Versar INC.

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ORIGINAL (Red)

SEMIVOLATILE ANALYSIS VOL.I
ANALYTICAL DATA PACKAGE

CLIENT : VERSAR DIV.31
SITE : CDM
PROJECT: 420.1 B#4
CONTROL: 2565
DATE : 06/08/90

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Note: Samples arranged in alpha-numeric sequence.

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B. Reagent Blank Data
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   2. Tentatively Identified Compounds (TIC)
   3. Raw Data
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      b. HSL spectra with lab generated standard.
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I. NARRATIVE

II. QC SUMMARY

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June 8, 1990

Narrative
Versar Division 31 - CDM
Semivolatile Organic Analysis
EPA CLP Protocol
Versar Project 420.1 - Batch 4
Control 2565

This report contains the analytical data for the semivolatile organic analysis of one (1) water sample and nine (9) soil samples. The samples listed below arrived at Versar on April 23, 1990. Results for other analytical parameters are provided separately.

SAMPLE LIST

GW-1	11
4	12
8	13
9	14
10	15

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GC/MS instrument calibrations using DFTPP met requirements for semivolatile organic analyses. SPCC and CCC criteria were met for the initial calibration curves and the continuing calibration standards. All GC/MS analyses occurred during the twelve hour period that followed daily instrument calibration.

Semivolatile surrogate standard recovery values met specified recovery criteria for all analyses. Internal standard area abundances and associated relative retention times were within specified QC windows for all analyses. No semivolatile matrix spike and matrix spike duplicate (MS/MSD) QC analyses were analyzed for this batch shipment of samples. All semivolatile organic extractions and analyses occurred prior to expiration of sample holding times. Sample 8 required dilution by a factor of twenty prior to instrumental analysis to prevent instrument saturation. All other samples were analyzed without dilution.

The soil samples were screened prior to extraction for semivolatile organic compounds. Four samples were extracted using medium concentration protocol. Five samples were extracted using low concentration protocol with the Gel Permeation Chromatography (GPC) clean-up procedure. Use of the GPC procedure increases the detection limits by a factor of two. A dilution factor of 1.053 should be used when verifying the detection limits of the low concentration soil samples. Sample 8 should use a factor of 21.06 which accounts for the additional dilution performed on this sample.

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

Nontarget compounds were tentatively identified using the EPA/NBS Mass Spectral Database Library.

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

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

Data Release Approved By:

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

Narrative Reviewed By:

Lawrence P. Pollack
GC/MS Quality Assurance Manager

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Data Qualifier Flags

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

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

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

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

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

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

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

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

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

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 04

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
01	GW1	86	74	103	85	83	58	0	0
02	SBLK62	74	68	84	76	89	70	0	0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl	(33-141)
S4 (PHL)	= Phenol-d5	(10-94)
S5 (2FP)	= 2-Fluorophenol	(21-100)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

ORIGINAL (Red)

I Name: VERSAR INC. Contract: _____

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

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	12	55	63	66	71	35	59	0	0
02	13	63	64	74	64	54	28	0	0
03	14	54	62	73	58	50	58	0	0
04	15	52	61	71	61	54	64	0	0
05	8	35	47	65	43	34	37	0	0
06	SBLK00	50	60	66	54	52	49	0	0

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(23-120)
S2 (FBP) = 2-Fluorobiphenyl	(30-115)
S3 (TPH) = Terphenyl	(18-137)
S4 (PHL) = Phenol-d5	(24-113)
S5 (2FP) = 2-Fluorophenol	(25-121)
S6 (TBP) = 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Level:(low/med) MED

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	10	109	102	92	103	108	88	0	0
02	11	100	94	94	102	107	92	0	0
03	4	68	64	57	66	67	43	0	0
04	9	78	73	62	73	75	58	0	0
05	SBLK03	94	90	81	93	106	59	0	0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

4B
SEMIVOLATILE METHOD BLANK SUMMARY

ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 04

Lab File ID: Z4755 Lab Sample ID: SBLK62

Date Extracted: 04/26/90 Extraction:(SepF/Cont/Sonc) CONT

Date Analyzed: 05/18/90 Time Analyzed: 1805

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

Instrument ID: Z

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	GW1	16918	Z4758	05/18/90

COMMENTS: CLP,G&MMMAG,2564 2570,SBLK62,L,W,SBLK62,B,BLANK,420.1,20 21,1UL
INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN

4B
SEMIVOLATILE METHOD BLANK SUMMARY

ORIGINAL (Rmd)

I Name: VERSAR INC. Contract: _____

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

Lab File ID: T2727 Lab Sample ID: SBLK00

Date Extracted: 05/01/90 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 05/23/90 Time Analyzed: 1403

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

Instrument ID: T

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	12	16914	T2729	05/23/90
02	13	16915	T2730	05/23/90
03	14	16916	T2731	05/23/90
04	15	16917	T2732	05/23/90
05	8	16910	T2773	05/25/90

C IENTS: CLP,VERSCDM,2565,SBLK00,L,S,RB8000,B,,420.1.0,4,1UL,
INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN

4B
SEMIVOLATILE METHOD BLANK SUMMARY

ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Lab File ID: T2606 Lab Sample ID: SBLK03

Date Extracted: 05/04/90 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 05/16/90 Time Analyzed: 613

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

Instrument ID: T

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	10	16912	T2609	05/16/90
02	11	16913	T2629	05/16/90
03	4	16909	T2607	05/16/90
04	9	16911	T2608	05/16/90

COMMENTS: CLP,VERSCDM,2565,SBLK03,M,S,RB8003,B,BLK,420.1,4,1UL,
INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN

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ORIGINAL (Red)

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: VERSAR INC. Contract: _____

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

Lab File ID: T2568 DFTPP Injection Date: 05/14/90

Instrument ID: T DFTPP Injection Time: 1723

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	52.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	61.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	45.4
97	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.0
275	10.0 - 30.0% of mass 198	23.9
365	Greater than 1.00% of mass 198	2.00
441	Present, but less than mass 443	10.9
442	Greater than 40.0% of mass 198	74.2
443	17.0 - 23.0% of mass 442	13.9 (18.7)2

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	STD_22658	T2569	05/14/90	1742
02	SSTD160	STD_22659	T2570	05/14/90	1856
03	SSTD120	STD_22660	T2571	05/14/90	1950
04	SSTD080	STD_22661	T2572	05/14/90	2113
05	SSTD020	STD_22662	T2573	05/14/90	2207

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Lab File ID: T2597 DFTPP Injection Date: 05/15/90

Instrument ID: T DFTPP Injection Time: 2240

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	56.7
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	44.9
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	22.0
365	Greater than 1.00% of mass 198	1.95
441	Present, but less than mass 443	7.7
442	Greater than 40.0% of mass 198	50.6
443	17.0 - 23.0% of mass 442	9.5 (18.8)2

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD50	22658	T2598	05/15/90	2257
02	SBLK03	SBLK03	T2606	05/16/90	613
03	4	16909	T2607	05/16/90	0706
04	9	16911	T2608	05/16/90	0758
05	10	16912	T2609	05/16/90	0851

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100012

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP) ORIGINAL (Red)

L. Name: VERSAR INC. Contract: _____

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

Lab File ID: T2623 DFTPP Injection Date: 05/16/90

Instrument ID: T DFTPP Injection Time: 1644

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	59.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	54.1
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	43.2
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	27.4
365	Greater than 1.00% of mass 198	2.42
441	Present, but less than mass 443	9.2
442	Greater than 40.0% of mass 198	58.8
443	17.0 - 23.0% of mass 442	11.4 (19.4)2

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	STD_22658	T2624	05/16/90	1701
02	SSTD160	STD_22659	T2625	05/16/90	1816
03	SSTD120	STD_22739	T2626	05/16/90	1909
04	SSTD080	STD_22661	T2627	05/16/90	2023
05	SSTD020	STD_22662	T2628	05/16/90	2132
06	11	16913	T2629	05/16/90	2228

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

ORIGINAL (Red)

L. Name: VERSAR INC. Contract: _____

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

Lab File ID: T2656 DFTPP Injection Date: 05/18/90

Instrument ID: T DFTPP Injection Time: 1441

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	56.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	59.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	47.7
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 30.0% of mass 198	23.9
365	Greater than 1.00% of mass 198	2.19
441	Present, but less than mass 443	9.8
442	Greater than 40.0% of mass 198	59.5
443	17.0 - 23.0% of mass 442	10.2 (17.2)2

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	STD_22658	T2657	05/18/90	1504
02	SSTD160	STD_22659	T2658	05/18/90	1615
03	SSTD120	STD_22739	T2659	05/18/90	1708
04	SSTD080	STD_22661	T2660	05/18/90	1800
05	SSTD020	STD_22662	T2661	05/18/90	1936

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Lab File ID: T2725 DFTPP Injection Date: 05/23/90

Instrument ID: T DFTPP Injection Time: 1139

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	38.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	42.0
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	40.2
97	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.3
275	10.0 - 30.0% of mass 198	26.7
365	Greater than 1.00% of mass 198	3.06
441	Present, but less than mass 443	11.8
442	Greater than 40.0% of mass 198	62.8
443	17.0 - 23.0% of mass 442	11.8 (18.8)2

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	22784	T2726	05/23/90	1204
02	SBLK00	SBLK00	T2727	05/23/90	1403
03	12	16914	T2729	05/23/90	1546
04	13	16915	T2730	05/23/90	1652
05	14	16916	T2731	05/23/90	1742
06	15	16917	T2732	05/23/90	1832

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Lab File ID: T2766 DFTPP Injection Date: 05/25/90

Instrument ID: T DFTPP Injection Time: 0811

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	59.1
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	47.0
97	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	22.3
365	Greater than 1.00% of mass 198	2.37
441	Present, but less than mass 443	8.1
442	Greater than 40.0% of mass 198	53.8
443	17.0 - 23.0% of mass 442	9.5 (17.6)2

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD50	22686	T2767	05/25/90	848
02	8	16910	T2773	05/25/90	1418

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100016

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

ORIGINAL (Red)

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 04

Lab File ID: Z4712 DFTPP Injection Date: 05/15/90

Instrument ID: Z DFTPP Injection Time: 1120

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	55.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	58.4
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	58.4
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 30.0% of mass 198	21.2
365	Greater than 1.00% of mass 198	2.76
441	Present, but less than mass 443	7.2
442	Greater than 40.0% of mass 198	54.8
443	17.0 - 23.0% of mass 442	9.6 (17.6)2

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	STD_22658	Z4713	05/15/90	1139
02	SSTD160	STD_22659	Z4715	05/15/90	1356
03	SSTD120	STD_22684	Z4716	05/15/90	1456
04	SSTD080	STD_22661	Z4717	05/15/90	1558
05	SSTD020	STD_22662	Z4718	05/15/90	1659

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

ORIGINAL (Red)

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 04

Lab File ID: Z4753 DFTPP Injection Date: 05/18/90

Instrument ID: Z DFTPP Injection Time: 1636

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	58.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	58.4
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	59.6
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	23.8
365	Greater than 1.00% of mass 198	4.29
441	Present, but less than mass 443	9.6
442	Greater than 40.0% of mass 198	61.7
443	17.0 - 23.0% of mass 442	13.6 (22.1)2

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD50	22658	Z4754	05/18/90	1656
02	SBLK62	SBLK62	Z4755	05/18/90	1805
03	GW1	16918	Z4758	05/18/90	2108

Versar INC.

ORIGINAL
(Red)

III. SAMPLE DATA PACKAGE

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW1 ORIGINAL (Red)

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 04

Matrix: (soil/water) WATER Lab Sample ID: 16918

Sample wt/vol: 920 (g/mL) ML Lab File ID: Z4758

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 04/26/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 05/18/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	11	U
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
100-51-6	Benzyl alcohol	11	U
95-50-1	1,2-Dichlorobenzene	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	bis(2-Chloroisopropyl)ether	11	U
106-44-5	4-Methylphenol	11	U
621-64-7	N-Nitroso-di-n-propylamine	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
65-85-0	Benzoic Acid	54	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
91-20-3	Naphthalene	11	U
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
59-50-7	4-Chloro-3-methylphenol	11	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	54	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	54	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	11	U
606-20-2	2,6-Dinitrotoluene	11	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW1 ORIGINAL (Red)

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 04

Matrix: (soil/water) WATER Lab Sample ID: 16918

Sample wt/vol: 920 (g/mL) ML Lab File ID: Z4758

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 04/26/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 05/18/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	54	U
83-32-9	Acenaphthene	11	U
51-28-5	2,4-Dinitrophenol	54	U
100-02-7	4-Nitrophenol	54	U
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	11	U
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	11	U
86-73-7	Fluorene	11	U
100-01-6	4-Nitroaniline	54	U
534-52-1	4,6-Dinitro-2-methylphenol	54	U
86-30-6	N-nitrosodiphenylamine (1)	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	54	U
85-01-8	Phenanthrene	11	U
120-12-7	Anthracene	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	11	U
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	22	U
56-55-3	Benzo(a)anthracene	11	U
218-01-9	Chrysene	11	U
117-81-7	bis(2-Ethylhexyl)phthalate	11	U
117-84-0	Di-n-octyl phthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenz(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GW1 ORIGINAL (Red)

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 04

Matrix: (soil/water) WATER Lab Sample ID: 16918

Sample wt/vol: 920 (g/mL) ML Lab File ID: Z4758

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 04/26/90

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 05/18/90

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

Number TICs found: 0

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

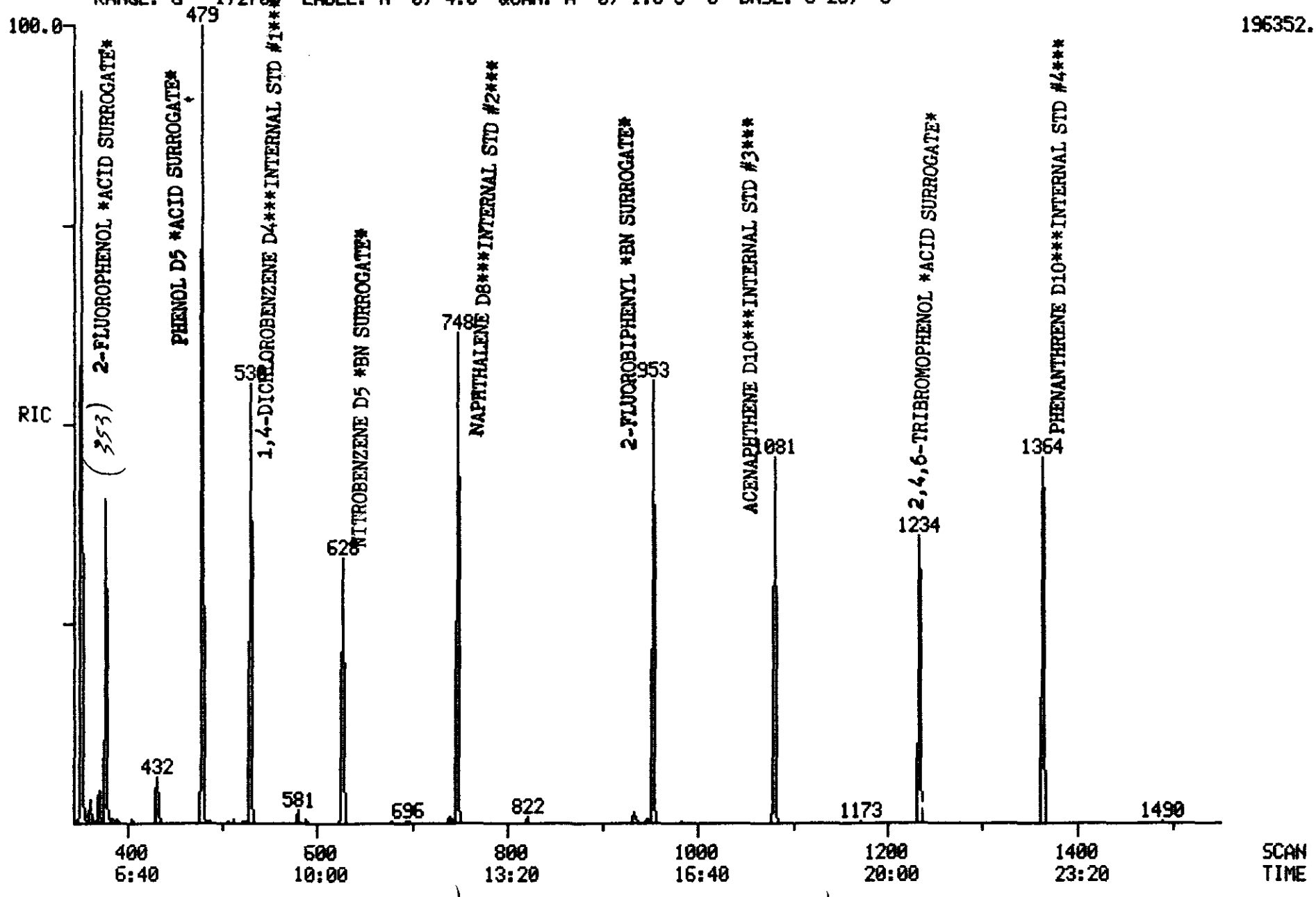
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ORIGINAL (Red)

RIC
05/18/90 21:08:00
SAMPLE: CLP,VERSCDM,2565,GW1RE,L,W,16918RE,B,RE,420.1,4,1UL,
CONDS.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
RANGE: G 1,2700 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: Z4758 #1
CALI: Z4758 #2

SCANS 345 TO 1550



100023

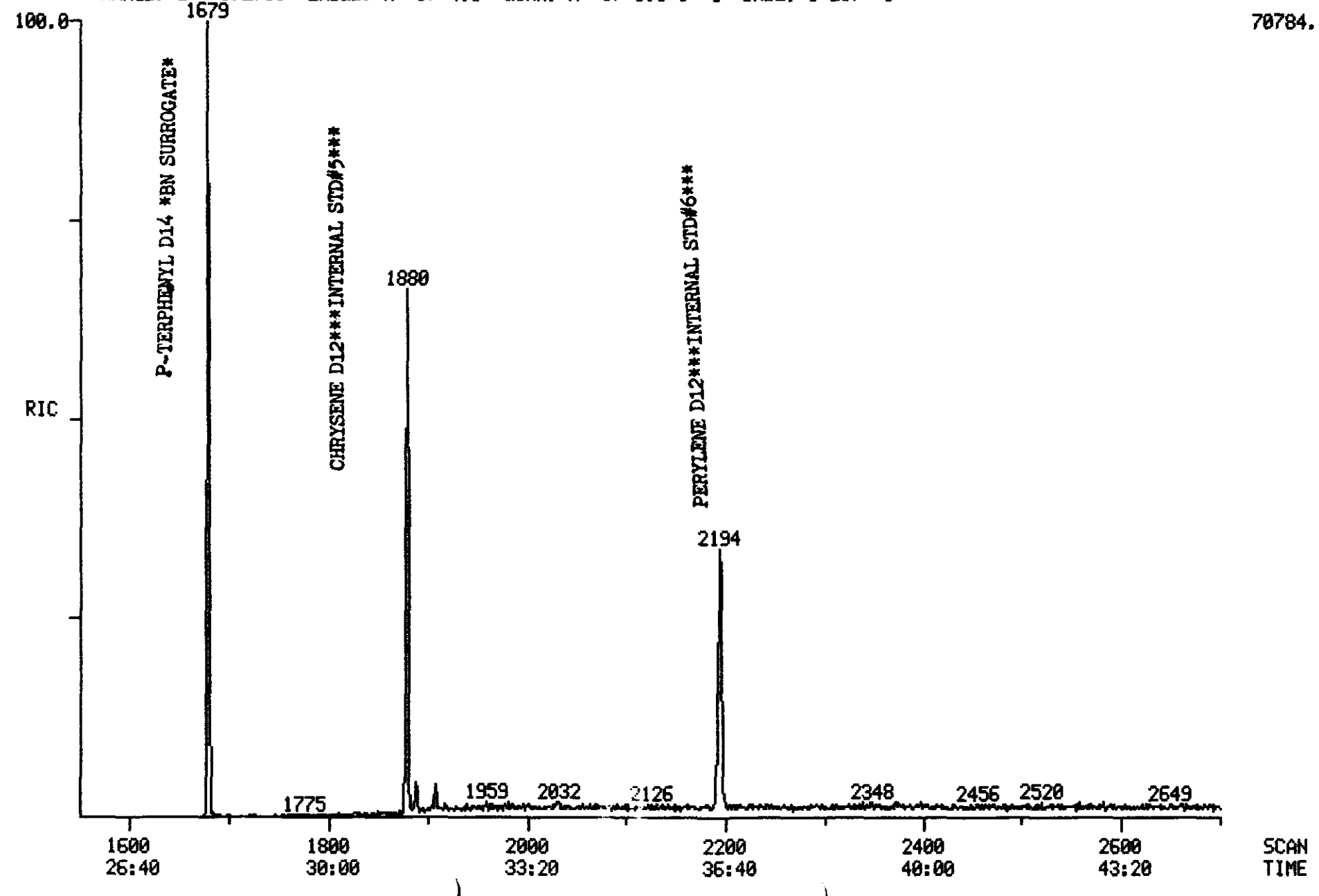
ORIGINAL (Red)

RIC
05/18/90 21:08:00
SAMPLE: CLP,VERSCOM,2565,GW1RE,L,W,16918RE,B,RE,420.1,4,1UL,
CONDS.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
RANGE: G 1,2700 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: Z4758 #1
CALI: Z4758 #2

SCANS 1550 TO 2700

100024



Quantitation Report File: Z4758

ORIGINAL (Red)

Data: Z4758.TI
05/18/90 21:08:00
Sample: CLP,VERSCDM,2565,GW1RE,L,W,16918RE,B,RE,420.1,4,1UL,
Conds.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
Formula: Instrument: Z Weight: 0.012
Submitted by: VERSAR Analyst: BLCK Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI40 NAPHTHALENE-D8**INT. STD.#2**
3	CI50 ACENAPHTHENE-D10**INT. STD.#3**
4	CI60 PHENANTHRENE-D10**INT. STD.#4**
5	CI70 CHRYSENE-D12**INT. STD.#5**
6	CI75 PERYLENE-D12**INT. STD.#6**
7	CS50 2-FLUOROPHENOL**ACID SURR.**
8	CS45 PHENOL-D5**ACID SURR.**
9	CS20 NITROBENZENE-D5**BN SURR.**
10	CS25 2-FLUOROBIPHENYL**BN SURR.**
11	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
12	CS30 P-TERPHENYL-D14**BN SURR.**
13	C330 2-CHLOROPHENOL
14	C315 PHENOL
15	C325 BIS (2-CHLOROETHYL) ETHER
16	C335 1,3-DICHLOROBENZENE
17	C340 1,4-DICHLOROBENZENE
18	C350 1,2-DICHLOROBENZENE
19	C345 BENZYL ALCOHOL
20	C360 BIS (2-CHLOROISOPROPYL) ETHER
21	C355 2-METHYLPHENOL
22	C375 HEXACHLOROETHANE
23	C365 4-METHYLPHENOL
24	C370 N-NITROSO-DI-N-PROPYLAMINE
25	C410 NITROBENZENE
26	C415 ISOPHORONE
27	C420 2-NITROPHENOL
28	C425 2,4-DIMETHYLPHENOL
29	C435 BIS (2-CHLOROETHOXY) METHANE
30	C440 2,4-DICHLOROPHENOL
31	C445 1,2,4-TRICHLOROBENZENE
32	C450 NAPHTHALENE
33	C430 BENZOIC ACID
34	C455 4-CHLOROANILINE
35	C460 HEXACHLOROBUTADIENE
36	C465 4-CHLORO-3-METHYLPHENOL
37	C470 2-METHYLNAPHTHALENE
38	C510 HEXACHLOROCYCLOPENTADIENE
39	C515 2,4,6-TRICHLOROPHENOL
40	C520 2,4,5-TRICHLOROPHENOL
41	C525 2-CHLORONAPHTHALENE
42	C530 2-NITROANILINE
43	C540 ACENAPHTHYLENE
44	C535 DIMETHYL PHTHALATE
45	C544 2,6-DINITROTOLUENE
46	C550 ACENAPHTHENE
47	C545 3-NITROANILINE

Run Compliant
B Kellign 5/18/90

Ready For BNA Form I
- No HSL's Detected
B Kellign 5/18/90

ORIGINAL
(Red)

No	Name
48	C555 2,4-DINITROPHENOL
49	C565 DIBENZOFURAN
50	C560 4-NITROPHENOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	152	530	8:50	1	1.000	A BB	34331.	40.000	NG/UL	6.67
2	136	748	12:28	2	1.000	A BB	92098.	40.000	NG/UL	6.67
3	164	1080	18:00	3	1.000	A BB	51564.	40.000	NG/UL	6.67
4	188	1364	22:44	4	1.000	A BV	86124.	40.000	NG/UL	6.67
5	240	1879	31:19	5	1.000	A BB	45716.	40.000	NG/UL	6.67
6	264	2194	36:34	6	1.000	A BB	33739.	40.000	NG/UL	6.67
7	112	353	5:53	1	0.666	A BB	85825.	83.158	NG*A1	13.87
8	99	479	7:59	1	0.904	A BB	112093.	85.263	NG*A2	14.22
9	82	627	10:27	2	0.838	A BB	50412.	42.947	NG*B1	7.16
10	172	953	15:53	3	0.882	A BB	66836.	37.072	NG*B2	6.18
11	330	1234	20:34	3	1.143	A BB	13709.	57.608	NG*A3	9.61
12	244	1679	27:59	5	0.894	A BB	48858.	51.743	NG*B3	8.63
13	NOT FOUND									
14	94	481	8:01	1	0.908	A BB	269.	~~0.203 NG~~ BDL		0.03
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									

ORIGINAL (Red)

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:51	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:29	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	18:01	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	22:45	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	31:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	36:31	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	5:53	1.00	0.665	1.00	83.16	50.00	2.000	1.202	1.66
8	8:00	1.00	0.904	1.00	85.26	50.00	2.612	1.532	1.71
9	10:29	1.00	0.840	1.00	42.95	50.00	0.438	0.510	0.86
10	15:54	1.00	0.883	1.00	37.07	50.00	1.037	1.399	0.74
11	20:34	1.00	1.142	1.00	57.61	50.00	0.213	0.185	1.15
12	27:59	1.00	0.894	1.00	51.74	50.00	0.855	0.826	1.03
13	8:23		0.947						
14	8:02	1.00	0.908	1.00	0.20	50.00	0.006	1.541	0.00
15	8:17		0.936						
16	8:45		0.989						
17	8:53		1.004						
18	9:23		1.060						
19	9:17		1.049						
20	9:42		1.096						
21	9:36		1.085						
22	10:12		1.153						
23	10:00		1.130						
24	10:07		1.143						
25	10:32		0.844						
26	11:10		0.895						
27	11:26		0.916						
28	11:32		0.924						
29	11:52		0.951						
30	12:05		0.968						
31	12:21		0.989						
32	12:33		1.005						
33	11:51		0.949						
34	12:49		1.027						
35	13:03		1.045						
36	14:16		1.143						
37	14:39		1.174						
38	15:20		0.851						
39	15:38		0.868						
40	15:44		0.873						
41	16:11		0.898						
42	16:42		0.927						
43	17:32		0.973						
44	17:22		0.964						
45	17:37		0.978						
46	18:07		1.006						
47	18:02		1.001						
48	18:20		1.018						
49	18:37		1.033						
50	18:31		1.028						

24758

Guantitation Report File: Z4758

ORIGINAL (Red)

Data: Z4758.TI
05/18/90 21:08:00
Sample: CLP,VERSCDM,2565,GW1~~RE~~,L,W,16918~~RE~~,B,~~RE~~,420.1,4,1UL,
Conds.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
Formula: Instrument: Z Weight: 0.012
Submitted by: VERSAR Analyst: BLCK Acct. No.: 420.1

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

No	Name
51	C570 2,4-DINITROTOLUENE
52	C590 FLUORENE
53	C585 4-CHLOROPHENYL-PHENYLETHER
54	C580 DIETHYLPHTHALATE
55	C595 4-NITROANILINE
56	C610 4,6-DINITRO-2-METHYLPHENOL
57	C615 N-NITROSODIPHENYLAMINE
58	C625 4-BROMOPHENYL-PHENYLETHER
59	C630 HEXACHLOROBENZENE
60	C635 PENTACHLOROPHENOL
61	C640 PHENANTHRENE
62	C645 ANTHRACENE
63	C650 DI-N-BUTYLPHTHALATE
64	C655 FLUORANTHENE
65	C715 PYRENE
66	C720 BUTYLBENZYLPHTHALATE
67	C730 BENZO(A)ANTHRACENE
68	C740 CHRYSENE
69	C725 3,3'-DICHLOROBENZIDINE
70	C741 BIS(2-ETHYLHEXYL)PHTHALATE
71	C760 DI-N-OCTYL PHTHALATE
72	C765 BENZO(B)FLUORANTHENE
73	C770 BENZO(K)FLUORANTHENE
74	C775 BENZO(A)PYRENE
75	C780 INDENO(1,2,3-CD)PYRENE
76	C785 DIBENZ(A,H)ANTHRACENE
77	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								
52	NOT FOUND								
53	NOT FOUND								
54	149	1176	19:36	3	1.089	A BB	185.	~~0.092 NG~~	0.02
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	149	1490	24:50	4	1.092	A BB	778.	~~0.266 NG~~	0.04
64	NOT FOUND								
65	NOT FOUND								
66	NOT FOUND								

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot ORIGINAL (Red)
67	NOT FOUND								
68	NOT FOUND								
69	NOT FOUND								
70	149	1889	31:29	5	1.005	A BB	1666.	~~1.242 NG~~ BRL	0.21
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	18:50		1.045						
52	19:44		1.095						
53	19:45		1.096						
54	19:37	1.00	1.089	1.00	0.09	50.00	0.003	1.559	0.00
55	20:00		1.110						
56	20:06		0.884						
57	20:11		0.887						
58	21:18		0.936						
59	21:44		0.955						
60	22:20		0.982						
61	22:49		1.003						
62	22:58		1.010						
63	24:51	1.00	1.092	1.00	0.27	50.00	0.007	1.357	0.01
64	26:42		1.174						
65	27:26		0.876						
66	29:42		0.948						
67	31:16		0.998						
68	31:24		1.003						
69	31:15		0.998						
70	31:28	1.00	1.005	1.00	1.24	50.00	0.029	1.173	0.02
71	33:21		0.913						
72	34:53		0.955						
73	34:59		0.958						
74	36:16		0.993						
75	42:31		1.164						
76	42:39		1.168						
77	44:21		1.215						

24758

Quantitation Report File: GCREF

ORIGINAL (Red)

Data: Z4758.TI
05/18/90 21:08:00
Sample: CLP,VERSCDM,2565,GW1RE,L,W,16918RE,B,RE,420.1,4,1UL,
Conds.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
Formula: Instrument: Z Weight: 0.012
Submitted by: VERSAR Analyst: BLCK Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI40 NAPHTHALENE-D8**INT. STD.#2**
3	CI50 ACENAPHTHENE-D10**INT. STD.#3**
4	CI60 PHENANTHRENE-D10**INT. STD.#4**
5	CI70 CHRYSENE-D12**INT. STD.#5**
6	CI75 PERYLENE-D12**INT. STD.#6**
7	CS50 2-FLUOROPHENOL**ACID SURR.**
8	CS45 PHENOL-D5**ACID SURR.**
9	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
10	CS20 NITROBENZENE-D5**BN SURR.**
11	CS25 2-FLUOROBIPHENYL**BN SURR.**
12	CS30 P-TERPHENYL-D14**BN SURR.**

5/18/90

Scan	Time	Area(Hght)		Amount		Name
530	8:50	34331.		40.000	NG/UL	CI30 1,4-DICHLOROBENZENE-D4
748	12:28	92098.		40.000	NG/UL	CI40 NAPHTHALENE-D8**INT. ST
1080	18:00	51564.		40.000	NG/UL	CI50 ACENAPHTHENE-D10**INT.
1364	22:44	86124.		40.000	NG/UL	CI60 PHENANTHRENE-D10**INT.
1879	31:19	45716.		40.000	NG/UL	CI70 CHRYSENE-D12**INT. STD
2194	36:34	33739.		40.000	NG/UL	CI75 PERYLENE-D12**INT. STD.
353	5:53	85825.	83	83.158	NG*A1	CS50 2-FLUOROPHENOL**ACID SU
479	7:59	112093.	85	85.263	NG*A2	CS45 PHENOL-D5**ACID SURR.**
1234	20:34	13709.	56	57.608	NG*A3	CS55 2,4,6,-TRIBROMOPHENOL**
627	10:27	50412.	96	42.947	NG*B1	CS20 NITROBENZENE-D5**BN SUR
953	15:53	66836.	74	37.072	NG*B2	CS25 2-FLUOROBIPHENYL**BN SU
1679	27:59	48858.	103	51.743	NG*B3	CS30 P-TERPHENYL-D14**BN SUR

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:51	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:29	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	18:01	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	22:45	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	31:19	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	36:31	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	5:53	1.00	0.665	1.00	83.16	50.00	2.000	1.202	1.66
8	8:00	1.00	0.904	1.00	85.26	50.00	2.612	1.532	1.71
9	20:34	1.00	1.142	1.00	57.61	50.00	0.213	0.185	1.15
10	10:29	1.00	0.840	1.00	42.95	50.00	0.438	0.510	0.86
11	15:54	1.00	0.883	1.00	37.07	50.00	1.037	1.399	0.74
12	27:59	1.00	0.894	1.00	51.74	50.00	0.855	0.826	1.03

Quantitation Report File: ISREF

ORIGINAL (Red)

Data: Z4754.TI
05/18/90 16:56:00
Sample: CLP,,,SSTD50,,,22658,B,CC-050,,,1UL,
Conds.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
Formula: Instrument: Z Weight: 0.012
Submitted by: VERSAR Analyst: BLCK Acct. No.: ___

Data: Z4758.TI
05/18/90 21:08:00
Sample: CLP,VERSCDM,2565,GW1RE,L,W,16918RE,B,RE,420.1,4,1UL,
Conds.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
Formula: Instrument: Z Weight: 0.012
Submitted by: VERSAR Analyst: BLCK Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
3	CI40 NAPHTHALENE-D8**INT. STD.#2**
4	CI40 NAPHTHALENE-D8**INT. STD.#2**
5	CI50 ACENAPHTHENE-D10**INT. STD.#3**
6	CI50 ACENAPHTHENE-D10**INT. STD.#3**
7	CI60 PHENANTHRENE-D10**INT. STD.#4**
8	CI60 PHENANTHRENE-D10**INT. STD.#4**
9	CI70 CHRYSENE-D12**INT. STD.#5**
10	CI70 CHRYSENE-D12**INT. STD.#5**
11	CI75 PERYLENE-D12**INT. STD.#6**
12	CI75 PERYLENE-D12**INT. STD.#6**

5/18/90

Scan	Time	Area(Hght)	Amount		Name
531	8:51	27741.	40.000	NG/UL	CI30 1,4-DICHLOROBENZENE-D4
530	8:50	34331.	49.502	NG/UL	CI30 1,4-DICHLOROBENZENE-D4
749	12:29	88830.	40.000	NG/UL	CI40 NAPHTHALENE-D8**INT. ST
748	12:28	92098.	41.472	NG/UL	CI40 NAPHTHALENE-D8**INT. ST
1081	18:01	51497.	40.000	NG/UL	CI50 ACENAPHTHENE-D10**INT.
1080	18:00	51564.	40.052	NG/UL	CI50 ACENAPHTHENE-D10**INT.
1365	22:45	80288.	40.000	NG/UL	CI60 PHENANTHRENE-D10**INT.
1364	22:44	86124.	42.908	NG/UL	CI60 PHENANTHRENE-D10**INT.
1879	31:19	56834.	40.000	NG/UL	CI70 CHRYSENE-D12**INT. STD
1879	31:19	45716.	22.175	NG/UL	CI70 CHRYSENE-D12**INT. STD
2191	36:31	47100.	40.000	NG/UL	CI75 PERYLENE-D12**INT. STD.
2194	36:34	33739.	28.653	NG/UL	CI75 PERYLENE-D12**INT. STD.

ORIGINAL (Red)

```
        >>>>INTERNAL STANDARD RIC REPORT<<<<
****************************INTERNAL STANDARD#1*****************RIC
Mass List                        Data: Z4758 # 530          Base m/z:   150
05/18/90 21:08:00 + 8:50         Cali: Z4758 #   2          RIC:      91264.
Sample: CLP,VERSCDM,2565,GW1RE,L,W,16918RE,B,RE,420.1,4,1UL,
Conds.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
Enhanced (S 15B 2N OT)

     35        0.00    0.00        0. Minima      Min inten:       0.
     30                        #   0  Maxima
****************************INTERNAL STANDARD#2*****************RIC
Mass List                        Data: Z4758 # 748          Base m/z:   136
05/18/90 21:08:00 + 12:28        Cali: Z4758 #   2          RIC:     102144.
Sample: CLP,VERSCDM,2565,GW1RE,L,W,16918RE,B,RE,420.1,4,1UL,
Conds.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
Enhanced (S 15B 2N OT)

     38        0.00    0.00        0. Minima      Min inten:       0.
     30                        #   0  Maxima
****************************INTERNAL STANDARD#3*****************RIC
Mass List                        Data: Z4758 #1080          Base m/z:   164
05/18/90 21:08:00 + 18:00        Cali: Z4758 #   2          RIC:      80640.
Sample: CLP,VERSCDM,2565,GW1RE,L,W,16918RE,B,RE,420.1,4,1UL,
Conds.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
Enhanced (S 15B 2N OT)

     38        0.00    0.00        0. Minima      Min inten:       0.
     30                        #   0  Maxima
****************************INTERNAL STANDARD#4*****************RIC
Mass List                        Data: Z4758 #1364          Base m/z:   188
05/18/90 21:08:00 + 22:44        Cali: Z4758 #   2          RIC:      83584.
Sample: CLP,VERSCDM,2565,GW1RE,L,W,16918RE,B,RE,420.1,4,1UL,
Conds.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
Enhanced (S 15B 2N OT)

     38        0.00    0.00        0. Minima      Min inten:       0.
     30                        #   0  Maxima
****************************INTERNAL STANDARD#5*****************RIC
Mass List                        Data: Z4758 #1879          Base m/z:   240
05/18/90 21:08:00 + 31:19        Cali: Z4758 #   2          RIC:      44160.
Sample: CLP,VERSCDM,2565,GW1RE,L,W,16918RE,B,RE,420.1,4,1UL,
Conds.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
Enhanced (S 15B 2N OT)

     40        0.00    0.00        0. Minima      Min inten:       0.
     30                        #   0  Maxima
****************************INTERNAL STANDARD#6*****************RIC
Mass List                        Data: Z4758 #2194          Base m/z:   264
05/18/90 21:08:00 + 36:34        Cali: Z4758 #   2          RIC:      22368.
Sample: CLP,VERSCDM,2565,GW1RE,L,W,16918RE,B,RE,420.1,4,1UL,
Conds.: INST. Z:RESTEK RTX-5/30M, 2MIN@5>275@8C/MIN>302@10C/MIN
Enhanced (S 15B 2N OT)

     42        0.00    0.00        0. Minima      Min inten:       0.
     30                        #   0  Maxima
     ANALYST: CHECK BASE M/Z AND RIC AMOUNT TO INSURE NO CONTAMINATION
```

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4 ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16909

Sample wt/vol: 1.0 (g/mL) G Lab File ID: T2607

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

% Moisture: not dec. 14 dec. ____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/16/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 0.98

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	110000	U
83-32-9	Acenaphthene	23000	U
51-28-5	2,4-Dinitrophenol	110000	U
100-02-7	4-Nitrophenol	110000	U
132-64-9	Dibenzofuran	23000	U
121-14-2	2,4-Dinitrotoluene	23000	U
84-66-2	Diethylphthalate	23000	U
7005-72-3	4-Chlorophenyl-phenylether	23000	U
86-73-7	Fluorene	23000	U
100-01-6	4-Nitroaniline	110000	U
534-52-1	4,6-Dinitro-2-methylphenol	110000	U
86-30-6	N-nitrosodiphenylamine (1)	23000	U
101-55-3	4-Bromophenyl-phenylether	23000	U
118-74-1	Hexachlorobenzene	23000	U
87-86-5	Pentachlorophenol	110000	U
85-01-8	Phenanthrene	23000	U
120-12-7	Anthracene	23000	U
84-74-2	Di-n-butylphthalate	23000	U
206-44-0	Fluoranthene	23000	U
129-00-0	Pyrene	23000	U
85-68-7	Butylbenzylphthalate	23000	U
91-94-1	3,3'-Dichlorobenzidine	45000	U
56-55-3	Benzo(a)anthracene	23000	U
218-01-9	Chrysene	23000	U
117-81-7	bis(2-Ethylhexyl)phthalate	23000	U
117-84-0	Di-n-octyl phthalate	23000	U
205-99-2	Benzo(b)fluoranthene	23000	U
207-08-9	Benzo(k)fluoranthene	23000	U
50-32-8	Benzo(a)pyrene	23000	U
193-39-5	Indeno(1,2,3-cd)pyrene	23000	U
53-70-3	Dibenz(a,h)anthracene	23000	U
191-24-2	Benzo(g,h,i)perylene	23000	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4 ORIGINAL (Red)

L. Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16909

Sample wt/vol: 1.0 (g/mL) G Lab File ID: T2607

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

% Moisture: not dec. 14 dec. ____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/16/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 0.98

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	23000	U
111-44-4	bis(2-Chloroethyl)ether	23000	U
95-57-8	2-Chlorophenol	23000	U
541-73-1	1,3-Dichlorobenzene	23000	U
106-46-7	1,4-Dichlorobenzene	23000	U
100-51-6	Benzyl alcohol	23000	U
95-50-1	1,2-Dichlorobenzene	23000	U
95-48-7	2-Methylphenol	23000	U
108-60-1	bis(2-Chloroisopropyl)ether	23000	U
106-44-5	4-Methylphenol	23000	U
621-64-7	N-Nitroso-di-n-propylamine	23000	U
67-72-1	Hexachloroethane	23000	U
98-95-3	Nitrobenzene	23000	U
78-59-1	Isophorone	23000	U
88-75-5	2-Nitrophenol	23000	U
105-67-9	2,4-Dimethylphenol	23000	U
65-85-0	Benzoic Acid	110000	U
111-91-1	bis(2-Chloroethoxy)methane	23000	U
120-83-2	2,4-Dichlorophenol	23000	U
120-82-1	1,2,4-Trichlorobenzene	23000	U
91-20-3	Naphthalene	23000	U
106-47-8	4-Chloroaniline	23000	U
87-68-3	Hexachlorobutadiene	23000	U
59-50-7	4-Chloro-3-methylphenol	23000	U
91-57-6	2-Methylnaphthalene	23000	U
77-47-4	Hexachlorocyclopentadiene	23000	U
88-06-2	2,4,6-Trichlorophenol	23000	U
95-95-4	2,4,5-Trichlorophenol	110000	U
91-58-7	2-Chloronaphthalene	23000	U
88-74-4	2-Nitroaniline	110000	U
131-11-3	Dimethylphthalate	23000	U
208-96-8	Acenaphthylene	23000	U
606-20-2	2,6-Dinitrotoluene	23000	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

4 ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16909

Sample wt/vol: 1.0 (g/mL) G Lab File ID: T2607

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

% Moisture: not dec. 14 dec. ____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/16/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 0.98

Number TICs found: 23

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	16.34	14000	J
2.	UNKNOWN	17.14	9100	J
3.	UNKNOWN HYDROCARBON	17.40	9100	J
4.	UNKNOWN	17.79	14000	J
5.	UNKNOWN HYDROCARBON	18.02	21000	J
6.	UNKNOWN HYDROCARBON	21.25	71000	J
7.	UNKNOWN HYDROCARBON	22.75	75000	J
8.	UNKNOWN HYDROCARBON	24.00	48000	J
9. 57-10-3	HEXADECANOIC ACID	24.90	91000	J
10.	UNKNOWN HYDROCARBON	26.59	43000	J
11.	UNKNOWN	28.24	110000	J
12.	UNKNOWN HYDROCARBON	29.19	41000	J
13.	UNKNOWN HYDROCARBON	31.16	110000	J
14.	UNKNOWN	32.41	25000	J
15.	UNKNOWN	33.39	36000	J
16.	UNKNOWN	34.14	34000	J
17.	UNKNOWN	35.66	62000	J
18.	UNKNOWN HYDROCARBON	36.46	77000	J
19.	UNKNOWN HYDROCARBON	37.11	62000	J
20.	UNKNOWN HYDROCARBON	39.44	98000	J
21.	UNKNOWN	40.51	82000	J
22.	UNKNOWN HYDROCARBON	41.27	120000	J
23.	UNKNOWN HYDROCARBON	43.74	30000	J

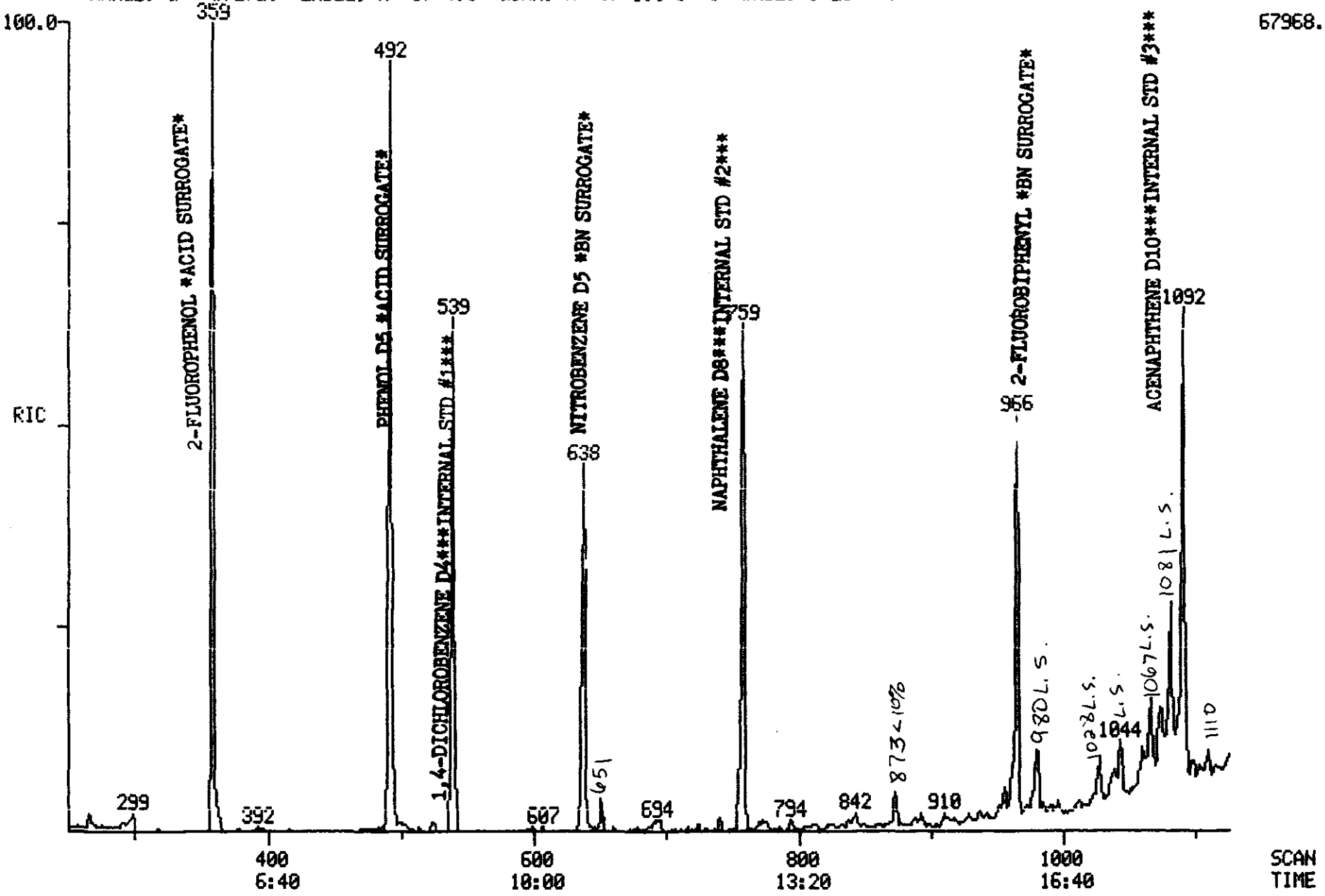
ORIGINAL (Red)

RIC
05/16/90 7:06:00
SAMPLE: CLP,VERSCOM,2565,4,M,S,16909,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
RANGE: G 0,2720 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: T2607 #1
CALI: T2607 #2

SCANS 250 TO 1125

100036

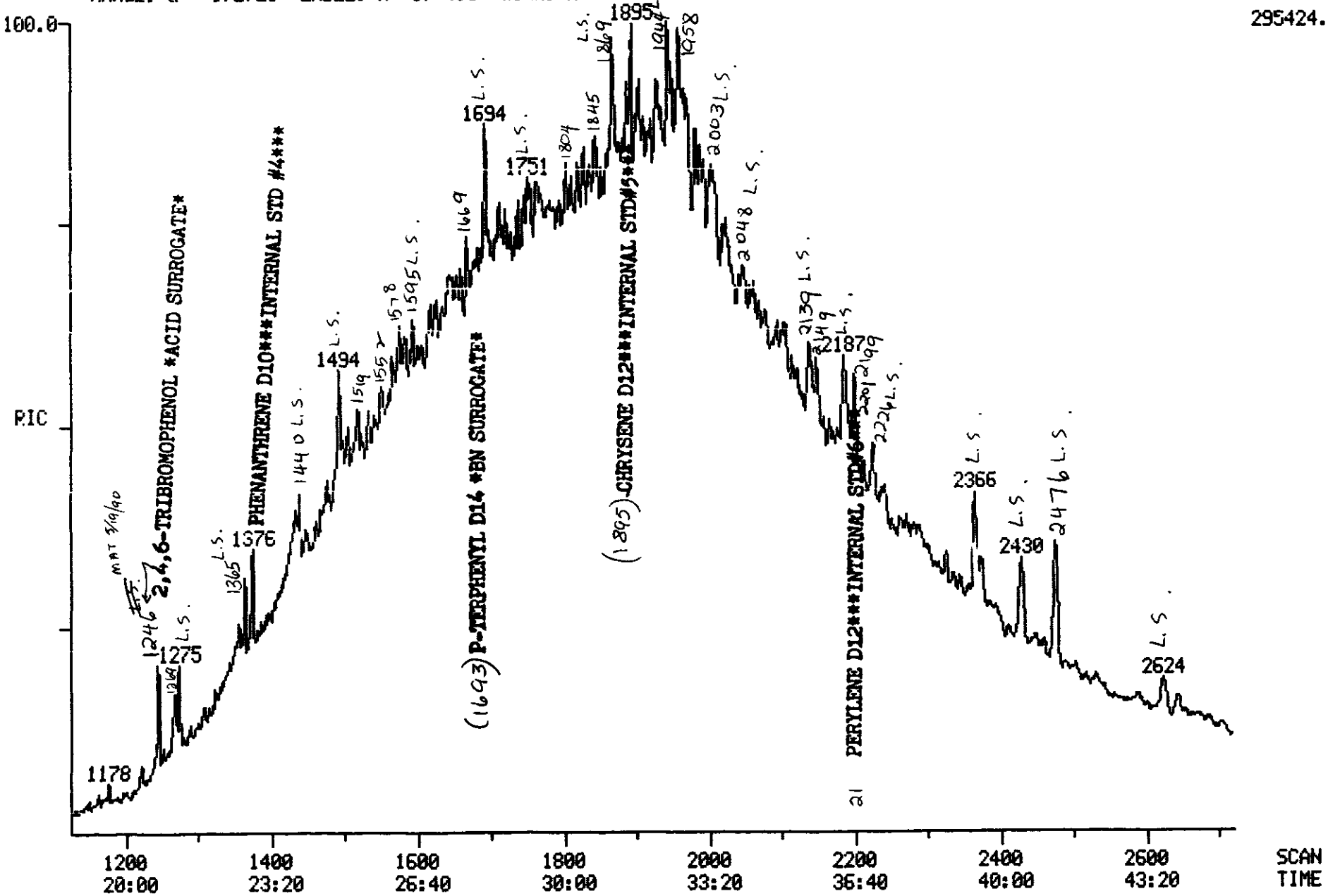


ORIGINAL (Red)

RIC DATA: T2607 #1 SCANS 1125 TO 2720
05/16/90 7:06:00 CALI: T2607 #2
SAMPLE: CLP,VERSCDM,2565,4,M,S,16909,B,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 300@8C/MIN
RANGE: G 1,2720 LABEL: N 0, 4.0 QUAN: A 0, 1,0 J 0 BASE: U 20, 3

295424.

