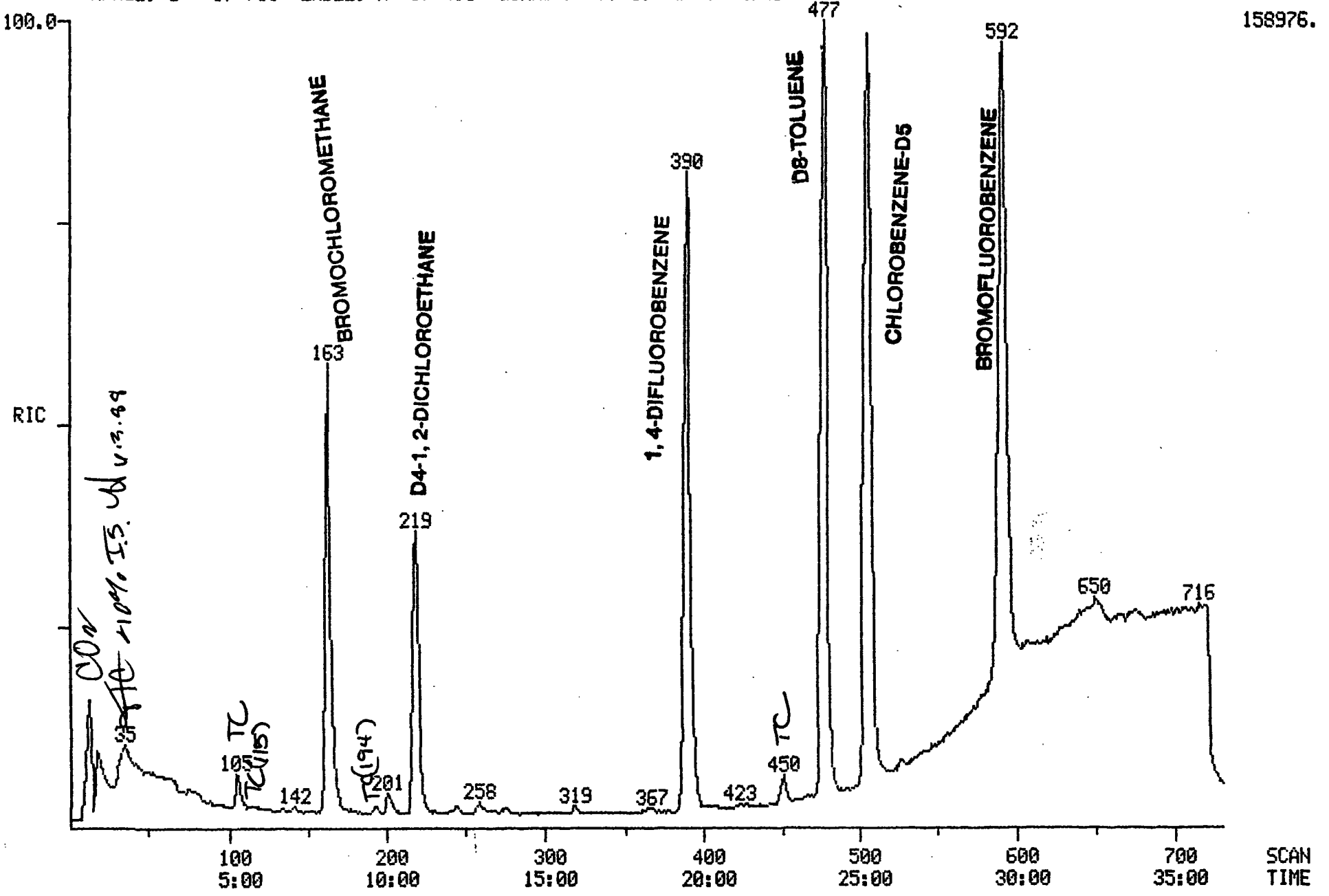
00584

RIC
04/29/88 17:56:00
SAMPLE: 59436-08 VOA H2O 100%/5ML
CONDS.: GC DESC V3
RANGE: G 1, 730 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 559436W924 #4 SCANS 1 TO 730
CALI: 042988CW #3

TIC=Tentatively Identified Compound

TC=Target Compound
SC= Spike Compound



PROCEDURE: TCA DIAGNOSTIC REPORT 4/30/88 1:41:34
DATA FILE: S59436W924
REFERENCE: 11TABLE
NAME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: ISO1

00585

< ---- STANDARDS ----- >				< --- PLUS UNKNOWNS --- >				< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	1	0	9	3	4	52	ISO1/TCO1
3	3	2	0	18	9	6	81	ISO2/TCO2
3	3	1	0	12	7	6	41	ISO3/TCO3
1	1	1	0	7	2	1	0	ISO4/TCO4

41 COMPOUNDS PROCESSED, 16 FOUND

< COMPOUND >				< ---------- SEARCH ---------- >					< SAT >	< ------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	V1	1	-161	163	163	.	1	961	.	128	163	.	1
2	V1	10	-28	26	.	.	.	.	.	50	.	.	.
3	V1	15	-44	42	.	.	.	.	.	94	.	.	.
4	V1	25	-56	55	.	.	.	.	.	62	.	.	.
5	V1	35	-70	69	.	.	.	.	.	64	.	.	.
6	V1	45	-105	105	105	.	1	986	.	84	105	.	1
7	V1	50	-114	115	115	.	4	998	.	58	115	.	1
8	V1	65	-132	133	.	.	.	.	.	76	.	.	.
9	V1	80	-153	155	.	.	.	.	.	96	.	.	.
10	V2	1	-388	390	390	.	1	996	.	114	390	.	1
11	V3	1	-503	505	505	.	2	995	.	117	505	.	1
12	V1	90	-179	180	.	.	.	.	.	63	.	.	.
13	V1	95	-193	194	193	-1	1	970	.	96	194	1	1
14	V1	100	-204	205	205	.	1	936	.	83	205	.	1
15	V1	2	-218	219	219	.	1	988	.	65	219	.	1
16	V2	10	-218	219	219	.	3	807	.	72	.	.	.
17	V1	110	-220	221	.	.	.	.	.	62	.	.	.
18	V2	15	-248	249	.	.	.	.	.	97	249	.	1
19	V2	20	-256	257	.	.	.	.	.	117	.	.	.
20	V2	25	-259	260	260	.	2	966	.	43	.	.	.
21	V2	30	-267	268	.	.	.	.	.	83	.	.	.
22	V2	35	-298	300	.	.	.	.	.	63	.	.	.
23	V2	40	-304	306	.	.	.	.	.	75	.	.	.
24	V2	45	-316	318	319	1	1	863	.	130	319	.	1
25	V2	60	-329	331	.	.	.	.	.	78	.	.	.
26	V2	50	-330	332	.	.	.	.	.	129	.	.	.
27	V2	65	-333	335	.	.	.	.	.	75	.	.	.
28	V2	55	-333	335	.	.	.	.	.	97	.	.	.
29	V2	80	-393	395	.	.	.	.	.	173	.	.	.
30	V3	10	-404	406	407	1	2	921	.	58	407	.	1
31	V3	15	-441	443	443	.	3	961	.	58	.	.	.
32	V3	25	-447	449	.	.	.	.	.	83	449	.	1
33	V3	20	-448	450	450	.	1	994	.	164	450	.	1
34	V3	2	-475	477	477	.	1	991	.	98	477	.	1
35	V3	35	-480	482	.	.	.	.	.	92	.	.	.
36	V3	40	-506	508	.	.	.	.	.	112	.	.	.
37	V3	50	-549	550	.	.	.	.	.	106	.	.	.
38	V3	3	-591	591	591	.	1	987	.	95	591	.	1
39	V3	55	-611	611	.	.	.	.	.	104	.	.	.
40	V3	60	-615	614	.	.	.	.	.	106	.	.	.
41	V3	75	-628	627	.	.	.	.	.	106	.	.	.

Quantitation Report File: S59436W924

Data: S59436W924.TI
04/29/88 17:56:00
Sample: 59436-08 VOA H2O 100%/5ML
Conds.: GC DESC V3
Formula: Instrument: 5100 Weight: 0.026
Submitted by: RMAL Analyst: DC Acct. No.: 59436

00586

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

No	Name				
1	CI01 BROMOCHLOROMETHANE	128	IV1#	01	74-97-5
2	C010 CHLOROMETHANE	50	V1#	10SP	74-87-3
3	C015 BROMOMETHANE	94	V1#	15	74-83-9
4	C020 VINYL CHLORIDE	62	V1#	25	75-01-4
5	C025 CHLOROETHANE	64	V1#	35	75-00-3
6	C030 METHYLENE CHLORIDE	84	V1#	45	75-09-2
7	C035 ACETONE	58	V1#	50	67-64-1
8	C040 CARBON DISULFIDE	76	V1#	65	75-15-0
9	C045 1,1-DICHLOROETHENE	61	V1#	80	75-35-4
10	CI10 1,4-DIFLUOROBENZENE	114	IV2#	01	540-36-3
11	CI20 CHLOROBENZENE-D5	117	IV3#	01	3114-55-4
12	C050 1,1-DICHLOROETHANE	63	V1#	90	75-34-3
13	TRANS-1,2-DICHLOROETHENE	61	V1#	95	156-60-5
14	C060 CHLOROFORM	83	V1#	100CC	67-66-3
15	CS15 1,2-DICHLOROETHANE-D4	65	SV1#	02	17060-07-0
16	C110 2-BUTANONE	72	V2#	10	78-93-3
17	C065 1,2-DICHLOROETHANE	62	V1#	110	107-06-2
18	C115 1,1,1-TRICHLOROETHANE	97	V2#	15	71-55-6
19	C120 CARBONTETRACHLORIDE	117	V2#	20	56-23-5
20	C125 VINYL ACETATE	43	V2#	25	108-05-4
21	C130 BROMODICHLOROMETHANE	83	V2#	30	75-27-4
22	C140 1,2-DICHLOROPROPANE	63	V2#	35CC	78-87-5
23	C143 CIS-1,3-DICHLOROPROPENE	75	V2#	40	10061-01-5
24	C150 TRICHLOROETHENE	130	V2#	45	79-01-6
25	C165 BENZENE	78	V2#	60	71-43-2
26	C155 DIBROMOCHLOROMETHANE	129	V2#	50	124-48-1
27	C172 TRANS-1,3-DICHLOROPROPE	75	V2#	65	10061-02-6
28	C160 1,1,2-TRICHLOROETHANE	97	V2#	55	79-00-5
29	C180 BROMOFORM	173	V2#	80	75-25-2
30	C205 4-METHYL-2-PENTANONE	58	V3#	10	108-10-1
31	C210 2-HEXANONE	58	V3#	15	591-78-6
32	C225 1,1,2,2-TETRACHLOROETHA	83	V3#	25SP	79-34-5
33	C220 TETRACHLOROETHENE	164	V3#	20	127-18-4
34	CS05 TOLUENE-D8	98	SV3#	02	2037-26-5
35	C230 TOLUENE	92	V3#	35	108-88-3
36	C235 CHLOROBENZENE	112	V3#	40	108-90-7
37	C240 ETHYLBENZENE	106	V3#	50	100-41-4
38	CS10 BROMOFLUOROBENZENE	95	SV3#	03	460-00-4
39	C245 STYRENE	104	V3#	55	100-42-5
40	M-XYLENE	106	V3#	60	108-38-3
41	O+P XYLENES	106	V3#	75	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	163	8:09	1	1.000	A BB	39381.	50.000 UG/L	16.02
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	84	105	5:15	1	0.644	A BB	4425.	2.614 UG/L	0.84
7	58	115	5:45	1	0.706	A BB	671.	4.924 UG/L	1.58
8	NOT FOUND								
9	NOT FOUND								
10	114	390	19:30	10	1.000	A BB	233503.	50.000 UG/L	16.02
11	117	505	25:15	11	1.000	A BB	213445.	50.000 UG/L	16.02
12	NOT FOUND								
13	96	194	9:42	1	1.190	A BB	1323.	1.063 UG/L	0.34
14	83	205	10:15	1	1.258	A BB	954.	0.395 UG/L	0.13
15	65	219	10:57	1	1.344	A BV	74656.	44.280 UG/L	14.18
16	NOT FOUND								
17	NOT FOUND								
18	97	249	12:27	10	0.638	A BB	166.	0.103 UG/L	0.03
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	130	319	15:57	10	0.818	A BB	1125.	0.760 UG/L	0.24
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	58	407	20:21	11	0.806	A BB	1011.	1.561 UG/L	0.50
31	NOT FOUND								
32	83	449	22:27	11	0.889	A BB	569.	0.231 UG/L	0.07
33	164	450	22:30	11	0.891	A BB	3412.	2.205 UG/L	0.71
34	98	477	23:51	11	0.945	A BB	237976.	51.788 UG/L	16.59
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	95	591	29:33	11	1.170	A BB	137198.	52.303 UG/L	16.75
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								

00587

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:06	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:24		0.173						
3	2:12		0.272						
4	2:48		0.346						
5	3:30		0.432						
6	5:15	1.00	0.648	0.99	2.61	50.00	0.112	2.149	0.05
7	5:42	1.01	0.704	1.00	4.92	50.00	0.017	0.173	0.10
8	6:36		0.815						
9	7:39		0.944						
10	19:27	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
11	25:12	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
12	8:57		1.105						
13	9:39	1.01	1.191	1.00	1.06	50.00	0.034	1.581	0.02

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
14	10:12	1.00	1.259	1.00	0.40	50.00	0.024	3.063	0.01
15	10:54	1.00	1.346	1.00	44.28	50.00	1.896	2.141	0.89
16	10:54		0.560						
17	11:00		1.358						
18	12:24	1.00	0.638	1.00	0.10	50.00	0.001	0.345	0.00
19	12:48		0.658						
20	12:57		0.666						
21	13:21		0.686						
22	14:54		0.766						
23	15:12		0.781						
24	15:48	1.01	0.812	1.01	0.76	50.00	0.005	0.317	0.02
25	16:27		0.846						
26	16:30		0.848						
27	16:39		0.856						
28	16:39		0.856						
29	19:39		1.010						
30	20:12	1.01	0.802	1.01	1.56	50.00	0.005	0.152	0.03
31	22:03		0.875						
32	22:21	1.00	0.887	1.00	0.23	50.00	0.003	0.576	0.00
33	22:24	1.00	0.889	1.00	2.21	50.00	0.016	0.362	0.04
34	23:45	1.00	0.942	1.00	51.79	50.00	1.115	1.076	1.04
35	24:00		0.952						
36	25:18		1.004						
37	27:27		1.089						
38	29:33	1.00	1.173	1.00	52.30	50.00	0.643	0.614	1.05
39	30:33		1.212						
40	30:45		1.220						
41	31:24		1.246						

TCA FINISHED, 16 FOUND
FINISHED AT: 4/30/88 1:45:34

00589

RMAL QUANTITATION SUMMARY FILE: S59436W924
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/L

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	V1# 1	CI01 BROMOCHLOROMETHANE	128	163	1	39381.	1.000	50.000
2	V2# 1	CI10 1,4-DIFLUOROBENZENE	114	390	2	233503.	1.000	50.000
3	V3# 1	CI20 CHLOROBENZENE-D5	117	505	3	213445.	1.000	50.000
4	V3# 2	CS05 TOLUENE-D8	98	477	3	237976.	1.115	51.788
5	V3# 3	CS10 BROMOFLUOROBENZENE	95	591	3	137198.	0.643	52.303
6	V1# 2	CS15 1,2-DICHLOROETHANE-	65	219	1	74656.	1.896	44.280
7	V1# 10	C010 CHLOROMETHANE	50		1	NOT FOUND		
8	V1# 15	C015 BROMOMETHANE	94		1	NOT FOUND		
9	V1# 25	C020 VINYL CHLORIDE	62		1	NOT FOUND		
10	V1# 35	C025 CHLOROETHANE	64		1	NOT FOUND		
11	V1# 45	C030 METHYLENE CHLORIDE	84	105	1	4425.	0.112	2.614 B
12	V1# 50	C035 ACETONE	58	115	1	671.	0.017	4.924 B
13	V1# 65	C040 CARBON DISULFIDE	76		1	NOT FOUND		
14	V1# 80	C045 1,1-DICHLOROETHENE	96		1	NOT FOUND		
15	V1# 90	C050 1,1-DICHLOROETHANE	63		1	NOT FOUND		
16	V1# 95	TRANS-1,2-DICHLOROETHENE	96	194	1	1323.	0.034	1.063
17	V1#100	C060 CHLOROFORM	83		1	NOT FOUND		
18	V1#110	C065 1,2-DICHLOROETHANE	62		1	NOT FOUND		
19	V2# 10	C110 2-BUTANONE	72		2	NOT FOUND		
20	V2# 15	C115 1,1,1-TRICHLOROETHA	97		2	NOT FOUND		
21	V2# 20	C120 CARBONTETRACHLORIDE	117		2	NOT FOUND		
22	V2# 25	C125 VINYL ACETATE	43		2	NOT FOUND		
23	V2# 30	C130 BROMODICHLOROMETHAN	83		2	NOT FOUND		
24	V2# 35	C140 1,2-DICHLOROPROPANE	63		2	NOT FOUND		
25	V2# 40	C143 CIS-1,3-DICHLOROPRO	75		2	NOT FOUND		
26	V2# 45	C150 TRICHLOROETHENE	130		2	NOT FOUND		
27	V2# 50	C155 DIBROMOCHLOROMETHAN	129		2	NOT FOUND		
28	V2# 55	C160 1,1,2-TRICHLOROETHA	97		2	NOT FOUND		
29	V2# 60	C165 BENZENE	78		2	NOT FOUND		
30	V2# 65	C172 TRANS-1,3-DICHLOROP	75		2	NOT FOUND		
31	V2# 80	C180 BROMOFORM	173		2	NOT FOUND		
32	V3# 10	C205 4-METHYL-2-PENTANON	58	407	3	1011.	0.005	~~1.561~~
33	V3# 15	C210 2-HEXANONE	58		3	NOT FOUND		
34	V3# 20	C220 TETRACHLOROETHENE	164	450	3	3412.	0.016	2.205
35	V3# 25	C225 1,1,2,2-TETRACHLORO	83		3	NOT FOUND		
36	V3# 35	C230 TOLUENE	92		3	NOT FOUND		
37	V3# 40	C235 CHLOROBENZENE	112		3	NOT FOUND		
38	V3# 50	C240 ETHYLBENZENE	106		3	NOT FOUND		
39	V3# 55	C245 STYRENE	104		3	NOT FOUND		
40	V3# 60	M-XYLENE	106		3	NOT FOUND		
41	V3# 75	O+P XYLENES	106		3	NOT FOUND		

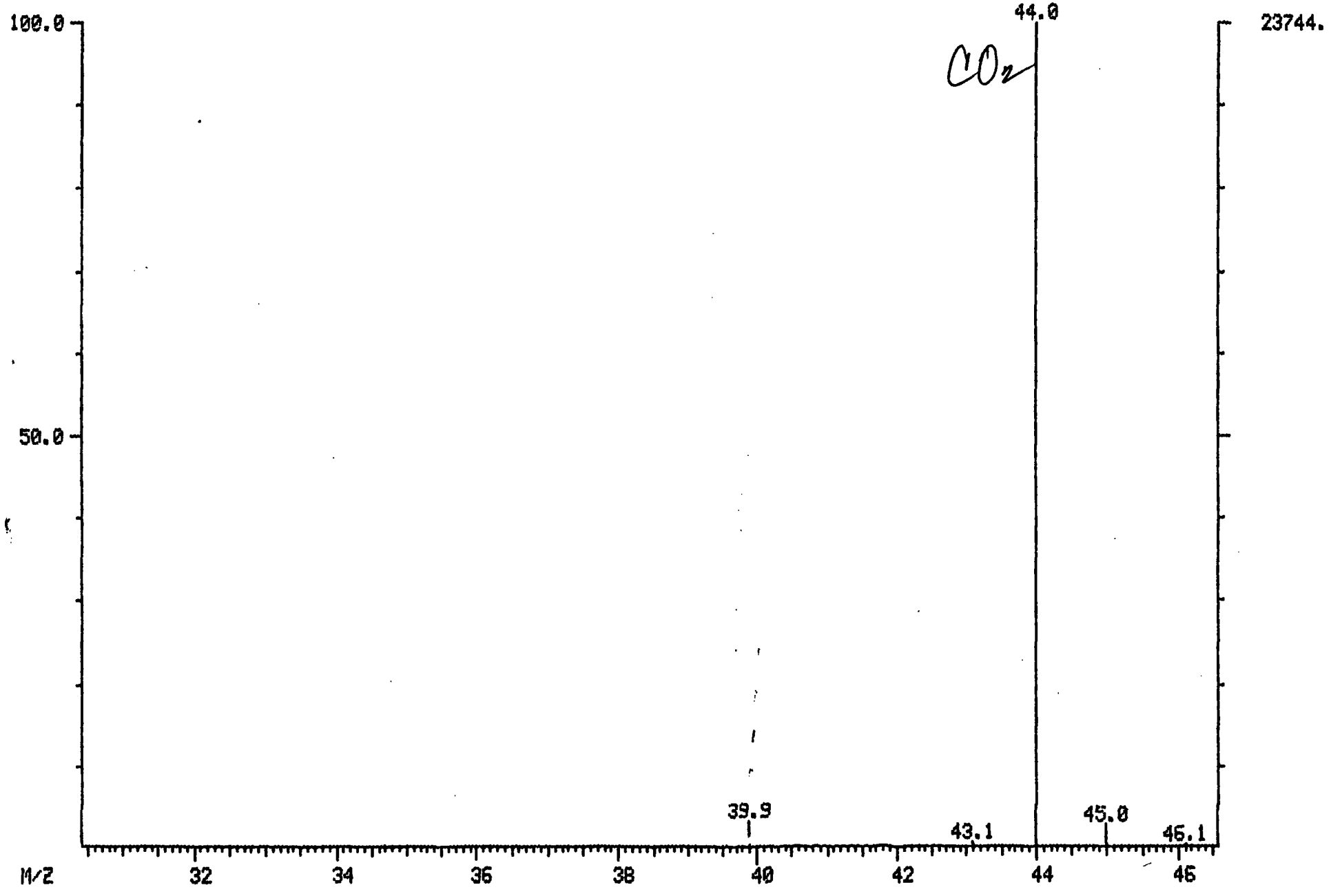
6.3.88

00590

MASS SPECTRUM
04/29/88 17:56:00 + 0:39
SAMPLE: 59436-08 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 60 DEG. C

DATA: S59436W924 #13
CALI: 042988CW #3

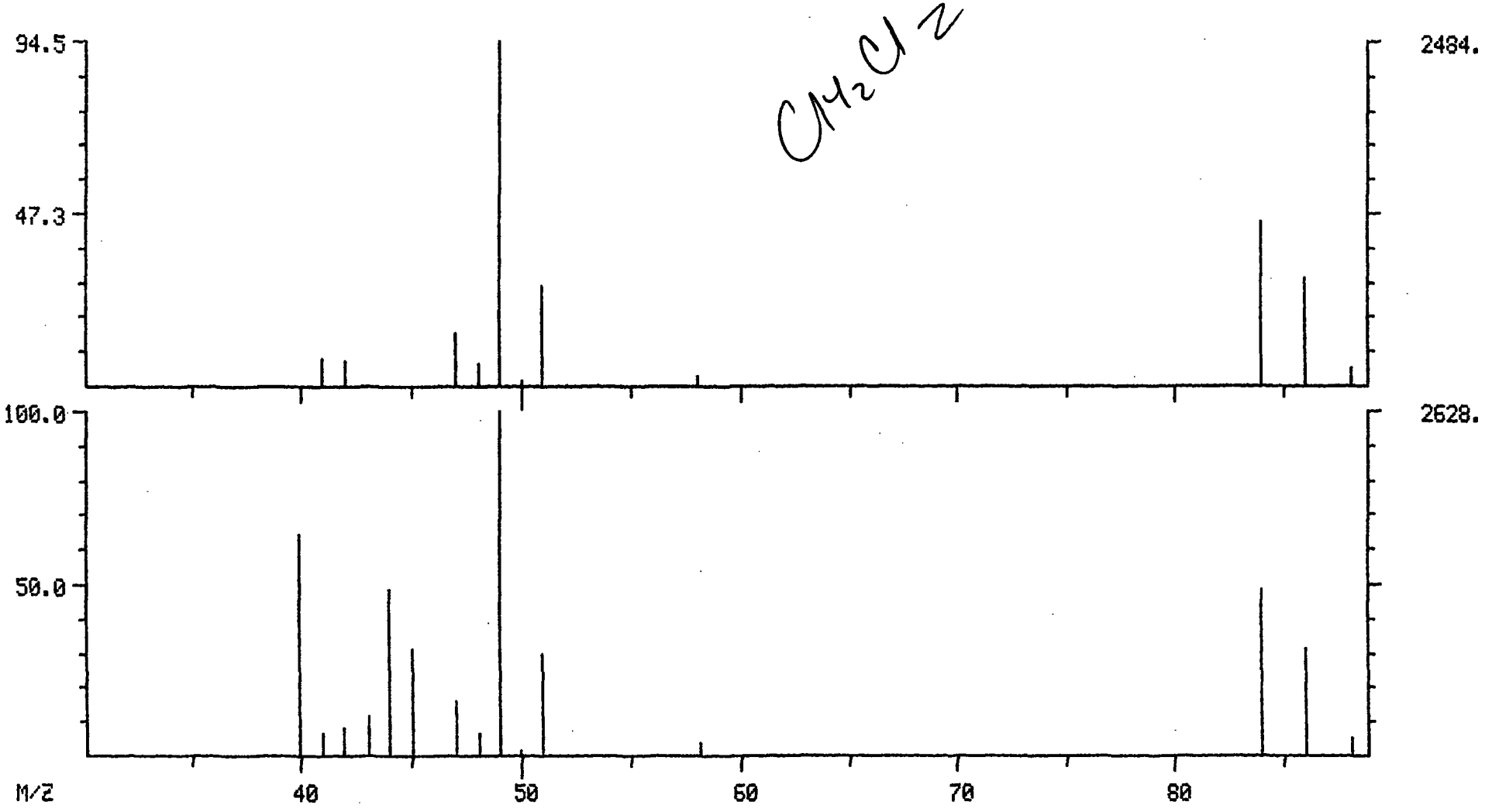
BASE M/Z: 44
RIC: 25344.



00591

DUAL MASS SPECTRUM
04/29/88 17:56:00 + 5:15
SAMPLE: 59436-08 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 83 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W924 #105 BASE M/Z: 49/ 49
CALI: 042988CW #3 RIC: 6303./ 10815.



00592

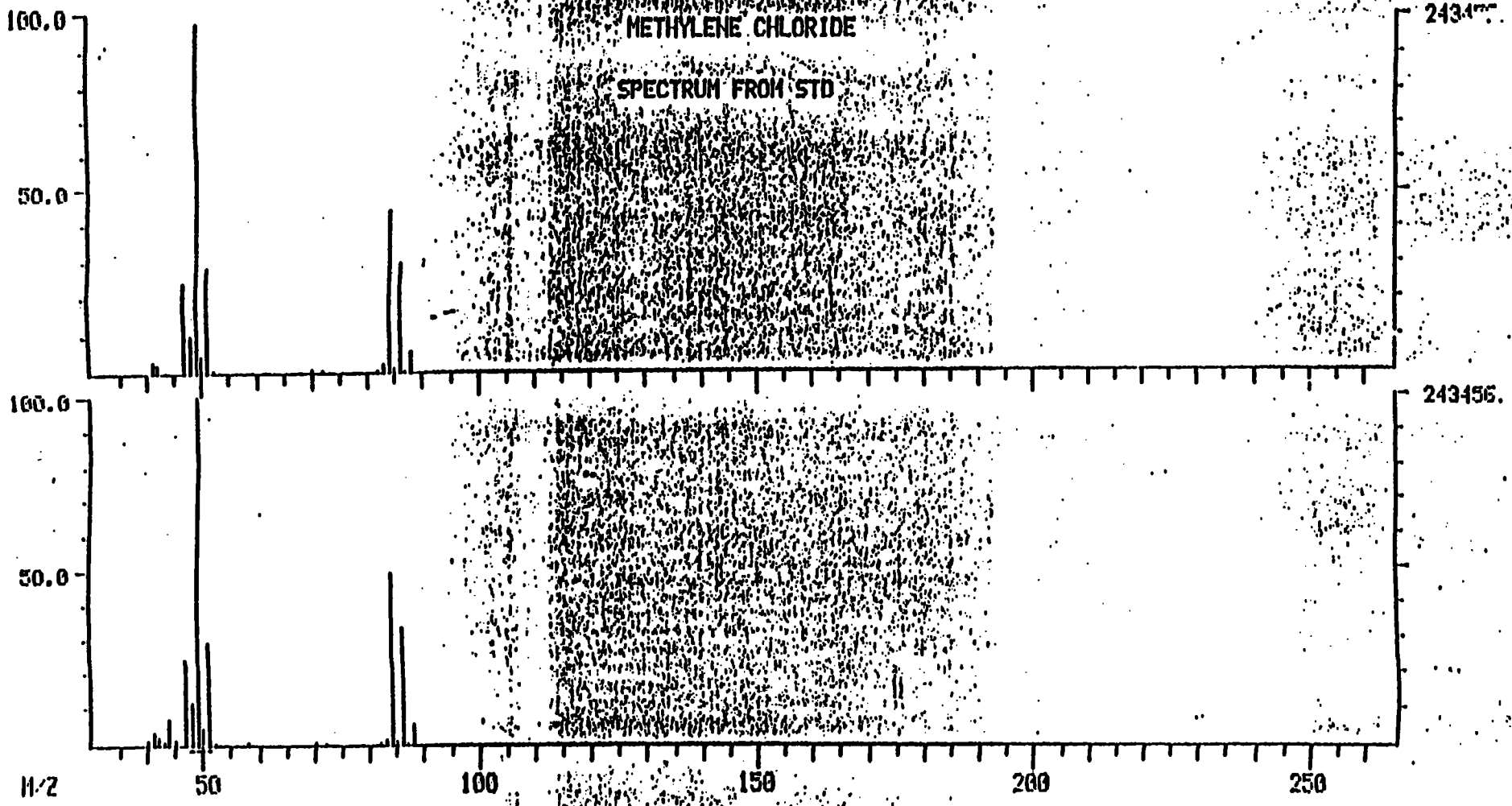
DUAL MASS SPECTRUM
10/13/86 10:38:00 + 6:55
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
COMDS.:
ENHANCED (S 15B 2N 0T)

DATA: STDJ198 #136
CALI: STDJ198 #1

BASE M/Z: 49/ 49
RIC: 615423./ 678911.

METHYLENE CHLORIDE

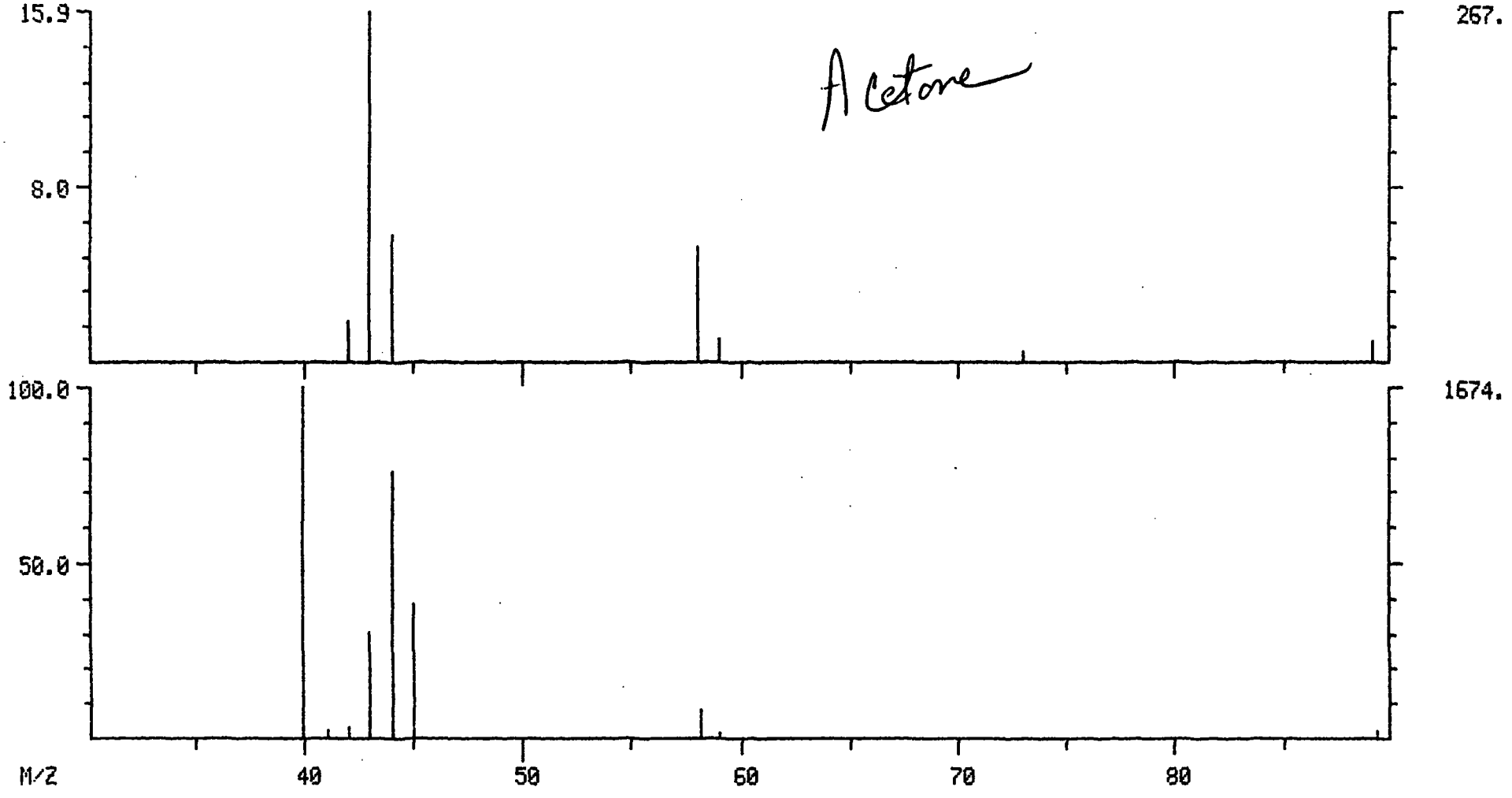
SPECTRUM FROM STD



00593

DUAL MASS SPECTRUM
04/29/88 17:56:00 + 5:45
SAMPLE: 59436-08 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 86 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W924 #115 BASE M/Z: 43/ 40
CALI: 042988CW #3 RIC: 518./ 4375.

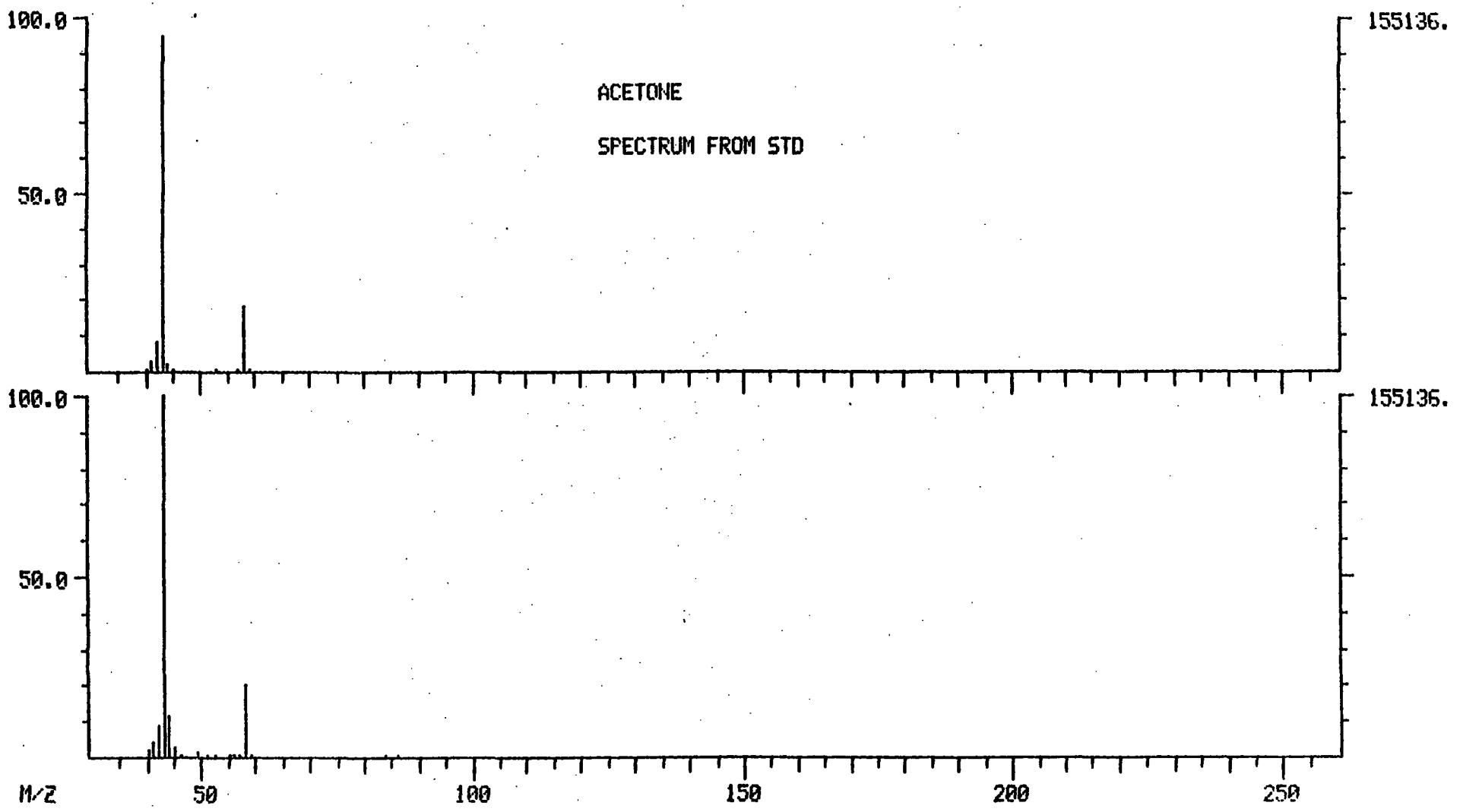


00594

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 7:37
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: STDJ198 #150
CALI: STDJ198 #1

BASE M/Z: 43/ 43
RIC: 199935./ 247807.

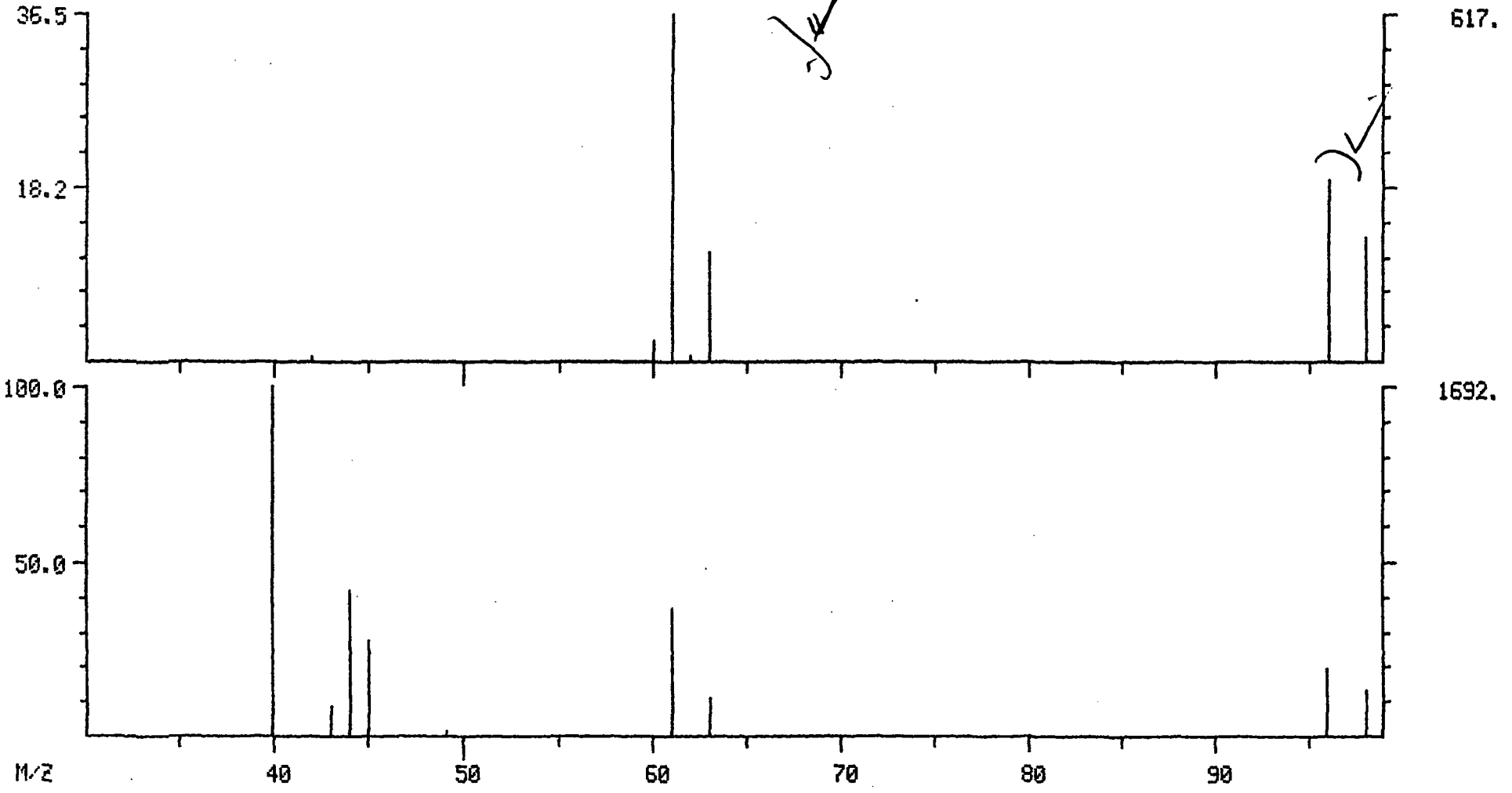


00595

DUAL MASS SPECTRUM
04/29/88 17:56:00 + 9:42
SAMPLE: 59436-08 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 114 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W924 #194 BASE M/Z: 61/ 40
CALI: 042988CW #3 RIC: 1409./ 4407.