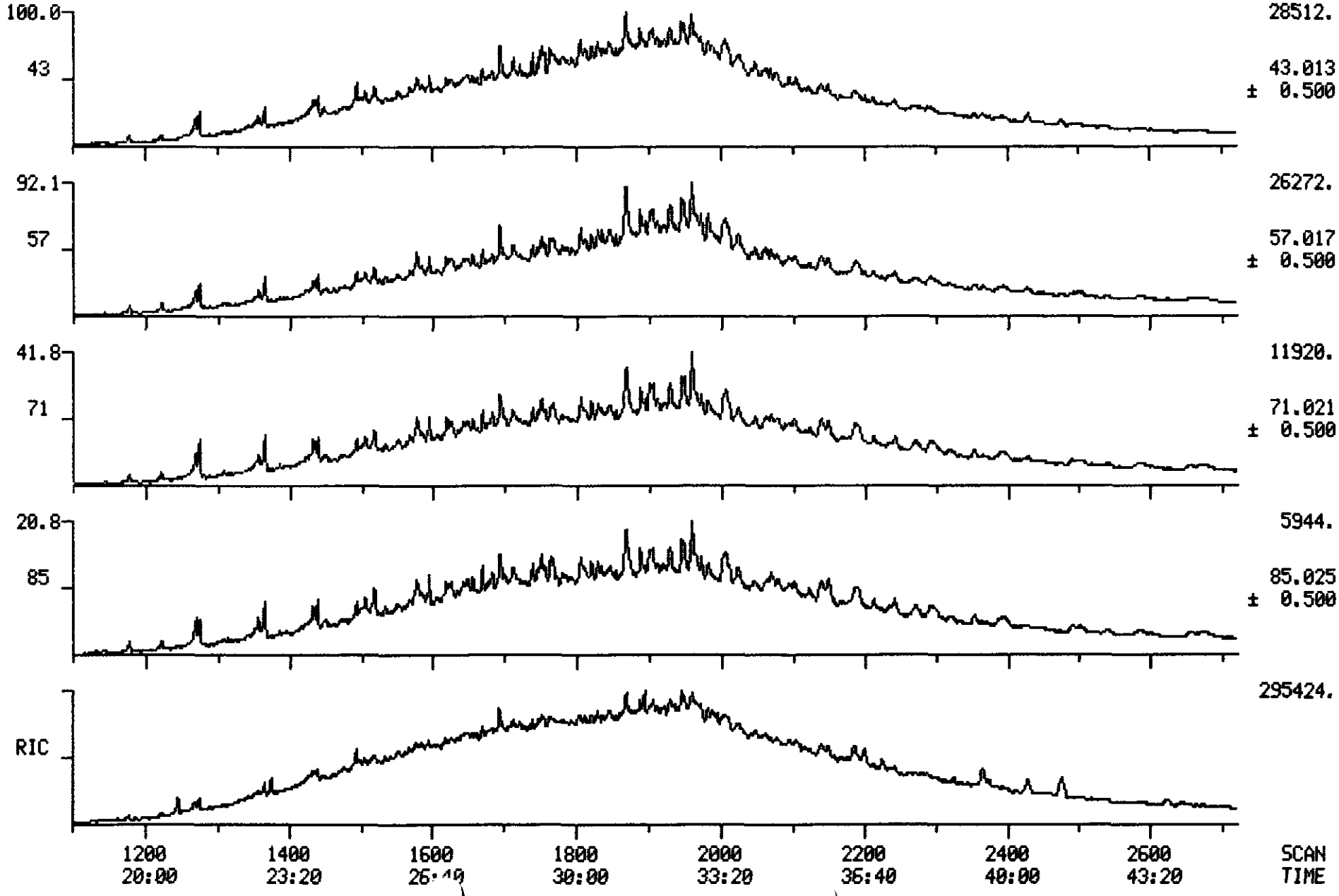
100037



ORIGINAL (Red)

RIC+MASS CHROMATOGRAMS DATA: T2607 #1 SCANS 1100 TO 2720
05/16/90 7:06:00 CALI: T2607 #2
SAMPLE: CLP,VERSCOM,2565,4,M,S,16909,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
RANGE: G 1,3500 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

100038



Quantitation Report File: T2607

ORIGINAL (Red)

Data: T2607.TI
05/16/90 7:06:00
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	C330 2-CHLOROPHENOL
3	C315 PHENOL
4	C325 BIS (2-CHLOROETHYL) ETHER
5	C335 1,3-DICHLOROBENZENE
6	C340 1,4-DICHLOROBENZENE
7	C350 1,2-DICHLOROBENZENE
8	C345 BENZYL ALCOHOL
9	C360 BIS (2-CHLOROISOPROPYL) ETHER
10	C355 2-METHYLPHENOL
11	C375 HEXACHLOROETHANE
12	C365 4-METHYLPHENOL
13	C370 N-NITROSO-DI-N-PROPYLAMINE
14	CS50 2-FLUOROPHENOL**ACID SURR.**
15	CS45 PHENOL-D5**ACID SURR.**
16	CI40 NAPHTHALENE-D8**INT. STD.#2**
17	C410 NITROBENZENE
18	C415 ISOPHORONE
19	C420 2-NITROPHENOL
20	C425 2,4-DIMETHYLPHENOL
21	C435 BIS (2-CHLOROETHOXY) METHANE
22	C440 2,4-DICHLOROPHENOL
23	C445 1,2,4-TRICHLOROBENZENE
24	C450 NAPHTHALENE
25	C430 BENZOIC ACID
26	C455 4-CHLOROANILINE
27	C460 HEXACHLOROBUTADIENE
28	C465 4-CHLORO-3-METHYLPHENOL
29	C470 2-METHYLNAPHTHALENE
30	CS20 NITROBENZENE-D5**BN SURR.**
31	CI50 ACENAPHTHENE-D10**INT. STD.#3**
32	C510 HEXACHLOROCYCLOPENTADIENE
33	C515 2,4,6-TRICHLOROPHENOL
34	C520 2,4,5-TRICHLOROPHENOL
35	C525 2-CHLORONAPHTHALENE
36	C530 2-NITROANILINE
37	C540 ACENAPHTHYLENE
38	C535 DIMETHYL PHTHALATE
39	C544 2,6-DINITROTOLUENE
40	C550 ACENAPHTHENE
41	C545 3-NITROANILINE
42	C555 2,4-DINITROPHENOL
43	C565 DIBENZOFURAN
44	C560 4-NITROPHENOL
45	C570 2,4-DINITROTOLUENE
46	C590 FLUORENE
47	C585 4-CHLOROPHENYL-PHENYLETHER

All IS areas + surrogate recoveries are compliant. SJL

23 LS. DONE 5-16-90.
No HSL's Detected
M.A. Templeton
5-19-90

100039

T26007

ORIGINAL (Red)

No	Name
48	C580 DIETHYLPHTHALATE
49	C595 4-NITROANILINE
50	C610 4,6-DINITRO-2-METHYLPHENOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	539	8:59	1	1.000	A BB	9829.	40.000 NG/UL	7.51
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	112	359	5:59	1	0.666	A BB	21242.	70.933 NG*A1	13.31
15	99	492	8:12	1	0.913	A BB	28292.	63.606 NG*A2	11.94
16	136	759	12:39	16	1.000	A BB	31661.	40.000 NG/UL	7.51
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	82	638	10:38	16	0.841	A BB	21037.	32.763 NG*B1	6.15
31	164	1092	18:12	31	1.000	A BB	26974.	40.000 NG/UL	7.51
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								

T2607

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	8:59	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	8:31		0.948						
3	8:14		0.917						
4	8:27		0.941						
5	8:52		0.987						
6	9:01		1.004						
7	9:32		1.061						
8	9:28		1.054						
9	9:54		1.102						
10	9:49		1.093						
11	10:20		1.150						
12	10:14		1.139						
13	10:18		1.147						
14	5:58	1.00	0.664	1.00	70.93	50.00	1.729	1.219	1.42
15	8:12	1.00	0.913	1.00	63.61	50.00	2.303	1.810	1.27
16	12:39	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
17	10:42		0.846						
18	11:21		0.897						
19	11:36		0.917						
20	11:46		0.930						
21	12:05		0.955						
22	12:17		0.971						
23	12:32		0.991						
24	12:42		1.004						
25	12:08		0.959						
26	13:01		1.029						
27	13:15		1.047						
28	14:32		1.149						
29	14:50		1.173						
30	10:38	1.00	0.841	1.00	32.76	50.00	0.532	0.811	0.66
31	18:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
32	15:32		0.853						
33	15:51		0.871						
34	15:57		0.876						
35	16:22		0.899						
36	16:54		0.929						
37	17:43		0.973						
38	17:37		0.968						
39	17:51		0.981						
40	18:19		1.006						
41	18:15		1.003						
42	18:33		1.019						
43	18:49		1.034						
44	18:49		1.034						
45	19:04		1.048						
46	19:55		1.094						
47	19:58		1.097						
48	19:53		1.092						
49	20:15		1.113						
50	20:20		1.117						

ORIGINAL
(Red)

Quantitation Report File: T2607

ORIGINAL (Red)

Data: T2607.TI
05/16/90 7:06:00
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

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

No	Name
51	C615 N-NITROSODIPHENYLAMINE
52	C625 4-BROMOPHENYL-PHENYLETHER
53	C630 HEXACHLOROBENZENE
54	CS25 2-FLUOROBIPHENYL**BN SURR.**
55	CI60 PHENANTHRENE-D10**INT. STD.#4**
56	C635 PENTACHLOROPHENOL
57	C640 PHENANTHRENE
58	C645 ANTHRACENE
59	C650 DI-N-BUTYLPHTHALATE
60	C655 FLUORANTHENE
61	C715 PYRENE
62	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
63	CI70 CHRYSENE-D12**INT. STD.#5**
64	C720 BUTYLBENZYLPHTHALATE
65	C730 BENZO(A)ANTHRACENE
66	C740 CHRYSENE
67	C725 3,3'-DICHLOROBENZIDINE
68	C741 BIS(2-ETHYLHEXYL)PHTHALATE
69	CS30 P-TERPHENYL-D14**BN SURR.**
70	CI75 PERYLENE-D12**INT. STD.#6**
71	C760 DI-N-OCTYL PHTHALATE
72	C765 BENZO(B)FLUORANTHENE
73	C770 BENZO(K)FLUORANTHENE
74	C775 BENZO(A)PYRENE
75	C780 INDENO(1,2,3-CD)PYRENE
76	C785 DIBENZ(A,H)ANTHRACENE
77	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	169	1224	20:24	31	1.121	A BB	513.	BRL ~~0.667 NG~~	0.13
52	NOT FOUND								
53	NOT FOUND								
54	172	966	16:06	31	0.885	A BB	27594.	31.617 NG*B2	5.93
55	188	1376	22:56	55	1.000	A BB	47501.	40.000 NG/UL	7.51
56	NOT FOUND								
57	178	1380	23:00	55	1.003	A BB	385.	~~0.298 NG~~	0.06
58	NOT FOUND								
59	149	1507	25:07	55	1.095	A BB	334.	BRL ~~0.186 NG~~	0.03
60	NOT FOUND								
61	202	1657	27:37	63	0.874	A BB	380.	~~0.277 NG~~	0.05
62	330	1246	20:46	31	1.141	A BB	13989.	59.424 NG*A3	11.15
63	240	1895	31:35	63	1.000	A BB	41188.	40.000 NG/UL	7.51
64	149	1799	29:59	63	0.949	A BB	711.	~~0.816 NG~~	0.15
65	228	1891	31:31	63	0.998	A VV	303.	BRL ~~0.283 NG~~	0.05
66	228	1898	31:38	63	1.002	A BB	378.	~~0.460 NG~~	0.09

T2607

ORIGINAL (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
67	NOT FOUND								
68	149	1911	31:51	63	1.008	A BB	2080.	BRL ~~1.724 NG~~	0.32
69	244	1693	28:13	63	0.893	A BB	27717.	29.285 NG*B3	5.50
70	264	2201	36:41	70	1.000	A BB	41990.	40.000 NG/UL	7.51
71	NOT FOUND								
72	NOT FOUND								
73	NOT FOUND								
74	252	2185	36:25	70	0.993	A BB	706.	BRL ~~0.623 NG~~	0.12
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	20:25	1.00	1.122	1.00	0.67	50.00	0.015	1.141	0.01
52	21:32		1.183						
53	21:56		1.205						
54	16:06	1.00	0.885	1.00	31.62	50.00	0.818	1.294	0.63
55	22:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
56	22:33		0.983						
57	23:01	1.00	1.004	1.00	0.30	50.00	0.006	1.089	0.01
58	23:09		1.009						
59	25:08	1.00	1.096	1.00	0.17	50.00	0.006	1.691	0.00
60	26:54		1.173						
61	27:37	1.00	0.875	1.00	0.28	50.00	0.007	1.332	0.01
62	20:47	1.00	1.142	1.00	59.42	50.00	0.415	0.349	1.19
63	31:34	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
64	29:59	1.00	0.950	1.00	0.82	50.00	0.014	0.846	0.02
65	31:31	1.00	0.998	1.00	0.28	50.00	0.006	1.039	0.01
66	31:39	1.00	1.003	1.00	0.46	50.00	0.007	0.799	0.01
67	31:33		0.999						
68	31:50	1.00	1.008	1.00	1.72	50.00	0.040	1.172	0.03
69	28:13	1.00	0.894	1.00	29.29	50.00	0.538	0.919	0.59
70	36:37	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
71	33:41		0.920						
72	35:02		0.957						
73	35:08		0.959						
74	36:22	1.00	0.993	1.00	0.62	50.00	0.013	1.079	0.01
75	42:30		1.161						
76	42:41		1.166						
77	44:19		1.210						

Quantitation Report File: QCREF

Data: T2607.TI
05/16/90 7:06:00
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

ORIGINAL (Red)

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI40 NAPHTHALENE-D8**INT. STD.#2**
3	CI50 ACENAPHTHENE-D10**INT. STD.#3**
4	CI60 PHENANTHRENE-D10**INT. STD.#4**
5	CI70 CHRYSENE-D12**INT. STD.#5**
6	CI75 PERYLENE-D12**INT. STD.#6**
7	CS50 2-FLUOROPHENOL**ACID SURR.**
8	CS45 PHENOL-D5**ACID SURR.**
9	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
10	CS20 NITROBENZENE-D5**BN SURR.**
11	CS25 2-FLUOROBIPHENYL**BN SURR.**
12	CS30 P-TERPHENYL-D14**BN SURR.**

Scan	Time	Area(Hght)	% Rec	Amount		Name
539	8:59	9829.		40.000	NG/UL	CI30 1,4-DICHLOROBENZENE-D4
759	12:39	31661.		40.000	NG/UL	CI40 NAPHTHALENE-D8**INT. ST
1092	18:12	26974.		40.000	NG/UL	CI50 ACENAPHTHENE-D10**INT.
1376	22:56	47501.		40.000	NG/UL	CI60 PHENANTHRENE-D10**INT.
1895	31:35	41188.		40.000	NG/UL	CI70 CHRYSENE-D12**INT. STD.
2201	36:41	41990.		40.000	NG/UL	CI75 PERYLENE-D12**INT. STD.
359	5:59	21242.	71	70.933	NG*A1	CS50 2-FLUOROPHENOL**ACID SU
492	8:12	28292.	64	63.606	NG*A2	CS45 PHENOL-D5**ACID SURR.**
1246	20:46	13989.	59	59.424	NG*A3	CS55 2,4,6,-TRIBROMOPHENOL**
638	10:38	21037.	66	32.763	NG*B1	CS20 NITROBENZENE-D5**BN SUR
966	16:06	27594.	63	31.617	NG*B2	CS25 2-FLUOROBIPHENYL**BN SU
1693	28:13	27717.	59	29.285	NG*B3	CS30 P-TERPHENYL-D14**BN SUR

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:59	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:39	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	18:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	22:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	31:34	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	36:37	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	5:58	1.00	0.664	1.00	70.93	50.00	1.729	1.219	1.42
8	8:12	1.00	0.913	1.00	63.61	50.00	2.303	1.810	1.27
9	20:47	1.00	1.142	1.00	59.42	50.00	0.415	0.349	1.19
10	10:38	1.00	0.841	1.00	32.76	50.00	0.532	0.811	0.66
11	16:06	1.00	0.885	1.00	31.62	50.00	0.818	1.294	0.63
12	28:13	1.00	0.894	1.00	29.29	50.00	0.538	0.919	0.59

Quantitation Report File: ISREF

ORIGINAL (Red)

Data: T2598.TI
05/15/90 22:57:00
Sample: CLP,,,SSTD50,,,22658,B,CC50,,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.003
Submitted by: VERSAR Analyst: TS Acct. No.: ---

Data: T2607.TI
05/16/90 7:06:00
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
3	CI40 NAPHTHALENE-D8**INT. STD.#2**
4	CI40 NAPHTHALENE-D8**INT. STD.#2**
5	CI50 ACENAPHTHENE-D10**INT. STD.#3**
6	CI50 ACENAPHTHENE-D10**INT. STD.#3**
7	CI60 PHENANTHRENE-D10**INT. STD.#4**
8	CI60 PHENANTHRENE-D10**INT. STD.#4**
9	CI70 CHRYSENE-D12**INT. STD.#5**
10	CI70 CHRYSENE-D12**INT. STD.#5**
11	CI75 PERYLENE-D12**INT. STD.#6**
12	CI75 PERYLENE-D12**INT. STD.#6**

Scan	Time	Area(Hght)	Amount	Name
539	8:59	8002.	40.000 NG/UL	CI30 1,4-DICHLOROBENZENE-D4
539	8:59	9829.	49.133 NG/UL	CI30 1,4-DICHLOROBENZENE-D4
759	12:39	27483.	40.000 NG/UL	CI40 NAPHTHALENE-D8**INT. ST
759	12:39	31661.	46.081 NG/UL	CI40 NAPHTHALENE-D8**INT. ST
1092	18:12	21537.	40.000 NG/UL	CI50 ACENAPHTHENE-D10**INT.
1092	18:12	26974.	50.098 NG/UL	CI50 ACENAPHTHENE-D10**INT.
1376	22:56	48429.	40.000 NG/UL	CI60 PHENANTHRENE-D10**INT.
1376	22:56	47501.	39.233 NG/UL	CI60 PHENANTHRENE-D10**INT.
1894	31:34	47266.	40.000 NG/UL	CI70 CHRYSENE-D12**INT. STD
1895	31:35	41188.	34.857 NG/UL	CI70 CHRYSENE-D12**INT. STD.
2197	36:37	39233.	40.000 NG/UL	CI75 PERYLENE-D12**INT. STD.
2201	36:41	41990.	42.811 NG/UL	CI75 PERYLENE-D12**INT. STD.

Library Search Data: T2607 # 980 Base m/z: 43
05/16/90 7:06:00 + 16:20 Cali: T2607 # 2 RIC: 4599

ORIGINAL

Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNR searched for maximum PURITY
169 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	9069	1-HEPTANOL, 2-PROPYL-
2	9070	1-OCTANOL, 2,7-DIMETHYL-
3	4129	PENTANE, 2,2,3,4-TETRAMETHYL-
4	14256	1-DECANOL, 2-ETHYL-
5	11940	HYDROXYLAMINE, O-DECYL-

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C10.H22.O	158	43	832	877	929
2	C10.H22.O	158	43	823	862	874
3	C9.H20	128	57	805	879	824
4	C12.H26.O	186	57	801	844	914
5	C10.H23.O.N	173	43	800	843	935

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	—	—	—	—	10042-59-8
2	—	—	—	—	15250-22-3
3	—	—	—	—	1186-53-4
4	—	—	—	—	21078-65-9
5	—	—	—	—	29812-79-1

✓

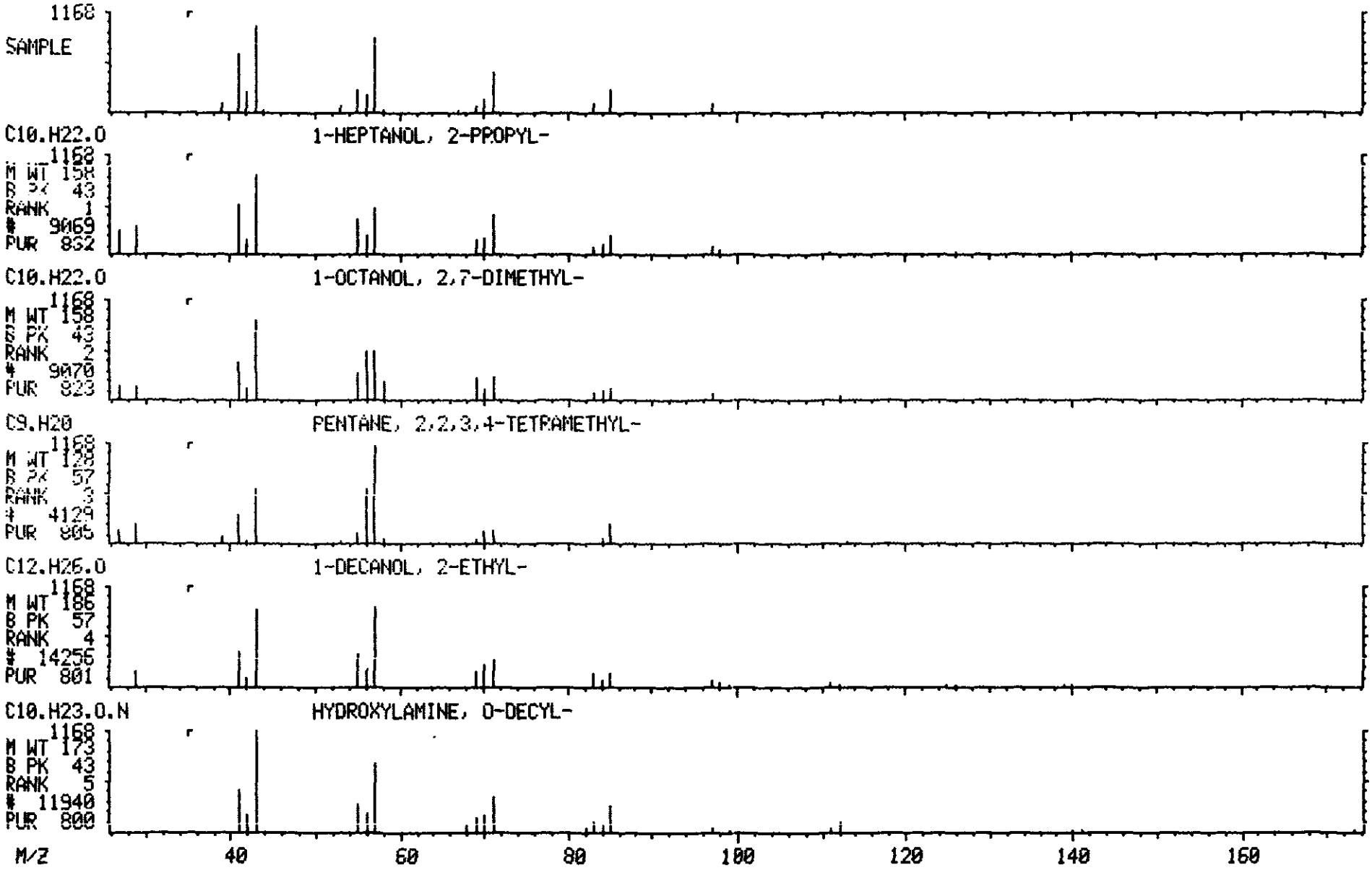
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 16:20
SAMPLE: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 # 980
CALI: T2607 # 2

BASE M/Z: 43
RIC: 4599.

100047



Library Search Data: T2607 #1028 Base m/z: 41
05/16/90 7:06:00 + 17:08 Cali: T2607 # 2 RIC: 3487.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
118 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	7826	SPIRO[BICYCLO[3.1.1]HEPTANE-2,2'-OXIRANE], 6,6-DIMETHYL-
2	7819	BICYCLO[3.1.1]HEPTANE-2 CARBOXALDEHYDE, 6,6-DIMETHYL-
3	19982	3-HEXADECYNE
4	10614	3-DODECYNE
5	7890	1,4-UNDECADIENE, (Z)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C10.H16.O	152	41	548	938	562
2	C10.H16.O	152	41	504	913	521
3	C16.H30	222	67	499	672	545
4	C12.H22	166	67	491	883	508
5	C11.H20	152	41	471	908	478

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	6931-54-0
2	—	—	—	—	4764-14-1
3	—	—	—	—	61886-62-2
4	—	—	—	—	6790-27-8
5	—	—	—	—	55976-14-2

✓

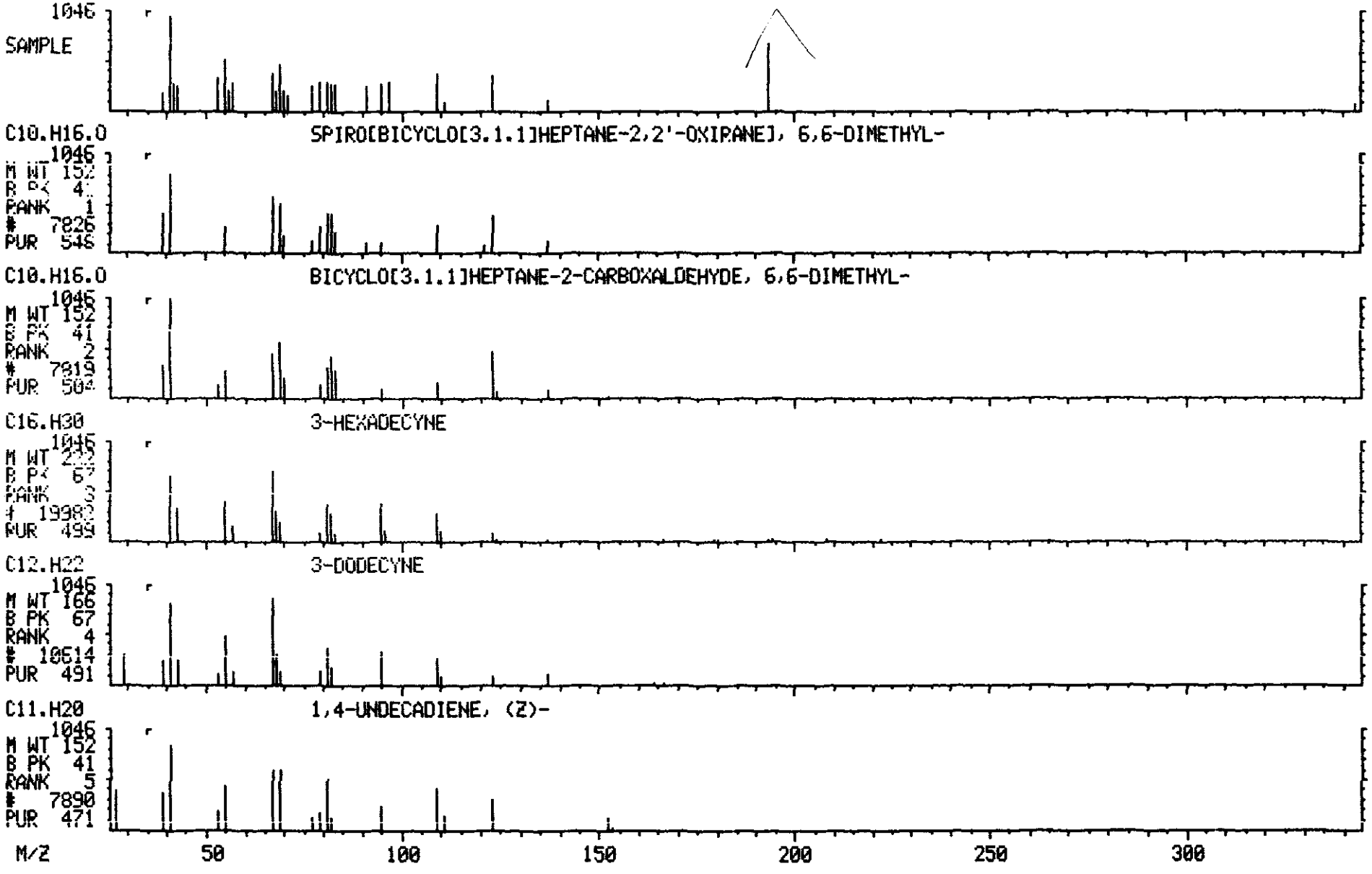
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 17:08
SAMPLE: CLP,VEPSCDM,2565,4,M,S,16909,6,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #1028
CALI: T2607 # 2

BASE M/Z: 41
RIC: 3487.

100049



Library Search Data: T2607 #1044 Base m/z: 43
05/16/90 7:06:00 + 17:24 Cali: T2607 # 2 RIC: 3559.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
88 matched at least 8 of the 16 largest peaks in the unknown
HYD

Rank	In.	Name
1	4119	HEXANE, 2,3,4-TRIMETHYL-
2	6097	OCTANE, 3,5-DIMETHYL-
3	4134	OCTANE, 4-METHYL-
4	13882	UNDECANE, 4,7-DIMETHYL-
5	9069	1-HEPTANOL, 2-PROPYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C9.H20	128	43	832	949	841
2	C10.H22	142	57	819	917	839
3	C9.H20	128	43	807	904	833
4	C13.H28	184	43	796	905	863
5	C10.H22.O	158	43	794	868	867

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	921-47-1
2	—	—	—	—	15869-93-9
3	—	—	—	—	2216-34-4
4	—	—	—	—	17301-32-5
5	—	—	—	—	10042-59-8

✓

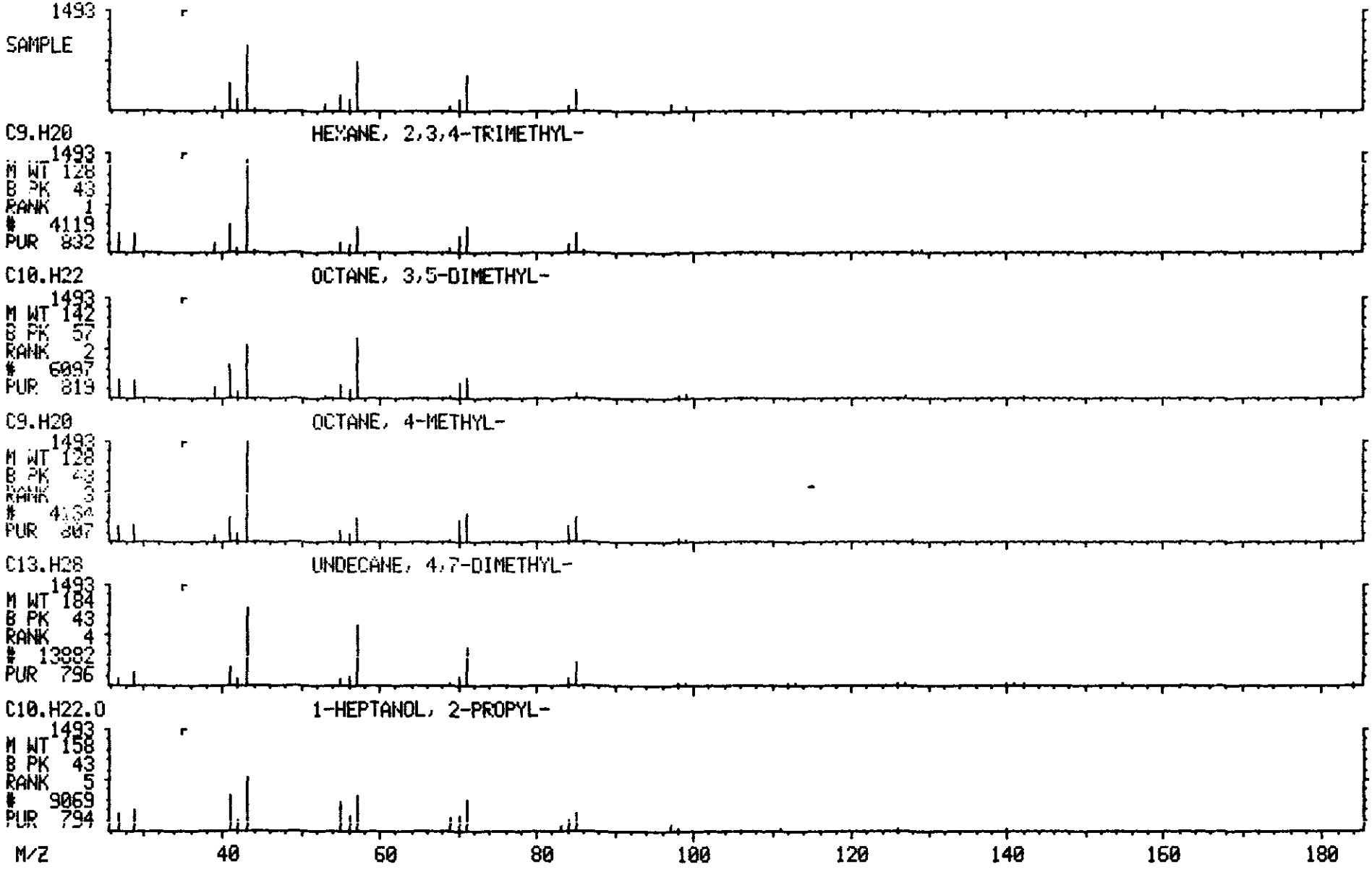
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:05:00 + 17:24
SAMPLE: CLP,VERSCOM,2565,4,M,S,16909,P,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #1044
CALI: T2607 # 2

BASE M/Z: 43
RIC: 3559.

100051



Library Search Data: T2607 #1067 Base m/z: 41 ORIGINAL
05/16/90 7:06:00 + 17:47 Cali: T2607 # 2 RIC: 4839. (Red)
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
222 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	17876	1H-INDENE, OCTAHYDRO-2,2,4,4,7,7-HEXAMETHYL-, TRANS-
2	23711	5-OCTADECYNE
3	13154	1,12-TRIDECADIENE
4	19982	3-HEXADECYNE
5	27116	9,12-OCTADECADIENOIC ACID (Z,Z)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C15.H28	208	41	620	871	620
2	C18.H34	250	81	573	776	623
3	C13.H24	180	55	550	892	572
4	C16.H30	222	67	549	771	572
5	C18.H32.O2	280	55	547	898	586

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	54832-83-6
2	—	—	—	—	71899-42-8
3	—	—	—	—	21964-48-7
4	—	—	—	—	61886-62-2
5	—	—	—	—	60-33-3

✓

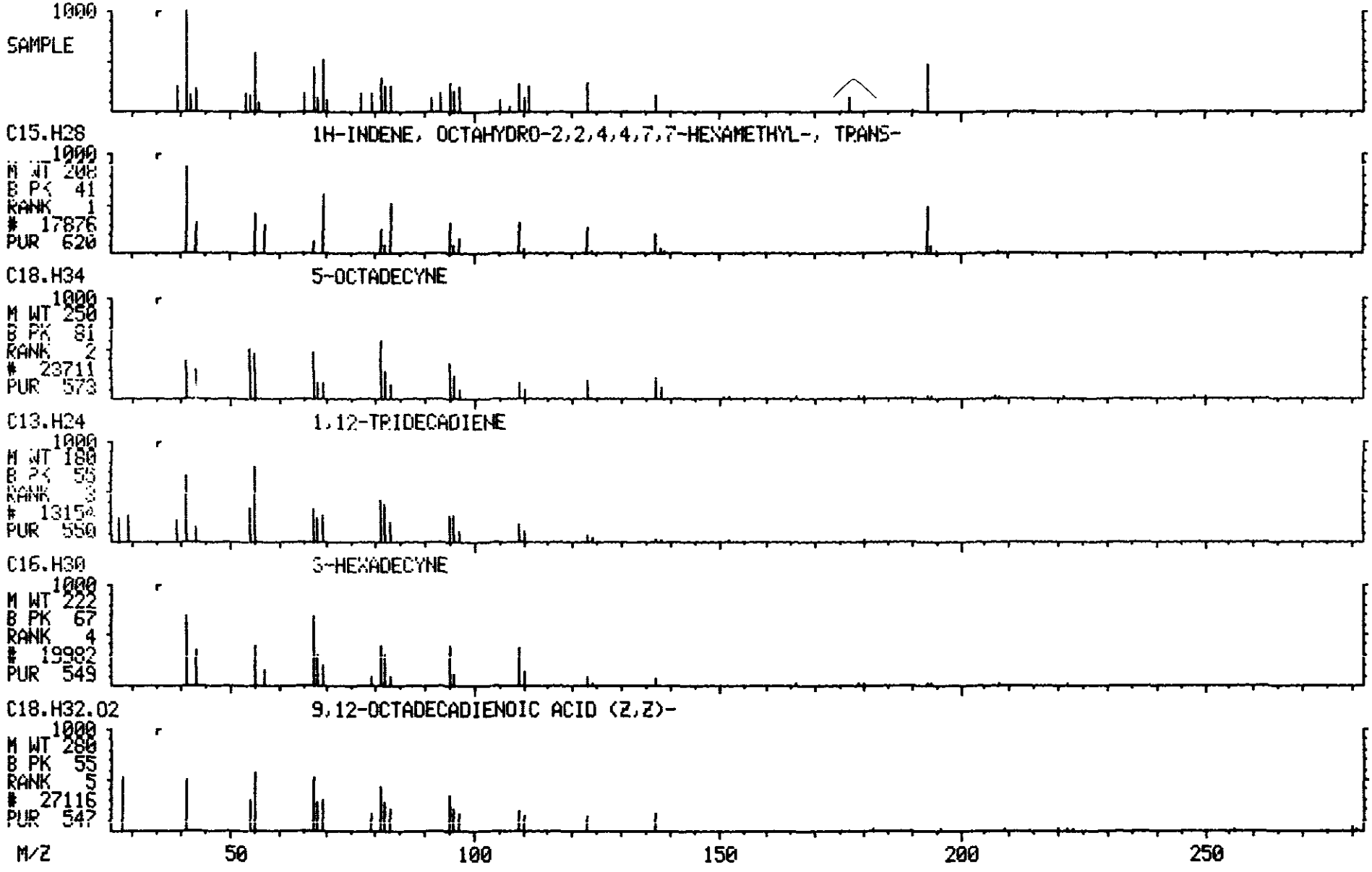
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 17:47
SAMPLE: CLP,VERSCOM,2565,4,M,S,16909,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15@ 2N 0T)

DATA: T2607 #1067
CALI: T2607 # 2

BASE M/Z: 41
RIC: 4639.

100053



Library Search Data: T2607 #1081 Base m/z: 43 ORIGINAL (Red)
05/16/90 7:06:00 + 18:01 Cali: T2607 # 2 RIC: 7697.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
63 matched at least 8 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	8733	OCTANE, 2,4,6-TRIMETHYL-
2	13913	DECANE, 2,5,6-TRIMETHYL-
3	6078	OCTANE, 2,7-DIMETHYL-
4	13912	DECANE, 2,5,9-TRIMETHYL-
5	13882	UNDECANE, 4,7-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C11.H24	156	57	867	937	879
2	C13.H28	184	57	862	903	875
3	C10.H22	142	43	849	923	887
4	C13.H28	184	57	846	907	869
5	C13.H28	184	43	843	905	907

Rank	Ret.Time	B.P.Int.	US Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	62016-37-9
2	—	—	—	—	62108-23-0
3	—	—	—	—	1072-16-8
4	—	—	—	—	62108-22-9
5	—	—	—	—	17301-32-5

✓

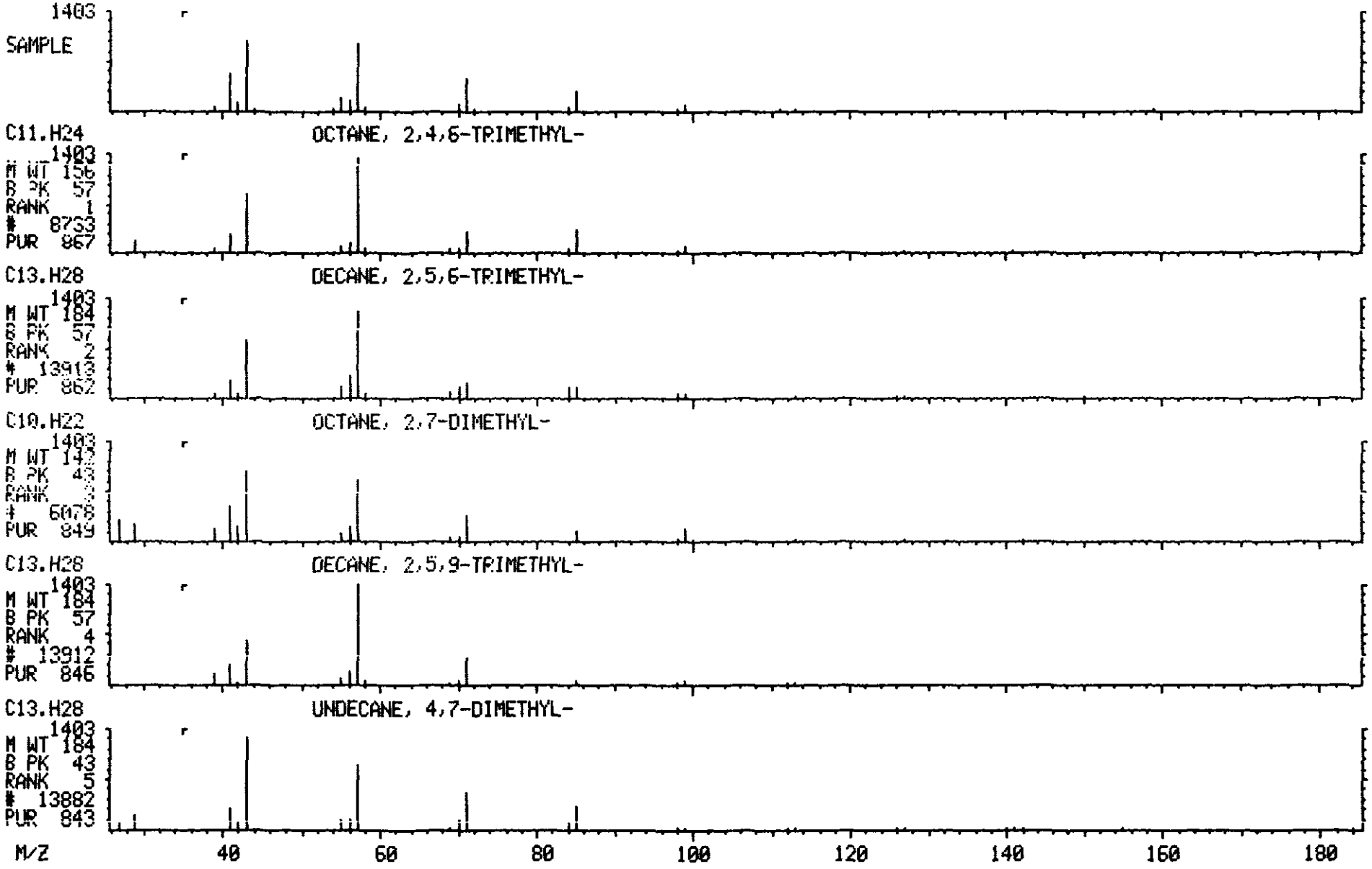
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 18:01
SAMPLE: CLP,VERSCOM,2565,4,M,5,16909,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN038C TO 302C8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #1081
CALI: T2607 # 2

BASE M/Z: 43
RIC: 7687.

100055



ORIGINAL (Red)

Library Search Data: T2607 #1275 Base m/z: 43
05/16/90 7:06:00 + 21:15 Cali: T2607 # 2 RIC: 22783.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
74 matched at least 8 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	25863	HEPTADECANE, 2,6-DIMETHYL-
2	25856	PENTADECANE, 2,6,10,14-TETRAMETHYL-
3	20637	TRIDECANE, 5-PROPYL-
4	18533	DODECANE, 2,6,10-TRIMETHYL-
5	16280	TRIDECANE, 7-METHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C19.H40	268	57	801	953	816
2	C19.H40	268	57	779	964	800
3	C16.H34	226	57	764	949	785
4	C15.H32	212	57	763	929	803
5	C14.H30	198	57	758	911	782

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	54105-67-8
2	—	—	—	—	1921-70-6
3	—	—	—	—	55045-11-9
4	—	—	—	—	3891-98-3
5	—	—	—	—	26730-14-3

✓

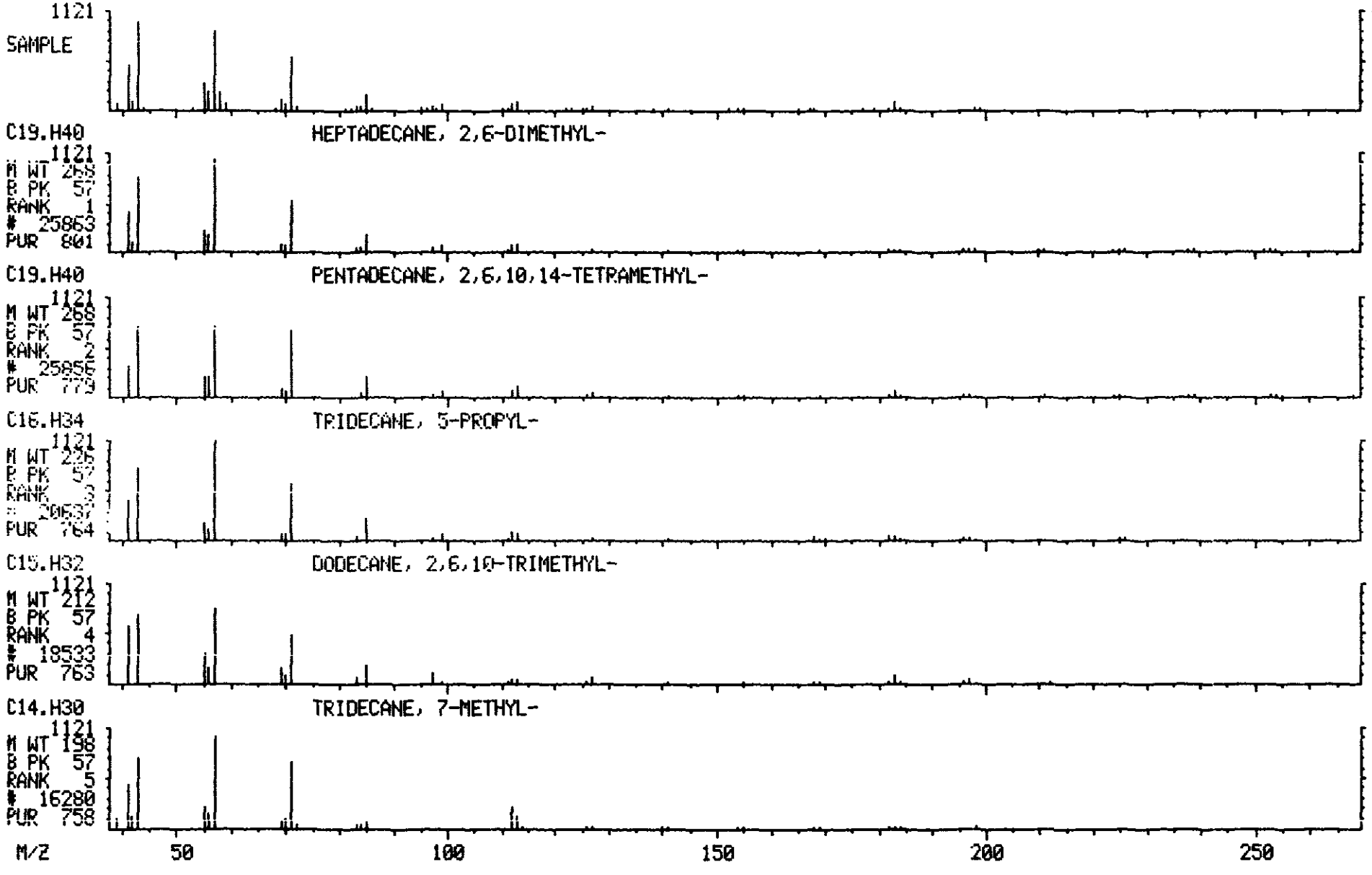
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 21:15
SAMPLE. CLP,VERSCOM,2565,4,M,S,16909,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #1275
CALI: T2607 # 2

BASE M/Z: 43
RIC: 22763.

100057



Library Search Data: T2607 #1365 Base m/z: 57 ORIGINAL (Red)
05/16/90 7:06:00 + 22:45 Cali: T2607 # 2 RIC: 24223.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
376 matched at least 7 of the 16 largest peaks in the unknown
HYD

Rank	In.	Name
1	25863	HEPTADECANE, 2,6-DIMETHYL-
2	20624	HEXADECANE
3	22453	HEPTADECANE
4	36165	IRON, TRICARBONYL[N (PHENYL-2 PYRIDINYLMETHYLENE)BENZENAMINE-N,N']-
5	25856	PENTADECANE, 2,6,10,14-TETRAMETHYL-

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C19.H40	268	57	781	940	801
2	C16.H34	226	57	779	951	803
3	C17.H36	240	57	776	926	828
4	C21.H14.O3.N2.FE	398	57	773	915	827
5	C19.H40	268	71	771	939	783

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	—	—	—	—	54105-67-8
2	—	—	—	—	544-76-3
3	—	—	—	—	629-78-7
4	—	—	—	—	74764-11-7
5	—	—	—	—	1921-70-6

✓

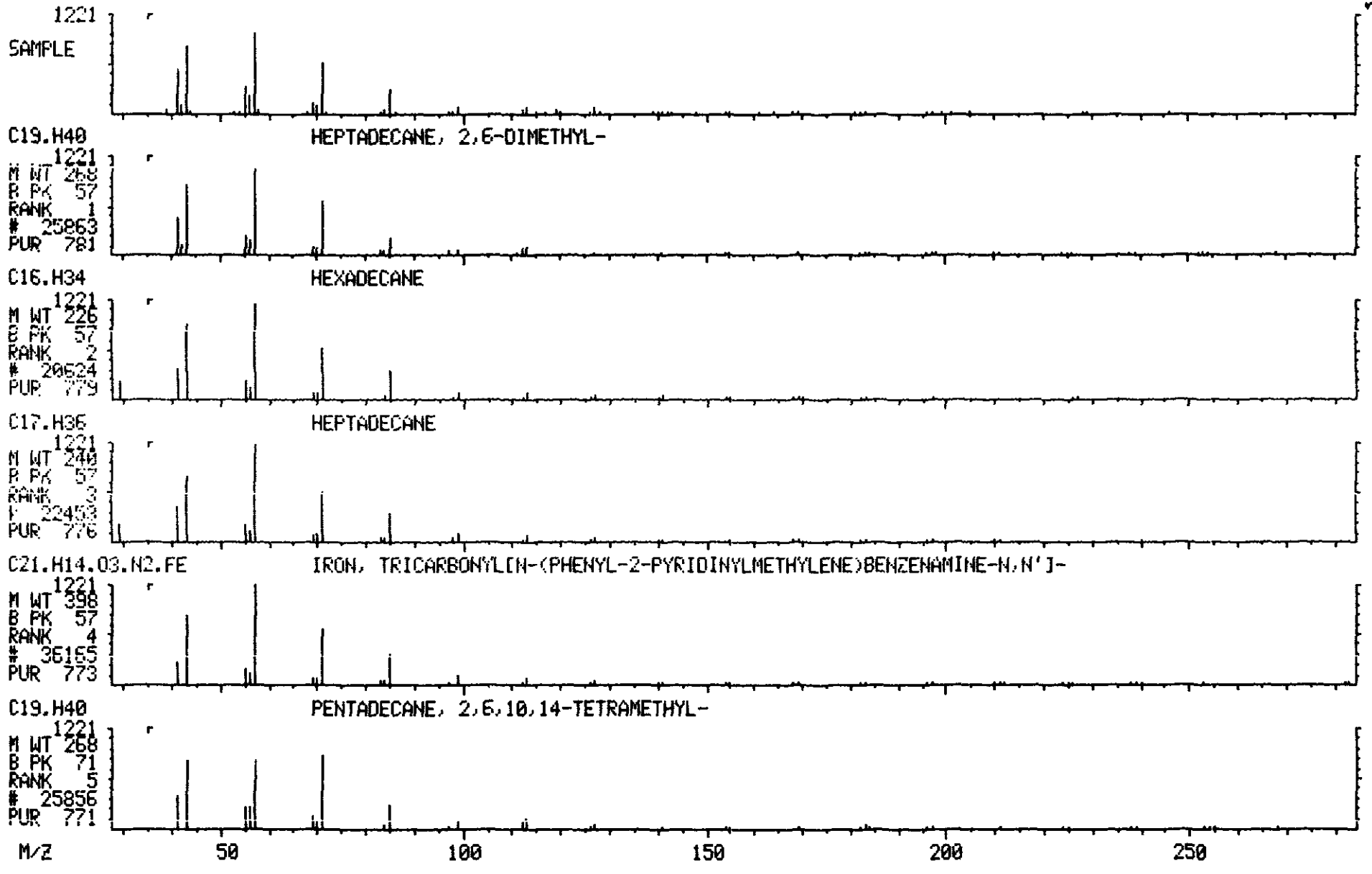
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 22:45
SAMPLE: CLP,VERSCOM,2565,4,M,S,16909,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N OT)

DATA: T2607 #1365
CALI: T2607 # 2

BASE M/Z: 57
RIC: 24223.

100059



ORIGINAL (Red)

Library Search Data: T2607 #1440 Base m/z: 43
05/16/90 7:06:00 + 24:00 Cali: T2607 # 2 RIC: 15567.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
114 matched at least 8 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	25863	HEPTADECANE, 2,6-DIMETHYL-
2	20624	HEXADECANE
3	22453	HEPTADECANE
4	36165	IRON, TRICARBONYL[N-(PHENYL-2-PYRIDINYLMETHYLENE)BENZENAMINE-N,N']-
5	28842	HEPTADECANE, 2,6,10,15-TETRAMETHYL-

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C19.H40	268	57	705	882	744
2	C16.H34	226	57	702	942	728
3	C17.H36	240	57	699	907	754
4	C21.H14.O3.N2.FE	398	57	688	869	753
5	C21.H44	296	57	684	891	728

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	—	—	—	—	54105-67-8
2	—	—	—	—	544-76-3
3	—	—	—	—	629-78-7
4	—	—	—	—	74764-11-7
5	—	—	—	—	54833-48-6

✓

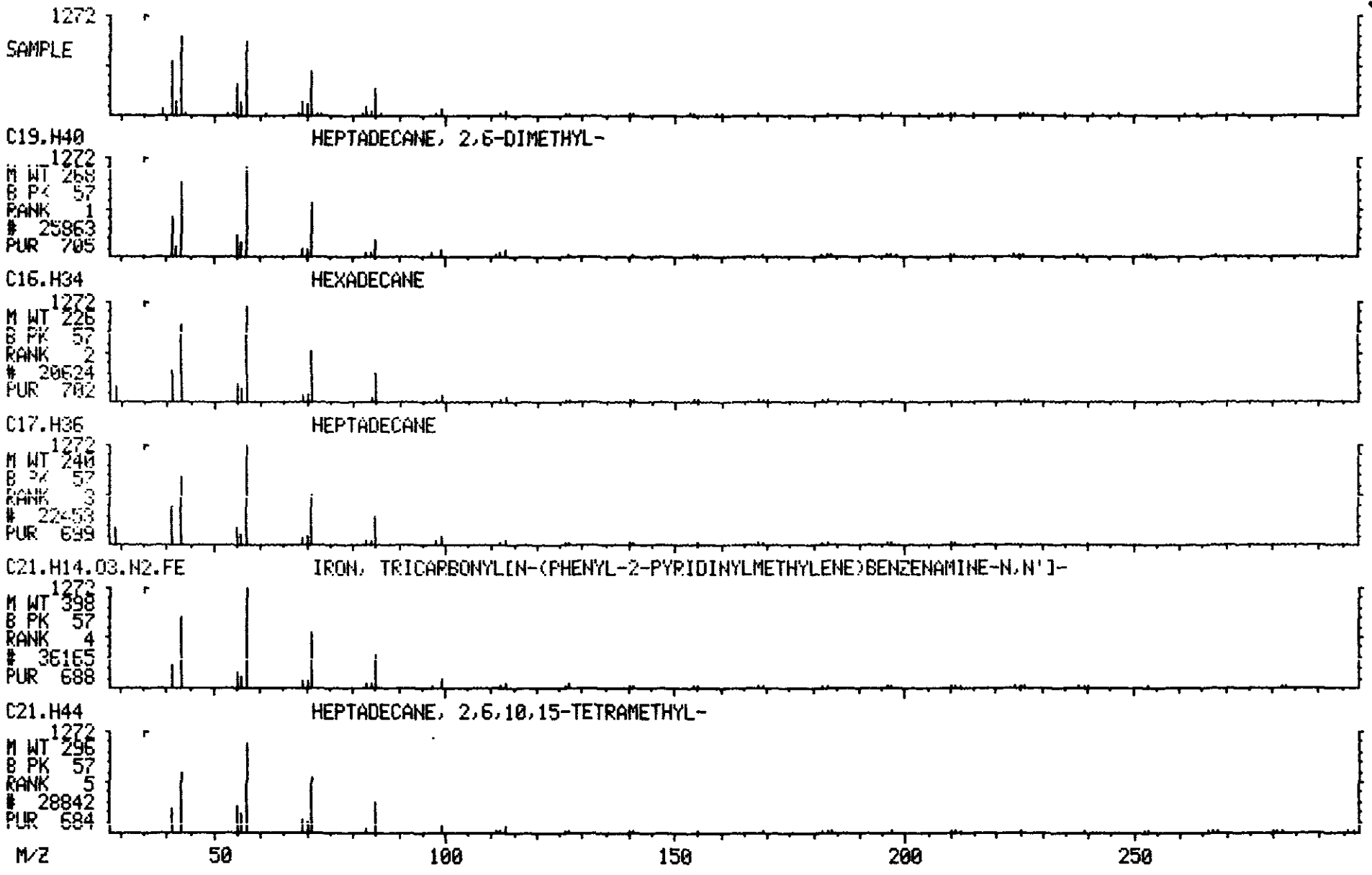
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 24:00
SAMPLE: CLP,VERSCOM,2565,4,M,S,16909,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #1440
CALI: T2607 # 2

BASE M/Z: 43
RIC: 15567.

100061



Library Search Data: T2607 #1494 Base m/z: 41
05/16/90 7:06:00 + 24:54 Cali: T2607 # 2 RIC: 29247.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
131 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	24455	HEXADECANOIC ACID
2	26167	GLYCINE, N-METHYL-N-(1-OXODODECYL)-
3	27905	DODECANAMIDE, N,N-BIS(2-HYDROXYETHYL)-
4	16513	DODECANOIC ACID
5	11708	DECANOIC ACID

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C16.H32.O2	256	43	719	967	732
2	C15.H29.O3.N	271	73	651	970	651
3	C16.H33.O3.N	287	60	629	959	639
4	C12.H24.O2	200	60	590	894	647
5	C10.H20.O2	172	60	565	940	567

Rank	Ret. Time	B.P. Int.	US.Par.1	US Par.2	C.A.S. #
1	—	—	—	—	57-10-3
2	—	—	—	—	97-78-9
3	—	—	—	—	120-40-1
4	—	—	—	—	143-07-7
5	—	—	—	—	334-48-5

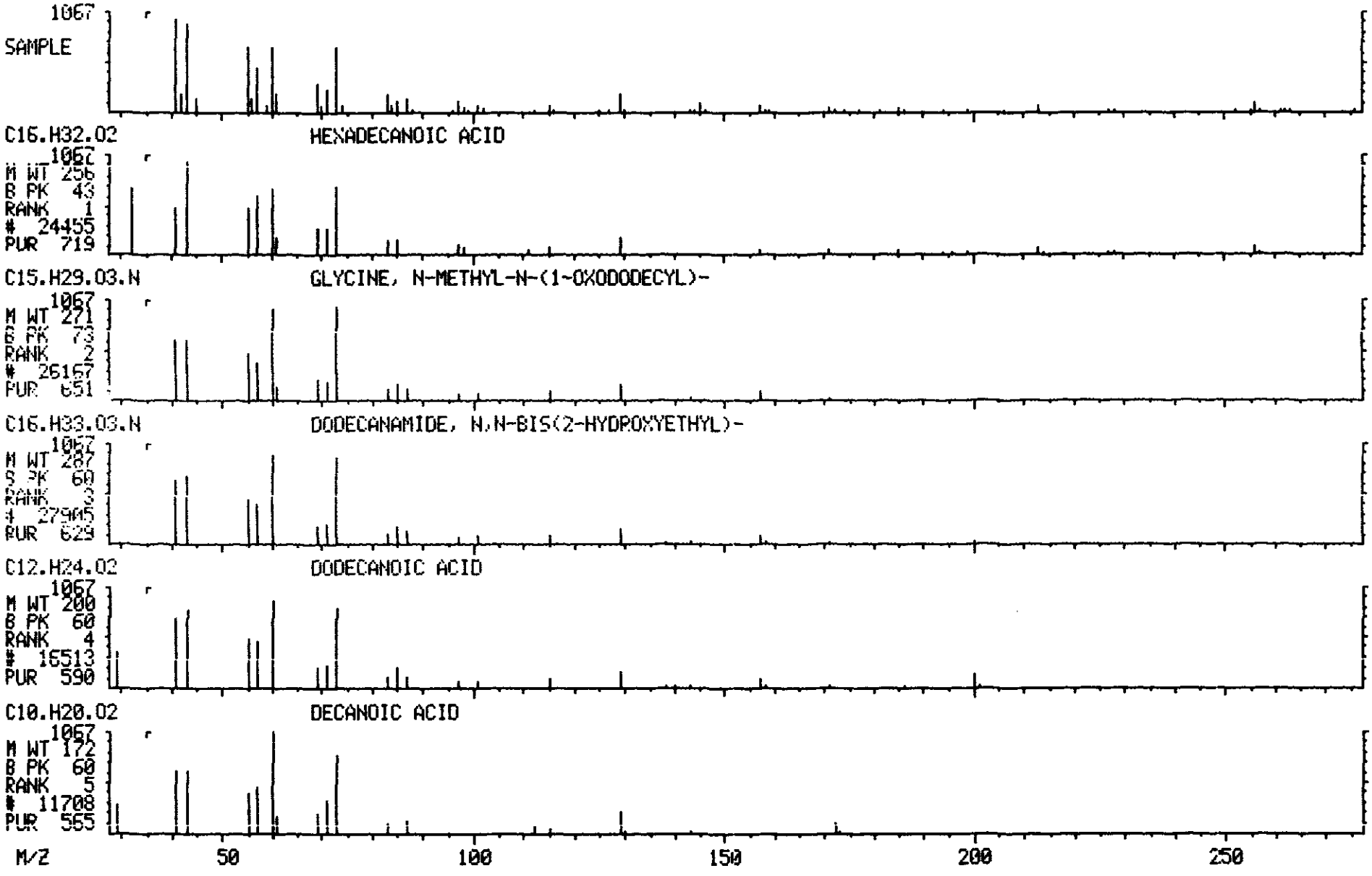
ORIGINAL (Red)

100063

LIBRARY SEARCH
05/16/90 7:06:00 + 24:54
SAMPLE: CLP,VERSCDM,2363,4,M,S,16909,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30200C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #1494
CALI: T2607 # 2

BASE M/Z: 41
RIC: 29247.



Library Search Data: T2607 #1595 Base m/z: 57 ORIGINAL (Red)
05/16/90 7:06:00 + 26:35 Cali: T2607 # 2 RIC: 14031.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15R 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
206 matched at least 7 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	20624	HEXADECANE
2	16273	TETRADECANE
3	16282	DODECANE, 4,6-DIMETHYL-
4	18541	DODECANE, 2,7,10-TRIMETHYL-
5	13882	UNDECANE, 4,7-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C16.H34	226	57	781	946	820
2	C14.H30	198	43	763	937	800
3	C14.H30	198	57	758	935	779
4	C15.H32	212	57	757	946	784
5	C13.H28	184	43	756	945	769

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	544-76-3
2	—	—	—	—	629-59-4
3	—	—	—	—	61141-72-8
4	—	—	—	—	74645-98-0
5	—	—	—	—	17301-32-5

✓

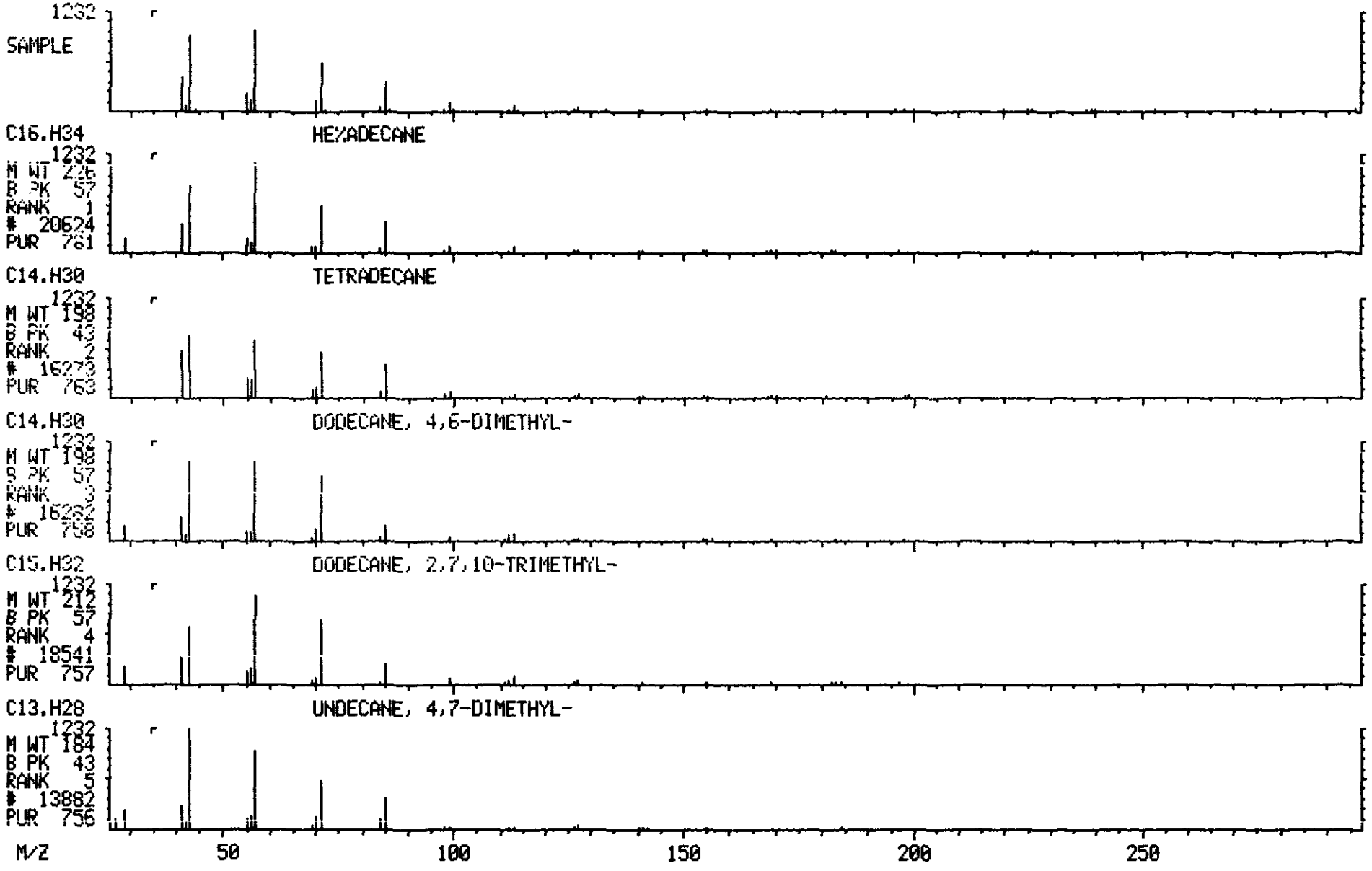
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 26:35
SAMPLE: CLP,VERSCOM,2565,4,M,S,16909,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN038C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #1595
CALI: T2607 # 2

BASE M/Z: 57
RIC: 14031.

100065



Library Search Data: T2607 #1694 Base m/z: 43 ORIGINAL (Red)
05/16/90 7:06:00 + 28:14 Cali: T2607 # 2 RIC: 45183.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
289 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	24918	TETRADECANE, 1-(METHYLSULFINYL)-
2	22453	HEPTADECANE
3	18531	PENTADECANE
4	22455	HEXADECANE, 3-METHYL-
5	20631	DODECANE, 5,8-DIETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C15.H32.O.S	260	43	347	550	459
2	C17.H36	240	57	314	943	326
3	C15.H32	212	43	304	939	316
4	C17.H36	240	57	293	845	315
5	C16.H34	226	57	292	826	303

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	3079-31-0
2	—	—	—	—	629-78-7
3	—	—	—	—	629-62-9
4	—	—	—	—	6418-43-5
5	—	—	—	—	24251-86-3

✓

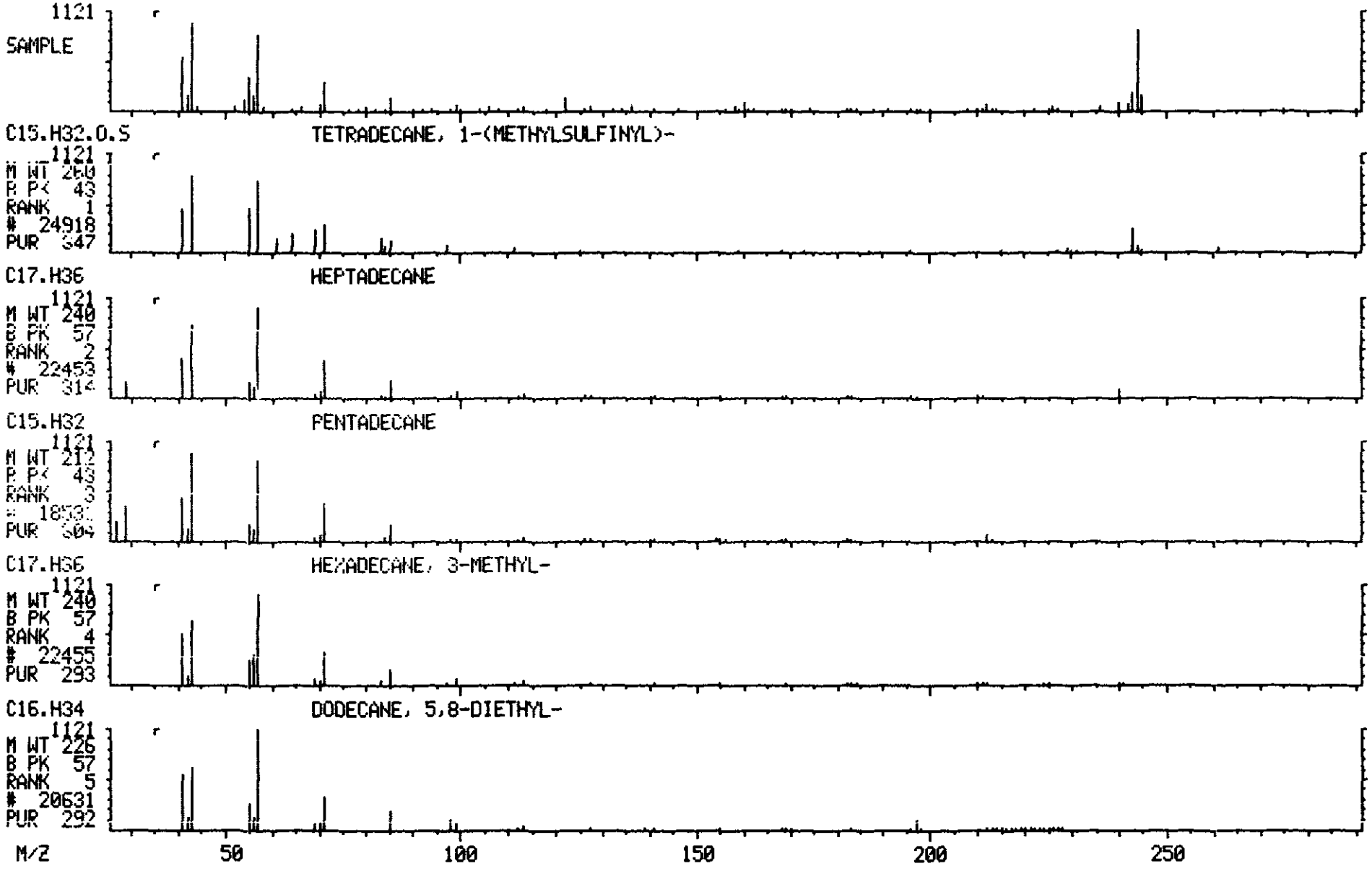
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 28:14
SAMPLE: CLP,VERSCOM,2565,4,M,5,16909,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15@ 2N 0T)

DATA: T2607 #1694
CALI: T2607 # 2

BASE M/Z: 43
RIC: 45163.

100067



Library Search Data: T2607 #1751 Base m/z: 43 ORIGINAL
05/16/90 7:06:00 + 29:11 Cali: T2607 # 2 RIC: 16511. (Red)
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
286 matched at least 7 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	13877	UNDECANE, 2,10-DIMETHYL-
2	22455	HEXADECANE, 3-METHYL-
3	18531	PENTADECANE
4	13882	UNDECANE, 4,7-DIMETHYL-
5	13869	DODECANE, 2-METHYL-

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C13.H28	184	43	768	930	798
2	C17.H36	240	57	767	875	845
3	C15.H32	212	43	765	860	855
4	C13.H28	184	43	760	918	795
5	C13.H28	184	43	751	918	795

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	—	—	—	—	17301-27-8
2	—	—	—	—	6418-43-5
3	—	—	—	—	629-62-9
4	—	—	—	—	17301-32-5
5	—	—	—	—	1560-97-0

✓

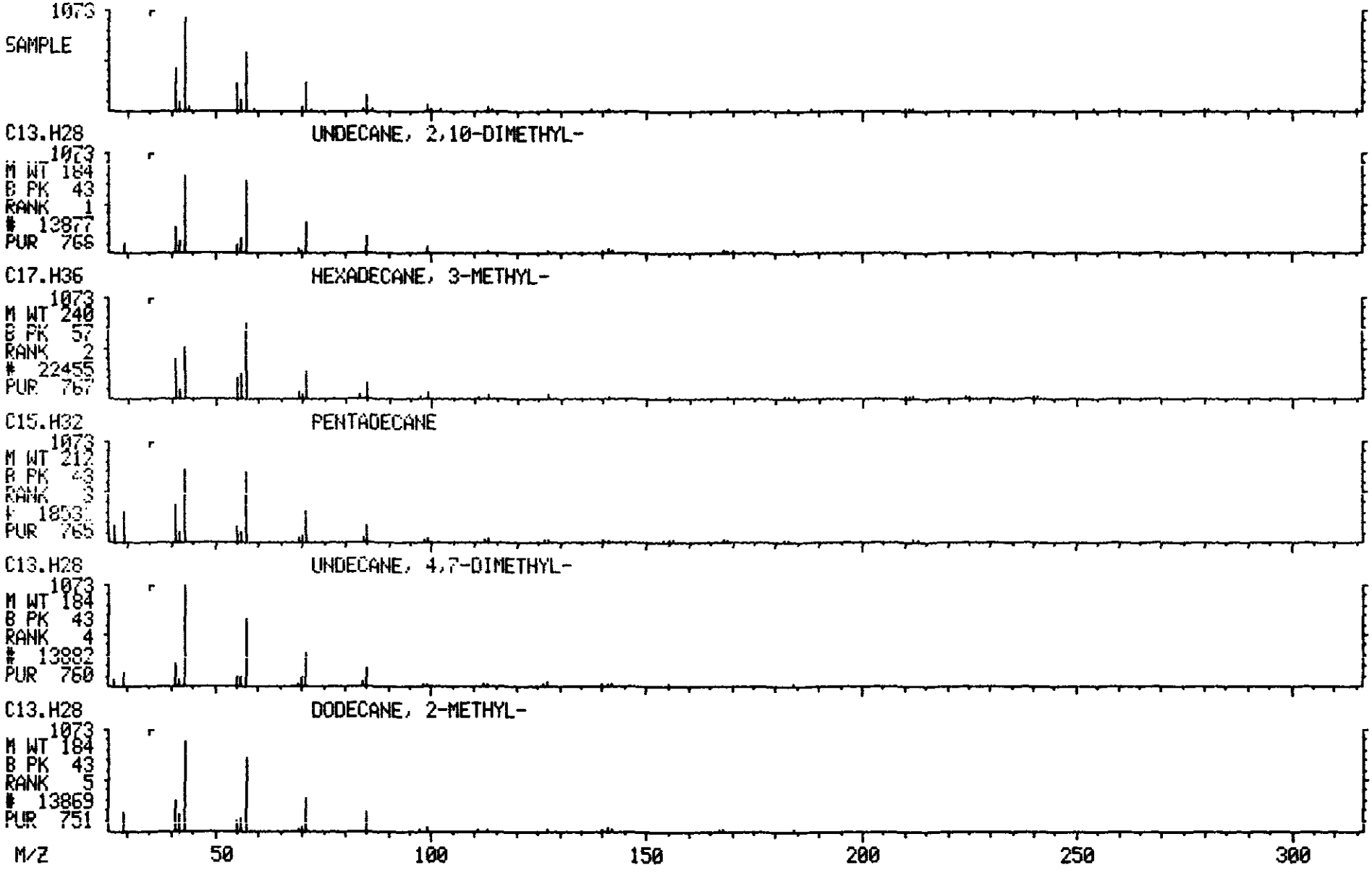
ORIGINAL (Red)

100069

LIBRARY SEARCH
05/16/90 7:06:00 + 29:11
SAMPLE. CLP,VERSCOM,2565,4,M,S,16909,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30200C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #1751
CALI: T2607 # 2

BASE M/Z: 43
RIC: 16511.



Library Search Data: T2607 #1869 Base m/z: 57 ORIGINAL (Red)
05/16/90 7:06:00 + 31:09 Cali: T2607 # 2 RIC: 43455.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYN8 searched for maximum PURITY
213 matched at least 8 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	33536	PENTACOSANE
2	25863	HEPTADECANE, 2,6-DIMETHYL-
3	39695	PENTATRIACONTANE
4	39944	HEXATRIACONTANE
5	30170	DOCOSANE

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C25.H52	352	43	775	931	817
2	C19.H40	268	57	772	938	787
3	C35.H72	492	57	768	955	795
4	C36.H74	506	57	767	955	795
5	C22.H46	310	57	765	949	784

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	629-99-2
2	—	—	—	—	54105-67-8
3	—	—	—	—	630-07-9
4	—	—	—	—	630-06-8
5	—	—	—	—	629-97-0

✓

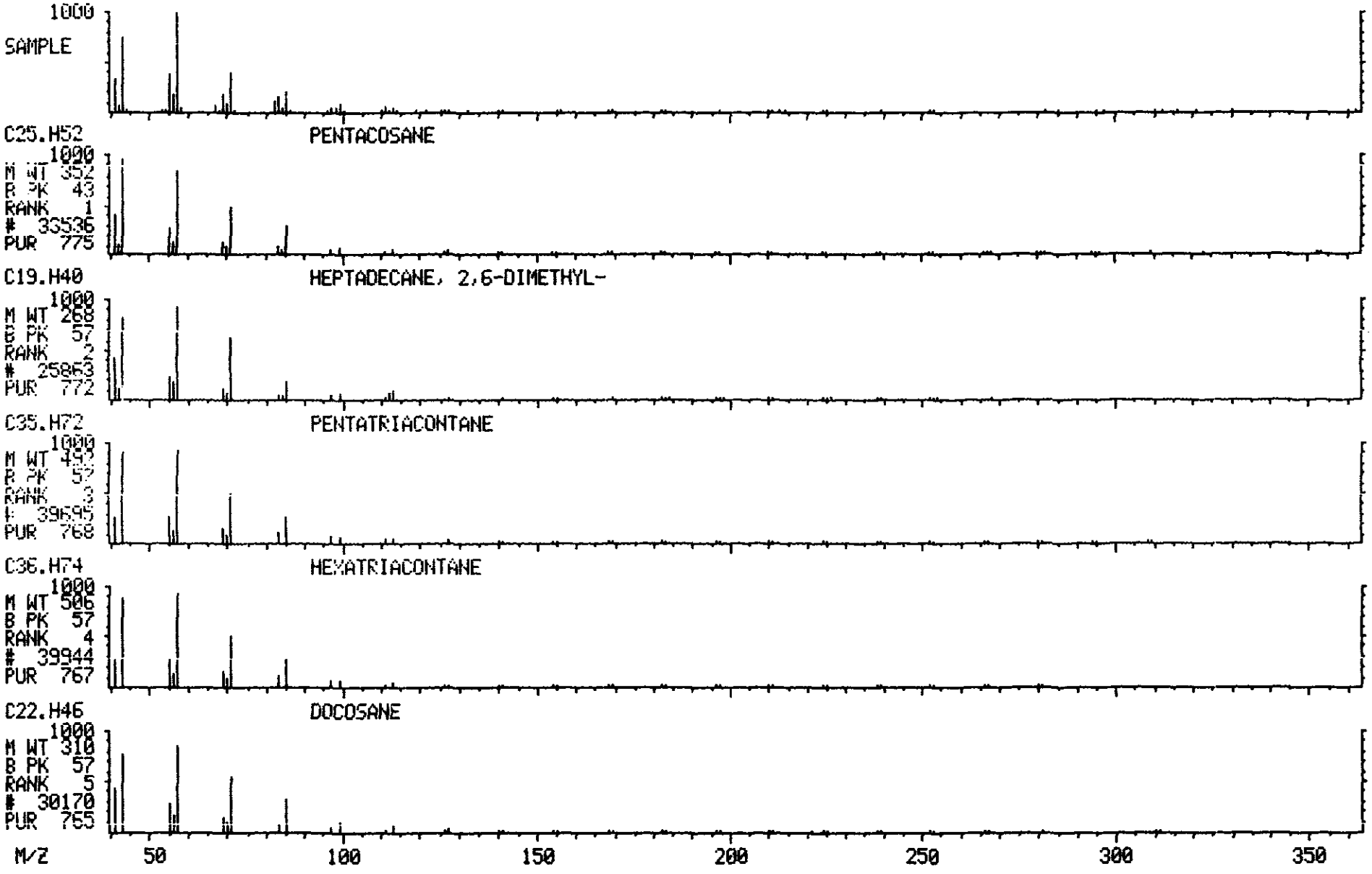
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 31:09
SAMPLE: CLP,VERSCOM,2565,4,M,S,16909,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #1863
CALI: T2607 # 2

BASE M/Z: 57
RIC: 43455.

100071



Library Search Data: T2607 #1944 Base m/z: 55 ORIGINAL
05/16/90 7:06:00 + 32:24 Cali: T2607 # 2 RIC: 10047. (Red)
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@6C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
148 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	33267	1H-INDENE, 1-HEXADECYLOCTAHYDRO-
2	23459	ANTHRACENE, 9-BUTYLTETRADECAHYDRO-
3	27116	9,12-OCTADECADIENOIC ACID (Z,Z)-
4	15484	1,1'-BICYCLOHEPTYL
5	10610	CYCLOPENTANE, 1,1'-ETHYLIDENEBIS-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C25.H48	348	41	328	657	449
2	C18.H32	248	41	325	571	487
3	C18.H32.O2	280	41	323	669	454
4	C14.H26	194	55	320	695	382
5	C12.H22	166	55	310	681	377

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55401-73-5
2	—	—	—	—	55133-89-6
3	—	—	—	—	60-33-3
4	—	—	—	—	23183-11-1
5	—	—	—	—	4413-21-2

✓

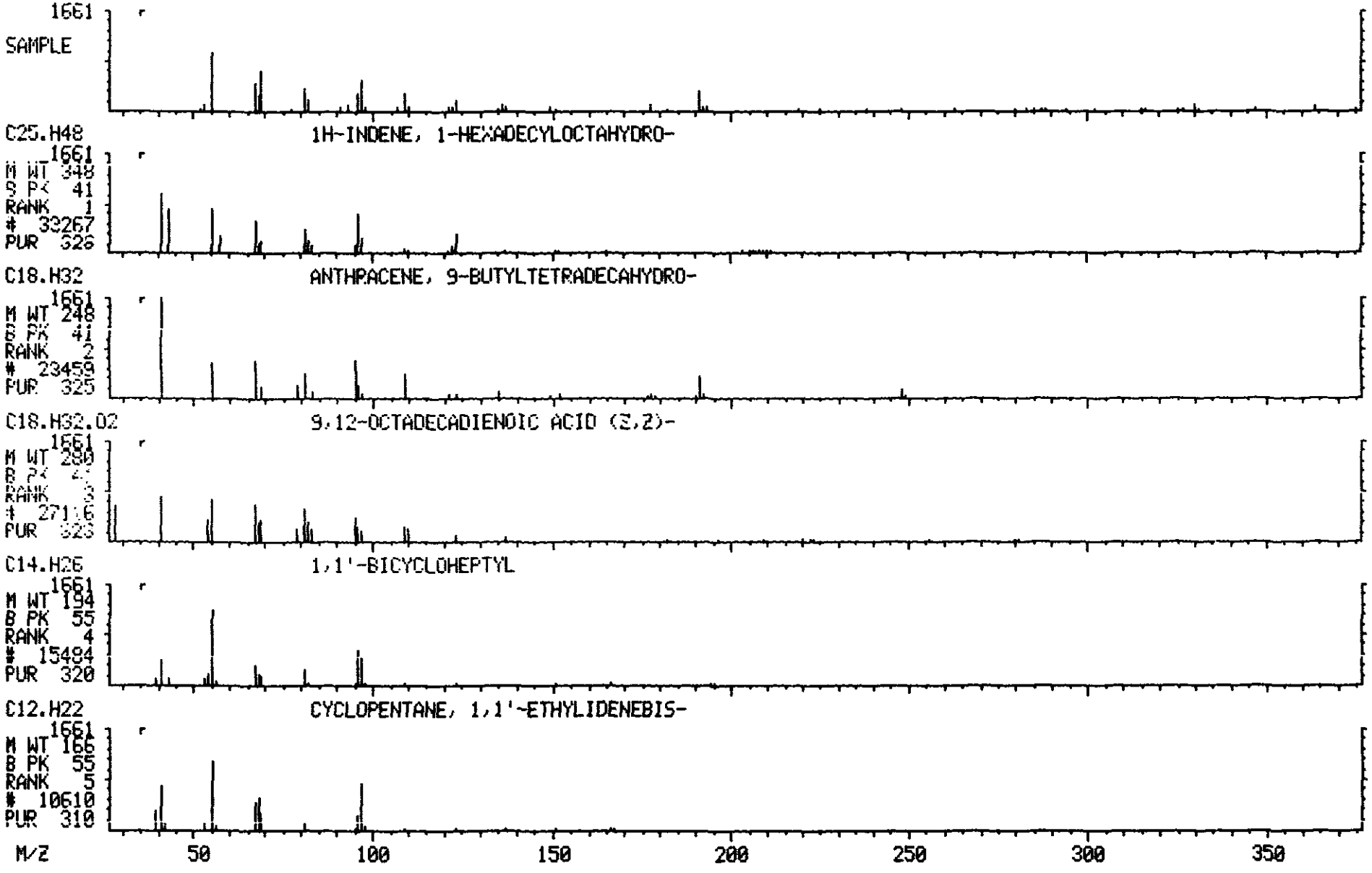
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 32:24
SAMPLE: CLP,VERSCOM,2565,4,M,S,16909,6,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN038C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #1944
CALI: T2607 # 2

BASE M/Z: 55
RIC: 10047.

100073



Library Search Data: T2607 #2003 Base m/z: 57 ORIGINAL (Red)
05/16/90 7:06:00 + 33:23 Cali: T2607 # 2 RIC: 14911.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNH searched for maximum PURITY
292 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	24473	1-HEXADECANOL, 2 METHYL-
2	14250	1-OCTANOL, 2-BUTYL-
3	14256	1-DECANOL, 2-ETHYL-
4	35344	1-HEXACOSANOL
5	25863	HEPTADECANE, 2,6-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C17.H36.O	256	43	652	899	678
2	C12.H26.O	186	43	632	929	652
3	C12.H26.O	186	57	631	948	642
4	C26.H54.O	382	43	629	821	701
5	C19.H40	268	57	622	879	658

Rank	Ret.Time	B.P.Int.	US.Par.1	US Par.2	C.A.S. #
1	—	—	—	—	2490-48-4
2	—	—	—	—	3913-02-8
3	—	—	—	—	21078-65-9
4	—	—	—	—	506-52-5
5	—	—	—	—	54105-67-8

✓

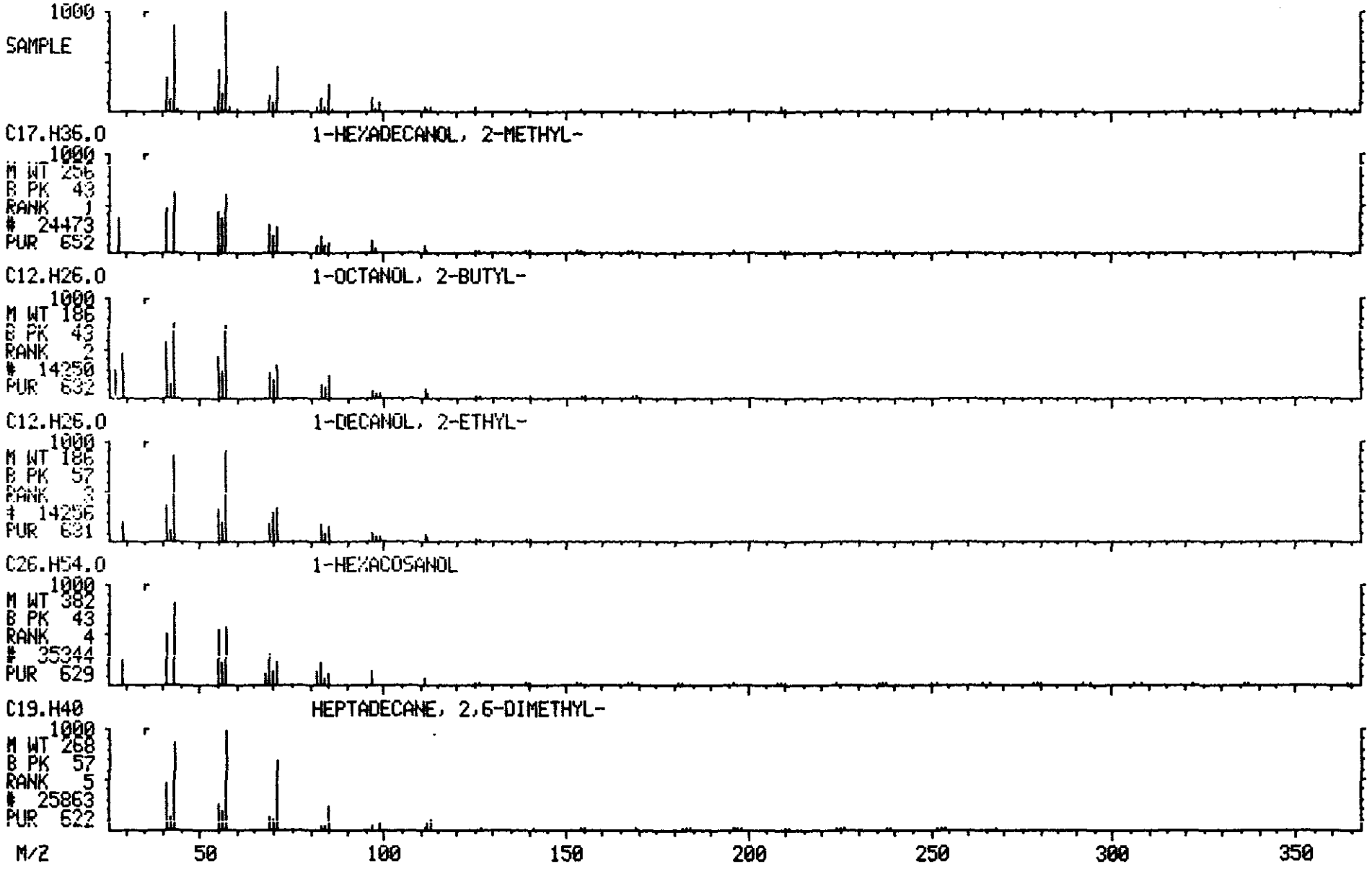
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 33:23
SAMPLE: CLP,VERSCOM,2565,4,M,S,16909,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #2003
CALI: T2607 # 2

BASE M/Z: 57
RIC: 14911.

100075



Library Search Data: T2607 #2048 Base m/z: 43 ORIGINAL
05/16/90 7:06:00 + 34:08 Cali: T2607 # 2 RIC: 10543 (Red)
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNH searched for maximum PURITY
291 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	8716	UNDECANE
2	31354	TETRADECANE, 1-IODO-
3	11446	DECANE, 2,9-DIMETHYL-
4	8725	NONANE, 3,7-DIMETHYL-
5	6078	OCTANE, 2,7-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C11.H24	156	43	419	889	456
2	C14.H29.I	324	43	419	904	454
3	C12.H26	170	43	418	902	443
4	C11.H24	156	57	408	895	428
5	C10.H22	142	43	407	878	427

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	1120-21-4
2	—	—	—	—	19218-94-1
3	—	—	—	—	1002-17-1
4	—	—	—	—	17302-32-8
5	—	—	—	—	1072-16-8

✓

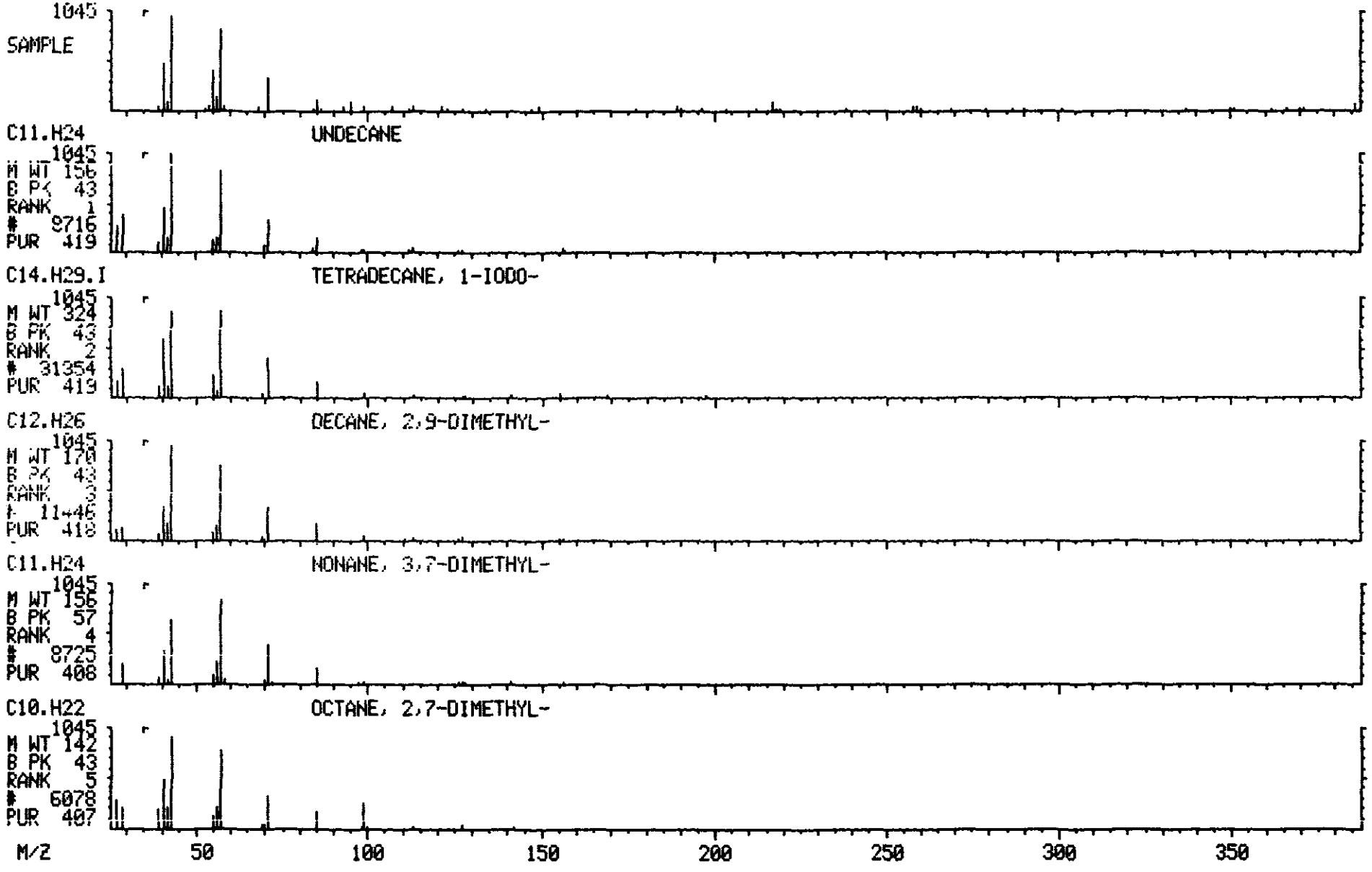
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 34:08
SAMPLE: CLP,VERSCOM,2565,4,M,S,16909,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30200C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #2048
CALI: T2607 # 2

BASE M/Z: 43
RIC: 10543.

100077



Library Search Data: T2607 #2139 Base m/z: 57 ORIGINAL
05/16/90 7:06:00 + 35:39 Cali: T2607 # 2 RIC: 19295 (Red)
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
417 matched at least 5 of the 16 largest peaks in the unknown

Rank	In.	Name
1	34899	CHOLESTANE (VAN)
2	34898	COPROSTANE
3	34894	A-NORCHOLESTAN-2-ONE, (5.ALPHA.)-
4	30092	TRIDECANE, 1-IODO
5	27554	HEXADECANOIC ACID, 2-OXO , METHYL ESTER

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C27.H48	372	43	398	911	419
2	C27.H48	372	55	388	841	423
3	C26.H44.O	372	41	349	849	391
4	C13.H27.I	310	57	321	847	329
5	C17.H32.O3	284	57	309	862	331

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	481-21-0
2	—	—	—	—	481-20-9
3	—	—	—	—	2310-36-3
4	—	—	—	—	35599-77-0
5	—	—	—	—	55836-30-1

✓

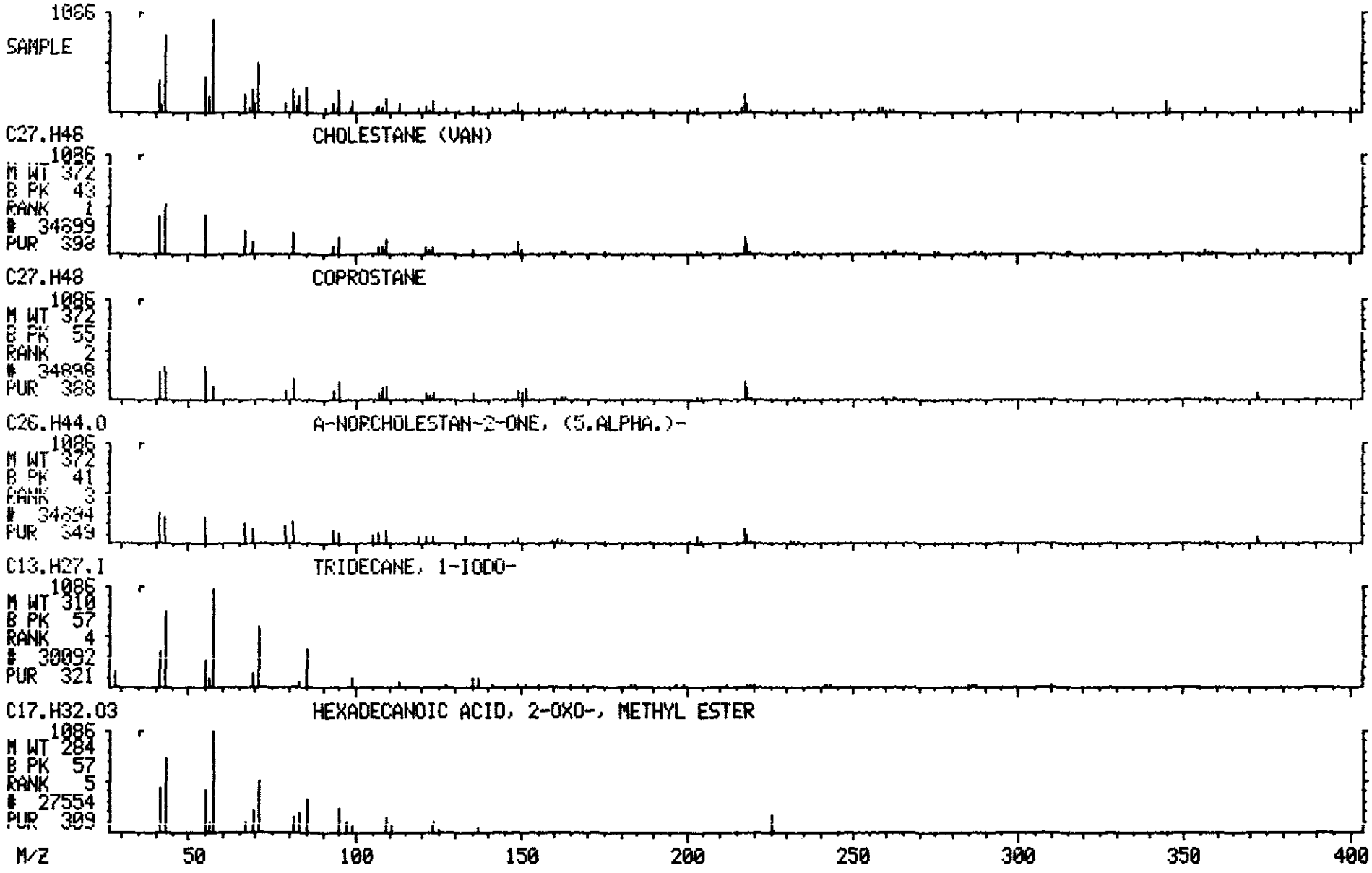
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 35:39
SAMPLE. CLP,VERSCDM,2565,4,M,S,16909,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN038C TO 302D8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #2139
CALI: T2607 # 2

BASE M/Z: 57
RIC: 19295.

100079



Library Search Data: T2607 #2187 Base m/z: 55
05/16/90 7:06:00 + 36:27 Cali: T2607 # 2 RIC: 24767. ORIGINAL (Red)
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@6C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
304 matched at least 6 of the 16 largest peaks in the unknown
~~C~~ ~~HDY~~ HYD
MAT 5-14-90

Rank	In.	Name
1	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
2	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
3	20271	2,10-DODECADIEN-1-OL, 3,7,11-TRIMETHYL-, (Z)-
4	20273	2,10-DODECADIEN-1-OL, 3,7,11-TRIMETHYL-, (E)-(.+-.)-
5	26562	ANTHRACENE, 9-CYCLOHEXYLTETRADECAHYDRO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	41	475	941	477
2	C26.H48	360	43	461	907	478
3	C15.H28.O	224	41	426	848	423
4	C15.H28.O	224	69	410	812	427
5	C20.H34	274	41	399	850	419

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	—	—	—	—	55334-01-5
2	—	—	—	—	55401-75-7
3	—	—	—	—	20576-57-2
4	—	—	—	—	20576-59-4
5	—	—	—	—	55255-70-4

✓

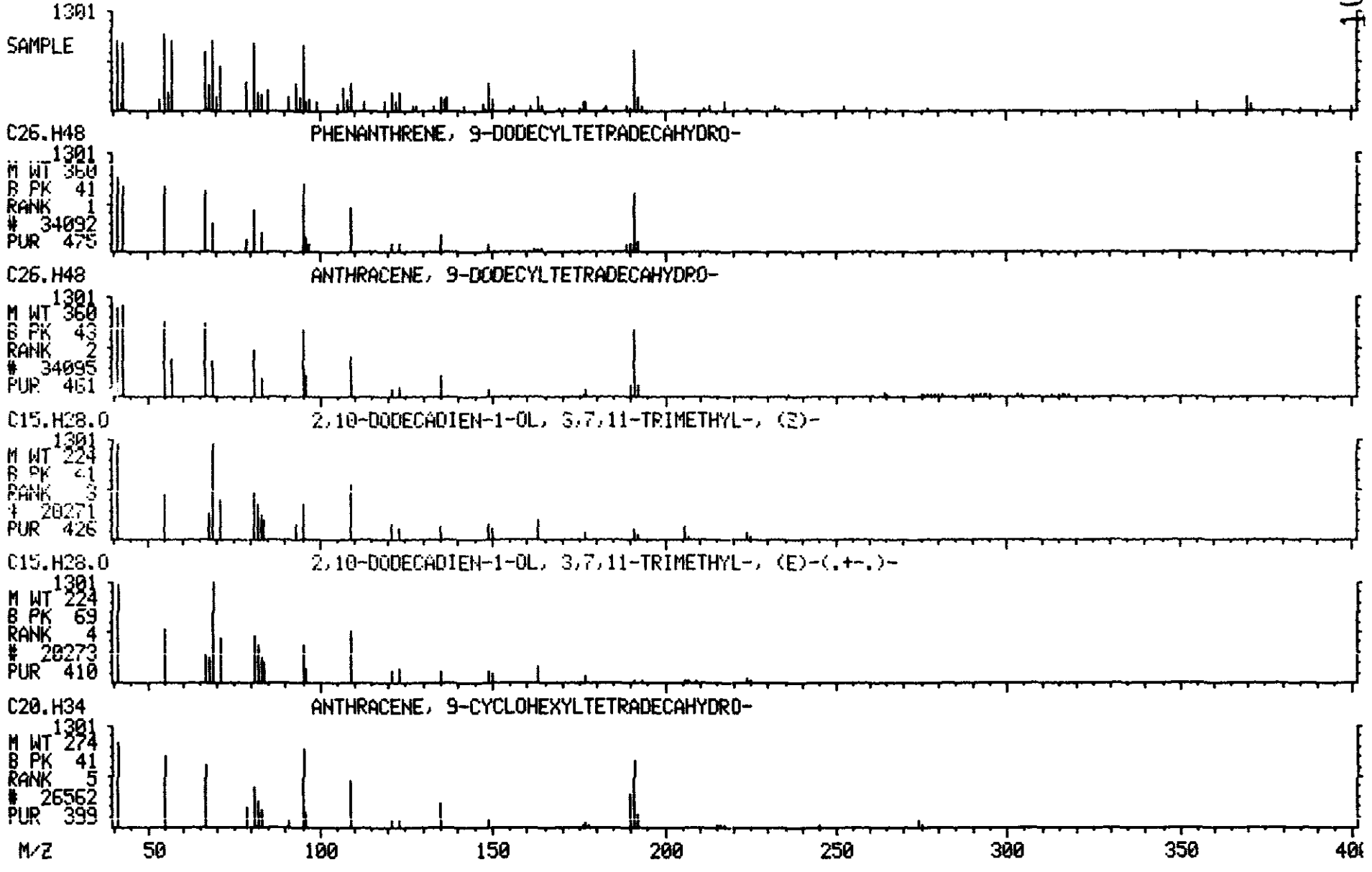
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 36:27
SAMPLE: CLP,VERSCOM,2565,4,M,5,16909,6,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN030C TO 302@3C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #2187
CALI: T2607 # 2

BASE M/Z: 55
RIC: 24767.

100081



Library Search Data: T2607 #2226 Base m/z: 95
05/16/90 7:06:00 + 37:06 Cali: T2607 # 2 RIC: 19359 ORIGINAL (Red)
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNH searched for maximum PURITY
151 matched at least 6 of the 16 largest peaks in the unknown ~~Cyclic~~ HYD

Rank	In.	Name
1	17550	CYCLOHEXANE, 1,1,2-TRIMETHYL-3,5-BIS(1-METHYLETHENYL)-, (2.ALPHA.,3*
2	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
3	17549	CYCLOHEXANE, 1,1,2-TRIMETHYL-3,5-BIS(1-METHYLETHENYL)-, (2.ALPHA.,3*
4	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
5	32292	CYCLOPROPANEOCTANOIC ACID, 2-[[2-[(2-ETHYLCYCLOPROPYL)METHYL]CYCLOP*

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C15.H26	206	41	593	938	593
2	C26.H48	360	95	511	903	538
3	C15.H26	206	41	487	846	487
4	C26.H48	360	95	487	878	511
5	C22.H38.O2	334	67	485	757	549

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	62337-97-7
2	—	—	—	—	55334-01-5
3	—	—	—	—	62337-96-6
4	—	—	—	—	55401-75-7
5	—	—	—	—	10152-71-3

✓

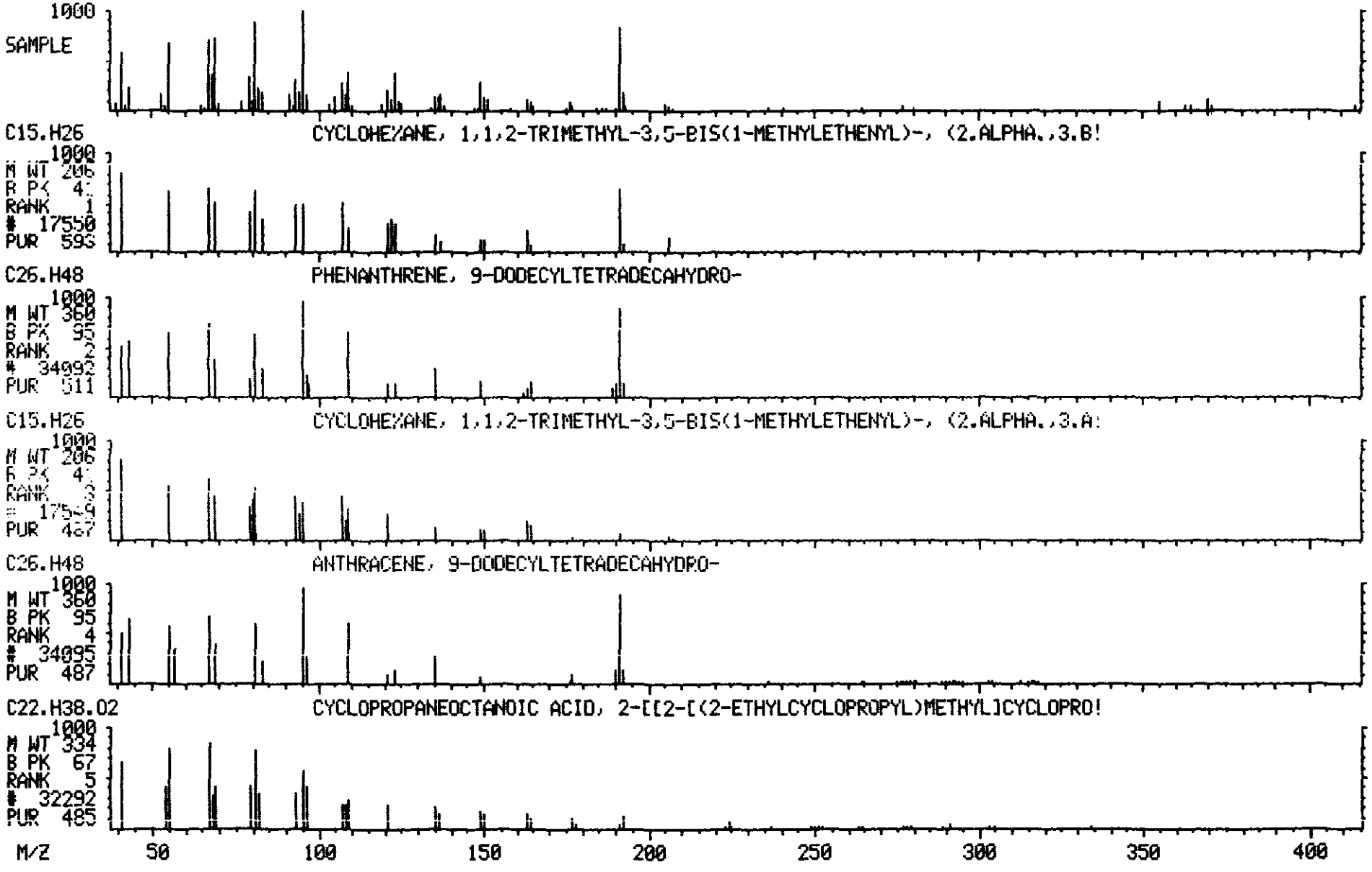
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 37:06
SAMPLE: CLP,VERSCOM,2563,4,M,5,16909,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #2226
CALI: T2607 # 2

BASE M/Z: 95
RIC: 19359.

100083



Library Search Data: T2607 #2366 Base m/z: 81 ORIGINAL
05/16/90 7:06:00 + 39:26 Cali: T2607 # 2 RIC: 31135. (Red)
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
85 matched at least 6 of the 16 largest peaks in the unknown ~~Spec~~ HYD

Rank	In.	Name
1	17550	CYCLOHEXANE, 1,1,2-TRIMETHYL-3,5-BIS(1-METHYLETHENYL)-, (2.ALPHA.,3*
2	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
3	25543	AZULENO[4,5-B]FURAN-2(3H)-ONE, DECAHYDRO-8,9-DIHYDROXY-6,9A-DIMETHY*
4	17547	TRICYCLO[4.3.0.07,9]NONANE, 2,2,5,5,8,8-HEXAMETHYL-, (1.ALPHA.,6.BE*
5	15128	1,8-NONADIENE, 2,7-DIMETHYL-5-(1-METHYLETHENYL)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C15.H26	206	41	589	954	567
2	C26.H48	360	191	538	944	508
3	C15.H22.O4	266	191	519	822	585
4	C15.H26	206	69	518	958	518
5	C14.H24	192	55	516	948	516

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	62337-97-7
2	—	—	—	—	55334-01-5
3	—	—	—	—	5090-67-5
4	—	—	—	—	54832-82-5
5	—	—	—	—	68702-20-5

✓

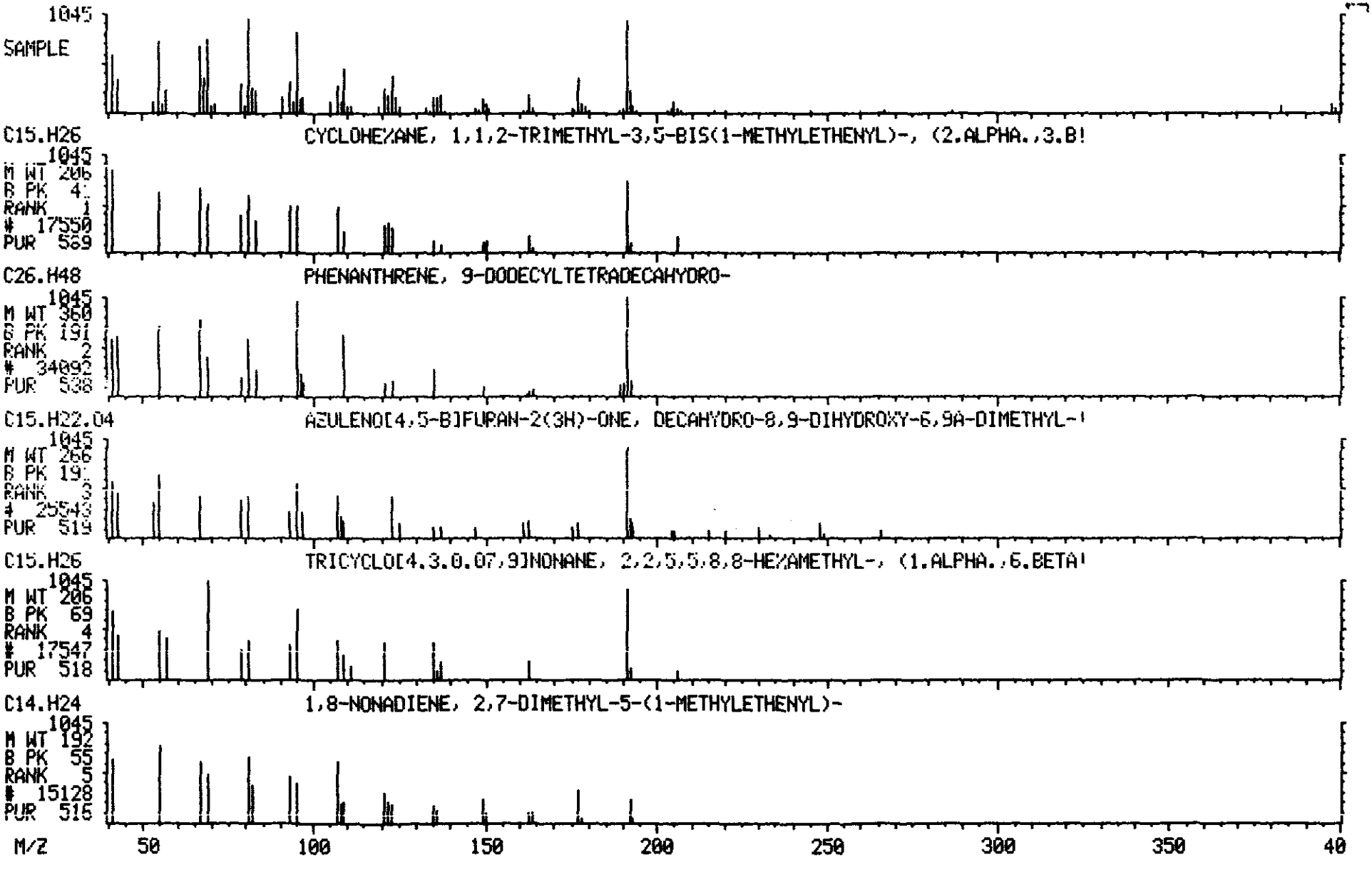
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 39:26
SAMPLE: CLP,VERSCOM,2565,4,M,5,16909,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #2366
CALI: T2607 # 2

BASE M/Z: 81
RIC: 31135.

100085



Library Search Data: T2607 #2430 Base m/z: 55
05/16/90 7:06:00 + 40:30 Cali: T2607 # 2 RIC: 26175 ORIGINAL (Red)
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
363 matched at least 5 of the 16 largest peaks in the unknown

Rank	In.	Name
1	35597	CHOLESTANE, 4,5-EPOXY-, (4.ALPHA.,5.ALPHA.)-
2	35625	CHOLESTANE, 14-METHYL-, (5.ALPHA.)-
3	30964	ANDROSTAN-3-ONE, 17-HYDROXY-2,4-DIMETHYL-, (2.ALPHA.,4.ALPHA.,5.ALP*
4	30003	1-NAPHTHALENEPROPANOL, .ALPHA.-ETHENYLDECAHYDRO-5-(HYDROXYMETHYL)-.*
5	36822	SQUALENE

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C27.H46.O	386	43	478	885	522
2	C28.H50	386	109	393	851	424
3	C21.H34.O2	318	41	388	783	458
4	C20.H36.O2	308	55	385	848	428
5	C30.H50	410	41	384	811	443

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	6079-19-2
2	—	—	—	—	54482-34-7
3	—	—	—	—	54550-08-2
4	—	—	—	—	72401-52-6
5	—	—	—	—	7683-64-9

✓

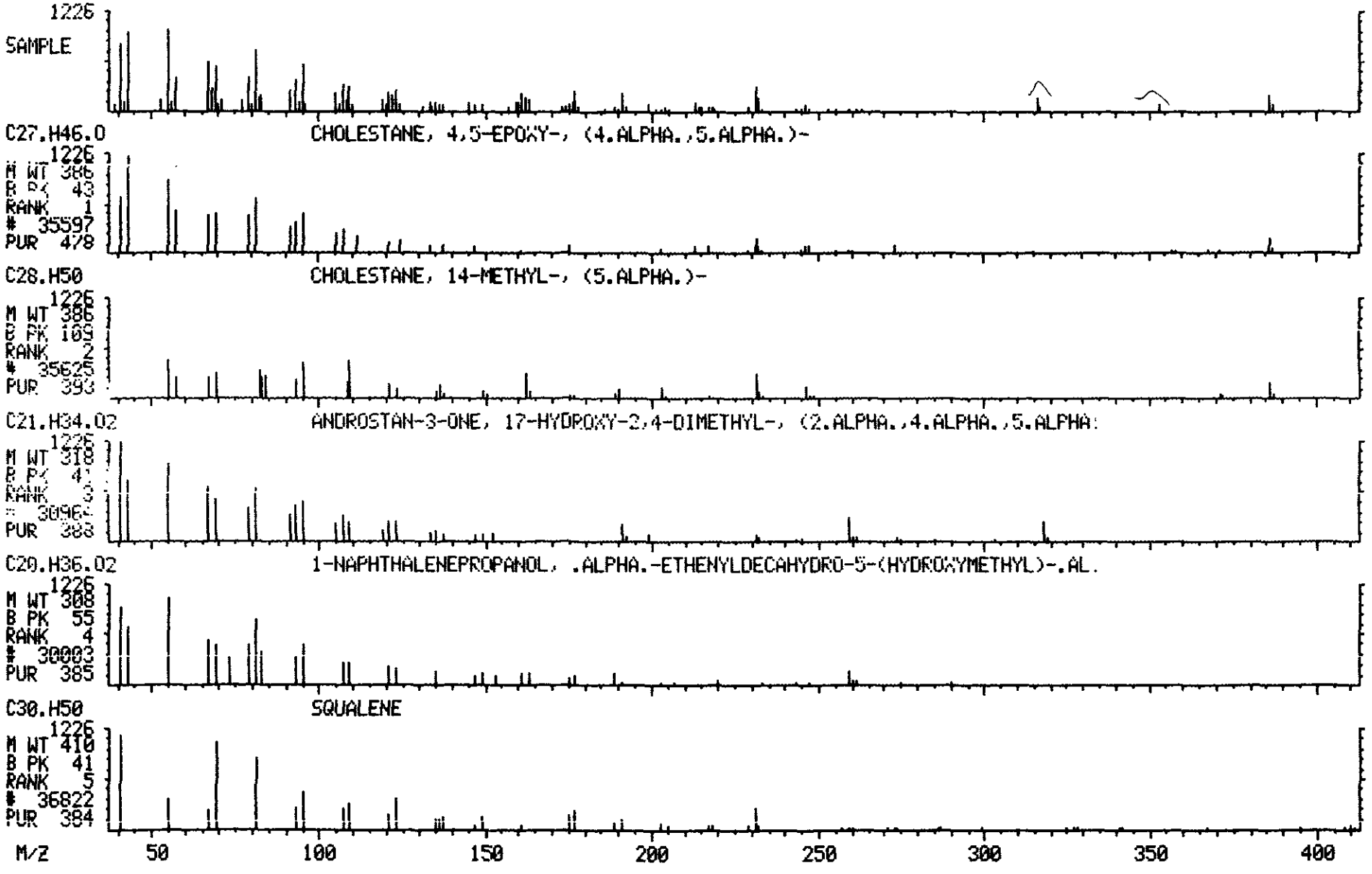
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 40:30
SAMPLE: CLP,VERSCOM,2565,4,M,S,16909,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #2430
CALI: T2607 # 2

BASE M/Z: 55
RIC: 26175.