Trans-1,2-Dichloroethene

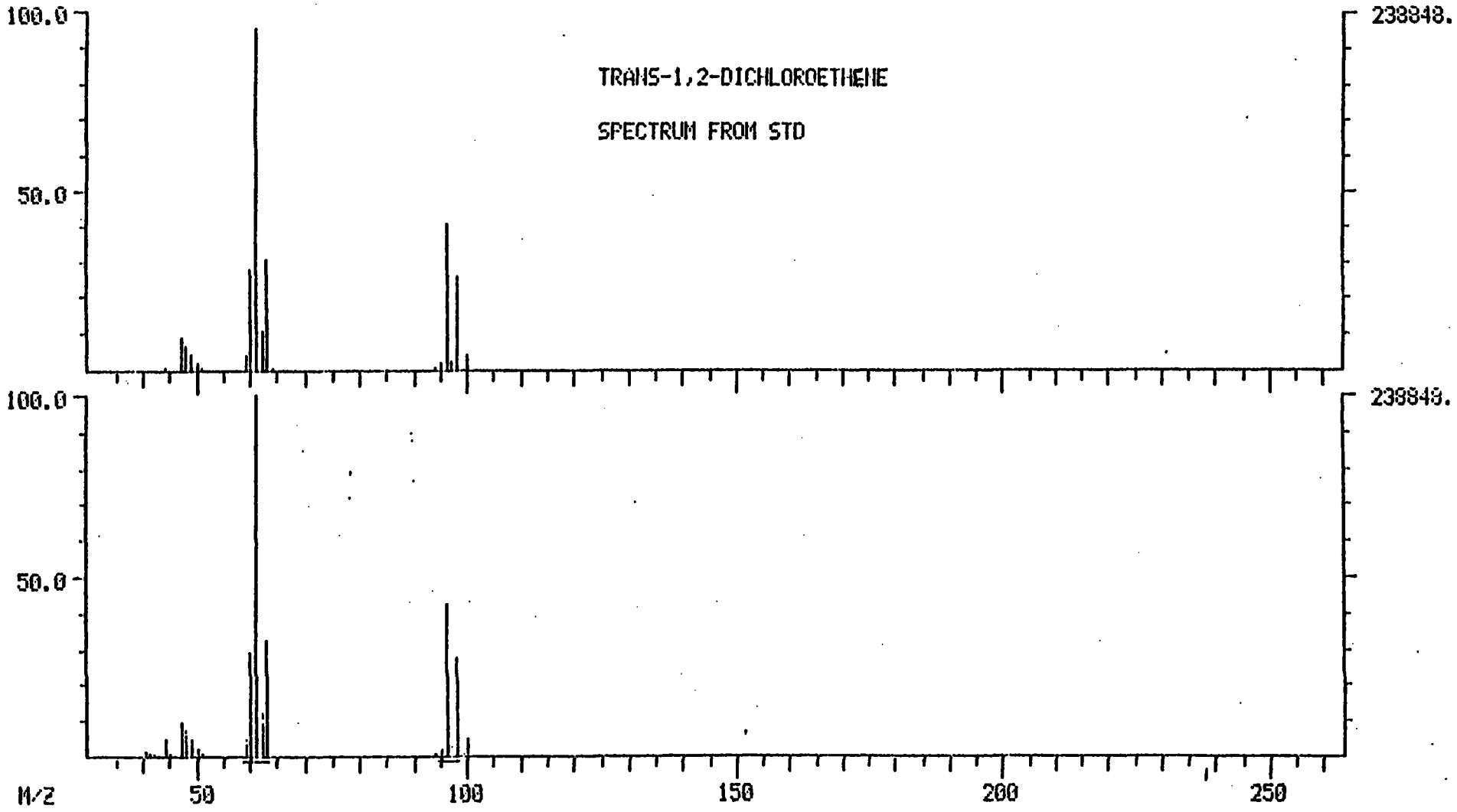


00596

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 11:57
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
CONDS.:
ENHANCED (S 15B 2H 0T)

DATA: STDJ198 #235
CALI: STDJ198 #1

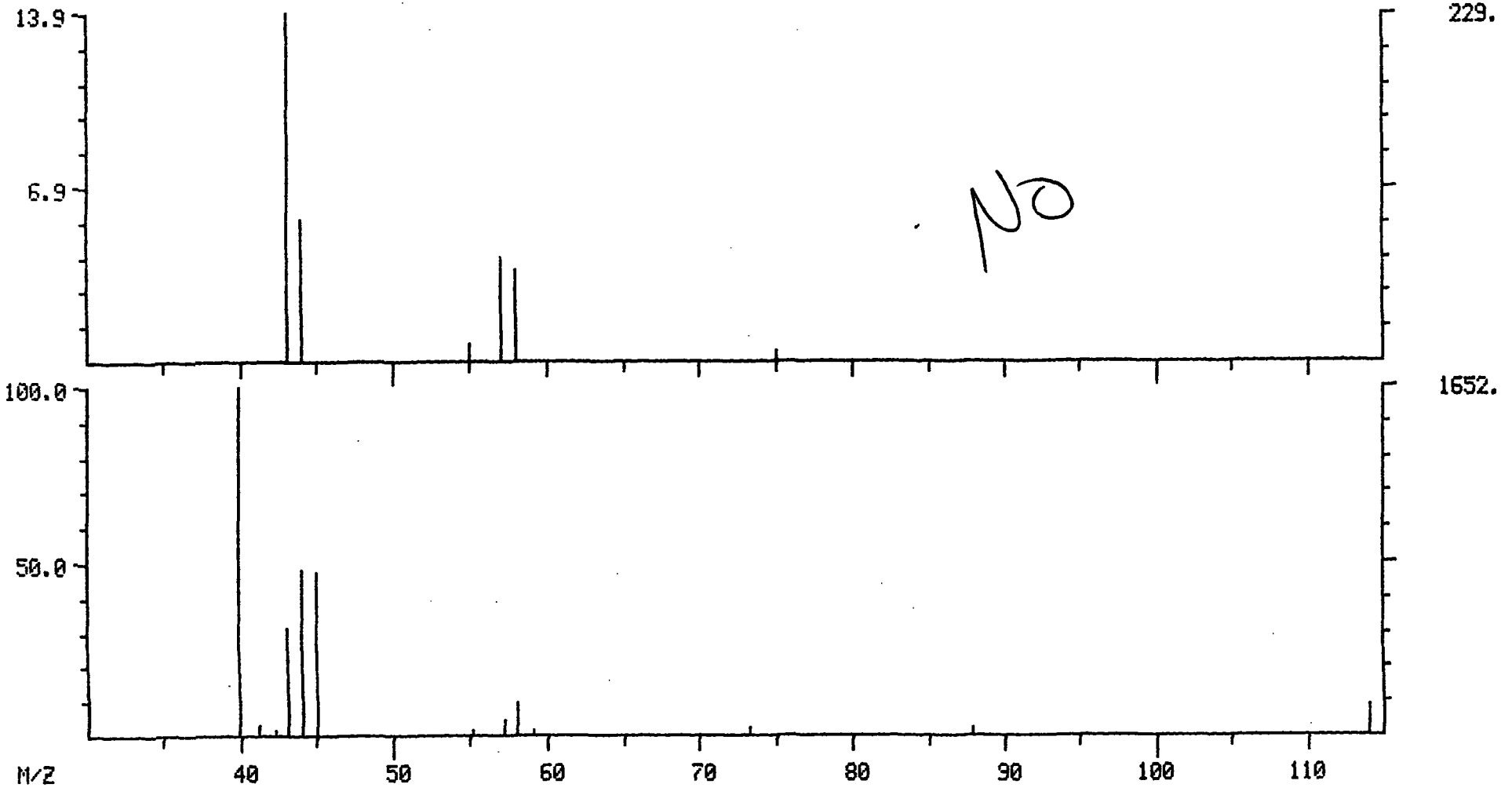
BASE M/Z: 61/ 61
RIC: 647167./ 705535.



00597

DUAL MASS SPECTRUM
04/29/88 17:56:00 + 20:21
SAMPLE: 59436-08 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 189 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W924 #407 BASE M/Z: 43/ 40
CALI: 042988CW #3 RIC: 467./ 4319.



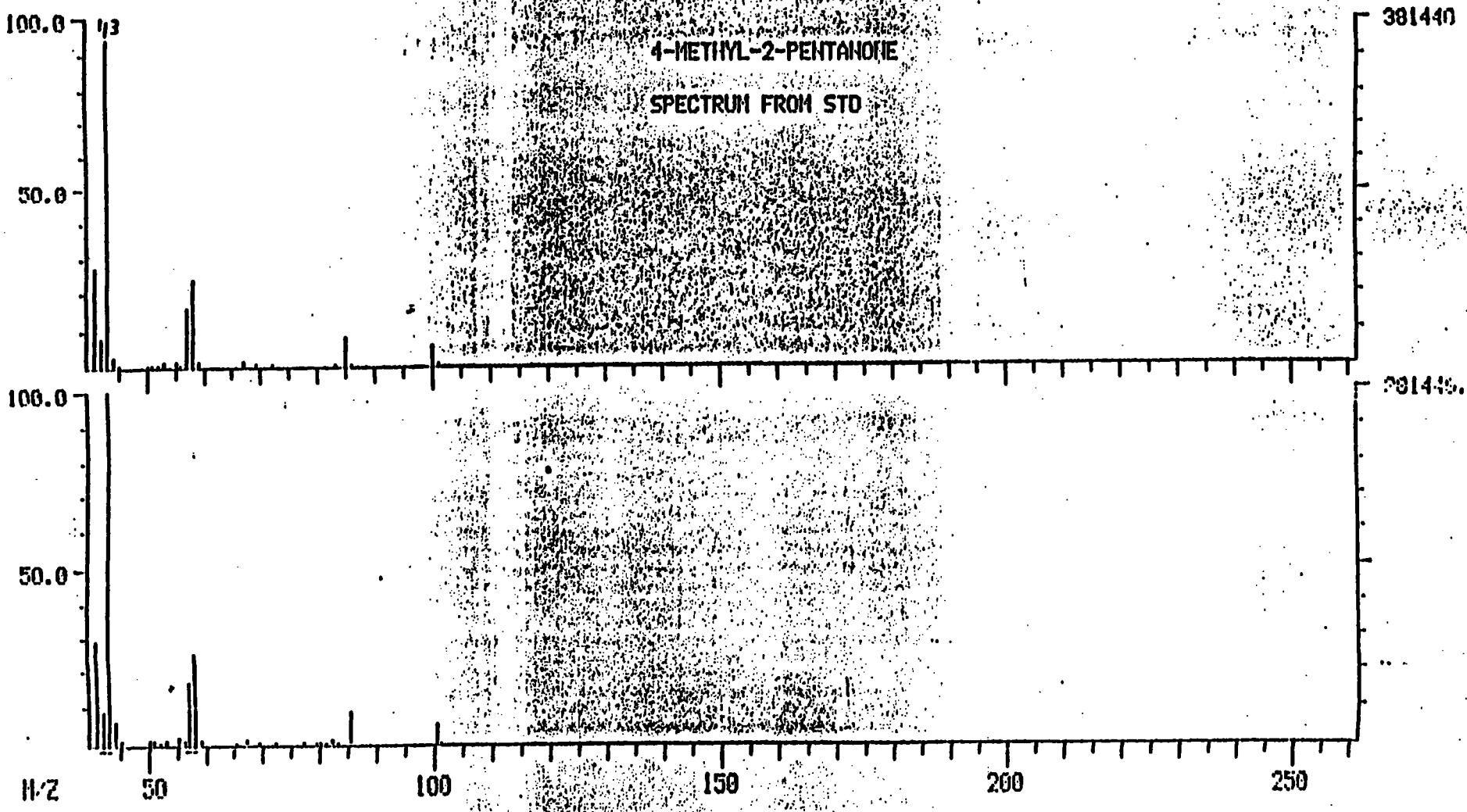
NO

00598

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 21:45
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
COMDS.:
ENHANCED (S 15B 2H 0T)

DATA: STDJ198 #428
CALI: STDJ198 #1

BASE M/Z: 43/ 43
RIC: 759307./ 635583.

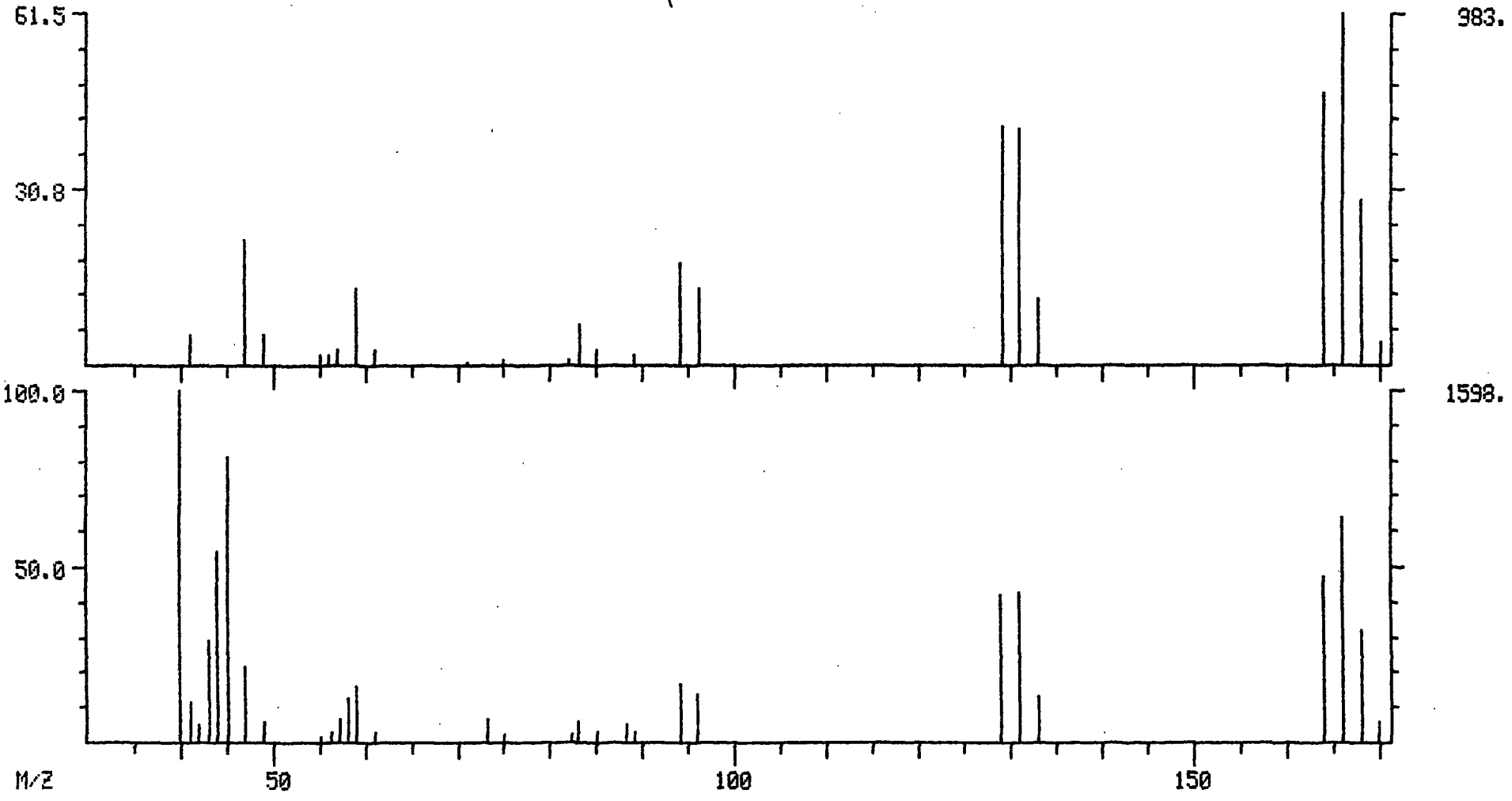


00599

DUAL MASS SPECTRUM
04/29/88 17:56:00 + 22:30
SAMPLE: 59436-08 VOA H2O 100%/5ML
CONDS.: GC DESC V3
GC TEMP: 204 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W924 #450 BASE M/Z: 166/ 40
CALI: 042988CW #3 RIC: 5399./ 10479.

Tetrachloro ethene



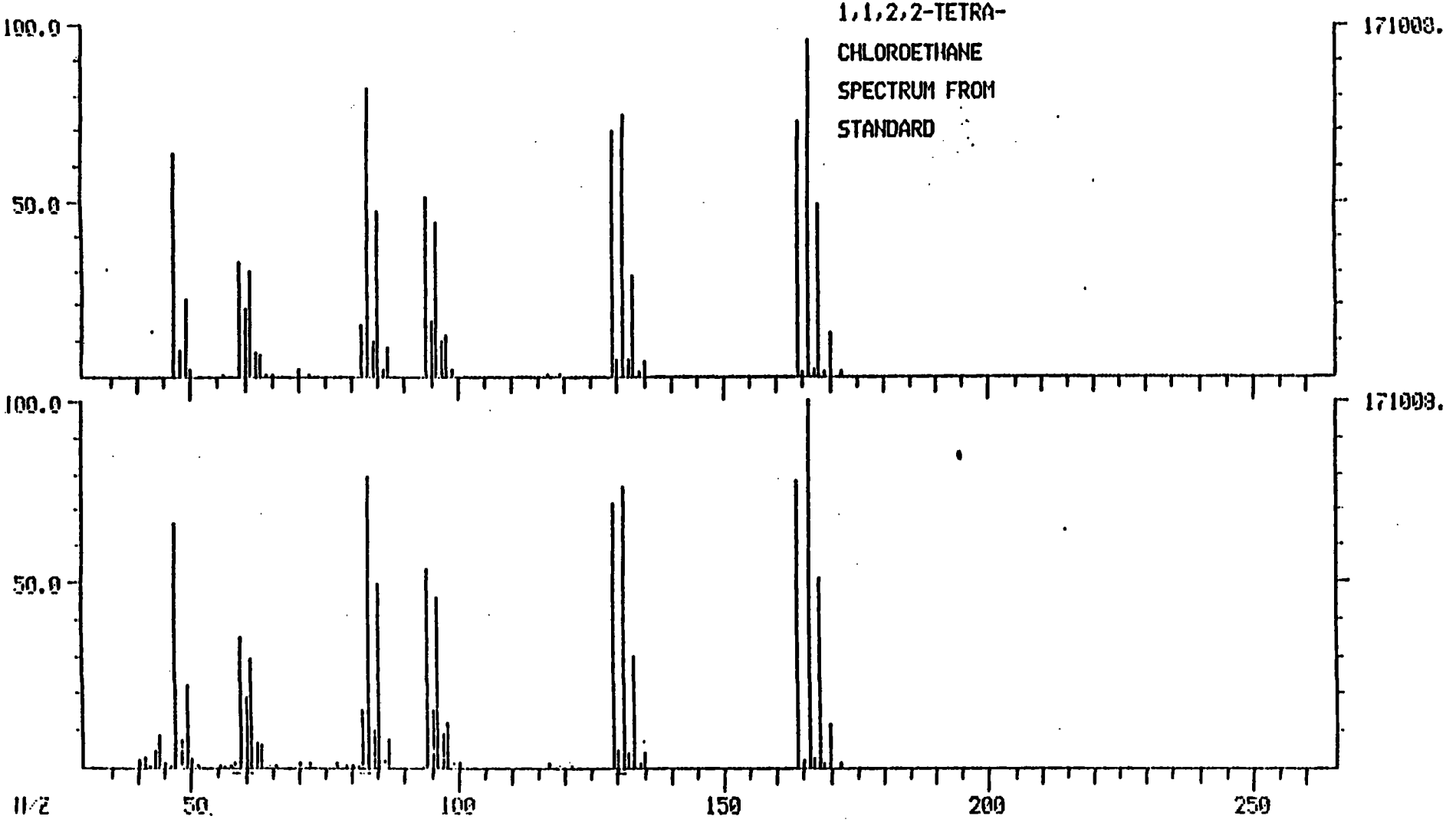
00600

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 23:41
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
CONDS.:
ENHANCED (S 15B 2H 0T)

DATA: STDJ198 #466
CALI: STDJ198 #1

BASE M/Z: 166/ 166
RIC: 1566710./ 1669110.

TETRACHLOROETHENE
COELUTION WITH
1,1,2,2-TETRA-
CHLOROETHANE
SPECTRUM FROM
STANDARD



6/1/88 18:43:09 SCAN 1 OF 2850 00601

Acquisition started

Acquire Run 3:S59436R968 ACQUIRING
06/01/88 18:41:00 + 0:03 Free sectors: 11956 Scan: 4 of 2850
Sample: 59436-08 BNA H2O 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No: 59436

********** GC PARAMETERS **********

Loaded GC Desc:ST Current GC oven tmp: 29 DegC Injector : 250 DegC
Current GC Desc:ST GC elapsed time : 0: 3 min Int. oven : 275 DegC

Seq. #	Temp(C)	Rate(C/m)	Time(min)	Total time(min)		Open	Close
1	30 - 30	-	1.0	1.0	Sweep/Split	0.5	0.0
2	30 - 325	10.0	29.5	30.5	Divert	45.5	0.0
3	325 - 325	-	15.0	45.5			
4	325 - 325	-	0.0	45.5			

********** SCAN PARAMETERS **********

Low mass: 35 Up: 0.70 L* Top: 0.00
High mass: 500 Down: 0.00 L Bottom: 0.05

Cent S/P: 10 Actual: 10 Samp Int (ms): 0.150 Peak Width: 1000.
Frag S/P: 10 Actual: 10 Samp Int (ms): 0.150 Inten/ion: 2

Min Peak Width: 3 Min Frag Width %: 80 Min Area: 20
ADC Threshold: 1 Baseline: 0

***** Mode: Centroid positive ion

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	Q	
Full scale mass	1024	u
Zero scale mass	1	u
Intensity/ion	2	
Peak Width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(MS)	4	

$RF = \frac{2.0}{0.980} = 2.04$

$SV = 2.0$

6/1/88 19:18:52
ACQUISITION COMPLETED
SCANS 1 TO 2850 Centroid

Mode	Scans	Secs	Out of	%	Peaks per scan	per sec
Centroid	2850	488.7	2137.5	22.9	62567. 22.	29.

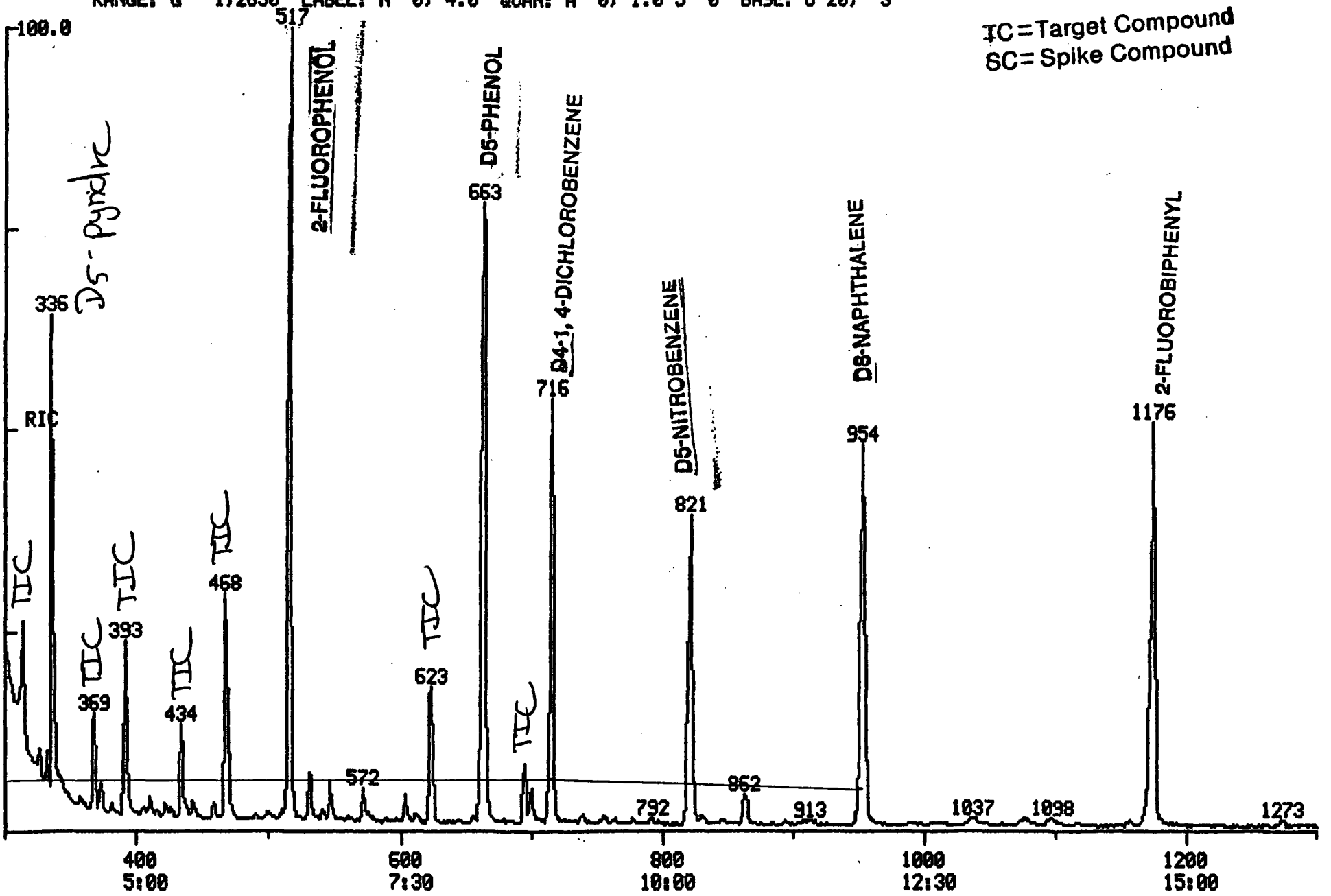
00602

RIC
06/01/88 18:41:00
SAMPLE: 59436-08 BNA H2O 100%/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 559436R968 #4
CALI: 053188CR #4

SCANS 300 TO 1300
OUT OF 300 TO 2850

T.I.C.-Tent. Ident. Compound



00603

RIC
06/01/88 18:41:00
SAMPLE: 59436-08 BNA H2O 100Z/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: S59436R968 #4 SCANS 1300 TO 2300
CALI: 053188CR #4 OUT OF 300 TO 2850

TC=Target Compound
SC=Spike Compound

T.I.C.-Tent. Ident. Compound

100.0

1311

D10-ACENAPHTHENE

2,4,6-TRIBROMOPHENOL 1475

D10-PHENANTHRENE 1615

D14-TERPHENYL 1951

D12-CHRYSENE 2168

TIC 1723

TC 2186

1345 1415 1558 1665 1823 1881 2005 2078 2137 2214 2259

1400 17:30 1600 20:00 1800 22:30 2000 25:00 2200 27:30

00604

RIC
06/01/88 18:41:00
SAMPLE: 59436-08 BNA H2O 100%/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: S59436R968 #4 SCANS 2300 TO 2850
CALI: 053188CR #4 OUT OF 300 TO 2850

100.0 104960.

TC=Target Compound
SC=Spike Compound

T.I.C.-Tent. Ident. Compound
~~BIS(2-ETHYLHEXYL) PHTHALATE~~ mm 6/2/88

D12-PERYLENE

2449

TC 2309

23 7 2504 2563 26 76 2745 2828

2400 30:00 2600 32:30 2800 35:00 SCAN TIME

PROCEDURE: TCA DIAGNOSTIC REPORT 6/01/88 23:59:57
DATA FILE: S59436R968
REFERENCE: 11TABLE
NAME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3 00605
REPORT: IS01

< ---- STANDARDS ----- >				< --- PLUS UNKNOWNS --- >				< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	2	0	7	3	1	235	IS01/TC01
3	3	1	49	18	4	1	99	IS02/TC02
3	3	1	49	12	3	1	49	IS03/TC03
3	3	2	44	18	5	1	33	IS04/TC04
3	3	1	44	10	5	1	174	IS05/TC05
3	3	1	81	8	3	1	81	IS06/TC06
3	3	1	27	14	6	2	29	IS07/TC07
1	1	1	0	4	1	1	0	IS08/TC08

77 COMPOUNDS PROCESSED, 16 FOUND

< COMPOUND >			< ---------- SEARCH ---------- >					< SAT >		< ------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	S1	1	-716	716	716	.	2	979	.	152	716	.	1
2	S1	2	-517	517	517	.	1	993	.	112	517	.	1
3	S1	3	-666	665	663	-2	1	932	.	99	663	.	1
4	S1	105	-668	667	.	.	.	.	.	94	665	.	1
5	S1	110	-680	679	.	.	.	.	.	93	.	.	.
6	S1	115	-687	686	.	.	.	.	.	128	684	.	1
7	S1	125	-710	709	.	.	.	.	.	146	.	.	.
8	S2	1	-955	954	954	.	1	998	.	136	954	.	1
9	S3	1	-1312	1311	1311	.	1	990	.	164	1311	.	1
10	S1	130	-720	719	.	.	.	.	.	146	717	.	1
11	S1	145	-748	747	.	.	.	.	.	108	.	.	.
12	S1	150	-753	752	.	.	.	.	.	146	.	.	.
13	S1	160	-771	770	.	.	.	.	.	108	.	.	.
14	S1	165	-776	775	.	.	.	.	.	45	774	.	1
15	S1	185	-798	797	.	.	.	.	.	108	796	.	1
16	S1	190	-804	803	.	.	.	.	.	70	.	.	.
17	S1	200	-808	807	.	.	.	.	.	117	.	.	.
18	S2	2	-823	822	821	-1	1	997	.	82	821	.	1
19	S2	10	-827	826	.	.	.	.	.	77	.	.	.
20	S2	20	-873	872	.	.	.	.	.	82	.	.	.
21	S2	25	-887	886	.	.	.	.	.	139	.	.	.
22	S2	30	-897	896	.	.	.	.	.	107	.	.	.
23	S2	35	-917	916	.	.	.	.	.	93	.	.	.
24	S2	45	-927	926	.	.	.	.	.	122	.	.	.
25	S2	40	-932	931	.	.	.	.	.	162	932	.	1
26	S2	55	-948	947	.	.	.	.	.	180	.	.	.
27	S2	60	-960	959	.	.	.	.	.	128	957	.	1
28	S2	80	-976	975	.	.	.	.	.	127	.	.	.
29	S2	95	-996	995	.	.	.	.	.	225	.	.	.
30	S2	130	-1074	1073	.	.	.	.	.	107	1074	.	1
31	S2	145	-1097	1096	.	.	.	.	.	142	.	.	.
32	S3	20	-1143	1142	.	.	.	.	.	237	.	.	.
33	S3	25	-1161	1160	.	.	.	.	.	196	.	.	.
34	S4	1	-1615	1615	1615	.	2	991	.	188	1615	.	1
35	S3	30	-1168	1167	.	.	.	.	.	196	.	.	.
36	S3	3	-1177	1176	1176	.	1	995	.	172	1176	.	1
37	S3	40	-1195	1194	.	.	.	.	.	162	1194	.	1
38	S3	45	-1225	1224	.	.	.	.	.	65	.	.	.
39	S3	55	-1272	1271	.	.	.	.	.	163	.	.	.
40	S3	65	-1281	1280	.	.	.	.	.	152	1279	.	1
41	S3	70	-1284	1283	.	.	.	.	.	165	1284	.	1
			-	10	.	.	.	.	.	138	.	.	.

43	S3	80	-1320	1319	.	.	.	.	.	153	.	.	.
44	S3	85	-1331	1330	.	.	.	.	.	184	.	.	.
45	S3	95	-1347	1346	1346	.	1	960	.	109	1346	.	1
46	S3	90	-1352	1351	.	.	.	.	.	168	1350	.	1
47	S3	105	-1364	1363	.	.	.	.	.	165	.	.	.
48	S3	130	-1418	1417	.	.	.	.	.	149	.	.	.
49	S3	135	-1423	1422	.	.	.	.	.	166	1422	.	1
50	S3	140	-1425	1423	.	.	.	.	.	204	.	.	.
51	S3	150	-1439	1437	.	.	.	.	.	138	.	.	.
52	S4	10	-1447	1445	.	.	.	.	.	198	.	.	.
53	S4	15	-1453	1451	1449	-2	1	860	.	169	1449	.	1
54	S3	2	-1477	1475	1475	.	1	985	.	330	1475	.	1
55	S4	30	-1524	1522	.	.	.	.	.	248	.	.	.
56	S4	40	-1553	1551	.	.	.	.	.	284	.	.	.
57	S5	1	-2169	2168	2168	.	1	962	.	240	2168	.	1
58	S4	50	-1591	1590	.	.	.	.	.	266	1589	.	1
59	S4	65	-1620	1619	.	.	.	.	.	178	1617	.	1
60	S4	70	-1630	1629	.	.	.	.	.	178	1627	.	1
61	S4	85	-1754	1753	.	.	.	.	.	149	1752	.	1
62	S4	110	-1869	1868	.	.	.	.	.	202	1866	.	1
63	S6	1	-2450	2449	2449	.	1	989	.	264	2449	.	1
64	S5	15	-1915	1915	.	.	.	.	.	202	.	.	.
65	S5	2	-1951	1951	1951	.	1	992	.	244	1951	.	1
66	S5	40	-2063	2062	.	.	.	.	.	149	2061	.	1
67	S5	55	-2166	2165	.	.	.	.	.	252	.	.	.
68	S5	50	-2166	2165	.	.	.	.	.	228	.	.	.
69	S5	60	-2176	2175	.	.	.	.	.	228	.	.	.
70	S5	65	-2188	2187	2187	.	2	993	.	149	2186	-1	1
71	S6	10	-2310	2309	2309	.	1	997	.	149	2309	.	1
72	S6	15	-2381	2380	.	.	.	.	.	252	.	.	.
73	S6	25	-2387	2386	.	.	.	.	.	252	.	.	.
74	S6	35	-2440	2439	.	.	.	.	.	252	.	.	.
75	S6	55	-2687	2686	.	.	.	.	.	276	.	.	.
76	S6	60	-2690	2689	.	.	.	.	.	278	.	.	.
77	S6	65	-2755	2754	.	.	.	.	.	276	.	.	.

Quantitation Report File: S59436R968

00607

Data: S59436R968.TI
06/01/88 18:41:00
Sample: 59436-08 BNA H2O 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No.: 59436

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

No	Name			
1	CI30	1,4-DICHLOROBENZENE-D4	152IS1# 01	3855-82-1
2	CS50	2-FLUOROPHENOL	112SS1# 02	367-12-4
3	CS45	PHENOL-D5	99SS1# 03	4165-62-2
4	C315	PHENOL	94 S1#105CC	108-95-2
5	C325	BIS(2-CHLOROETHYL)ETHER	93 S1#110	111-44-4
6	C330	2-CHLOROPHENOL	128 S2#115	95-57-8
7	C335	1,3-DICHLOROBENZENE	146 S1#125	541-73-1
8	CI40	NAPHTHALENE-D8	136IS2# 01	1146-65-2
9	CI50	ACENAPHTHENE-D10	164IS3# 01	15067-26-2
10	C340	1,4-DICHLOROBENZENE	146 S1#130CC	106-46-7
11	C345	BENZYL ALCOHOL	108 S1#145	100-51-6
12	C350	1,2-DICHLOROBENZENE	146 S1#150	95-50-1
13	C355	2-METHYLPHENOL	108 S1#160	95-48-7
14	C360	BIS(2-CHLOROISOPROPYL)E	45 S1#165	108-60-1
15	C365	4-METHYLPHENOL	108 S1#185	106-44-5
16	C370	N-NITROSO-DI-N-PROPYLAM	70 S1#190SP	621-64-7
17	C375	HEXACHLOROETHANE	117 S1#200	67-72-1
18	CS20	NITROBENZENE-D5	82SS2# 02	4165-60-0
19	C410	NITROBENZENE	77 S2# 10	98-95-3
20	C415	ISOPHORONE	82 S2# 20	75-59-1
21	C420	2-NITROPHENOL	139 S2# 25CC	88-75-5
22	C425	2,4-DIMETHYLPHENOL	107 S2# 30	105-67-9
23	C435	BIS(2-CHLOROETHOXY)METH	93 S2# 35	111-91-1
24	C430	BENZOIC ACID	122 S2# 45	65-85-0
25	C440	2,4-DICHLOROPHENOL	162 S2# 40	120-83-2
26	C445	1,2,4-TRICHLOROBENZENE	180 S2# 55	120-82-1
27	C450	NAPHTHALENE	128 S2# 60	91-20-3
28	C455	4-CHLOROANALINE	127 S2# 80	106-47-8
29	C460	HEXACHLOROBUTADIENE	225 S2# 95CC	87-68-3
30	C465	4-CHLORO-3-METHYLPHENO	107 S2#130CC	59-50-7
31	C470	2-METHYLNAPHTHALENE	142 S2#145	91-57-6
32	C510	HEXACHLOROCYCLOPENTADI	237 S3# 20	77-47-4
33	C515	2,4,6-TRICHLOROPHENOL	196 S3# 25CC	88-06-2
34	CI60	PHENANTHRENE-D10	188IS4# 01	1517-22-2
35	C520	2,4,5-TRICHLOROPHENOL	196 S3# 30	95-95-4
36	CS25	2-FLUOROBIPHENYL	172SS3# 03	321-60-8
37	C525	2-CHLORONAPHTHALENE	162 S3# 40	91-58-7
38	C530	2-NITROANALINE	65 S3# 45	88-74-4
39	C535	DIMETHYLPHTHALATE	163 S3# 55	131-11-3
40	C540	ACENAPHTHYLENE	152 S3# 65	208-96-8
41	C543	2,6-DINITROTOLUENE	165 S3# 70	606-20-2
42	C545	3-NITROANILINE	138 S3# 75	99-09-2
43	C550	ACENAPHTHENE	153 S3# 80CC	83-32-9
44	C555	2,4-DINITROPHENOL	184 S3# 85SP	51-28-5
45	C560	4-NITROPHENOL	109 S3# 95SP	100-02-7
46	C565	DIBENZOFURAN	168 S3# 90	132-64-9
47	C570	2,4-DINITROTOLUENE	165 S3#105	121-14-2

No	Name			
48	C580 DIETHYLPHTHALATE	149	S3#130	84-66-2
49	C590 FLUORENE	166	S3#135	86-73-7
50	C585 4-CHLOROPHENYL-PHENYLE	204	S3#140	7005-72-3

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	716	8:57	1	1.000	A BB	24332.	40.000 UG/ML	6.19
2	112	517	6:28	1	0.722	A BB	74020.	85.520 UG/ML	13.23
3	99	663	8:17	1	0.926	A BB	106450.	86.373 UG/ML	13.36
4	94	665	8:19	1	0.929	A BB	376.	0.273 UG/ML	0.04
5	NOT FOUND								
6	128	684	8:33	1	0.955	A BB	152.	0.178 UG/ML	0.03
7	NOT FOUND								
8	136	954	11:55	8	1.000	A BB	93472.	40.000 UG/ML	6.19
9	164	1311	16:23	9	1.000	A BB	42527.	40.000 UG/ML	6.19
10	146	717	8:58	1	1.001	A BB	41.	0.043 UG/ML	0.01
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	45	774	9:40	1	1.081	A BB	43.	0.028 UG/ML	0.00
15	108	796	9:57	1	1.112	A BB	43.	0.051 UG/ML	0.01
16	NOT FOUND								
17	NOT FOUND								
18	82	821	10:16	8	0.861	A BB	47386.	45.882 UG/ML	7.10
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	162	932	11:39	8	0.977	A BB	67.	0.102 UG/ML	0.02
26	NOT FOUND								
27	128	957	11:58	8	1.003	A BB	63.	0.025 UG/ML	0.00
28	NOT FOUND								
29	NOT FOUND								
30	107	1074	13:25	8	1.126	A BB	97.	0.134 UG/ML	0.02
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	188	1615	20:11	34	1.000	A BB	67855.	40.000 UG/ML	6.19
35	NOT FOUND								
36	172	1176	14:42	9	0.897	A BB	64858.	43.501 UG/ML	6.73
37	162	1194	14:55	9	0.911	A BB	49.	0.036 UG/ML	0.01
38	NOT FOUND								
39	NOT FOUND								
40	152	1279	15:59	9	0.976	A BB	66.	0.030 UG/ML	0.00
41	165	1284	16:03	9	0.979	A BB	47.	0.119 UG/ML	0.02
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	109	1346	16:49	9	1.027	A BB	160.	0.842 UG/ML	0.13
46	168	1350	16:52	9	1.030	A BB	99.	0.052 UG/ML	0.01
47	NOT FOUND								
48	NOT FOUND								
49	166	1422	17:46	9	1.085	A BB	67.	0.044 UG/ML	0.01
50	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:58	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	6:28	1.00	0.721	1.00	85.52	100.00	1.217	1.423	0.86
3	8:19	1.00	0.929	1.00	86.37	100.00	1.750	2.026	0.86
4	8:21	1.00	0.932	1.00	0.27	50.00	0.012	2.262	0.01
5	8:30		0.948						
6	8:35	1.00	0.958	1.00	0.18	50.00	0.005	1.407	0.00
7	8:52		0.990						
8	11:57	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
9	16:25	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
10	9:00	1.00	1.004	1.00	0.04	50.00	0.001	1.564	0.00
11	9:21		1.043						
12	9:25		1.050						
13	9:38		1.075						
14	9:42	1.00	1.082	1.00	0.03	50.00	0.001	2.566	0.00
15	9:58	1.00	1.113	1.00	0.05	50.00	0.001	1.389	0.00
16	10:03		1.121						
17	10:06		1.127						
18	10:17	1.00	0.861	1.00	45.88	50.00	0.406	0.442	0.92
19	10:20		0.865						
20	10:55		0.913						
21	11:05		0.928						
22	11:13		0.938						
23	11:28		0.959						
24	11:35		0.970						
25	11:39	1.00	0.975	1.00	0.10	50.00	0.001	0.281	0.00
26	11:51		0.992						
27	12:00	1.00	1.004	1.00	0.03	50.00	0.001	1.060	0.00
28	12:12		1.021						
29	12:27		1.042						
30	13:25	1.00	1.123	1.00	0.13	50.00	0.001	0.309	0.00
31	13:43		1.147						
32	14:17		0.871						
33	14:31		0.884						
34	20:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
35	14:36		0.890						
36	14:43	1.00	0.896	1.00	43.50	50.00	1.220	1.402	0.87
37	14:56	1.00	0.910	1.00	0.04	50.00	0.001	1.291	0.00
38	15:19		0.933						
39	15:54		0.969						
40	16:01	1.00	0.976	1.00	0.03	50.00	0.001	2.069	0.00
41	16:03	1.00	0.978	1.00	0.12	50.00	0.001	0.371	0.00
42	16:23		0.998						
43	16:30		1.005						
44	16:38		1.014						
45	16:50	1.00	1.026	1.00	0.84	50.00	0.003	0.179	0.02
46	16:54	1.00	1.030	1.00	0.05	50.00	0.002	1.786	0.00
47	17:03		1.039						
48	17:43		1.080						
49	17:47	1.00	1.084	1.00	0.04	50.00	0.001	1.438	0.00
50	17:49		1.085						

Quantitation Report File: S59436R968 00610

Data: S59436R968.TI
06/01/88 18:41:00
Sample: 59436-08 BNA H2O 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No.: 59436

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

No	Name			
51	C595	4-NITROANALINE	138 S3#150	100-01-6
52	C610	4,6-DINITRO-2-METHYLPH	198 S4# 10	534-52-1
53	C615	N-NITROSODIPHENYLAMINE	169 S4# 15CC	87-30-6
54	CS55	2,4,6-TRIBROMOPHENOL	330SS3# 02	118-79-6
55	C625	4-BROMOPHENYL-PHENYLET	248 S4# 30	101-55-3
56	C630	HEXACHLOROBENZENE	284 S4# 40	118-74-1
57	CI70	CHRYSENE-D12	240IS5# 01	1719-03-5
58	C635	PENTACHLOROPHENOL	266 S4# 50	87-86-5
59	C640	PHENANTHRENE	178 S4# 65	85-01-8
60	C645	ANTHRACENE	178 S4# 70	120-12-7
61	C650	DI-N-BUTYLPHTHALATE	149 S4# 85	84-74-2
62	C655	FLUORANTHENE	202 S4#110CC	206-44-0
63	CI75	PERYLENE-D12	164IS6# 01	1520-96-3
64	C715	PYRENE	202 S5# 15	129-00-0
65	CS30	TERPHENYL-D14	244SS5# 02	1718-51-0
66	C720	BUTYLBENZYLPHTHALATE	149 S5# 40	85-68-7
67	C725	3,3'-DICHLOROBENZIDINE	252 S5# 55	91-94-1
68	C730	BENZO(A)ANTHRACENE	228 S5# 50	56-55-3
69	C740	CHRYSENE	228 S5# 60	218-01-9
70	C745	BIS(2-ETHYLHEXYL)PHTHA	149 S5# 65	117-81-7
71	C760	DI-N-OCTYL PHTHALATE	149 S6# 10CC	117-84-0
72	C765	BENZO(B)FLUORANTHENE	252 S6# 15	205-99-2
73	C770	BENZO(K)FLUORANTHENE	252 S6# 25	207-08-9
74	C775	BENZO(A)PYRENE	252 S6# 35	50-32-8
75	C780	INDENO(1,2,3-CD)PYRENE	276 S6# 55	193-39-5
76	C785	DIBENZ(A,H)ANTHRACENE	278 S6# 60	53-70-3
77	C790	BENZO(G,H,I)PERYLENE	276 S6# 65	191-24-2

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								
52	NOT FOUND								
53	169	1449	18:07	34	0.897	A BB	466.	0.454 UG/ML	0.07
54	330	1475	18:26	9	1.125	A BB	16232.	96.135 UG/ML	14.87
55	NOT FOUND								
56	NOT FOUND								
57	240	2168	27:06	57	1.000	A BB	45292.	40.000 UG/ML	6.19
58	266	1589	19:52	34	0.984	A BB	52.	0.212 UG/ML	0.03
59	178	1617	20:13	34	1.001	A BB	79.	0.041 UG/ML	0.01
60	178	1627	20:20	34	1.007	A BB	78.	0.040 UG/ML	0.01
61	149	1752	21:54	34	1.085	A BB	731.	0.289 UG/ML	0.04
62	202	1866	23:19	34	1.155	A BB	64.	0.036 UG/ML	0.01
63	264	2449	30:37	63	1.000	A BV	34076.	40.000 UG/ML	6.19
64	NOT FOUND								
65	244	1951	24:23	57	0.900	A BV	48932.	40.310 UG/ML	6.24
66	149	2061	25:46	57	0.951	A BB	158.	0.171 UG/ML	0.03

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
67	NOT FOUND								
68	NOT FOUND								
69	NOT FOUND								
70	149	2186	27:19	57	1.008	A VB	5655.	4.425 UG/ML	0.68
71	149	2309	28:52	63	0.943	A BV	2508.	1.173 UG/ML	0.18
72	NOT FOUND								
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								
76	NOT FOUND								
77	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	17:59		1.096						
52	18:05		0.895						
53	18:10	1.00	0.899	1.00	0.45	50.00	0.005	0.605	0.01
54	18:28	1.00	1.125	1.00	96.14	100.00	0.153	0.159	0.96
55	19:03		0.943						
56	19:25		0.961						
57	27:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
58	19:53	1.00	0.985	1.00	0.21	50.00	0.001	0.145	0.00
59	20:15	1.00	1.002	1.00	0.04	50.00	0.001	1.136	0.00
60	20:22	1.00	1.009	1.00	0.04	50.00	0.001	1.143	0.00
61	21:55	1.00	1.085	1.00	0.29	50.00	0.009	1.492	0.01
62	23:22	1.00	1.157	1.00	0.04	50.00	0.001	1.057	0.00
63	30:38	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
64	23:56		0.882						
65	24:23	1.00	0.899	1.00	40.31	50.00	0.864	1.072	0.81
66	25:47	1.00	0.951	1.00	0.17	50.00	0.003	0.818	0.00
67	27:04		0.998						
68	27:04		0.998						
69	27:12		1.003						
70	27:21	1.00	1.008	1.00	4.42	50.00	0.100	1.129	0.09
71	28:52	1.00	0.942	1.00	1.17	50.00	0.059	2.509	0.02
72	29:46		0.971						
73	29:50		0.974						
74	30:30		0.996						
75	33:35		1.096						
76	33:37		1.098						
77	34:26		1.124						

TCA FINISHED, 16 FOUND
FINISHED AT: 6/02/88 0:07:40

RMAL QUANTITATION SUMMARY FILE: S59436R968
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/ML

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	S1# 1 CI30	1,4-DICHLOROBENZENE	152	716	1	24332.	1.000	40.000
2	S2# 1 CI40	NAPHTHALENE-D8	136	954	2	93472.	1.000	40.000
3	S3# 1 CI50	ACENAPHTHENE-D10	164	1311	3	42527.	1.000	40.000
4	S4# 1 CI60	PHENANTHRENE-D10	188	1615	4	67855.	1.000	40.000
5	S5# 1 CI70	CHRYSENE-D12	240	2168	5	45292.	1.000	40.000
6	S6# 1 CI75	PERYLENE-D12	264	2449	6	34076.	1.000	40.000
7	S2# 2 CS20	NITROBENZENE-D5	82	821	2	47386.	0.406	45.882
8	S3# 3 CS25	2-FLUOROBIPHENYL	172	1176	3	64858.	1.220	43.501
9	S5# 2 CS30	TERPHENYL-D14	244	1951	5	48932.	0.864	40.310
10	S1# 3 CS45	PHENOL-D5	99	663	1	106450.	1.750	86.373
11	S1# 2 CS50	2-FLUOROPHENOL	112	517	1	74020.	1.217	85.520
12	S3# 2 CS55	2,4,6-TRIBROMOPHENO	330	1475	3	16232.	0.153	96.135
13	S1#105 C315	PHENOL	94		1	NOT FOUND		
14	S1#110 C325	BIS(2-CHLOROETHYL)E	93		1	NOT FOUND		
15	S1#115 C330	2-CHLOROPHENOL	128		1	NOT FOUND		
16	S1#125 C335	1,3-DICHLOROBENZENE	146		1	NOT FOUND		
17	S1#130 C340	1,4-DICHLOROBENZENE	146		1	NOT FOUND		
18	S1#145 C345	BENZYL ALCOHOL	108		1	NOT FOUND		
19	S1#150 C350	1,2-DICHLOROBENZENE	146		1	NOT FOUND		
20	S1#160 C355	2-METHYLPHENOL	108		1	NOT FOUND		
21	S1#165 C360	BIS(2-CHLOROISOPROP	45		1	NOT FOUND		
22	S1#185 C365	4-METHYLPHENOL	108		1	NOT FOUND		
23	S1#190 C370	N-NITROSO-DI-N-PROP	70		1	NOT FOUND		
24	S1#200 C375	HEXACHLOROETHANE	117		1	NOT FOUND		
25	S2# 10 C410	NITROBENZENE	77		2	NOT FOUND		
26	S2# 20 C415	ISOPHORONE	82		2	NOT FOUND		
27	S2# 25 C420	2-NITROPHENOL	139		2	NOT FOUND		
28	S2# 30 C425	2,4-DIMETHYLPHENOL	107		2	NOT FOUND		
29	S2# 35 C435	BIS(2-CHLOROETHOXY)	93		2	NOT FOUND		
30	S2# 40 C440	2,4-DICHLOROPHENOL	162		2	NOT FOUND		
31	S2# 45 C430	BENZOIC ACID	122		2	NOT FOUND		
32	S2# 55 C445	1,2,4-TRICHLOROBENZ	180		2	NOT FOUND		
33	S2# 60 C450	NAPHTHALENE	128		2	NOT FOUND		
34	S2# 80 C455	4-CHLOROANALINE	127		2	NOT FOUND		
35	S2# 95 C460	HEXACHLOROBUTADIENE	225		2	NOT FOUND		
36	S2#130 C465	4-CHLORO-3-METHYLPH	107		2	NOT FOUND		
37	S2#145 C470	2-METHYLNAPHTHALENE	142		2	NOT FOUND		
38	S3# 20 C510	HEXACHLOROCYCLOPENT	237		3	NOT FOUND		
39	S3# 25 C515	2,4,6-TRICHLOROPHEN	196		3	NOT FOUND		
40	S3# 30 C520	2,4,5-TRICHLOROPHEN	196		3	NOT FOUND		
41	S3# 40 C525	2-CHLORONAPHTHALENE	162		3	NOT FOUND		
42	S3# 45 C530	2-NITROANALINE	65		3	NOT FOUND		
43	S3# 55 C535	DIMETHYLPHTHALATE	163		3	NOT FOUND		
44	S3# 65 C540	ACENAPHTHYLENE	152		3	NOT FOUND		
45	S3# 70 C543	2,6-DINITROTOLUENE	165		3	NOT FOUND		
46	S3# 75 C545	3-NITROANILINE	138		3	NOT FOUND		
47	S3# 80 C550	ACENAPHTHENE	153		3	NOT FOUND		
48	S3# 85 C555	2,4-DINITROPHENOL	184		3	NOT FOUND		
49	S3# 90 C565	DIBENZOFURAN	168		3	NOT FOUND		
50	S3# 95 C560	4-NITROPHENOL	109		3	NOT FOUND		
	105 C570	2,4-DINITROTOLUENE	165		3	NOT FOUND		

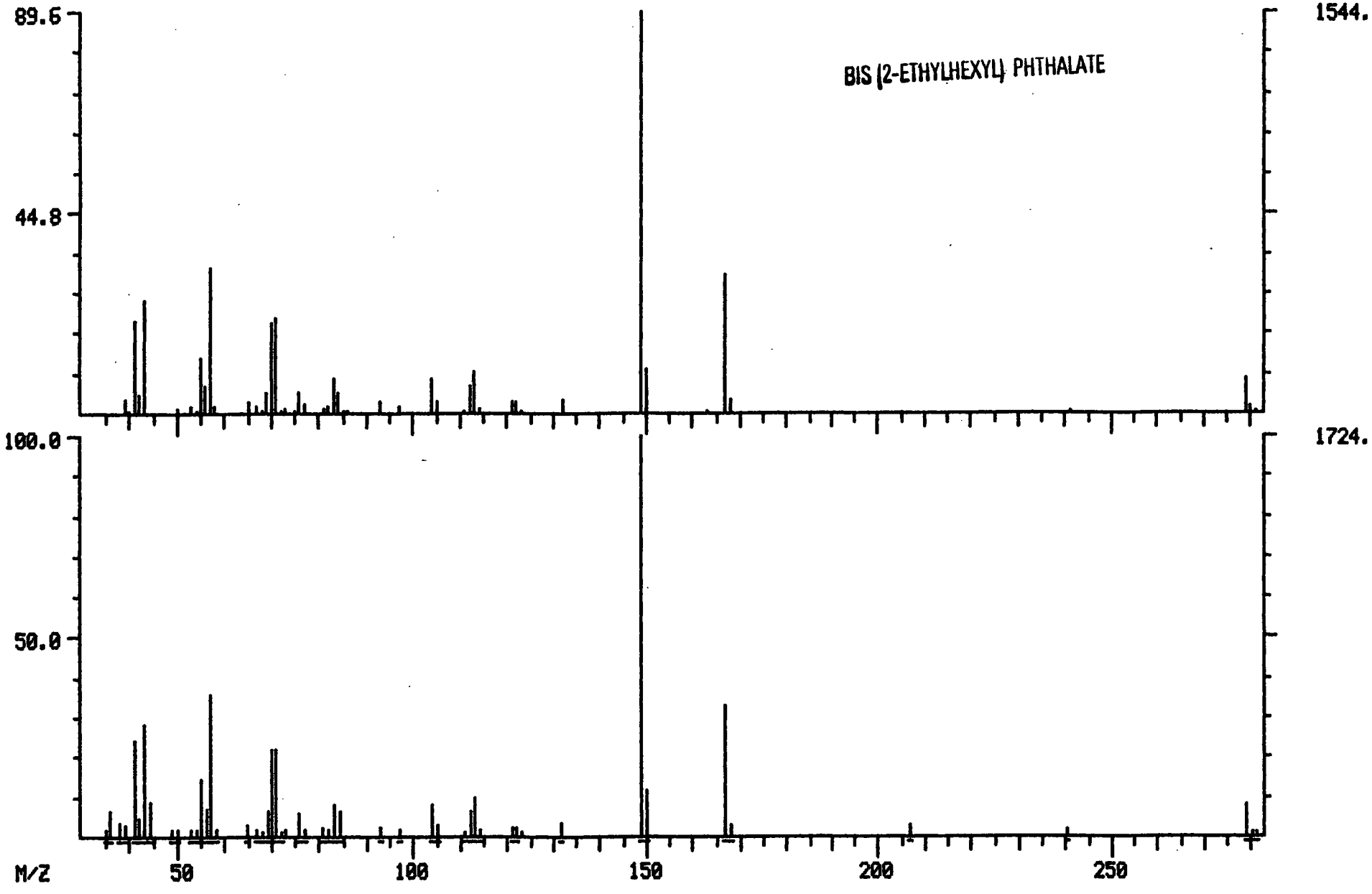
00613

52	S3#130	C580	DIETHYLPHTHALATE	149		3	NOT FOUND			
53	S3#135	C590	FLUORENE	166		3	NOT FOUND			
54	S3#140	C585	4-CHLOROPHENYL-PHEN	204		3	NOT FOUND			
55	S3#150	C595	4-NITROANALINE	138		3	NOT FOUND			
56	S4# 10	C610	4,6-DINITRO-2-METHY	198		4	NOT FOUND			
57	S4# 15	C615	N-NITROSODIPHENYLAM	169		4	NOT FOUND			
58	S4# 30	C625	4-BROMOPHENYL-PHENY	248		4	NOT FOUND			
59	S4# 40	C630	HEXACHLOROBENZENE	284		4	NOT FOUND			
60	S4# 50	C635	PENTACHLOROPHENOL	266		4	NOT FOUND			
61	S4# 65	C640	PHENANTHRENE	178		4	NOT FOUND			
62	S4# 70	C645	ANTHRACENE	178		4	NOT FOUND			
63	S4# 85	C650	DI-N-BUTYLPHTHALATE	149		4	NOT FOUND			
64	S4#110	C655	FLUORANTHENE	202		4	NOT FOUND			
65	S5# 15	C715	PYRENE	202		5	NOT FOUND			
66	S5# 40	C720	BUTYLBENZYLPHTHALAT	149		5	NOT FOUND			
67	S5# 50	C730	BENZO(A)ANTHRACENE	228		5	NOT FOUND			
68	S5# 55	C725	3,3'-DICHLOROBENZID	252		5	NOT FOUND			
69	S5# 60	C740	CHRYSENE	228		5	NOT FOUND			
70	S5# 65	C745	BIS(2-ETHYLHEXYL)PH	149	2186	5	5655.	0.100	4.425	
71	S6# 10	C760	DI-N-OCTYL PHTHALAT	149	2309	6	2508.	0.059	1.173	
72	S6# 15	C765	BENZO(B)FLUORANTHEN	252		6	NOT FOUND			
73	S6# 25	C770	BENZO(K)FLUORANTHEN	252		6	NOT FOUND			
74	S6# 35	C775	BENZO(A)PYRENE	252		6	NOT FOUND			
75	S6# 55	C780	INDENO(1,2,3-CD)PYR	276		6	NOT FOUND			
76	S6# 60	C785	DIBENZ(A,H)ANTHRACE	278		6	NOT FOUND			
77	S6# 65	C790	BENZO(G,H,I)PERYLEN	276		6	NOT FOUND			

00614

DUAL MASS SPECTRUM
06/01/88 18:41:00 + 27:19
SAMPLE: 59436-08 BNA H2O 100Z/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R968 #2186 BASE M/Z: 149/ 149
CALI: 053188CR #4 RIC: 6399./ 7575.

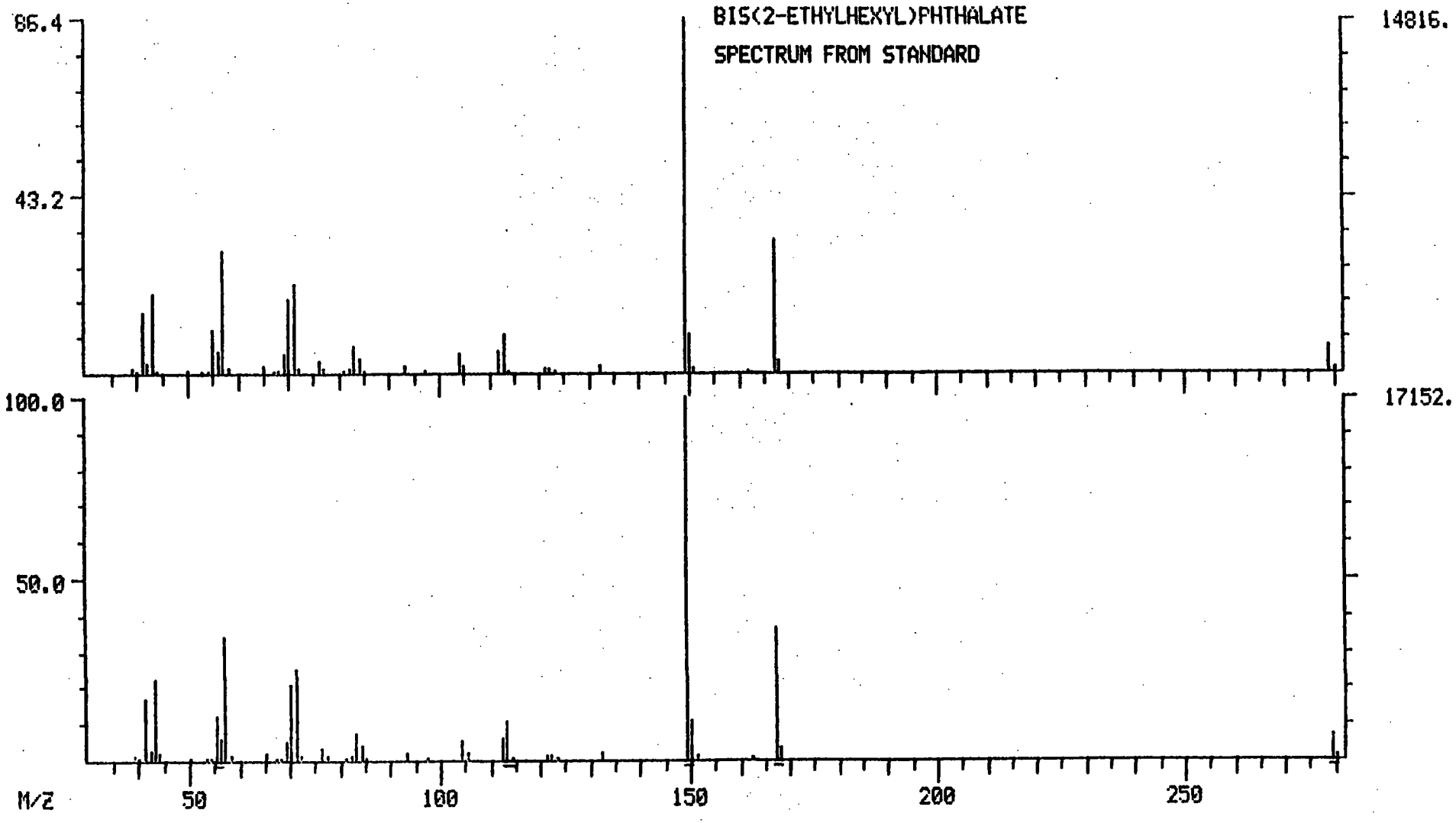


00615

DUAL MASS SPECTRUM
10/29/86 13:35:00 + 30:27
SAMPLE: 50PPM HSL STD
CONDS.: DESC ST
ENHANCED (S 15B 2N 0T)

DATA: STDR810 #2436
CALI: 103086C #5

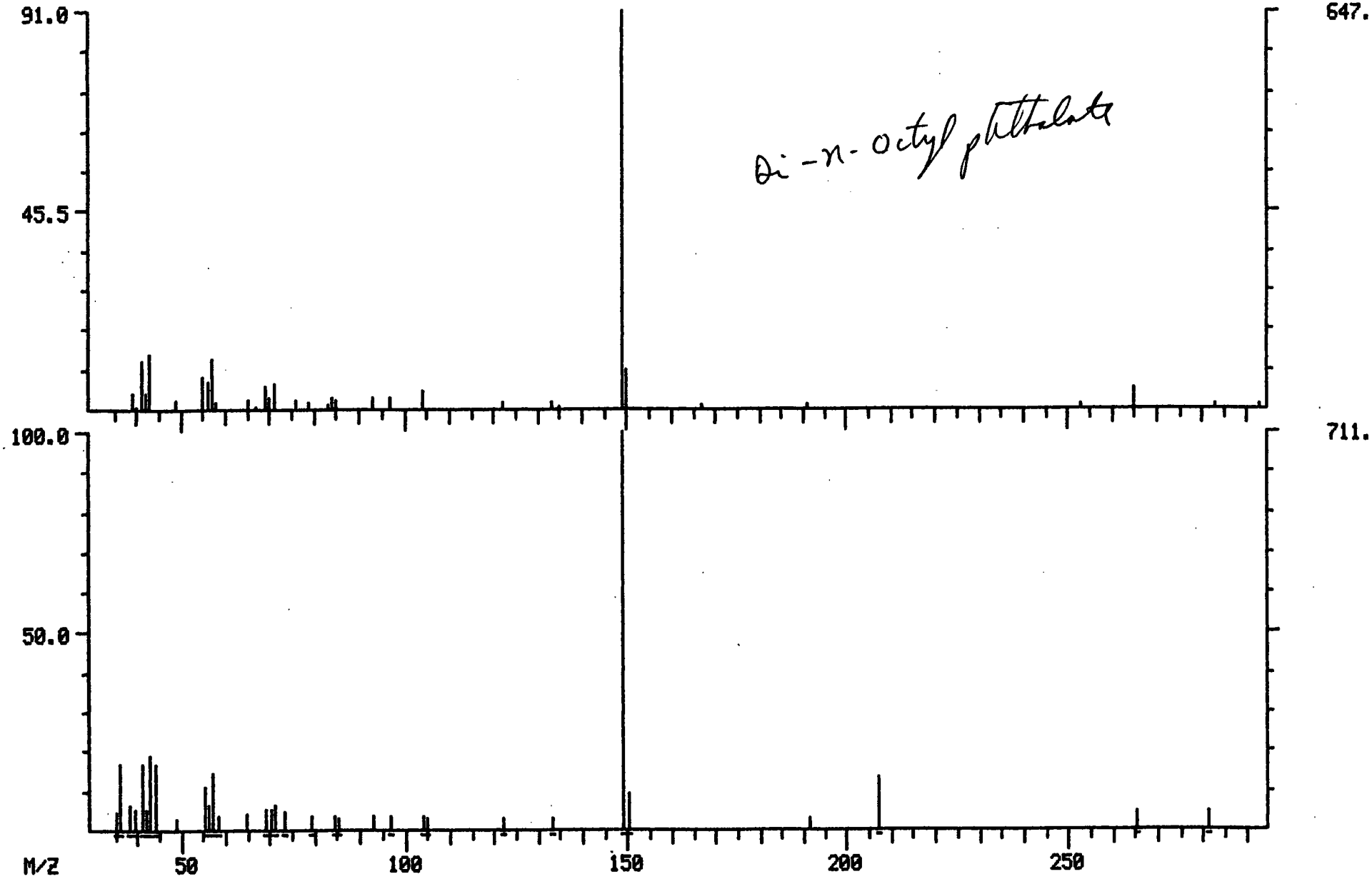
BASE M/Z: 149/ 149
RIC: 55167./ 63807.



00616

DUAL MASS SPECTRUM
06/01/88 18:41:00 + 28:52
SAMPLE: 59436-08 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R968 #2309 BASE M/Z: 149/ 149
CALI: 053188CR #4 RIC: 1493./ 2255.



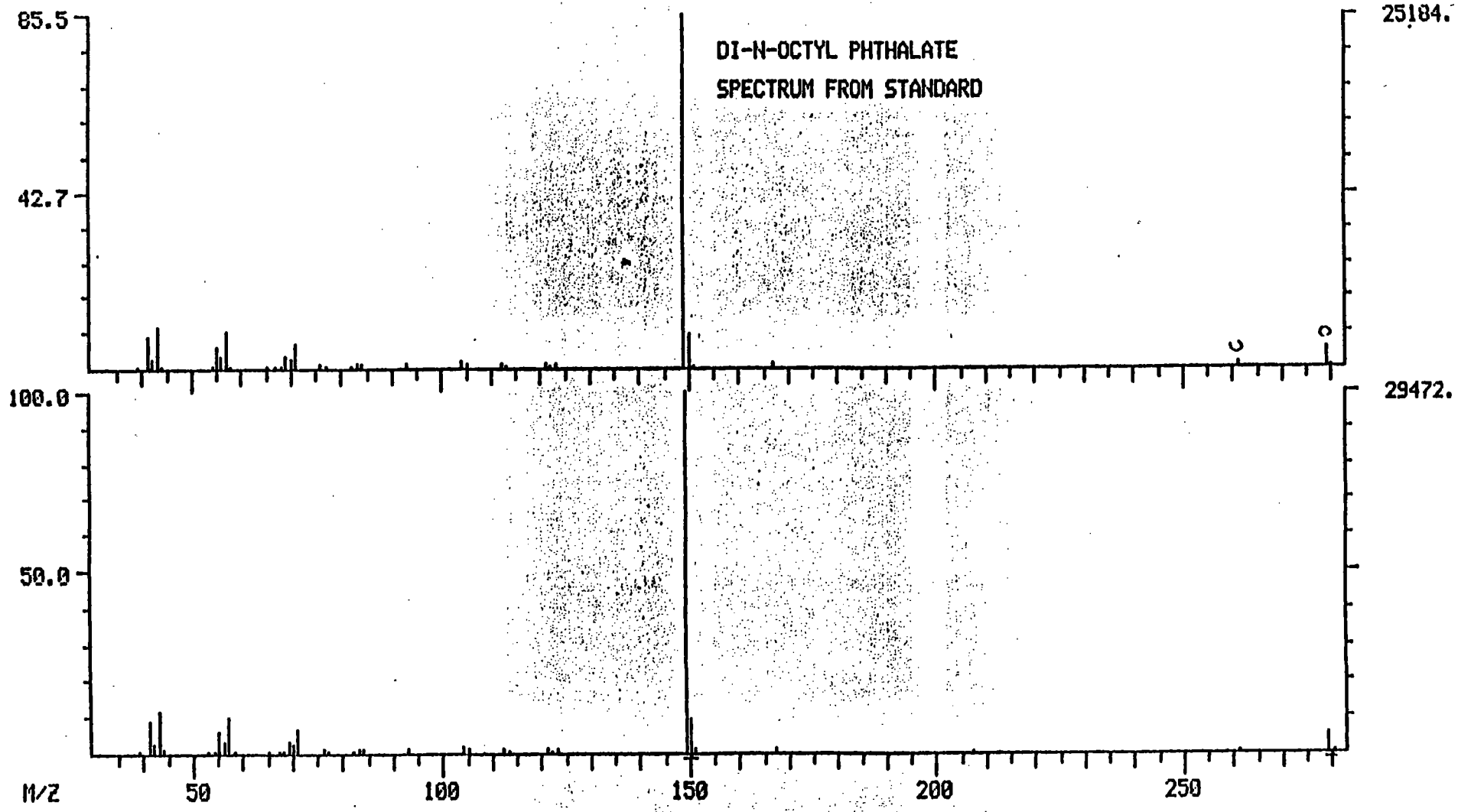
Di-n-octyl phthalate

006917

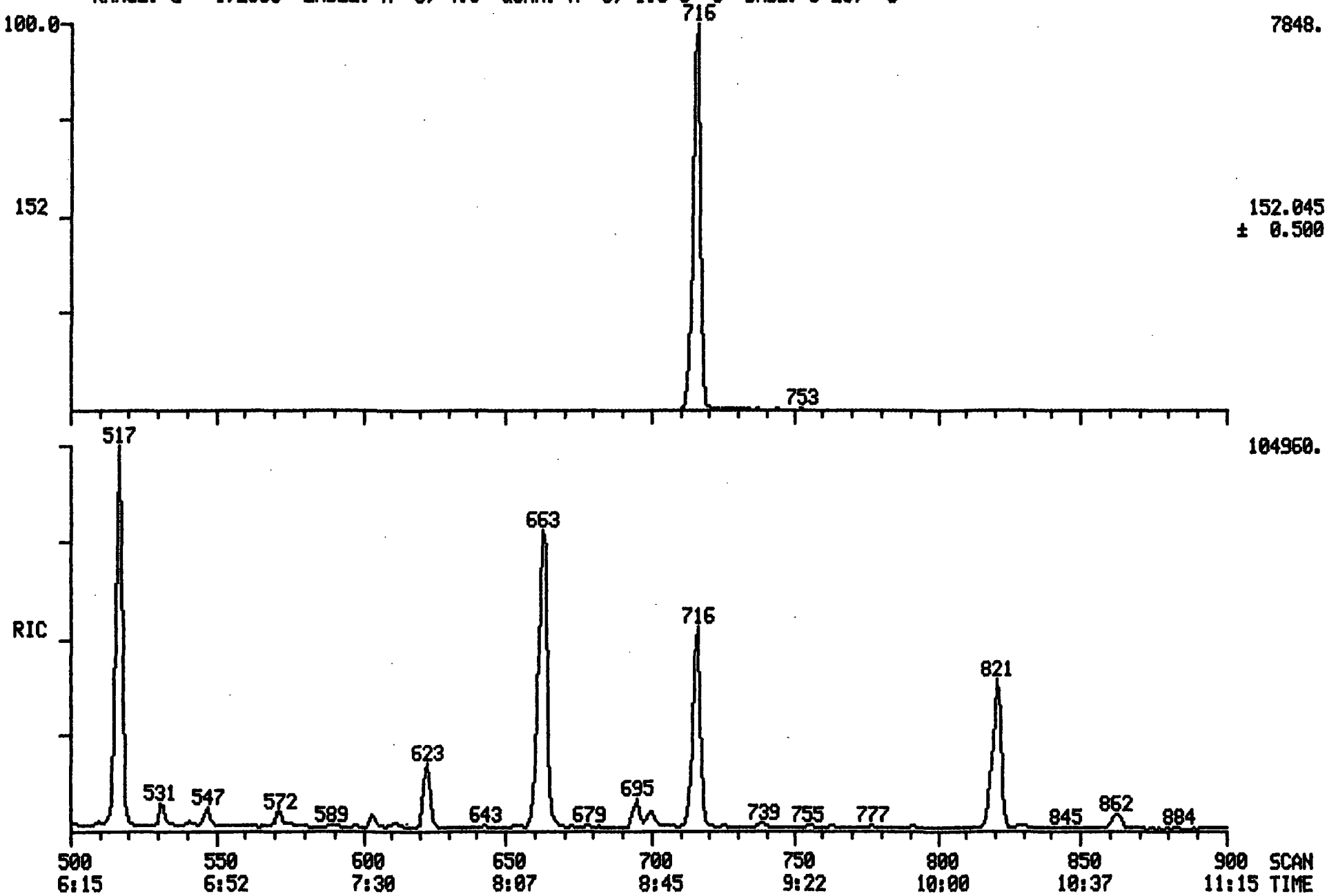
DUAL MASS SPECTRUM
10/29/86 13:35:00 + 32:18
SAMPLE: 50PPM HSL STD
CONDS.: DESC ST
ENHANCED (S 15B 2N 0T)

DATA: STDR810 #2584
CALI: 103086C #5

BASE M/Z: 149/ 149
RIC: 50111./ 58623.



RIC+MASS CHROMATOGRAM DATA: S59436R968 #1 SCANS 500 TO 900
06/01/88 18:41:00 CALI: 053188CR #4
SAMPLE: 59436-08 BNA H2O 100%/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



DATA REDUCED BY: AR DATE: 6-7-86 DATA FILE: S59436R968
DATA REVIEWED BY: ____ DATE: ____

00619

ENSECO TIC REPORT (PAGE 1)

SAMPLE: 59436-08 BNA H2O 100%/2ML RUN FACTOR: 1.00
CONDITIONS: ST ANALYST: MK

#	SCAN	Q	C	CONCENTRATION IN SAMPLE (UG/ML)	CAS #	COMPOUND
1	314	B	2	11.	108-87-2	CYCLOHEXANE, METHYL-
2	369	B	2	7.2	108-88-3	BENZENE, METHYL- (VOA)
3	393	CB	1	14.	00-00-0	OXYGENATED HYDROCARBON
4	434	CB	1	7.5	00-00-0	OXYGENATED HYDROCARBON
5	468	CB	1	20.	00-00-0	OXYGENATED HYDROCARBON
6	623	IB	2	12.	96-19-5	1-PROPENE, 1,2,3-TRICHLORO-
7	695	I	2	4.2	20324-32-7	2-PROPANOL, 1-(2-METHOXY-1-METHYLE
8	1723	I	1	4.0	2091-29-4	9-HEXADECENOIC ACID

editing complete

DATA FILE: S59436R968

ENSECO TIC REPORT (PAGE 2)

CONCENTRATION = AREA(TIC)*CONC(IS)/AREA(IS)

#	FIT	PURITY	INT. STD.	RT	RRT	AREA	HEIGHT	AMOUNT AS ANALYZED (UG/ML)	LIB	LIB #
1	981	896	1	3:55	0.443	45023.	14527.	10.618	NB	1138.
2	992	957	1	4:36	0.520	30719.	12719.	7.245	NB	850.
3	924	828	1	4:54	0.553	59581.	22695.	14.052	BC	2.
4	933	752	1	5:25	0.611	31794.	12058.	7.498	BC	2.
5	815	779	1	5:50	0.658	86165.	29137.	20.321	BC	2.
6	917	757	1	7:47	0.875	51567.	17638.	12.162	NB	6445.
7	0	880	1	8:41	0.975	17615.	7316.	4.154	NB	7259.
8	921	669	4	21:32	1.071	19989.	4884.	4.039	NB	24165.

TIC SELECTION REPORT

DATA FILE: S59436R968

THE FOLLOWING PEAKS WERE REJECTED BECAUSE AT LEAST 50 % OF THEIR SIZE WAS ACCOUNTED FOR BY TARGET COMPOUNDS ELUTING WITHIN 3 SCANS OF THE PEAK TOP.

SCAN	SIZE	AMOUNT
336	119463.	28.173
517	273986.	64.615
663	298565.	70.412
716	169609.	39.999
821	144054.	33.973
954	209227.	39.999
1176	198469.	37.943
1311	211897.	42.816
1615	197959.	39.999
1951	144826.	29.263
2168	141223.	46.654
2187	23467.	7.752
2449	121079.	39.999

TOTAL NUMBER OF UNIDENTIFIED PEAKS WITH SIZE GREATER THAN 10 % OF THE CLOSEST INTERNAL STANDARD (WITHOUT INTERFERENCES) = 9

INTERNAL STANDARD DATA IS LISTED BELOW. IS FOR WHICH RIC SIZE DIFFERS FROM THE ESTIMATED RIC SIZE BY MORE THAN 60 % ARE CONSIDERED TO HAVE INTERFERENCES, AND ARE NOT USED FOR QUANTITATION.

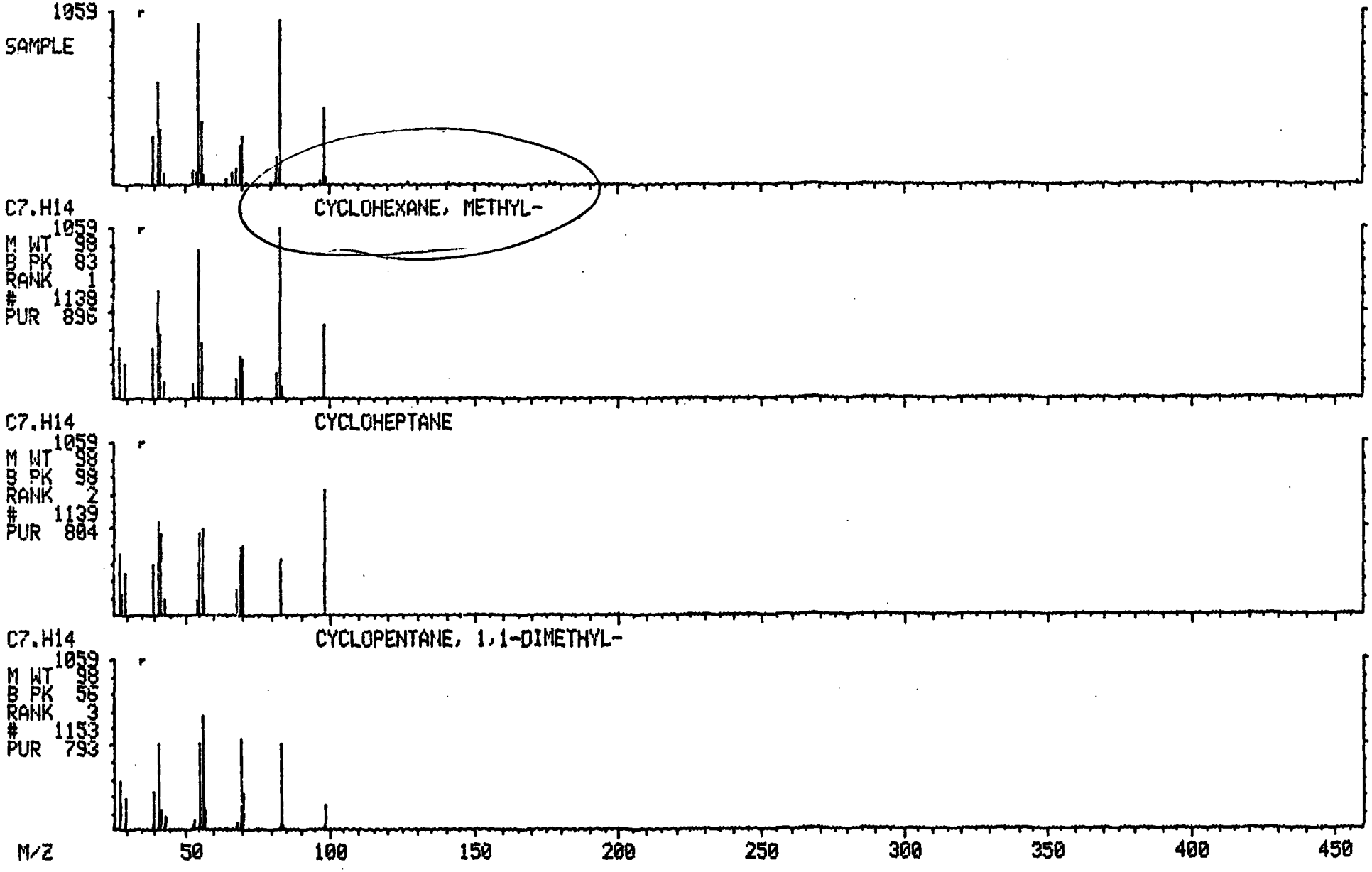
#	LIB	LIB#	RIC SIZE	ESTIMATED RIC SIZE	INTERFERENCE
1	S1	1	169609.	148829.	
2	S2	1	209227.	137669.	
3	S3	1	211897.	106585.	*
4	S4	1	197959.	130466.	
5	S5	1	141223.	87133.	*
6	S6	1	121079.	91235.	

SIZE = AREA

00622

LIBRARY SEARCH
06/01/88 18:41:00 + 3:55
SAMPLE: 59436-08 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R968 # 314 BASE M/Z: 83
CALI: 053188CR # 4 RIC: 12639.

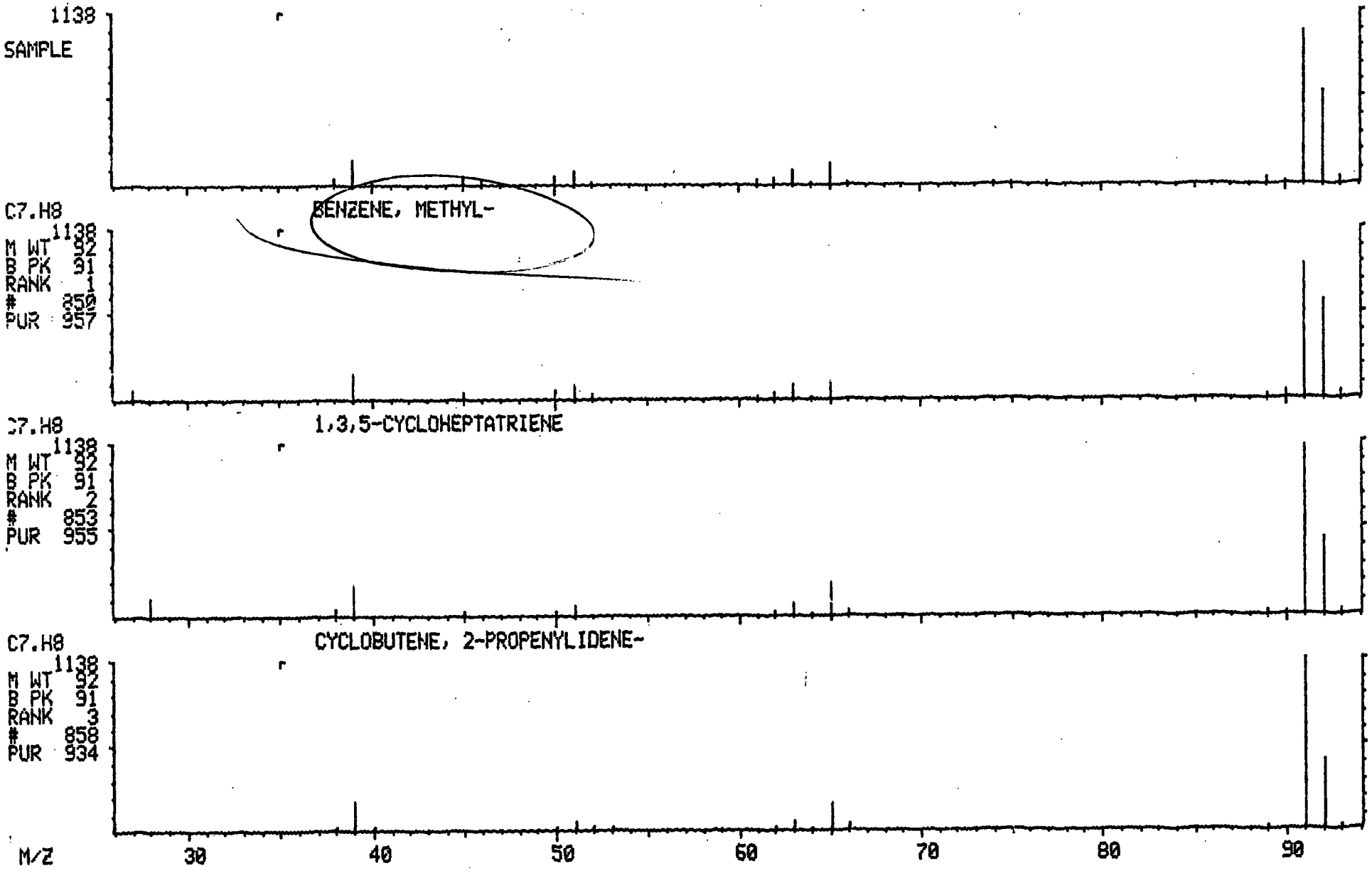


00623

LIBRARY SEARCH
06/01/88 18:41:00 + 4:37
SAMPLE: 59436-08 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R968 # 369
CALI: 053188CR # 4

BASE M/Z: 91
RIC: 10623.

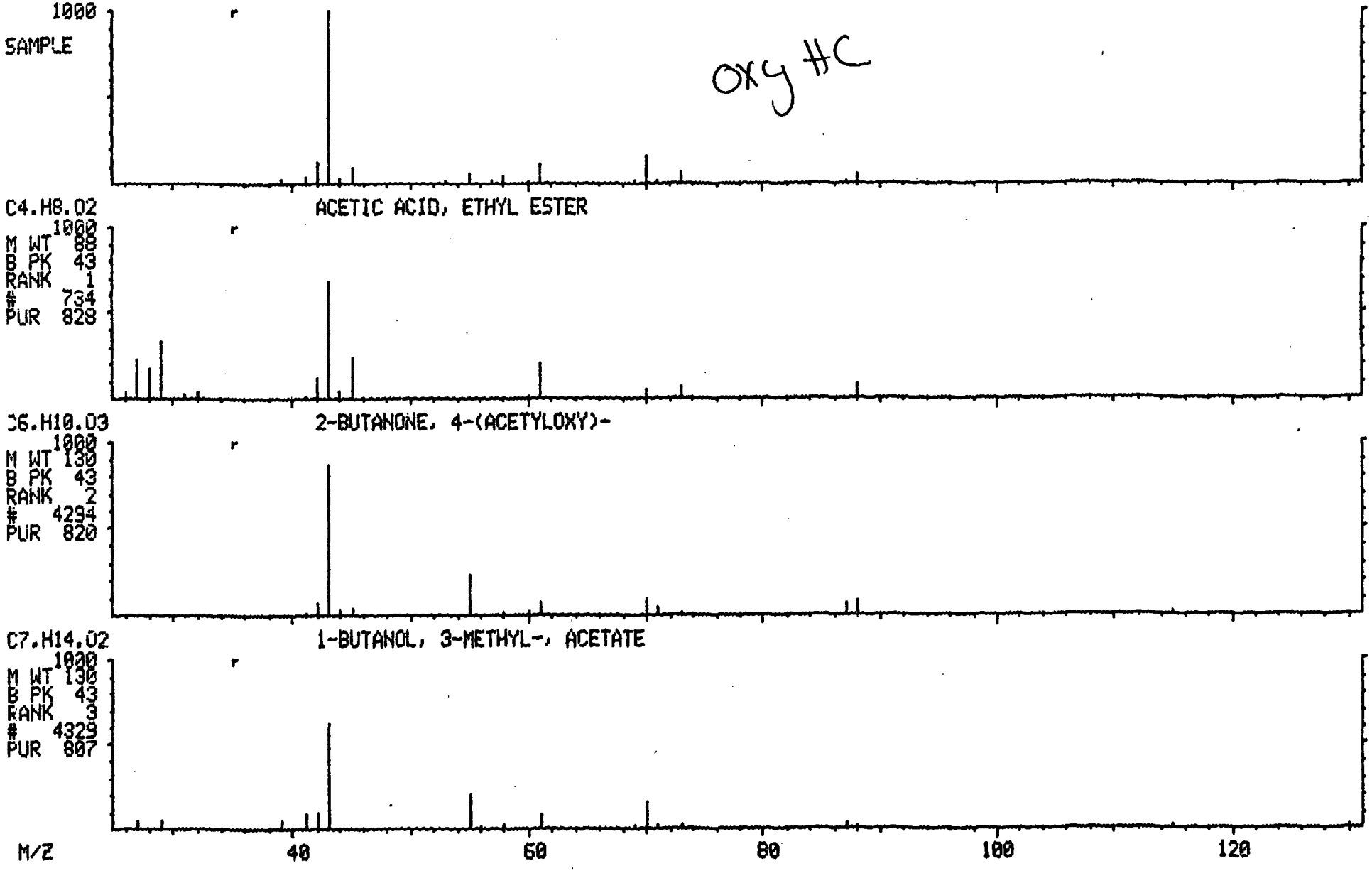


00624

LIBRARY SEARCH
05/01/88 18:41:00 + 4:55
SAMPLE: 59436-08 BNA H2O 100Z/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R968 # 393
CALI: 053188CR # 4

BASE M/Z: 43
RIC: 19039.