100087



Library Search Data: T2607 #2476 Base m/z: 19 ORIGINAL
05/16/90 7:06:00 + 41:16 Cali: T2607 # 2 RIC: 38719. (Red)
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
117 matched at least 6 of the 16 largest peaks in the unknown ~~cycle~~ HYD

Rank	In.	Name
1	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
2	17550	CYCLOHEXANE, 1,1,2-TRIMETHYL-3,5-BIS(1-METHYLETHENYL)-, (2.ALPHA.,3*
3	17547	TRICYCLO[4.3.0.07,9]NONANE, 2,2,5,5,8,8-HEXAMETHYL-, (1.ALPHA.,6.BE*
4	25543	AZULENO[4,5-B]FURAN-2(3H)-ONE, DECAHYDRO-8,9-DIHYDROXY-6,9A-DIMETHY*
5	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	191	550	942	550
2	C15.H26	206	41	549	871	549
3	C15.H26	206	191	542	958	542
4	C15.H22.O4	266	191	521	859	568
5	C26.H48	360	191	505	912	523

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55334-01-5
2	—	—	—	—	62337-97-7
3	—	—	—	—	54832-82-5
4	—	—	—	—	5090-67-5
5	—	—	—	—	55401-75-7

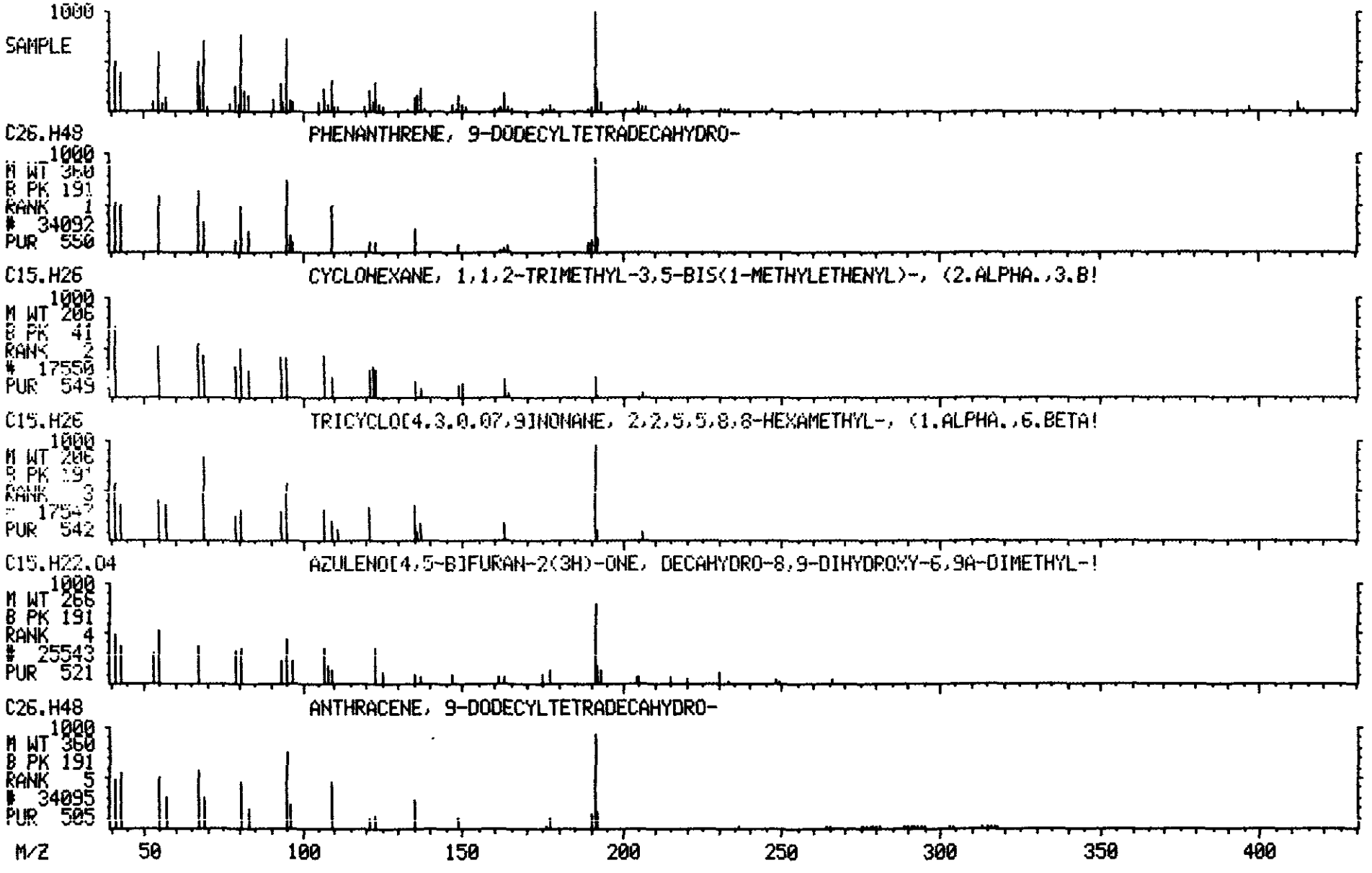
✓

ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 41:16
SAMPLE: CLP,VERSCDM,2565,4,M,S,16909,B,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #2476
CALI: T2607 # 2

BASE M/Z: 191
RIC: 86719.



10C089

Library Search Data: T2607 #2624 Base m/z: 191
05/16/90 7:06:00 + 43:44 Cali: T2607 # 2 RIC: 9647.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNR searched for maximum PURITY
119 matched at least 6 of the 16 largest peaks in the unknown ~~cycle~~ HYDRO

Rank	In.	Name
1	17550	CYCLOHEXANE, 1,1,2-TRIMETHYL-3,5-BIS(1-METHYLETHENYL)-, (2.ALPHA.,3*
2	17547	TRICYCLO[4.3.0.07,9]NONANE, 2,2,5,5,8,8-HEXAMETHYL-, (1.ALPHA.,6.BE*
3	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
4	17549	CYCLOHEXANE, 1,1,2-TRIMETHYL-3,5-BIS(1-METHYLETHENYL)-, (2.ALPHA.,3*
5	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C15.H26	206	41	634	941	634
2	C15.H26	206	191	561	948	571
3	C26.H48	360	191	544	910	572
4	C15.H26	206	41	530	868	530
5	C26.H48	360	191	527	923	550

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	62337-97-7
2	—	—	—	—	54832-82-5
3	—	—	—	—	55334-01-5
4	—	—	—	—	62337-96-6
5	—	—	—	—	55401-75 7

✓

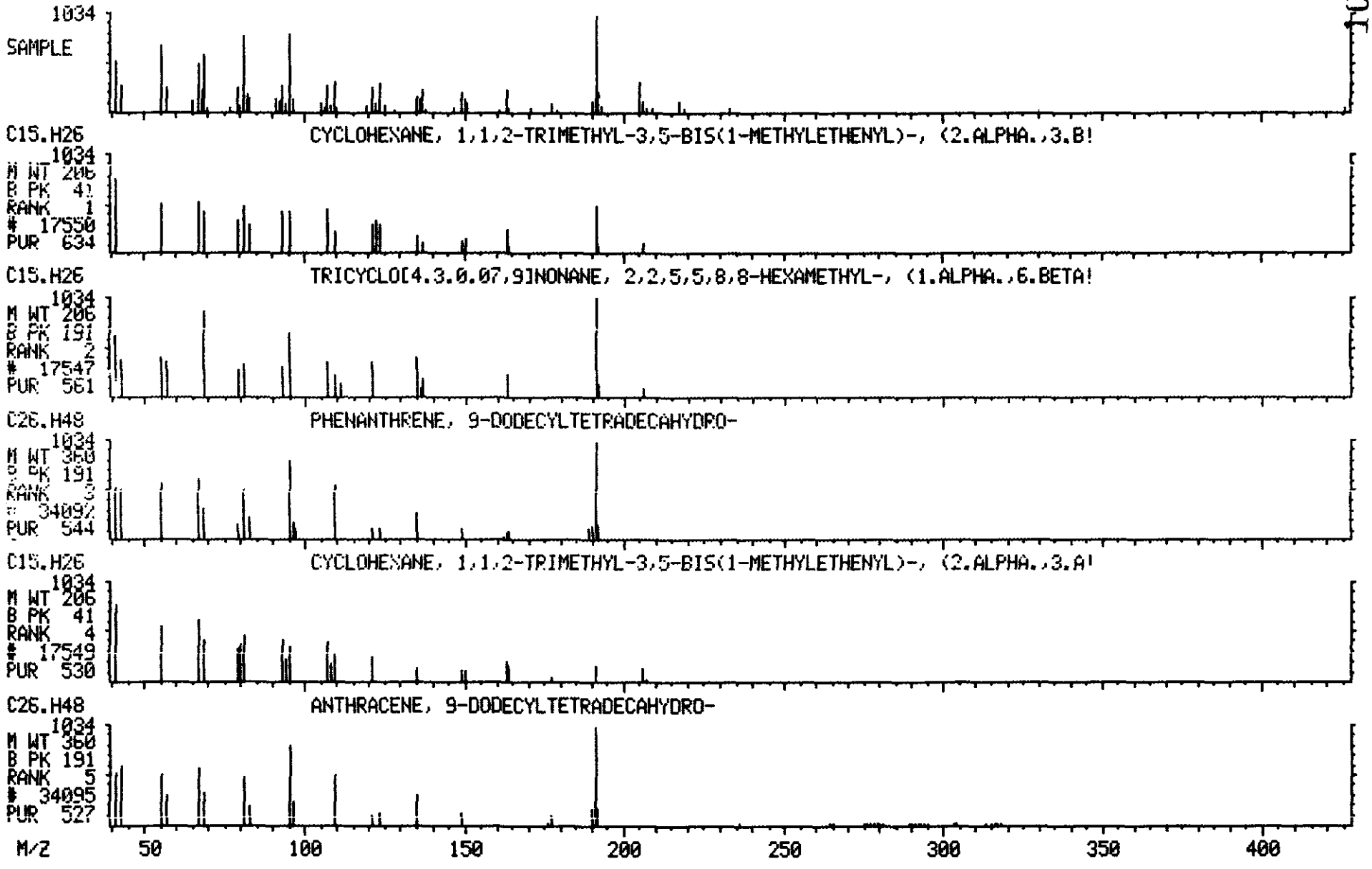
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:06:00 + 43:44
SAMPLE: CLP,VERSCDM,2565,4,M,5,16909,6,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN038C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2607 #2624
CALI: T2607 # 2

BASE M/Z: 191
RIC: 9647.

1UCCC1



ORIGINAL (Red)

```
>>>>INTERNAL STANDARD RIC REPORT<<<<
*****************************INTERNAL STANDARD#1*****************RIC
Mass List                        Data: T2607 # 539          Base m/z:  150
05/16/90  7:06:00 +  8:59        Cali: T2607 #   2          RIC:     37440.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     35        0.00    0.00        0. Minima     Min inten:       0.
     30                         #   0  Maxima
*****************************INTERNAL STANDARD#2*****************RIC
Mass List                        Data: T2607 # 759          Base m/z:  136
05/16/90  7:06:00 + 12:39        Cali: T2607 #   2          RIC:     37824.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     38        0.00    0.00        0. Minima     Min inten:       0.
     30                         #   0  Maxima
*****************************INTERNAL STANDARD#3*****************RIC
Mass List                        Data: T2607 #1092          Base m/z:  164
05/16/90  7:06:00 + 18:12        Cali: T2607 #   2          RIC:     32896.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     38        0.00    0.00        0. Minima     Min inten:       0.
     30                         #   0  Maxima
*****************************INTERNAL STANDARD#4*****************RIC
Mass List                        Data: T2607 #1376          Base m/z:  188
05/16/90  7:06:00 + 22:56        Cali: T2607 #   2          RIC:     29536.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     40        0.00    0.00        0. Minima     Min inten:       0.
     30                         #   0  Maxima
*****************************INTERNAL STANDARD#5*****************RIC
Mass List                        Data: T2607 #1895          Base m/z:  240
05/16/90  7:06:00 + 31:35        Cali: T2607 #   2          RIC:     36992.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     38        0.00    0.00        0. Minima     Min inten:       0.
     30                         #   0  Maxima
*****************************INTERNAL STANDARD#6*****************RIC
Mass List                        Data: T2607 #2201          Base m/z:  264
05/16/90  7:06:00 + 36:41        Cali: T2607 #   2          RIC:     28864.
Sample: CLP,VERSCDM,2565,4,M,S,16909,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     41        0.00    0.00        0. Minima     Min inten:       0.
     30                         #   0  Maxima
```

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

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

8 ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16910

Sample wt/vol: 30.2 (g/mL) G Lab File ID: T2773

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

% Moisture: not dec. 38 dec. ____ Date Extracted: 05/01/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/25/90

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 21

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	22000	U
111-44-4	bis(2-Chloroethyl)ether	22000	U
95-57-8	2-Chlorophenol	22000	U
541-73-1	1,3-Dichlorobenzene	22000	U
106-46-7	1,4-Dichlorobenzene	22000	U
100-51-6	Benzyl alcohol	22000	U
95-50-1	1,2-Dichlorobenzene	22000	U
95-48-7	2-Methylphenol	22000	U
108-60-1	bis(2-Chloroisopropyl)ether	22000	U
106-44-5	4-Methylphenol	22000	U
621-64-7	N-Nitroso-di-n-propylamine	22000	U
67-72-1	Hexachloroethane	22000	U
98-95-3	Nitrobenzene	22000	U
78-59-1	Isophorone	22000	U
88-75-5	2-Nitrophenol	22000	U
105-67-9	2,4-Dimethylphenol	22000	U
65-85-0	Benzoic Acid	110000	U
111-91-1	bis(2-Chloroethoxy)methane	22000	U
120-83-2	2,4-Dichlorophenol	22000	U
120-82-1	1,2,4-Trichlorobenzene	22000	U
91-20-3	Naphthalene	22000	U
106-47-8	4-Chloroaniline	22000	U
87-68-3	Hexachlorobutadiene	22000	U
59-50-7	4-Chloro-3-methylphenol	22000	U
91-57-6	2-Methylnaphthalene	22000	U
77-47-4	Hexachlorocyclopentadiene	22000	U
88-06-2	2,4,6-Trichlorophenol	22000	U
95-95-4	2,4,5-Trichlorophenol	110000	U
91-58-7	2-Chloronaphthalene	22000	U
88-74-4	2-Nitroaniline	110000	U
131-11-3	Dimethylphthalate	22000	U
208-96-8	Acenaphthylene	22000	U
606-20-2	2,6-Dinitrotoluene	22000	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

8 ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16910

Sample wt/vol: 30.2 (g/mL) G Lab File ID: T2773

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

% Moisture: not dec. 38 dec. ____ Date Extracted: 05/01/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/25/90

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 21

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	110000	U
83-32-9	Acenaphthene	22000	U
51-28-5	2,4-Dinitrophenol	110000	U
100-02-7	4-Nitrophenol	110000	U
132-64-9	Dibenzofuran	22000	U
121-14-2	2,4-Dinitrotoluene	22000	U
84-66-2	Diethylphthalate	22000	U
7005-72-3	4-Chlorophenyl-phenylether	22000	U
86-73-7	Fluorene	22000	U
100-01-6	4-Nitroaniline	110000	U
534-52-1	4,6-Dinitro-2-methylphenol	110000	U
86-30-6	N-nitrosodiphenylamine (1)	22000	U
101-55-3	4-Bromophenyl-phenylether	22000	U
118-74-1	Hexachlorobenzene	22000	U
87-86-5	Pentachlorophenol	110000	U
85-01-8	Phenanthrene	22000	U
120-12-7	Anthracene	22000	U
84-74-2	Di-n-butylphthalate	22000	U
206-44-0	Fluoranthene	22000	U
129-00-0	Pyrene	22000	U
85-68-7	Butylbenzylphthalate	22000	U
91-94-1	3,3'-Dichlorobenzidine	44000	U
56-55-3	Benzo(a)anthracene	22000	U
218-01-9	Chrysene	22000	U
117-81-7	bis(2-Ethylhexyl)phthalate	22000	U
117-84-0	Di-n-octyl phthalate	22000	U
205-99-2	Benzo(b)fluoranthene	22000	U
207-08-9	Benzo(k)fluoranthene	22000	U
50-32-8	Benzo(a)pyrene	22000	U
193-39-5	Indeno(1,2,3-cd)pyrene	22000	U
53-70-3	Dibenz(a,h)anthracene	22000	U
191-24-2	Benzo(g,h,i)perylene	22000	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

8 ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16910

Sample wt/vol: 30.2 (g/mL) G Lab File ID: T2773

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

% Moisture: not dec. 38 dec. ____ Date Extracted: 05/01/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/25/90

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 21

Number TICs found: 10

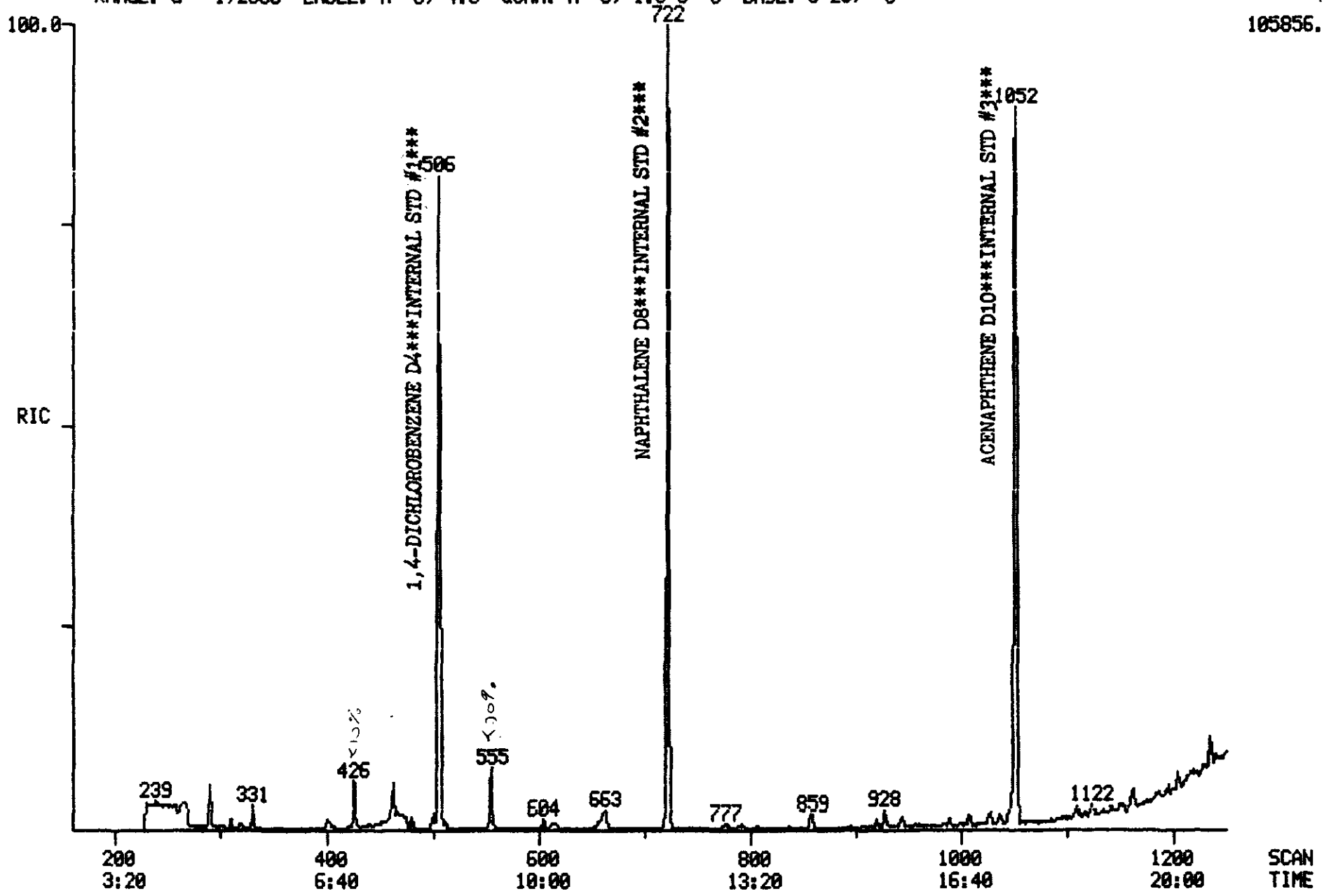
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	28.77	6700	J
2.	UNKNOWN	30.46	11000	J
3.	UNKNOWN	32.39	11000	J
4.	UNKNOWN	32.91	11000	J
5.	UNKNOWN	34.56	18000	J
6.	UNK. POLYCYCLIC AROMATIC	35.17	29000	J
7.	UNK. POLYCYCLIC AROMATIC	35.72	25000	J
8.	UNK. POLYCYCLIC AROMATIC	37.74	40000	J
9.	UNK. POLYCYCLIC AROMATIC	39.31	54000	J
10.	UNK. POLYCYCLIC AROMATIC	41.42	13000	J

ORIGINAL (Red)

RIC DATA: T2773 #1 SCANS 160 TO 1250
05/25/90 14:18:00 CALI: T2773 #2
SAMPLE: CLP,VERSCOM,2565,8,L,5,16910,B,,420.1.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
RANGE: G 1,2600 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

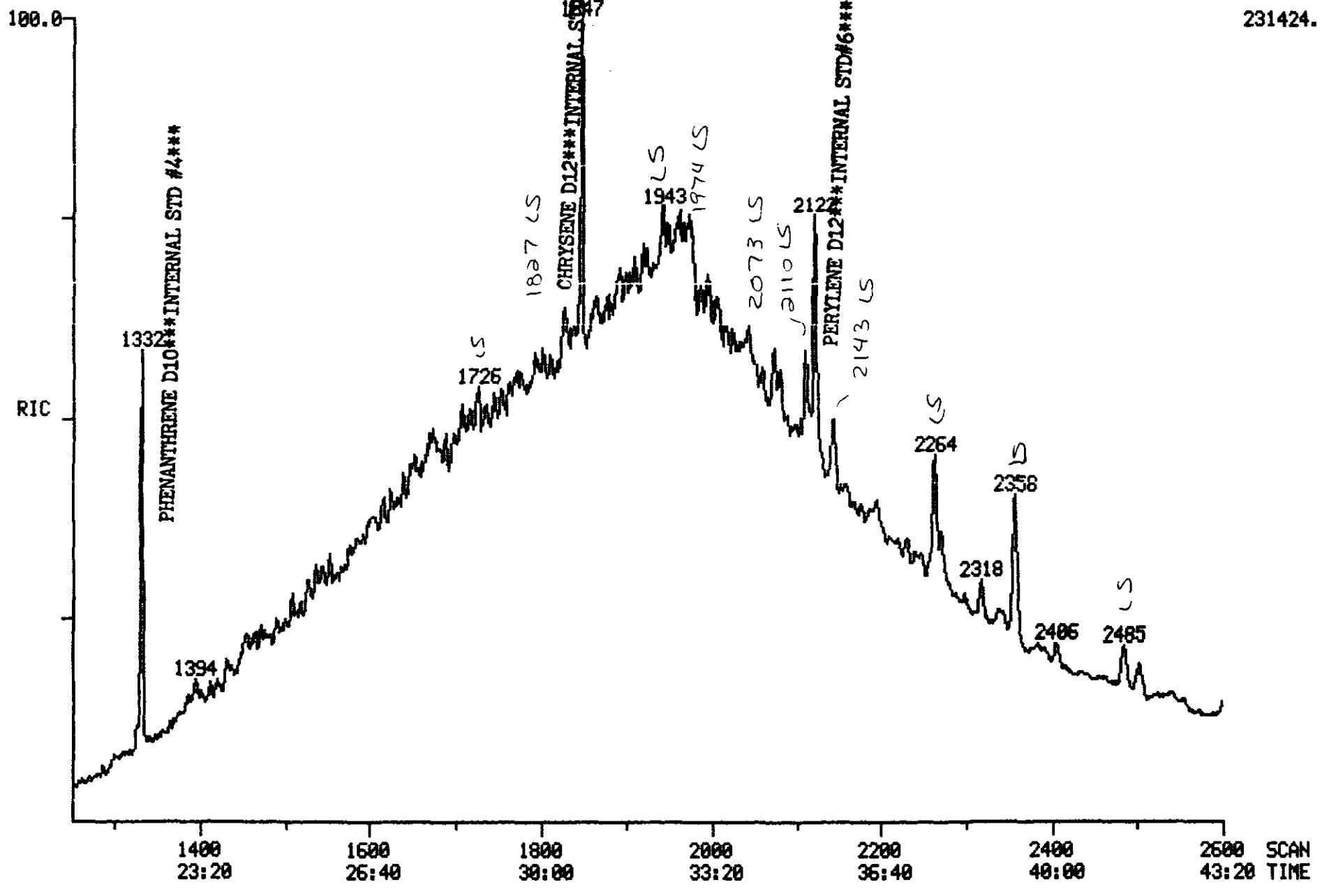
100096



ORIGINAL (Red)

100097

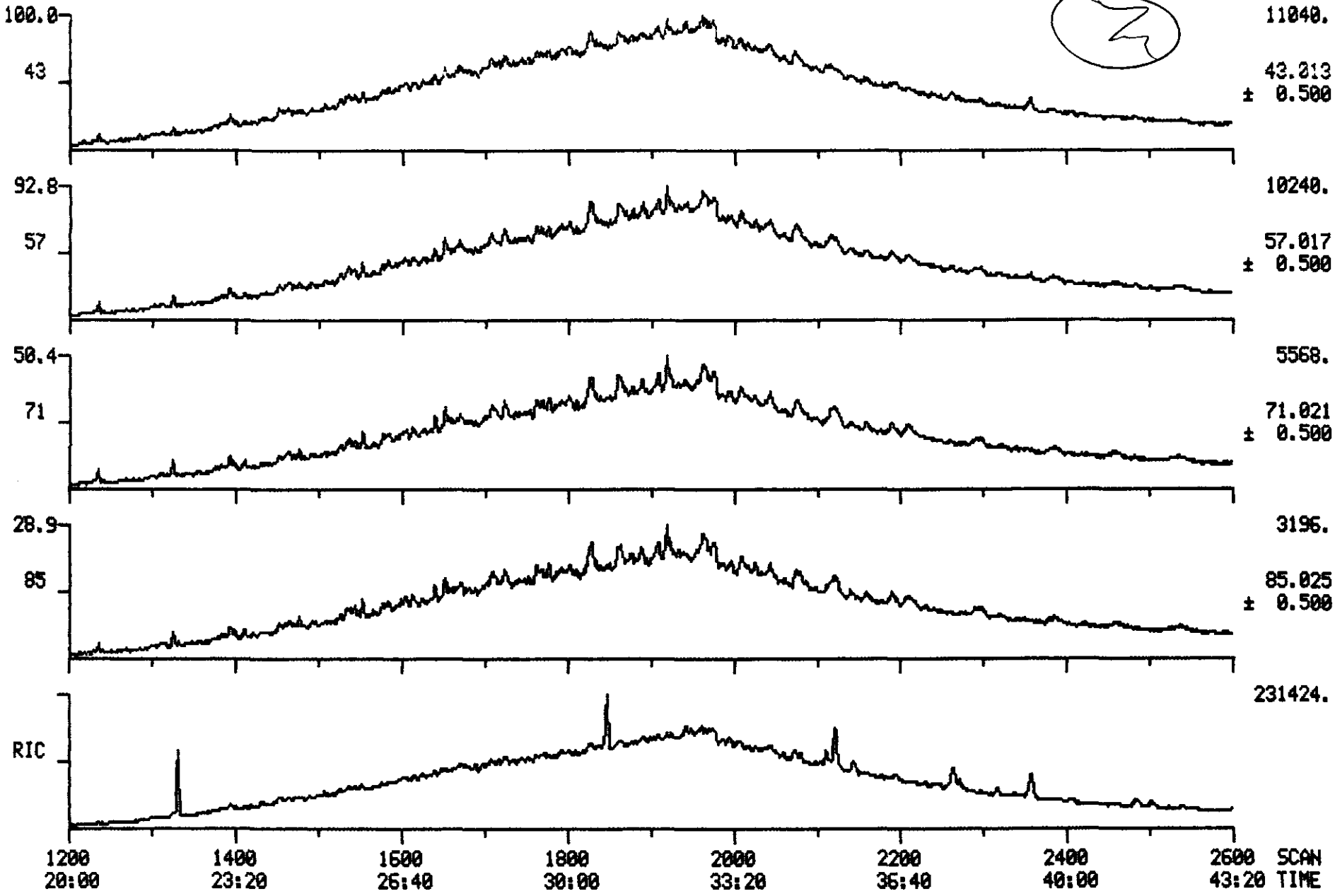
RIC DATA: T2773 #1 SCANS 1250 TO 2600
05/25/90 14:18:00 CALI: T2773 #2
SAMPLE: CLP,VERSCDM,2565,8,L,5,16910,B,,420,4.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
RANGE: G 1,2600 LABEL: N 0, 4.0 QUAN: 0, 1.0 J 0 BASE: U 20, 3



ORIGINAL (Red)

RIC+MASS CHROMATOGRAMS DATA: T2773 #1 SCANS 1200 TO 2600
05/25/90 14:18:00 CALI: T2773 #2
SAMPLE: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
RANGE: G 1,2600 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

100098



Quantitation Report File: T2773

ORIGINAL (Red)

Data: T2773.TI
05/25/90 14:18:00
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302~~80C~~/MIN
Formula: --- Instrument: T Weight: 0.003
Submitted by: VERSAR Analyst: SJD Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	C330 2-CHLOROPHENOL
3	C315 PHENOL
4	C325 BIS (2-CHLOROETHYL) ETHER
5	C335 1,3-DICHLOROBENZENE
6	C340 1,4-DICHLOROBENZENE
7	C350 1,2-DICHLOROBENZENE
8	C345 BENZYL ALCOHOL
9	C360 BIS (2-CHLOROISOPROPYL) ETHER
10	C355 2-METHYLPHENOL
11	C375 HEXACHLOROETHANE
12	C365 4-METHYLPHENOL
13	C370 N-NITROSO-DI-N-PROPYLAMINE
14	CS50 2-FLUOROPHENOL**ACID SURR.**
15	CS45 PHENOL-D5**ACID SURR.**
16	CI40 NAPHTHALENE-D8**INT. STD.#2**
17	C410 NITROBENZENE
18	C415 ISOPHORONE
19	C420 2-NITROPHENOL
20	C425 2,4-DIMETHYLPHENOL
21	C435 BIS (2-CHLOROETHOXY) METHANE
22	C440 2,4-DICHLOROPHENOL
23	C445 1,2,4-TRICHLOROBENZENE
24	C450 NAPHTHALENE
25	C430 BENZOIC ACID
26	C455 4-CHLOROANILINE
27	C460 HEXACHLOROBUTADIENE
28	C465 4-CHLORO-3-METHYLPHENOL
29	C470 2-METHYLNAPHTHALENE
30	CS20 NITROBENZENE-D5**BN SURR.**
31	CI50 ACENAPHTHENE-D10**INT. STD.#3**
32	C510 HEXACHLOROCYCLOPENTADIENE
33	C515 2,4,6-TRICHLOROPHENOL
34	C520 2,4,5-TRICHLOROPHENOL
35	C525 2-CHLORONAPHTHALENE
36	C530 2-NITROANILINE
37	C540 ACENAPHTHYLENE
38	C535 DIMETHYL PHTHALATE
39	C544 2,6-DINITROTOLUENE
40	C550 ACENAPHTHENE
41	C545 3-NITROANILINE
42	C555 2,4-DINITROPHENOL
43	C565 DIBENZOFURAN
44	C560 4-NITROPHENOL
45	C570 2,4-DINITROTOLUENE
46	C590 FLUORENE
47	C585 4-CHLOROPHENYL-PHENYLETHER

M.J.

All IS areas compliant.
Surrogate recoveries N/A due to high dilution factor. SJD 5/29/90.

Zero HSL's
10 LIMS SRCHS

100099

T2773

ORIGINAL (Red)

No	Name
48	C580 DIETHYLPHTHALATE
49	C595 4-NITROANILINE
50	C610 4,6-DINITRO-2-METHYLPHENOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	506	8:26	1	1.000	A BB	30026.	40.000 NG/UL	15.95
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	112	331	5:31	1	0.654	A BB	1759.	1.611 NG*A1	0.64
15	99	463	7:43	1	0.915	A BB	3020.	2.052 NG*A2	0.82
16	136	722	12:02	16	1.000	A BB	92136.	40.000 NG/UL	15.95
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	82	604	10:04	16	0.837	A BB	1273.	0.835 NG*B1	0.33
31	164	1052	17:32	31	1.000	A BB	61140.	40.000 NG/UL	15.95
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								

T2773.

ORIGINAL (Red)

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	8:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	7:57		0.946						
3	7:43		0.919						
4	7:55		0.942						
5	8:18		0.988						
6	8:27		1.006						
7	8:56		1.063						
8	8:54		1.060						
9	9:20		1.111						
10	9:16		1.103						
11	9:44		1.159						
12	9:41		1.153						
13	9:44		1.159						
14	5:29	1.01	0.653	1.00	1.61	50.00	0.047	1.454	0.03
15	7:41	1.00	0.915	1.00	2.05	50.00	0.080	1.961	0.04
16	12:01	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
17	10:06		0.840						
18	10:45		0.895						
19	11:00		0.915						
20	11:11		0.931						
21	11:30		0.957						
22	11:40		0.971						
23	11:54		0.990						
24	12:05		1.006						
25	11:34		0.963						
26	12:24		1.032						
27	12:37		1.050						
28	13:56		1.159						
29	14:11		1.180						
30	10:03	1.00	0.836	1.00	0.83	50.00	0.011	0.662	0.02
31	17:30	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
32	14:52		0.850						
33	15:11		0.868						
34	15:18		0.874						
35	15:41		0.896						
36	16:14		0.928						
37	17:01		0.972						
38	16:57		0.969						
39	17:11		0.982						
40	17:36		1.006						
41	17:34		1.004						
42	17:53		1.022						
43	18:06		1.034						
44	18:11		1.039						
45	18:23		1.050						
46	19:12		1.097						
47	19:16		1.101						
48	19:13		1.098						
49	19:33		1.117						
50	19:38		1.122						

ORIGINAL (Red)

Quantitation Report File: T2773

Data: T2773.TI
05/25/90 14:18:00
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.003
Submitted by: VERSAR Analyst: SJD Acct. No.: 420.1

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

No	Name
51	C615 N-NITROSODIPHENYLAMINE
52	C625 4-BROMOPHENYL-PHENYLETHER
53	C630 HEXACHLOROBENZENE
54	CS25 2-FLUOROBIPHENYL**BN SURR.**
55	CI60 PHENANTHRENE-D10**INT. STD.#4**
56	C635 PENTACHLOROPHENOL
57	C640 PHENANTHRENE
58	C645 ANTHRACENE
59	C650 DI-N-BUTYLPHTHALATE
60	C655 FLUORANTHENE
61	C715 PYRENE
62	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
63	CI70 CHRYSENE-D12**INT. STD.#5**
64	C720 BUTYLBENZYLPHTHALATE
65	C730 BENZO(A)ANTHRACENE
66	C740 CHRYSENE
67	C725 3,3'-DICHLOROBENZIDINE
68	C741 BIS(2-ETHYLHEXYL)PHTHALATE
69	CS30 P-TERPHENYL-D14**BN SURR.**
70	CI75 PERYLENE-D12**INT. STD.#6**
71	C760 DI-N-OCTYL PHTHALATE
72	C765 BENZO(B)FLUORANTHENE
73	C770 BENZO(K)FLUORANTHENE
74	C775 BENZO(A)PYRENE
75	C780 INDENO(1,2,3-CD)PYRENE
76	C785 DIBENZ(A,H)ANTHRACENE
77	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								
52	NOT FOUND								
53	NOT FOUND								
54	172	928	15:28	31	0.882	A BB	2512.	1.124 NG*B2	0.45
55	188	1332	22:12	55	1.000	A BV	116903.	40.000 NG/UL	15.95
56	NOT FOUND								
57	178	1336	22:16	55	1.003	A BB	179.	~~0.050 NG~~	0.02
58	NOT FOUND								
59	149	1466	24:26	55	1.101	A BB	1386.	~~0.290 NG~~	0.12
60	202	1566	26:06	55	1.176	A BB	182.	~~0.053 NG~~	0.02
61	202	1609	26:49	63	0.871	A BB	538.	~~0.158 NG~~	0.06
62	330	1204	20:04	31	1.144	A BB	803.	1.748 NG*A3	0.70
63	240	1847	30:47	63	1.000	A BB	94913.	40.000 NG/UL	15.95
64	NOT FOUND								
65	NOT FOUND								
66	NOT FOUND								

BQL

T2773

ORIGINAL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	
67	NOT FOUND								
68	149	1869	31:09	63	1.012	A BB	2038.	~~0.801 NG~~ BRL	0.32
69	244	1647	27:27	63	0.892	A BB	3483.	1.551 NG*B3	0.62
70	264	2122	35:22	70	1.000	A BB	84632.	40.000 NG/UL	15.95
71	149	1974	32:54	70	0.930	A BB	1410.	~~0.328 NG~~ BRL	0.13
72	252	2038	33:58	70	0.960	A*BB	542.	~~0.207 NG~~	0.08
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	19:43		1.127						
52	20:48		1.189						
53	21:11		1.210						
54	15:27	1.00	0.883	1.00	1.12	50.00	0.033	1.462	0.02
55	22:10	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
56	21:49		0.984						
57	22:15	1.00	1.004	1.00	0.05	50.00	0.001	1.234	0.00
58	22:24		1.011						
59	24:24	1.00	1.101	1.00	0.29	50.00	0.009	1.634	0.01
60	26:05	1.00	1.177	1.00	0.05	50.00	0.001	1.185	0.00
61	26:48	1.00	0.872	1.00	0.16	50.00	0.005	1.432	0.00
62	20:03	1.00	1.146	1.00	1.75	50.00	0.011	0.301	0.03
63	30:45	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
64	29:13		0.950						
65	30:42		0.998						
66	30:50		1.003						
67	30:45		1.000						
68	31:07	1.00	1.012	1.00	0.80	50.00	0.017	1.072	0.02
69	27:26	1.00	0.892	1.00	1.55	50.00	0.029	0.946	0.03
70	35:18	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
71	32:51	1.00	0.931	1.00	0.33	50.00	0.013	2.034	0.01
72	33:56	1.00	0.961	1.00	0.21	50.00	0.005	1.237	0.00
73	34:01		0.964						
74	35:05		0.994						
75	40:21		1.143						
76	40:30		1.147						
77	41:53		1.186						

ORIGINAL
(Red)

Guantitation Report File: QCREF

Data: T2773.TI
05/25/90 14:18:00
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.003
Submitted by: VERSAR Analyst: SJD Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI40 NAPHTHALENE-D8**INT. STD.#2**
3	CI50 ACENAPHTHENE-D10**INT. STD.#3**
4	CI60 PHENANTHRENE-D10**INT. STD.#4**
5	CI70 CHRYSENE-D12**INT. STD.#5**
6	CI75 PERYLENE-D12**INT. STD.#6**
7	CS50 2-FLUOROPHENOL**ACID SURR.**
8	CS45 PHENOL-D5**ACID SURR.**
9	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
10	CS20 NITROBENZENE-D5**BN SURR.**
11	CS25 2-FLUOROBIPHENYL**BN SURR.**
12	CS30 P-TERPHENYL-D14**BN SURR.**

Surrogate recoveries not applicable due to high dil. factor.
SJD 6/29/90

Scan	Time	Area(Hght)	Amount		Name
506	8:26	30026.	40.000	NG/UL	CI30 1,4-DICHLOROBENZENE-D4
722	12:02	92136.	40.000	NG/UL	CI40 NAPHTHALENE-D8**INT. ST
1052	17:32	61140.	40.000	NG/UL	CI50 ACENAPHTHENE-D10**INT.
1332	22:12	116903.	40.000	NG/UL	CI60 PHENANTHRENE-D10**INT.
1847	30:47	94913.	40.000	NG/UL	CI70 CHRYSENE-D12**INT. STD.
2122	35:22	84632.	40.000	NG/UL	CI75 PERYLENE-D12**INT. STD.
331	5:31	1759.	1.611	NG*A1	CS50 2-FLUOROPHENOL**ACID SU
463	7:43	3020.	2.052	NG*A2	CS45 PHENOL-D5**ACID SURR.**
1204	20:04	803.	1.748	NG*A3	CS55 2,4,6,-TRIBROMOPHENOL**
604	10:04	1273.	0.835	NG*B1	CS20 NITROBENZENE-D5**BN SUR
928	15:28	2512.	1.124	NG*B2	CS25 2-FLUOROBIPHENYL**BN SU
1647	27:27	3483.	1.551	NG*B3	CS30 P-TERPHENYL-D14**BN SUR

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:24	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:01	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	17:30	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	22:10	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	30:45	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	35:18	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	5:29	1.01	0.653	1.00	1.61	50.00	0.047	1.454	0.03
8	7:41	1.00	0.915	1.00	2.05	50.00	0.080	1.961	0.04
9	20:03	1.00	1.146	1.00	1.75	50.00	0.011	0.301	0.03
10	10:03	1.00	0.836	1.00	0.83	50.00	0.011	0.662	0.02
11	15:27	1.00	0.883	1.00	1.12	50.00	0.033	1.462	0.02
12	27:26	1.00	0.892	1.00	1.55	50.00	0.029	0.946	0.03

Quantitation Report File: ISREF

ORIGINAL (Red)

Data: T2767.TI
05/25/90 8:48:00
Sample: CLP,,,SSTD 50,,,22686,B,CC-050,,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.003
Submitted by: VERSAR Analyst: SJD Acct. No.: -

Data: T2773.TI
05/25/90 14:18:00
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.003
Submitted by: VERSAR Analyst: SJD Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
3	CI40 NAPHTHALENE-D8**INT. STD. #2**
4	CI40 NAPHTHALENE-D8**INT. STD. #2**
5	CI50 ACENAPHTHENE-D10**INT. STD. #3**
6	CI50 ACENAPHTHENE-D10**INT. STD. #3**
7	CI60 PHENANTHRENE-D10**INT. STD. #4**
8	CI60 PHENANTHRENE-D10**INT. STD. #4**
9	CI70 CHRYSENE-D12**INT. STD. #5**
10	CI70 CHRYSENE-D12**INT. STD. #5**
11	CI75 PERYLENE-D12**INT. STD. #6**
12	CI75 PERYLENE-D12**INT. STD. #6**

Scan	Time	Area(Hght)	Amount		Name
504	8:24	24426.	40.000	NG/UL	CI30 1,4-DICHLOROBENZENE-D4
506	8:26	30026.	49.171	NG/UL	CI30 1,4-DICHLOROBENZENE-D4
721	12:01	77233.	40.000	NG/UL	CI40 NAPHTHALENE-D8**INT. ST
722	12:02	92136.	47.718	NG/UL	CI40 NAPHTHALENE-D8**INT. ST
1050	17:30	51176.	40.000	NG/UL	CI50 ACENAPHTHENE-D10**INT.
1052	17:32	61140.	47.788	NG/UL	CI50 ACENAPHTHENE-D10**INT.
1330	22:10	99511.	40.000	NG/UL	CI60 PHENANTHRENE-D10**INT.
1332	22:12	116903.	46.991	NG/UL	CI60 PHENANTHRENE-D10**INT.
1845	30:45	83250.	40.000	NG/UL	CI70 CHRYSENE-D12**INT. STD.
1847	30:47	94913.	45.604	NG/UL	CI70 CHRYSENE-D12**INT. STD.
2118	35:18	72665.	40.000	NG/UL	CI75 PERYLENE-D12**INT. STD.
2122	35:22	84632.	46.587	NG/UL	CI75 PERYLENE-D12**INT. STD.

Library Search Data: T2773 #1726 Base m/z: 55
05/25/90 14:18:00 + 28:46 Cali: T2773 # 2 RIC: 7487.
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

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

Rank	In.	Name
1	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
2	6295	CYCLOHEXANOL, 2-(1-METHYLETHYL)-
3	33371	5.ALPHA.-PREGNAN-20-ONE, 3.BETA.,11.ALPHA.,12.BETA.-TRIHYDROXY-
4	33043	OCTADECANAL, 2-BROMO-
5	6307	CYCLOHEXANOL, 4-(1-METHYLETHYL)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	43	283	532	385
2	C9.H18.O	142	81	250	762	283
3	C21.H34.O4	350	43	244	556	379
4	C18.H35.O.BR	346	43	243	606	379
5	C9.H18.O	142	43	231	735	260

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55401-75-7
2	—	—	—	—	96-07-1
3	—	—	—	—	13384-56-0
4	—	—	—	—	56599-95-2
5	—	—	—	—	4621-04-9

✓

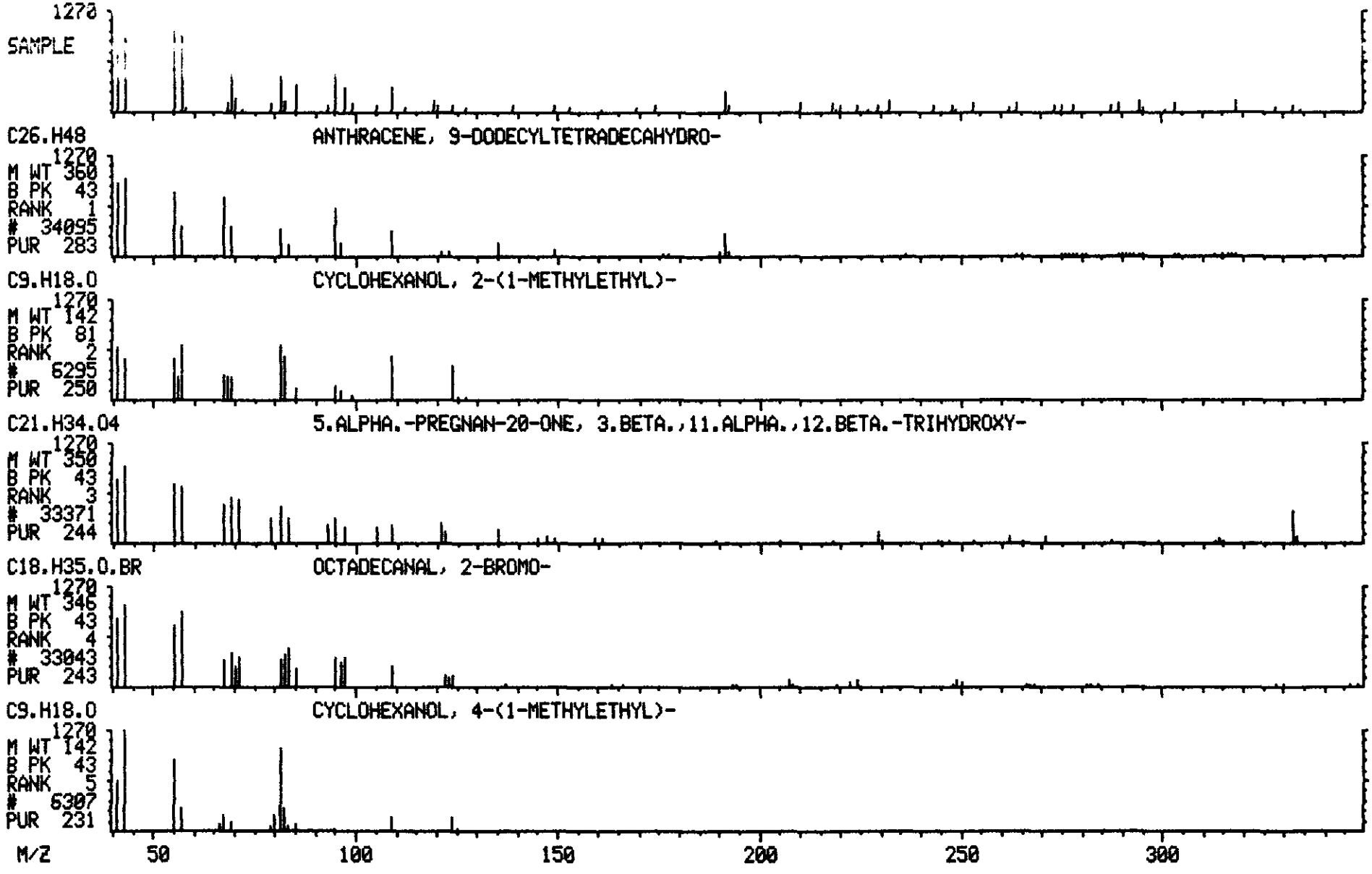
ORIGINAL (Red)

LIBRARY SEARCH
05/25/90 14:18:00 + 28:46
SAMPLE: CLP,VERSCOM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2773 #1726
CALI: T2773 # 2

BASE M/Z: 55
RIC: 7487.

100107



Library Search Data: T2773 #1827 Base m/z: 57
05/25/90 14:18:00 + 30:27 Cali: T2773 # 2 RIC: 11167.
Sample: CLP,VERSCDM,2565,B,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

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

Rank	In.	Name
1	24691	ETHANOL, 2-(TETRADECYLOXY)-
2	39452	DECANEDIOIC ACID, DIDECYL ESTER
3	14256	1-DECANOL, 2-ETHYL-
4	29053	DECANE, 1,1'-OXYBIS-
5	27155	9-EICOSENE, (E)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C16.H34.O2	258	57	536	919	572
2	C30.H58.O4	482	57	523	953	534
3	C12.H26.O	186	57	520	935	544
4	C20.H42.O	298	43	511	904	534
5	C20.H40	280	55	504	869	537

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	2136-70-1
2	—	—	—	—	2432-89-5
3	—	—	—	—	21078-65-9
4	—	—	—	—	2456-28-2
5	—	—	—	—	74685-29-3

✓

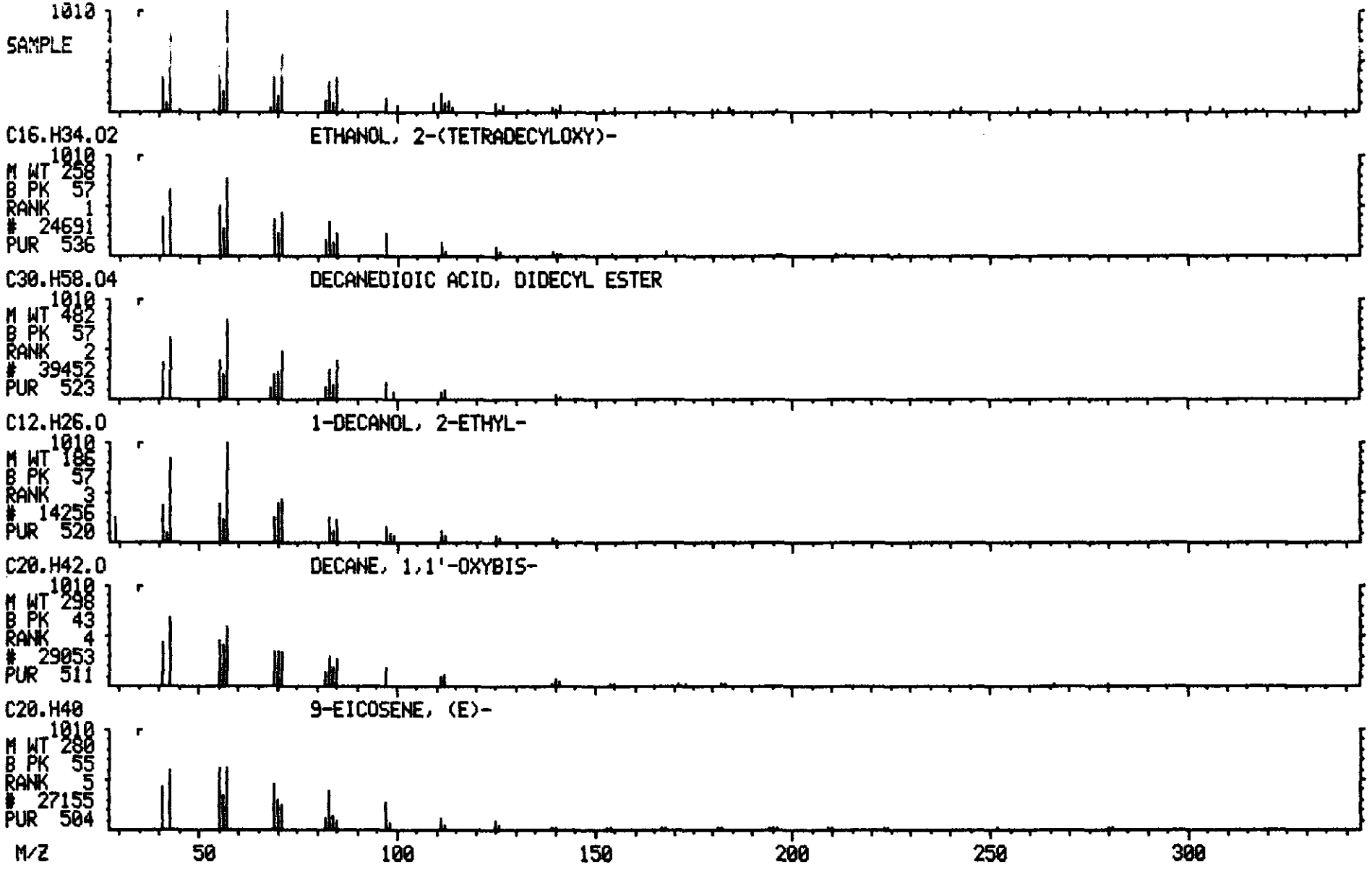
ORIGINAL (Red)

LIBRARY SEARCH
05/25/90 14:18:00 + 30:27
SAMPLE: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2773 #1827
CALI: T2773 # 2

BASE M/Z: 57
RIC: 11167.