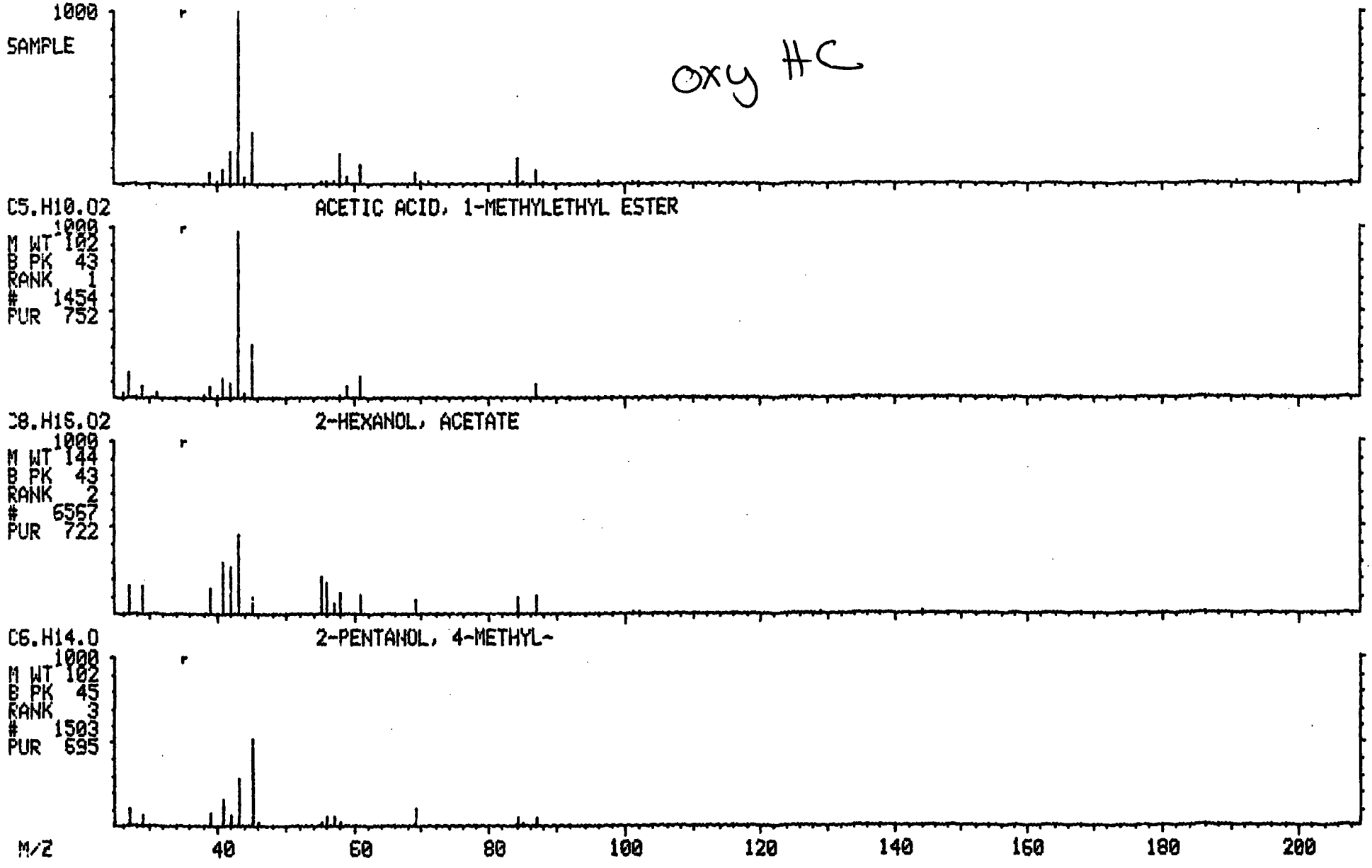


00625

LIBRARY SEARCH
06/01/88 18:41:00 + 5:25
SAMPLE: 59436-08 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R968 # 434
CALI: 053188CR # 4

BASE M/Z: 43
RIC: 9647.



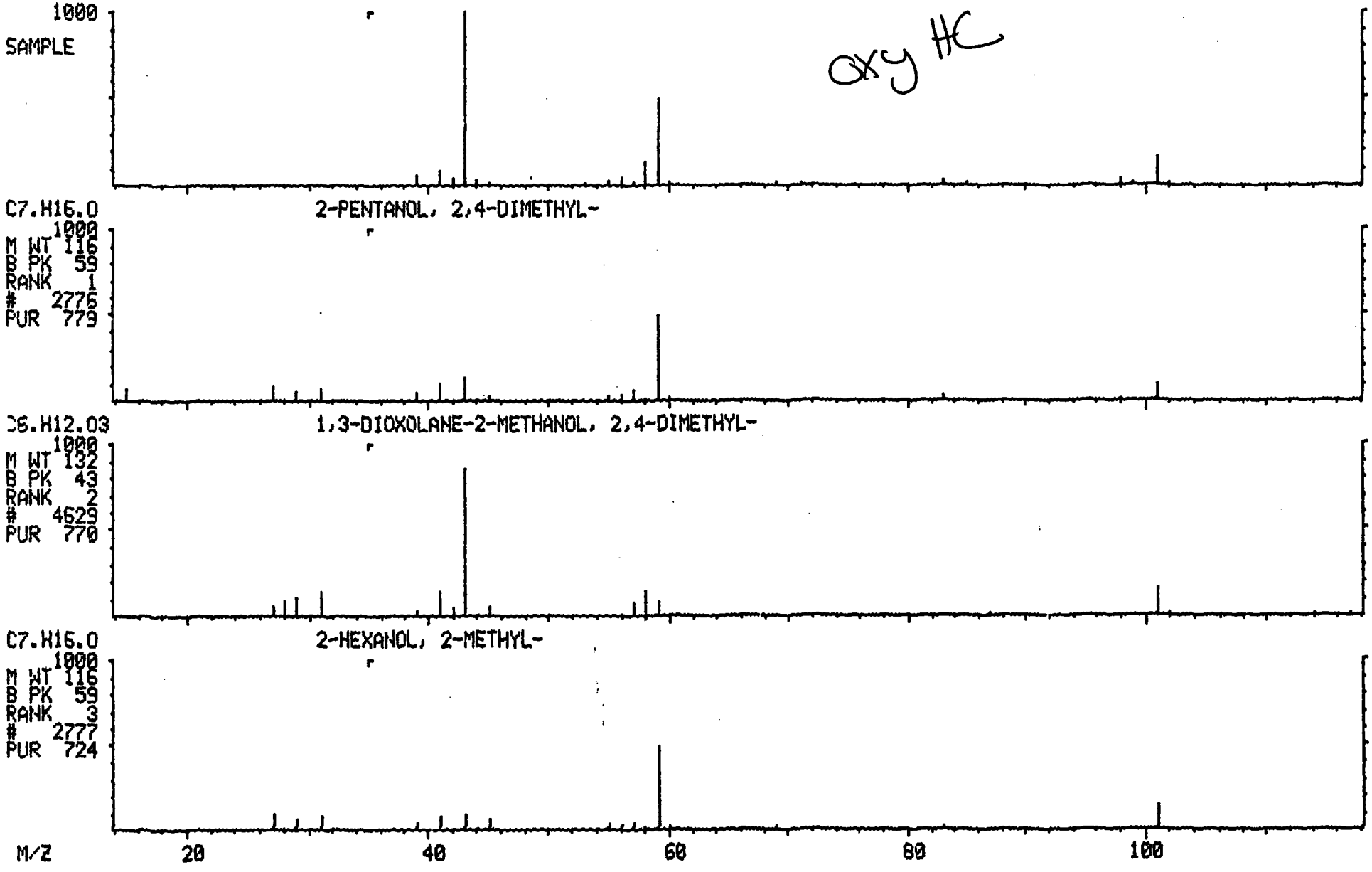
00626

LIBRARY SEARCH
06/01/88 18:41:00 + 5:51
SAMPLE: 59436-08 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R968 # 468
CALI: 053188CR # 4

BASE M/Z: 43
RIC: 25439.

oxy HC

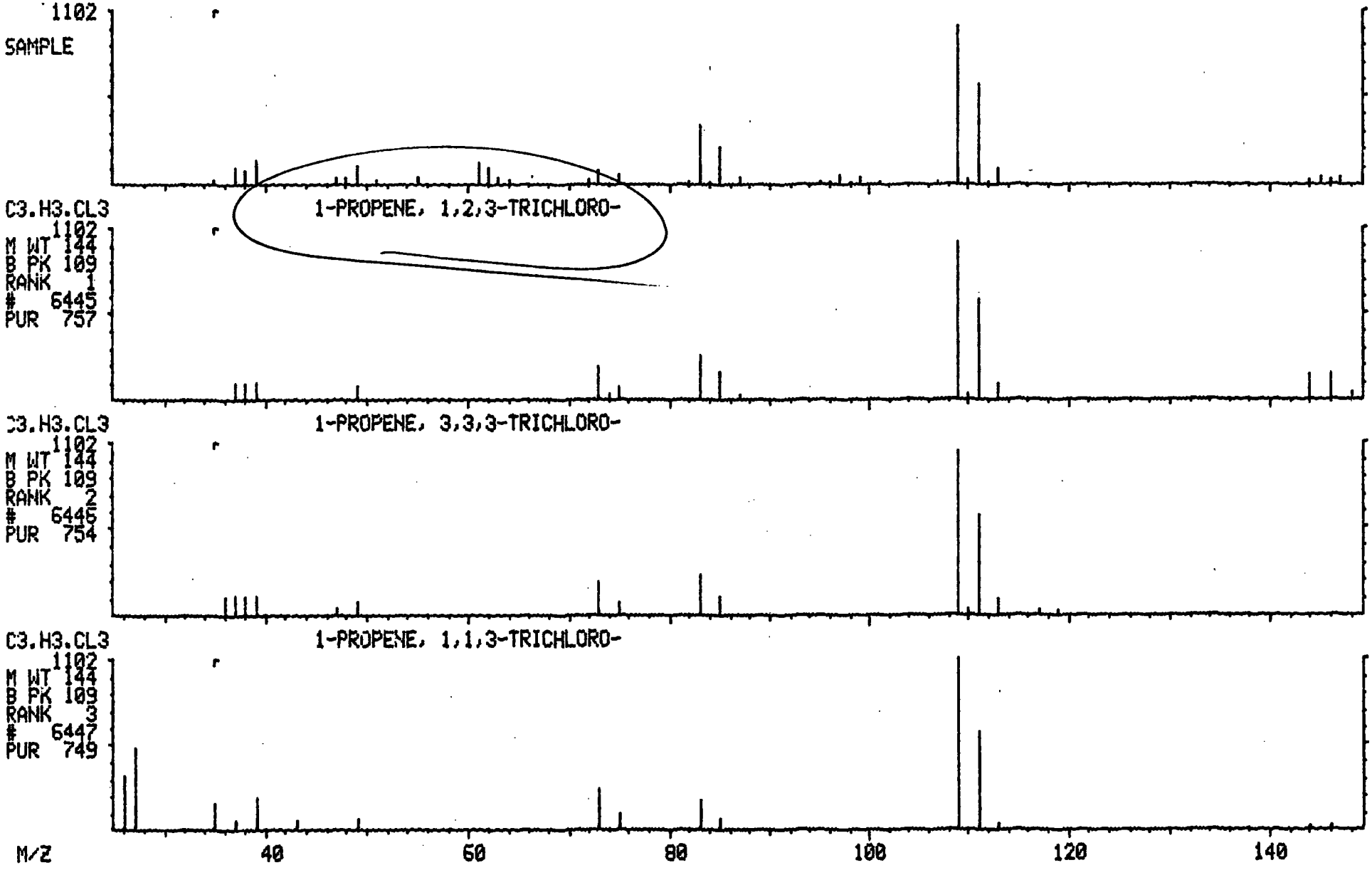


00627

LIBRARY SEARCH
06/01/88 18:41:00 + 7:47
SAMPLE: 59436-08 BNA H2O 100Z/2ML
CONDS.: 5T
ENHANCED (5 15B 2N 0T)

DATA: S59436R968 # 623
CALI: 053188CR # 4

BASE M/Z: 109
RIC: 15839.

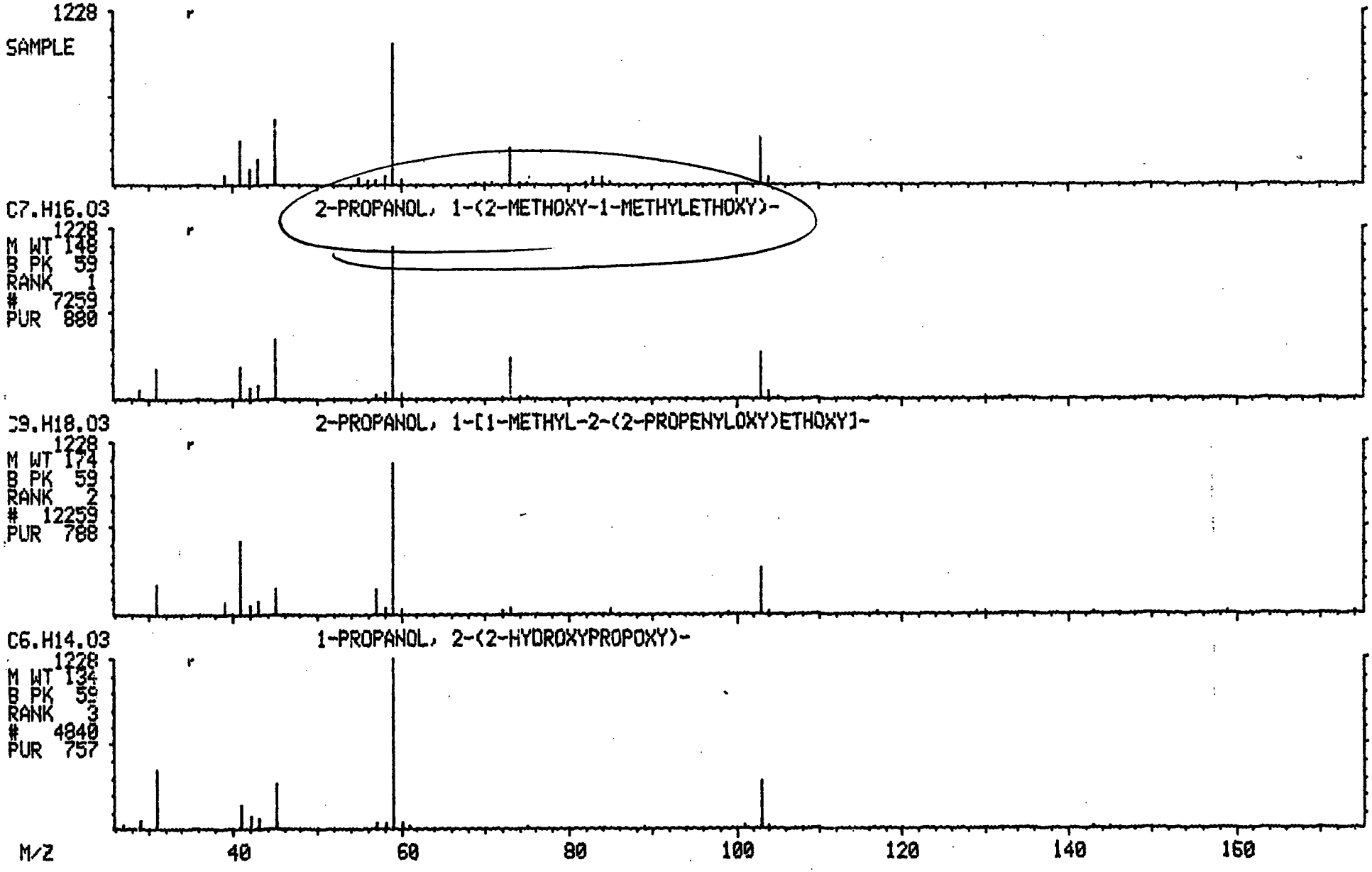


00628

LIBRARY SEARCH
06/01/88 18:41:00 + 8:41
SAMPLE: 59436-08 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R968 # 695
CALI: 053188CR # 4

BASE M/Z: 59
RIC: 5823.

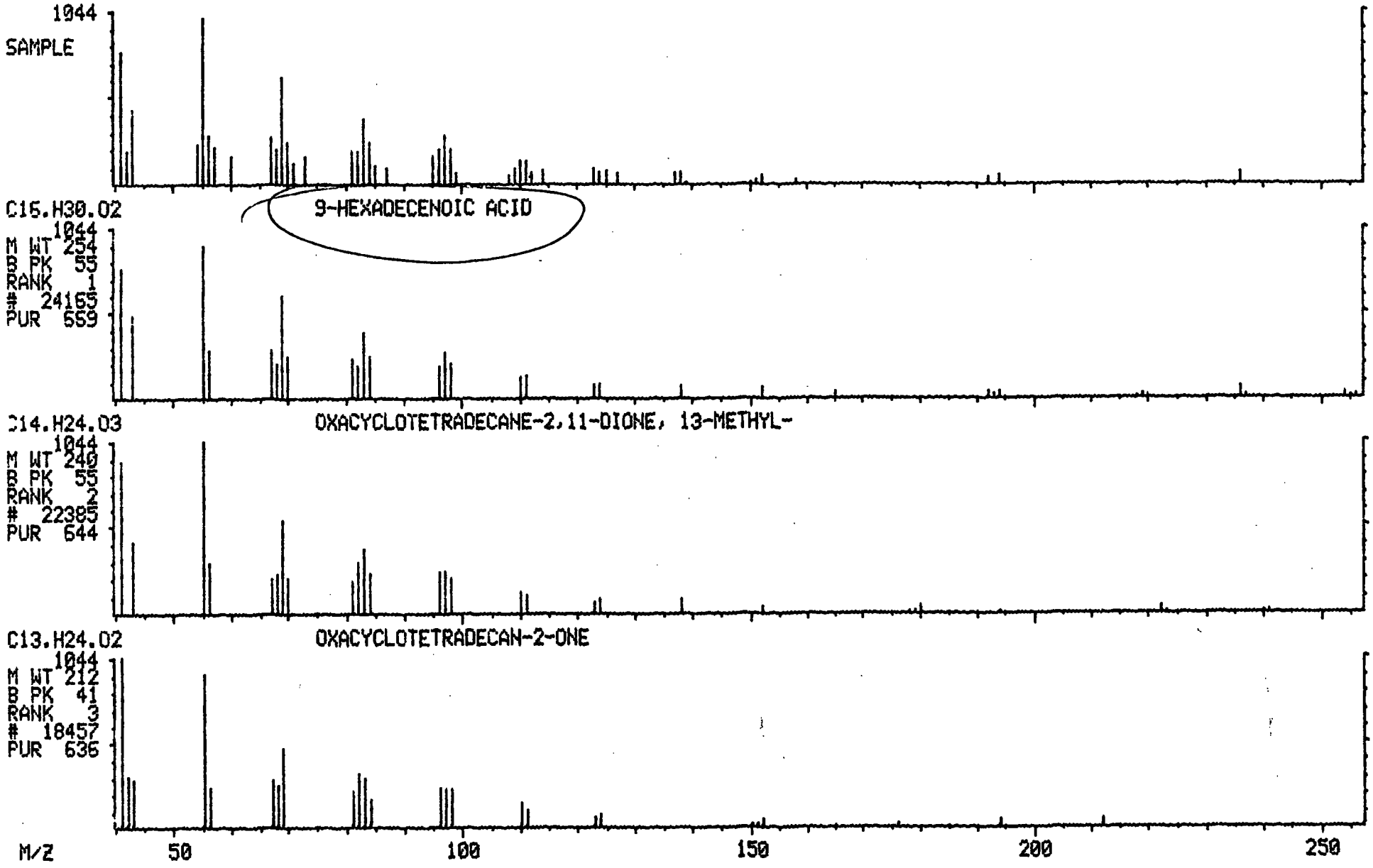


00629

LIBRARY SEARCH
06/01/88 18:41:00 + 21:32
SAMPLE: 59436-08 BNA H2O 100%/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R958 #1723
CALI: 053188CR # 4

BASE M/Z: 55
RIC: 3991.



PROCEDURE: TCA DIAGNOSTIC REPORT 6/03/88 17:45:27
DATA FILE: S59436R968
REFERENCE: 11TABLE
NAME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3 **00630**
REPORT: IS01

< ---- STANDARDS ----- >				< --- PLUS UNKNOWNS --- >				< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	2	0	13	2	1	0	IS01/TC01
3	3	1	49	14	3	1	49	IS02/TC02

26 COMPOUNDS PROCESSED, 4 FOUND

< COMPOUND >			< ---------- SEARCH ---------- >								< SAT >	< ------ CHRO ------- >		
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS		M/Z	TOP	DELTA	PEAKS
1	S1	1	-715	716	716	.	2	979	.		152	716	.	1
2	S1	4	-335	336	336	.	1	993	.		84	336	.	1
3	S1	20	-337	338	.	.	.	.	.		79	.	.	.
4	S1	30	-431	432	.	.	.	.	.		93	.	.	.
5	S1	62	-496	497	.	.	.	.	.		93	.	.	.
6	S1	64	-526	527	.	.	.	.	.		107	.	.	.
7	S1	73	-558	559	.	.	.	.	.		106	.	.	.
8	S1	83	-594	595	.	.	.	.	.		107	.	.	.
9	S1	87	-615	616	.	.	.	.	.		107	.	.	.
10	S1	88	-635	636	.	.	.	.	.		107	.	.	.
11	S1	89	-643	644	.	.	.	.	.		107	.	.	.
12	S1	92	-663	664	.	.	.	.	.		107	.	.	.
13	S1	122	-700	701	.	.	.	.	.		107	.	.	.
14	S2	1	-954	954	954	.	1	998	.		136	954	.	1
15	S3	1	-1311	1311	1311	.	1	990	.		164	1311	.	1
16	S1	137	-731	732	.	.	.	.	.		106	.	.	.
17	S1	142	-745	746	.	.	.	.	.		106	.	.	.
18	S1	187	-799	800	.	.	.	.	.		108	.	.	.
19	S1	202	-822	823	.	.	.	.	.		106	.	.	.
20	S1	203	-827	828	.	.	.	.	.		106	.	.	.
21	S1	204	-847	848	.	.	.	.	.		122	.	.	.
22	S2	27	-898	898	.	.	.	.	.		107	.	.	.
23	S2	37	-922	922	.	.	.	.	.		107	.	.	.
24	S2	47	-937	937	.	.	.	.	.		107	.	.	.
25	S2	57	-955	955	.	.	.	.	.		107	954	.	1
26	S2	150	-1118	1118	.	.	.	.	.		142	.	.	.

Quantitation Report File: S59436R968

Data: S59436R968.TI
06/01/88 18:41:00
Sample: 59436-08 BNA H2O 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No.: 59436

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

No	Name			
1	CI30 1,4-DICHLOROBENZENE-D4	152	IS1# 01	3855-82-1
2	PYRIDINE-D5	84	S1# 04	
3	PYRIDINE	79	S1# 20	110-86-1
4	2-PICOLINE	93	S1# 30	109-06-8
5	3 & 4-PICOLINE	93	S1# 62	
6	2,6-LUTIDINE	107	S1# 64	
7	2-ETHYL PYRIDINE	106	S1# 73	
8	2,4 & 2,5-LUTIDINE	107	S1# 83	
9	2,3-LUTIDINE	107	S1# 87	
10	3-ETHYL PYRIDINE	107	S1# 88	
11	4-ETHYL PYRIDINE	107	S1# 89	
12	3,5-LUTIDINE	107	S1# 92	
13	3,4-LUTIDINE	107	S1#122	
14	CI40 NAPHTHALENE-D8	136	IS2# 01	1146-65-2
15	CI50 ACENAPHTHENE-D10	164	IS3# 01	15067-26-2
16	2-METHYL-5-ETHYL PYRIDINE	106	S1#137	
17	2-METHYL-3-ETHYL PYRIDINE	106	S1#142	
18	M AND P CRESOLS	108	S2#187	
19	3-ETHYL-4-METHYL PYRIDINE	106	S1#202	
20	3-ETHYL-5-METHYL PYRIDINE	106	S1#203	
21	2,6-DIMETHYL PHENOL	122	S1#204	
22	2,5-DIMETHYL PHENOL	107	S2# 27	
23	3,5-DIMETHYL PHENOL	107	S2# 37	
24	2,3-DIMETHYL PHENOL	107	S2# 47	
25	3,4-DIMETHYL PHENOL	107	S2# 57	
26	1-METHYLNAPHTHALENE	142	S2#150	90-12-0

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	716	8:57	1	1.000	A BB	24332.	40.000 UG/ML	26.60
2	84	336	4:12	1	0.469	A BB	40647.	29.914 UG/ML	19.90
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	136	954	11:55	14	1.000	A BB	93472.	40.000 UG/ML	26.60
15	164	1311	16:23	15	1.000	A BB	42527.	40.000 UG/ML	26.60
16	NOT FOUND								
17	NOT FOUND								

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	107	954	11:55	1	1.332	A BB	528.	0.467 UG/ML	0.31
26	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:57	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	4:11	1.00	0.468	1.00	29.91	50.00	1.336	2.234	0.60
3	4:13		0.471						
4	5:23		0.602						
5	6:12		0.693						
6	6:34		0.735						
7	6:58		0.779						
8	7:25		0.830						
9	7:41		0.859						
10	7:56		0.887						
11	8:02		0.898						
12	8:17		0.926						
13	8:45		0.978						
14	11:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
15	16:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
16	9:08		1.021						
17	9:19		1.041						
18	9:59		1.116						
19	10:16		1.148						
20	10:20		1.155						
21	10:35		1.183						
22	11:13		0.940						
23	11:31		0.965						
24	11:43		0.981						
25	11:56	1.00	1.334	1.00	0.47	50.00	0.017	1.861	0.01
26	13:58		1.171						

TCA FINISHED, 4 FOUND
FINISHED AT: 6/03/88 17:48:09

RF 2.04
SV 2.09

00633

RMAL QUANTITATION SUMMARY FILE: S59436R968
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/ML

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	S1# 1	CI30 1,4-DICHLOROBENZENE	152	716	1	24332.	1.000	40.000
2	S2# 1	CI40 NAPHTHALENE-D8	136	954	2	93472.	1.000	40.000
3	S3# 1	CI50 ACENAPHTHENE-D10	164	1311	3	42527.	1.000	40.000
4	S1# 4	PYRIDINE-D5	84	336	1	40647.	1.336	29.914
5	S1# 20	PYRIDINE	79		1	NOT FOUND		
6	S1# 30	2-PICOLINE	93		1	NOT FOUND		
7	S1# 62	3 & 4-PICOLINE	93		1	NOT FOUND		
8	S1# 64	2,6-LUTIDINE	107		1	NOT FOUND		
9	S1# 73	2-ETHYL PYRIDINE	106		1	NOT FOUND		
10	S1# 83	2,4 & 2,5-LUTIDINE	107		1	NOT FOUND		
11	S1# 87	2,3-LUTIDINE	107		1	NOT FOUND		
12	S1# 88	3-ETHYL PYRIDINE	107		1	NOT FOUND		
13	S1# 89	4-ETHYL PYRIDINE	107		1	NOT FOUND		
14	S1# 92	3,5-LUTIDINE	107		1	NOT FOUND		
15	S1#122	3,4-LUTIDINE	107		1	NOT FOUND		
16	S1#137	2-METHYL-5-ETHYL PYRIDIN	106		1	NOT FOUND		
17	S1#142	2-METHYL-3-ETHYL PYRIDIN	106		1	NOT FOUND		
18	S1#187	M AND P CRESOLS	108		1	NOT FOUND		
19	S1#202	3-ETHYL-4-METHYL PYRIDIN	106		1	NOT FOUND		
20	S1#203	3-ETHYL-5-METHYL PYRIDIN	106		1	NOT FOUND		
21	S1#204	2,6-DIMETHYL PHENOL	122		1	NOT FOUND		
22	S2# 27	2,5-DIMETHYL PHENOL	107		2	NOT FOUND		
23	S2# 37	3,5-DIMETHYL PHENOL	107		2	NOT FOUND		
24	S2# 47	2,3-DIMETHYL PHENOL	107		2	NOT FOUND		
25	S2# 57	3,4-DIMETHYL PHENOL	107		1	NOT FOUND		
26	S2#150	1-METHYLNAPHTHALENE	142		2	NOT FOUND		

RMAL-GC/MS REILLY TAR & CHEMICAL CO. PROJECT PROCESSING PROGRAM
DATAFILE: D: S59436X825. STARTED : 6/03/88 12:08:20

00634

6/3/88 0:19:27 SCAN 1 OF 3900 $QF = \frac{ng}{mL} \times \frac{0.5ml}{3.775L} = 0.132\ ng/L$

Acquisition started

Acquire Run 2: S59436X825 ACQUIRING
06/03/88 0:19:00 + 0:03 Free sectors: 22351 Scan: 7 of 3900
Sample: 59436-08 WATER/PAH 100%/0.5ML
Conds.: 2 UL AUTO INJ
Formula: Instrument: 4500 Weight: 80.000
Submitted by: RMAL Analyst: JGG Acct. No: 59436

********** GC PARAMETERS **********
Loaded GC Desc: PA Current GC oven tmp: 29 DegC Injector : 265 DegC
Current GC Desc: PA GC elapsed time : 0: 7 min Int. oven : 260 DegC

Seq. #	Temp(C)	Rate(C/m)	Time(min)	Total time(min)		Open	Close
1	30 - 30	-	1.0	1.0	Sweep/Split	0.5	0.0
2	30 - 325	10.0	29.5	30.5	Divert	45.5	0.0
3	325 - 325	-	15.0	45.5			
4	325 - 325	-	0.0	45.5			

********** SCAN PARAMETERS **********
***** Mode: Centroid positive ion + R1 (Temp)

MID scan Desc: P1 Mass intervals: 3
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 1024

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL	ION
1	225.500	226.500	0.105	1	100	0	1	1	Pos
2	227.500	228.500	0.105	1	100	0	1	1	Pos
3	239.500	240.500	0.105	1	100	0	1	1	Pos

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	Q	
Full scale mass	1024	u
Zero scale mass	1	u
Intensity/ion	2	
Peak Width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(MS)	4	

6/3/88 0:47:52 SCAN 3407 OF 3900

MID scan Desc: P2 Mass intervals: 3
Scan time: 0.500 s Samp. Int.: 0.200 ms Master rate: 1024

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL	ION
1	249.575	250.575	0.105	1	100	0	1	1	Pos
2	251.575	252.575	0.105	1	100	0	1	1	Pos
3	263.579	264.579	0.105	1	100	0	1	1	Pos

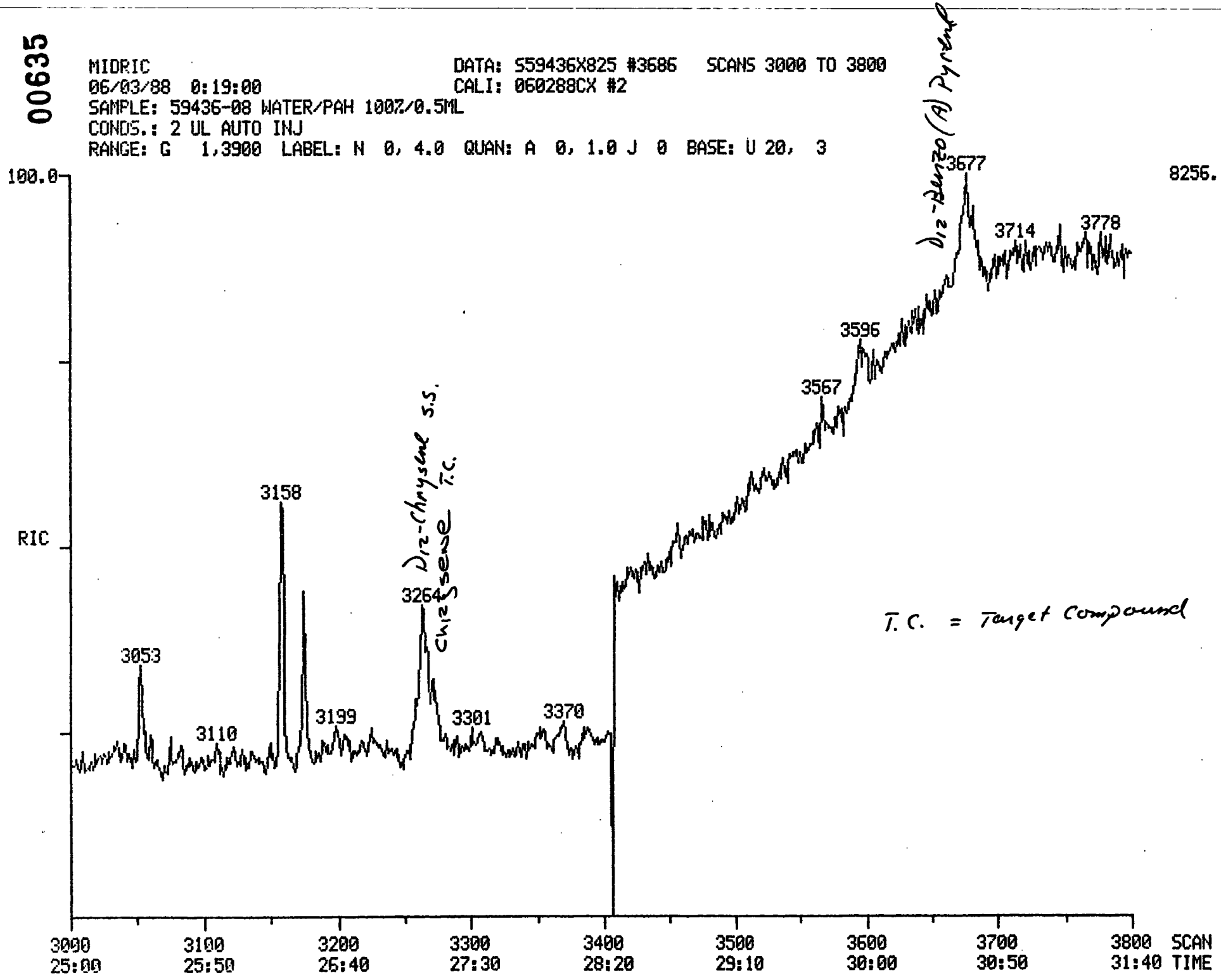
6/3/88 0:52:01
ACQUISITION COMPLETED
SCANS 1 TO 3406 Centroid
SCAN 3407 Suspended
SCANS 3408 TO 3900 Centroid

Mode	Scans	Secs	Out of	%	Peaks.	per scan	per sec

00635

MIDRIC
06/03/88 0:19:00
SAMPLE: 59436-08 WATER/PAH 100%/0.5ML
CONDS.: 2 UL AUTO INJ
RANGE: G 1,3900 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: S59436X825 #3686 SCANS 3000 TO 3800
CALI: 060288CX #2



Quantitation Report File: S59436X825

00636

Data: S59436X825.TI
06/03/88 0:19:00
Sample: 59436-08 WATER/PAH 100%/0.5ML
Conds.: 2 UL AUTO INJ
Formula: Instrument: 4500 Weight: 80.000
Submitted by: RMAL Analyst: JGG Acct. No.: 59436

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

No	Name	
1	D12-BENZO(A)PYRENE	264IPH# 01
2	D12-CHRYSENE	240SPH# 02
3	BENZO(A)ANTHRACENE	228 PH# 03
4	BENZO(A)ANTHRACENE	226 PH# 04
5	CHRYSENE	228 PH# 05
6	CHRYSENE	226 PH# 06
7	BENZO(B)FLUORANTHENE	252 PH# 07
8	BENZO(B)FLUORANTHENE	250 PH# 08
9	BENZO(K)FLUORANTHENE	252 PH# 09
10	BENZO(K)FLUORANTHENE	250 PH# 10
11	BENZO(J)FLUORANTHENE	252 PH# 11
12	BENZO(J)FLUORANTHENE	250 PH# 12
13	BENZO(A)PYRENE	252 PH# 13
14	BENZO(A)PYRENE	250 PH# 14
15	BENZO(A)PYRENE	250 PH# 14

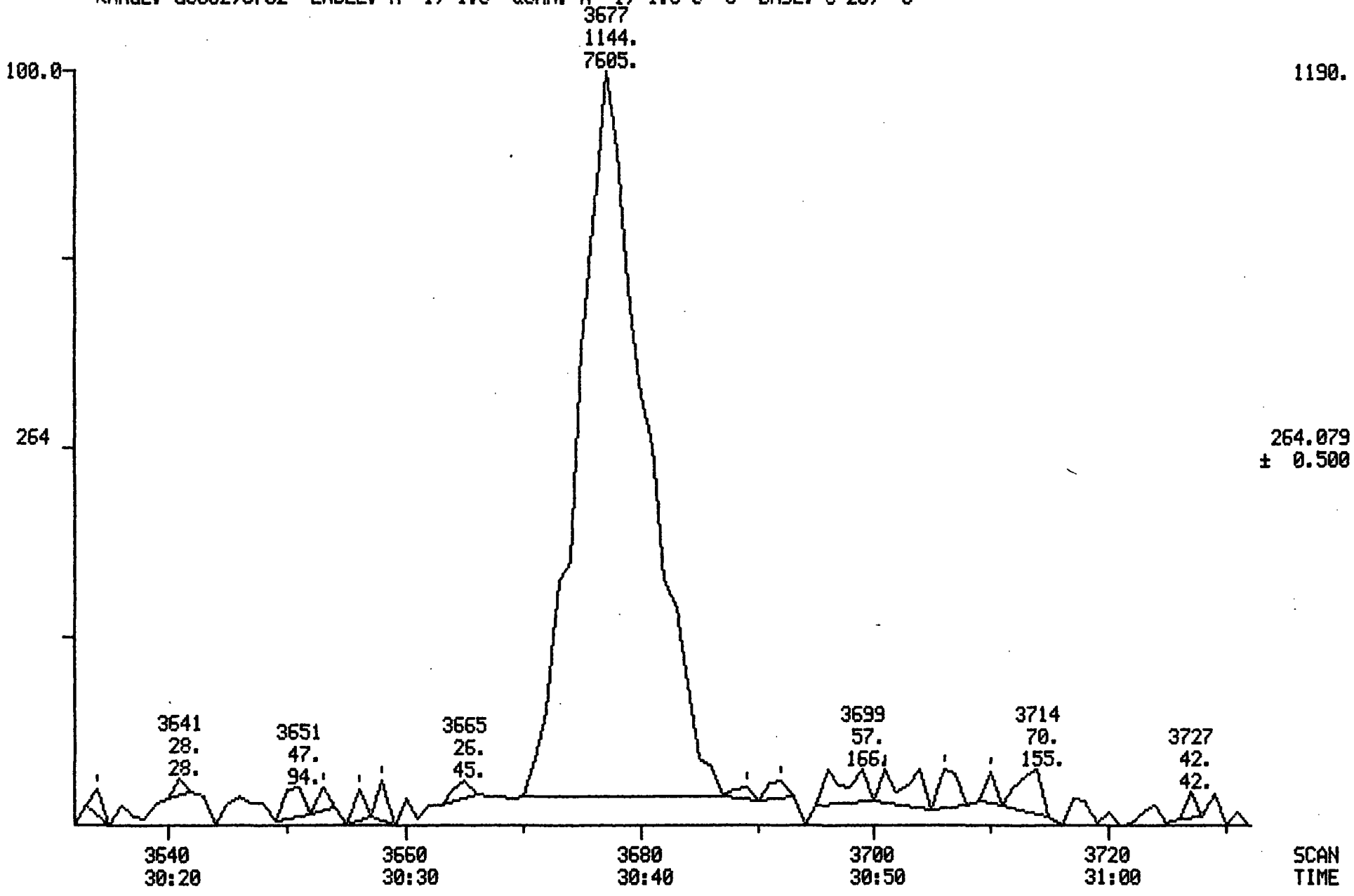
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	264	3677	30:38	1	1.000	A BB	7605.61%	80.000 NG/ML	22.18
2	240	3265	27:12	1	0.888	A BB	10855.	74.415 NG/ML	20.63
3	228	3259	27:09	1	0.886	A BV	2051.	13.323 NG/ML	3.69
4	226	3259	27:09	1	0.886	A BB	964.	27.066 NG/ML	7.51
5	228	3273	27:16	1	0.890	A VB	4300.	26.674 NG/ML	7.40
6	226	3271	27:15	1	0.890	A BB	1007.	23.773 NG/ML	6.59
7	252	3595	29:57	1	0.978	A VB	3054.	19.129 NG/ML	5.30
8	250	3580	29:50	1	0.974	A BB	358.	9.296 NG/ML	2.58
9	252	3595	29:57	1	0.978	A VB	3054.	19.129 NG/ML	5.30
10	250	3599	29:59	1	0.979	A BB	944.	24.512 NG/ML	6.80
11	252	3619	30:09	1	0.984	A BB	224.	1.575 NG/ML	0.44
12	250	3609	30:04	1	0.982	A BB	270.	8.594 NG/ML	2.38
13	252	3684	30:42	1	1.002	A BB	1392.	10.534 NG/ML	2.92
14	250	3682	30:41	1	1.001	A BV	527.	11.694 NG/ML	3.24
15	250	3686	30:43	1	1.002	A VB	493.	10.921 NG/ML	3.03

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	30:41	1.00	1.000	1.00	80.00	80.00	1.000	1.000	1.00
2	27:11	1.00	0.886	1.00	74.41	80.00	1.427	1.535	0.93
3	27:08	1.00	0.885	1.00	13.32	80.00	0.270	1.619	0.17
4	27:08	1.00	0.885	1.00	27.07	80.00	0.127	0.375	0.34
5	27:15	1.00	0.888	1.00	26.67	80.00	0.565	1.696	0.33
6	27:15	1.00	0.888	1.00	23.77	80.00	0.132	0.446	0.30
7	29:56	1.00	0.976	1.00	19.13	80.00	0.402	1.680	0.24
8	29:56	1.00	0.976	1.00	9.30	80.00	0.047	0.405	0.12
9	29:59	1.00	0.977	1.00	19.13	80.00	0.402	1.680	0.24

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
10	29:59	1.00	0.977	1.00	24.51	80.00	0.124	0.405	0.31
11	29:41	1.02	0.982	1.00	1.58	80.00	0.029	1.496	0.02
12	29:41	1.01	0.982	1.00	8.59	80.00	0.036	0.330	0.11
13	30:44	1.00	1.002	1.00	10.53	80.00	0.183	1.390	0.13
14	30:44	1.00	1.002	1.00	11.69	80.00	0.069	0.474	0.15
15	30:44	1.00	1.002	1.00	10.92	80.00	0.065	0.474	0.14

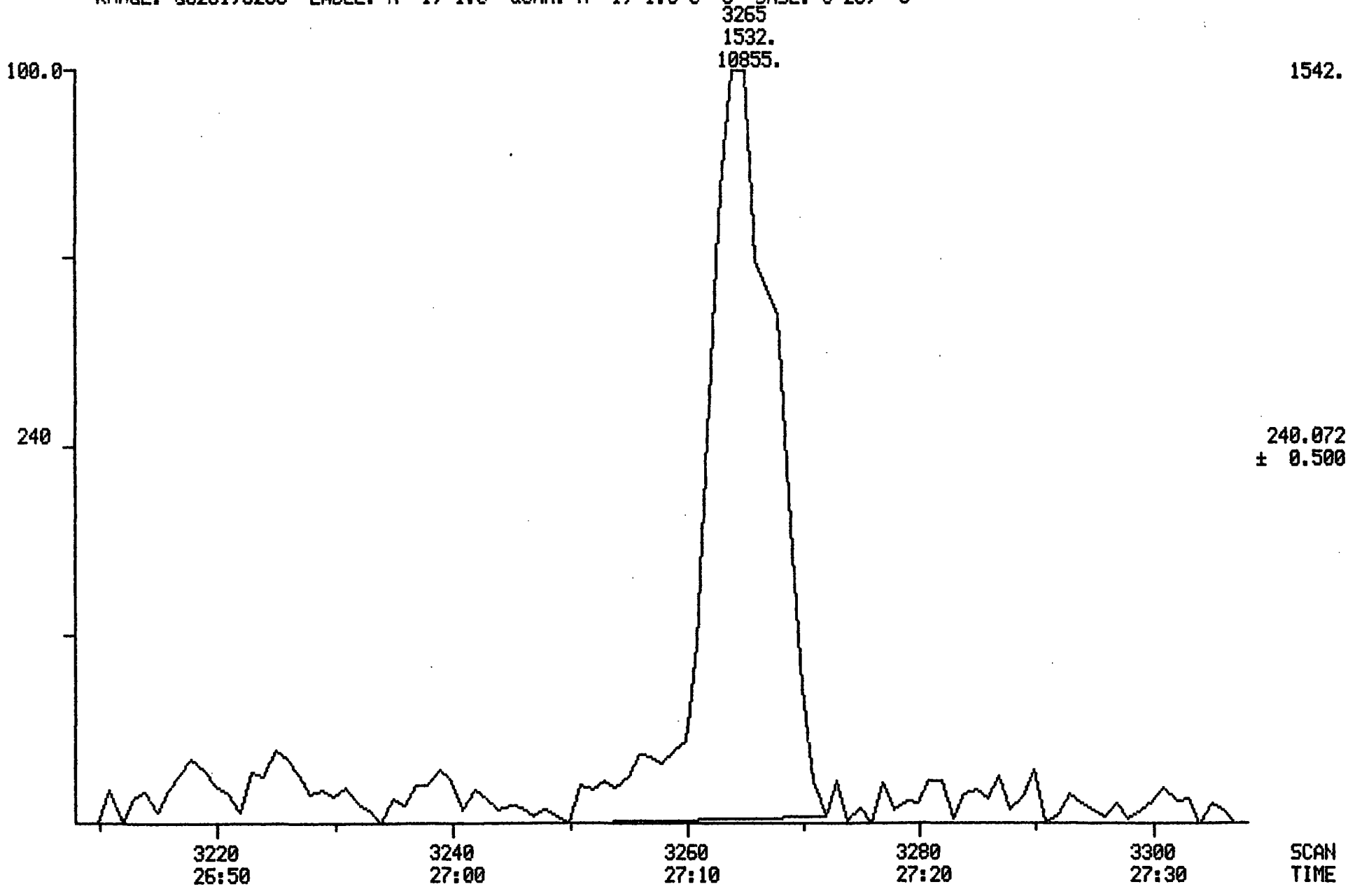
00638

MIDMASS CHROMATOGRAM DATA: S59436X825 #3682 SCANS 3632 TO 3732
06/03/88 0:19:00 CALI: 060288CX #2
SAMPLE: 59436-08 WATER/PAH 100%/0.5ML
CONDS.: 2 UL AUTO INJ
D12-BENZO(A)PYRENE 264IPH# 01
RANGE: G3632,3732 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