100109



Library Search Data: T2773 #1943 Base m/z: 43 ORIGINAL (Red)
05/25/90 14:18:00 + 32:23 Cali: T2773 # 2 RIC: 10863.
Sample: CLP,VERSCDM,2565,8,L,5,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

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

Rank	In.	Name
1	26560	D-HOMOANDROSTANE, (5.ALPHA.)-
2	24941	3,4-HEPTADIEN-2-ONE, 3,5-DICYCLOPENTYL-6-METHYL-
3	34899	CHOLESTANE (VAN)
4	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
5	35351	9,9'-BIPHENANTHRENE, OCTACOSAHYDRO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C20.H34	274	81	367	777	444
2	C18.H28.O	260	43	363	868	396
3	C27.H48	372	43	332	672	437
4	C26.H48	360	95	320	831	360
5	C28.H46	382	95	312	705	347

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	35575-26-9
2	—	—	—	—	63922-51-0
3	—	—	—	—	481-21-0
4	—	—	—	—	55334-01-5
5	—	—	—	—	55334-18-4

✓

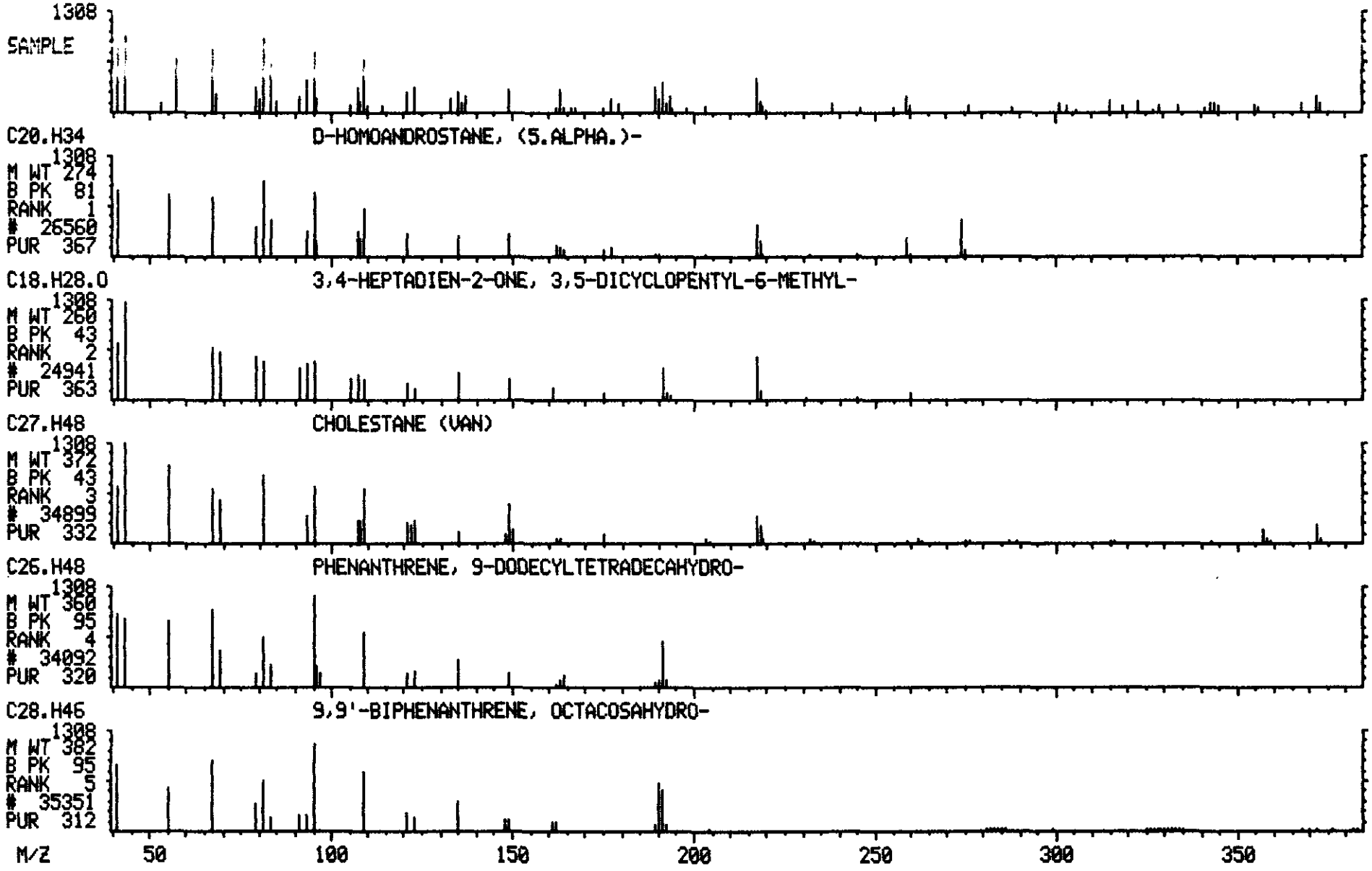
ORIGINAL (Red)

100111

LIBRARY SEARCH
05/25/90 14:18:00 + 32:23
SAMPLE: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2773 #1943
CALI: T2773 # 2

BASE M/Z: 43
RIC: 10863.



Library Search Data: T2773 #1974 Base m/z: 55
05/25/90 14:18:00 + 32:54 Cali: T2773 # 2 RIC: 11103.
Sample: CLP,VERSCDM,2565,8,L,5,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42222 spectra in LIBRARYNB searched for maximum PURITY
247 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	22446	OXIRANE, TETRADECYL-
2	25570	2,5-FURANDIONE, 3-(DODECENYL)DIHYDRO-
3	31465	DODECANE, 1,2-DIBROMO-
4	27153	CYCLOHEXANE, 1-(1,5-DIMETHYLHEXYL)-4-(4-METHYLPENTYL)-
5	8816	4-HEXENOIC ACID, 3-METHYL-2,6-DIOXO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C16.H32.O	240	41	313	843	353
2	C16.H26.O3	266	41	311	717	418
3	C12.H24.BR2	326	43	307	736	402
4	C20.H40	280	43	293	747	383
5	C7.H8.O4	156	29	280	802	342

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	7320-37-8
2	—	—	—	—	25377-73-5
3	—	—	—	—	55334-42-4
4	—	—	—	—	56009-20-2
5	—	—	—	—	56771-77-8

✓

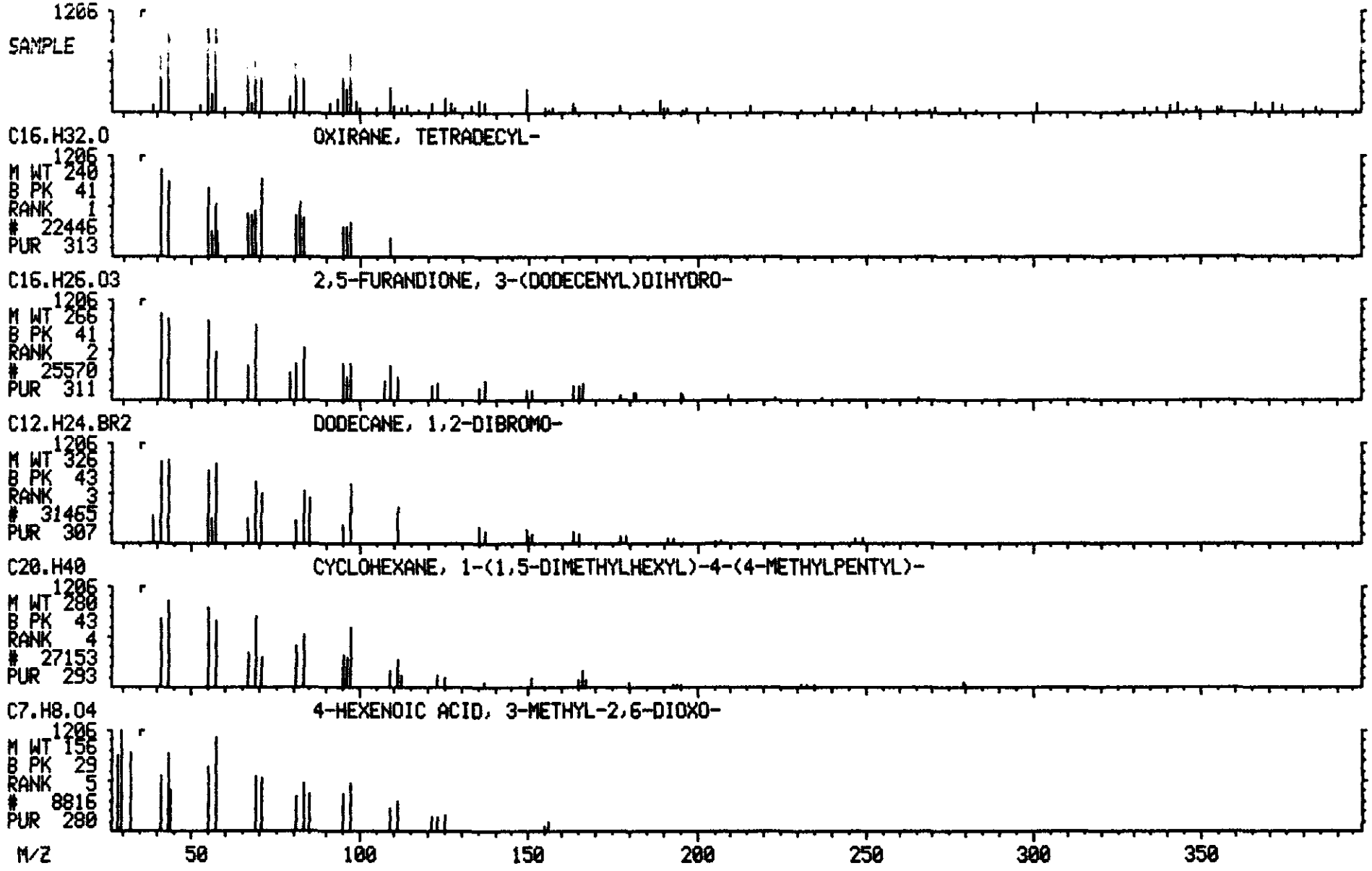
ORIGINAL (Red)

100113

LIBRARY SEARCH
05/25/90 14:18:00 + 32:54
SAMPLE: CLP,VERSCDM,2565,8,L,5,16910,B,,420.1.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2773 #1974
CALI: T2773 # 2

BASE M/Z: 55
RIC: 11103.



Library Search Data: T2773 #2073 Base m/z: 43 ORIGINAL (Red)
05/25/90 14:18:00 + 34:33 Cali: T2773 # 2 RIC: 13087.
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

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

Rank	In.	Name
1	26561	D-HOMOANDROSTANE, (5.ALPHA.,13.ALPHA.)-
2	34219	PENTALENE, OCTAHYDRO-1-(2-OCTYLDECYL)-
3	25570	2,5-FURANDIONE, 3-(DODECENYL)DIHYDRO-
4	23460	2,5,9-TETRADECATRIENE, 3,12-DIETHYL-
5	34217	PENTALENE, OCTAHYDRO-2-(1-METHYLHEPTADECYL)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C20.H34	274	69	339	857	376
2	C26.H50	362	43	282	730	297
3	C16.H26.O3	266	41	271	785	331
4	C18.H32	248	81	263	857	285
5	C26.H50	362	43	256	796	309

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	54482-31-4
2	—	—	—	—	55401-65-5
3	—	—	—	—	25377-73-5
4	—	—	—	—	74685-87-3
5	—	—	—	—	55334-10-6

✓

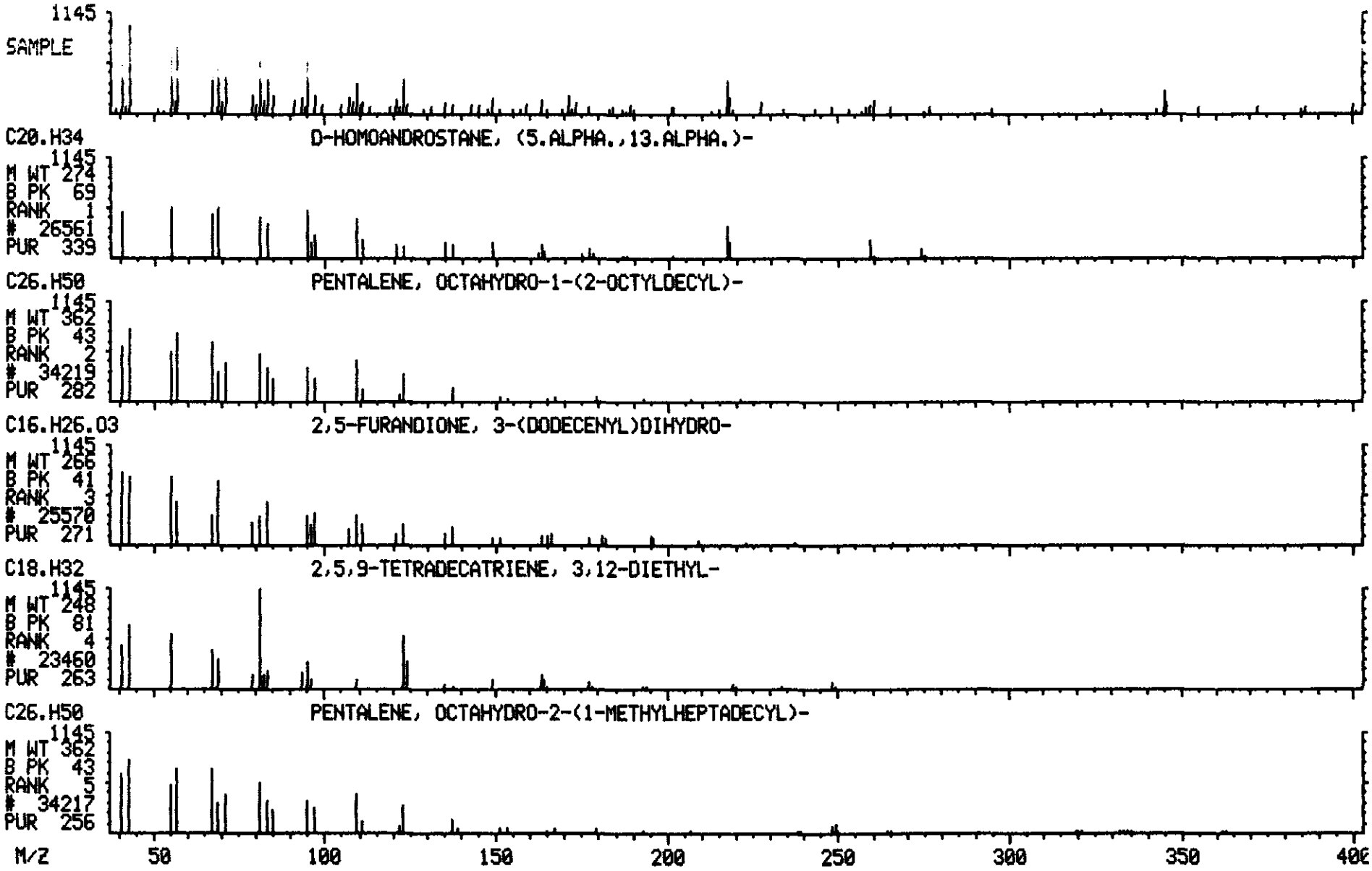
ORIGINAL (Red)

LIBRARY SEARCH
05/25/90 14:18:00 + 34:33
SAMPLE: CLP,VERSCDM,2565,8,L,5,16910,B,,420.1.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2773 #2073
CALI: T2773 # 2

BASE M/Z: 43
RIC: 13087.

100115



Library Search Data: T2773 #2110 Base m/z: 365 ORIGINAL
05/25/90 14:18:00 + 35:10 Cali: T2773 # 2 RIC: 20671. (Red)
Sample: CLP,VERSCDM,2565,B,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

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

Rank	In.	Name
1	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
2	26562	ANTHRACENE, 9-CYCLOHEXYLTETRADECAHYDRO-
3	23459	ANTHRACENE, 9-BUTYLTETRADECAHYDRO-
4	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
5	36822	SQUALENE

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	191	328	904	343
2	C20.H34	274	191	299	851	314
3	C18.H32	248	191	292	811	338
4	C26.H48	360	191	289	837	324
5	C30.H50	410	69	281	692	353

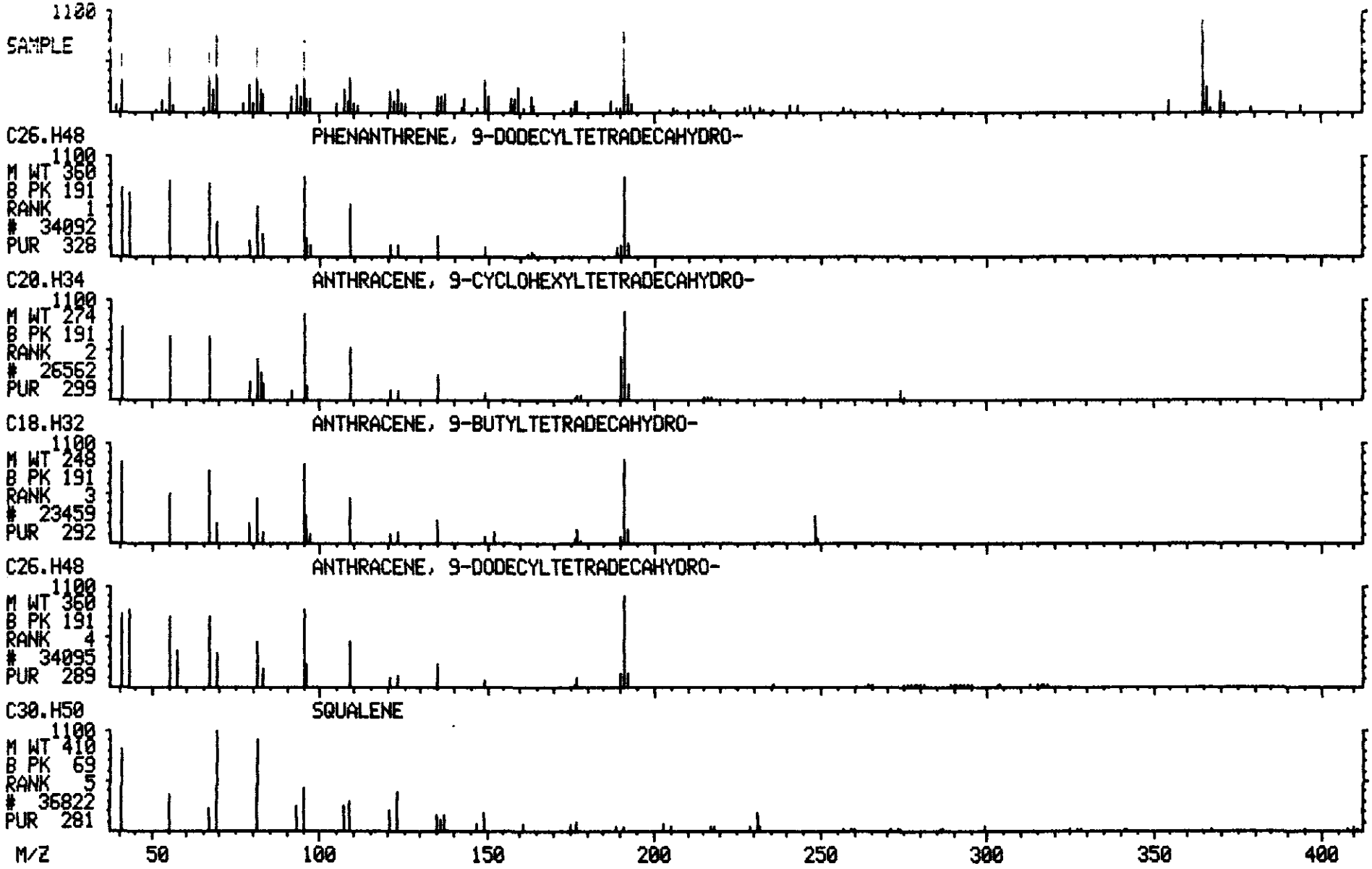
Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	—	—	—	—	55334-01-5
2	—	—	—	—	55255-70-4
3	—	—	—	—	55133-89-6
4	—	—	—	—	55401-75-7
5	—	—	—	—	7683-64-9

ORIGINAL (Red)

LIBRARY SEARCH
05/25/90 14:18:00 + 35:10
SAMPLE: CLP,VERSCOM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2773 #2110
CALI: T2773 # 2
BASE M/Z: 365
RIC: 20671.

100117



Library Search Data: T2773 #2143 Base m/z: 191 ORIGINAL (Red)
05/25/90 14:18:00 + 35:43 Cali: T2773 # 2 RIC: 16895.
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42222 spectra in LIBRARYNB searched for maximum PURITY
78 matched at least 6 of the 16 largest peaks in the unknown peak

Rank	In.	Name
1	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
2	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
3	17547	TRICYCLO[4.3.0.07,9]NONANE, 2,2,5,5,8,8-HEXAMETHYL-, (1.ALPHA.,6.BE*
4	15128	1,8-NONADIENE, 2,7-DIMETHYL-5-(1-METHYLETHENYL)-
5	26562	ANTHRACENE, 9-CYCLOHEXYLTETRADECAHYDRO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	95	514	939	519
2	C26.H48	360	191	478	893	494
3	C15.H26	206	191	465	937	475
4	C14.H24	192	55	460	919	460
5	C20.H34	274	191	442	849	461

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55334-01-5
2	—	—	—	—	55401-75-7
3	—	—	—	—	54832-82-5
4	—	—	—	—	68702-20-5
5	—	—	—	—	55255-70-4

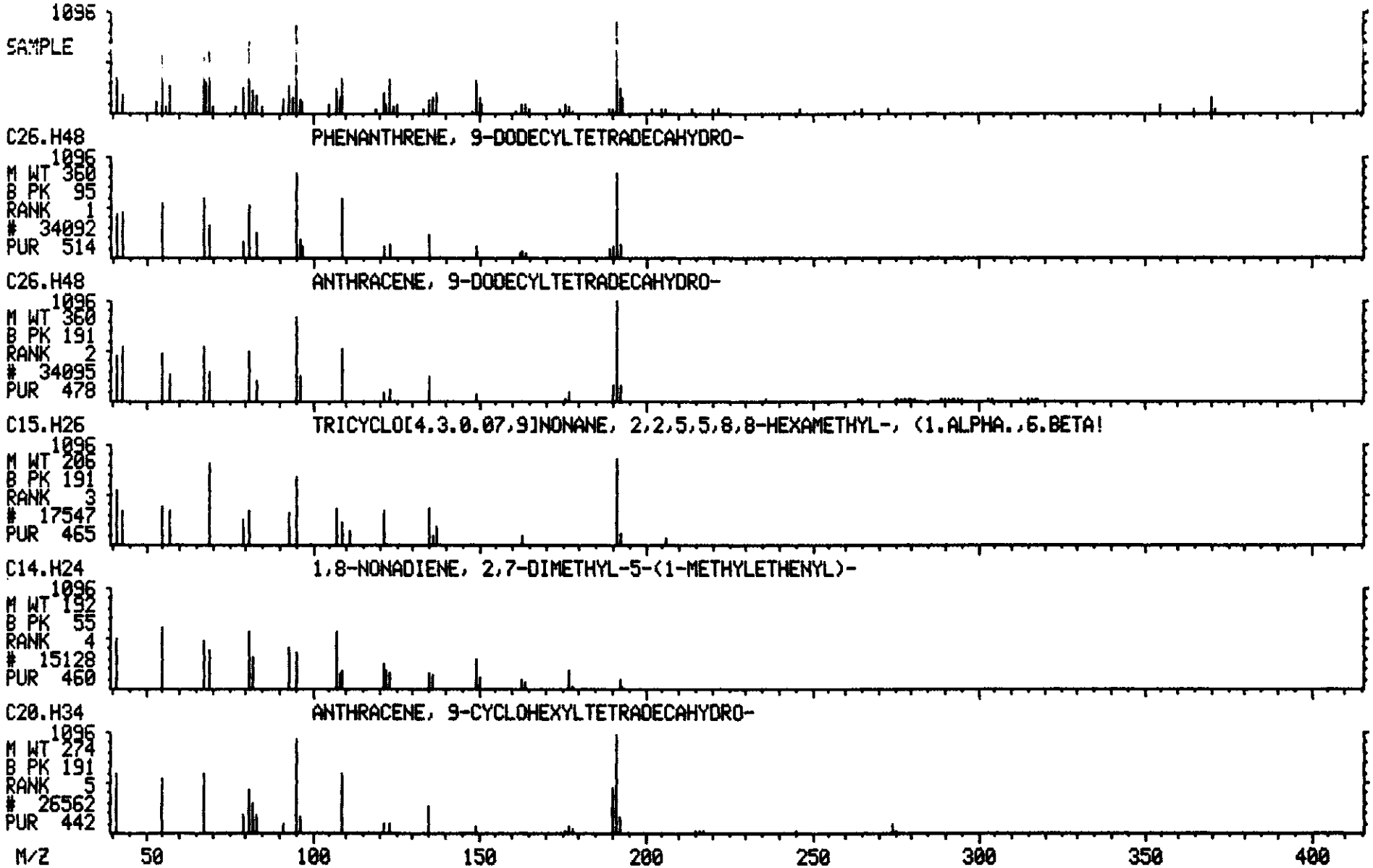
✓

ORIGINAL (Red)

LIBRARY SEARCH
05/25/90 14:18:00 + 35:43
SAMPLE: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2773 #2143
CALI: T2773 # 2
BASE M/Z: 191
RIC: 16895.

100119



Library Search Data: T2773 #2264 Base m/z: 191 ORIGINAL (Red)
05/25/90 14:18:00 + 37:44 Cali: T2773 # 2 RIC: 28639.
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42222 spectra in LIBRARYNB searched for maximum PURITY
85 matched at least 6 of the 16 largest peaks in the unknown
Pah

Rank	In.	Name
1	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
2	17547	TRICYCLO[4.3.0.07,9]NONANE, 2,2,5,5,8,8-HEXAMETHYL-, (1.ALPHA.,6.BE*
3	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
4	26562	ANTHRACENE, 9-CYCLOHEXYLTETRADECAHYDRO-
5	37772	LANOSTAN-18-OL

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	191	531	945	531
2	C15.H26	206	191	513	958	513
3	C26.H48	360	191	511	904	529
4	C20.H34	274	191	488	853	506
5	C30.H54.O	430	95	482	762	550

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55334-01-5
2	—	—	—	—	54832-82-5
3	—	—	—	—	55401-75-7
4	—	—	—	—	55255-70-4
5	—	—	—	—	54411-54-0

✓

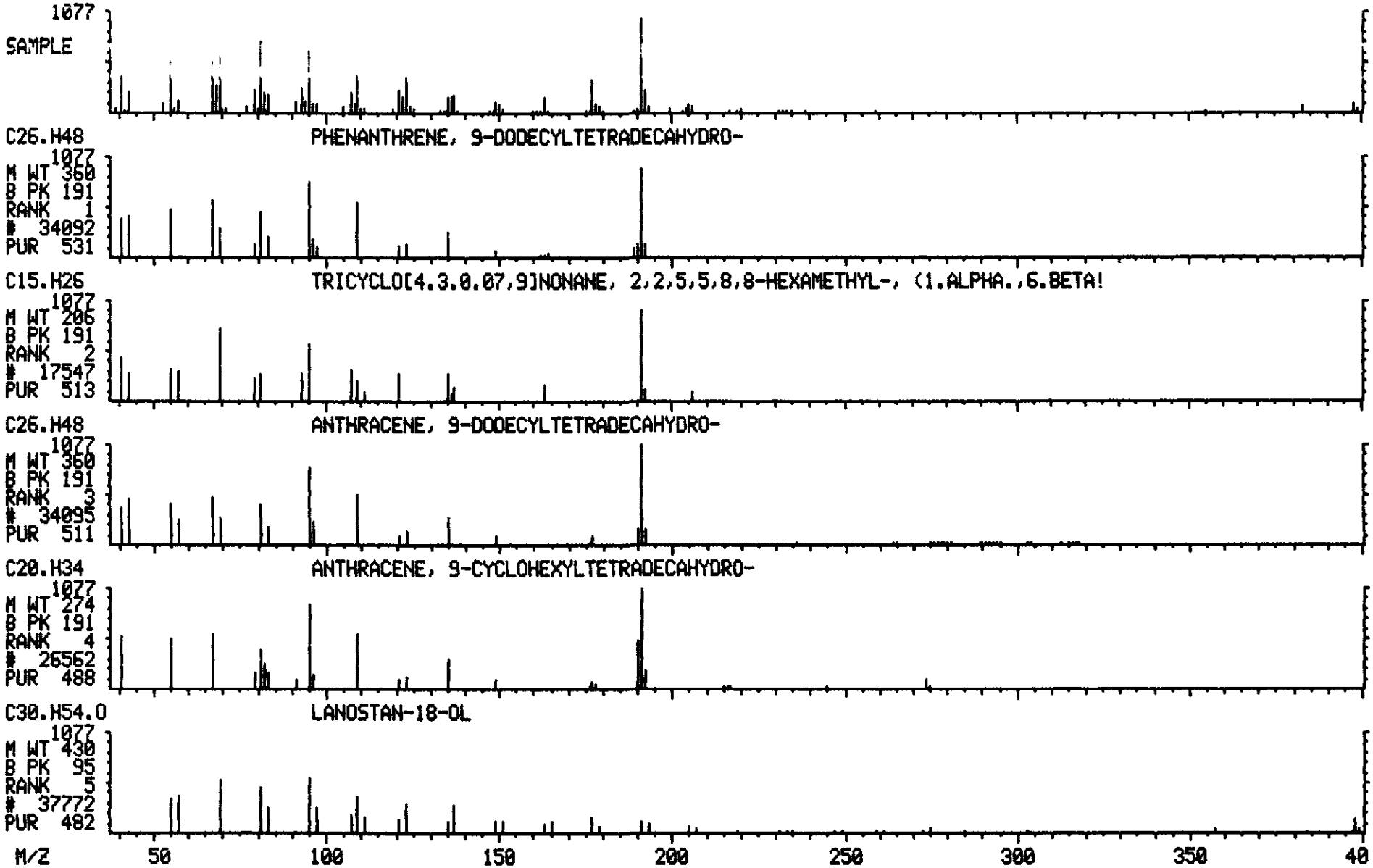
ORIGINAL (Red)

LIBRARY SEARCH
05/25/90 14:18:00 + 37:44
SAMPLE: CLP,VERSCOM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2773 #2264
CALI: T2773 # 2

BASE M/Z: 191
RIC: 28639.

100121



Library Search Data: T2773 #2358 Base m/z: 191
05/25/90 14:18:00 + 39:18 Cali: T2773 # 2 RIC: 38015.
Sample: CLP,VERSCDM,2565,8,L,5,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42222 spectra in LIBRARYNB searched for maximum PURITY
104 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
2	17547	TRICYCLO[4.3.0.07,9]NONANE, 2,2,5,5,8,8-HEXAMETHYL-, (1.ALPHA.,6.BE*
3	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
4	25543	AZULENO[4,5-B]FURAN-2(3H)-ONE, DECAHYDRO-8,9-DIHYDROXY-6,9A-DIMETHY*
5	26562	ANTHRACENE, 9-CYCLOHEXYLTETRADECAHYDRO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	191	564	945	564
2	C15.H26	206	191	557	958	557
3	C26.H48	360	191	514	920	533
4	C15.H22.O4	266	191	499	809	572
5	C20.H34	274	191	478	877	498

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55334-01-5
2	—	—	—	—	54832-82-5
3	—	—	—	—	55401-75-7
4	—	—	—	—	5090-67-5
5	—	—	—	—	55255-70-4

✓

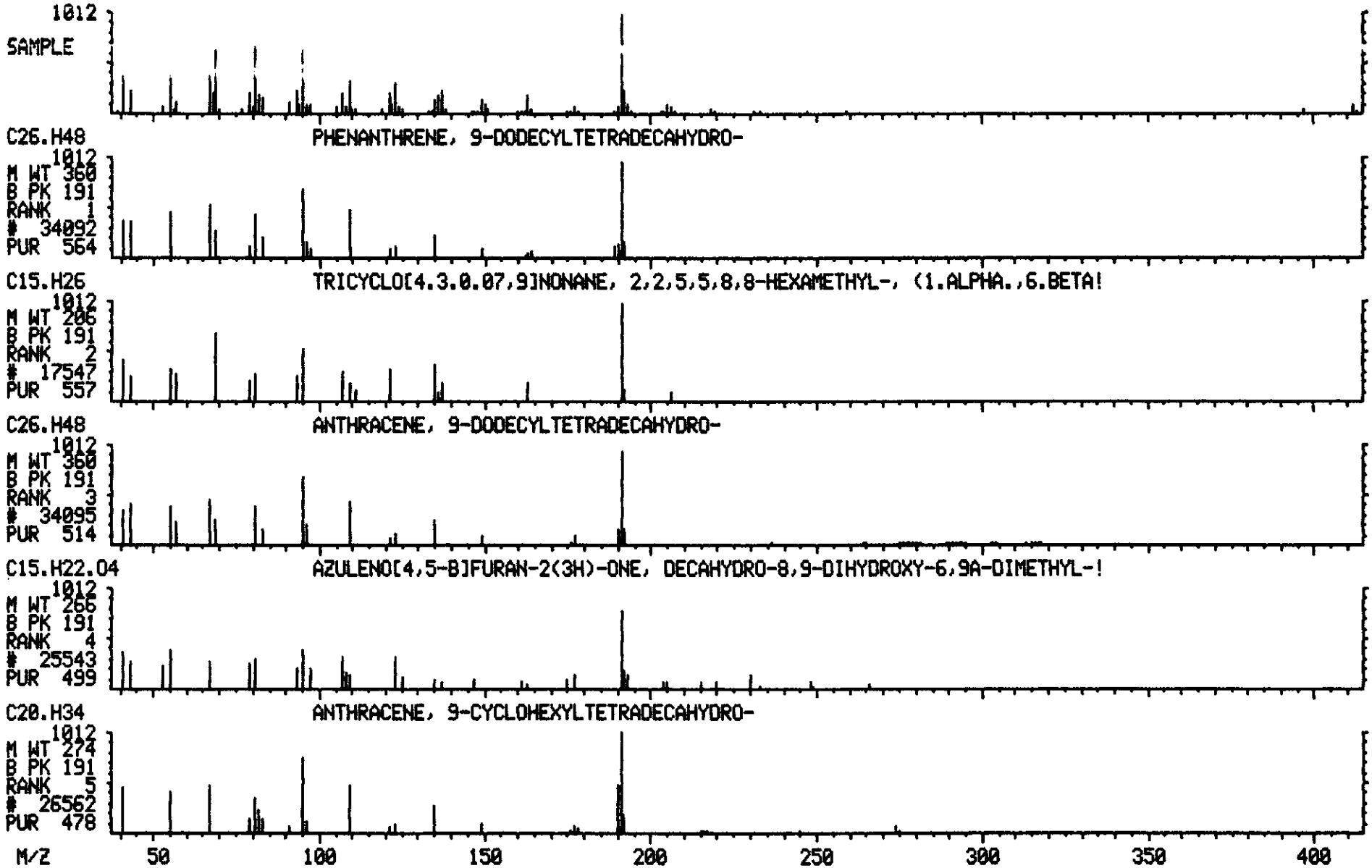
ORIGINAL (Red)

100123

LIBRARY SEARCH
05/25/90 14:18:00 + 39:18
SAMPLE: CLP,VERSCOM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30200C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2773 #2358
CALI: T2773 # 2

BASE M/Z: 191
RIC: 38015.



Library Search Data: T2773 #2485 Base m/z: 191
05/25/90 14:18:00 + 41:25 Cali: T2773 # 2 RIC: 10143
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42222 spectra in LIBRARYNB searched for maximum PURITY
62 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
2	17547	TRICYCLO[4.3.0.07,9]NONANE, 2,2,5,5,8,8-HEXAMETHYL-, (1.ALPHA.,6.BE*
3	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
4	26562	ANTHRACENE, 9-CYCLOHEXYLTETRADECAHYDRO-
5	23459	ANTHRACENE, 9-BUTYLTETRADECAHYDRO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	191	544	760	548
2	C15.H26	206	191	511	938	521
3	C26.H48	360	191	482	927	503
4	C20.H34	274	95	459	892	485
5	C18.H32	248	191	442	827	507

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55334-01-5
2	—	—	—	—	54832-82-5
3	—	—	—	—	55401-75-7
4	—	—	—	—	55255-70-4
5	—	—	—	—	55133-89-6

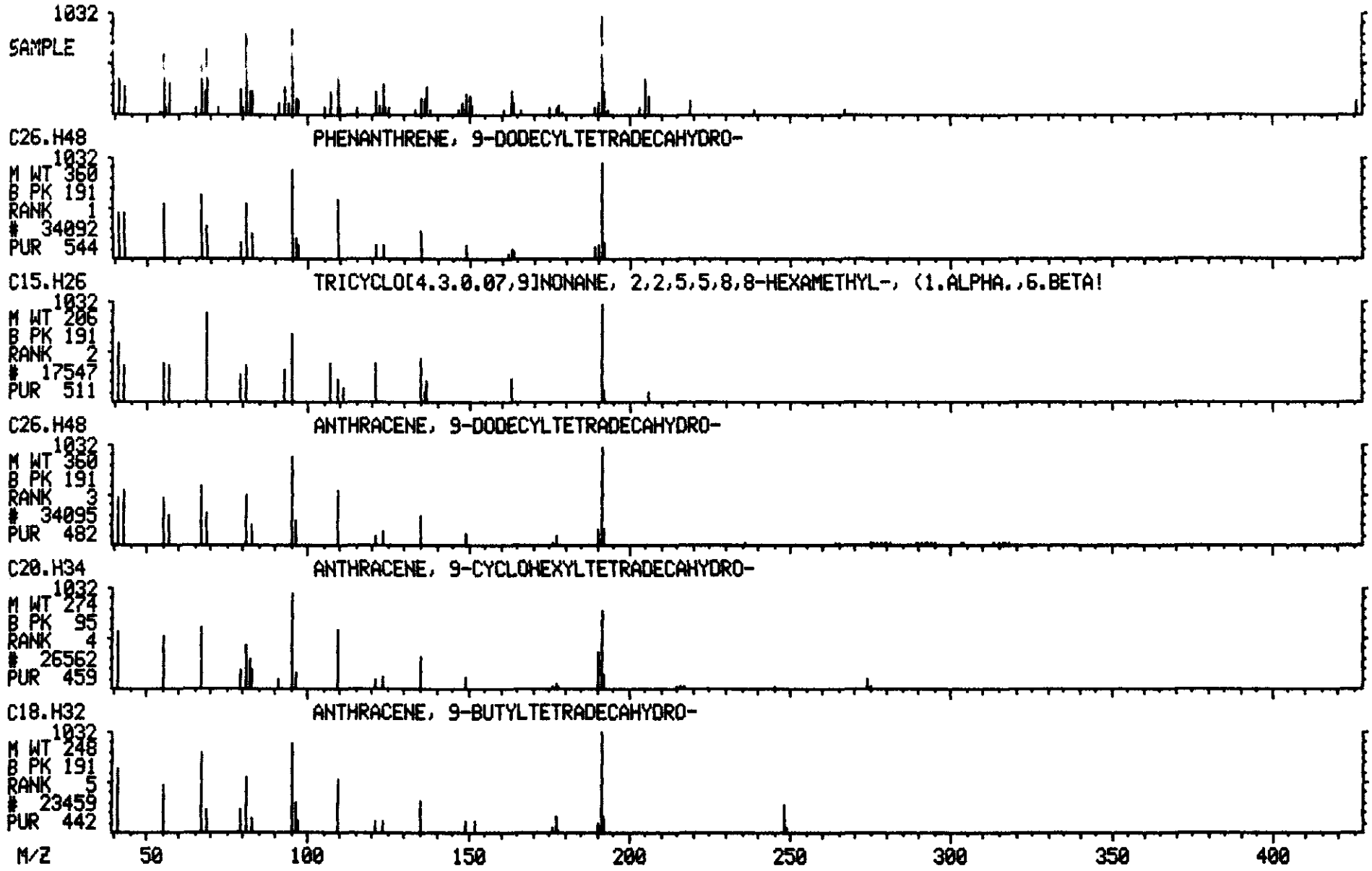
ORIGINAL (Red)

LIBRARY SEARCH
05/25/90 14:18:00 + 41:25
SAMPLE: CLP,VERSCOM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2773 #2485
CALI: T2773 # 2

BASE M/Z: 191
RIC: 10143.

100125



ORIGINAL (Red)

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        >>>>INTERNAL STANDARD RIC REPORT<<<<
****************************INTERNAL STANDARD#1*****************RIC
Mass List                        Data: T2773 # 506          Base m/z:   150
05/25/90 14:18:00 +  8:26        Cali: T2773 #   2          RIC:      76160.
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     35        0.00    0.00        0. Minima      Min inten:       0.
     30                         #   0  Maxima
****************************INTERNAL STANDARD#2*****************RIC
Mass List                        Data: T2773 # 722          Base m/z:   136
05/25/90 14:18:00 + 12:02        Cali: T2773 #   2          RIC:      95616.
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     38        0.00    0.00        0. Minima      Min inten:       0.
     30                         #   0  Maxima
****************************INTERNAL STANDARD#3*****************RIC
Mass List                        Data: T2773 #1052          Base m/z:   164
05/25/90 14:18:00 + 17:32        Cali: T2773 #   2          RIC:      83456.
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     38        0.00    0.00        0. Minima      Min inten:       0.
     30                         #   0  Maxima
****************************INTERNAL STANDARD#4*****************RIC
Mass List                        Data: T2773 #1332          Base m/z:   188
05/25/90 14:18:00 + 22:12        Cali: T2773 #   2          RIC:     104192.
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     38        0.00    0.00        0. Minima      Min inten:       0.
     30                         #   0  Maxima
****************************INTERNAL STANDARD#5*****************RIC
Mass List                        Data: T2773 #1847          Base m/z:   240
05/25/90 14:18:00 + 30:47        Cali: T2773 #   2          RIC:      86784.
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     40        0.00    0.00        0. Minima      Min inten:       0.
     30                         #   0  Maxima
****************************INTERNAL STANDARD#6*****************RIC
Mass List                        Data: T2773 #2122          Base m/z:   264
05/25/90 14:18:00 + 35:22        Cali: T2773 #   2          RIC:      63616.
Sample: CLP,VERSCDM,2565,8,L,S,16910,B,,420.1.0,4,1UL,1/20 DIL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     40        0.00    0.00        0. Minima      Min inten:       0.
     30                         #   0  Maxima
     ANALYST: CHECK BASE M/Z AND RIC AMOUNT TO INSURE NO CONTAMINATION
```

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9 ORIGINAL (Red)

L Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16911

Sample wt/vol: 1.0 (g/mL) G Lab File ID: T2608

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

% Moisture: not dec. 16 dec. ____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/16/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 0.95

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	22000	U
111-44-4	bis(2-Chloroethyl)ether	22000	U
95-57-8	2-Chlorophenol	22000	U
541-73-1	1,3-Dichlorobenzene	22000	U
106-46-7	1,4-Dichlorobenzene	22000	U
100-51-6	Benzyl alcohol	22000	U
95-50-1	1,2-Dichlorobenzene	22000	U
95-48-7	2-Methylphenol	22000	U
108-60-1	bis(2-Chloroisopropyl)ether	22000	U
106-44-5	4-Methylphenol	22000	U
621-64-7	N-Nitroso-di-n-propylamine	22000	U
67-72-1	Hexachloroethane	22000	U
98-95-3	Nitrobenzene	22000	U
78-59-1	Isophorone	22000	U
88-75-5	2-Nitrophenol	22000	U
105-67-9	2,4-Dimethylphenol	22000	U
65-85-0	Benzoic Acid	110000	U
111-91-1	bis(2-Chloroethoxy)methane	22000	U
120-83-2	2,4-Dichlorophenol	22000	U
120-82-1	1,2,4-Trichlorobenzene	22000	U
91-20-3	Naphthalene	22000	U
106-47-8	4-Chloroaniline	22000	U
87-68-3	Hexachlorobutadiene	22000	U
59-50-7	4-Chloro-3-methylphenol	22000	U
91-57-6	2-Methylnaphthalene	22000	U
77-47-4	Hexachlorocyclopentadiene	22000	U
88-06-2	2,4,6-Trichlorophenol	22000	U
95-95-4	2,4,5-Trichlorophenol	110000	U
91-58-7	2-Chloronaphthalene	22000	U
88-74-4	2-Nitroaniline	110000	U
131-11-3	Dimethylphthalate	22000	U
208-96-8	Acenaphthylene	22000	U
606-20-2	2,6-Dinitrotoluene	22000	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9 ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16911

Sample wt/vol: 1.0 (g/mL) G Lab File ID: T2608

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

% Moisture: not dec. 16 dec. ____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/16/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 0.95

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	110000	U
83-32-9	Acenaphthene	22000	U
51-28-5	2,4-Dinitrophenol	110000	U
100-02-7	4-Nitrophenol	110000	U
132-64-9	Dibenzofuran	22000	U
121-14-2	2,4-Dinitrotoluene	22000	U
84-66-2	Diethylphthalate	22000	U
7005-72-3	4-Chlorophenyl-phenylether	22000	U
86-73-7	Fluorene	22000	U
100-01-6	4-Nitroaniline	110000	U
534-52-1	4,6-Dinitro-2-methylphenol	110000	U
86-30-6	N-nitrosodiphenylamine (1)	22000	U
101-55-3	4-Bromophenyl-phenylether	22000	U
118-74-1	Hexachlorobenzene	22000	U
87-86-5	Pentachlorophenol	110000	U
85-01-8	Phenanthrene	22000	U
120-12-7	Anthracene	22000	U
84-74-2	Di-n-butylphthalate	22000	U
206-44-0	Fluoranthene	22000	U
129-00-0	Pyrene	22000	U
85-68-7	Butylbenzylphthalate	22000	U
91-94-1	3,3'-Dichlorobenzidine	45000	U
56-55-3	Benzo(a)anthracene	22000	U
218-01-9	Chrysene	22000	U
117-81-7	bis(2-Ethylhexyl)phthalate	22000	U
117-84-0	Di-n-octyl phthalate	22000	U
205-99-2	Benzo(b)fluoranthene	22000	U
207-08-9	Benzo(k)fluoranthene	22000	U
50-32-8	Benzo(a)pyrene	22000	U
193-39-5	Indeno(1,2,3-cd)pyrene	22000	U
53-70-3	Dibenz(a,h)anthracene	22000	U
191-24-2	Benzo(g,h,i)perylene	22000	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9 ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16911

Sample wt/vol: 1.0 (g/mL) G Lab File ID: T2608

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

% Moisture: not dec. 16 dec. ____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/16/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 0.95

Number TICs found: 28

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

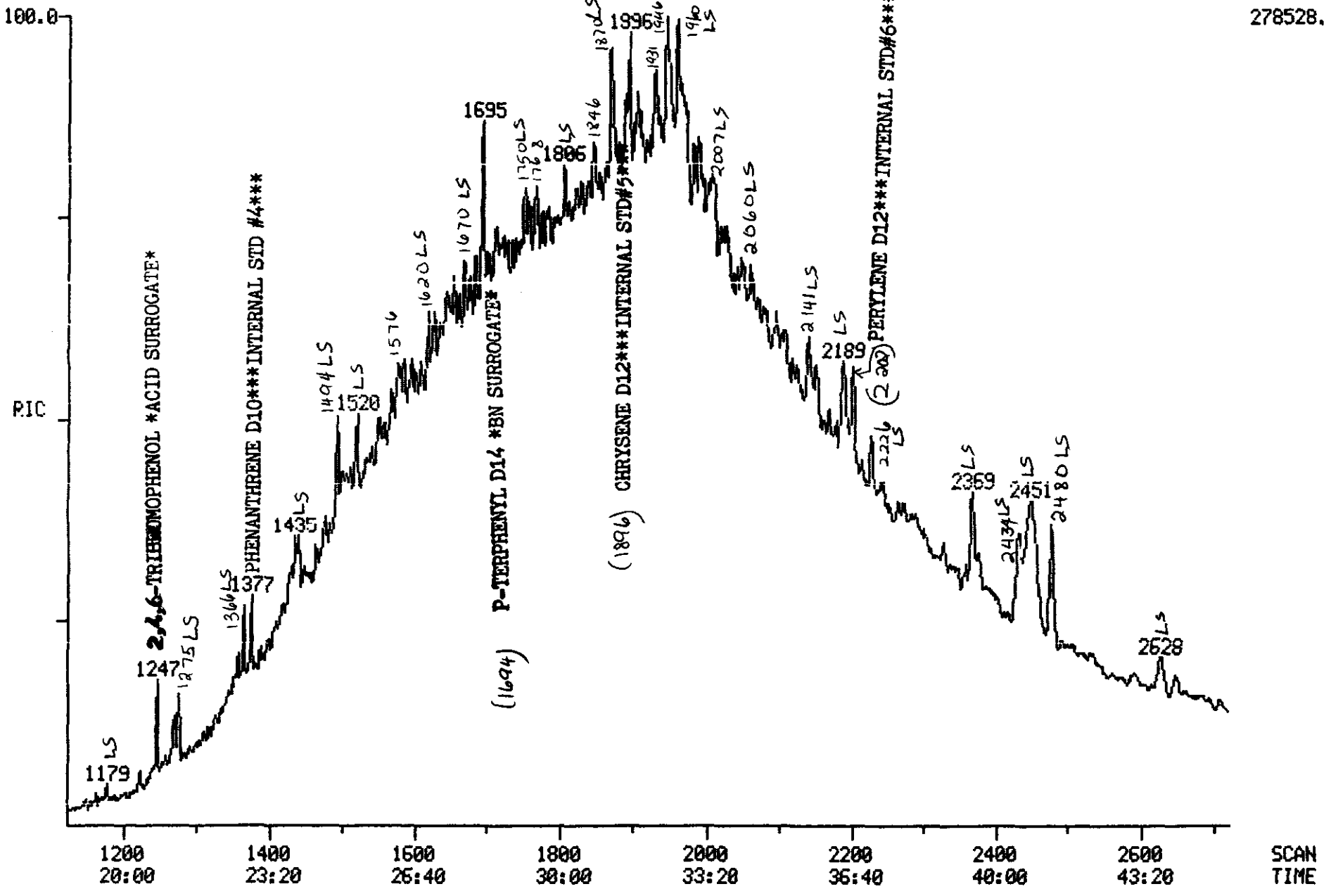
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	16.35	16000	J
2.	UNKNOWN	17.15	11000	J
3.	UNKNOWN HYDROCARBON	17.40	14000	J
4.	UNKNOWN	17.80	16000	J
5.	UNKNOWN HYDROCARBON	18.04	29000	J
6.	UNKNOWN HYDROCARBON	19.65	20000	J
7.	UNKNOWN HYDROCARBON	21.25	66000	J
8.	UNKNOWN HYDROCARBON	22.77	79000	J
9.	UNKNOWN HYDROCARBON	23.92	41000	J
10. 57-10-3	HEXADECANOIC ACID	24.90	97000	J
11.	UNKNOWN	25.34	75000	J
12.	UNKNOWN HYDROCARBON	27.01	54000	J
13.	UNKNOWN	27.84	41000	J
14.	UNKNOWN HYDROCARBON	29.17	29000	J
15.	UNKNOWN HYDROCARBON	30.11	50000	J
16.	UNKNOWN HYDROCARBON	31.17	120000	J
17.	UNKNOWN	32.44	86000	J
18.	UNKNOWN HYDROCARBON	32.67	84000	J
19.	UNKNOWN HYDROCARBON	33.46	41000	J
20.	UNKNOWN SILOXANE	34.34	23000	J
21.	UNKNOWN	35.69	54000	J
22.	UNKNOWN HYDROCARBON	36.49	70000	J
23.	UNKNOWN HYDROCARBON	37.11	25000	J
24.	UNKNOWN HYDROCARBON	39.49	79000	J
25.	UNKNOWN	40.57	38000	J
26. 123-28-4	PROPANOIC ACID	40.86	45000	J
27.	UNKNOWN HYDROCARBON	41.34	100000	J
28.	UNK POLYAROMATIC HYDROCARBON	43.81	29000	J

ORIGINAL (Red)

RIC
05/16/90 7:58:00
SAMPLE: CLP,VERSCOM,2565,9,M,S,1E911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302C@C/MIN
RANGE: G 1,2720 LABEL: N 0, 4.0 QUAN: A 0, 1,0 J 0 BASE: U 20,

DATA: T2608 #1
CALI: T2608 #2

SCANS 1125 TO 2720

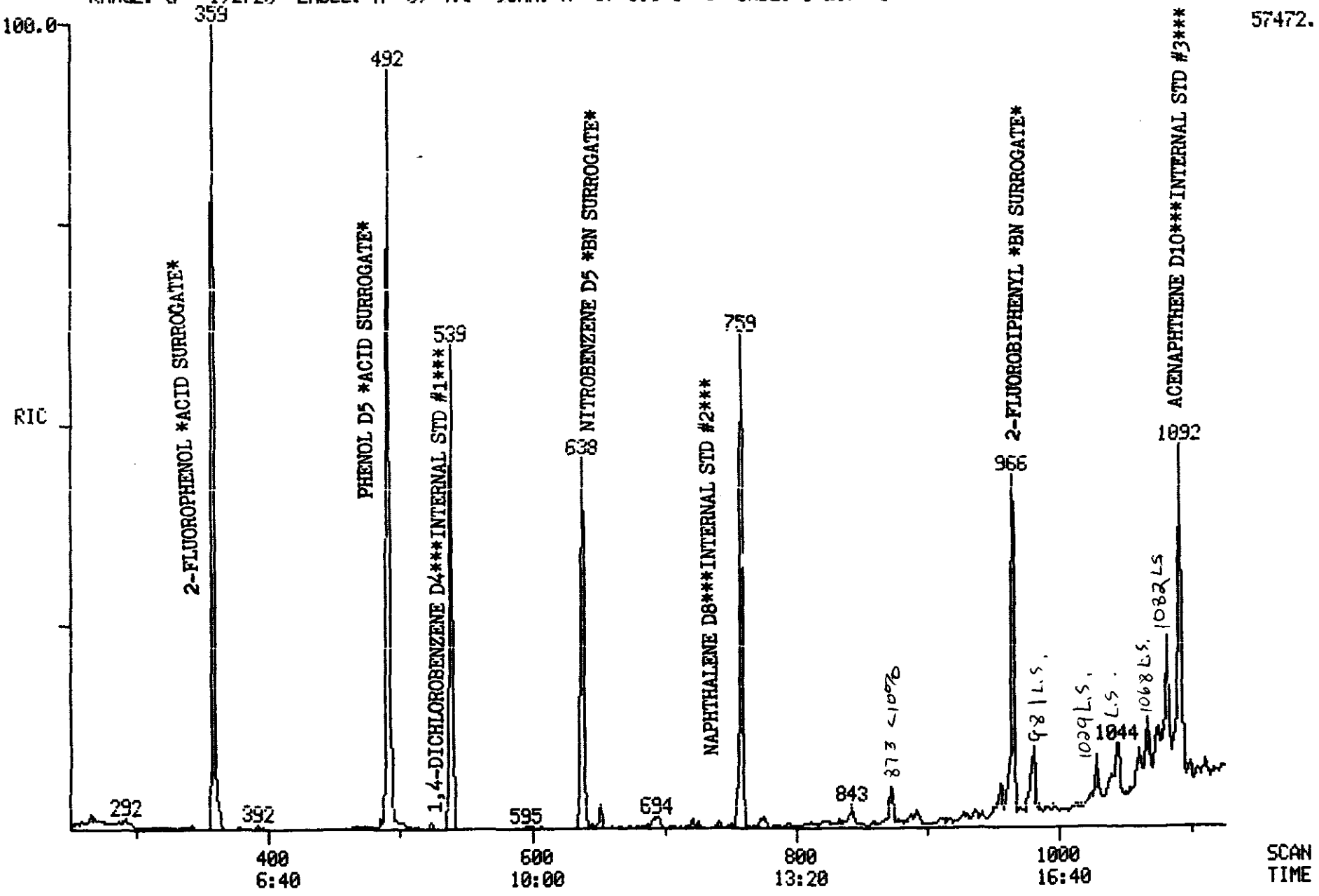


ORIGINAL (Red)

RIC
05/16/90 7:58:00
SAMPLE: CLP,VEPSCOM,2565,9,M,5,16911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
RANGE: G 1,2720 LABEL: N 0, 4.0 DUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: T2608 #1
CALI: T2608 #2

SCANS 250 TO 1125

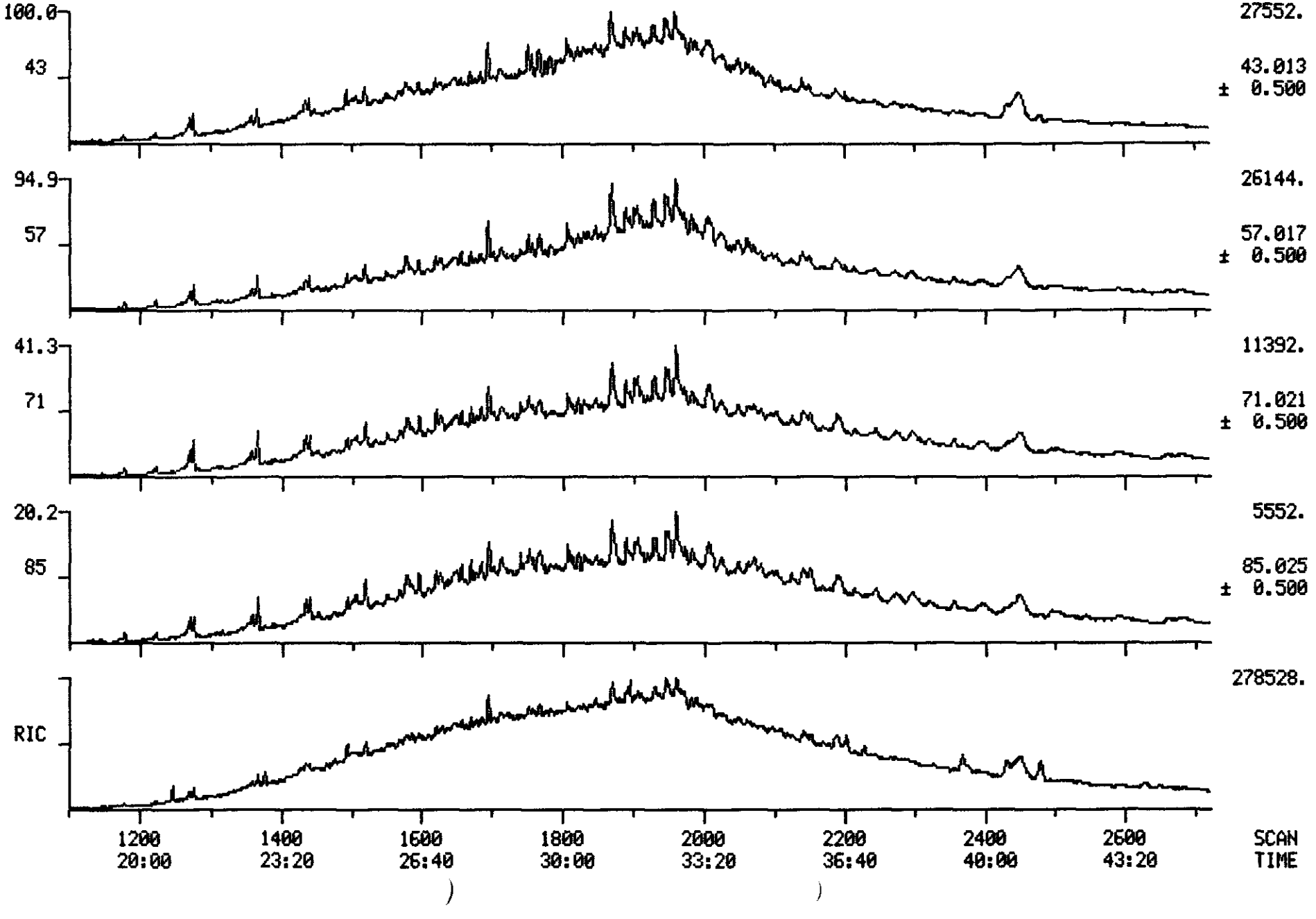


100131

ORIGINAL (Red)

100132

RIC+MASS CHROMATOGRAMS DATA: T2608 #1 SCANS 1100 TO 2720
05/16/90 7:58:00 CALI: T2608 #2
SAMPLE: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
RANGE: G 1,3500 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: T2608

ORIGINAL (Red)

Data: T2608.TI
05/16/90 7:58:00
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	C330 2-CHLOROPHENOL
3	C315 PHENOL
4	C325 BIS (2-CHLOROETHYL) ETHER
5	C335 1,3-DICHLOROBENZENE
6	C340 1,4-DICHLOROBENZENE
7	C350 1,2-DICHLOROBENZENE
8	C345 BENZYL ALCOHOL
9	C360 BIS (2-CHLOROISOPROPYL) ETHER
10	C355 2-METHYLPHENOL
11	C375 HEXACHLOROETHANE
12	C365 4-METHYLPHENOL
13	C370 N-NITROSO-DI-N-PROPYLAMINE
14	CS50 2-FLUOROPHENOL**ACID SURR.**
15	CS45 PHENOL-D5**ACID SURR.**
16	CI40 NAPHTHALENE-D8**INT. STD.#2**
17	C410 NITROBENZENE
18	C415 ISOPHORONE
19	C420 2-NITROPHENOL
20	C425 2,4-DIMETHYLPHENOL
21	C435 BIS (2-CHLOROETHOXY) METHANE
22	C440 2,4-DICHLOROPHENOL
23	C445 1,2,4-TRICHLOROBENZENE
24	C450 NAPHTHALENE
25	C430 BENZOIC ACID
26	C455 4-CHLOROANILINE
27	C460 HEXACHLOROBUTADIENE
28	C465 4-CHLORO-3-METHYLPHENOL
29	C470 2-METHYLNAPHTHALENE
30	CS20 NITROBENZENE-D5**BN SURR.**
31	CI50 ACENAPHTHENE-D10**INT. STD.#3**
32	C510 HEXACHLOROCYCLOPENTADIENE
33	C515 2,4,6-TRICHLOROPHENOL
34	C520 2,4,5-TRICHLOROPHENOL
35	C525 2-CHLORONAPHTHALENE
36	C530 2-NITROANILINE
37	C540 ACENAPHTHYLENE
38	C535 DIMETHYL PHTHALATE
39	C544 2,6-DINITROTOLUENE
40	C550 ACENAPHTHENE
41	C545 3-NITROANILINE
42	C555 2,4-DINITROPHENOL
43	C565 DIBENZOFURAN
44	C560 4-NITROPHENOL
45	C570 2,4-DINITROTOLUENE
46	C590 FLUORENE
47	C585 4-CHLOROPHENYL-PHENYLETHER

All IS areas & Surrogate recoveries are compliant.
SJD
5-16-90.

No HSL's QUANT.
28 L.S.
M.A Templeton 5-19-90

T2608 ORIGINAL (Red)

No	Name
48	C580 DIETHYLPHTHALATE
49	C595 4-NITROANILINE
50	C610 4,6-DINITRO-2-METHYLPHENOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	539	8:59	1	1.000	A BB	7758.	40.000 NG/UL	6.85
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	112	359	5:59	1	0.666	A BB	18755.	79.347 NG*A1	13.59
15	99	492	8:12	1	0.913	A BB	24823.	70.705 NG*A2	12.11
16	136	759	12:39	16	1.000	A BB	23899.	40.000 NG/UL	6.85
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	82	638	10:38	16	0.841	A BB	18071.	37.285 NG*B1	6.39
31	164	1092	18:12	31	1.000	A BB	17909.	40.000 NG/UL	6.85
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	109	1130	18:50	31	1.035	A VB	313.	BRL ~~1.751 NG.~~	0.30
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								

T2608

ORIGINAL (Red)

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:59	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	8:31		0.948						
3	8:14		0.917						
4	8:27		0.941						
5	8:52		0.987						
6	9:01		1.004						
7	9:32		1.061						
8	9:28		1.054						
9	9:54		1.102						
10	9:49		1.093						
11	10:20		1.150						
12	10:14		1.139						
13	10:18		1.147						
14	5:58	1.00	0.664	1.00	79.35	50.00	1.934	1.219	1.59
15	8:12	1.00	0.913	1.00	70.71	50.00	2.560	1.810	1.41
16	12:39	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
17	10:42		0.846						
18	11:21		0.897						
19	11:36		0.917						
20	11:46		0.930						
21	12:05		0.955						
22	12:17		0.971						
23	12:32		0.991						
24	12:42		1.004						
25	12:08		0.959						
26	13:01		1.029						
27	13:15		1.047						
28	14:32		1.149						
29	14:50		1.173						
30	10:38	1.00	0.841	1.00	37.28	50.00	0.605	0.811	0.75
31	18:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
32	15:32		0.853						
33	15:51		0.871						
34	15:57		0.876						
35	16:22		0.899						
36	16:54		0.929						
37	17:43		0.973						
38	17:37		0.968						
39	17:51		0.981						
40	18:19		1.006						
41	18:15		1.003						
42	18:33		1.019						
43	18:49		1.034						
44	18:49	1.00	1.034	1.00	1.75	50.00	0.014	0.400	0.04
45	19:04		1.048						
46	19:55		1.094						
47	19:58		1.097						
48	19:53		1.092						
49	20:15		1.113						
50	20:20		1.117						

Quantitation Report File: T2608

ORIGINAL (Red)

Data: T2608.TI
05/16/90 7:58:00
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

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

No	Name
51	C615 N-NITROSODIPHENYLAMINE
52	C625 4-BROMOPHENYL-PHENYLETHER
53	C630 HEXACHLOROBENZENE
54	CS25 2-FLUOROBIPHENYL**BN SURR.**
55	CI60 PHENANTHRENE-D10**INT. STD.#4**
56	C635 PENTACHLOROPHENOL
57	C640 PHENANTHRENE
58	C645 ANTHRACENE
59	C650 DI-N-BUTYLPHTHALATE
60	C655 FLUORANTHENE
61	C715 PYRENE
62	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
63	CI70 CHRYSENE-D12**INT. STD.#5**
64	C720 BUTYLBENZYLPHTHALATE
65	C730 BENZO(A)ANTHRACENE
66	C740 CHRYSENE
67	C725 3,3'-DICHLOROBENZIDINE
68	C741 BIS(2-ETHYLHEXYL)PHTHALATE
69	CS30 P-TERPHENYL-D14**BN SURR.**
70	CI75 PERYLENE-D12**INT. STD.#6**
71	C760 DI-N-OCTYL PHTHALATE
72	C765 BENZO(B)FLUORANTHENE
73	C770 BENZO(K)FLUORANTHENE
74	C775 BENZO(A)PYRENE
75	C780 INDENO(1,2,3-CD)PYRENE
76	C785 DIBENZ(A,H)ANTHRACENE
77	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	169	1224	20:24	31	1.121	A BB	303.	BRL ~~0.593 NG~~	0.10
52	NOT FOUND								
53	NOT FOUND								
54	172	966	16:06	31	0.885	A BB	20932.	36.124 NG*B2	6.19
55	188	1376	22:56	55	1.000	A BB	34571.	40.000 NG/UL	6.85
56	NOT FOUND								
57	178	1381	23:01	55	1.004	A VB	440.	~~0.468 NG~~	0.08
58	NOT FOUND								
59	149	1508	25:08	55	1.096	A BB	285.	BRL ~~0.195 NG~~	0.03
60	202	1614	26:54	55	1.173	A BB	241.	~~0.218 NG~~	0.04
61	202	1657	27:37	63	0.874	A BB	347.	~~0.308 NG~~	0.05
62	330	1247	20:47	31	1.142	A BB	12547.	80.277 NG*A3	13.75
63	240	1896	31:36	63	1.000	A BV	33824.	40.000 NG/UL	6.85
64	149	1800	30:00	63	0.949	A BB	591.	~~0.826 NG~~	0.14
65	228	1893	31:33	63	0.998	A VV	885.	BRL ~~1.007 NG~~	0.17
66	228	1899	31:39	63	1.002	A VB	914.	~~1.353 NG~~	0.23

T2608 ORIGINAL (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
67	NOT FOUND								
68	149	1911	31:51	63	1.008	A BB	1328.	BRL ~~1.340 NG~~	0.23
69	244	1694	28:14	63	0.893	A BB	24582.	31.627 NG*B3	5.42
70	264	2202	36:42	70	1.000	A BB	33754.	40.000 NG/UL	6.85
71	NOT FOUND								
72	NOT FOUND								
73	NOT FOUND								
74	252	2188	36:28	70	0.994	A BB	618.	BRL ~~0.679 NG~~	0.12
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	20:25	1.00	1.122	1.00	0.59	50.00	0.014	1.141	0.01
52	21:32		1.183						
53	21:56		1.205						
54	16:06	1.00	0.885	1.00	36.12	50.00	0.935	1.294	0.72
55	22:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
56	22:33		0.983						
57	23:01	1.00	1.004	1.00	0.47	50.00	0.010	1.089	0.01
58	23:09		1.009						
59	25:08	1.00	1.096	1.00	0.20	50.00	0.007	1.691	0.00
60	26:54	1.00	1.173	1.00	0.22	50.00	0.006	1.278	0.00
61	27:37	1.00	0.875	1.00	0.31	50.00	0.008	1.332	0.01
62	20:47	1.00	1.142	1.00	80.28	50.00	0.560	0.349	1.61
63	31:34	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
64	29:59	1.00	0.950	1.00	0.83	50.00	0.014	0.846	0.02
65	31:31	1.00	0.998	1.00	1.01	50.00	0.021	1.039	0.02
66	31:39	1.00	1.003	1.00	1.35	50.00	0.022	0.799	0.03
67	31:33		0.999						
68	31:50	1.00	1.008	1.00	1.34	50.00	0.031	1.172	0.03
69	28:13	1.00	0.894	1.00	31.63	50.00	0.581	0.919	0.63
70	36:37	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
71	33:41		0.920						
72	35:02		0.957						
73	35:08		0.959						
74	36:22	1.00	0.993	1.00	0.68	50.00	0.015	1.079	0.01
75	42:30		1.161						
76	42:41		1.166						
77	44:19		1.210						

Quantitation Report File: QCREF

ORIGINAL (Red)

Data: T2608.TI
05/16/90 7:58:00
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI40 NAPHTHALENE-D8**INT. STD.#2**
3	CI50 ACENAPHTHENE-D10**INT. STD.#3**
4	CI60 PHENANTHRENE-D10**INT. STD.#4**
5	CI70 CHRYSENE-D12**INT. STD.#5**
6	CI75 PERYLENE-D12**INT. STD.#6**
7	CS50 2-FLUOROPHENOL**ACID SURR.**
8	CS45 PHENOL-D5**ACID SURR.**
9	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
10	CS20 NITROBENZENE-D5**BN SURR.**
11	CS25 2-FLUOROBIPHENYL**BN SURR.**
12	CS30 P-TERPHENYL-D14**BN SURR.**

Scan	Time	Area(Hght)		Amount		Name
539	8:59	7758.	%	40.000	NG/UL	CI30 1,4-DICHLOROBENZENE-D4
759	12:39	23899.		40.000	NG/UL	CI40 NAPHTHALENE-D8**INT. ST
1092	18:12	17909.		40.000	NG/UL	CI50 ACENAPHTHENE-D10**INT.
1376	22:56	34571.	Rec	40.000	NG/UL	CI60 PHENANTHRENE-D10**INT.
1896	31:36	33824.		40.000	NG/UL	CI70 CHRYSENE-D12**INT. STD.
2202	36:42	33754.		40.000	NG/UL	CI75 PERYLENE-D12**INT. STD.
359	5:59	18755.	79	79.347	NG*A1	CS50 2-FLUOROPHENOL**ACID SU
492	8:12	24823.	71	70.705	NG*A2	CS45 PHENOL-D5**ACID SURR.**
1247	20:47	12547.	80	80.277	NG*A3	CS55 2,4,6,-TRIBROMOPHENOL**
638	10:38	18071.	75	37.285	NG*B1	CS20 NITROBENZENE-D5**BN SUR
966	16:06	20932.	72	36.124	NG*B2	CS25 2-FLUOROBIPHENYL**BN SU
1694	28:14	24582.	63	31.627	NG*B3	CS30 P-TERPHENYL-D14**BN SUR

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:59	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:39	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	18:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	22:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	31:34	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	36:37	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	5:58	1.00	0.664	1.00	79.35	50.00	1.934	1.219	1.59
8	8:12	1.00	0.913	1.00	70.71	50.00	2.560	1.810	1.41
9	20:47	1.00	1.142	1.00	80.28	50.00	0.560	0.349	1.61
10	10:38	1.00	0.841	1.00	37.28	50.00	0.605	0.811	0.75
11	16:06	1.00	0.885	1.00	36.12	50.00	0.935	1.294	0.72
12	28:13	1.00	0.894	1.00	31.63	50.00	0.581	0.919	0.63

Quantitation Report File: ISREF

ORIGINAL (Red)

Data: T2598.TI
05/15/90 22:57:00
Sample: CLP,,,SSTD50,,,22658,B,CC50,,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.003
Submitted by: VERSAR Analyst: TS Acct. No.: ---

Data: T2608.TI
05/16/90 7:58:00
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
3	CI40 NAPHTHALENE-D8**INT. STD.#2**
4	CI40 NAPHTHALENE-D8**INT. STD.#2**
5	CI50 ACENAPHTHENE-D10**INT. STD.#3**
6	CI50 ACENAPHTHENE-D10**INT. STD.#3**
7	CI60 PHENANTHRENE-D10**INT. STD.#4**
8	CI60 PHENANTHRENE-D10**INT. STD.#4**
9	CI70 CHRYSENE-D12**INT. STD.#5**
10	CI70 CHRYSENE-D12**INT. STD.#5**
11	CI75 PERYLENE-D12**INT. STD.#6**
12	CI75 PERYLENE-D12**INT. STD.#6**

Scan	Time	Area(Hght)	Amount	Name
539	8:59	8002.	40.000 NG/UL	CI30 1,4-DICHLOROBENZENE-D4
539	8:59	7758.	38.780 NG/UL	CI30 1,4-DICHLOROBENZENE-D4
759	12:39	27483.	40.000 NG/UL	CI40 NAPHTHALENE-D8**INT. ST
759	12:39	23899.	34.784 NG/UL	CI40 NAPHTHALENE-D8**INT. ST
1092	18:12	21537.	40.000 NG/UL	CI50 ACENAPHTHENE-D10**INT.
1092	18:12	17909.	33.262 NG/UL	CI50 ACENAPHTHENE-D10**INT.
1376	22:56	48429.	40.000 NG/UL	CI60 PHENANTHRENE-D10**INT.
1376	22:56	34571.	28.554 NG/UL	CI60 PHENANTHRENE-D10**INT.
1894	31:34	47266.	40.000 NG/UL	CI70 CHRYSENE-D12**INT. STD.
1896	31:36	33824.	28.625 NG/UL	CI70 CHRYSENE-D12**INT. STD.
2197	36:37	39233.	40.000 NG/UL	CI75 PERYLENE-D12**INT. STD.
2202	36:42	33754.	34.414 NG/UL	CI75 PERYLENE-D12**INT. STD.

ORIGINAL (Red)

Library Search Data: T2608 # 981 Base m/z: 43
05/16/90 7:58:00 + 16:21 Cali: T2608 # 2 RIC: 3823.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
103 matched at least 8 of the 14 largest peaks in the unknown

Rank	In.	Name
1	4129	PENTANE, 2,2,3,4-TETRAMETHYL-
2	11940	HYDROXYLAMINE, O-DECYL-
3	9069	1-HEPTANOL, 2-PROPYL-
4	6650	1-PENTANOL, 4-METHYL-2-PROPYL-
5	784	HYDROXYLAMINE, O-(2-METHYLPROPYL)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C9.H20	128	57	816	865	851
2	C10.H23.O.N	173	43	807	857	925
3	C10.H22.O	158	43	798	847	921
4	C9.H20.O	144	57	798	912	842
5	C4.H11.O.N	89	43	783	907	850

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	1186-53-4
2	—	—	—	—	29812-79-1
3	—	—	—	—	10042-59-8
4	—	—	—	—	54004-41-0
5	—	—	—	—	5618-62-2

✓

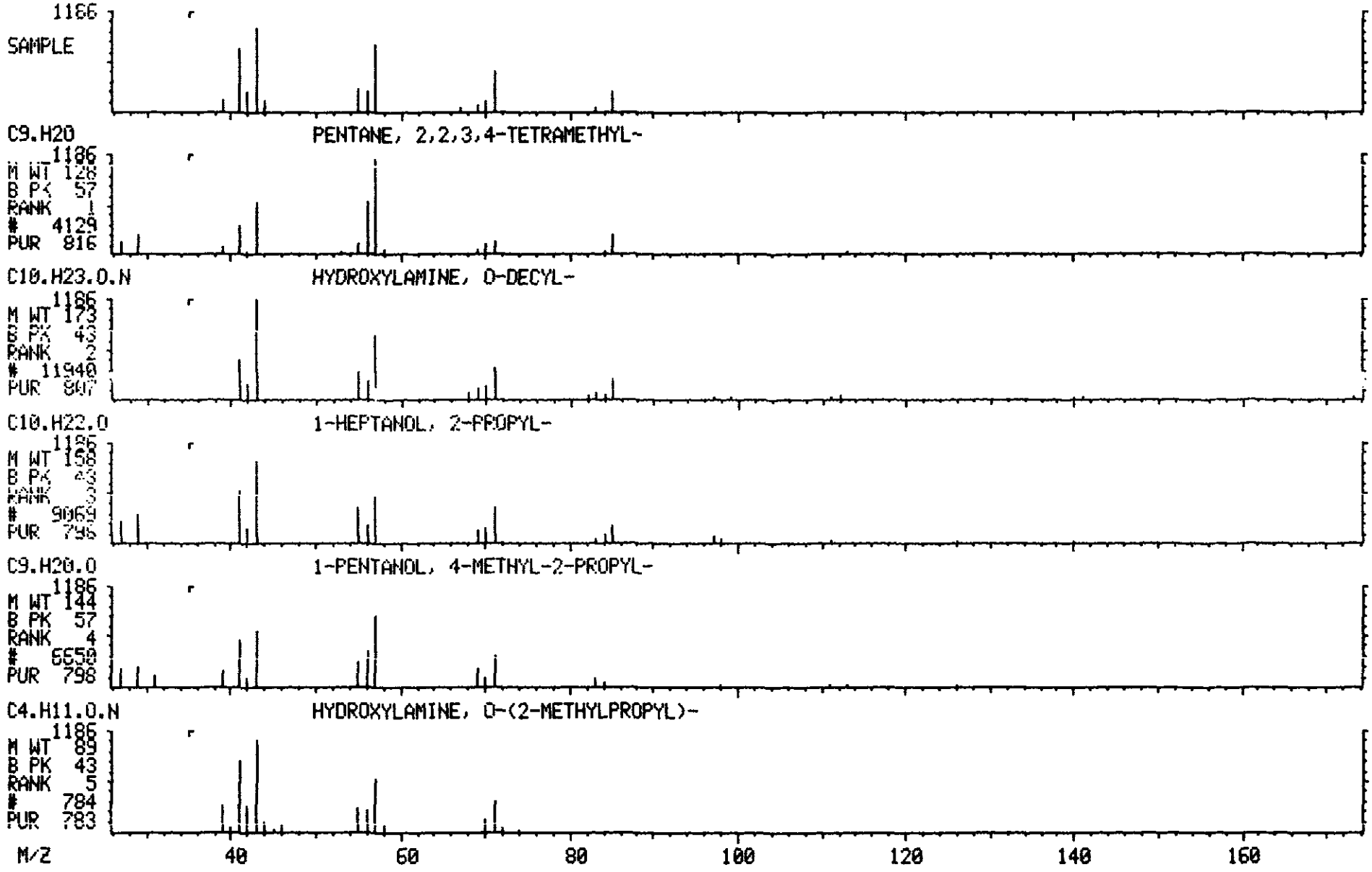
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:56:00 + 16:21
SAMPLE: CLP,VERSCDM,2565,9,M,S,16911,6,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN038C TO 302080C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 # 981
CALI: T2608 # 2

BASE M/Z: 43
RIC: 3823.

100141



ORIGINAL (Red)

Library Search Data: T2608 #1029 Base m/z: 41
05/16/90 7:58:00 + 17:09 Cali: T2608 # 2 RIC: 2723.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
62 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	7826	SPIRO[BICYCLO[3.1.1]HEPTANE-2,2'-OXIRANE], 6,6-DIMETHYL-
2	5387	BICYCLO[2.2.1]HEPTANE, 1,3,3-TRIMETHYL-
3	7894	3-UNDECYNE
4	7890	1,4-UNDECADIENE, (Z)-
5	8646	6-OCTEN-1-OL, 3,7-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C10.H16.O	152	41	505	846	563
2	C10.H18	138	41	493	839	523
3	C11.H20	152	41	480	878	503
4	C11.H20	152	41	478	881	524
5	C10.H20.O	156	41	465	833	526

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	6931-54-0
2	—	—	—	—	6218-88-0
3	—	—	—	—	60212-30-8
4	—	—	—	—	55976-14-2
5	—	—	—	—	106-22-9

✓

100142

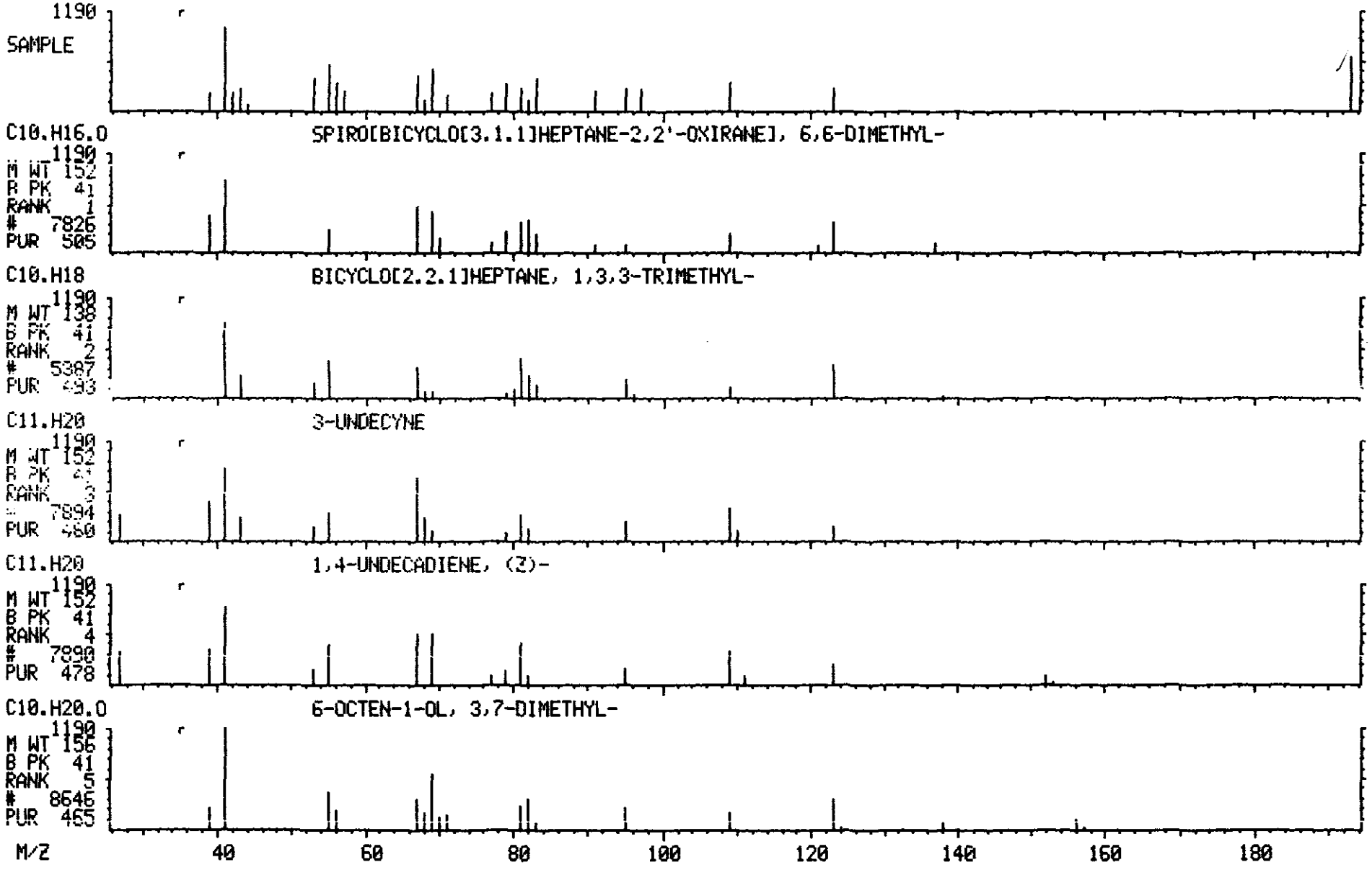
ORIGINAL (Red)

100143

LIBRARY SEARCH
05/16/90 7:58:00 + 17:09
SAMPLE: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 158 2N 0T)

DATA: T2608 #1029
CALI: T2608 # 2

BASE M/Z: 41
RIC: 2723.



Library Search Data: T2608 #1044 Base m/z: 43 ORIGINAL
05/16/90 7:58:00 + 17:24 Cali: T2608 # 2 RIC: 3119. (Red)
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
467 matched at least 7 of the 14 largest peaks in the unknown

HYD

Rank	In.	Name
1	4119	HEXANE, 2,3,4-TRIMETHYL-
2	6097	OCTANE, 3,5-DIMETHYL-
3	1375	HEXANE, 3-METHYL-
4	2549	PENTANE, 2,3,3-TRIMETHYL-
5	4129	PENTANE, 2,2,3,4-TETRAMETHYL-

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C9.H20	128	43	845	897	907
2	C10.H22	142	57	830	877	895
3	C7.H16	100	43	827	896	851
4	C8.H18	114	43	818	918	853
5	C9.H20	128	57	813	859	816

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	—	—	—	—	921-47-1
2	—	—	—	—	15869-93-9
3	—	—	—	—	589-34-4
4	—	—	—	—	560-21-4
5	—	—	—	—	1186-53-4

✓

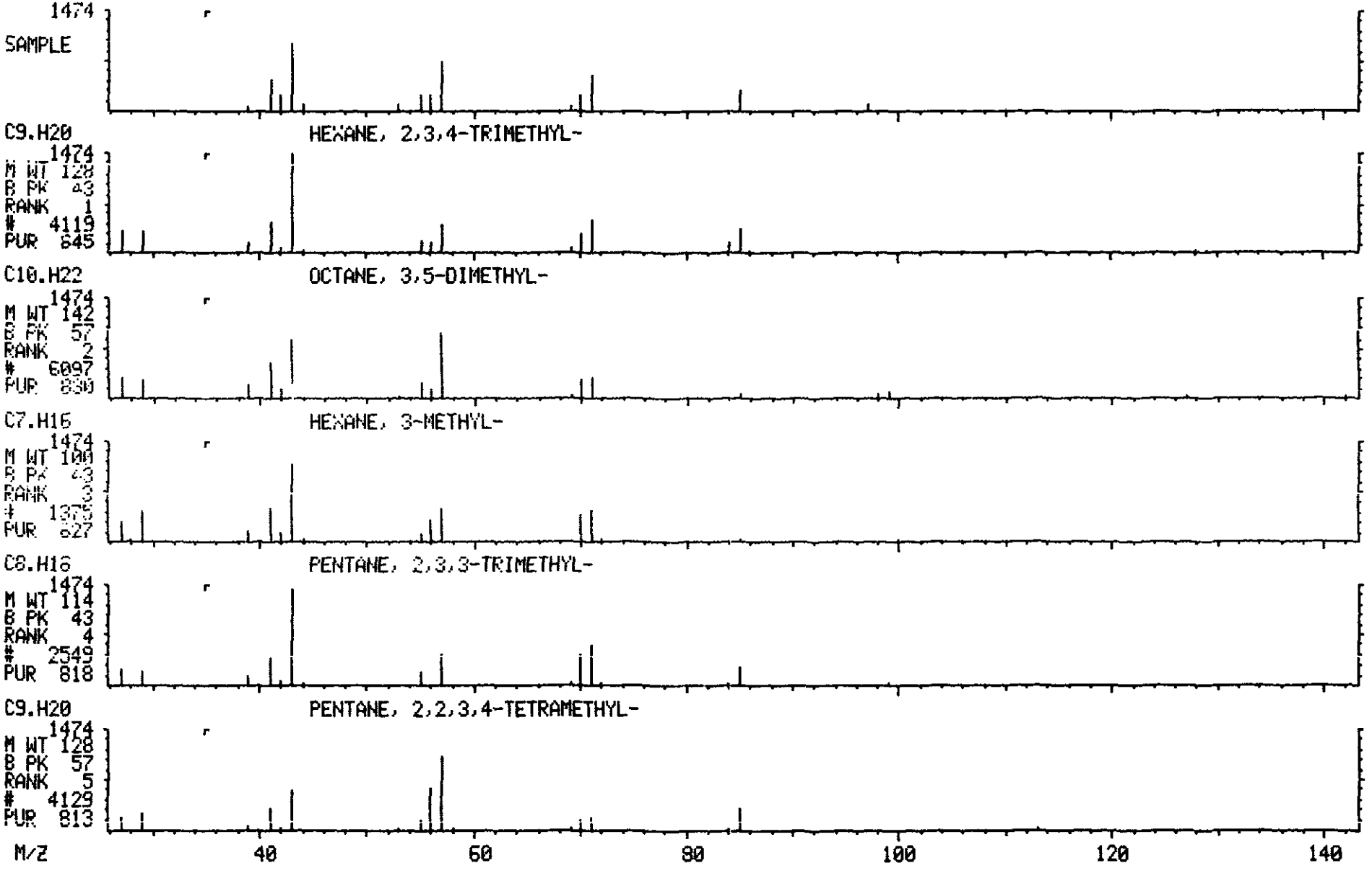
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 17:24
SAMPLE: CLP,VERSCDM,2565,9,M,5,16911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1044
CALI: T2608 # 2

BASE M/Z: 43
RIC: 3119.

106145



Library Search Data: T2608 #1068 Base m/z: 41 ORIGINAL (Red)
05/16/90 7:58:00 + 17:48 Cali: T2608 # 2 RIC: 3539.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
207 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	7826	SPIRO[BICYCLO[3.1.1]HEPTANE-2,2'-OXIRANE], 6,6-DIMETHYL-
2	23711	5-OCTADECYNE
3	23707	9-OCTADECYNE
4	5437	1,4-HEPTADIENE, 3,3,6-TRIMETHYL-
5	5432	1,6-HEPTADIENE, 2,5,5 TRIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C10.H16.O	152	41	597	945	610
2	C18.H34	250	81	573	780	628
3	C18.H34	250	55	569	774	622
4	C10.H18	138	41	567	944	567
5	C10.H18	138	41	563	938	563

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	6931-54-0
2	—	—	—	—	71899-42-8
3	—	—	—	—	35365-59-4
4	—	—	—	—	74498-89-8
5	—	—	—	—	62238-28-2

✓

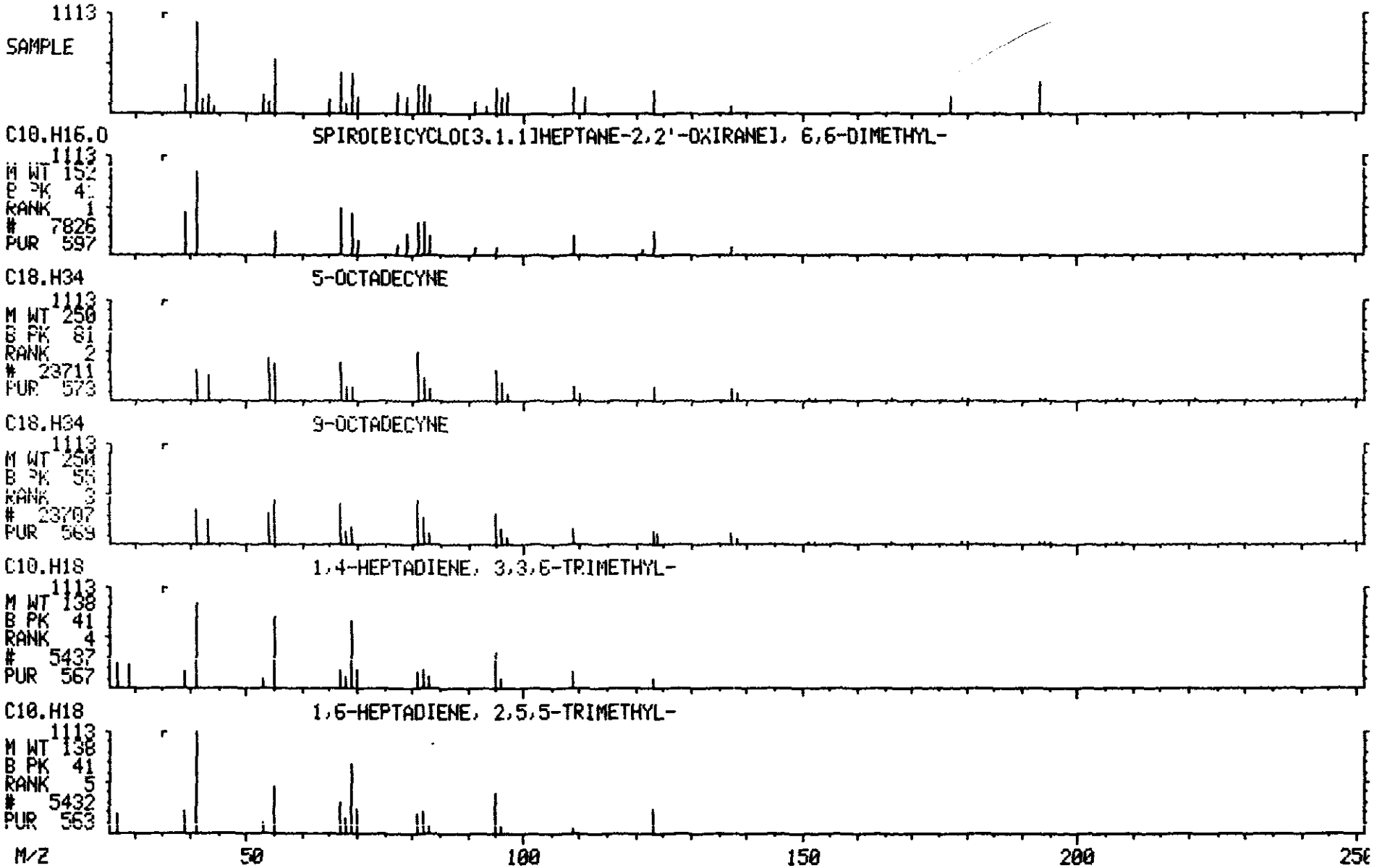
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 17:46
SAMPLE: CLP,VERSCOM,2565,9,M,5,16311,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1068
CALI: T2608 # 2

BASE M/Z: 41
RIC: 3539.

100147



Library Search Data: T2608 #1082 Base m/z: 43 ORIGINAL
05/16/90 7:58:00 + 18:02 Cali: T2608 # 2 RIC: 7239. (Red)
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
203 matched at least 8 of the 16 largest peaks in the unknown

HND

Rank	In.	Name
1	8733	OCTANE, 2,4,6-TRIMETHYL-
2	6090	HEXANE, 2,2,3,3-TETRAMETHYL-
3	4119	HEXANE, 2,3,4-TRIMETHYL-
4	13913	DECANE, 2,5,6-TRIMETHYL-
5	4134	OCTANE, 4-METHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C11.H24	156	57	887	937	912
2	C10.H22	142	57	884	926	900
3	C9.H20	128	43	883	937	870
4	C13.H28	184	57	864	887	911
5	C9.H20	128	43	861	895	835

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	62016-37-9
2	—	—	—	—	13475-81-5
3	—	—	—	—	921-47-1
4	—	—	—	—	62108-23-0
5	—	—	—	—	2216-34-4

✓

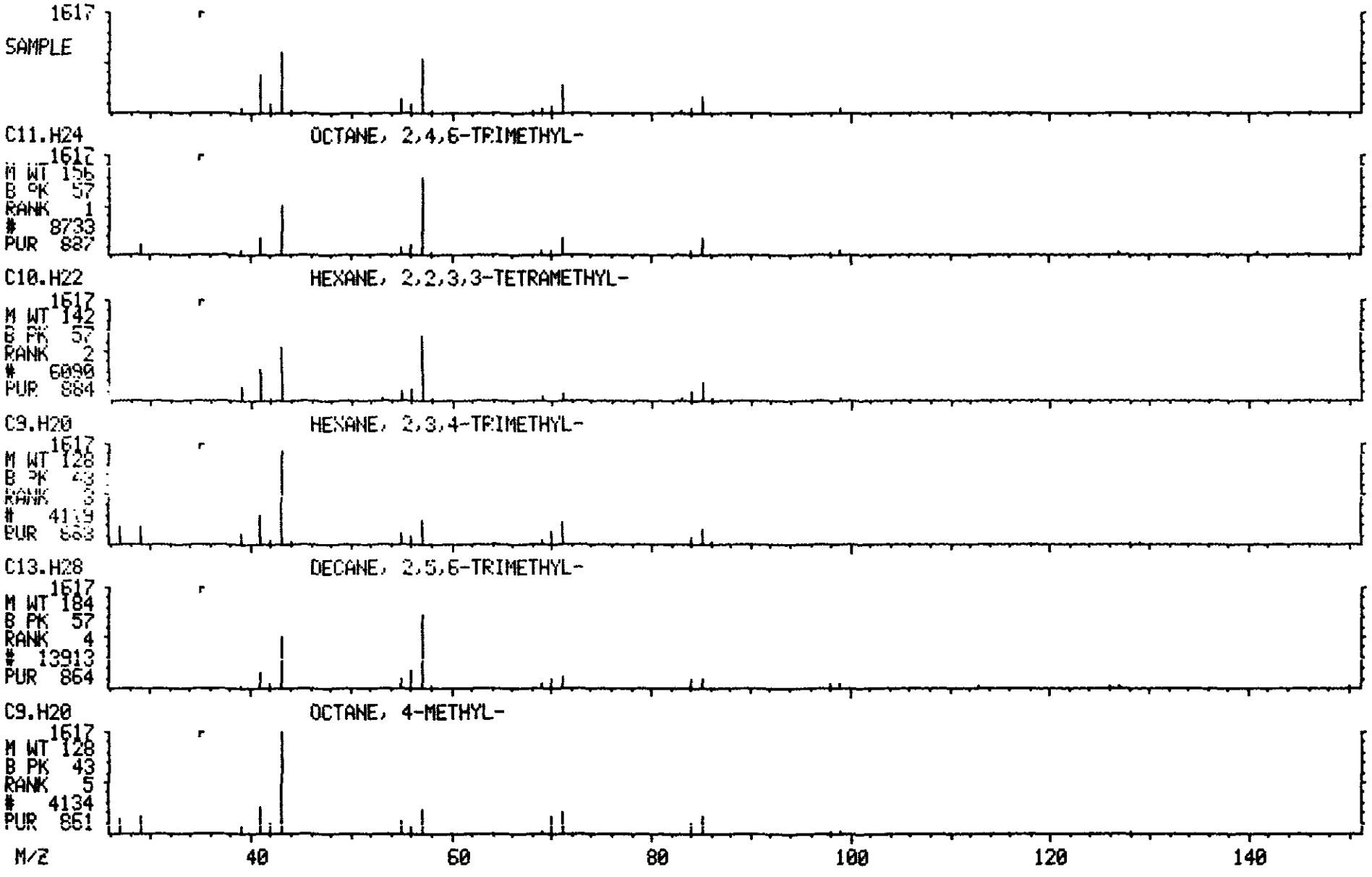
ORIGINAL (Red)

100149

LIBRARY SEARCH
05/16/90 7:56:00 + 18:02
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1082
CALI: T2608 # 2

BASE M/Z: 43
RIC: 7239.



Library Search Data: T2608 #1179 Base m/z: 43
05/16/90 7:58:00 + 19:39 Cali: T2608 # 2 RIC: 4703
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
91 matched at least 8 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	8733	OCTANE, 2,4,6-TRIMETHYL-
2	6090	HEXANE, 2,2,3,3-TETRAMETHYL-
3	6078	OCTANE, 2,7-DIMETHYL-
4	4119	HEXANE, 2,3,4-TRIMETHYL-
5	13913	DECANE, 2,5,6-TRIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C11.H24	156	57	863	933	890
2	C10.H22	142	57	860	923	883
3	C10.H22	142	43	853	944	879
4	C9.H20	128	43	849	932	856
5	C13.H28	184	57	837	880	896

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	62016-37-9
2	—	—	—	—	13475-81-5
3	—	—	—	—	1072-16-8
4	—	—	—	—	921-47-1
5	—	—	—	—	62108-23-0

✓

100150

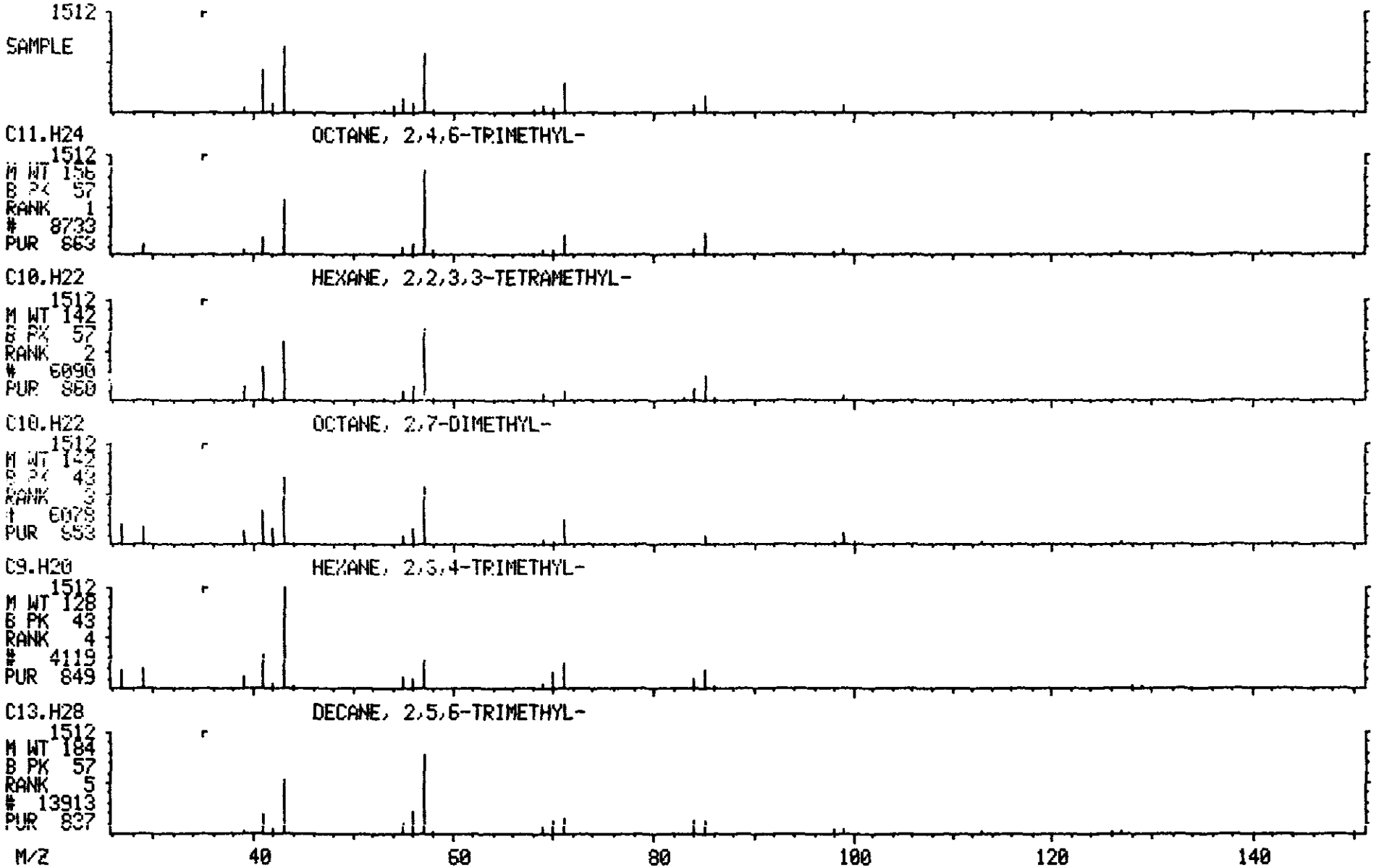
ORIGINAL (Red)

100151

LIBRARY SEARCH
05/16/90 7:58:00 + 19:39
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1179
CALI: T2606 # 2

BASE M/Z: 43
RIC: 4703.



ORIGINAL (Red)

Library Search Data: T2608 #1275 Base m/z: 43
05/16/90 7:58:00 + 21:15 Cali: T2608 # 2 RIC: 17/27.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 3CM RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
88 matched at least 8 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	25863	HEPTADECANE, 2,6-DIMETHYL-
2	25856	PENTADECANE, 2,6,10,14-TETRAMETHYL-
3	18541	DODECANE, 2,7,10-TRIMETHYL-
4	25861	PENTADECANE, 2,6,10,13-TETRAMETHYL-
5	20633	DODECANE, 2-METHYL-8-PROPYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C19.H40	268	57	815	956	831
2	C19.H40	268	43	796	956	821
3	C15.H32	212	57	786	960	790
4	C19.H40	268	41	768	922	793
5	C16.H34	226	57	765	944	797

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	54105-67-8
2	—	—	—	—	1921-70-6
3	—	—	—	—	74645-98-0