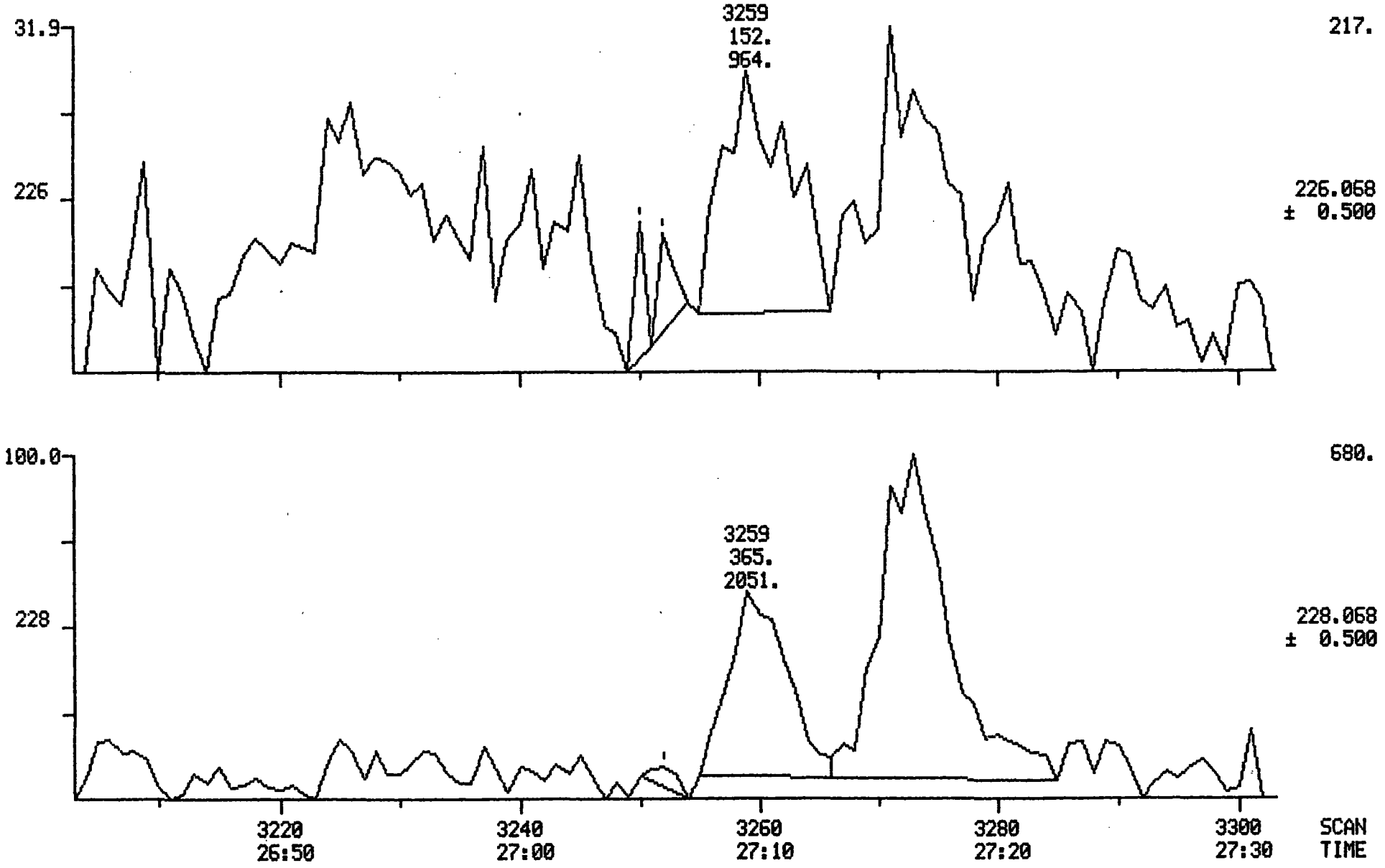
00639

MIDMASS CHROMATOGRAM DATA: S59436X825 #3258 SCANS 3208 TO 3308
06/03/88 0:19:00 CALI: 060288CX #2
SAMPLE: 59436-08 WATER/PAH 100%/0.5ML
CONDS.: 2 UL AUTO INJ
D12-CHRYSENE 240SPH# 02
RANGE: G3251,3265 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



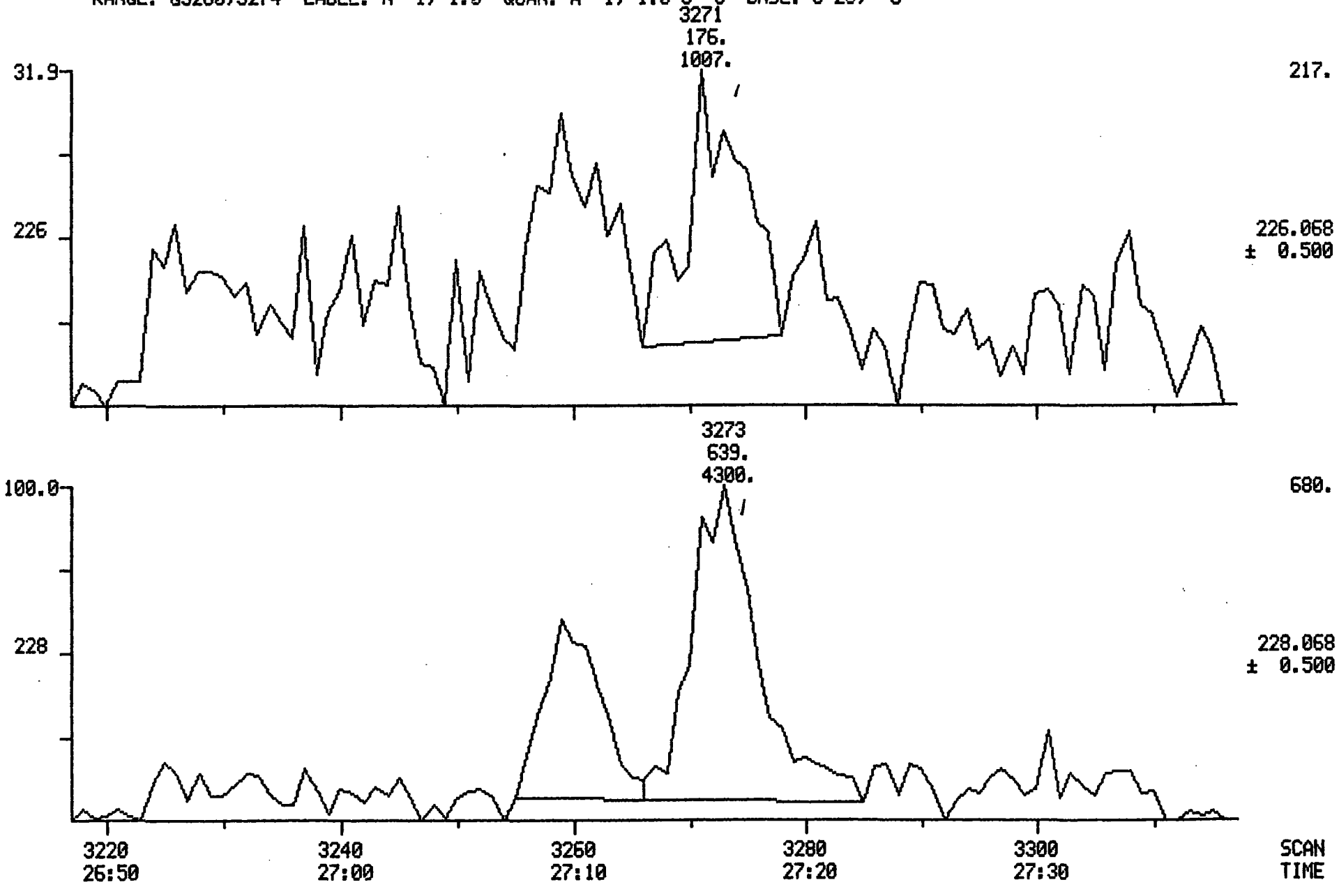
00640

MIDMASS CHROMATOGRAMS DATA: 559436X825 #3253 SCANS 3203 TO 3303
06/03/88 0:19:00 CALI: 060288CX #2
SAMPLE: 59436-08 WATER/PAH 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(A)ANTHRACENE 228 PH# 03
RANGE: G3246,3260 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



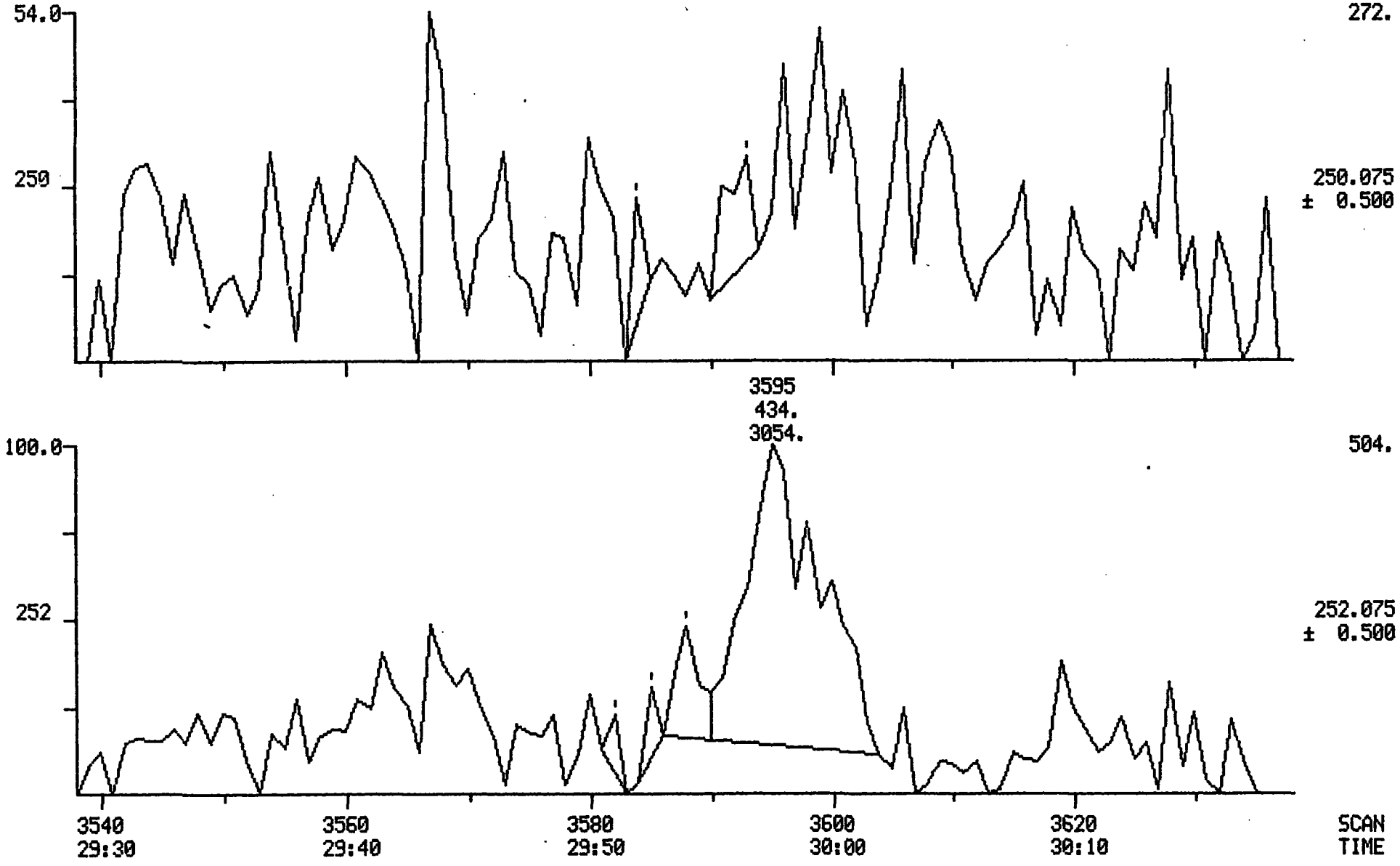
00641

MIDMASS CHROMATOGRAMS DATA: S59436X825 #3267 SCANS 3217 TO 3317
06/03/88 0:19:00 CALI: 060288CX #2
SAMPLE: 59436-08 WATER/PAH 100%/0.5ML
CONDS.: 2 UL AUTO INJ
CHRYSENE 228 PH# 05
RANGE: G3260,3274 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



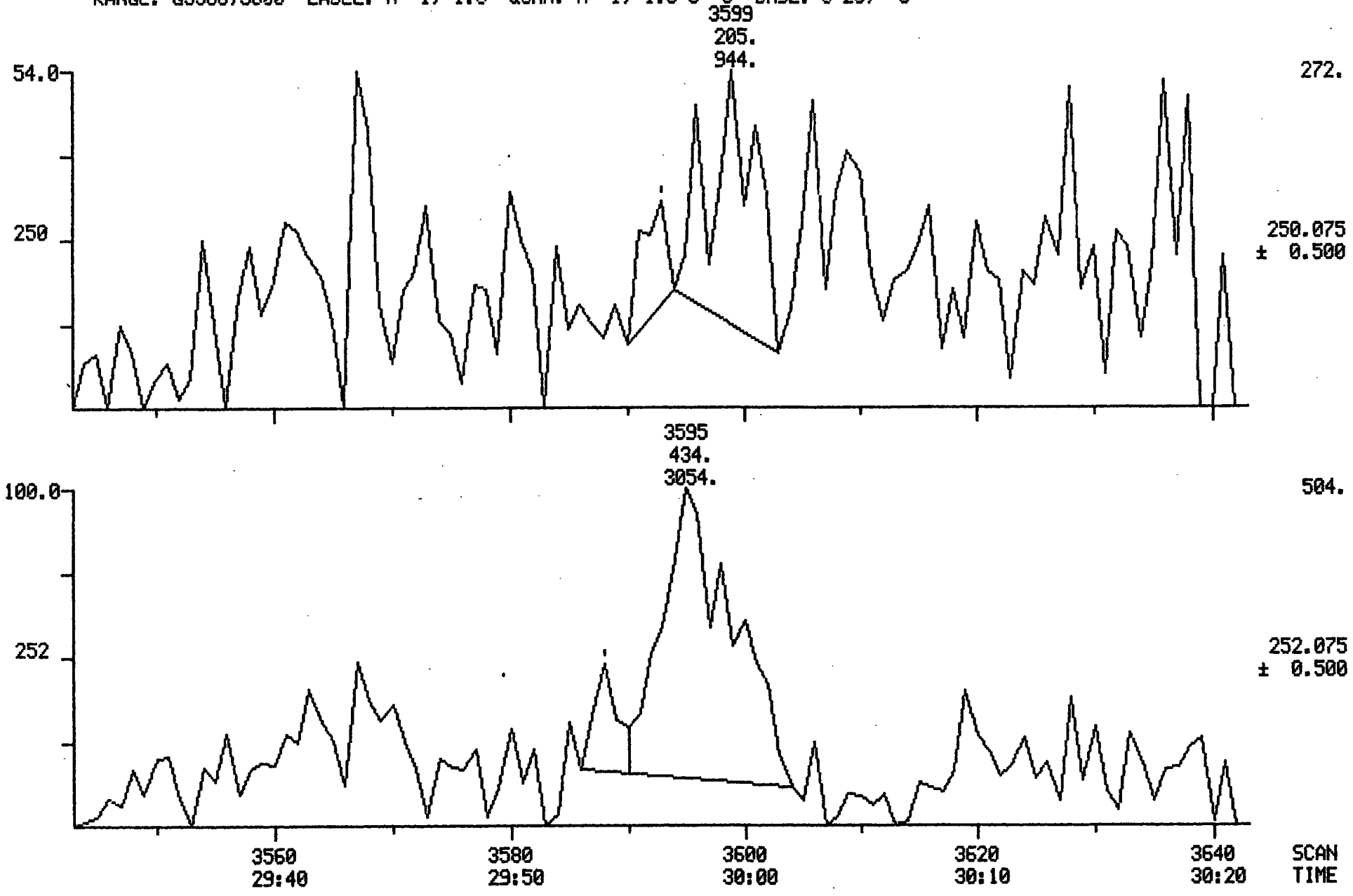
00642

MIDMASS CHROMATOGRAMS DATA: 559436X825 #3588 SCANS 3538 TO 3638
06/03/88 0:19:00 CALI: 060288CX #2
SAMPLE: 59436-08 WATER/PAH 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(B)FLUORANTHENE 252 PH# 07
RANGE: G3581,3595 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



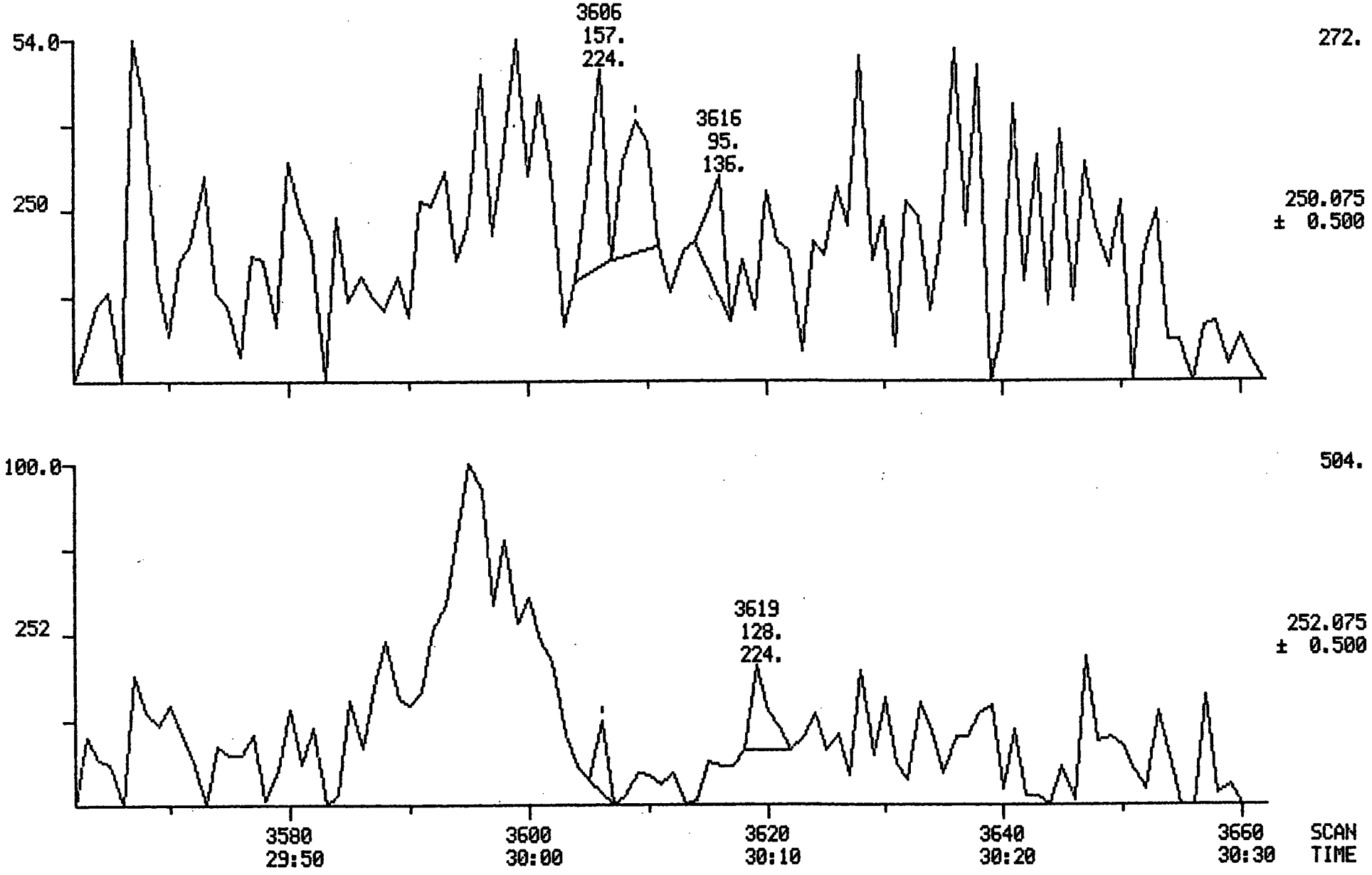
00643

MIDMASS CHROMATOGRAMS DATA: S59436X825 #3593 SCANS 3543 TO 3643
06/03/88 0:19:00 CALI: 060288CX #2
SAMPLE: 59436-08 WATER/PAH 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(K)FLUORANTHENE 252 PH# 09
RANGE: G3586,3600 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



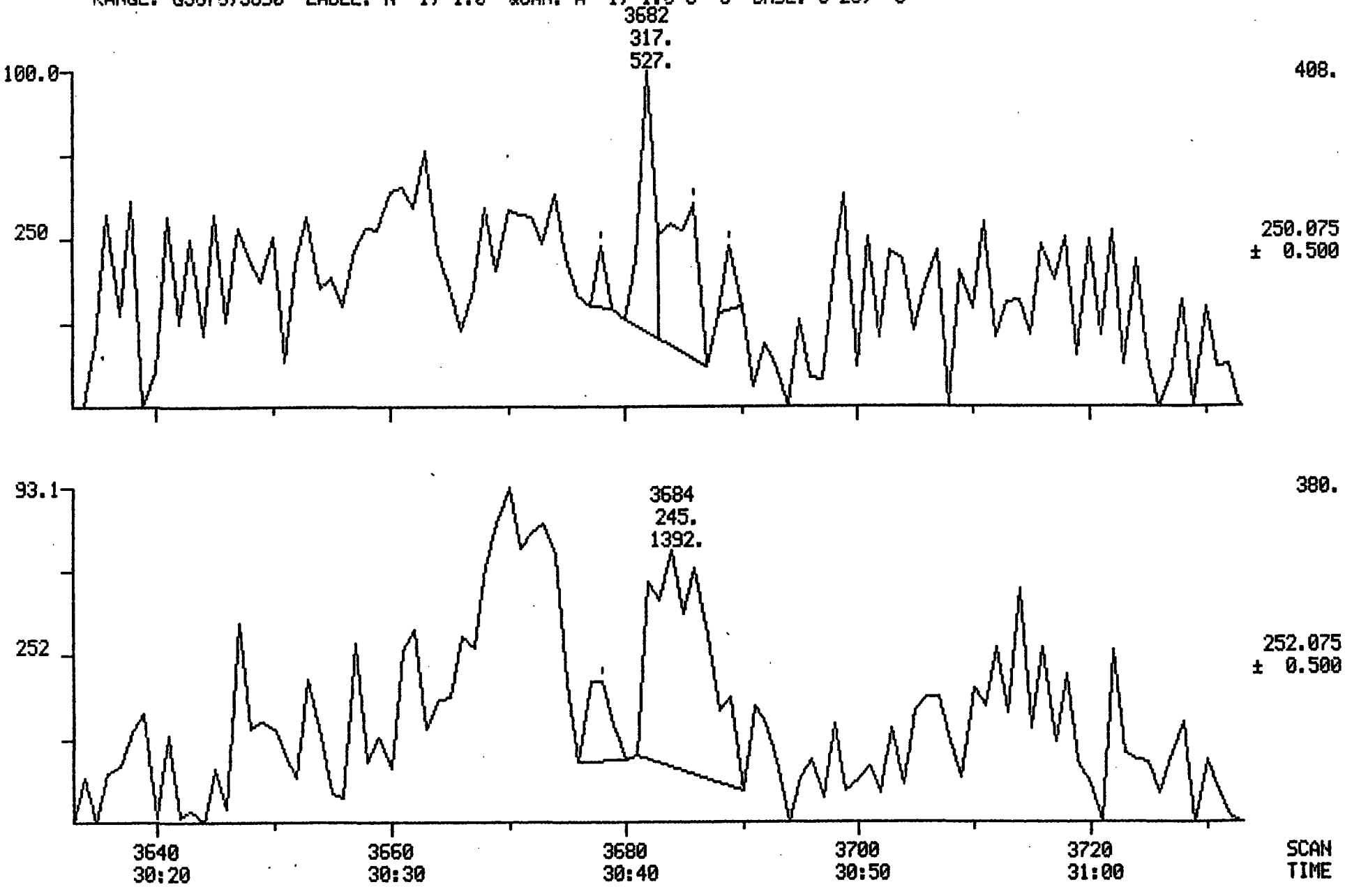
00644

MIDMASS CHROMATOGRAMS DATA: S59436X825 #3612 SCANS 3562 TO 3662
06/03/88 0:19:00 CALI: 060288CX #2
SAMPLE: 59436-08 WATER/PAH 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(J)FLUORANTHENE 252 PH# 11
RANGE: G3605,3619 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



00645

MIDMASS CHROMATOGRAMS DATA: S59436X825 #3683 SCANS 3633 TO 3733
06/03/88 0:19:00 CALI: 060288CX #2
SAMPLE: 59436-08 WATER/PAH 100%/0.5ML
CONDS.: 2 UL AUTO INJ
BENZO(A)PYRENE 252 PH# 13
RANGE: G3675,3690 LABEL: N 1, 1.0 QUAN: A 1, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: S59436X825

00646

Data: S59436X825.TI
06/03/88 0:19:00
Sample: 59436-08 WATER/PAH 100%/0.5ML
Conds.: 2 UL AUTO INJ
Formula: Instrument: 4500 Weight: 80.000
Submitted by: RMAL Analyst: JGG Acct. No.: 59436

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

No	Name	
1	D12-BENZO(A)PYRENE	264IPH# 01
2	D12-CHRYSENE	240SPH# 02
3	BENZO(A)ANTHRACENE	228 PH# 03
4	BENZO(A)ANTHRACENE	226 PH# 04
5	CHRYSENE	228 PH# 05
6	CHRYSENE	226 PH# 06
7	BENZO(B)FLUORANTHENE	252 PH# 07
8	BENZO(B)FLUORANTHENE	250 PH# 08
9	BENZO(K)FLUORANTHENE	252 PH# 09
10	BENZO(K)FLUORANTHENE	250 PH# 10
11	BENZO(J)FLUORANTHENE	252 PH# 11
12	BENZO(J)FLUORANTHENE	250 PH# 12
13	BENZO(A)PYRENE	252 PH# 13
14	BENZO(A)PYRENE	250 PH# 14
15	BENZO(A)PYRENE	250 PH# 14

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	264	3677	30:38	1	1.000	A BB	7605.	80.000	NG/ML	22.18
2	240	3265	27:12	1	0.888	A BB	10855.	74.415	NG/ML	20.63
3	228	3259	27:09	1	0.886	A BV	2051.	13.323	NG/ML	3.69
4	226	3259	27:09	1	0.886	A BB	964.	27.066	NG/ML	7.51
5	228	3273	27:16	1	0.890	A VB	4300.	26.674	NG/ML	7.40
6	226	3271	27:15	1	0.890	A BB	1007.	23.773	NG/ML	6.59
7	252	3595	29:57	1	0.978	A VB	3054.	19.129	NG/ML	5.30
8	250	3580	29:50	1	0.974	A BB	358.	9.296	NG/ML	2.58
9	252	3595	29:57	1	0.978	A VB	3054.	19.129	NG/ML	5.30
10	250	3599	29:59	1	0.979	A BB	944.	24.512	NG/ML	6.80
11	252	3619	30:09	1	0.984	A BB	224.	1.575	NG/ML	0.44
12	250	3609	30:04	1	0.982	A BB	270.	8.594	NG/ML	2.38
13	252	3684	30:42	1	1.002	A BB	1392.	10.534	NG/ML	2.92
14	250	3682	30:41	1	1.001	A BV	527.	11.694	NG/ML	3.24
15	250	3686	30:43	1	1.002	A VB	493.	10.921	NG/ML	3.03

COLUMN 1: [illegible]
COLUMN 2: [illegible]

5936-08
20%

UNITS: [illegible] AMOUNT: ug/ml

LIBRARY ENTRY	COMPONENT NAME	COLUMN 1 AMOUNT	COLUMN 1 %DIFF RT	COLUMN 2 AMOUNT	COLUMN 2 %DIFF RT	COLUMN AVERAGE

00647

DBC

A) $\frac{24.5}{24.0}$ (100%) = 102%

B) $\frac{21.0}{22.0}$ (100%) = 95%

DBC Recovery = 95%
NO HSL Pesticides/PCBs detected

NA - COLUMN AVERAGE IS NOT APPLICABLE BECAUSE THE %DIFFERENCE(AMOUNTS) > 10%

RESULT FILE: J:A812603 05/09/89 LIBRARY: L:881012

00648

LIB ENT	COMPONENT NAME	RETENTION TIME EXPECTED	RETENTION TIME MEASURED	PEAK NUMB	PEAK AREA	AMOUNT	UNITS
023	AROCLOR 1016(peak 1)	1.683	1.717	5	318	.0022	ug/ml
026	AROCLOR 1221(peak 1)	1.683	1.717	5	318	.0015	ug/ml
027	AROCLOR 1232(peak 1)	1.683	1.717	5	318	.0021	ug/ml
029	AROCLOR 1242(peak 1)	1.683	1.717	5	318	.0020	ug/ml
047	DBC (surrogate)	26.833	26.817	10	88569	.0153	ug/ml
052	DIALLATE	1.700	1.717	5	318	.0000	ug/ml

~ = CALCULATED BY INTERPOLATION OUTSIDE THE RANGE OF APPLICABILITY

00649

LIB ENT	COMPONENT NAME	RETENTION TIME EXPECTED	RETENTION TIME MEASURED	PEAK NUMB	PEAK AREA	AMOUNT	UNITS
001	alpha BHC	1.383	1.400	3	473	.0000	ug/ml
004	delta-BHC	2.450	2.500	5	8983	.0008	ug/ml
006	ALDRIN	2.717	2.683	6	618	.0000	ug/ml
017	ENDOSULFAN SULFATE	16.550	16.200	11	19377	.0023	ug/ml
024	AROCLOR 1016(peak 2)	1.650	1.650	4	6426	.0110	ug/ml
030	AROCLOR 1242(peak 2)	1.650	1.650	4	6426	.0117	ug/ml
035	AROCLOR 1254(peak 1)	5.017	4.900	9	2325	.0023	ug/ml
048	ENDRIN KETONE	22.267	22.250	12	167891	.0042	ug/ml

~ = CALCULATED BY INTERPOLATION OUTSIDE THE RANGE OF APPLICABILITY

AREA PERCENT REPORT

```
******************** 05-08-1988 11:48:01 Version 4.1 ********************
* Sample Name: 59436 08 20%                    Data File: J:AB12623      *
* Date: 05-06-1988 22:38:35 Method: M:ABPI
* Interface: 10  Cycle#:  23   Operator SS  Channel#: 0    Vial#: N.A.
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100           *
*************************************************************************
* Instrument Type: HP 5880A              Column Type: 6FT X 2MM ID GLASS *
*            Solvent Description: 1.5% SP2250/1.95% SP2401               *
* Conditions: 190 DEGREES ISOTHERMAL                                     *
*            Detector 0: ECD                  Detector 1:               *
* Misc. Information: 4 UL INJECTION                     LPT1:        *  *
*************************************************************************
Starting Delay:   0.00                          Run Time:   35.00
```

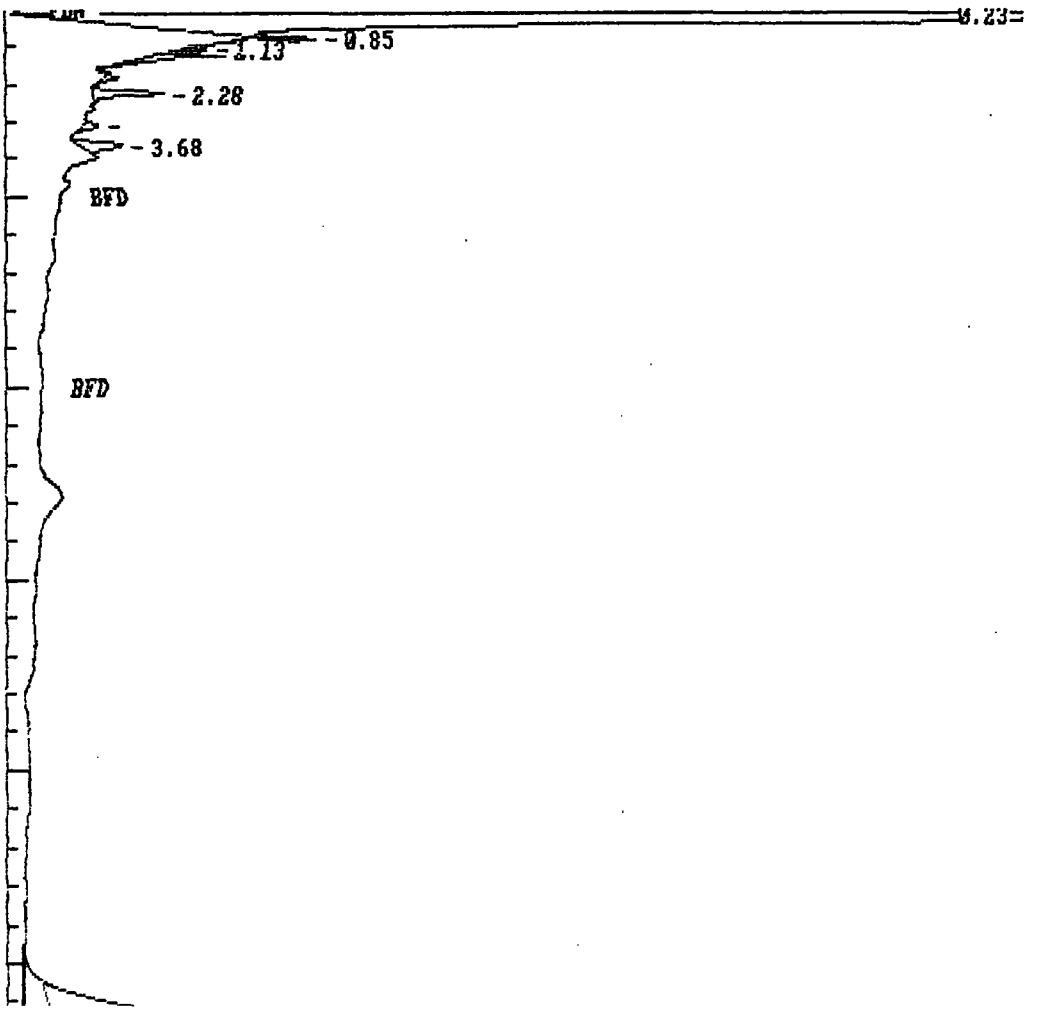
00650

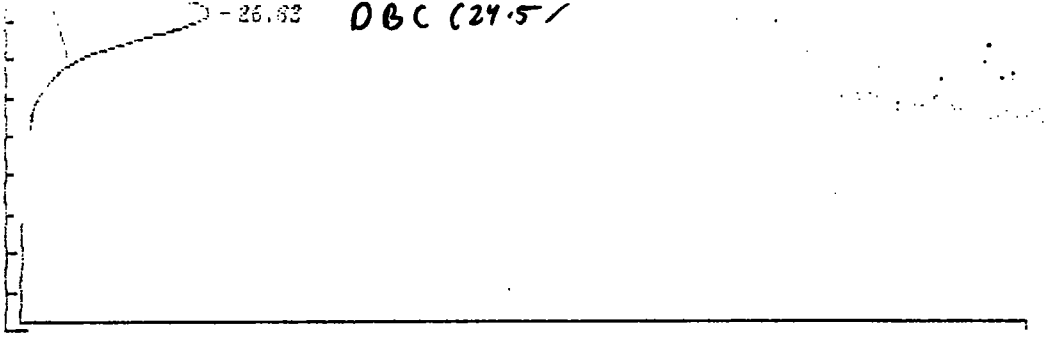
Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	0.23	1253878	92.1550	1	303725	100.000	4.1
2	0.85	3853	0.2832	1	533	0.307	7.2
3	1.13	1196	0.0879	1	221	0.095	5.4
4	1.28	4507	0.3312	1	527	0.359	8.5
7	2.28	4030	0.2962	1	487	0.321	8.3
8	3.15	1210	0.0889	1	117	0.097	10.3
9	3.68	3376	0.2481	1	271	0.269	12.5
10	26.82	88569	6.5095	1	1064	7.064	83.2

SS
5/11/88

Total Area: 1360618 Area Reject: 1000 One sample per 1.000 sec.

Data File = J:AB12623.PTS Printed on 05-08-1988 at 11:48:25
Start time: 0.00 min. Stop time: 35.00 min. Offset: 0 mv.
Full Range: 7 millivolts





00651

********** AREA PERCENT REPORT **********

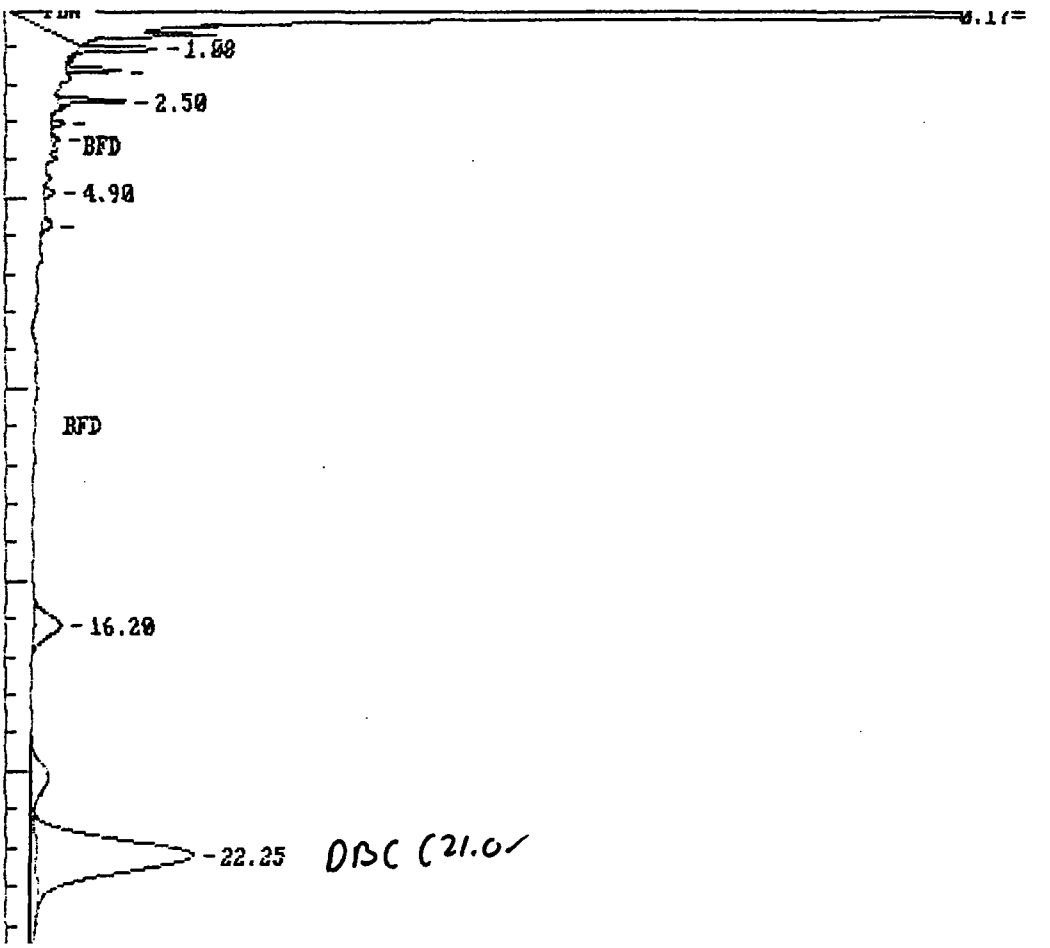
********** 05-08-1988 12:21:37 Version 4.1 **********
* Sample Name: 59436 08 20% Data File: J:BB12623 **00652**
* Date: 05-06-1988 22:18:12 Method: M:BBPI
* Interface: 12 Cycle#: 23 Operator SS Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *
****
* Instrument Type: HP 5880A Column Type: 6FT X 2MM ID GLASS *
* Solvent Description: 1.5% SP2250/1.95% SP2401 *
* Conditions: 190 DEG ISOTHERMAL *
* Detector 0: Detector 1: ECD *
* Misc. Information: 4 UL INJ *
****
Starting Delay: 0.00 Run Time: 35.00

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	0.17	2150533	90.6767	1	526965	100.000	4.1
2	1.08	10428	0.4397	1	1483	0.485	7.0
4	1.65	6426	0.2710	1	1038	0.299	6.2
5	2.50	8983	0.3788	1	1260	0.418	7.1
7	3.10	1798	0.0758	1	226	0.084	8.0
8	3.50	1054	0.0444	1	141	0.049	7.5
9	4.90	2325	0.0980	1	193	0.108	12.0
10	5.75	2835	0.1195	1	185	0.132	15.3
11	16.20	19377	0.8170	1	490	0.901	39.5
12	22.25	167891	7.0791	1	2912	7.807	57.6

SS
5/11/88

Total Area: 2371649 Area Reject: 1000 One sample per 1.000 sec.

Data File = J:BB12623.PTS Printed on 05-08-1988 at 12:22:01
Start time: 0.00 min. Stop time: 35.00 min. Offset: 0 mv.
Full Range: 19 millivolts



DBC (21.0)

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number : 59436-09

Laboratory Name: Rocky Mountain Analytical Lab
Laboratory Sample ID. Number : 59436-09
Sample Matrix : Water
Data Released Authorized By : JCL

Case Number : N/A
Q.C. Report No: 59436
Contract No. : N/A
Date Sample Rec: 04/20/88

Volatile Compounds

Concentration :	Low
Date Extracted/Prepared :	N/A
Date Analyzed :	04/28/88
Conc./Dilution Factor :	1.0
pH :	7.00
Percent Moisture :	100%
Percent Moisture (Decanted) :	N/A

CAS Number		Value	ug/L	CAS Number		Value	ug/L
74-83-3	Chloromethane		10 U	79-34-5	1,1,2,2-Tetrachloroethane		5 U
74-83-9	Bromomethane		10 U	78-87-5	1,2-Dichloropropane		5 U
75-01-4	VinylChloride		10 U	10061-02-6	Trans-1,3-Dichloropropene		5 U
75-00-3	Chloroethane		10 U	79-10-6	Trichloroethene		5 U
75-09-2	MethyleneChloride		5 U	124-48-1	Dibromochloromethane		5 U
67-64-1	Acetone	4.0	J B	79-00-5	1,1,2-Trichloroethane		5 U
75-15-0	CarbonDisulfide		5 U	71-43-2	Benzene		5 U
75-35-4	1,1-Dichloroethene		5 U	10061-01-5	cis-1,3-Dichloropropene		5 U
75-34-3	1,1-Dichloroethane		5 U	110-75-8	2-Chloroethylvinylether		10 U
156-60-5	Trans-1,2-Dichloroethene		5 U	75-25-2	Bromoform		5 U
67-66-3	Chloroform		5 U	591-78-6	2-Hexanone		10 U
107-06-2	1,2-Dichloroethane		5 U	108-10-1	4-Methyl-2-Pentanone		10 U
78-93-3	2-Butanone	4.2	J	127-18-4	Tetrachloroethene		5 U
71-55-6	1,1,1-Trichloroethane		5 U	108-88-3	Toluene		5 U
56-23-5	CarbonTetrachloride		5 U	108-90-7	Chlorobenzene		5 U
108-05-4	VinylAcetate		10 U	100-41-4	Ethylbenzene		5 U
75-27-4	Bromodichloromethane		5 U	100-42-5	Styrene		5 U
					Total Xylenes		5 U

U - compound was not detected
J - concentration detected is less than the required detection limit
B - compound was detected in the blank
sp - compound was a spike

10/85 Rev

Laboratory Name: Rocky Mountain Analytical
Case Number: N/A
Q.C. Number: 59436

Sample Number
59436-09

ORGANIC ANALYSIS DATA SHEET
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Conc. ug/l
1.	Unknown	VOA	48	20 B
2.				
3.				
4.				
5.				
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28.				
29.				
30.				