4	—	—	—	—	17081-50-4
5	—	—	—	—	55045-07-3

✓

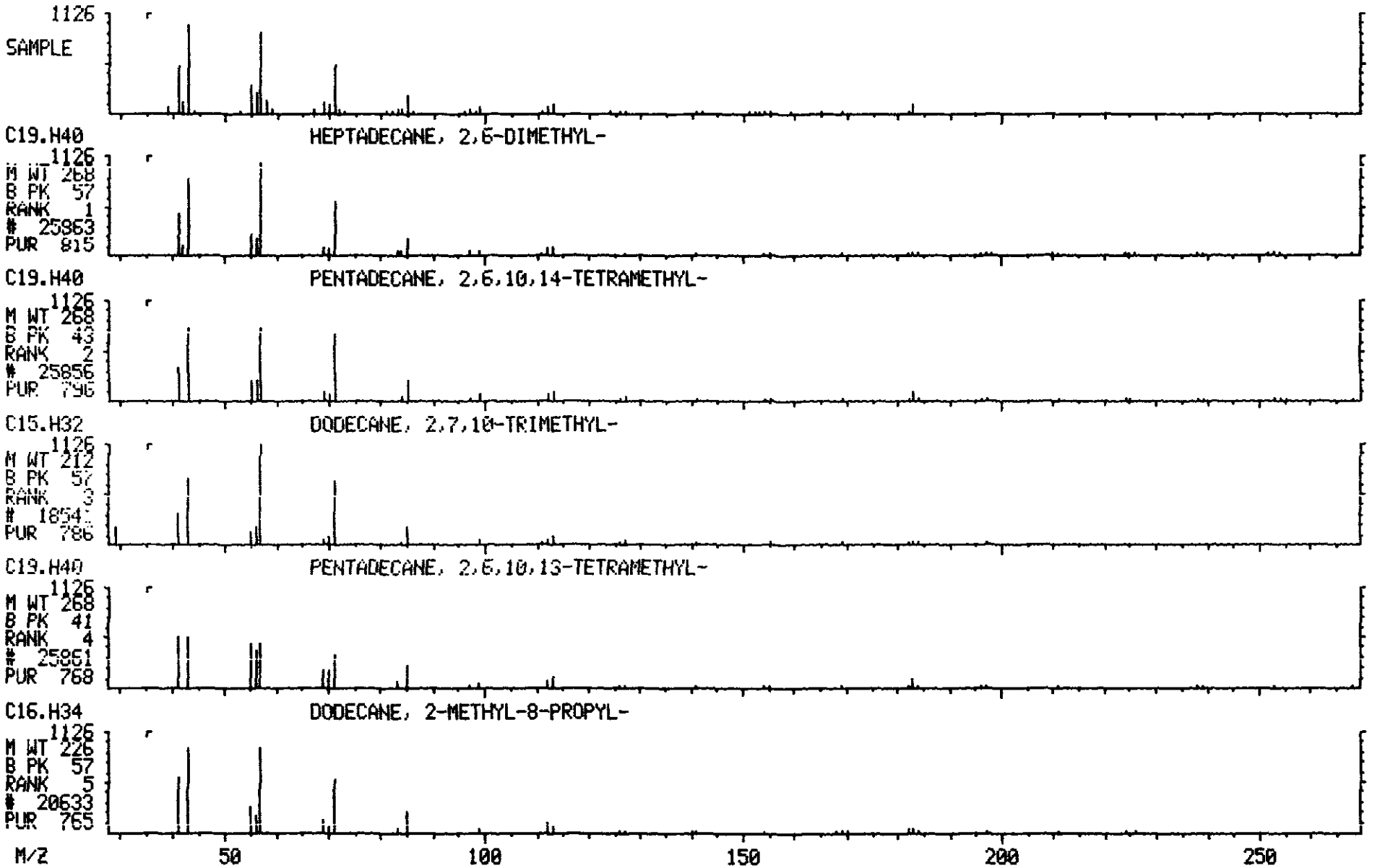
ORIGINAL (Red)

100153

LIBRARY SEARCH
05/16/90 7:58:00 + 21:15
SAMPLE: CLP,VERSCDM,2565,9,M,S,16911,6,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 156 2N 0T)

DATA: T2608 #1275
CALI: T2608 # 2

BASE M/Z: 43
RIC: 17727.



ORIGINAL (Red)

Library Search Data: T2608 #1366 Base m/z: 57
05/16/90 7:58:00 + 22:46 Cali: T2608 # 2 RIC: 21631.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYN6 searched for maximum PURITY
371 matched at least 7 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	25863	HEPTADECANE, 2,6-DIMETHYL-
2	25856	PENTADECANE, 2,6,10,14-TETRAMETHYL-
3	18533	DODECANE, 2,6,10-TRIMETHYL-
4	18541	DODECANE, 2,7,10-TRIMETHYL-
5	20624	HEXADECANE

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C19.H40	268	57	764	945	783
2	C19.H40	268	71	747	939	764
3	C15.H32	212	57	739	933	776
4	C15.H32	212	57	738	955	745
5	C16.H34	226	57	734	938	765

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	54105-67-8
2	—	—	—	—	1921-70-6
3	—	—	—	—	3891-98-3
4	—	—	—	—	74645-98-0
5	—	—	—	—	544-76-3

✓

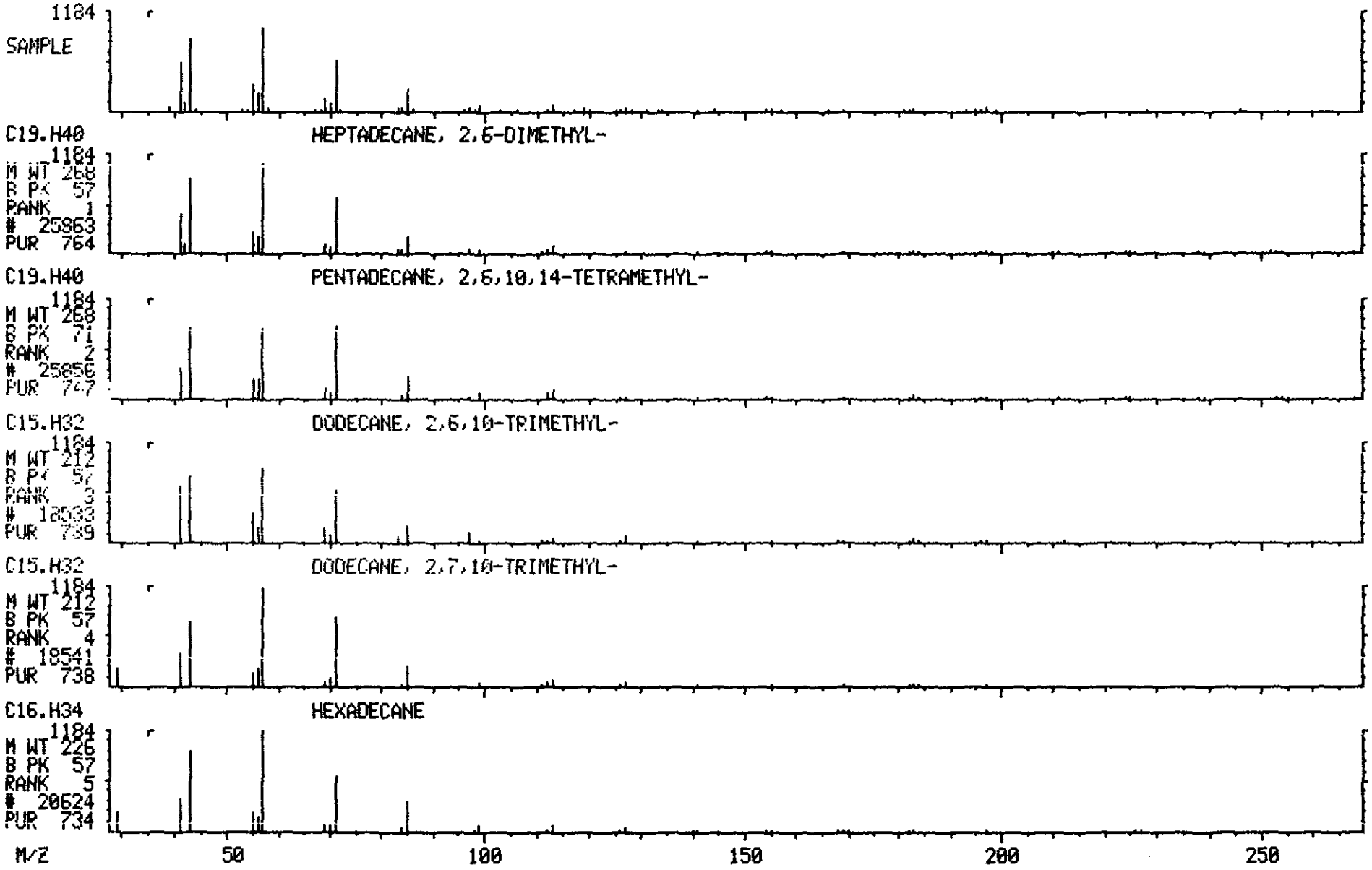
ORIGINAL (Red)

100155

LIBRARY SEARCH
05/16/90 7:58:00 + 22:46
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,P,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN038C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1366
CALI: T2606 # 2

BASE M/Z: 57
RIC: 21631.



ORIGINAL (Red)

Library Search Data: T2608 #1435 Base m/z: 43
05/16/90 7:58:00 + 23:55 Cali: T2608 # 2 RIC: 10895.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
143 matched at least 7 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	25863	HEPTADECANE, 2,6-DIMETHYL-
2	20625	PENTADECANE, 2-METHYL-
3	22455	HEXADECANE, 3-METHYL-
4	28842	HEPTADECANE, 2,6,10,15-TETRAMETHYL-
5	13869	DODECANE, 2-METHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C19.H40	268	57	585	893	606
2	C16.H34	226	57	583	950	595
3	C17.H36	240	57	563	886	591
4	C21.H44	296	57	546	887	591
5	C13.H28	184	43	546	943	550

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	54105-67-8
2	—	—	—	—	1560-93-6
3	—	—	—	—	6418-43-5
4	—	—	—	—	54833-48-6
5	—	—	—	—	1560-97-0

✓

100156

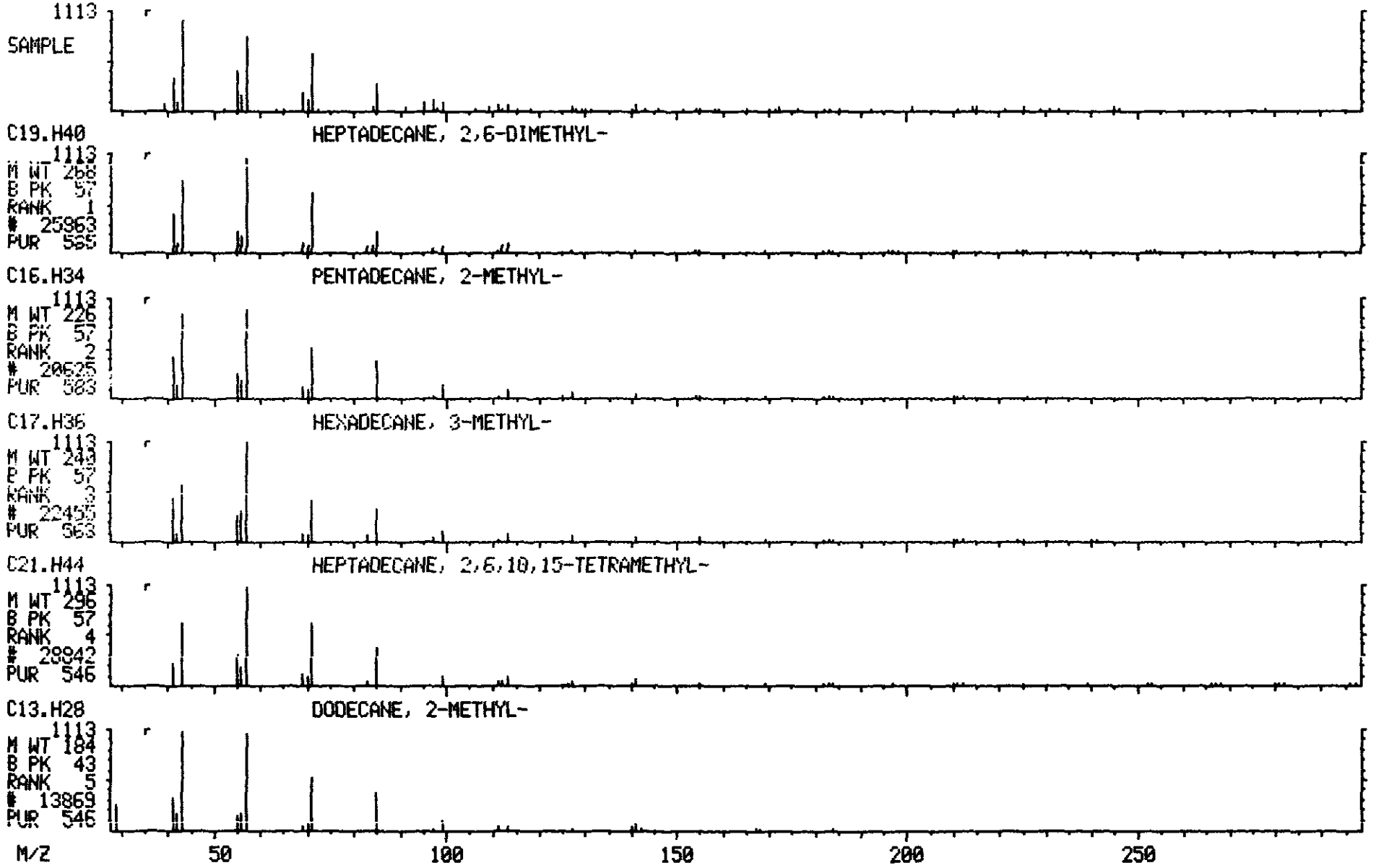
ORIGINAL (Red)

100157

LIBRARY SEARCH
05/16/90 7:58:00 + 23:55
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1435
CALI: T2608 # 2

BASE M/Z: 43
RIC: 10895.



Library Search Data: T2608 #1494 Base m/z: 43 ORIGINAL (Red)
05/16/90 7:58:00 + 24:54 Cali: T2608 # 2 RIC: 26303.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
160 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	24455	HEXADECANOIC ACID
2	26167	GLYCINE, N-METHYL-N-(1-OXODODECYL)-
3	29018	HEXADECANOIC ACID, 1 METHYLETHYL ESTER
4	27905	DODECANAMIDE, N,N-BIS(2-HYDROXYETHYL)-
5	16513	DODECANOIC ACID

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C16.H32.O2	256	43	684	974	692
2	C15.H29.O3.N	271	73	595	958	595
3	C19.H38.O2	298	43	584	853	648
4	C16.H33.O3.N	287	60	578	949	548
5	C12.H24.O2	200	60	539	876	599

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	57-10-3
2	—	—	—	—	97-78-9
3	—	—	—	—	142-91-6
4	—	—	—	—	120-40-1
5	—	—	—	—	143-07-7

✓

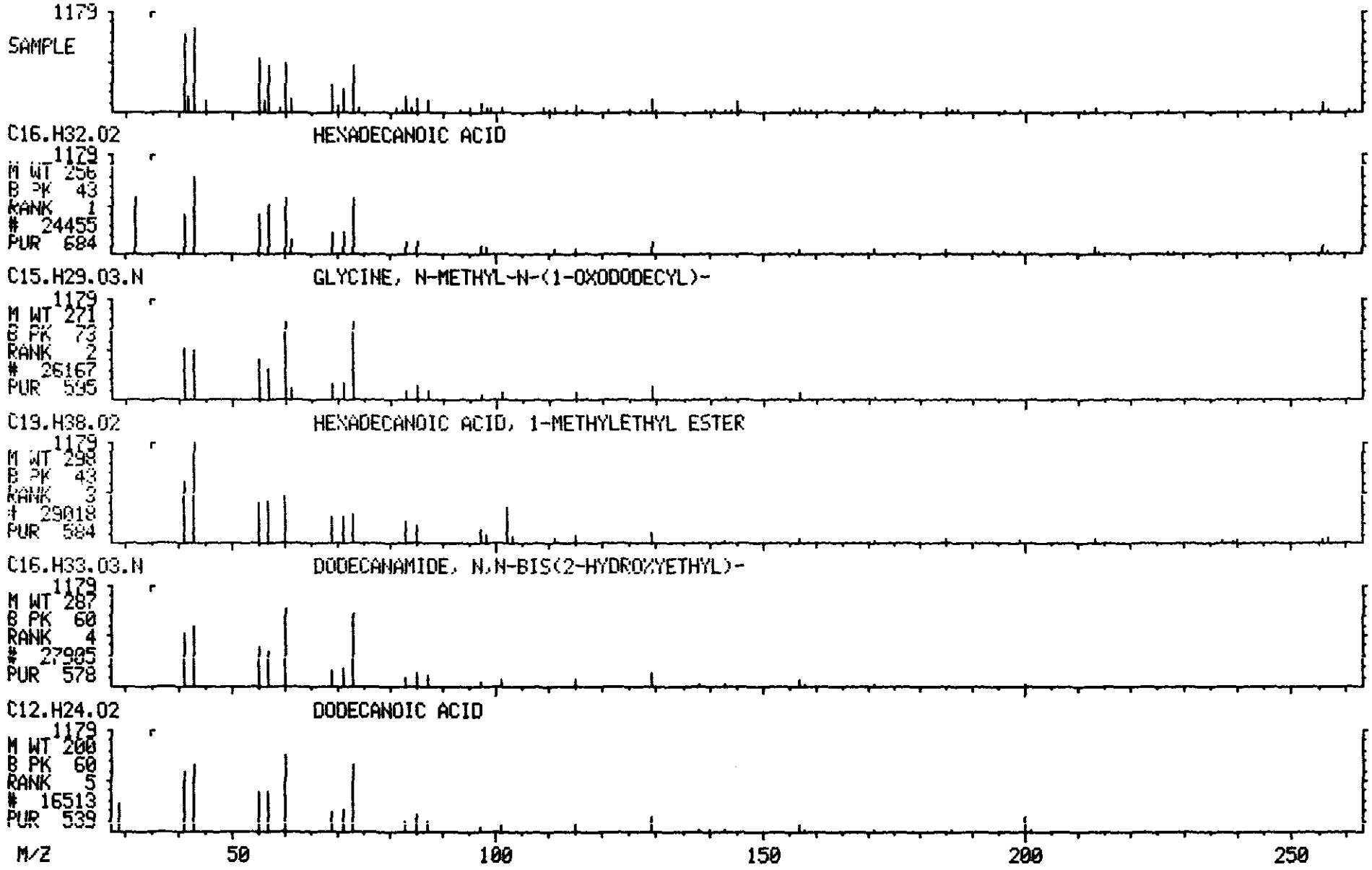
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:52:00 + 24:54
SAMPLE: CLP,VERSCOM,2565,3,M,S,16911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30@28C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1494
CALI: T2608 # 2

BASE M/Z: 43
RIC: 26303.

100159



Library Search Data: T2608 #1520 Base m/z: 43 ORIGINAL
05/16/90 7:58:00 + 25:20 Cali: T2608 # 2 RIC: 20415. (Red)
Sample: CLP,VERSCDM,2565,9,N,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
145 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	14250	1-OCTANOL, 2-BUTYL-
2	33536	PENTACOSANE
3	11940	HYDROXYLAMINE, O-DECYL-
4	14256	1-DECANOL, 2-ETHYL-
5	24691	ETHANOL, 2-(TETRADECYLOXY)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C12.H26.O	186	57	643	966	643
2	C25.H52	352	43	626	879	675
3	C10.H23.O.N	173	43	626	971	626
4	C12.H26.O	186	57	625	966	625
5	C16.H34.O2	258	57	617	956	617

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	3913-02-8
2	—	—	—	—	629-99-2
3	—	—	—	—	29812-79-1
4	—	—	—	—	21078-65-9
5	—	—	—	—	2136-70-1

✓

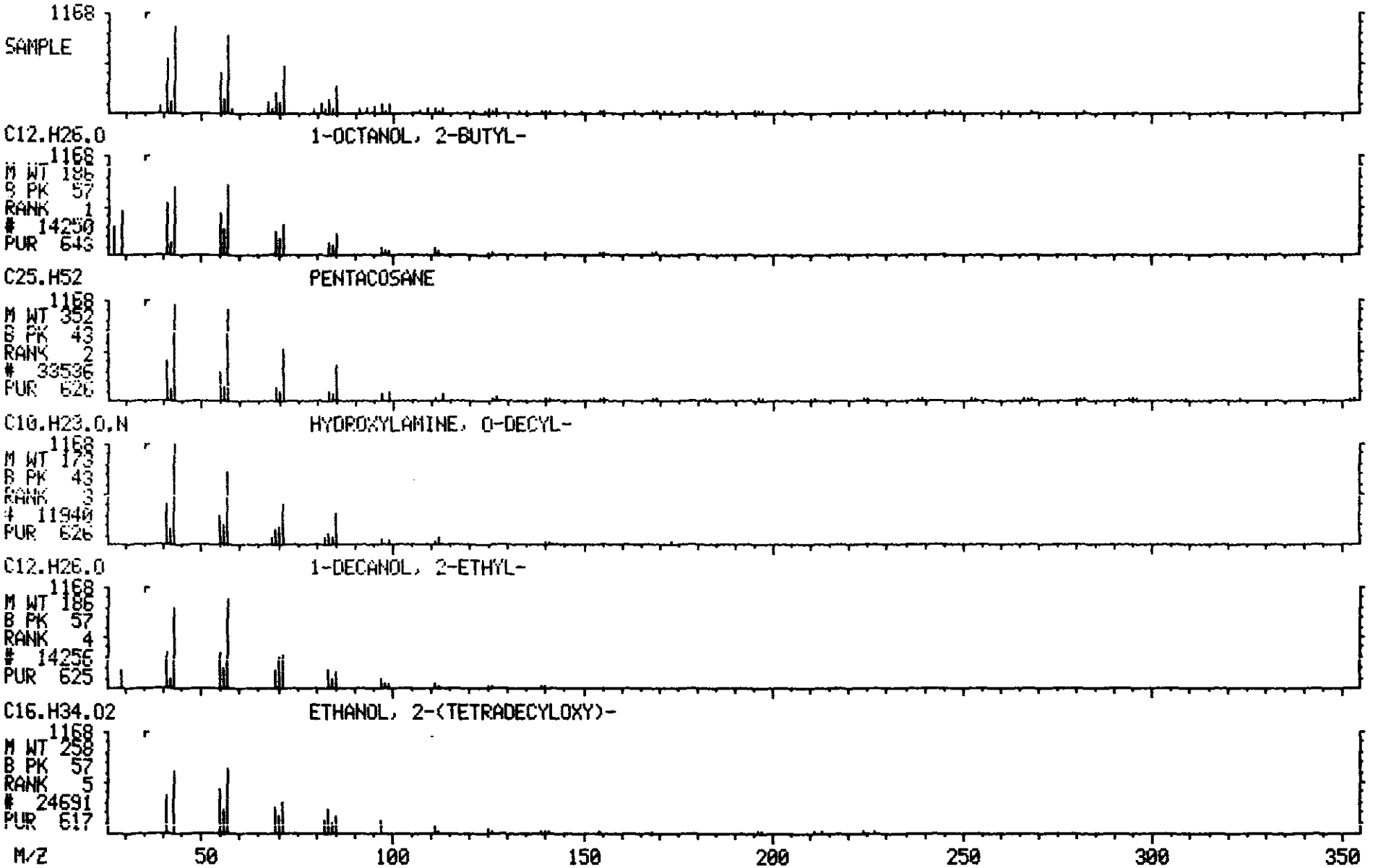
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 25:20
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,B,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MINC38C TO 302C08C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1520
CALI: T2608 # 2

BASE M/Z: 43
RIC: 20415.

100161



Library Search Data: T2608 #1620 Base m/z: 57 ORIGINAL (Red)
05/16/90 7:58:00 + 27:00 Cali: T2608 # 2 RIC: 14911.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYND searched for maximum PURITY
135 matched at least 7 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	25863	HEPTADECANE, 2,6-DIMETHYL-
2	18541	DODECANE, 2,7,10-TRIMETHYL-
3	20640	TETRADECANE, 4-ETHYL-
4	20637	TRIDECANE, 5-PROPYL-
5	27359	OCTADECANE, 2,6-DIMETHYL-

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C19.H40	268	57	572	870	576
2	C15.H32	212	57	544	929	544
3	C16.H34	226	43	526	900	562
4	C16.H34	226	57	524	892	541
5	C20.H42	282	57	524	826	573

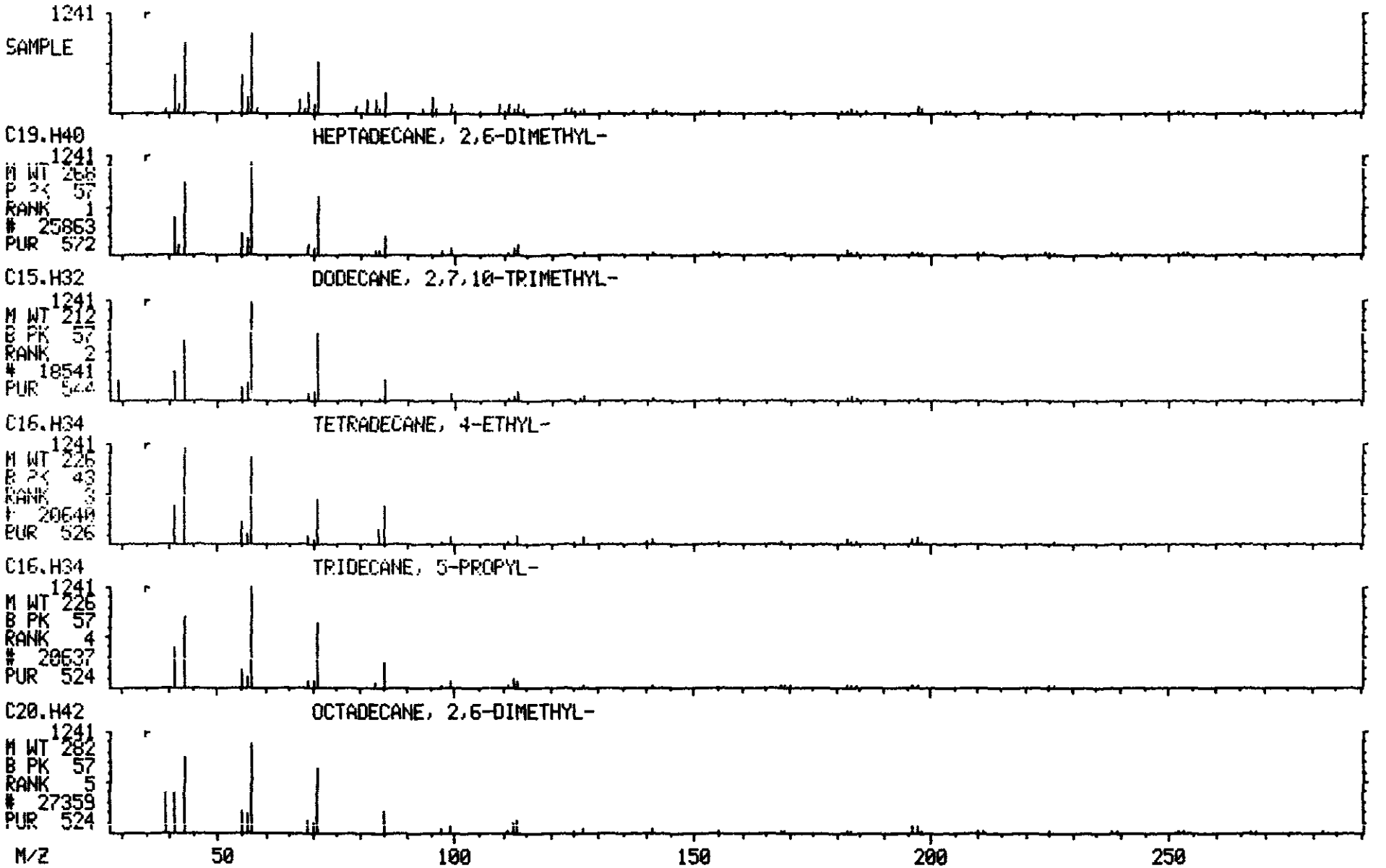
Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	—	—	—	—	54105-67-8
2	—	—	—	—	74645-98-0
3	—	—	—	—	55045-14-2
4	—	—	—	—	55045-11-9
5	—	—	—	—	75163-97-2

✓

LIBRARY SEARCH
05/16/90 7:58:00 + 27:00
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,B,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1620
CALI: T2608 # 2

BASE M/Z: 57
RIC: 14911.



Library Search Data: T2608 #1670 Base m/z: 43
05/16/90 7:58:00 + 27:50 Cali: T2608 # 2 RIC: 15183
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
314 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	41210	TETRACONTANE, 3,5,24-TRIMETHYL-
2	14256	1-DECANOL, 2-ETHYL-
3	14250	1-OCTANOL, 2-BUTYL-
4	25850	HEXADECANE, 1-(ETHENYLOXY)-
5	16275	TRIDECANE, 3-METHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C43.H88	604	57	622	954	627
2	C12.H26.O	186	57	589	934	609
3	C12.H26.O	186	57	585	906	626
4	C18.H36.O	268	43	584	869	615
5	C14.H30	198	57	581	914	589

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55162-61-3
2	—	—	—	—	21078-65-9
3	—	—	—	—	3913-02-8
4	—	—	—	—	822-28-6
5	—	—	—	—	6418-41-3

✓

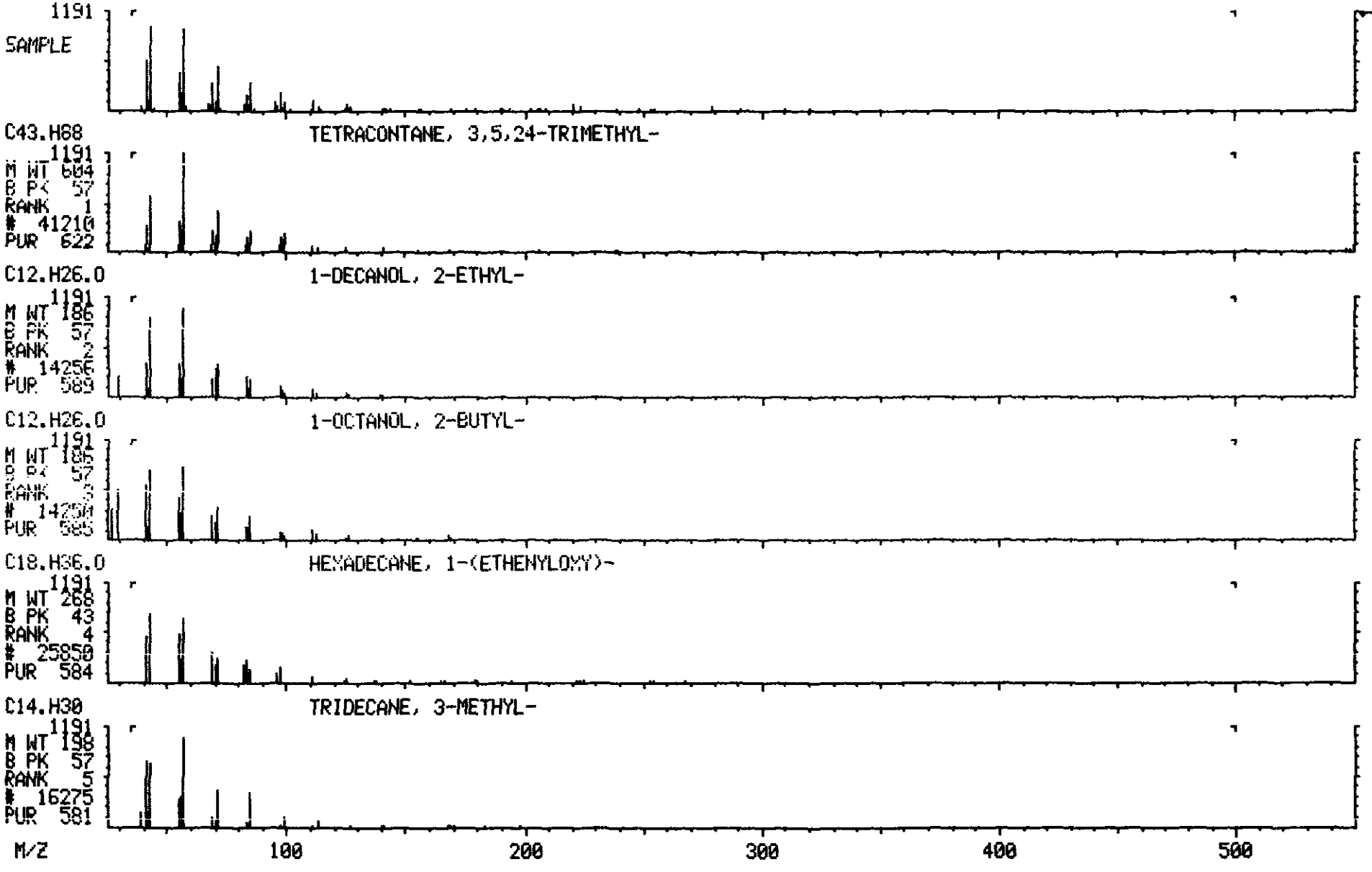
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 27:50
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,B,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN038C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1670
CALI: T2606 # 2

BASE M/Z: 43
RIC: 15183.

100164



ORIGINAL (Red)

Library Search Data: T2608 #1750 Base m/z: 43
05/16/90 7:58:00 + 29:10 Cali: T2608 # 2 RIC: 10991.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
324 matched at least 6 of the 16 largest peaks in the unknown HYD

Rank	In.	Name
1	8719	DECANE, 2-METHYL-
2	6080	OCTANE, 2,6-DIMETHYL-
3	6104	HEPTANE, 3-ETHYL-5-METHYL-
4	25863	HEPTADECANE, 2,6-DIMETHYL-
5	6089	HEPTANE, 5-ETHYL-2-METHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C11.H24	156	43	664	853	727
2	C10.H22	142	57	649	859	687
3	C10.H22	142	43	645	874	683
4	C19.H40	268	43	645	780	775
5	C10.H22	142	43	644	867	688

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	6975-98-0
2	—	—	—	—	2051-30-1
3	—	—	—	—	52896-90-9
4	—	—	—	—	54105-67-8
5	—	—	—	—	13475-78-0

✓

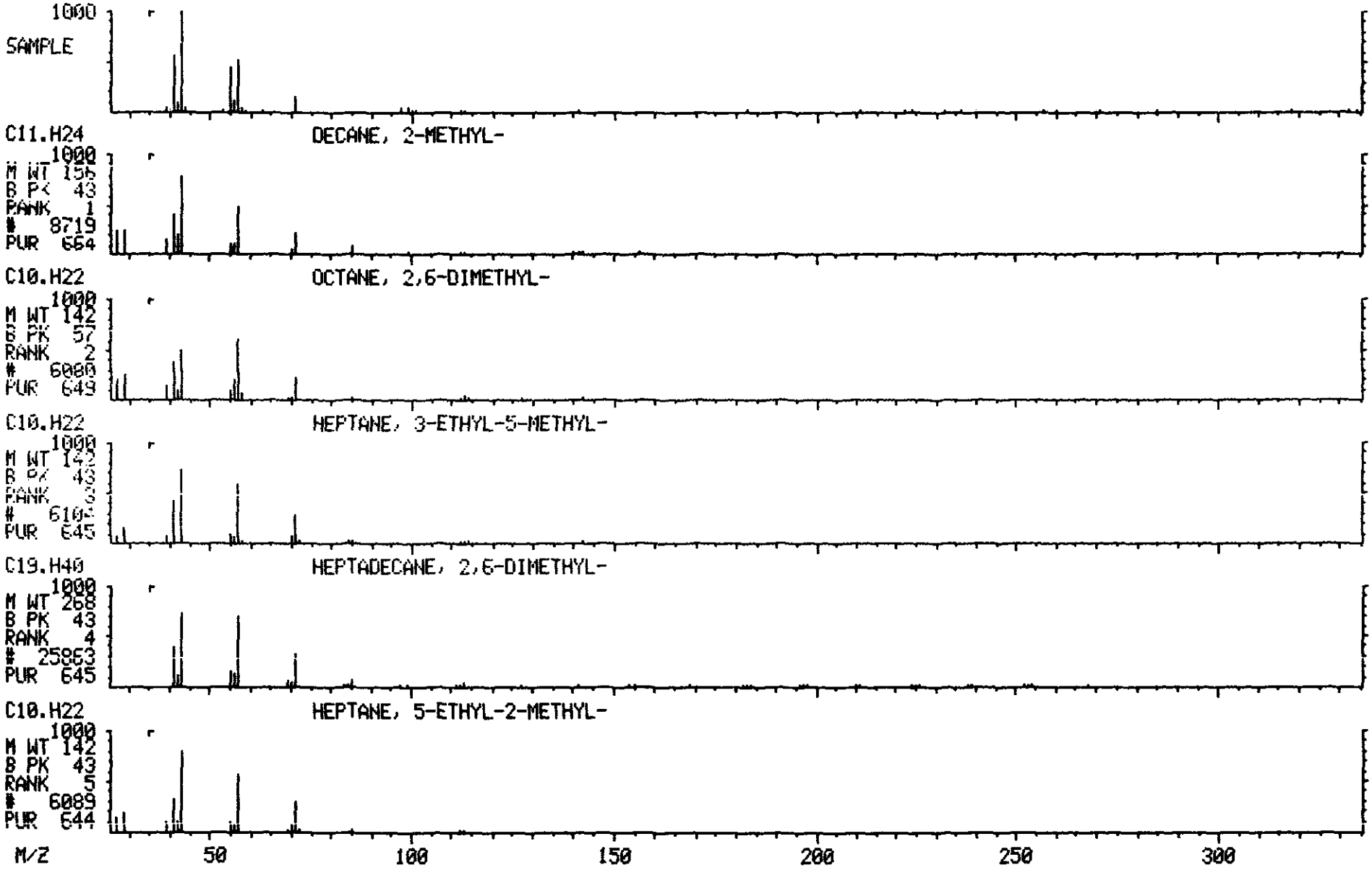
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 29:10
SAMPLE: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1750
CALI: T2608 # 2

BASE M/Z: 43
RIC: 10991.

100166



Library Search Data: T2608 #1806 Base m/z: 57 ORIGINAL (Red)
05/16/90 7:58:00 + 30:06 Cali: T2608 # 2 RIC: 18655
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNH searched for maximum PURITY
122 matched at least 8 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	22453	HEPTADECANE
2	36033	OCTACOSANE
3	25863	HEPTADECANE, 2,6-DIMETHYL-
4	20624	HEXADECANE
5	36165	IRON, TRICARBONYL[N-(PHENYL-2-PYRIDINYLMETHYLENE)BENZENAMINE-N,N']-

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C17. H36	240	57	742	927	772
2	C28. H58	394	43	732	921	704
3	C19. H40	268	57	724	888	760
4	C16. H34	226	57	720	944	743
5	C21. H14. O3. N2. FE	398	57	716	878	773

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	—	—	—	—	629-78-7
2	—	—	—	—	630-02-4
3	—	—	—	—	54105-67-8
4	—	—	—	—	544-76-3
5	—	—	—	—	74764-11-7

✓

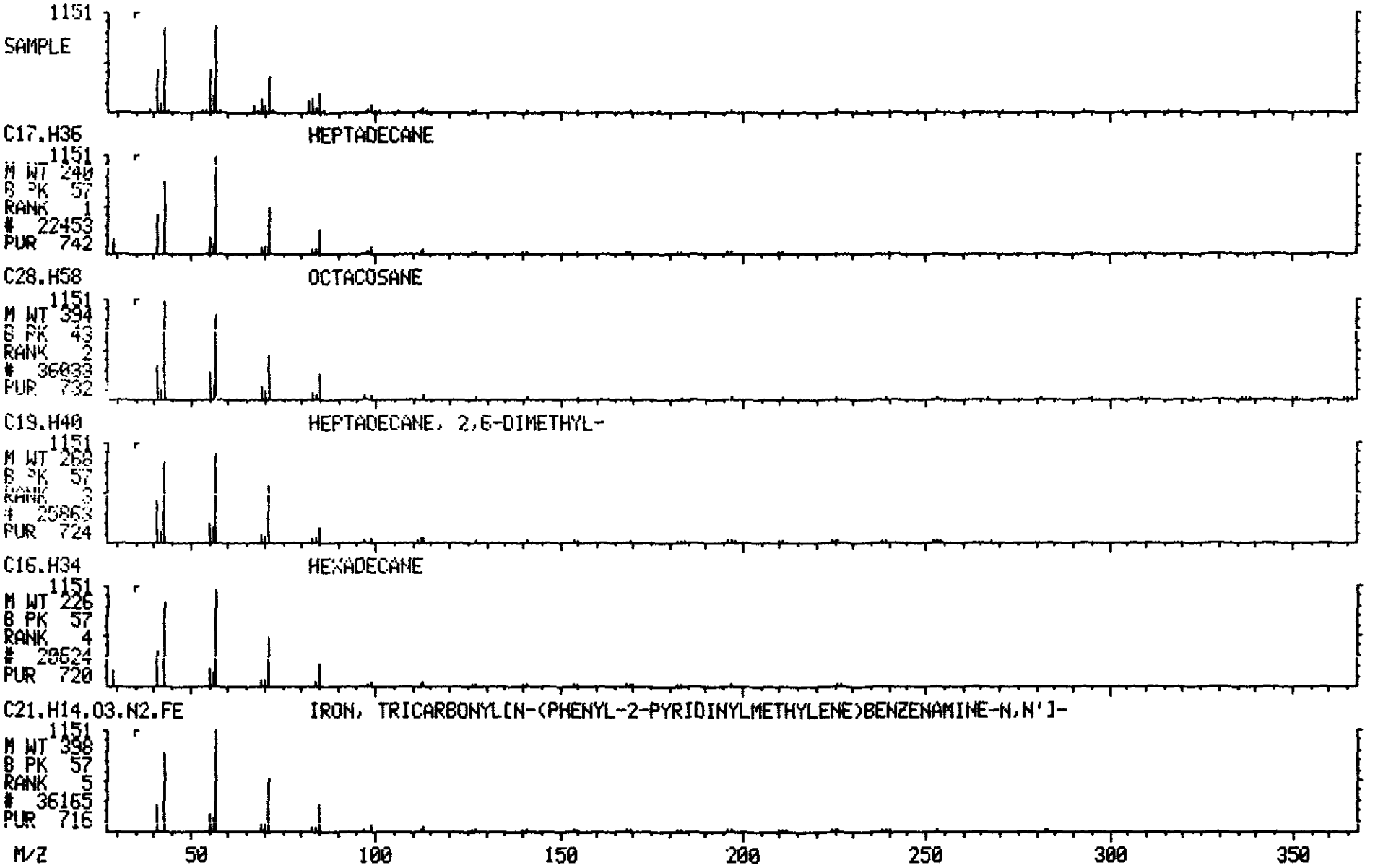
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 30:06
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,P,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1806
CALI: T2606 # 2

BASE M/Z: 57
RIC: 18655.

100168



Library Search Data: T2608 #1870 Base m/z: 57 ORIGINAL (Red)
05/16/90 7:58:00 + 31:10 Cali: T2608 # 2 RIC: 43647.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNH searched for maximum PURITY
223 matched at least 8 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	33536	PENTACOSANE
2	25863	HEPTADECANE, 2,6-DIMETHYL-
3	39944	HEXATRIACONTANE
4	39695	PENTATRIACONTANE
5	30170	DOCOSANE

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C25. H52	352	43	762	937	790
2	C19. H40	268	57	757	939	769
3	C36. H74	506	57	757	963	772
4	C35. H72	492	57	751	960	770
5	C22. H46	310	57	742	944	765

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	—	—	—	—	629-99-2
2	—	—	—	—	54105-67-8
3	—	—	—	—	630-06-8
4	—	—	—	—	630-07-9
5	—	—	—	—	629-97-0

✓

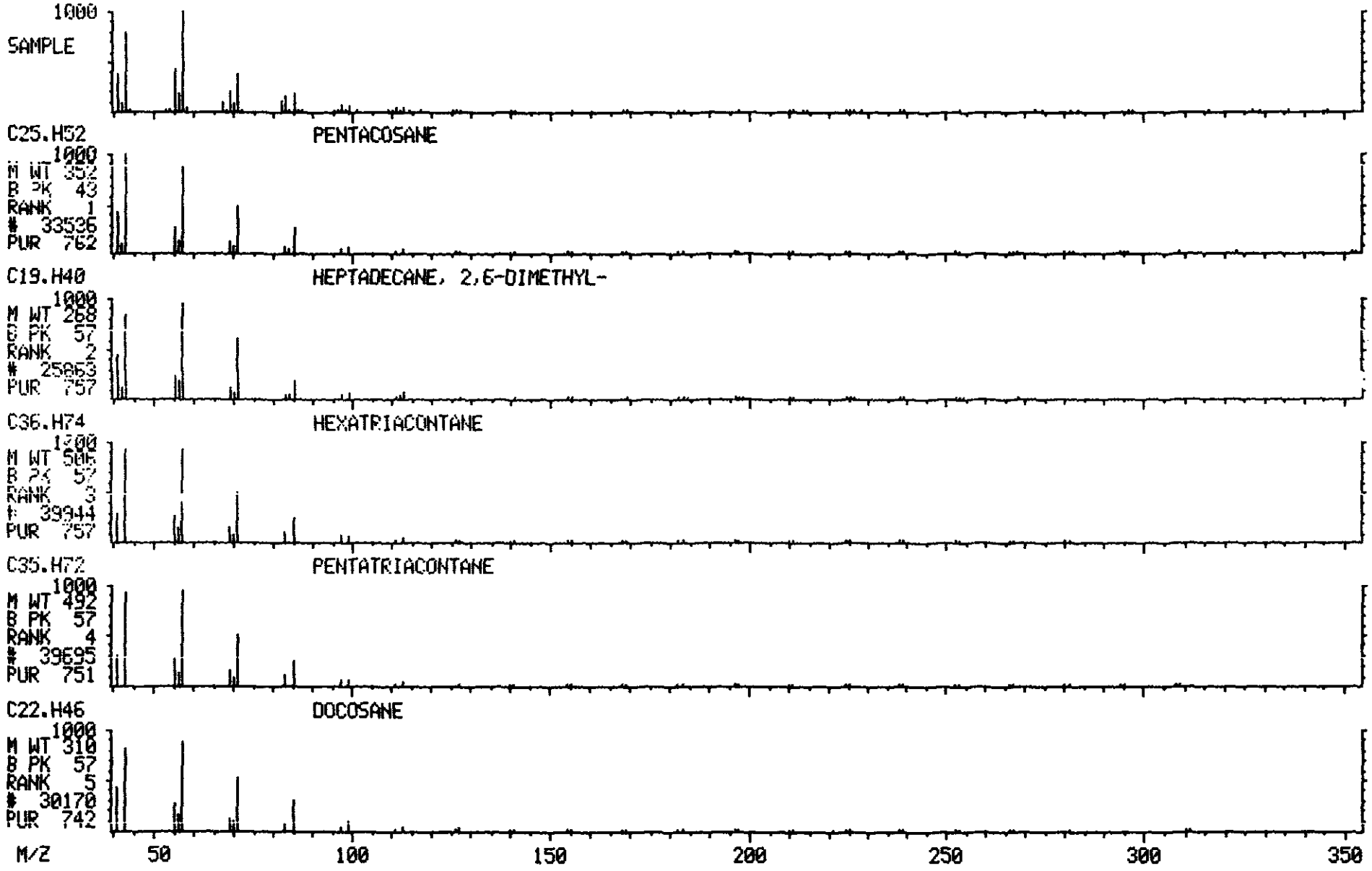
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 31:10
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,B,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1870
CALI: T2608 # 2

BASE M/Z: 57
RIC: 43647.

100170



Library Search Data: T2608 #1946 Base m/z: 57 ORIGINAL (Rec)
05/16/90 7:58:00 + 32:26 Cali: T2608 # 2 RIC: 31593.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNR searched for maximum PURITY
59 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	25849	OCTADECANAL
2	29051	1-EICOSANOL
3	22446	OXIRANE, TETRADECYL-
4	27610	NONADECANOL
5	33043	OCTADECANAL, 2-BROMO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C18.H36.O	268	43	580	864	627
2	C20.H42.O	298	43	575	896	618
3	C16.H32.O	240	41	575	934	575
4	C19.H40.O	284	43	573	903	612
5	C18.H35.O.BR	346	43	562	828	649

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	638-66-4
2	—	—	—	—	629-96-9
3	—	—	—	—	7320-37-8
4	—	—	—	—	52783-43-4
5	—	—	—	—	56599-95-2

✓

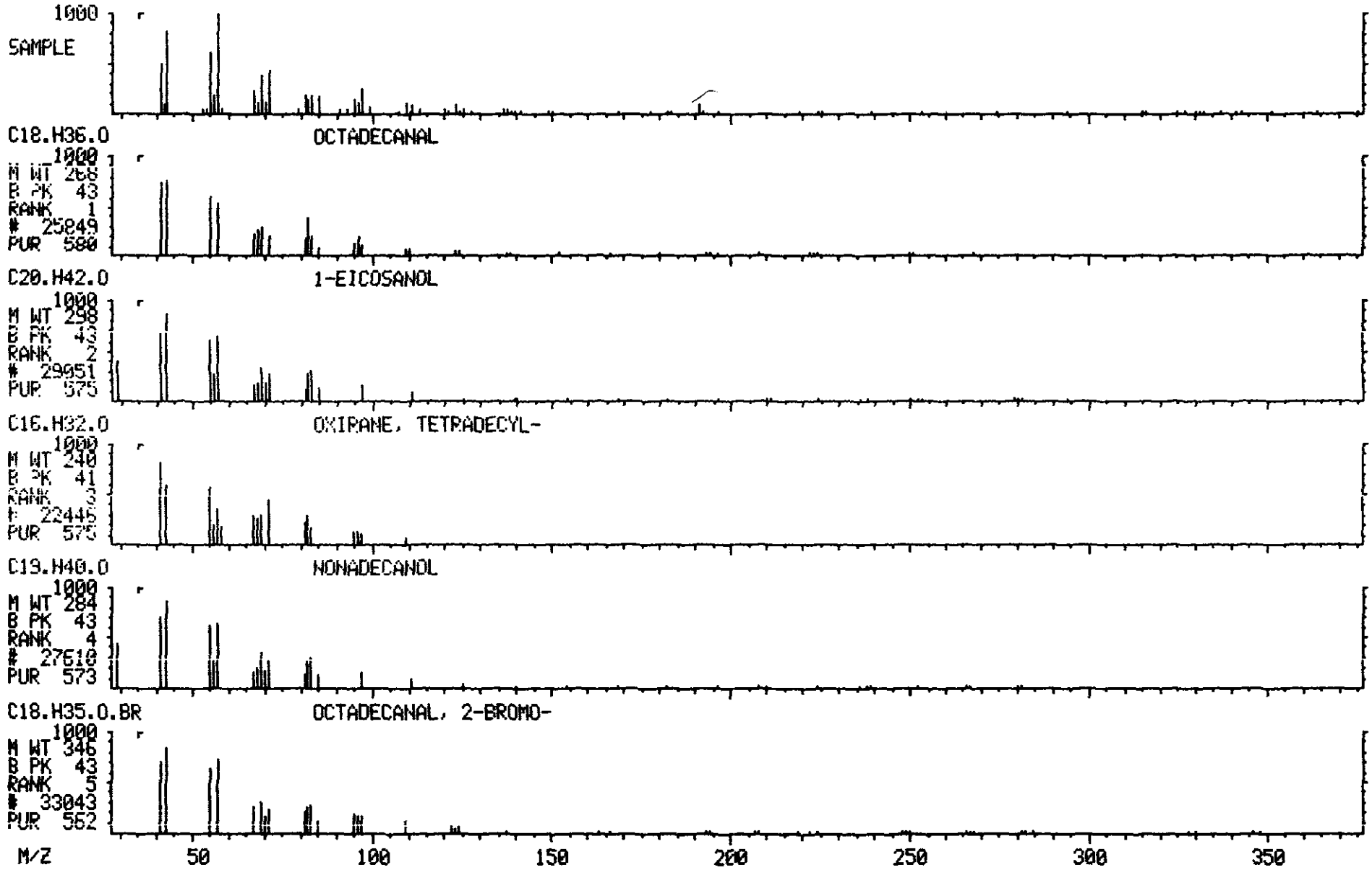
ORIGINAL (Red)

100172

LIBRARY SEARCH
05/16/90 7:58:00 + 32:26
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@30C TO 30@8C/MIN
ENHANCED (5 15B 2N 0T)

DATA: T2608 #1946
CALI: T2608 # 2

BASE M/Z: 57
RIC: 31583.



Library Search Data: T2608 #1960 Base m/z: 57
05/16/90 7:58:00 + 32:40 Cali: T2608 # 2 RIC: 30163.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
207 matched at least 8 of the 16 largest peaks in the unknown

HYP

Rank	In.	Name
1	39944	HEXATRIACONTANE
2	25863	HEPTADECANE, 2,6-DIMETHYL-
3	33536	PENTACOSANE
4	18533	DODECANE, 2,6,10-TRIMETHYL-
5	30170	DOCOSANE

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C36.H74	506	57	773	956	778
2	C19.H40	268	57	767	935	783
3	C25.H52	352	43	764	921	812
4	C15.H32	212	57	761	956	767
5	C22.H46	310	57	759	938	795

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	630-06-8
2	—	—	—	—	54105-67-8
3	—	—	—	—	629-99-2
4	—	—	—	—	3891-98-3
5	—	—	—	—	629-97-0

✓

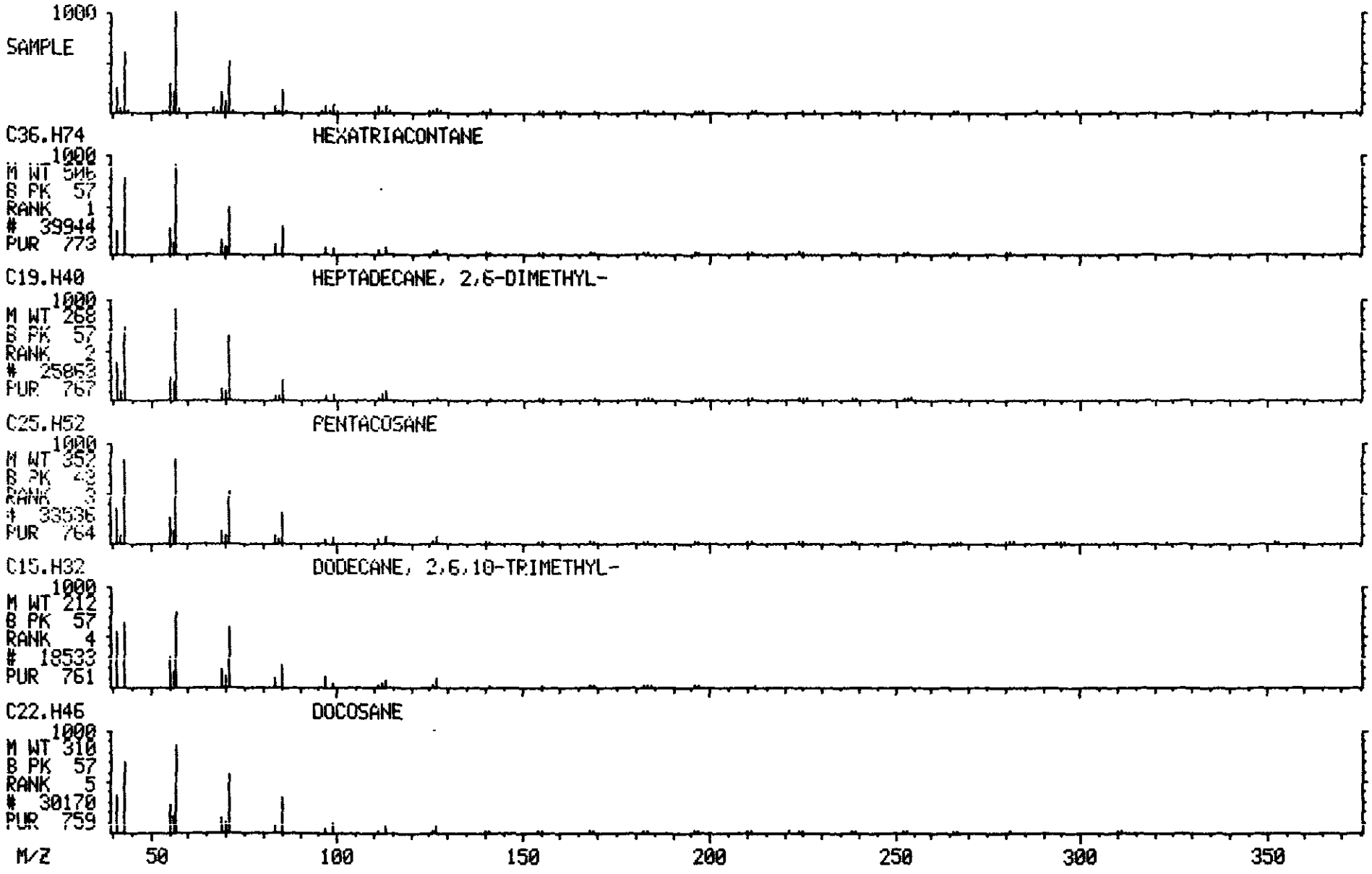
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 32:40
SAMPLE: CLP,VERSCDM,2565,9,M,S,16911,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #1960
CALI: T2608 # 2

BASE M/Z: 57
RIC: 30463.

100174



Library Search Data: T2608 #2007 Base m/z: 57
05/16/90 7:58:00 + 33:27 Cali: T2608 # 2 RIC: 15279.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
290 matched at least 7 of the 16 largest peaks in the unknown

HYD

Rank	In.	Name
1	18541	DODECANE, 2,7,10-TRIMETHYL-
2	28842	HEPTADECANE, 2,6,10,15-TETRAMETHYL-
3	18538	DODECANE, 2,6,11-TRIMETHYL-
4	13882	UNDECANE, 4,7-DIMETHYL-
5	13880	UNDECANE, 3,8-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C15.H32	212	57	598	950	613
2	C21.H44	296	57	590	879	651
3	C15.H32	212	57	587	932	602
4	C13.H28	184	43	580	923	594
5	C13.H28	184	57	578	945	590

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	74645-98-0
2	—	—	—	—	54833-48-6
3	—	—	—	—	31295-56-4
4	—	—	—	—	17301-32-5
5	—	—	—	—	17301-30-3

✓

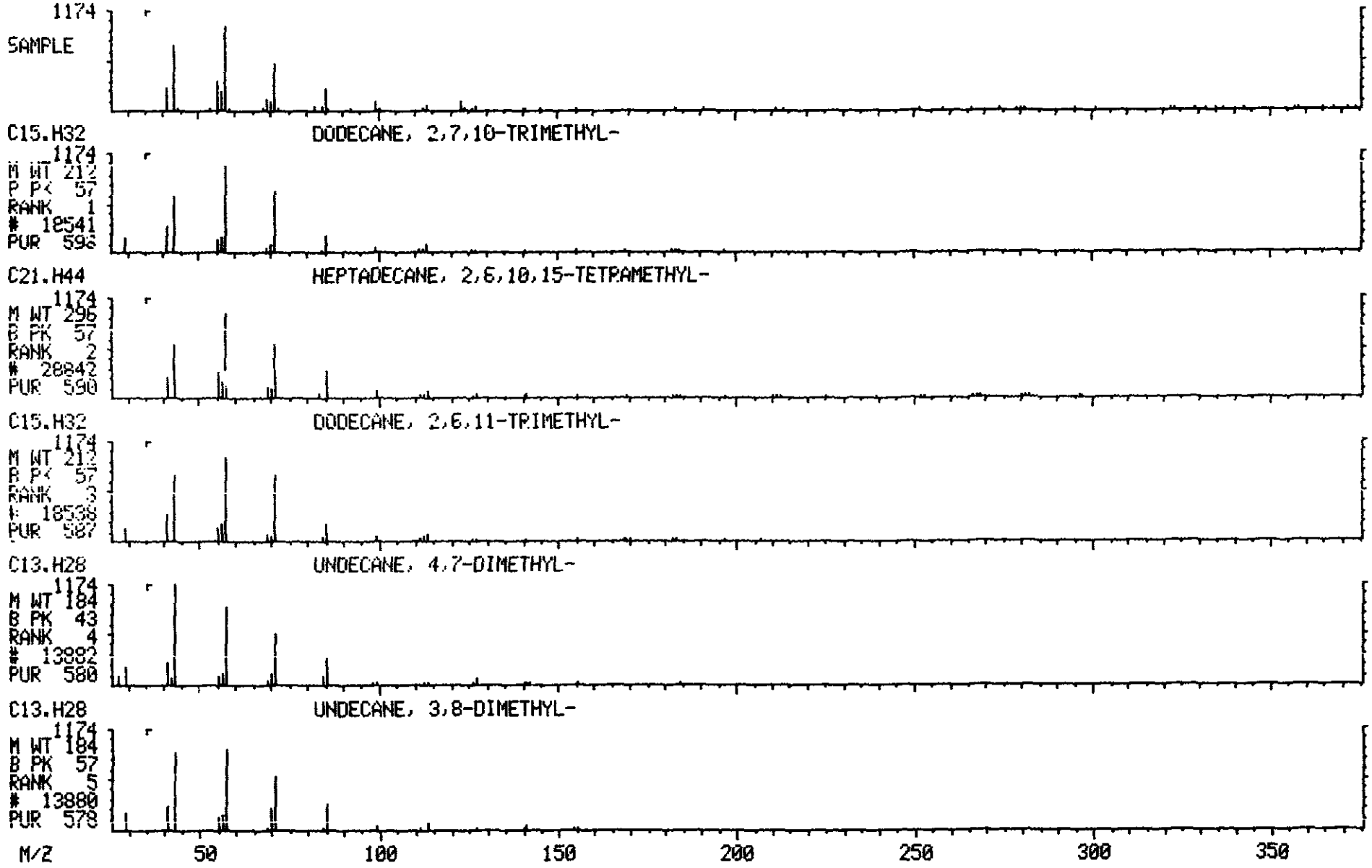
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 33:27
SAMPLE: CLP,VERSCDM,2565,3,M,S,16911,P,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15@ 2N 0T)

DATA: T2608 #2007
CALI: T2608 # 2

BASE M/Z: 57
RIC: 15279.

100176



Library Search Data: T2608 #2060 Base m/z: 57
05/16/90 7:58:00 + 34:20 Cali: T2608 # 2 RIC: 7207 ORIGINAL (Red)
Sample: CLP,VERSCDM,2565,9,N,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNH searched for maximum PURITY
153 matched at least 4 of the 16 largest peaks in the unknown

Siloxane

Rank	In.	Name
1	40359	HEPTASILOXANE, HEXADECAMETHYL-
2	38743	HEXASILOXANE, TETRADECAMETHYL-
3	34667	BENZOIC ACID, 2,4-BIS[(TRIMETHYLSILYL)OXY]-, TRIMETHYLSILYL ESTER
4	38750	SILANE, [[4-[1,2-BIS[(TRIMETHYLSILYL)OXY]ETHYL]-1,2-PHENYLENE]BIS(O*
5	39769	1-MONOLINOLEOYLGLYCEROL TRIMETHYLSILYL ETHER

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C16.H48.O6.SI7	532	73	393	791	472
2	C14.H42.O5.SI6	458	73	304	743	387
3	C16.H30.O4.SI3	370	73	264	671	314
4	C20.H42.O4.SI4	458	73	252	752	272
5	C27.H54.O4.SI2	498	73	241	405	365

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	—	—	—	—	541-01-5
2	—	—	—	—	107-52-8
3	—	—	—	—	10586-16-0
4	—	—	—	—	56114-62-6
5	—	—	—	—	54284-45-6

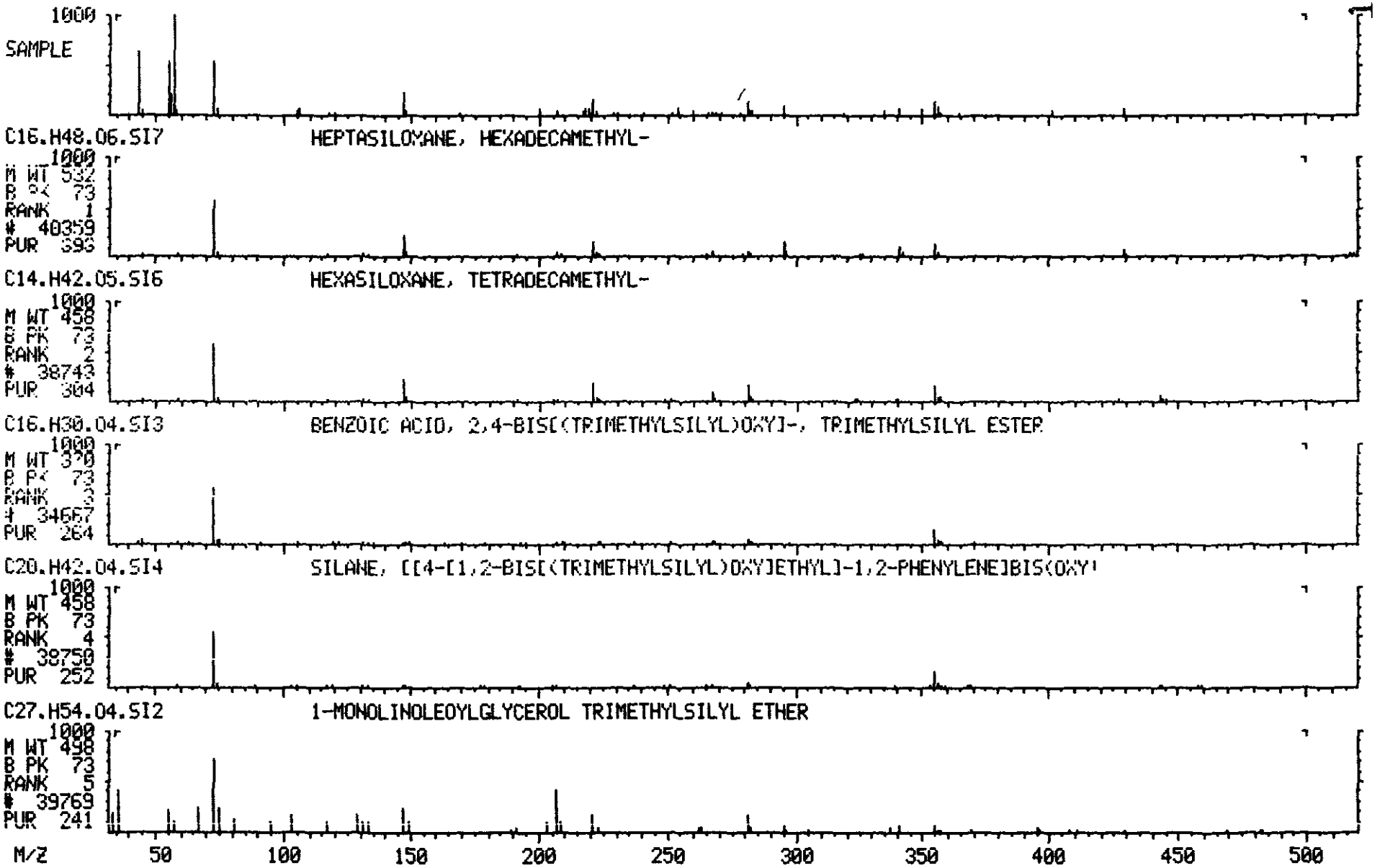
✓

LIBRARY SEARCH
05/16/90 7:56:00 + 34:20
SAMPLE: CLP,VERSCDM,2565,9,M,S,16911,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #2060
CALI: T2606 # 2

BASE M/Z: 57
RIC: 7207.

100178



ORIGINAL (Red)

Library Search Data: T2608 #2141 Base m/z: 43
05/16/90 7:58:00 + 35:41 Cali: T2608 # 2 RIC: 17023.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
247 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	25863	HEPTADECANE, 2,6-DIMETHYL-
2	28007	OCTADECANE, 1-CHLORO-
3	20633	DODECANE, 2-METHYL-8-PROPYL-
4	36033	OCTACOSANE
5	20637	TRIDECANE, 5-PROPYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C19.H40	268	57	301	888	316
2	C18.H37.CL	288	57	294	750	357
3	C16.H34	226	43	294	918	307
4	C28.H58	394	43	290	876	327
5	C16.H34	226	57	289	906	302

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	54105-67-8
2	—	—	—	—	3386-33-2
3	—	—	—	—	55045-07-3
4	—	—	—	—	630-02-4
5	—	—	—	—	55045-11-9

✓

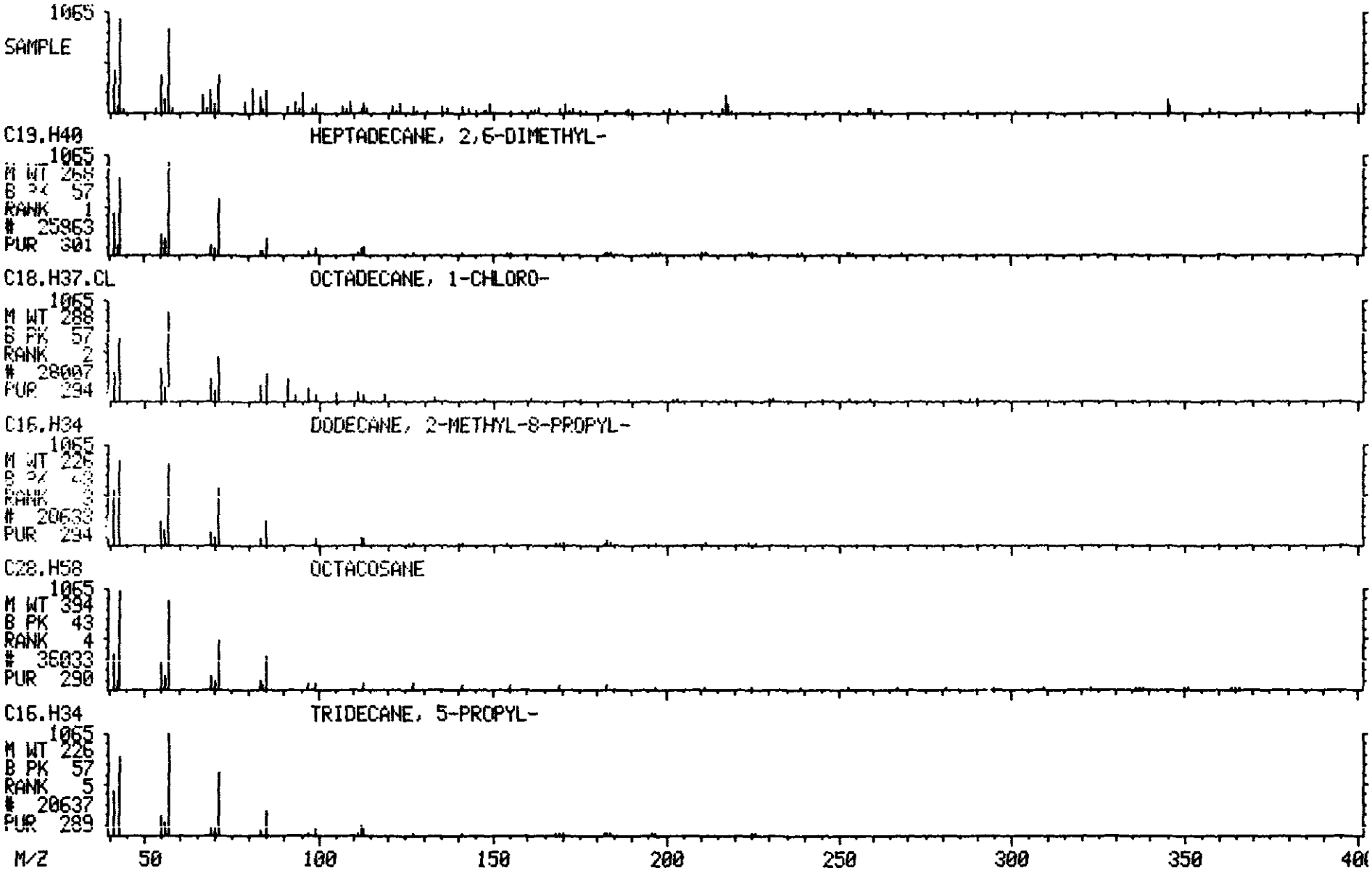
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 35:41
SAMPLE: CLP,VERSCOM,2565,9,M,5,16911,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #2141
CALI: T2608 # 2

BASE M/Z: 43
RIC: 17023.

100180



Library Search Data: T2608 #2169 Base m/z: 57
05/16/90 7:58:00 + 36:29 Cali: T2608 # 2 RIC: 22367.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
304 matched at least 6 of the 16 largest peaks in the unknown

cyclic HYD

Rank	In.	Name
1	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
2	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
3	20271	2,10-DODECADIEN-1-OL, 3,7,11-TRIMETHYL-, (Z)-
4	20273	2,10-DODECADIEN-1 OL, 3,7,11-TRIMETHYL-, (E)-(.+-.)-
5	31465	DODECANE, 1,2-DIBROMO

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C26.H48	360	41	475	966	475
2	C26.H48	360	43	442	914	458
3	C15.H28.O	224	69	425	880	441
4	C15.H28.O	224	69	410	836	426
5	C12.H24.BR2	326	57	402	780	447

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	—	—	—	—	55334-01-5
2	—	—	—	—	55401-75-7
3	—	—	—	—	20576-57-2
4	—	—	—	—	20576-59-4
5	—	—	—	—	55334-42-4

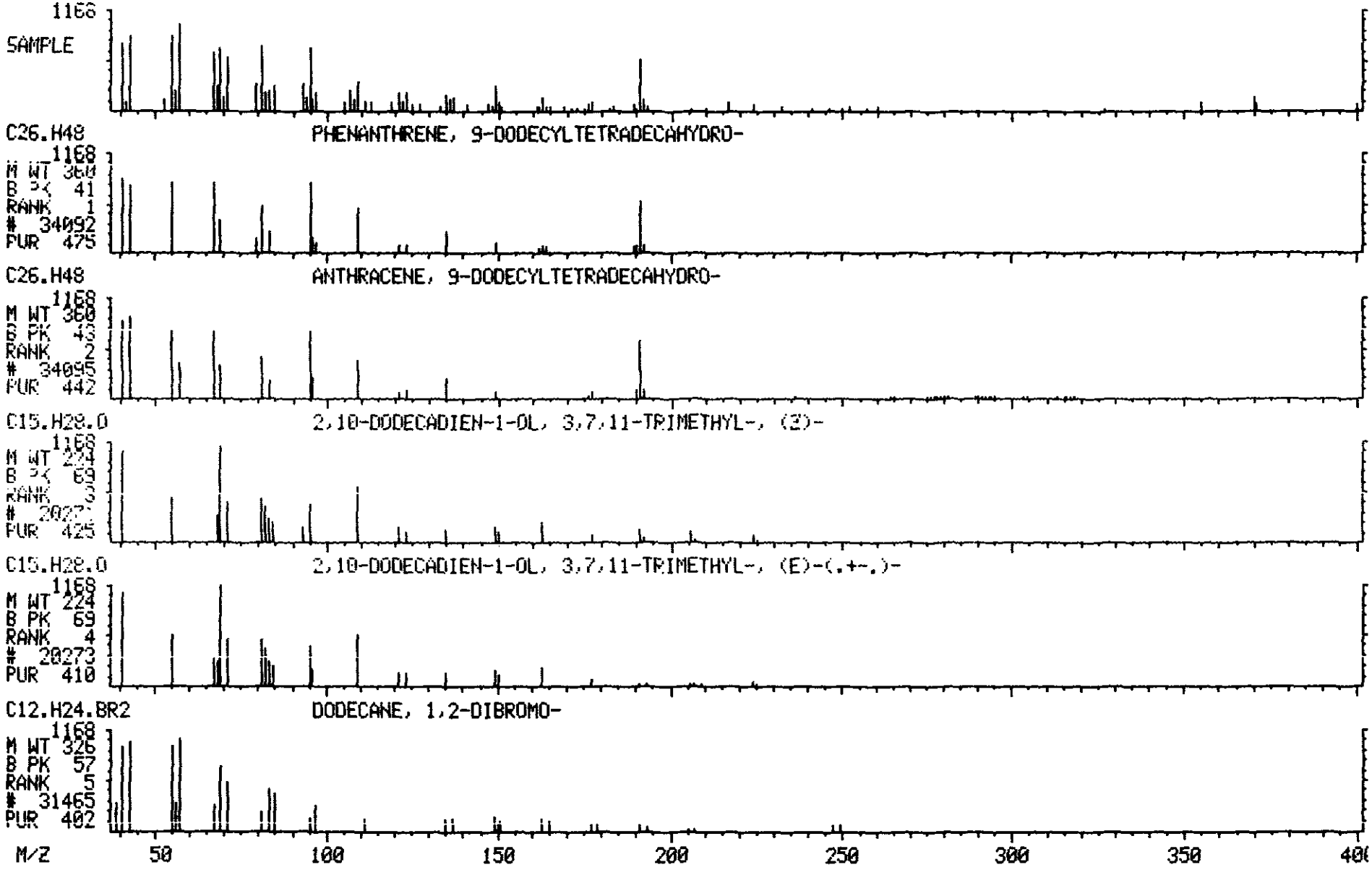
✓

LIBRARY SEARCH
05/16/90 7:58:00 + 36:29
SAMPLE: CLP,VERSCOM,2565,9,M,S,16311,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #2189
CALI: T2606 # 2

BASE M/Z: 57
RIC: 22367.

100182



Library Search Data: T2608 #2226 Base m/z: 95
05/16/90 7:58:00 + 37:06 Cali: T2608 # 2 RIC: 7815.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
61 matched at least 6 of the 16 largest peaks in the unknown

~~CYCLIC~~ HYD

Rank	In.	Name
1	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
2	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
3	23459	ANTHRACENE, 9-BUTYLTETRADECAHYDRO-
4	15135	CYCLOHEXANE, 1,2-DIMETHYL-3,5-BIS(1-METHYLETHENYL)-, (1.ALPHA.,2.BE*
5	28429	6-TRIDECENOIC ACID, 13-(2-CYCLOPENTEN-1-YL)-, METHYL ESTER

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	191	475	768	582
2	C26.H48	360	191	423	713	537
3	C18.H32	248	191	418	693	560
4	C14.H24	192	107	358	695	473
5	C19.H32.O2	292	67	355	606	416

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55331-01-5
2	—	—	—	—	55401-75 7
3	—	—	—	—	55133-89-6
4	—	—	—	—	74806-56-7
5	—	—	—	—	24828-60-2

✓

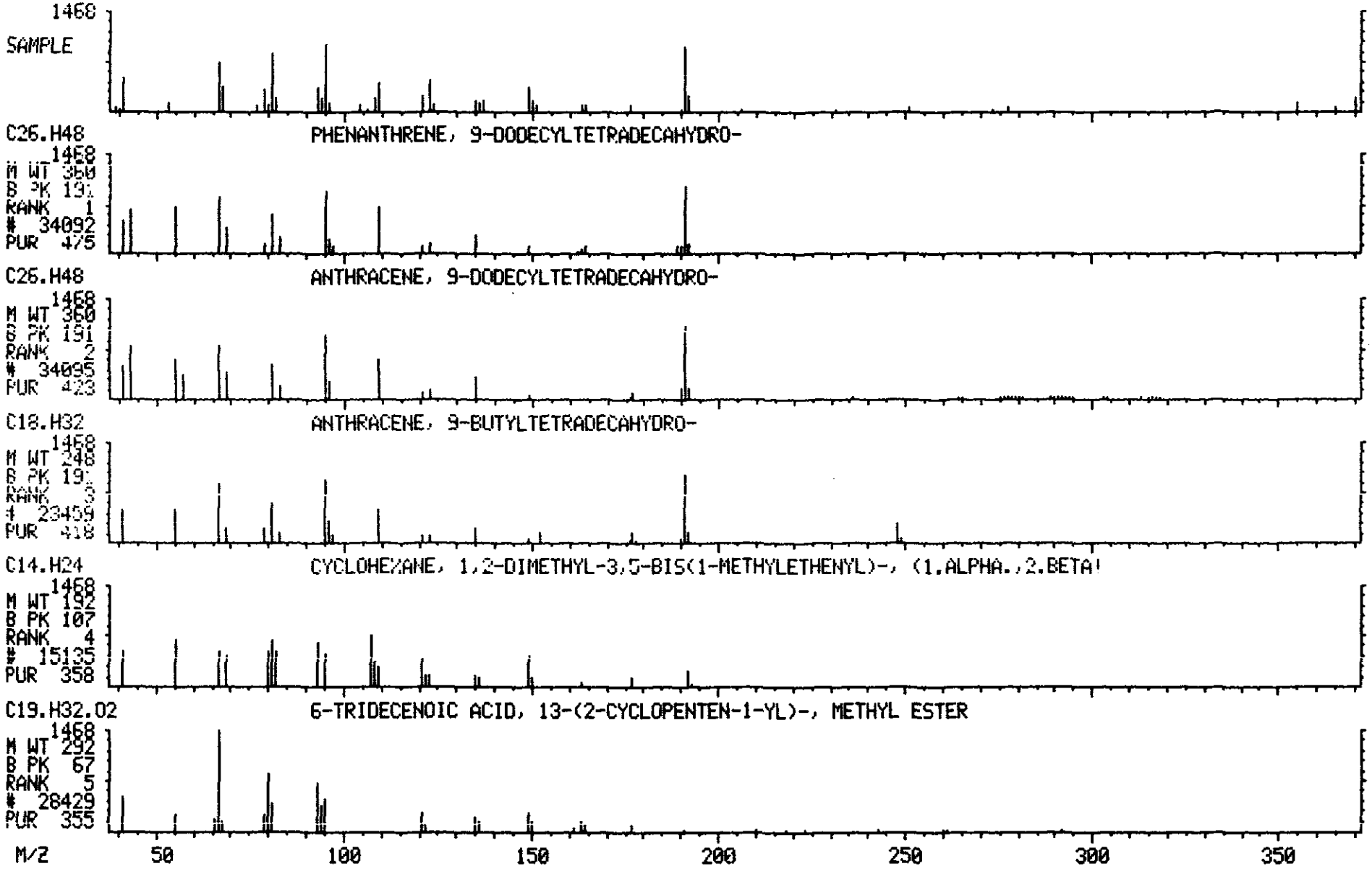
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 37:06
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,R,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #2226
CALI: T2608 # 2

BASE M/Z: 95
RIC: 7815.

100184



Library Search Data: T2608 #2369 Base m/z: 81 ORIGINAL
05/16/90 7:58:00 + 39:29 Cali: T2608 # 2 RIC: 25375. (Rmf)
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
85 matched at least 6 of the 16 largest peaks in the unknown CYCLIC HYD

Rank	In.	Name
1	17550	CYCLOHEXANE, 1,1,2-TRIMETHYL-3,5-BIS(1-METHYLETHENYL)-, (2.ALPHA.,3*
2	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
3	15128	1,8-NONADIENE, 2,7-DIMETHYL-5-(1-METHYLETHENYL)-
4	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
5	17547	TRICYCLO[4.3.0.07,9]NONANE, 2,2,5,5,8,8-HEXAMETHYL-, (1.ALPHA.,6.BE*

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C15.H26	206	41	588	955	588
2	C26.H48	360	95	535	945	537
3	C14.H24	192	55	516	950	516
4	C26.H48	360	191	512	905	530
5	C15.H26	206	69	510	954	510

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	62337-97-7
2	—	—	—	—	55334-01-5
3	—	—	—	—	68702-20-5
4	—	—	—	—	55401-75-7
5	—	—	—	—	54832-82-5

✓

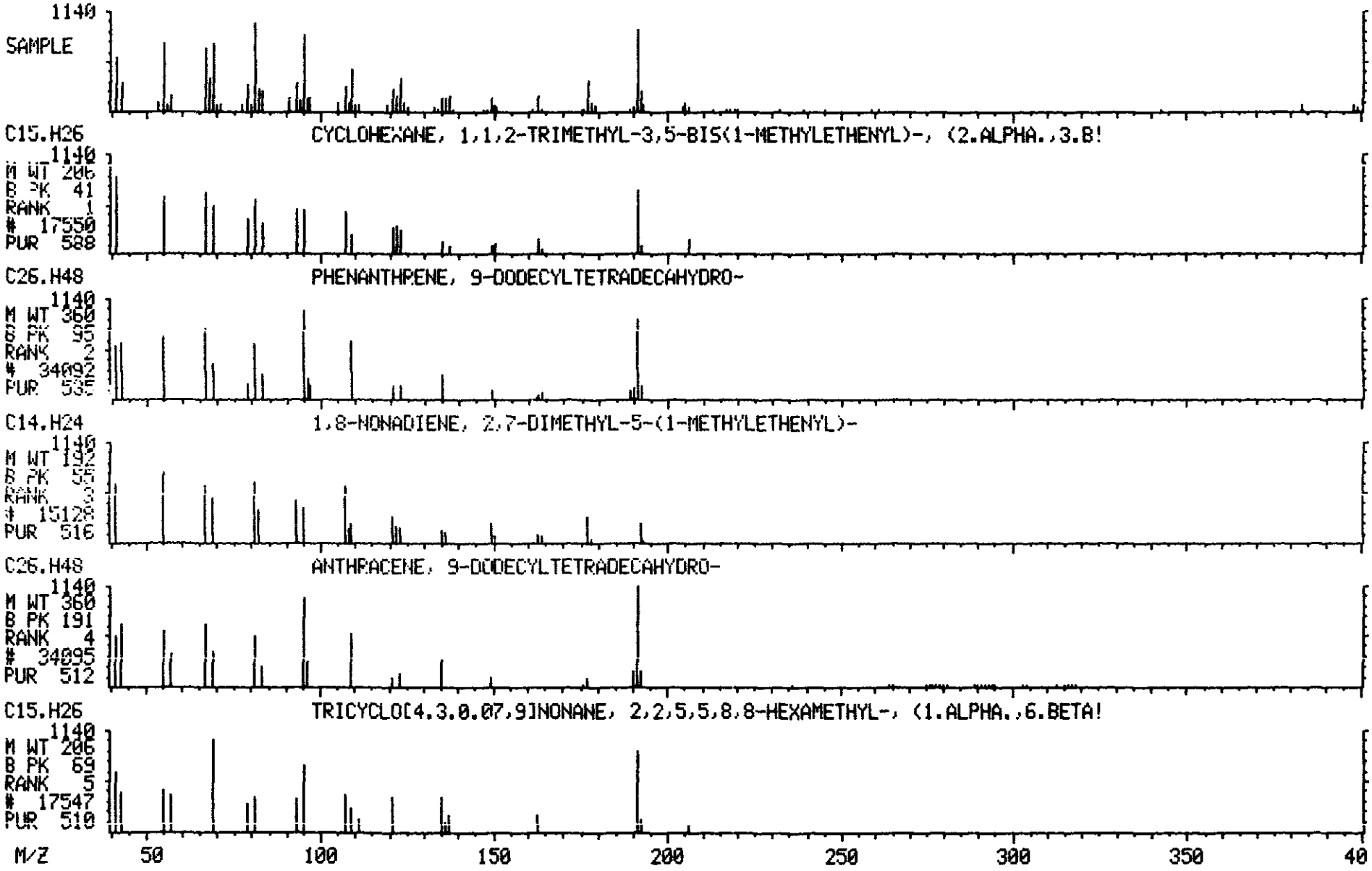
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 39:29
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #2369
CALI: T2608 # 2

BASE M/Z: 81
RIC: 25375.

100186



Library Search Data: T2608 #2434 Base m/z: 43
05/16/90 7:58:00 + 40:34 Cali: T2608 # 2 RIC: 12511
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYND searched for maximum PURITY
130 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	35597	CHOLESTANE, 4,5-EPOXY-, (4.ALPHA.,5.ALPHA.)-
2	36822	SQUALENE
3	33106	KAURAN-18-AL, 17-(ACETYLOXY)-, (4.BETA.)-
4	17541	1H-3A,7-METHANOAZULENE, OCTAHYDRO-1,4,9,9-TETRAMETHYL-
5	30003	1-NAPHTHALENEPROPANOL, .ALPHA.-ETHENYLDECAHYDRO-5-(HYDROXYMETHYL)-. *

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C27.H46.O	386	43	488	857	555
2	C30.H50	410	69	379	805	443
3	C22.H34.O3	346	43	330	838	385
4	C15.H26	206	41	329	902	342
5	C20.H36.O2	308	55	324	740	390

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	6079-19-2
2	—	—	—	—	7683-64-9
3	—	—	—	—	55902-84-6
4	—	—	—	—	19078-35-4
5	—	—	—	—	72401-52-6

✓

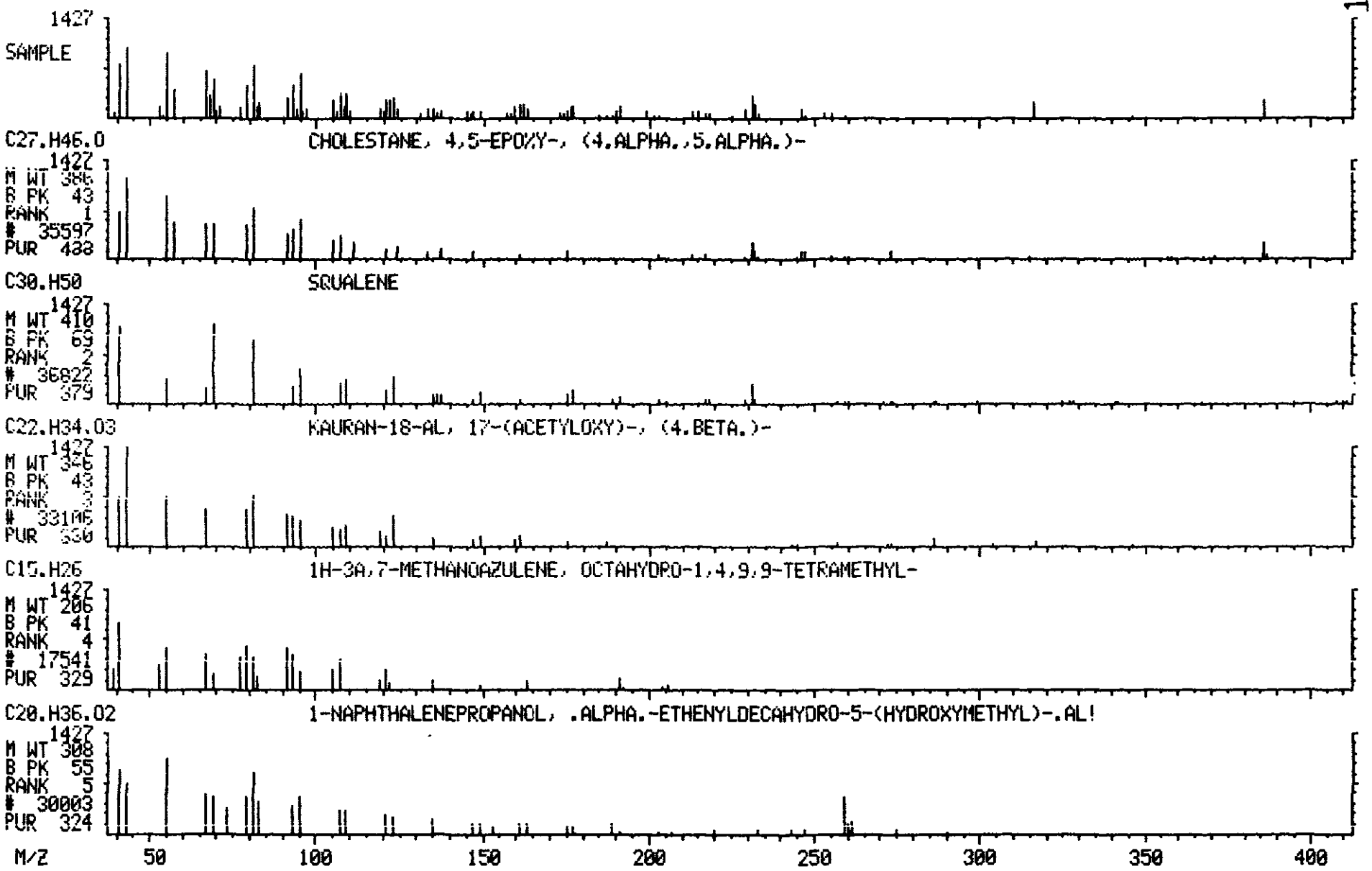
100187

LIBRARY SEARCH
05/16/90 7:58:00 + 40:34
SAMPLE: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #2434
CALI: T2608 # 2

BASE M/Z: 43
RIC: 12511.

100188



Library Search Data: T2608 #2451 Base m/z: 43
05/16/90 7:58:00 + 40:51 Cali: T2608 # 2 RIC: 14367.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNW searched for maximum PURITY
424 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	40079	PROPANOIC ACID, 3,3'-THIODIS-, DIDODECYL ESTER
2	16562	5-NONANOL, 5-BUTYL-
3	21553	NONANE, 2-BROMO-5-ETHYL-
4	28209	PENTADECANE, 1-BROMO-
5	26705	TETRADECANE, 1-BROMO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C30.H58.O4.S	514	43	538	907	569
2	C13.H28.O	200	41	365	850	380
3	C11.H23.BR	234	57	361	762	414
4	C15.H31.BR	290	43	356	913	367
5	C14.H29.BR	276	43	350	809	361

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	123-28-4
2	—	—	—	—	597-93-3
3	—	—	—	—	55162-38-4
4	—	—	—	—	629-72-1
5	—	—	—	—	112-71-0

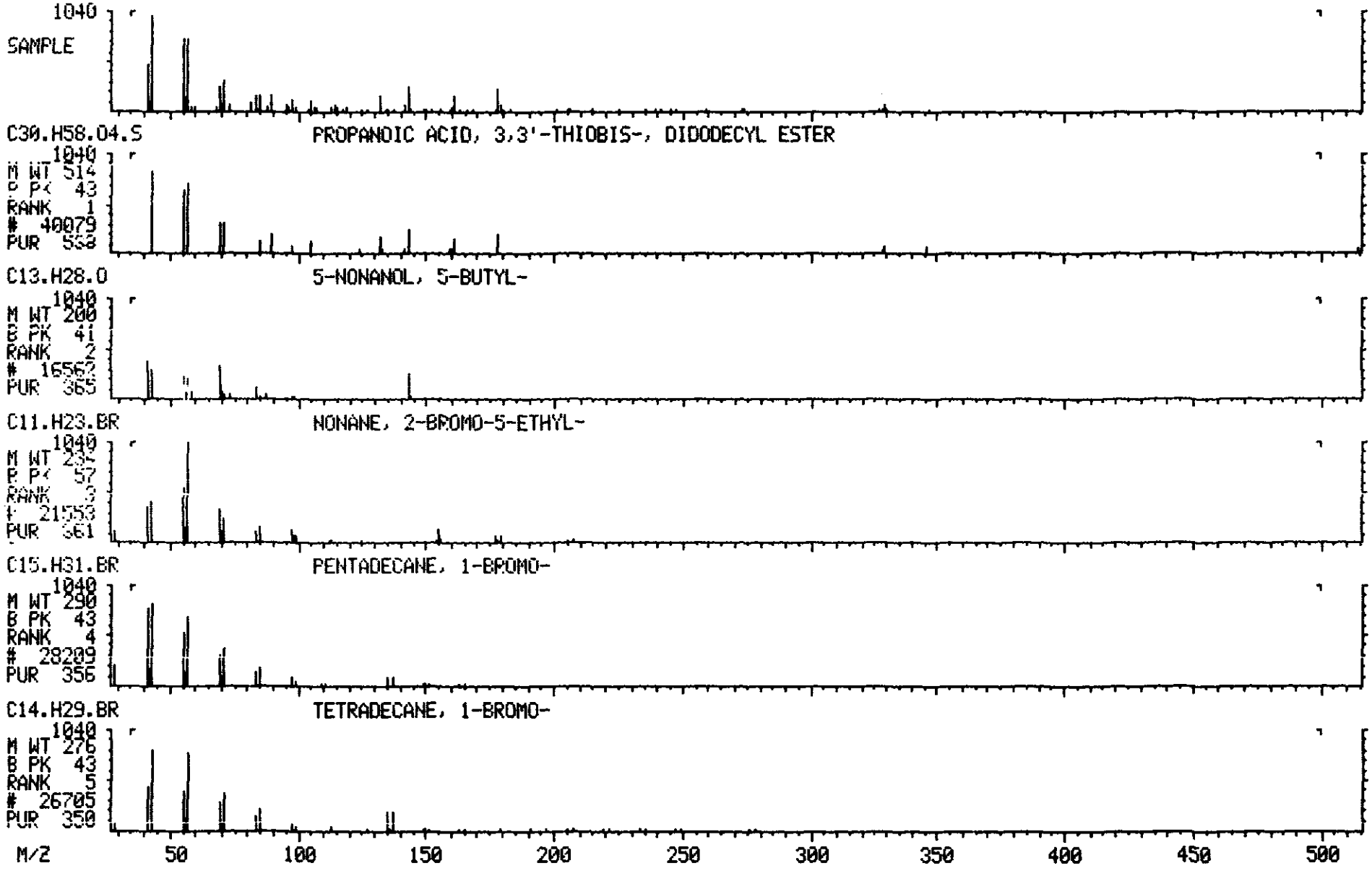
✓

LIBRARY SEARCH
05/16/90 7:58:00 + 40:51
SAMPLE. CLP,VERSCOM,2565,9,M,S,16911,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302C@C/MIN
ENHANCED (S 156 2N 0T)

DATA: T2608 #2451
CALI: T2608 # 2

BASE M/Z: 43
RIC: 14367.

100190



Library Search Data: T2608 #2480 Base m/z: 191
05/16/90 7:58:00 + 41:20 Cali: T2608 # 2 RIC: 31679.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RIX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNR searched for maximum PURITY
269 matched at least 6 of the 16 largest peaks in the unknown ~~cyclic~~ HYD

Rank	In.	Name
1	17550	CYCLOHEXANE, 1,1,2-TRIMETHYL-3,5-BIS(1-METHYLETHENYL)-, (2.ALPHA.,3*
2	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
3	17547	TRICYCLO[4.3.0.07,9]NONANE, 2,2,5,5,8,8-HEXAMETHYL-, (1.ALPHA.,6.BE*
4	25543	AZULENO[4,5-B]FURAN-2(3H)-ONE, DECAHYDRO-8,9-DIHYDROXY-6,9A-DIMETHY*
5	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C15.H26	206	41	574	876	574
2	C26.H48	360	191	572	940	574
3	C15.H26	206	69	565	960	565
4	C15.H22.O4	266	191	542	865	583
5	C26.H48	360	191	534	918	503

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	62337-97-7
2	—	—	—	—	55334-01-5
3	—	—	—	—	54832-82-5
4	—	—	—	—	5090-67-5
5	—	—	—	—	55401-75-7

✓

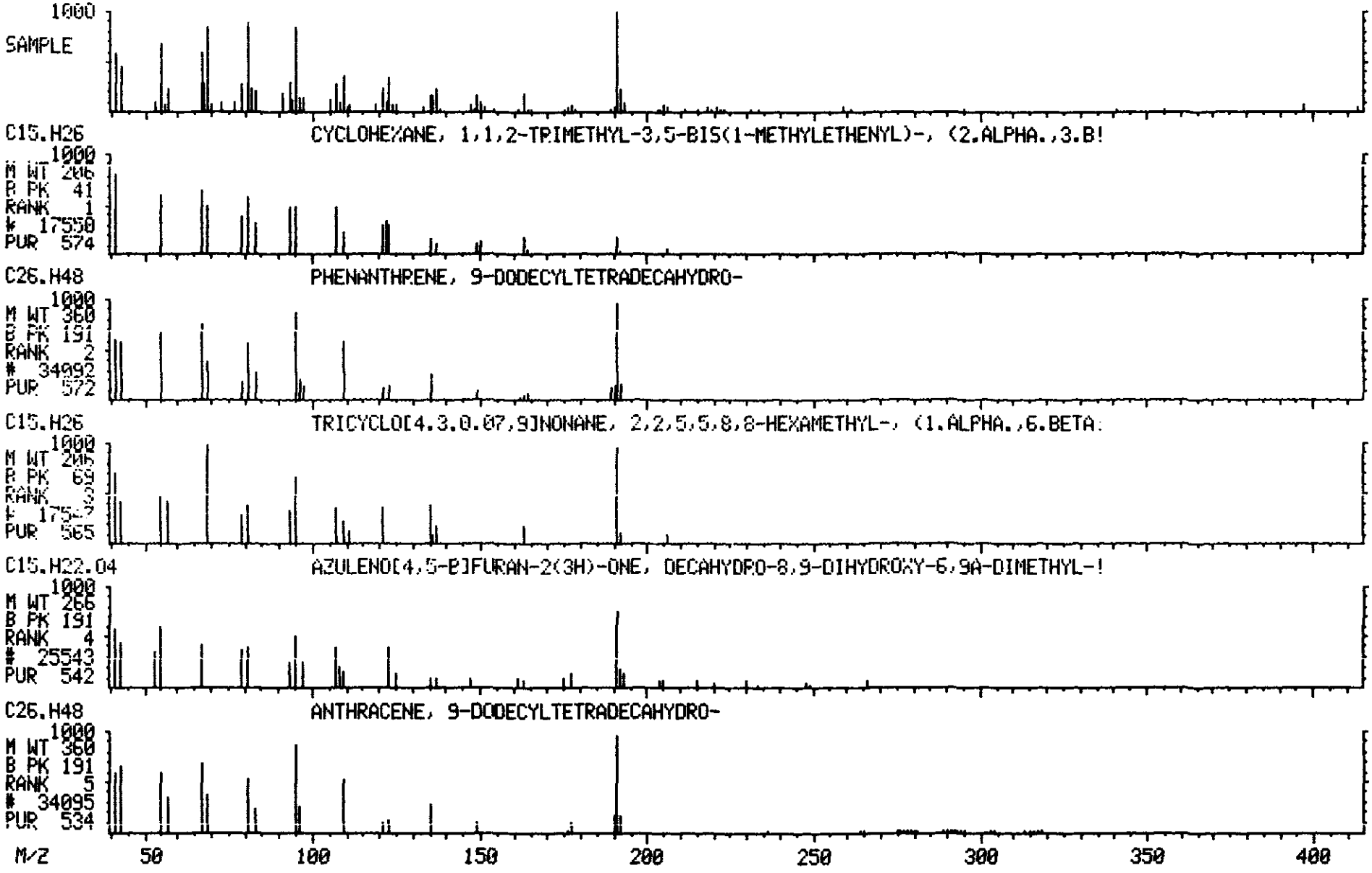
100191

LIBRARY SEARCH
05/16/90 7:58:00 + 41:20
SAMPLE: CLP,VERSCOM,2565,9,M,5,16911,P,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN038C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #2480
CALI: T2608 # 2

BASE M/Z: 191
RIC: 31679.

100192



ORIGINAL (Red)

Library Search Data: T2608 #2628 Base m/z: 191
05/16/90 7:58:00 + 43:48 Cali: T2608 # 2 RIC: 9231.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
67 matched at least 6 of the 16 largest peaks in the unknown

~~cyclic~~ HYD PAH

Rank	In.	Name
1	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
2	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
3	26562	ANTHRACENE, 9-CYCLOHEXYLTETRADECAHYDRO-
4	23459	ANTHRACENE, 9-BUTYLTETRADECAHYDRO-
5	17530	CYCLOHEXANONE, 2,3,3-TRIMETHYL-2-(3-METHYL-1,3-BUTADIENYL)-, (Z)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	191	559	935	577
2	C26.H48	360	191	529	928	552
3	C20.H34	274	95	496	887	524
4	C18.H32	248	191	464	822	509
5	C14.H22.O	206	41	457	877	491

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55334-01-5
2	—	—	—	—	55401-75-7
3	—	—	—	—	55255-70-4
4	—	—	—	—	55133-89-6
5	—	—	—	—	69296-90-8

✓

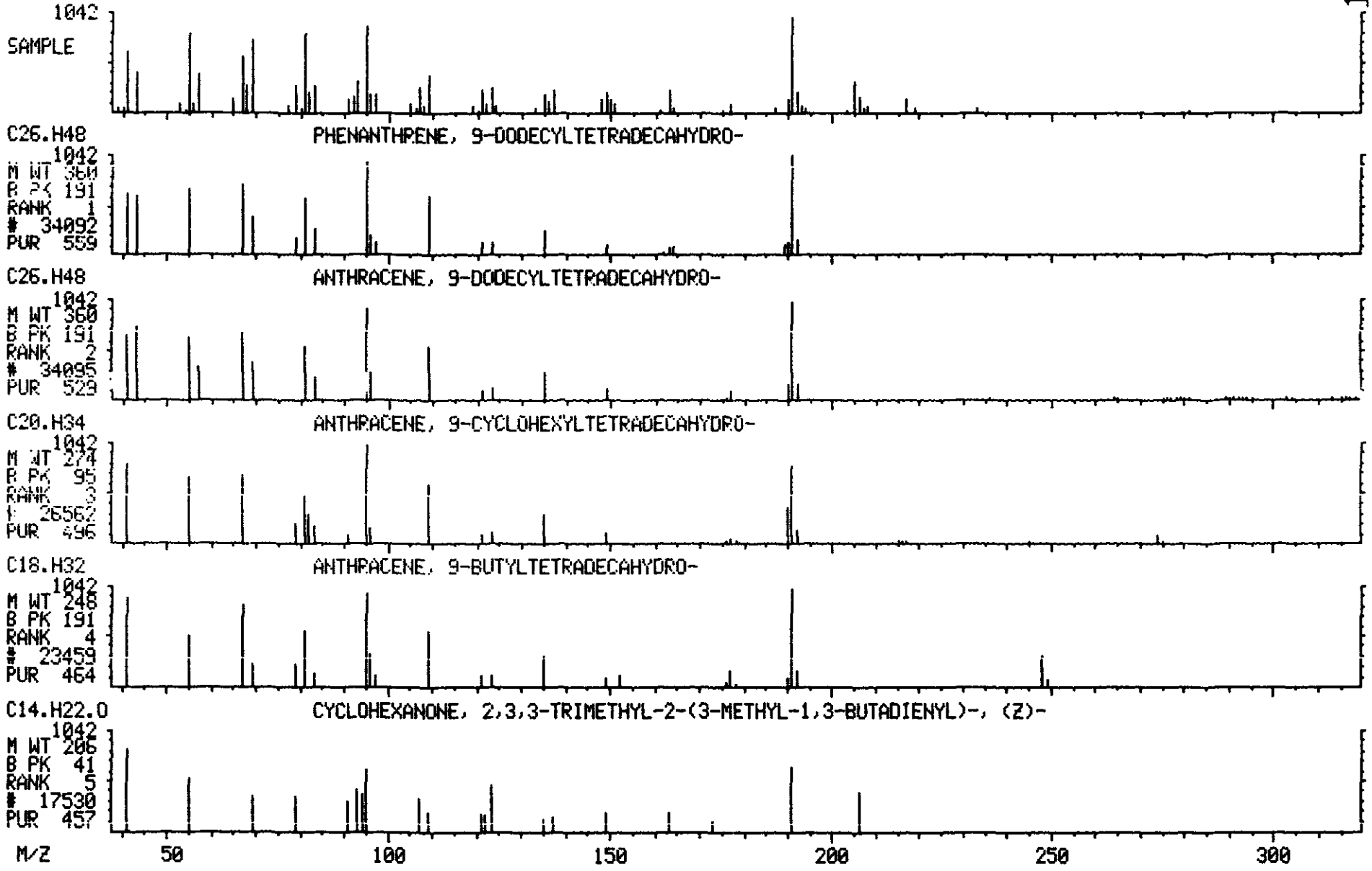
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 7:58:00 + 43:48
SAMPLE: CLP,VERSCOM,2565,9,M,S,16911,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2608 #2628
CALI: T2608 # 2

BASE M/Z: 191
RIC: 9231.

100194



ORIGINAL (Red)

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>>>>INTERNAL STANDARD RIC REPORT<<<<
****************************INTERNAL STANDARD#1*****************RIC
Mass List                        Data: T2608 # 539          Base m/z:   32
05/16/90  7:58:00 + 8:59         Cali: T2608 #   2          RIC:      30240.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     35        0.00   0.00        0. Minima     Min inten:       0.
     30                        #   0  Maxima
****************************INTERNAL STANDARD#2*****************RIC
Mass List                        Data: T2608 # 759          Base m/z:  136
05/16/90  7:58:00 + 12:39        Cali: T2608 #   2          RIC:      31264.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     38        0.00   0.00        0. Minima     Min inten:       0.
     30                        #   0  Maxima
****************************INTERNAL STANDARD#3*****************RIC
Mass List                        Data: T2608 #1092          Base m/z:  164
05/16/90  7:58:00 + 18:12        Cali: T2608 #   2          RIC:      21472.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     39        0.00   0.00        0. Minima     Min inten:       0.
     30                        #   0  Maxima
****************************INTERNAL STANDARD#4*****************RIC
Mass List                        Data: T2608 #1376          Base m/z:  188
05/16/90  7:58:00 + 22:56        Cali: T2608 #   2          RIC:      24384.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     40        0.00   0.00        0. Minima     Min inten:       0.
     30                        #   0  Maxima
****************************INTERNAL STANDARD#5*****************RIC
Mass List                        Data: T2608 #1896          Base m/z:  240
05/16/90  7:58:00 + 31:36        Cali: T2608 #   2          RIC:      33280.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     38        0.00   0.00        0. Minima     Min inten:       0.
     30                        #   0  Maxima
****************************INTERNAL STANDARD#6*****************RIC
Mass List                        Data: T2608 #2202          Base m/z:  264
05/16/90  7:58:00 + 36:42        Cali: T2608 #   2          RIC:      28704.
Sample: CLP,VERSCDM,2565,9,M,S,16911,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     39        0.00   0.00        0. Minima     Min inten:       0.
     30                        #   0  Maxima
```