Laboratory Name : Rocky Mountain Analytical Lab
Case No: N/A
Q.C.Report No: 59436

Organics Analysis Data Sheet

Sample Number
59436-09

00656

Semivolatile Compounds

Conc.:	Low	GPC Cleanup	No
Date Extracted/Prepared:	04/23/88	Separatory Funnel Extraction	No
Date Analyzed	06/01/88	Continuous Liquid-Liquid Extraction	Yes
Conc/Dil Factor	2.02		
Percent Moisture (Decanted)	N/A		

CAS Number	Compound	Value	ug/L	CAS Number	Compound	Value	ug/L
108-95-2	Phenol		10 U				
111-44-4	bis(-2-Chloroethyl)Ether		10 U	83-32-9	Acenaphthene		10 U
95-57-8	2-Chlorophenol		10 U	51-28-5	2,4-Dinitrophenol		51 U
541-73-1	1,3-Dichlorobenzene		10 U	100-02-7	4-Nitrophenol	2.6	J
106-46-7	1,4-Dichlorobenzene		10 U	132-64-9	Dibenzofuran		10 U
100-51-6	Benzyl Alcohol		10 U	121-14-2	2,4-Dinitrotoluene		10 U
95-50-1	1,2-Dichlorobenzene		10 U	606-20-2	2,6-Dinitrotoluene		10 U
95-48-7	2-Methylphenol		10 U	84-66-2	Diethylphthalate		10 U
39638-32-9	bis(2-chloroisopropyl)Ether		10 U	7005-72-3	4-Chlorophenyl-phenylether		10 U
106-44-5	4-Methylphenol		10 U	86-73-7	Fluorene		10 U
621-64-7	N-Nitro-Di-n-Propylamine		10 U	100-01-6	4-Nitroaniline		51 U
67-72-1	Hexachloroethane		10 U	534-52-1	4,6-Dinitro-2-Methylphenol		51 U
98-95-3	Nitrobenzene		10 U	86-30-6	N-Nitrosidiphenylamine (1)		10 U
78-59-1	Isophorone		10 U	101-55-3	4-Bromophenyl-phenylether		10 U
88-75-5	2-Nitrophenol		10 U	118-74-1	Hexachlorobenzene		10 U
105-67-9	2,4-Dimethylphenol		10 U	87-86-5	Pentachlorophenol		51 U
65-85-0	Benzoic Acid		51 U	85-01-8	Phenanthrene		10 U
111-91-1	bis(2-Chloroethoxy) Methane		10 U	120-12-7	Anthracene		10 U
120-83-2	2,4-Dichlorophenol		10 U	84-74-2	Di-N-Butylphthalate		10 U
120-82-1	1,2,4-Trichlorobenzene		10 U	206-44-0	Fluoranthene		10 U
91-20-3	Naphthalene		10 U	129-00-0	Pyrene		10 U
106-47-8	4-Chloroaniline		10 U	85-68-7	Butylbenzylphthalate		10 U
87-68-3	Hexachlorobutadiene		10 U	91-94-1	3,3'-Dichlorobenzidine		20 U
59-50-7	4-Chloro-3-Methylphenol		10 U	56-55-3	Benzo(a)Anthracene		10 U
91-57-6	2-Methylnaphthalene		10 U	117-81-7	bis(2-Ethylhexyl)Phthalate	7.3	J B
77-47-4	Hexachlorocyclopentadiene		10 U	218-01-9	Chrysene		10 U
88-06-2	2,4,6-Trichlorophenol		10 U	117-84-0	Di-n-Octylphthalate		10 U
95-95-4	2,4,5-Trichlorophenol		51 U	205-99-2	Benzo(b)Fluoranthene		10 U
91-58-7	2-Chloronaphthalene		10 U	207-08-9	Benzo(k)Fluoranthene		10 U
88-74-4	2-Nitroaniline		51 U	50-32-8	Benzo(a)Pyrene		10 U
131-11-4	Dimethyl Phthalate		10 U	193-39-5	Indeno(1,2,3-cd)Pyrene		10 U
208-96-8	Acenaphthylene		10 U	53-70-3	Dibenzo(a,h)Anthracene		10 U
99-09-2	3-Nitroaniline		51 U	191-24-2	Benzo(g,h,i)Perylene		10 U

(1)-Cannot be separated from diphenylamine.

Laboratory Name: Rocky Mountain Analytical
Case Number: N/A
Q.C. Number: 59436

Sample Number
59436-09

ORGANIC ANALYSIS DATA SHEET
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Conc. ug/l
1. 108-87-2	Methyl Cyclohexane	BNA	312	9.5 B
2. 108-88-3	Methyl Benzene	BNA	368	7.0 B
3.	Oxygenated Hydrocarbon	BNA	391	7.7 B
4.	Oxygenated Hydrocarbon	BNA	434	7.1 B
5.	Oxygenated Hydrocarbon	BNA	468	18 B
6. 96-19-5	1,2,3-Trichloro-1-Propene	BNA	622	4.8 B
7. 108-47-4	2,4-Dimethyl Pyridine	BNA	674	8.7
8.	Unknown	BNA	887	8.5
9.	Unknown	BNA	907	4.3
10. 120-71-8	2-Methoxy-5-Methyl Benzenamine	BNA	1028	5.2
11.				
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30.				

ROCKY MOUNTAIN ANALYTICAL LABORATORY
ORGANIC MASS SPECTROMETRY DIVISION
TARGET COMPOUND DATA SUMMARY SHEET

00658

Sample: 59436-09
Date Analyzed: 06/01/88

Units: ug/L
Run Factor: 2.02

SURROGATE SPIKE RECOVERIES
PYRIDINES

Compound	Surrogate Amount (ug) Spiked	Measured	% Recovery Measured	QC Limits
Pyridine-D5	100.0	43.3	43	50-150

TARGET COMPOUNDS

Sample Concentration ug/l	Detection Limit(ppb)	Compound	CAS #
	10 U	Pyridine	110-86-1
	10 U	2-Picoline	109-06-8
	10 U	3 & 4-Picoline	
	10 U	2,6-Lutidine	
	10 U	2-Ethyl Pyridine	
4.0	J	2,4 & 2,5-Lutidine	
	10 U	2,3-Lutidine	
	10 U	3-Ethyl Pyridine	
	10 U	4-Ethyl Pyridine	
	10 U	3,5-Lutidine	
	10 U	3,4-Lutidine	
2.0	J	2-Methyl-5-Ethyl Pyridine	
2.8	J	2-Methyl-3-Ethyl Pyridine	
	10 U	M and P Cresols	
	10 U	3-Ethyl-4-Methyl Pyridine	
	10 U	3-Ethyl-5-Methyl Pyridine	
	10 U	2,6-Dimethyl Phenol	
	10 U	2,5-Dimethyl Phenol	
	10 U	3,5-Dimethyl Phenol	
	10 U	2,3-Dimethyl Phenol	
	10 U	3,4-Dimethyl Phenol	
	10 U	1-Methylnaphthalene	90-12-0

J = Value below detection limit.

FORM I

ROCKY MOUNTAIN ANALYTICAL LABORATORY
ORGANIC MASS SPECTROMETRY DIVISION
TARGET COMPOUND DATA SUMMARY SHEET

Sample: 59436-09
Date Analyzed: 06/03/88

Units: ug/L
Run Factor: 0.133

Surrogate Spike Recoveries

Compound	Surrogate Amount (ug) Spiked	Measured	% Recovery Measured	QC Limits
D12-Chrysene	80.0	59.6	74	10-118

Target Compounds

Sample Concentration(ng/l)	Detection Limit (ppt)	Compound
	10 U	Benzo(A)Anthracene
	10 U	Chrysene
	10 U	Benzo(B)Fluoranthene
	10 U	Benzo(K)Fluoranthene
	10 U	Benzo(A)Pyrene

FORM I

Laboratory Name: Rocky Mountain Analytical Lab
Case No: 59436

Sample Number:
59436-09

00660

ORGANICS ANALYSIS DATA SHEET
(Page 3)

Pesticides/ PCB's:

Concentration : Low
Date Ext./Prep :04/23/88
Date Analyzed :05/13/88
Conc./Dil Factor : 50.5
Percent Moisture :

GPC Cleanup :No
Separatory Funnel Extract.:Yes
Cont. Liquid/Liquid Extr. :No
Sonication Extraction :No

CAS Number	Compound	Value	ug/ L
319-84-6	Alpha-BHC		0.05 U
319-85-7	Beta-BHC		0.05 U
319-86-8	Delta-BHC		0.05 U
58-89-9	Gamma-BHC(Lindane)		0.05 U
76-44-8	Heptachlor		0.05 U
309-00-2	Aldrin		0.05 U
1204-57-3	Heptachlor Epoxide		0.05 U
959-98-8	Endosulfan I		0.05 U
60-57-1	Dieldrin		0.10 U
72-55-9	4,4'-DDE		0.10 U
72-20-8	Endrin		0.10 U
33213-65-9	Endosulfan II		0.10 U
72-54-8	4,4'-DDD		0.10 U
1031-07-8	Endosulfan Sulfate		0.10 U
50-29-3	4,4'-DDT		0.10 U
72-43-5	Methoxychlor		0.51 U
53494-70-5	Endrin Ketone		0.10 U
57-74-9	Chlordane		0.51 U
8001-35-2	Toxaphene		1.00 U
12674-11-2	Aroclor-1016		0.51 U
11104-28-2	Aroclor-1221		0.51 U
11141-16-5	Aroclor-1232		0.51 U
53469-21-9	Aroclor-1242		0.51 U
12672-29-6	Aroclor-1248		0.51 U
11097-69-1	Aroclor-1254		1.00 U
11096-82-5	Arolcor-1260		1.00 U

Vi = Volume of extract injected (ul) Vi = 2ul/4ul
Vs = Volume of water extracted (ml) Vs = 990 ml
Ws = Weight of sample extracted (g) Ws = N/A
Vt = Volume of total extract (ul) Vt = 1000 ul

4/28/88 15:03:59 SCAN 1 OF 730 **00661**
Acquisition started

Acquire
04/28/88 15:03:00 + 0:06
Sample: 59436-09 5ML/5ML VOA H20
Conds.: GC DESC V3
Formula:
Submitted by: RMAL

Run 3:S59436W898
Free sectors: 24352
Instrument: 5100
Analyst: DC

Acquiring
Scan: 2 of 730
Weight: 0.025
Acct. No: 59436

*** GC descriptor: V3 ***

GC temperature: 61 DegC
Elapsed time : 0: 7 min

Injector: 50 DegC
Interface: 220 DegC

Seq. #	Temp (DegC)	Rate (C/min)	Time (minutes) period	total
1	60- 60	-	2.0	2.0
2	60-250	7.0	27.1	29.1
3	250-250	-	10.0	39.1
4	250-250	-	0.0	39.1

Valve times (minutes)

	Open	Close
Sweep/Split	36.1	0.0
Divert	36.1	0.8

*** Scan Parameters ***

Low mass: 40 u
High mass: 260 u

Scan time (s)
Up: 2.95 L*
Down: 0.00 L

Hold time (s)
Top: 0.00
Bottom: 0.05

Cent S/P: 10 Actual: 67
Frag S/P: 10 Actual: 10

Samp int (ms): 0.200
Samp int (ms): 1.400

Peak width: 1000.
Inten/ion: 2

Min peak width: 3
ADC threshold: 1

Min frag width %: 81
Baseline: 0

Min area: 20

MODE: EI (+) Centroid + Temp

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	Q	
Full scale mass	812	u
Zero scale mass	1	u
Intensity/ion	2	
Peak width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(ms)	4	

Current instrument parameters.

	Positive ion mode	Negative ion mode
Resolution (high)	126.00	128.00
Resolution (low)	125.00	128.00
Ion energy	1.88	-4.00
Ion programming	5.41	-4.00
Lens voltage	-80.00	50.20
Extractor voltage	0.94	not used

Electron multiplier voltage: -2106.
Electrometer Range: 10 ^-7
Electrometer zero: -4.4

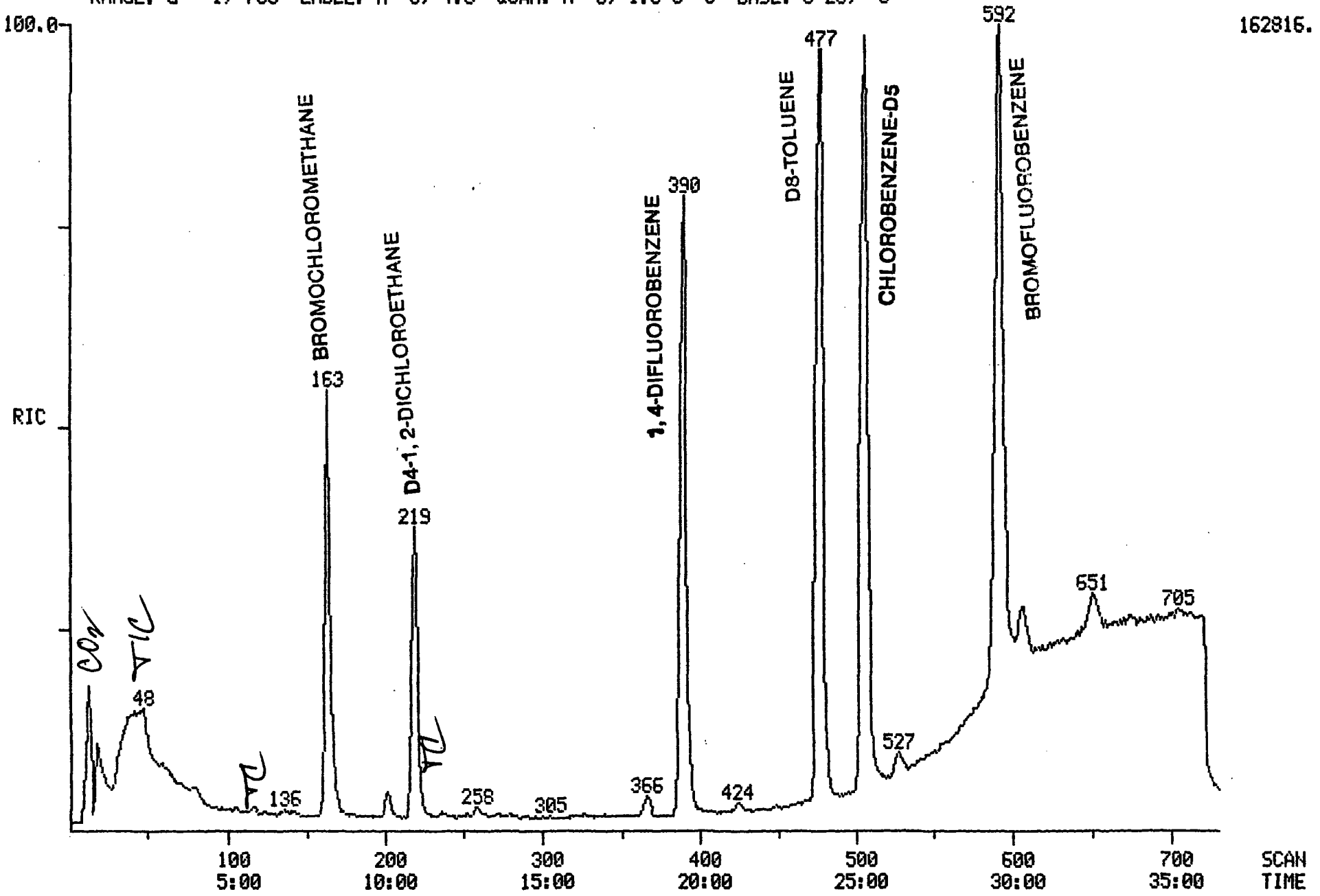
4/28/88 15:40:32
Acquisition completed
Scans 1 to 730 centroid

Mode	Scans	Secs	out of	%	Peaks per scan per second		
Centroid	730	44.5	2190.0	2.0	18755.	26.	9.

00662

RIC
04/28/88 15:03:00
SAMPLE: 59436-09 5ML/5ML VOA H2O
CONDS.: GC DESC V3
RANGE: G 1, 730 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: S59436W898 #4 SCANS 1 TO 730
CALI: 042888CW #1



PROCEDURE: TCA DIAGNOSTIC REPORT 4/28/88 16:27:52
DATA FILE: S59436W898
REFERENCE: 11TABLE
NAME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: ISO1

00663

< ---- STANDARDS ----- >				< --- PLUS UNKNOWNS --- >				< - LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	1	0	9	2	8	0	ISO1/TCO1
3	3	1	54	18	6	6	78	ISO2/TCO2
3	3	1	54	12	6	12	99	ISO3/TCO3
1	1	1	0	7	4	1	637	ISO4/TCO4

41 COMPOUNDS PROCESSED, 13 FOUND

< COMPOUND >				< ---------- SEARCH ---------- >				< SAT >	< ------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	V1	1	-163	163	163	.	1	963	.	128	163	.	1
2	V1	10	-32	32	.	.	.	.	.	50	.	.	.
3	V1	15	-48	48	.	.	.	.	.	94	.	.	.
4	V1	25	-60	60	.	.	.	.	.	62	.	.	.
5	V1	35	-74	74	.	.	.	.	.	64	.	.	.
6	V1	45	-107	107	.	.	.	.	.	84	106	.	1
7	V1	50	-116	116	116	.	8	1000	.	58	116	.	1
8	V1	65	-134	134	.	.	.	.	.	76	.	.	.
9	V1	80	-154	154	.	.	.	.	.	96	.	.	.
10	V2	1	-388	390	390	.	1	993	.	114	390	.	1
11	V3	1	-503	505	505	.	1	994	.	117	505	.	1
12	V1	90	-180	180	.	.	.	.	.	63	.	.	.
13	V1	95	-194	194	.	.	.	.	.	96	.	.	.
14	V1	100	-206	206	.	.	.	.	.	83	.	.	.
15	V1	2	-219	219	219	.	1	988	.	65	219	.	1
16	V2	10	-219	219	219	.	2	992	.	72	219	.	1
17	V1	110	-221	221	.	.	.	.	.	62	.	.	.
18	V2	15	-249	249	.	.	.	.	.	97	.	.	.
19	V2	20	-257	257	.	.	.	.	.	117	.	.	.
20	V2	25	-260	260	259	-1	3	972	.	43	.	.	.
21	V2	30	-268	268	.	.	.	.	.	83	.	.	.
22	V2	35	-299	300	.	.	.	.	.	63	.	.	.
23	V2	40	-304	305	.	.	.	.	.	75	.	.	.
24	V2	45	-317	318	.	.	.	.	.	130	.	.	.
25	V2	60	-329	330	.	.	.	.	.	78	331	.	1
26	V2	50	-331	332	.	.	.	.	.	129	.	.	.
27	V2	55	-333	334	.	.	.	.	.	97	.	.	.
28	V2	65	-334	335	.	.	.	.	.	75	.	.	.
29	V2	80	-393	394	.	.	.	.	.	173	.	.	.
30	V3	10	-405	406	407	1	4	918	.	58	.	.	.
31	V3	15	-441	442	442	.	3	962	.	58	.	.	.
32	V3	25	-448	449	.	.	.	.	.	83	.	.	.
33	V3	20	-449	450	.	.	.	.	.	164	.	.	.
34	V3	2	-476	477	476	-1	1	993	.	98	476	.	1
35	V3	35	-480	481	.	.	.	.	.	92	.	.	.
36	V3	40	-507	510	.	.	.	.	.	112	.	.	.
37	V3	50	-549	549	.	.	.	.	.	106	.	.	.
38	V3	3	-591	589	591	2	1	991	.	95	592	1	1
39	V3	55	-611	608	.	.	.	.	.	104	.	.	.
40	V3	60	-615	611	617	6	1	853	.	106	.	.	.
41	V3	75	-628	624	617	-7	1	853	.	106	.	.	.

Quantitation Report File: S59436W898

00664

Data: S59436W898.TI
04/28/88 15:03:00
Sample: 59436-09 5ML/5ML VOA H2O
Conds.: GC DESC V3
Formula: Instrument: 5100 Weight: 0.025
Submitted by: RMAL Analyst: DC Acct. No.: 59436

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

No	Name				
1	CI01 BROMOCHLOROMETHANE	128	IV1#	01	74-97-5
2	CO10 CHLOROMETHANE	50	V1#	10SP	74-87-3
3	CO15 BROMOMETHANE	94	V1#	15	74-83-9
4	CO20 VINYL CHLORIDE	62	V1#	25	75-01-4
5	CO25 CHLOROETHANE	64	V1#	35	75-00-3
6	CO30 METHYLENE CHLORIDE	84	V1#	45	75-09-2
7	CO35 ACETONE	58	V1#	50	67-64-1
8	CO40 CARBON DISULFIDE	76	V1#	65	75-15-0
9	CO45 1,1-DICHLOROETHENE	61	V1#	80	75-35-4
10	CI10 1,4-DIFLUOROBENZENE	114	IV2#	01	540-36-3
11	CI20 CHLOROBENZENE-D5	117	IV3#	01	3114-55-4
12	CO50 1,1-DICHLOROETHANE	63	V1#	90	75-34-3
13	TRANS-1,2-DICHLOROETHENE	61	V1#	95	156-60-5
14	CO60 CHLOROFORM	83	V1#	100CC	67-66-3
15	CS15 1,2-DICHLOROETHANE-D4	65	SV1#	02	17060-07-0
16	C110 2-BUTANONE	72	V2#	10	78-93-3
17	CO65 1,2-DICHLOROETHANE	62	V1#	110	107-06-2
18	C115 1,1,1-TRICHLOROETHANE	97	V2#	15	71-55-6
19	C120 CARBONTETRACHLORIDE	117	V2#	20	56-23-5
20	C125 VINYL ACETATE	43	V2#	25	108-05-4
21	C130 BROMODICHLOROMETHANE	83	V2#	30	75-27-4
22	C140 1,2-DICHLOROPROPANE	63	V2#	35CC	78-87-5
23	C143 CIS-1,3-DICHLOROPROPENE	75	V2#	40	10061-01-5
24	C150 TRICHLOROETHENE	130	V2#	45	79-01-6
25	C165 BENZENE	78	V2#	60	71-43-2
26	C155 DIBROMOCHLOROMETHANE	129	V2#	50	124-48-1
27	C160 1,1,2-TRICHLOROETHANE	97	V2#	55	79-00-5
28	C172 TRANS-1,3-DICHLOROPROPE	75	V2#	65	10061-02-6
29	C180 BROMOFORM	173	V2#	80	75-25-2
30	C205 4-METHYL-2-PENTANONE	58	V3#	10	108-10-1
31	C210 2-HEXANONE	58	V3#	15	591-78-6
32	C225 1,1,2,2-TETRACHLOROETHA	83	V3#	25SP	79-34-5
33	C220 TETRACHLOROETHENE	164	V3#	20	127-18-4
34	CS05 TOLUENE-D8	98	SV3#	02	2037-26-5
35	C230 TOLUENE	92	V3#	35	108-88-3
36	C235 CHLOROBENZENE	112	V3#	40	108-90-7
37	C240 ETHYLBENZENE	106	V3#	50	100-41-4
38	CS10 BROMOFLUOROBENZENE	95	SV3#	03	460-00-4
39	C245 STYRENE	104	V3#	55	100-42-5
40	M-XYLENE	106	V3#	60	108-38-3
41	O+P XYLENES	106	V3#	75	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	163	8:09	1	1.000	A BB	37953.	50.000 UG/L	15.63
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	84	106	5:18	1	0.650	A BB	404.	0.252 UG/L	0.08
7	58	116	5:48	1	0.712	A BB	511.	4.030 UG/L	1.26
8	NOT FOUND								
9	NOT FOUND								
10	114	390	19:30	10	1.000	A BB	229555.	50.000 UG/L	15.63
11	117	505	25:15	11	1.000	A BB	217356.	50.000 UG/L	15.63
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	65	219	10:57	1	1.344	A BB	75843.	50.497 UG/L	15.78
16	72	219	10:57	10	0.562	A BB	611.	4.210 UG/L	1.32
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	78	331	16:33	10	0.849	A BB	71.	0.016 UG/L	0.01
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	98	476	23:48	11	0.943	A BB	238569.	53.070 UG/L	16.59
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	95	592	29:36	11	1.172	A BB	146096.	57.900 UG/L	18.10
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:12	0.99	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:36		0.195						
3	2:24		0.293						
4	3:00		0.366						
5	3:42		0.451						
6	5:21	0.99	0.652	1.00	0.25	50.00	0.011	2.114	0.01
7	5:48	1.00	0.707	1.01	4.03	50.00	0.013	0.167	0.08
8	6:42		0.817						
9	7:42		0.939						
10	19:27	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
11	25:12	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
12	9:00		1.098						
13	9:42		1.183						

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
14	10:18		1.256						
15	10:57	1.00	1.335	1.01	50.50	50.00	1.998	1.979	1.01
16	10:57	1.00	0.563	1.00	4.21	50.00	0.003	0.032	0.08
17	11:03		1.348						
18	12:27		0.640						
19	12:51		0.661						
20	13:00		0.668						
21	13:24		0.689						
22	14:57		0.769						
23	15:12		0.781						
24	15:51		0.815						
25	16:27	1.01	0.846	1.00	0.02	50.00	0.000	0.961	0.00
26	16:33		0.851						
27	16:39		0.856						
28	16:42		0.859						
29	19:39		1.010						
30	20:15		0.804						
31	22:03		0.875						
32	22:24		0.889						
33	22:27		0.891						
34	23:48	1.00	0.944	1.00	53.07	50.00	1.098	1.034	1.06
35	24:00		0.952						
36	25:21		1.006						
37	27:27		1.089						
38	29:33	1.00	1.173	1.00	57.90	50.00	0.672	0.580	1.16
39	30:33		1.212						
40	30:45		1.220						
41	31:24		1.246						

TCA FINISHED, 13 FOUND
FINISHED AT: 4/28/88 16:32:55

RMAL QUANTITATION SUMMARY FILE: S59436W898
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/L

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	V1# 1	CI01 BROMOCHLOROMETHANE	128	163	1	37953.	1.000	50.000
2	V2# 1	CI10 1,4-DIFLUOROBENZENE	114	390	2	229555.	1.000	50.000
3	V3# 1	CI20 CHLOROBENZENE-D5	117	505	3	217356.	1.000	50.000
4	V3# 2	CS05 TOLUENE-D8	98	476	3	238569.	1.098	53.070
5	V3# 3	CS10 BROMOFLUOROBENZENE	95	592	3	146096.	0.672	57.900
6	V1# 2	CS15 1,2-DICHLOROETHANE-	65	219	1	75843.	1.998	50.497
7	V1# 10	C010 CHLOROMETHANE	50		1	NOT FOUND		
8	V1# 15	C015 BROMOMETHANE	94		1	NOT FOUND		
9	V1# 25	C020 VINYL CHLORIDE	62		1	NOT FOUND		
10	V1# 35	C025 CHLOROETHANE	64		1	NOT FOUND		
11	V1# 45	C030 METHYLENE CHLORIDE	84		1	NOT FOUND		
12	V1# 50	C035 ACETONE	58	116	1	511.	0.013	4.030
13	V1# 65	C040 CARBON DISULFIDE	76		1	NOT FOUND		
14	V1# 80	C045 1,1-DICHLOROETHENE	96		1	NOT FOUND		
15	V1# 90	C050 1,1-DICHLOROETHANE	63		1	NOT FOUND		
16	V1# 95	TRANS-1,2-DICHLOROETHENE	96		1	NOT FOUND		
17	V1#100	C060 CHLOROFORM	83		1	NOT FOUND		
18	V1#110	C065 1,2-DICHLOROETHANE	62		1	NOT FOUND		
19	V2# 10	C110 2-BUTANONE	72	219	2	611.	0.003	4.210
20	V2# 15	C115 1,1,1-TRICHLOROETHA	97		2	NOT FOUND		
21	V2# 20	C120 CARBONTETRACHLORIDE	117		2	NOT FOUND		
22	V2# 25	C125 VINYL ACETATE	43		2	NOT FOUND		
23	V2# 30	C130 BROMODICHLOROMETHAN	83		2	NOT FOUND		
24	V2# 35	C140 1,2-DICHLOROPROPANE	63		2	NOT FOUND		
25	V2# 40	C143 CIS-1,3-DICHLOROPRO	75		2	NOT FOUND		
26	V2# 45	C150 TRICHLOROETHENE	130		2	NOT FOUND		
27	V2# 50	C155 DIBROMOCHLOROMETHAN	129		2	NOT FOUND		
28	V2# 55	C160 1,1,2-TRICHLOROETHA	97		2	NOT FOUND		
29	V2# 60	C165 BENZENE	78		2	NOT FOUND		
30	V2# 65	C172 TRANS-1,3-DICHLOROP	75		2	NOT FOUND		
31	V2# 80	C180 BROMOFORM	173		2	NOT FOUND		
32	V3# 10	C205 4-METHYL-2-PENTANON	58		3	NOT FOUND		
33	V3# 15	C210 2-HEXANONE	58		3	NOT FOUND		
34	V3# 20	C220 TETRACHLOROETHENE	164		3	NOT FOUND		
35	V3# 25	C225 1,1,2,2-TETRACHLORO	83		3	NOT FOUND		
36	V3# 35	C230 TOLUENE	92		3	NOT FOUND		
37	V3# 40	C235 CHLOROBENZENE	112		3	NOT FOUND		
38	V3# 50	C240 ETHYLBENZENE	106		3	NOT FOUND		
39	V3# 55	C245 STYRENE	104		3	NOT FOUND		
40	V3# 60	M-XYLENE	106		3	NOT FOUND		
41	V3# 75	O+P XYLENES	106		3	NOT FOUND		

See Report

RFs Not updated properly here.
DC 6-2-88

Quantitation Report File: S59436W898

Data: S59436W898.TI
04/28/88 15:03:00
Sample: 59436-09 5ML/5ML VOA H2O
Conds.: GC DESC V3
Formula: Instrument: 5100 Weight: 0.025
Submitted by: RMAL Analyst: DC Acct. No.: 59436

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

No	Name				
1	CI01	BROMOCHLOROMETHANE	128	IV1# 01	74-97-5
2	CI10	1,4-DIFLUOROBENZENE	114	IV2# 01	540-36-3
3	CI20	CHLOROBENZENE-D5	117	IV3# 01	3114-55-4
4	CS05	TOLUENE-D8	98	SV3# 02	2037-26-5
5	CS10	BROMOFLUOROBENZENE	95	SV3# 03	460-00-4
6	CS15	1,2-DICHLOROETHANE-D4	65	SV1# 02	17060-07-0
7	C010	CHLOROMETHANE	50	V1# 10SP	74-87-3
8	C015	BROMOMETHANE	94	V1# 15	74-83-9
9	C020	VINYL CHLORIDE	62	V1# 25	75-01-4
10	C025	CHLOROETHANE	64	V1# 35	75-00-3
11	C030	METHYLENE CHLORIDE	84	V1# 45	75-09-2
12	C035	ACETONE	58	V1# 50	67-64-1
13	C040	CARBON DISULFIDE	76	V1# 65	75-15-0
14	C045	1,1-DICHLOROETHENE	61	V1# 80	75-35-4
15	C050	1,1-DICHLOROETHANE	63	V1# 90	75-34-3
16	TRANS-1,2-DICHLOROETHENE		61	V1# 95	156-60-5
17	C060	CHLOROFORM	83	V1#100CC	67-66-3
18	C065	1,2-DICHLOROETHANE	62	V1#110	107-06-2
19	C110	2-BUTANONE	72	V2# 10	78-93-3
20	C115	1,1,1-TRICHLOROETHANE	97	V2# 15	71-55-6
21	C120	CARBONTETRACHLORIDE	117	V2# 20	56-23-5
22	C125	VINYL ACETATE	43	V2# 25	108-05-4
23	C130	BROMODICHLOROMETHANE	83	V2# 30	75-27-4
24	C140	1,2-DICHLOROPROPANE	63	V2# 35CC	78-87-5
25	C143	CIS-1,3-DICHLOROPROPENE	75	V2# 40	10061-01-5
26	C150	TRICHLOROETHENE	130	V2# 45	79-01-6
27	C155	DIBROMOCHLOROMETHANE	129	V2# 50	124-48-1
28	C160	1,1,2-TRICHLOROETHANE	97	V2# 55	79-00-5
29	C165	BENZENE	78	V2# 60	71-43-2
30	C172	TRANS-1,3-DICHLOROPROPE	75	V2# 65	10061-02-6
31	C180	BROMOFORM	173	V2# 80	75-25-2
32	C205	4-METHYL-2-PENTANONE	58	V3# 10	108-10-1
33	C210	2-HEXANONE	58	V3# 15	591-78-6
34	C220	TETRACHLOROETHENE	164	V3# 20	127-18-4
35	C225	1,1,2,2-TETRACHLOROETHA	83	V3# 25SP	79-34-5
36	C230	TOLUENE	92	V3# 35	108-88-3
37	C235	CHLOROBENZENE	112	V3# 40	108-90-7
38	C240	ETHYLBENZENE	106	V3# 50	100-41-4
39	C245	STYRENE	104	V3# 55	100-42-5
40	M-XYLENE		106	V3# 60	108-38-3
41	O+P XYLENES		106	V3# 75	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	163	8:09	1	1.000	A BB	37953.	50.000 UG/L	15.67
2	114	390	19:30	2	1.000	A BB	229555.	50.000 UG/L	15.67
3	117	505	25:15	3	1.000	A BB	217356.	50.000 UG/L	15.67
4	98	476	23:48	3	0.943	A BB	238569.	53.070 UG/L	16.63
5	95	592	29:36	3	1.172	A BB	146096.	57.356 UG/L	17.97
6	65	219	10:57	1	1.344	A BB	75843.	50.497 UG/L	15.82
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	58	116	5:48	1	0.712	A BB	511.	4.030 UG/L	1.26
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	72	219	10:57	2	0.562	A BB	611.	4.210 UG/L	1.32
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	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								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:12	0.99	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	19:27	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	25:12	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	23:48	1.00	0.944	1.00	53.07	50.00	1.098	1.034	1.06
5	29:33	1.00	1.173	1.00	57.36	50.00	0.672	0.586	1.15
6	10:57	1.00	1.335	1.01	50.50	50.00	1.998	1.979	1.01
7	1:36		0.195						
8	2:24		0.293						
9	3:00		0.366						
10	3:42		0.451						
11	5:21		0.652						
12	5:48	1.00	0.707	1.01	4.03	50.00	0.013	0.167	0.08
13	6:42		0.817						

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
14	7:42		0.939						
15	9:00		1.098						
16	9:42		1.183						
17	10:18		1.256						
18	11:03		1.348						
19	10:57	1.00	0.563	1.00	4.21	50.00	0.003	0.032	0.08
20	12:27		0.640						
21	12:51		0.661						
22	13:00		0.668						
23	13:24		0.689						
24	14:57		0.769						
25	15:12		0.781						
26	15:51		0.815						
27	16:33		0.851						
28	16:39		0.856						
29	16:27		0.846						
30	16:42		0.859						
31	19:39		1.010						
32	20:15		0.804						
33	22:03		0.875						
34	22:27		0.891						
35	22:24		0.889						
36	24:00		0.952						
37	25:21		1.006						
38	27:27		1.089						
39	30:33		1.212						
40	30:45		1.220						
41	31:24		1.246						

RMAL QUANTITATION SUMMARY FILE: S59436W898 00671
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/L

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	V1# 1	CI01 BROMOCHLOROMETHANE	128	163	1	37953.	1.000	50.000
2	V2# 1	CI10 1,4-DIFLUOROBENZENE	114	390	2	229555.	1.000	50.000
3	V3# 1	CI20 CHLOROBENZENE-D5	117	505	3	217356.	1.000	50.000
4	V3# 2	CS05 TOLUENE-D8	98	476	3	238569.	1.098	53.070
5	V3# 3	CS10 BROMOFLUOROBENZENE	95	592	3	146096.	0.672	57.356 115.
6	V1# 2	CS15 1,2-DICHLOROETHANE-	65	219	1	75843.	1.998	50.497
7	V1# 10	C010 CHLOROMETHANE	50		1	NOT FOUND		
8	V1# 15	C015 BROMOMETHANE	94		1	NOT FOUND		
9	V1# 25	C020 VINYL CHLORIDE	62		1	NOT FOUND		
10	V1# 35	C025 CHLOROETHANE	64		1	NOT FOUND		
11	V1# 45	C030 METHYLENE CHLORIDE	84		1	NOT FOUND		
12	V1# 50	C035 ACETONE	58	116	1	511.	0.013	4.030 B
13	V1# 65	C040 CARBON DISULFIDE	76		1	NOT FOUND		
14	V1# 80	C045 1,1-DICHLOROETHENE	96		1	NOT FOUND		
15	V1# 90	C050 1,1-DICHLOROETHANE	63		1	NOT FOUND		
16	V1# 95	TRANS-1,2-DICHLOROETHENE	96		1	NOT FOUND		
17	V1#100	C060 CHLOROFORM	83		1	NOT FOUND		
18	V1#110	C065 1,2-DICHLOROETHANE	62		1	NOT FOUND		
19	V2# 10	C110 2-BUTANONE	72	219	2	611.	0.003	4.210
20	V2# 15	C115 1,1,1-TRICHLOROETHA	97		2	NOT FOUND		
21	V2# 20	C120 CARBONTETRACHLORIDE	117		2	NOT FOUND		
22	V2# 25	C125 VINYL ACETATE	43		2	NOT FOUND		
23	V2# 30	C130 BROMODICHLOROMETHAN	83		2	NOT FOUND		
24	V2# 35	C140 1,2-DICHLOROPROPANE	63		2	NOT FOUND		
25	V2# 40	C143 CIS-1,3-DICHLOROPRO	75		2	NOT FOUND		
26	V2# 45	C150 TRICHLOROETHENE	130		2	NOT FOUND		
27	V2# 50	C155 DIBROMOCHLOROMETHAN	129		2	NOT FOUND		
28	V2# 55	C160 1,1,2-TRICHLOROETHA	97		2	NOT FOUND		
29	V2# 60	C165 BENZENE	78		2	NOT FOUND		
30	V2# 65	C172 TRANS-1,3-DICHLOROP	75		2	NOT FOUND		
31	V2# 80	C180 BROMOFORM	173		2	NOT FOUND		
32	V3# 10	C205 4-METHYL-2-PENTANON	58		3	NOT FOUND		
33	V3# 15	C210 2-HEXANONE	58		3	NOT FOUND		
34	V3# 20	C220 TETRACHLOROETHENE	164		3	NOT FOUND		
35	V3# 25	C225 1,1,2,2-TETRACHLORO	83		3	NOT FOUND		
36	V3# 35	C230 TOLUENE	92		3	NOT FOUND		
37	V3# 40	C235 CHLOROBENZENE	112		3	NOT FOUND		
38	V3# 50	C240 ETHYLBENZENE	106		3	NOT FOUND		
39	V3# 55	C245 STYRENE	104		3	NOT FOUND		
40	V3# 60	M-XYLENE	106		3	NOT FOUND		
41	V3# 75	O+P XYLENES	106		3	NOT FOUND		

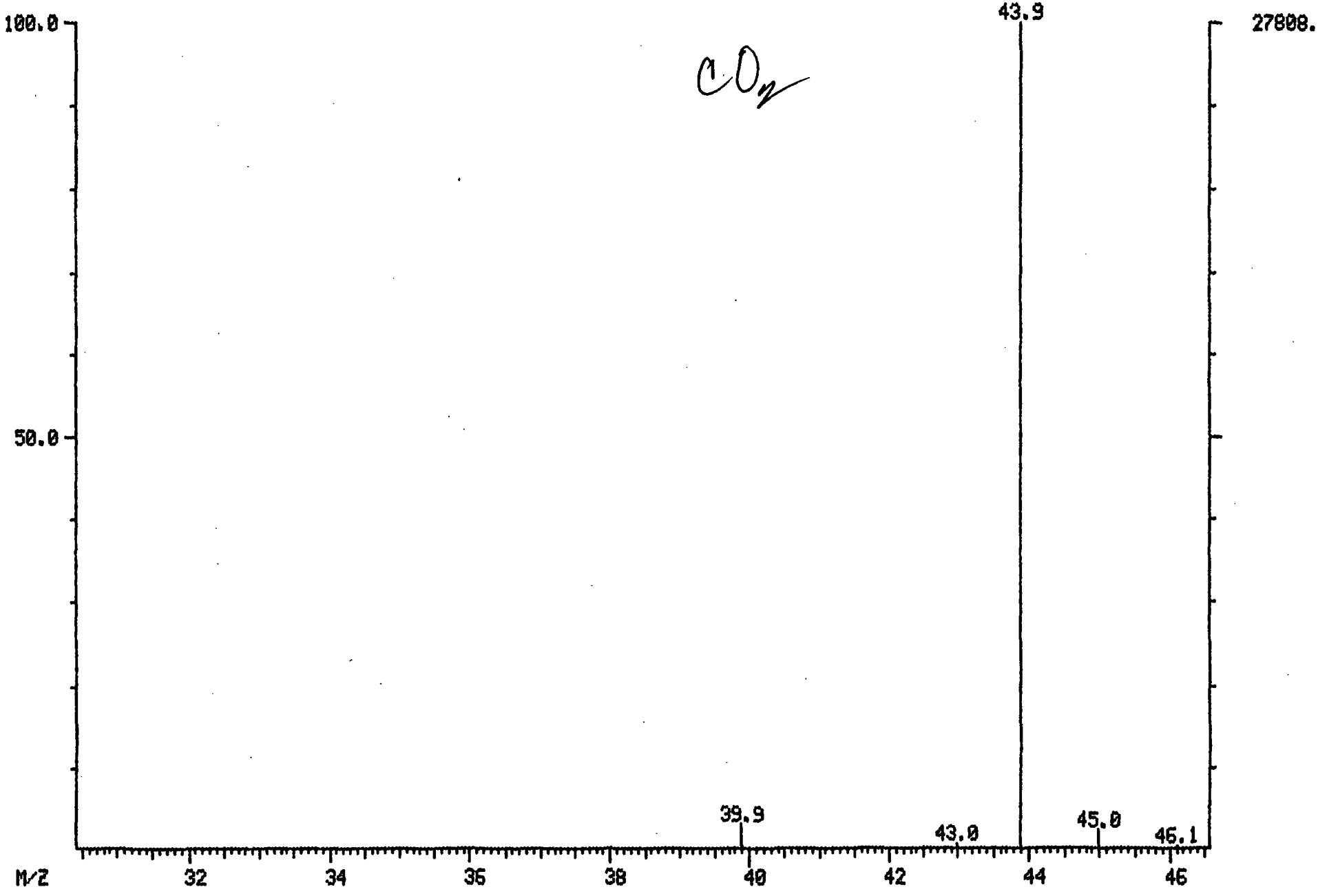
U.3.88

00672

MASS SPECTRUM
04/28/88 15:03:00 + 0:39
SAMPLE: 59436-09 5ML/5ML VOA H2O
CONDS.: GC DESC V3
GC TEMP: 60 DEG. C

DATA: S59436W898 #13
CALI: 042888CW #1

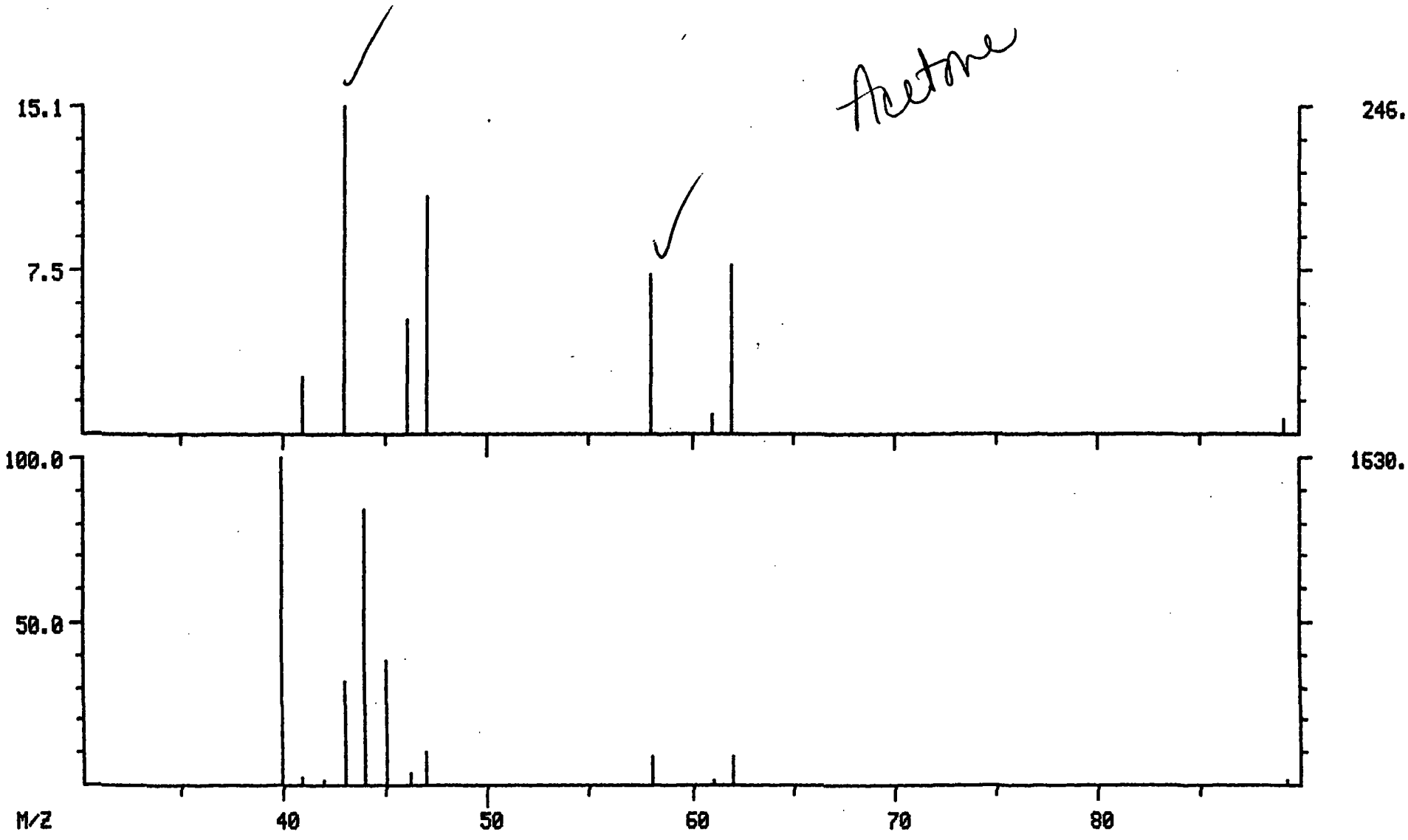
BASE M/Z: 44
RIC: 29376.



00673

DUAL MASS SPECTRUM
04/28/88 15:03:00 + 5:48
SAMPLE: 59436-09 5ML/5ML VOA H2O
CONDS.: GC DESC V3
GC TEMP: 86 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: S59436W898 #116 BASE M/Z: 43/ 40
CALI: 042888CW #1 RIC: 824./ 4775.

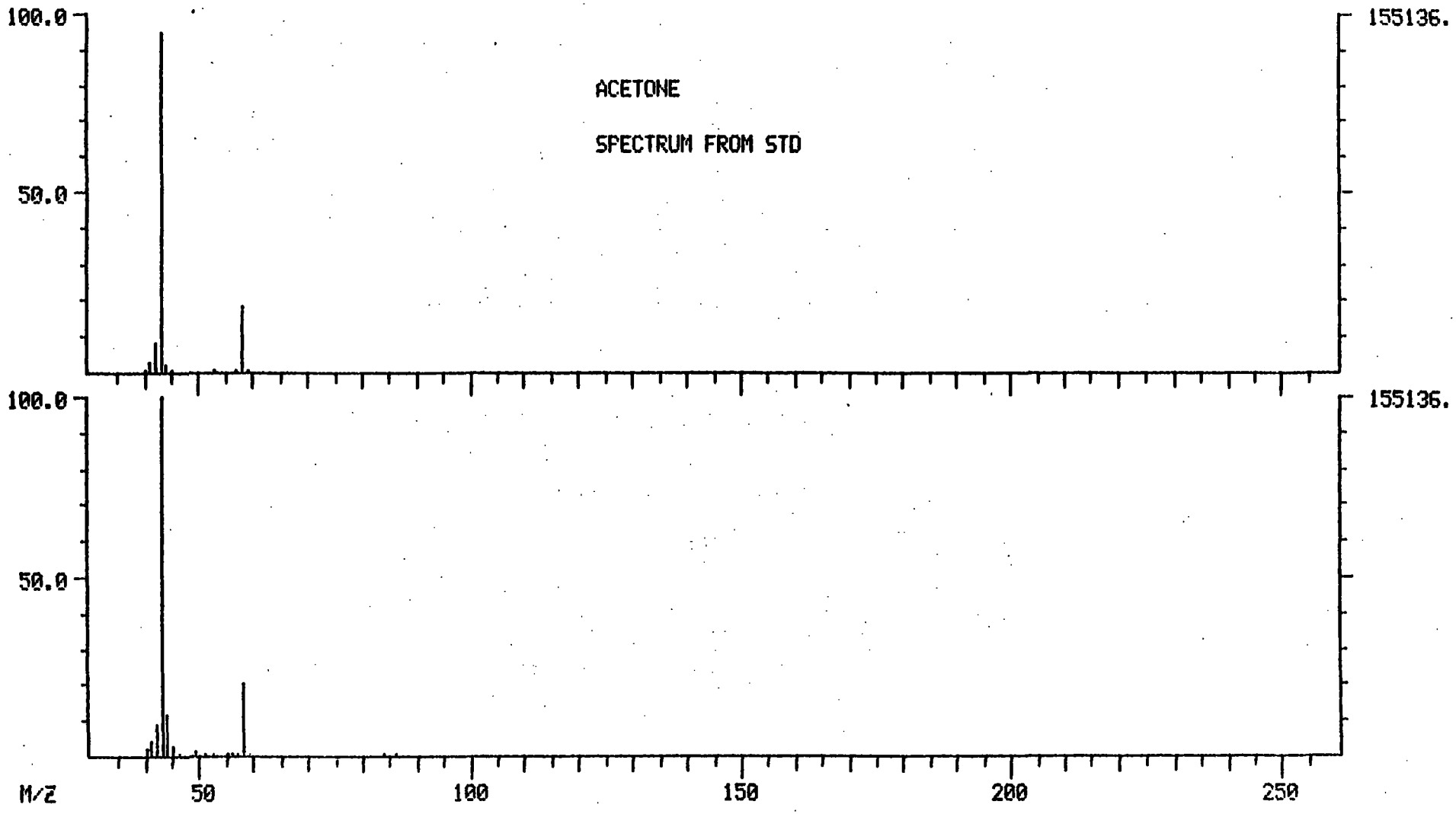


00674

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 7:37
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: STDJ198 #150
CALI: STDJ198 #1

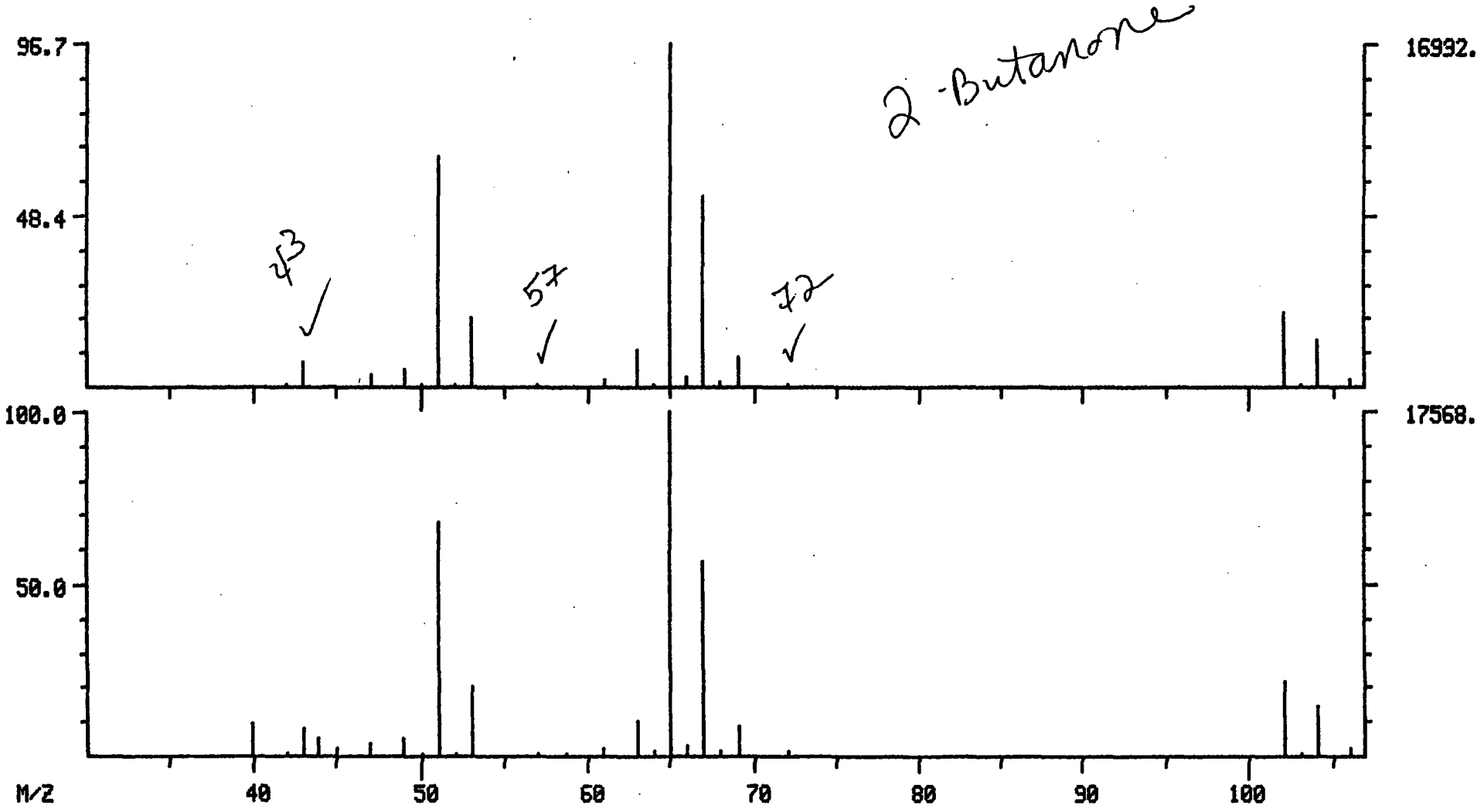
BASE M/Z: 43/ 43
RIC: 199935./ 247807.



00675

DUAL MASS SPECTRUM
04/28/88 15:03:00 + 10:57
SAMPLE: 59436-09 5ML/5ML VOA H2O
CONDS.: GC DESC V3
GC TEMP: 123 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 559436W898 #219 BASE M/Z: 65/ 65
CALI: 042888CW #1 RIC: 55935./ 61183.

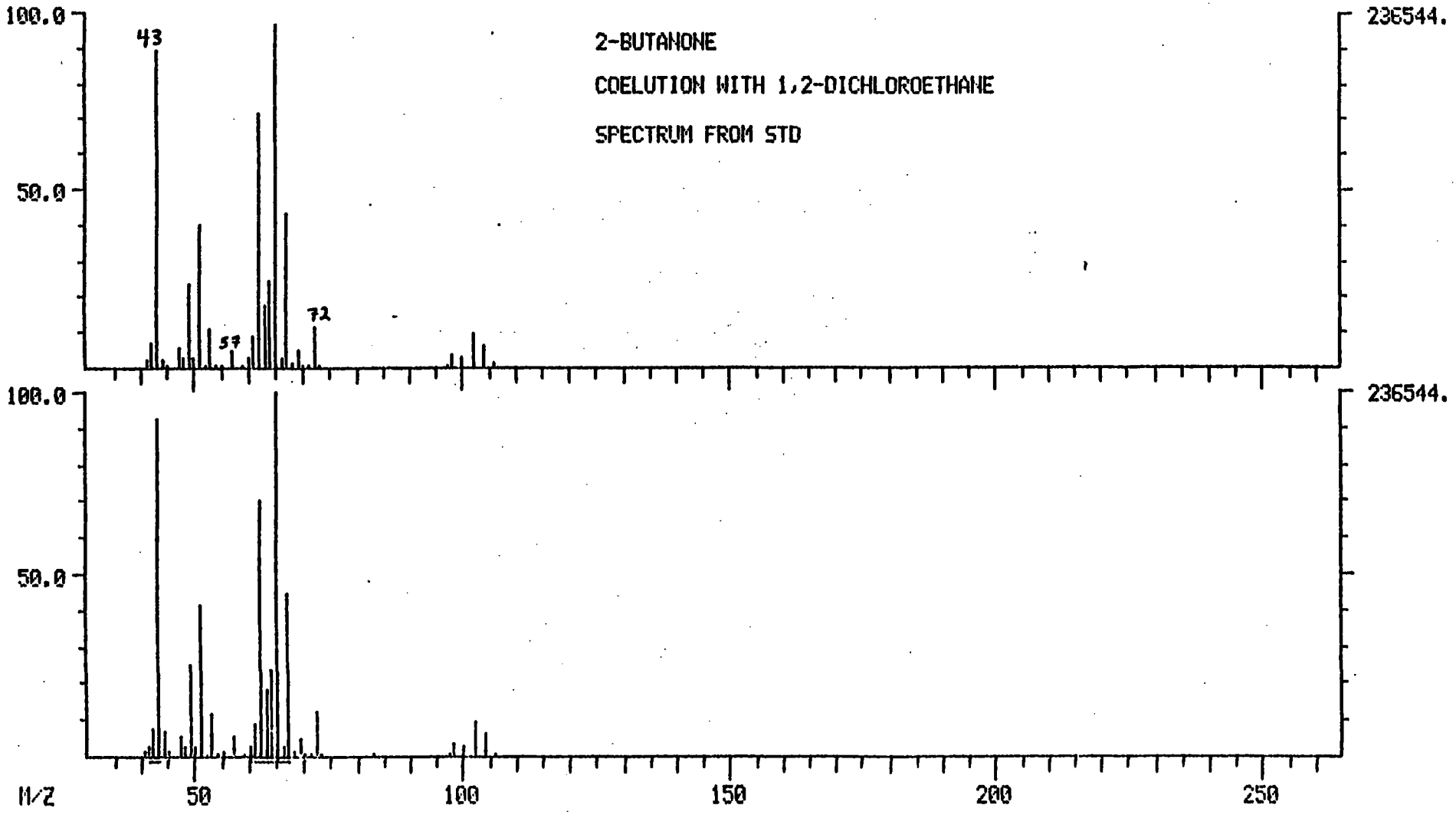


00676

DUAL MASS SPECTRUM
10/13/86 10:38:00 + 13:13
SAMPLE: 50 PPB HSL STANDARD 9-29-86 100%/5ML
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: STDJ198 #260
CALI: STDJ198 #1

BASE M/Z: 65/ 65
RIC: 1191930./ 1241080.



00677

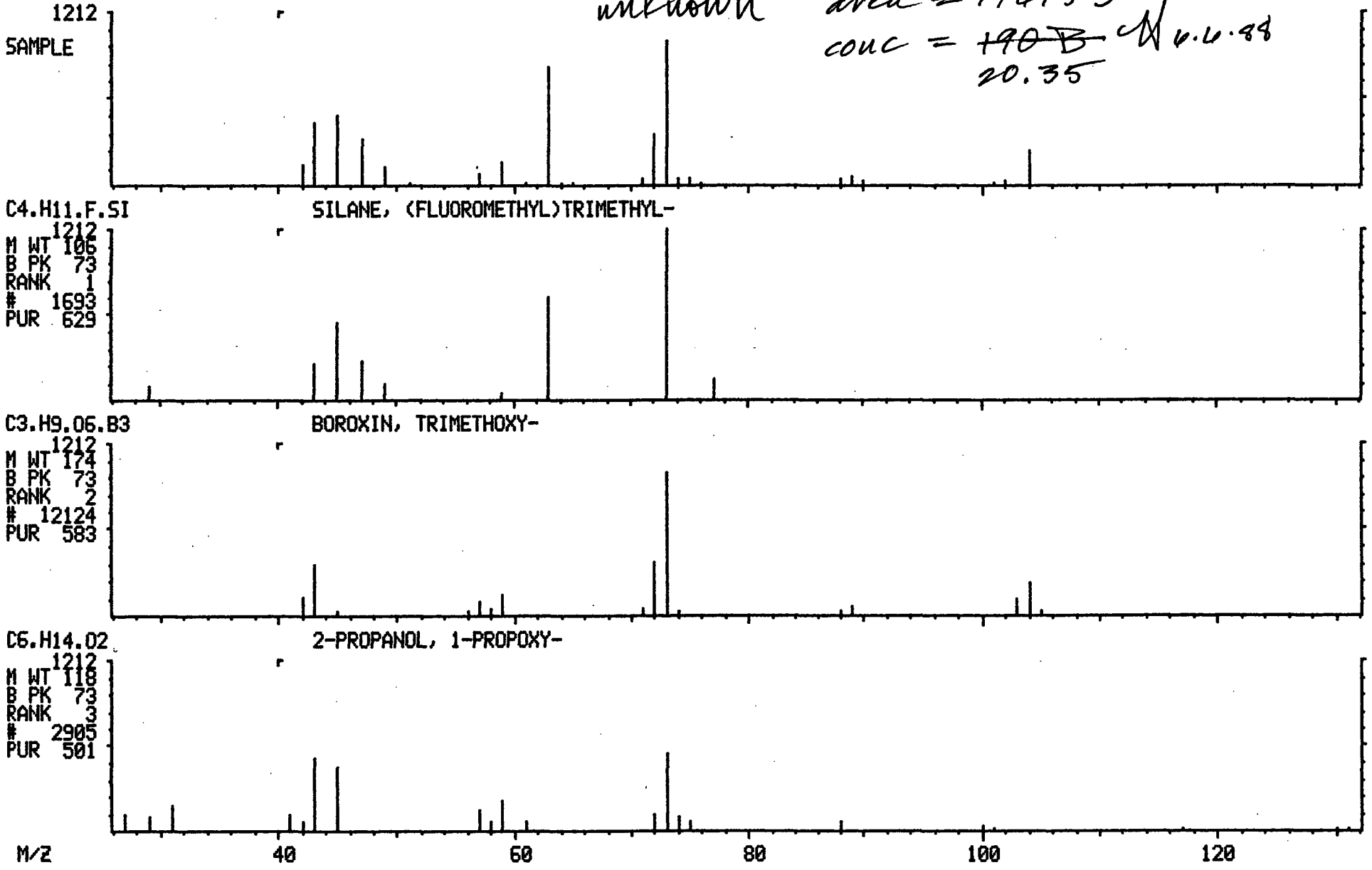
LIBRARY SEARCH
04/28/88 15:03:00 + 2:24
SAMPLE: 59436-09 5ML/5ML VOA H2O
CONDS.: GC DESC V3
ENHANCED (S 15B 2N 0T)

DATA: S59436W898 # 48
CALI: 042888CW # 1

BASE M/Z: 73
RIC: 5807.

B

unknown area = 146153
conc = ~~190 B~~ 20.35 CH 6.6.88



6/1/88 19:31:30 SCAN 1 OF 2850

00678

Acquisition started

Acquire Run 3:S59436R969 ACQUIRING
06/01/88 19:30:00 + 0:10 Free sectors: 11369 Scan: 14 of 2850
Sample: 59436-09 BNA H2O 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No: 59436

********** GC PARAMETERS **********

Loaded GC Desc:ST Current GC oven tmp: 30 DegC Injector : 250 DegC
Current GC Desc:ST GC elapsed time : 0:11 min Int.oven : 275 DegC

Seq.#	Temp(C)	Rate(C/m)	Time(min)	Total time(min)		Open	Close
1	30 - 30	-	1.0	1.0	Sweep/Split	0.5	0.0
2	30 - 325	10.0	29.5	30.5	Divert	45.5	0.0
3	325 - 325	-	15.0	45.5			
4	325 - 325	-	0.0	45.5			

********** SCAN PARAMETERS **********

Low mass: 35 Up: 0.70 L* Top: 0.00
High mass: 500 Down: 0.00 L Bottom: 0.05

Cent S/P: 10 Actual: 10 Samp Int (ms): 0.150 Peak Width: 1000.
Frag S/P: 10 Actual: 10 Samp Int (ms): 0.150 Inten/ion: 2

Min Peak Width: 3 Min Frag Width %: 80 Min Area: 20
ADC Threshold: 1 Baseline: 0

***** Mode: Centroid positive ion

Interface number	0	
Sub-interface number	0	
# of acqu buffers	16	
Instrument type	Q	
Full scale mass	1024	u
Zero scale mass	1	u
Intensity/ion	2	
Peak Width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(MS)	4	

$RF = \frac{2.0}{0.990} = 2.02$

SV = 2.0

6/1/88 20:07:11
ACQUISITION COMPLETED
SCANS 1 TO 2850 Centroid

Mode	Scans	Secs	Out of	%	Peaks per scan	per sec	
Centroid	2850	510.8	2137.5	23.9	84827.	30.	40.

00679

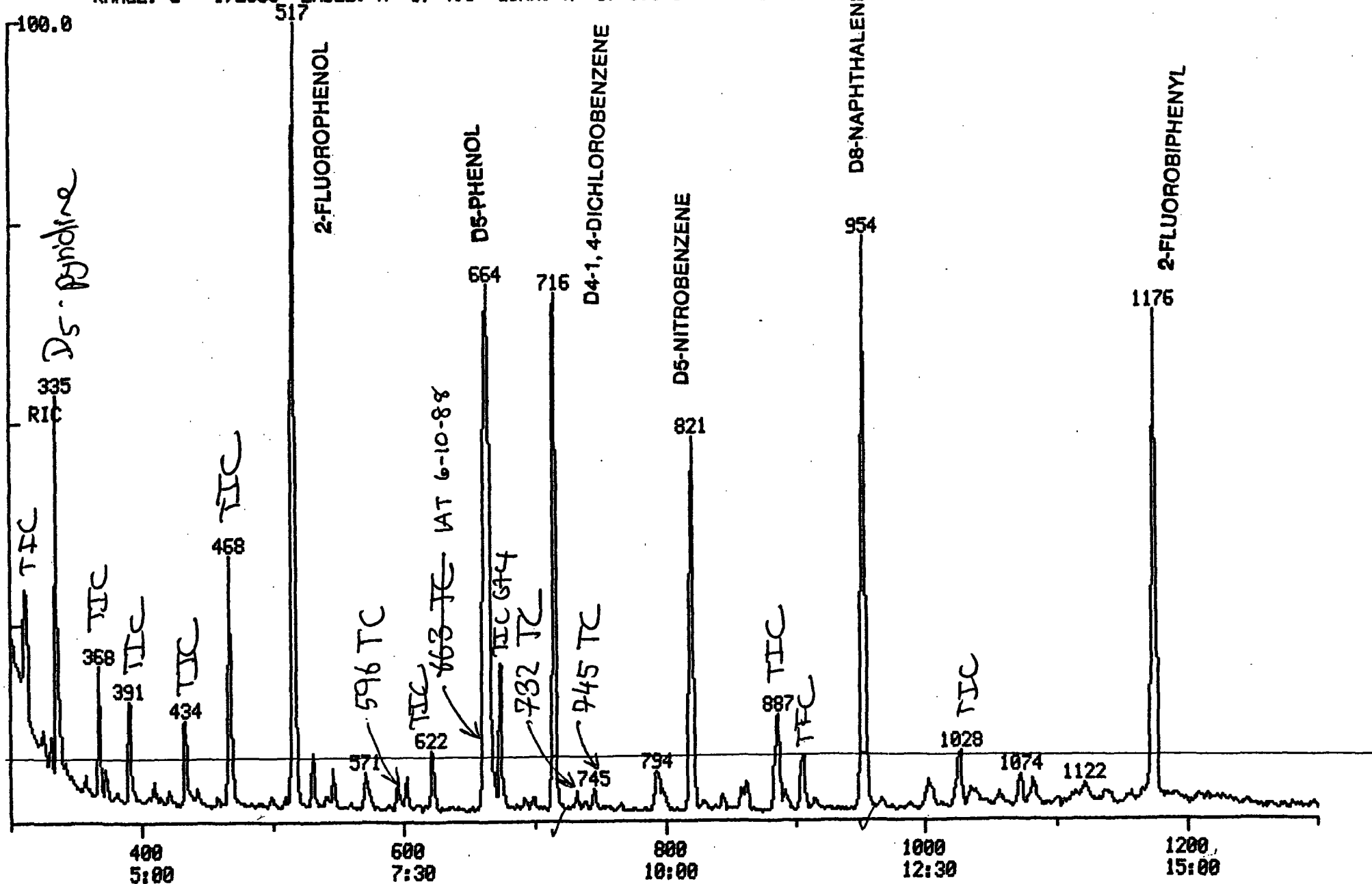
T.I.C.-Tent. Ident. Compound

RIC
06/01/88 19:30:00
SAMPLE: 59436-09 BNA H2O 100%/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20 3

DATA: 559436R969 #4
CALI: 053188CR #4

SCANS 300 TO 1300
OUT OF 300 TO 2850

TC = Target Compound
SC = Spike Compound



00680

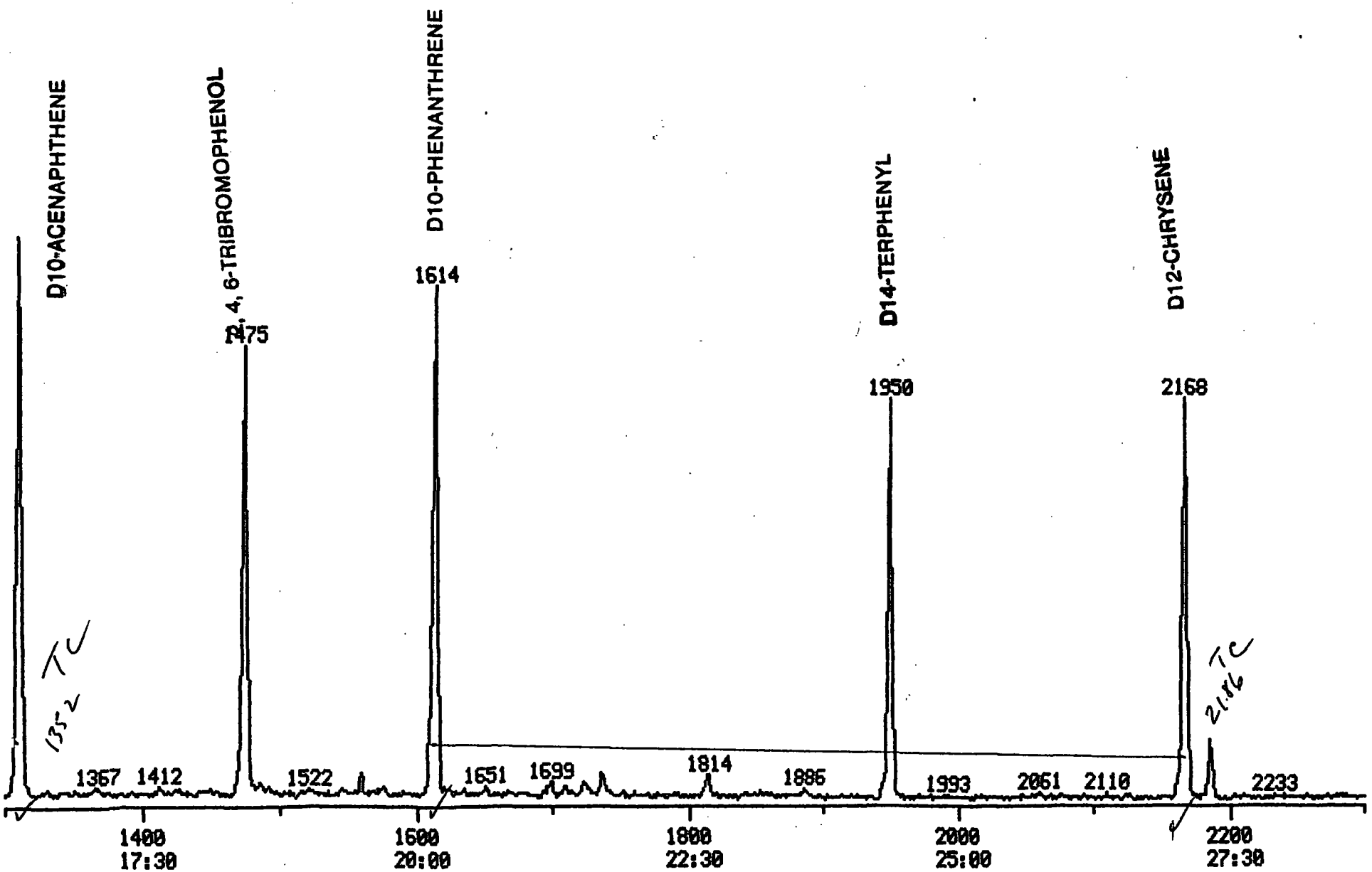
RIC
06/01/88 19:30:00
SAMPLE: 59436-09 BNA H2O 100%/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 559436R969 #4
CALI: 053188CR #4

SCANS 1300 TO 2300
OUT OF 300 TO 2850

T.I.C.-Tent. Ident. Compound

TC=Target Compound
SC=Spike Compound



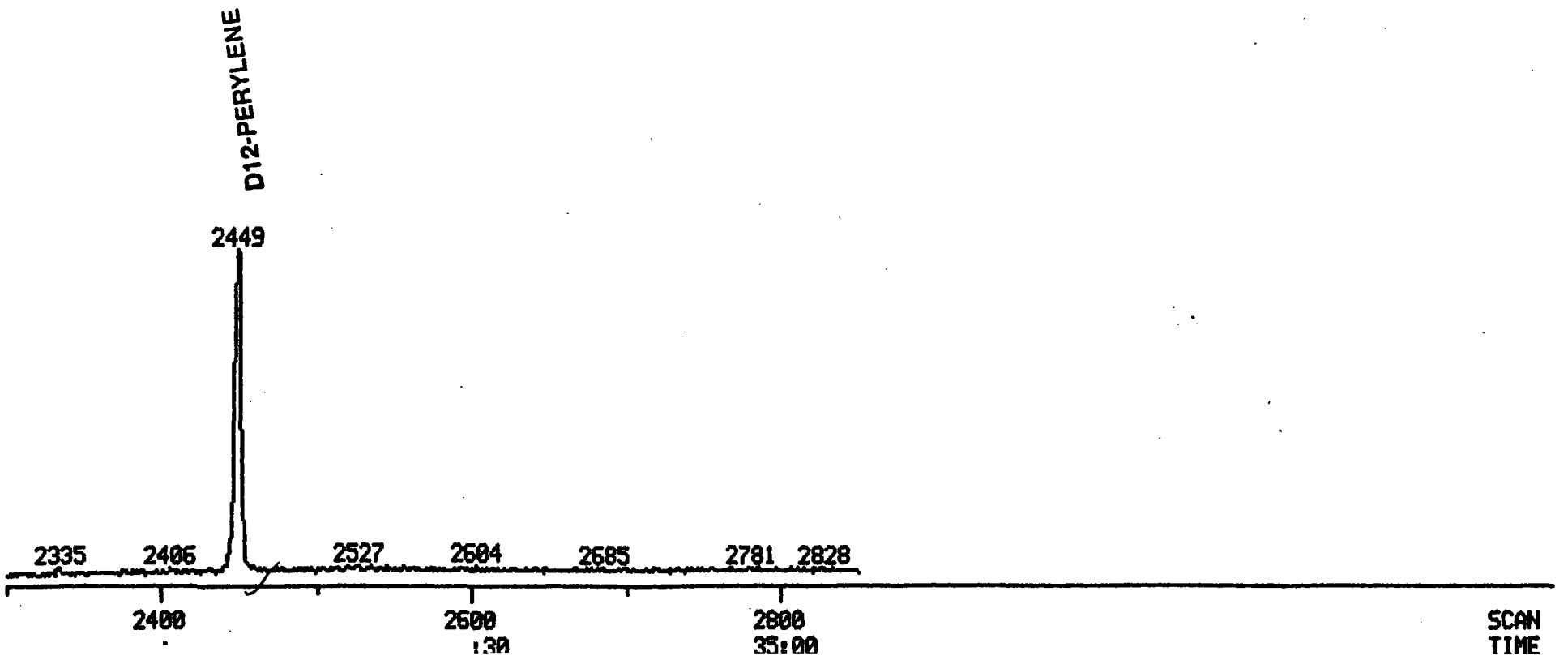
00681

RIC
06/01/88 19:30:00
SAMPLE: 59436-09 BNA H2O 100Z/2ML
CONDS.: ST
RANGE: G 1,2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 559436R969 #4 SCANS 2300 TO 2850
CALI: 053188CR #4 OUT OF 300 TO 2850

TC=Target Compound
SC=Spike Compound
T.I.C.-Tent. Ident. Compound

100.0 77824.



ROCEDURE: TCA DIAGNOSTIC REPORT 6/02/88 0:09:50
ATA FILE: S59436R969
EFERENCE: 11TABLE
AME LIST: LLNL INITIALIZATION OPTION: 2 PROCESSING OPTION: 3
REPORT: IS01

00682

< ---- STANDARDS ----- ><				--- PLUS UNKNOWNS --- ><				- LIST NAMES - >
PROC	USED	POSS	RMS	PROC	USED	POSS	RMS	STANDARD/UNKNOWN
1	1	1	0	7	3	1	157	IS01/TC01
3	3	1	49	18	5	1	574	IS02/TC02
3	3	1	49	12	3	1	49	IS03/TC03
3	3	2	0	18	5	1	271	IS04/TC04
3	3	1	0	10	5	1	144	IS05/TC05
3	3	1	0	8	3	1	0	IS06/TC06
3	3	1	0	14	6	1	57	IS07/TC07
1	1	1	0	4	1	1	0	IS08/TC08

77 COMPOUNDS PROCESSED, 17 FOUND

< COMPOUND ><			---------- SEARCH ---------- >< SAT ><							------ CHRO ------- >			
NO	LIB	ENTRY	REF	PRED	SEL	DELTA	PEAKS	FIT	PEAKS	M/Z	TOP	DELTA	PEAKS
1	S1	1	-716	716	716	.	1	980	.	152	715	-1	1
2	S1	2	-517	517	517	.	1	996	.	112	517	.	1
3	S1	3	-666	665	664	-1	1	938	.	99	664	.	1
4	S1	105	-668	667	.	.	.	.	.	94	668	.	1
5	S1	110	-680	679	.	.	.	.	.	93	.	.	.
6	S1	115	-687	686	.	.	.	.	.	128	685	.	1
7	S1	125	-710	709	.	.	.	.	.	146	.	.	.
8	S2	1	-955	954	954	.	1	995	.	136	954	.	1
9	S3	1	-1312	1311	1311	.	1	989	.	164	1311	.	1
10	S1	130	-720	717	.	.	.	.	.	146	.	.	.
11	S1	145	-748	745	.	.	.	.	.	108	.	.	.
12	S1	150	-753	750	.	.	.	.	.	146	.	.	.
13	S1	160	-771	768	.	.	.	.	.	108	.	.	.
14	S1	165	-776	773	.	.	.	.	.	45	772	.	1
15	S1	185	-798	795	.	.	.	.	.	108	794	.	1
16	S1	190	-804	801	.	.	.	.	.	70	800	.	1
17	S1	200	-808	805	.	.	.	.	.	117	.	.	.
18	S2	2	-823	820	821	1	1	999	.	82	821	.	1
19	S2	10	-827	824	.	.	.	.	.	77	.	.	.
20	S2	20	-873	870	.	.	.	.	.	82	868	.	1
21	S2	25	-887	884	.	.	.	.	.	139	.	.	.
22	S2	30	-897	894	.	.	.	.	.	107	.	.	.
23	S2	35	-917	914	.	.	.	.	.	93	.	.	.
24	S2	45	-927	924	915	-9	1	952	.	122	913	-2	1
25	S2	40	-932	931	.	.	.	.	.	162	932	.	1
26	S2	55	-948	947	.	.	.	.	.	180	.	.	.
27	S2	60	-960	959	.	.	.	.	.	128	958	.	1
28	S2	80	-976	975	.	.	.	.	.	127	974	.	1
29	S2	95	-996	995	.	.	.	.	.	225	.	.	.
30	S2	130	-1074	1073	.	.	.	.	.	107	1075	.	1
31	S2	145	-1097	1096	.	.	.	.	.	142	1096	.	1
32	S3	20	-1143	1142	.	.	.	.	.	237	.	.	.
33	S3	25	-1161	1160	.	.	.	.	.	196	.	.	.
34	S4	1	-1615	1614	1614	.	2	990	.	188	1614	.	1
35	S3	30	-1168	1168	.	.	.	.	.	196	.	.	.
36	S3	3	-1177	1177	1175	-2	1	997	.	172	1175	.	1
37	S3	40	-1195	1195	.	.	.	.	.	162	.	.	.
38	S3	45	-1225	1225	.	.	.	.	.	65	1227	.	1
39	S3	55	-1272	1272	.	.	.	.	.	163	.	.	.
40	S3	65	-1281	1281	.	.	.	.	.	152	1279	.	1
41	S3	70	-1284	1284	.	.	.	.	.	165	.	.	.
42	S3	75	-1311	1311	.	.	.	.	.	138	.	.	.

43	S3	80	-1320	1320	.	.	.	.	.		.	.	.
44	S3	85	-1331	1331	.	.	.	.	.	184	.	.	.
45	S3	95	-1347	1347	1351	4	1	939	.	109	1352	1	1
46	S3	90	-1352	1352	.	.	.	.	.	168	1351	.	1
47	S3	105	-1364	1364	.	.	.	.	.	165	.		
48	S3	130	-1418	1418	.	.	.	.	.	149	.		
49	S3	135	-1423	1423	.	.	.	.	.	166	.	.	.
50	S3	140	-1425	1423	.	.	.	.	.	204	.	.	.
51	S3	150	-1439	1437	.	.	.	.	.	138	.	.	.
52	S4	10	-1447	1445	.	.	.	.	.	198	.	.	.
53	S4	15	-1453	1451	1449	-2	1	876	.	169	1449	.	1
54	S3	2	-1477	1475	1475	.	1	984	.	330	1475	.	1
55	S4	30	-1524	1522	.	.	.	.	.	248	.	.	.
56	S4	40	-1553	1551	.	.	.	.	.	284	.	.	.
57	S5	1	-2169	2168	2168	.	1	957	.	240	2168	.	1
58	S4	50	-1591	1590	.	.	.	.	.	266	.	.	.
59	S4	65	-1620	1619	.	.	.	.	.	178	1618	.	1
60	S4	70	-1630	1629	.	.	.	.	.	178	.	.	.
61	S4	85	-1754	1753	.	.	.	.	.	149	1751	.	1
62	S4	110	-1869	1868	.	.	.	.	.	202	.	.	.
63	S6	1	-2450	2449	2449	.	1	995	.	264	2449	.	1
64	S5	15	-1915	1914	.	.	.	.	.	202	1913	.	1
65	S5	2	-1951	1950	1950	.	1	992	.	244	1950	.	1
66	S5	40	-2063	2062	2061	-1	1	879	.	149	2060	-1	1
67	S5	55	-2166	2165	.	.	.	.	.	252	.	.	.
68	S5	50	-2166	2165	.	.	.	.	.	228	2165	.	1
69	S5	60	-2176	2175	.	.	.	.	.	228	.	.	.
70	S5	65	-2188	2187	2186	-1	1	992	.	149	2186	.	1
71	S6	10	-2310	2309	.	.	.	.	.	149	2309	.	1
72	S6	15	-2381	2380	.	.	.	.	.	252	.	.	.
73	S6	25	-2387	2386	.	.	.	.	.	252	.	.	.
74	S6	35	-2440	2439	.	.	.	.	.	252	.	.	.
75	S6	55	-2687	2686	.	.	.	.	.	276	.	.	.
76	S6	60	-2690	2689	.	.	.	.	.	278	.	.	.
77	S6	65	-2755	2754	.	.	.	.	.	276	.	.	.

00683

Quantitation Report File: S59436R969

Data: S59436R969.TI
06/01/88 19:30:00
Sample: 59436-09 BNA H2O 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No.: 59436

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

No	Name			
1	CI30	1,4-DICHLOROBENZENE-D4	152IS1# 01	3855-82-1
2	CS50	2-FLUOROPHENOL	112SS1# 02	367-12-4
3	CS45	PHENOL-D5	99SS1# 03	4165-62-2
4	C315	PHENOL	94 S1#105CC	108-95-2
5	C325	BIS(2-CHLOROETHYL)ETHER	93 S1#110	111-44-4
6	C330	2-CHLOROPHENOL	128 S2#115	95-57-8
7	C335	1,3-DICHLOROBENZENE	146 S1#125	541-73-1
8	CI40	NAPHTHALENE-D8	136IS2# 01	1146-65-2
9	CI50	ACENAPHTHENE-D10	164IS3# 01	15067-26-2
10	C340	1,4-DICHLOROBENZENE	146 S1#130CC	106-46-7
11	C345	BENZYL ALCOHOL	108 S1#145	100-51-6
12	C350	1,2-DICHLOROBENZENE	146 S1#150	95-50-1
13	C355	2-METHYLPHENOL	108 S1#160	95-48-7
14	C360	BIS(2-CHLOROISOPROPYL)E	45 S1#165	108-60-1
15	C365	4-METHYLPHENOL	108 S1#185	106-44-5
16	C370	N-NITROSO-DI-N-PROPYLAM	70 S1#190SP	621-64-7
17	C375	HEXACHLOROETHANE	117 S1#200	67-72-1
18	CS20	NITROBENZENE-D5	82SS2# 02	4165-60-0
19	C410	NITROBENZENE	77 S2# 10	98-95-3
20	C415	ISOPHORONE	82 S2# 20	75-59-1
21	C420	2-NITROPHENOL	139 S2# 25CC	88-75-5
22	C425	2,4-DIMETHYLPHENOL	107 S2# 30	105-67-9
23	C435	BIS(2-CHLOROETHOXY)METH	93 S2# 35	111-91-1
24	C430	BENZOIC ACID	122 S2# 45	65-85-0
25	C440	2,4-DICHLOROPHENOL	162 S2# 40	120-83-2
26	C445	1,2,4-TRICHLOROBENZENE	180 S2# 55	120-82-1
27	C450	NAPHTHALENE	128 S2# 60	91-20-3
28	C455	4-CHLOROANALINE	127 S2# 80	106-47-8
29	C460	HEXACHLOROBUTADIENE	225 S2# 95CC	87-68-3
30	C465	4-CHLORO-3-METHYLPHENO	107 S2#130CC	59-50-7
31	C470	2-METHYLNAPHTHALENE	142 S2#145	91-57-6
32	C510	HEXACHLOROCYCLOPENTADI	237 S3# 20	77-47-4
33	C515	2,4,6-TRICHLOROPHENOL	196 S3# 25CC	88-06-2
34	CI60	PHENANTHRENE-D10	188IS4# 01	1517-22-2
35	C520	2,4,5-TRICHLOROPHENOL	196 S3# 30	95-95-4
36	CS25	2-FLUOROBIPHENYL	172SS3# 03	321-60-8
37	C525	2-CHLORONAPHTHALENE	162 S3# 40	91-58-7
38	C530	2-NITROANALINE	65 S3# 45	88-74-4
39	C535	DIMETHYLPHTHALATE	163 S3# 55	131-11-3
40	C540	ACENAPHTHYLENE	152 S3# 65	208-96-8
41	C543	2,6-DINITROTOLUENE	165 S3# 70	606-20-2
42	C545	3-NITROANILINE	138 S3# 75	99-09-2
43	C550	ACENAPHTHENE	153 S3# 80CC	83-32-9
44	C555	2,4-DINITROPHENOL	184 S3# 85SP	51-28-5
45	C560	4-NITROPHENOL	109 S3# 95SP	100-02-7
46	C565	DIBENZOFURAN	168 S3# 90	132-64-9
47	C570	2,4-DINITROTOLUENE	165 S3#105	121-14-2

00685

No	Name			
48	C580 DIETHYLPHTHALATE	149 S3#130	84-66-2	
49	C590 FLUORENE	166 S3#135	86-73-7	
50	C585 4-CHLOROPHENYL-PHENYLE	204 S3#140	7005-72-3	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	715	8:56	1	1.000	A BV	22239.	40.000 UG/ML	6.41
2	112	517	6:28	1	0.723	A BB	65766.	83.135 UG/ML	13.33
3	99	664	8:18	1	0.929	A BB	89462.	79.421 UG/ML	12.73
4	94	668	8:21	1	0.934	A BB	300.	0.239 UG/ML	0.04
5	NOT FOUND								
6	128	685	8:34	1	0.958	A BB	115.	0.147 UG/ML	0.02
7	NOT FOUND								
8	136	954	11:55	8	1.000	A BB	85474.	40.000 UG/ML	6.41
9	164	1311	16:23	9	1.000	A BB	39510.	40.000 UG/ML	6.41
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	45	772	9:39	1	1.080	A BB	46.	0.032 UG/ML	0.01
15	108	794	9:55	1	1.110	A BB	4231.	5.479 UG/ML	0.88
16	70	800	10:00	1	1.119	A BB	50.	0.071 UG/ML	0.01
17	NOT FOUND								
18	82	821	10:16	8	0.861	A BV	39303.	41.616 UG/ML	6.67
19	NOT FOUND								
20	82	868	10:51	8	0.910	A VB	250.	0.140 UG/ML	0.02
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	122	913	11:25	8	0.957	A BB	237.	0.540 UG/ML	0.09
25	162	932	11:39	8	0.977	A BB	44.	0.073 UG/ML	0.01
26	NOT FOUND								
27	128	958	11:58	8	1.004	A BB	89.	0.039 UG/ML	0.01
28	127	974	12:10	8	1.021	A BB	40.	0.043 UG/ML	0.01
29	NOT FOUND								
30	107	1075	13:26	8	1.127	A BB	156.	0.236 UG/ML	0.04
31	142	1096	13:42	8	1.149	A BB	49.	0.036 UG/ML	0.01
32	NOT FOUND								
33	NOT FOUND								
34	188	1614	20:10	34	1.000	A BV	64713.	40.000 UG/ML	6.41
35	NOT FOUND								
36	172	1175	14:41	9	0.896	A BB	56458.	40.759 UG/ML	6.53
37	NOT FOUND								
38	65	1227	15:20	9	0.936	A VB	183.	0.334 UG/ML	0.05
39	NOT FOUND								
40	152	1279	15:59	9	0.976	A BB	62.	0.030 UG/ML	0.00
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	109	1352	16:54	9	1.031	A BB	229.	1.297 UG/ML	0.21
46	168	1351	16:53	9	1.031	A BB	106.	0.060 UG/ML	0.01
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:58	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	6:28	1.00	0.721	1.00	83.13	100.00	1.183	1.423	0.83
3	8:19	1.00	0.929	1.00	79.42	100.00	1.609	2.026	0.79
4	8:21	1.00	0.932	1.00	0.24	50.00	0.011	2.262	0.00
5	8:30		0.948						
6	8:35	1.00	0.958	1.00	0.15	50.00	0.004	1.407	0.00
7	8:52		0.990						
8	11:57	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
9	16:25	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
10	9:00		1.004						
11	9:21		1.043						
12	9:25		1.050						
13	9:38		1.075						
14	9:42	0.99	1.082	1.00	0.03	50.00	0.002	2.566	0.00
15	9:58	0.99	1.113	1.00	5.48	50.00	0.152	1.389	0.11
16	10:03	1.00	1.121	1.00	0.07	50.00	0.002	1.258	0.00
17	10:06		1.127						
18	10:17	1.00	0.861	1.00	41.62	50.00	0.368	0.442	0.83
19	10:20		0.865						
20	10:55	0.99	0.913	1.00	0.14	50.00	0.002	0.838	0.00
21	11:05		0.928						
22	11:13		0.938						
23	11:28		0.959						
24	11:35	0.98	0.970	0.99	0.54	50.00	0.002	0.205	0.01
25	11:39	1.00	0.975	1.00	0.07	50.00	0.000	0.281	0.00
26	11:51		0.992						
27	12:00	1.00	1.004	1.00	0.04	50.00	0.001	1.060	0.00
28	12:12	1.00	1.021	1.00	0.04	50.00	0.000	0.439	0.00
29	12:27		1.042						
30	13:25	1.00	1.123	1.00	0.24	50.00	0.001	0.309	0.00
31	13:43	1.00	1.147	1.00	0.04	50.00	0.000	0.634	0.00
32	14:17		0.871						
33	14:31		0.884						
34	20:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
35	14:36		0.890						
36	14:43	1.00	0.896	1.00	40.76	50.00	1.143	1.402	0.82
37	14:56		0.910						
38	15:19	1.00	0.933	1.00	0.33	50.00	0.004	0.556	0.01
39	15:54		0.969						
40	16:01	1.00	0.976	1.00	0.03	50.00	0.001	2.069	0.00
41	16:03		0.978						
42	16:23		0.998						
43	16:30		1.005						
44	16:38		1.014						
45	16:50	1.00	1.026	1.01	1.30	50.00	0.005	0.179	0.03
46	16:54	1.00	1.030	1.00	0.06	50.00	0.002	1.786	0.00
47	17:03		1.039						
48	17:43		1.080						
49	17:47		1.084						
50	17:49		1.085						

Quantitation Report File: S59436R969

Data: S59436R969.TI
06/01/88 19:30:00
Sample: 59436-09 BNA H2O 100%/2ML
Conds.: ST
Formula: AUTO INJ Instrument: 4500 Weight: 0.000
Submitted by: RMAL Analyst: MK Acct. No.: 59436

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

No	Name			
51	C595	4-NITROANALINE	138 S3#150	100-01-6
52	C610	4,6-DINITRO-2-METHYLPH	198 S4# 10	534-52-1
53	C615	N-NITROSODIPHENYLAMINE	169 S4# 15CC	87-30-6
54	CS55	2,4,6-TRIBROMOPHENOL	330SS3# 02	118-79-6
55	C625	4-BROMOPHENYL-PHENYLET	248 S4# 30	101-55-3
56	C630	HEXACHLOROBENZENE	284 S4# 40	118-74-1
57	CI70	CHRYSENE-D12	240IS5# 01	1719-03-5
58	C635	PENTACHLOROPHENOL	266 S4# 50	87-86-5
59	C640	PHENANTHRENE	178 S4# 65	85-01-8
60	C645	ANTHRACENE	178 S4# 70	120-12-7
61	C650	DI-N-BUTYLPHTHALATE	149 S4# 85	84-74-2
62	C655	FLUORANTHENE	202 S4#110CC	206-44-0
63	CI75	PERYLENE-D12	164IS6# 01	1520-96-3
64	C715	PYRENE	202 S5# 15	129-00-0
65	CS30	TERPHENYL-D14	244SS5# 02	1718-51-0
66	C720	BUTYLBENZYLPHTHALATE	149 S5# 40	85-68-7
67	C725	3,3'-DICHLOROBENZIDINE	252 S5# 55	91-94-1
68	C730	BENZO(A)ANTHRACENE	228 S5# 50	56-55-3
69	C740	CHRYSENE	228 S5# 60	218-01-9
70	C745	BIS(2-ETHYLHEXYL)PHTHA	149 S5# 65	117-81-7
71	C760	DI-N-OCTYL PHTHALATE	149 S6# 10CC	117-84-0
72	C765	BENZO(B)FLUORANTHENE	252 S6# 15	205-99-2
73	C770	BENZO(K)FLUORANTHENE	252 S6# 25	207-08-9
74	C775	BENZO(A)PYRENE	252 S6# 35	50-32-8
75	C780	INDENO(1,2,3-CD)PYRENE	276 S6# 55	193-39-5
76	C785	DIBENZ(A,H)ANTHRACENE	278 S6# 60	53-70-3
77	C790	BENZO(G,H,I)PERYLENE	276 S6# 65	191-24-2

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								
52	NOT FOUND								
53	169	1449	18:07	34	0.898	A BB	558.	0.570 UG/ML	0.09
54	330	1475	18:26	9	1.125	A BB	14178.	90.382 UG/ML	14.49
55	NOT FOUND								
56	NOT FOUND								
57	240	2168	27:06	57	1.000	A BB	44233.	40.000 UG/ML	6.41
58	NOT FOUND								
59	178	1618	20:13	34	1.002	A BB	86.	0.047 UG/ML	0.01
60	NOT FOUND								
61	149	1751	21:53	34	1.085	A BB	687.	0.285 UG/ML	0.05
62	NOT FOUND								
63	264	2449	30:37	63	1.000	A BB	34453.	40.000 UG/ML	6.41
64	202	1913	23:55	57	0.882	A BB	86.	0.055 UG/ML	0.01
65	244	1950	24:22	57	0.899	A BB	40899.	34.499 UG/ML	5.53
66	149	2060	25:45	57	0.950	A BB	322.	0.356 UG/ML	0.06

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
67	NOT FOUND								
68	228	2165	27:04	57	0.999	A BB	208.	0.152 UG/ML	0.02
69	NOT FOUND								
70	149	2186	27:19	57	1.008	A BB	4508.	3.612 UG/ML	0.58
71	149	2309	28:52	63	0.943	A BB	429.	0.198 UG/ML	0.03
72	NOT FOUND								
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								
76	NOT FOUND								
77	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	17:59		1.096						
52	18:05		0.895						
53	18:10	1.00	0.899	1.00	0.57	50.00	0.007	0.605	0.01
54	18:28	1.00	1.125	1.00	90.38	100.00	0.144	0.159	0.90
55	19:03		0.943						
56	19:25		0.961						
57	27:07	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
58	19:53		0.985						
59	20:15	1.00	1.002	1.00	0.05	50.00	0.001	1.136	0.00
60	20:22		1.009						
61	21:55	1.00	1.085	1.00	0.28	50.00	0.008	1.492	0.01
62	23:22		1.157						
63	30:38	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
64	23:56	1.00	0.882	1.00	0.05	50.00	0.002	1.422	0.00
65	24:23	1.00	0.899	1.00	34.50	50.00	0.740	1.072	0.69
66	25:47	1.00	0.951	1.00	0.36	50.00	0.006	0.818	0.01
67	27:04		0.998						
68	27:04	1.00	0.998	1.00	0.15	50.00	0.004	1.237	0.00
69	27:12		1.003						
70	27:21	1.00	1.008	1.00	3.61	50.00	0.082	1.129	0.07
71	28:52	1.00	0.942	1.00	0.20	50.00	0.010	2.509	0.00
72	29:46		0.971						
73	29:50		0.974						
74	30:30		0.996						
75	33:35		1.096						
76	33:37		1.098						
77	34:26		1.124						

TCA FINISHED, 17 FOUND
FINISHED AT: 6/02/88 0:17:41

00689

RMAL QUANTITATION SUMMARY FILE: S59436R969
COMPOUNDS WITH AMOUNTS LESS THAN 1.00 REPORTED AS NOT FOUND

UNITS: UG/ML

NO	LIBRARY ENTRY	NAME	MASS	SCAN	REF	AREA	RRF	AMOUNT
1	S1# 1 CI30	1,4-DICHLOROBENZENE	152	715	1	22239.	1.000	40.000
2	S2# 1 CI40	NAPHTHALENE-D8	136	954	2	85474.	1.000	40.000
3	S3# 1 CI50	ACENAPHTHENE-D10	164	1311	3	39510.	1.000	40.000
4	S4# 1 CI60	PHENANTHRENE-D10	188	1614	4	64713.	1.000	40.000
5	S5# 1 CI70	CHRYSENE-D12	240	2168	5	44233.	1.000	40.000
6	S6# 1 CI75	PERYLENE-D12	264	2449	6	34453.	1.000	40.000
7	S2# 2 CS20	NITROBENZENE-D5	82	821	2	39303.	0.368	41.616
8	S3# 3 CS25	2-FLUOROBIPHENYL	172	1175	3	56458.	1.143	40.759
9	S5# 2 CS30	TERPHENYL-D14	244	1950	5	40899.	0.740	34.499
10	S1# 3 CS45	PHENOL-D5	99	664	1	89462.	1.609	79.421
11	S1# 2 CS50	2-FLUOROPHENOL	112	517	1	65766.	1.183	83.135
12	S3# 2 CS55	2,4,6-TRIBROMOPHENO	330	1475	3	14178.	0.144	90.382
13	S1#105 C315	PHENOL	94		1	NOT FOUND		
14	S1#110 C325	BIS(2-CHLOROETHYL)E	93		1	NOT FOUND		
15	S1#115 C330	2-CHLOROPHENOL	128		1	NOT FOUND		
16	S1#125 C335	1,3-DICHLOROBENZENE	146		1	NOT FOUND		
17	S1#130 C340	1,4-DICHLOROBENZENE	146		1	NOT FOUND		
18	S1#145 C345	BENZYL ALCOHOL	108		1	NOT FOUND		
19	S1#150 C350	1,2-DICHLOROBENZENE	146		1	NOT FOUND		
20	S1#160 C355	2-METHYLPHENOL	108		1	NOT FOUND		
21	S1#165 C360	BIS(2-CHLOROISOPROP	45		1	NOT FOUND		
22	S1#185 C365	4-METHYLPHENOL	108	794	1	4231.	0.152	~~5.479~~
23	S1#190 C370	N-NITROSO-DI-N-PROP	70		1	NOT FOUND		
24	S1#200 C375	HEXACHLOROETHANE	117		1	NOT FOUND		
25	S2# 10 C410	NITROBENZENE	77		2	NOT FOUND		
26	S2# 20 C415	ISOPHORONE	82		2	NOT FOUND		
27	S2# 25 C420	2-NITROPHENOL	139		2	NOT FOUND		
28	S2# 30 C425	2,4-DIMETHYLPHENOL	107		2	NOT FOUND		
29	S2# 35 C435	BIS(2-CHLOROETHOXY)	93		2	NOT FOUND		
30	S2# 40 C440	2,4-DICHLOROPHENOL	162		2	NOT FOUND		
31	S2# 45 C430	BENZOIC ACID	122		2	NOT FOUND		
32	S2# 55 C445	1,2,4-TRICHLOROBENZ	180		2	NOT FOUND		
33	S2# 60 C450	NAPHTHALENE	128		2	NOT FOUND		
34	S2# 80 C455	4-CHLOROANALINE	127		2	NOT FOUND		
35	S2# 95 C460	HEXACHLOROBUTADIENE	225		2	NOT FOUND		
36	S2#130 C465	4-CHLORO-3-METHYLPH	107		2	NOT FOUND		
37	S2#145 C470	2-METHYLNAPHTHALENE	142		2	NOT FOUND		
38	S3# 20 C510	HEXACHLOROCYCLOPENT	237		3	NOT FOUND		
39	S3# 25 C515	2,4,6-TRICHLOROPHEN	196		3	NOT FOUND		
40	S3# 30 C520	2,4,5-TRICHLOROPHEN	196		3	NOT FOUND		
41	S3# 40 C525	2-CHLORONAPHTHALENE	162		3	NOT FOUND		
42	S3# 45 C530	2-NITROANALINE	65		3	NOT FOUND		
43	S3# 55 C535	DIMETHYLPHTHALATE	163		3	NOT FOUND		
44	S3# 65 C540	ACENAPHTHYLENE	152		3	NOT FOUND		
45	S3# 70 C543	2,6-DINITROTOLUENE	165		3	NOT FOUND		
46	S3# 75 C545	3-NITROANILINE	138		3	NOT FOUND		
47	S3# 80 C550	ACENAPHTHENE	153		3	NOT FOUND		
48	S3# 85 C555	2,4-DINITROPHENOL	184		3	NOT FOUND		
49	S3# 90 C565	DIBENZOFURAN	168		3	NOT FOUND		
50	S3# 95 C560	4-NITROPHENOL	109	1352	3	229.	0.005	1.297
	05 C570	2,4-DINITROTOLUENE	165		3	NOT FOUND		

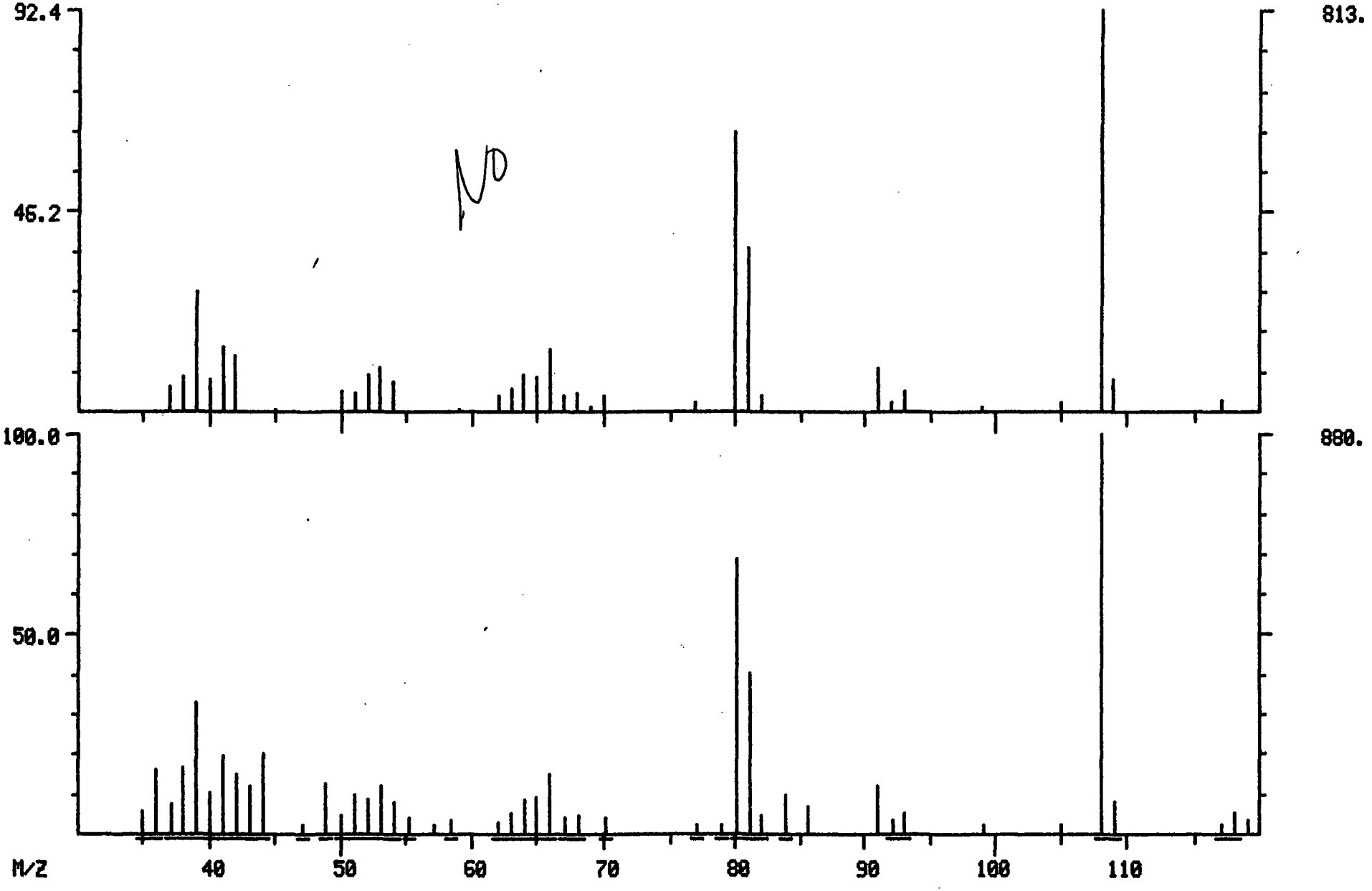
00690

52	S3#130	C580	DIETHYLPHTHALATE	149		3	NOT FOUND			
53	S3#135	C590	FLUORENE	166		3	NOT FOUND			
54	S3#140	C585	4-CHLOROPHENYL-PHEN	204		3	NOT FOUND			
55	S3#150	C595	4-NITROANALINE	138		3	NOT FOUND			
56	S4# 10	C610	4,6-DINITRO-2-METHY	198		4	NOT FOUND			
57	S4# 15	C615	N-NITROSODIPHENYLAM	169		4	NOT FOUND			
58	S4# 30	C625	4-BROMOPHENYL-PHENY	248		4	NOT FOUND			
59	S4# 40	C630	HEXACHLOROBENZENE	284		4	NOT FOUND			
60	S4# 50	C635	PENTACHLOROPHENOL	266		4	NOT FOUND			
61	S4# 65	C640	PHENANTHRENE	178		4	NOT FOUND			
62	S4# 70	C645	ANTHRACENE	178		4	NOT FOUND			
63	S4# 85	C650	DI-N-BUTYLPHTHALATE	149		4	NOT FOUND			
64	S4#110	C655	FLUORANTHENE	202		4	NOT FOUND			
65	S5# 15	C715	PYRENE	202		5	NOT FOUND			
66	S5# 40	C720	BUTYLBENZYLPHTHALAT	149		5	NOT FOUND			
67	S5# 50	C730	BENZO(A)ANTHRACENE	228		5	NOT FOUND			
68	S5# 55	C725	3,3'-DICHLOROBENZID	252		5	NOT FOUND			
69	S5# 60	C740	CHRYSENE	228		5	NOT FOUND			
70	S5# 65	C745	BIS(2-ETHYLHEXYL)PH	149	2186	5	4508.	0.082	3.612	
71	S6# 10	C760	DI-N-OCTYL PHTHALAT	149		6	NOT FOUND			
72	S6# 15	C765	BENZO(B)FLUORANTHEN	252		6	NOT FOUND			
73	S6# 25	C770	BENZO(K)FLUORANTHEN	252		6	NOT FOUND			
74	S6# 35	C775	BENZO(A)PYRENE	252		6	NOT FOUND			
75	S6# 55	C780	INDENO(1,2,3-CD)PYR	276		6	NOT FOUND			
76	S6# 60	C785	DIBENZ(A,H)ANTHRACE	278		6	NOT FOUND			
77	S6# 65	C790	BENZO(G,H,I)PERYLEN	276		6	NOT FOUND			

16900

DUAL MASS SPECTRUM
06/01/88 19:30:00 + 9:55
SAMPLE: 59436-09 BNA H2O 100Z/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R969 #794 BASE M/Z: 108/ 108
CALI: 053188CR #4 RIC: 3483./ 4935.



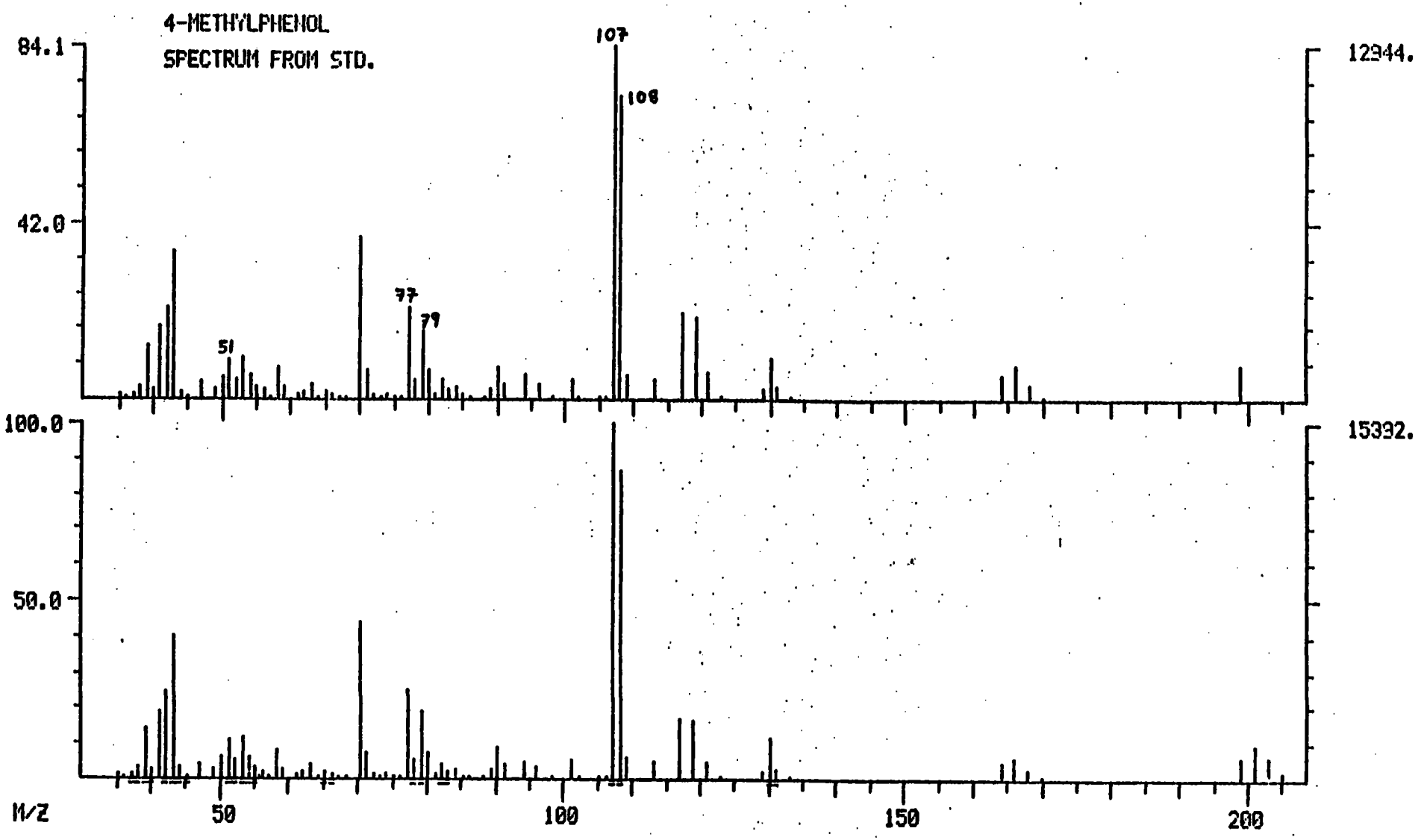
NO

00692

DUAL MASS SPECTRUM
10/29/86 13:35:00 + 9:18
SAMPLE: 50PPM HSL STD
CONDS.: DESC.ST
ENHANCED (S 15B 2N 0T)

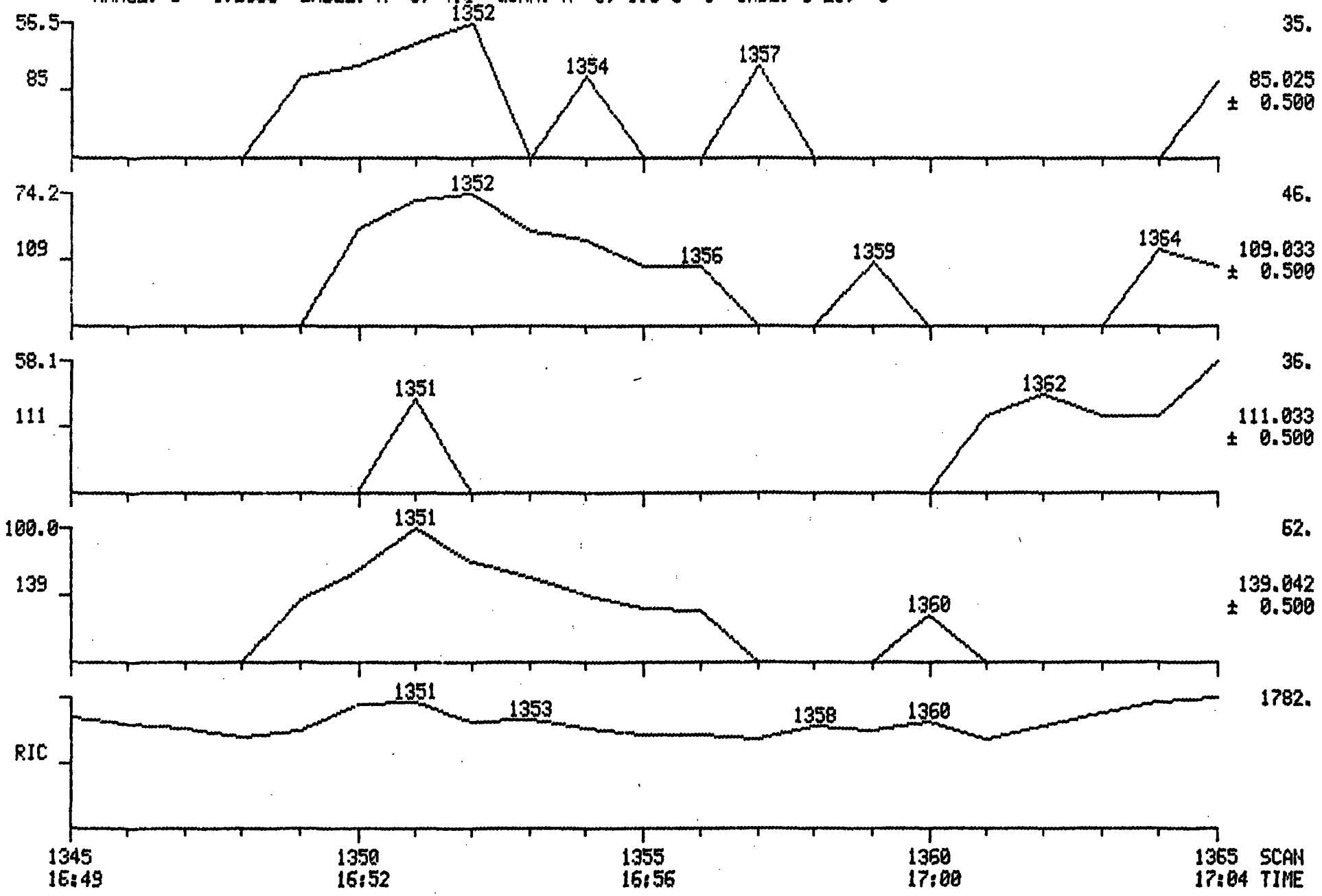
DATA: STDR810 #744
CALI: 103086C #5

BASE M/Z: 107/ 107
RIC: 85375./ 98559.



00693

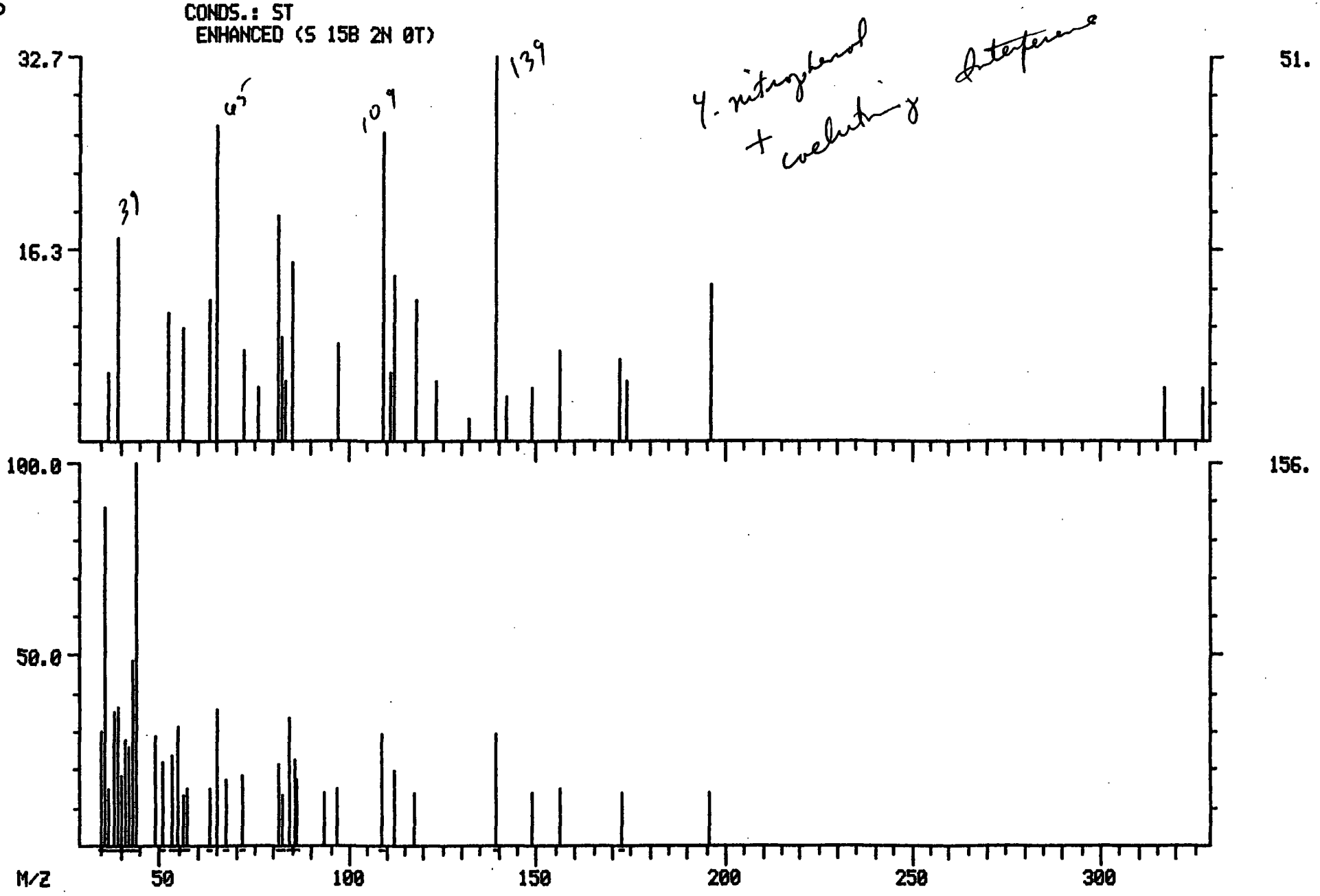
RIC+MASS CHROMATOGRAMS DATA: 559436R969 #1 SCANS 1345 TO 1365
06/01/88 19:30:00 CALI: 053188CR #4
SAMPLE: 59436-09 BNA H2O 100%/2ML
CONDS.: ST
RANGE: G 1.2850 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



00694

DUAL MASS SPECTRUM
06/01/88 19:30:00 + 16:54
SAMPLE: 59436-09 BNA H2O 100Z/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: 559436R969 #1352 BASE M/Z: 139/ 44
CALI: 053188CR #4 RIC: 468./ 1461.



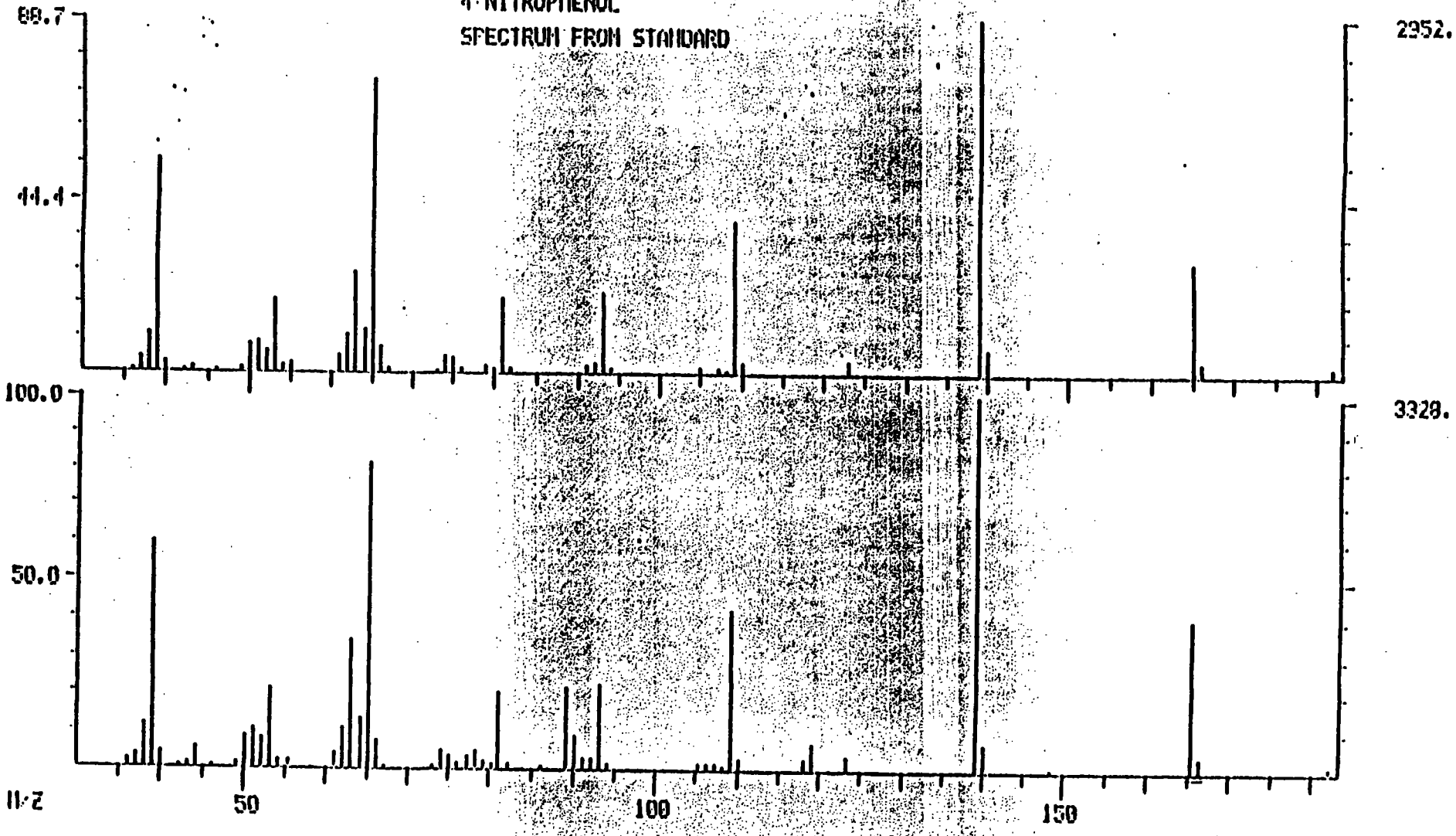
00695

DUAL MASS SPECTRUM
10/29/86 13:35:00 + 17:34
SAMPLE: 50PPM MSL STD
COMDS.: DESC ST
ENHANCED (S 150 2H 0T)

DATA: STDR810 #1406
CALI: 103086C #5

BASE M/Z: 139/ 139
RIC: 16079./ 20511.

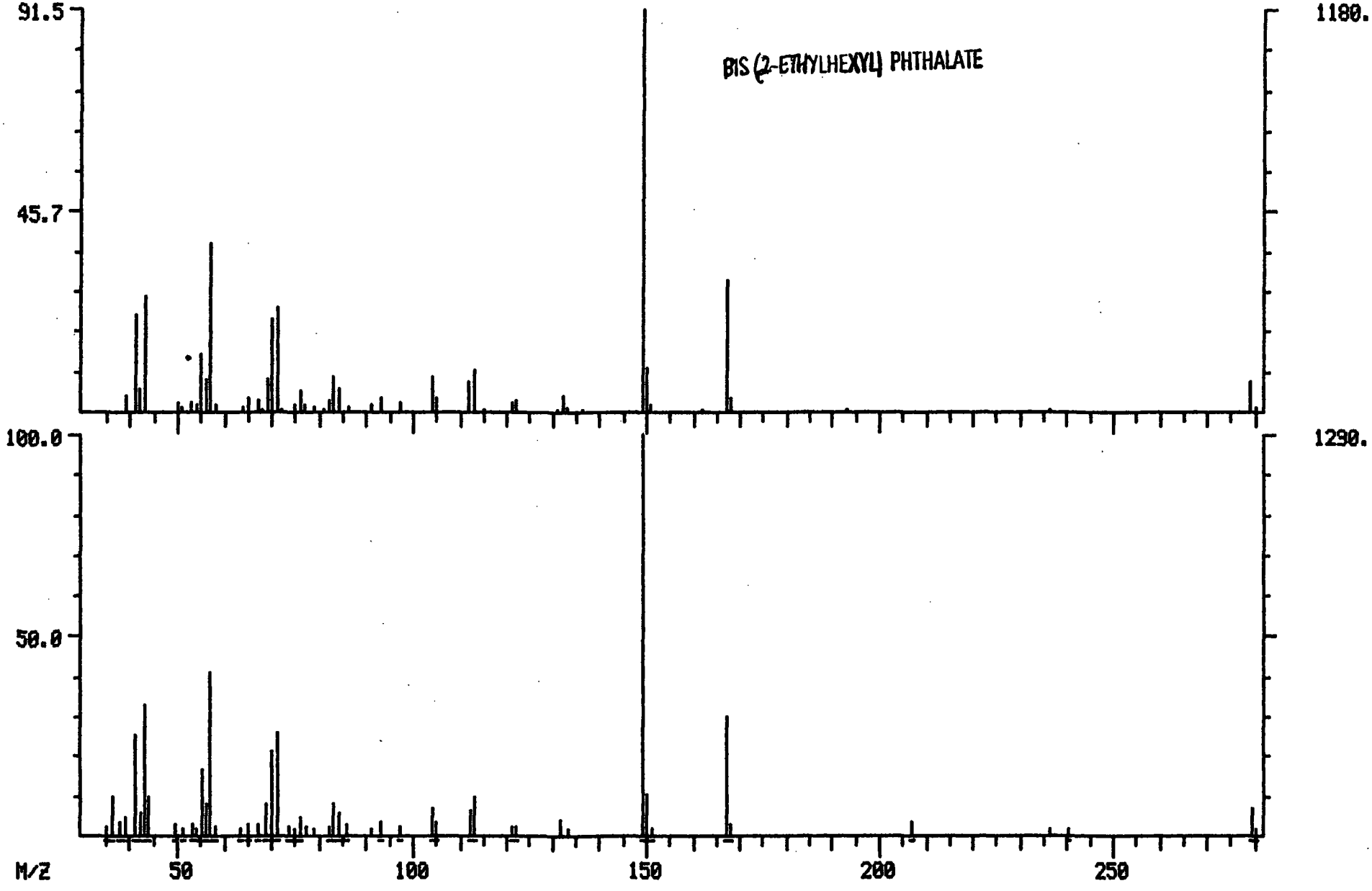
4-NITROPHENOL
SPECTRUM FROM STANDARD



00696

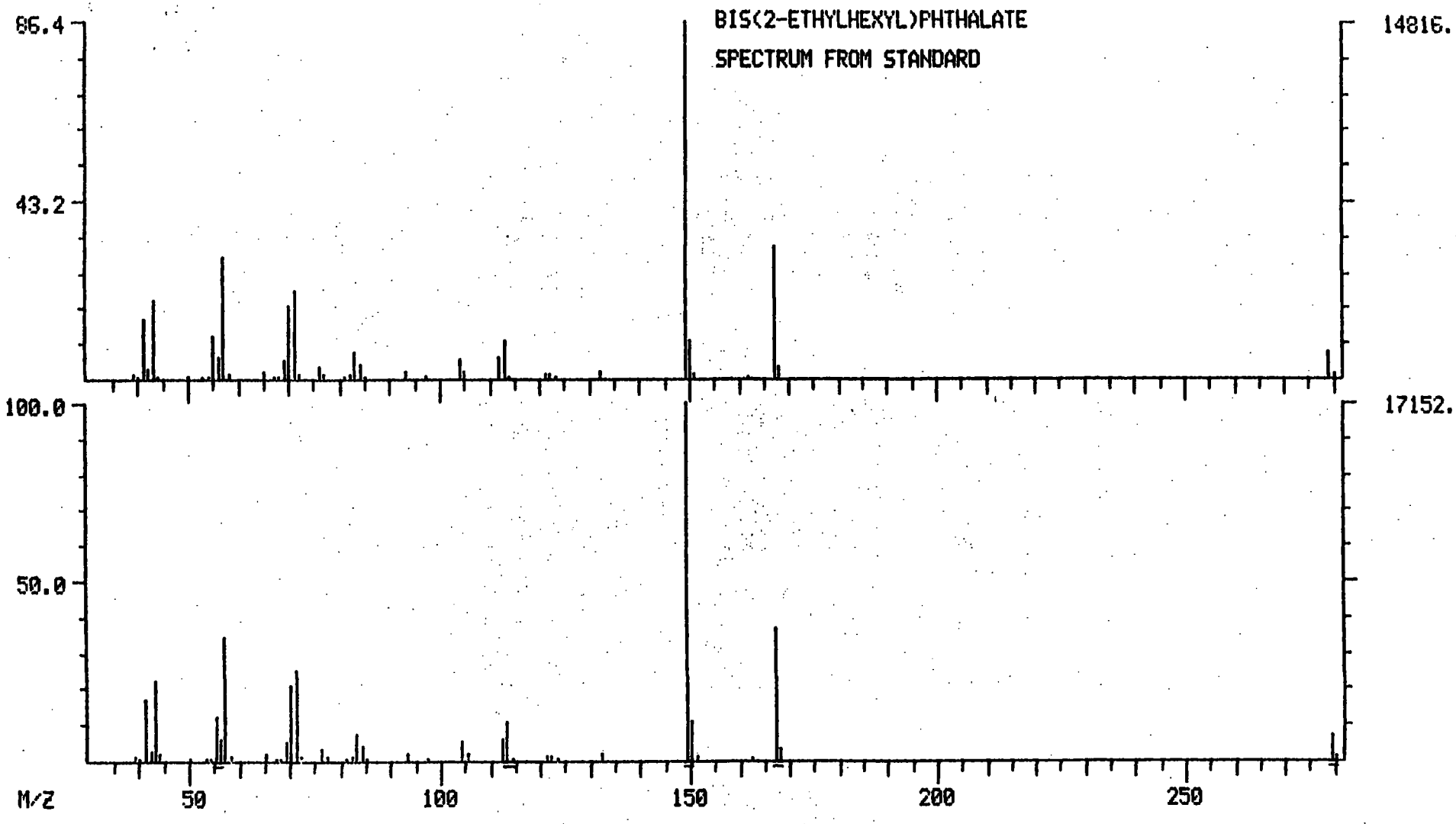
DUAL MASS SPECTRUM
06/01/88 19:30:00 + 27:19
SAMPLE: 59436-09 BNA H2O 100Z/2ML
CONDS.: ST
ENHANCED (S 15B 2N 0T)

DATA: S59436R969 #2186 BASE M/Z: 149/ 149
CALI: 053188CR #4 RIC: 5247./ 6127.



00697

DUAL MASS SPECTRUM
10/29/86 13:35:00 + 30:27
SAMPLE: 50PPM HSL STD
CONDS.: DESC ST
ENHANCED (S 15B 2N 0T)

DATA: STDR810 #2436
CALI: 103086C #5

BASE M/Z: 149/ 149
RIC: 55167./ 63807.