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

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

10 ORIGINAL (Red)

L. Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16912

Sample wt/vol: 1.1 (g/mL) G Lab File ID: T2609

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

% Moisture: not dec. 32 dec. ____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/16/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 0.99

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	26000	U
111-44-4	bis(2-Chloroethyl)ether	26000	U
95-57-8	2-Chlorophenol	26000	U
541-73-1	1,3-Dichlorobenzene	26000	U
106-46-7	1,4-Dichlorobenzene	26000	U
100-51-6	Benzyl alcohol	26000	U
95-50-1	1,2-Dichlorobenzene	26000	U
95-48-7	2-Methylphenol	26000	U
108-60-1	bis(2-Chloroisopropyl)ether	26000	U
106-44-5	4-Methylphenol	26000	U
621-64-7	N-Nitroso-di-n-propylamine	26000	U
67-72-1	Hexachloroethane	26000	U
98-95-3	Nitrobenzene	26000	U
78-59-1	Isophorone	26000	U
88-75-5	2-Nitrophenol	26000	U
105-67-9	2,4-Dimethylphenol	26000	U
65-85-0	Benzoic Acid	130000	U
111-91-1	bis(2-Chloroethoxy)methane	26000	U
120-83-2	2,4-Dichlorophenol	26000	U
120-82-1	1,2,4-Trichlorobenzene	26000	U
91-20-3	Naphthalene	26000	U
106-47-8	4-Chloroaniline	26000	U
87-68-3	Hexachlorobutadiene	26000	U
59-50-7	4-Chloro-3-methylphenol	26000	U
91-57-6	2-Methylnaphthalene	26000	U
77-47-4	Hexachlorocyclopentadiene	26000	U
88-06-2	2,4,6-Trichlorophenol	26000	U
95-95-4	2,4,5-Trichlorophenol	130000	U
91-58-7	2-Chloronaphthalene	26000	U
88-74-4	2-Nitroaniline	130000	U
131-11-3	Dimethylphthalate	26000	U
208-96-8	Acenaphthylene	26000	U
606-20-2	2,6-Dinitrotoluene	26000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

10 ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16912

Sample wt/vol: 1.1 (g/mL) G Lab File ID: T2609

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

% Moisture: not dec. 32 dec. ____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/16/90

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 0.99

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	130000	U
83-32-9	Acenaphthene	26000	U
51-28-5	2,4-Dinitrophenol	130000	U
100-02-7	4-Nitrophenol	130000	U
132-64-9	Dibenzofuran	26000	U
121-14-2	2,4-Dinitrotoluene	26000	U
84-66-2	Diethylphthalate	26000	U
7005-72-3	4-Chlorophenyl-phenylether	26000	U
86-73-7	Fluorene	26000	U
100-01-6	4-Nitroaniline	130000	U
534-52-1	4,6-Dinitro-2-methylphenol	130000	U
86-30-6	N-nitrosodiphenylamine (1)	26000	U
101-55-3	4-Bromophenyl-phenylether	26000	U
118-74-1	Hexachlorobenzene	26000	U
87-86-5	Pentachlorophenol	130000	U
85-01-8	Phenanthrene	26000	U
120-12-7	Anthracene	26000	U
84-74-2	Di-n-butylphthalate	26000	U
206-44-0	Fluoranthene	26000	U
129-00-0	Pyrene	26000	U
85-68-7	Butylbenzylphthalate	26000	U
91-94-1	3,3'-Dichlorobenzidine	52000	U
56-55-3	Benzo(a)anthracene	26000	U
218-01-9	Chrysene	26000	U
117-81-7	bis(2-Ethylhexyl)phthalate	26000	U
117-84-0	Di-n-octyl phthalate	26000	U
205-99-2	Benzo(b)fluoranthene	26000	U
207-08-9	Benzo(k)fluoranthene	26000	U
50-32-8	Benzo(a)pyrene	26000	U
193-39-5	Indeno(1,2,3-cd)pyrene	26000	U
53-70-3	Dibenz(a,h)anthracene	26000	U
191-24-2	Benzo(g,h,i)perylene	26000	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

10 ORIGINAL (Red)

L. Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16912

Sample wt/vol: 1.1 (g/mL) G Lab File ID: T2609

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

% Moisture: not dec. 32 dec. ____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/16/90

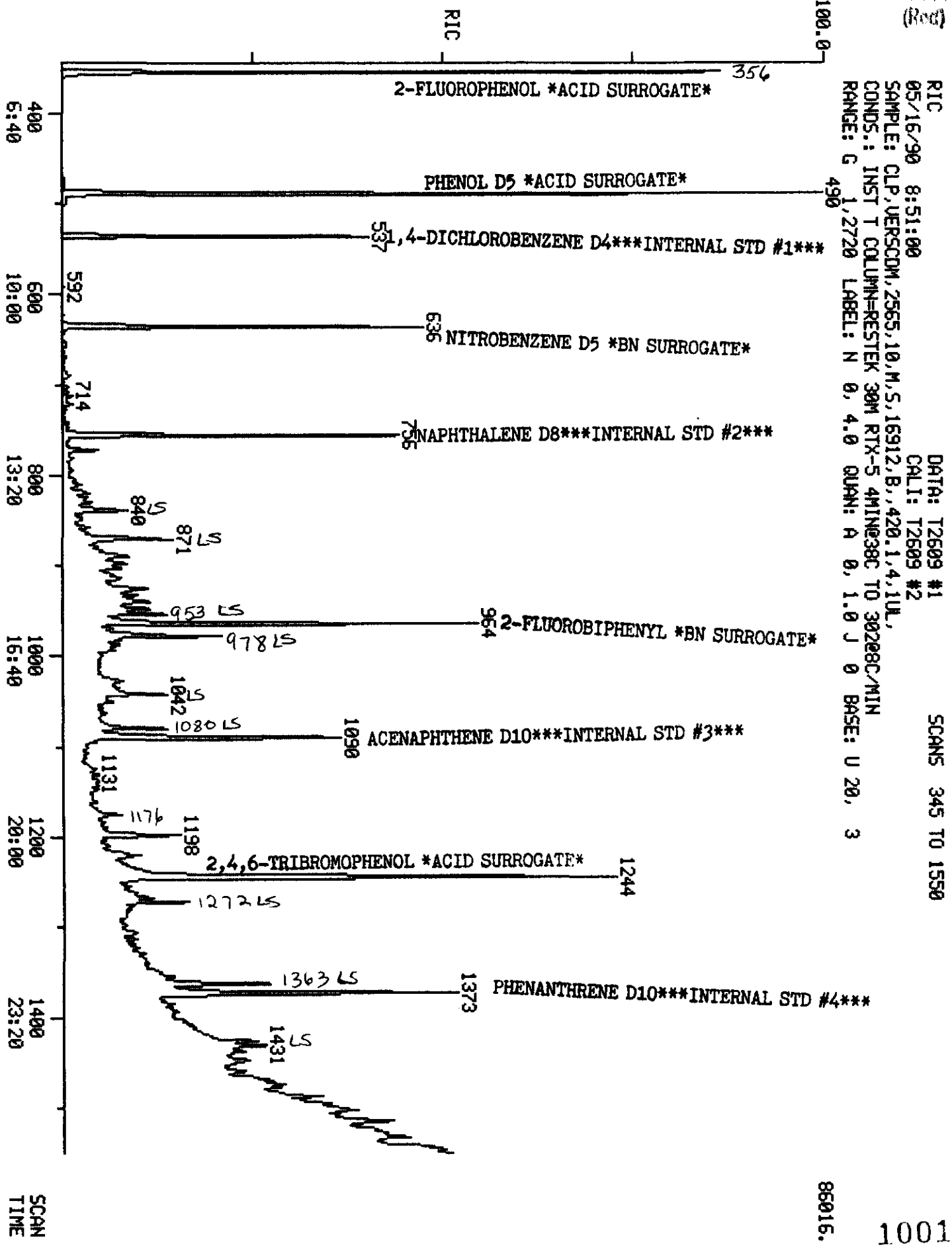
GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 0.99

Number TICs found: 22

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	14.00	16000	J
2.	UNKNOWN	14.52	24000	J
3.	UNKNOWN HYDROCARBON	15.89	21000	J
4.	UNKNOWN HYDROCARBON	16.30	48000	J
5.	UNKNOWN HYDROCARBON	17.37	26000	J
6.	UNKNOWN HYDROCARBON	18.00	32000	J
7.	UNKNOWN HYDROCARBON	21.20	19000	J
8.	UNKNOWN HYDROCARBON	22.72	37000	J
9.	UNKNOWN HYDROCARBON	23.85	13000	J
10.	UNKNOWN HYDROCARBON	26.26	34000	J
11.	UNKNOWN HYDROCARBON	27.52	37000	J
12.	UNKNOWN HYDROCARBON	29.16	61000	J
13.	UNKNOWN HYDROCARBON	30.32	87000	J
14.	UNKNOWN HYDROCARBON	32.16	120000	J
15.	UNKNOWN HYDROCARBON	32.66	160000	J
16.	UNKNOWN	33.49	42000	J
17.	UNKNOWN HYDROCARBON	35.66	79000	J
18.	UNKNOWN	36.46	77000	J
19.	UNKNOWN	37.77	29000	J
20.	UNKNOWN	39.49	140000	J
21.	UNKNOWN	40.64	42000	J
22.	UNKNOWN	41.32	90000	J

ORIGINAL (Red)



100199

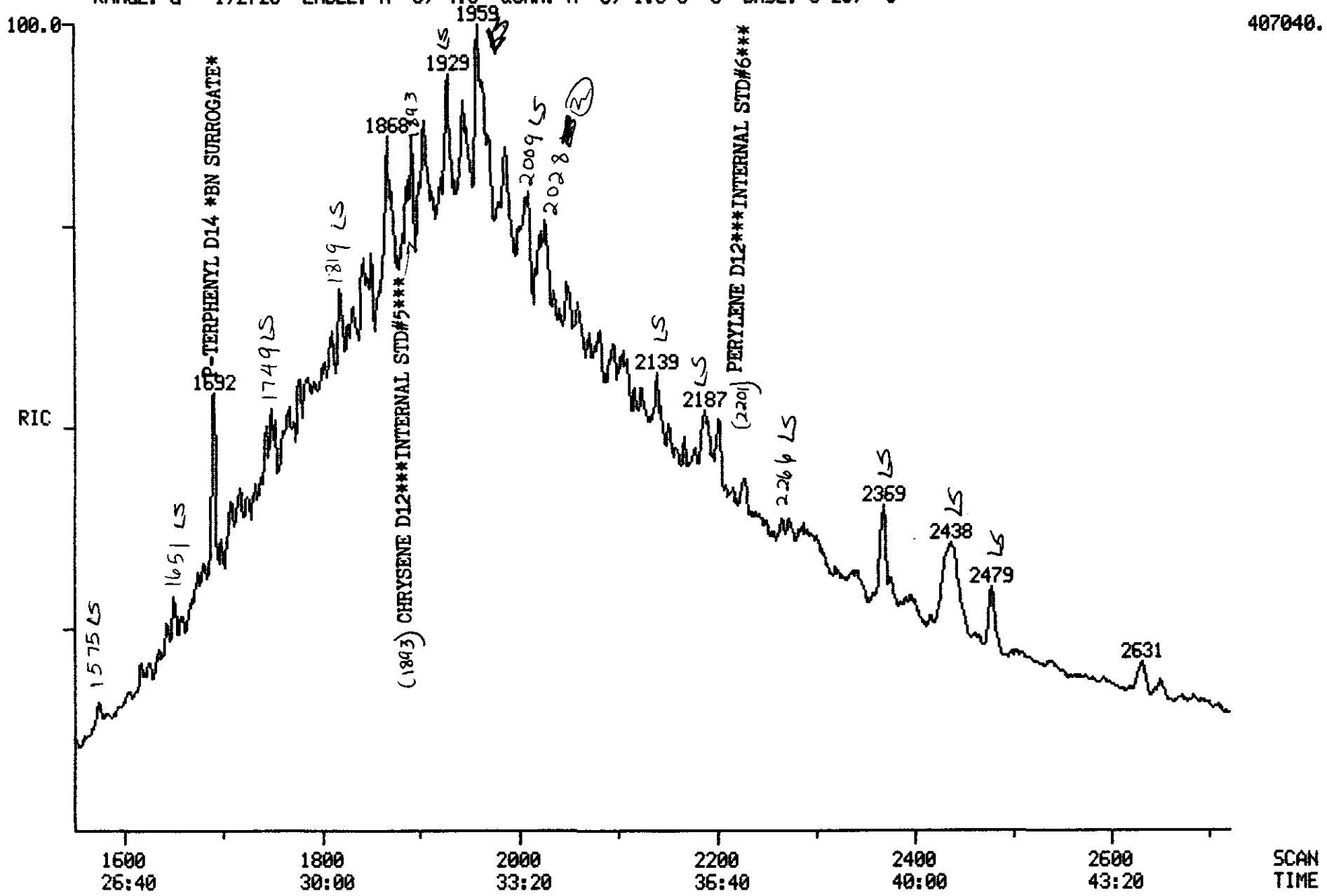
ORIGINAL (Red)

100200

RIC
05/16/90 8:51:00
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
RANGE: G 1,2720 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: T2609 #1
CALI: T2609 #2

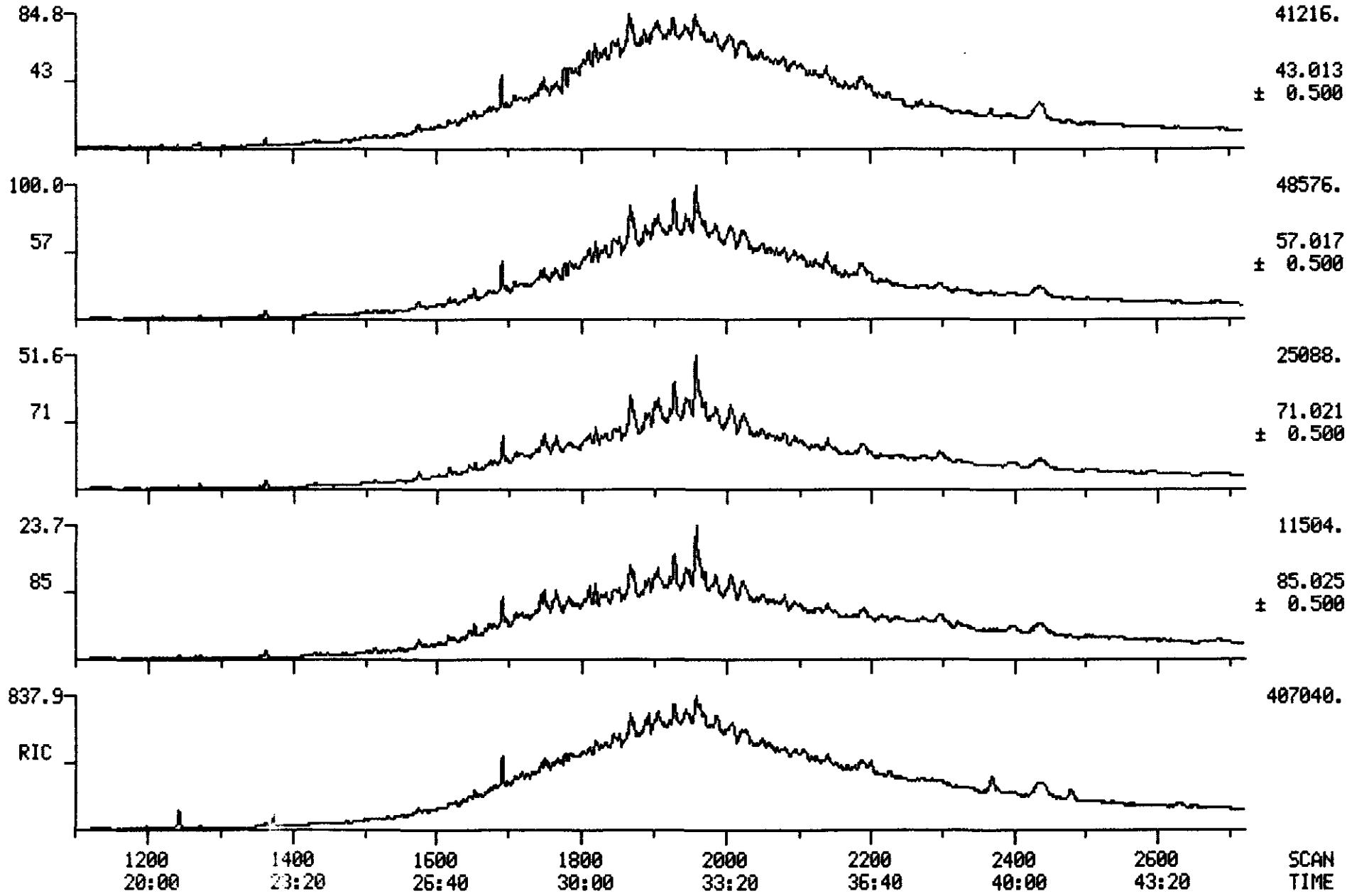
SCANS 1550 TO 2720



ORIGINAL (Red)

100201

RIC+MASS CHROMATOGRAMS DATA: T2609 #1 SCANS 1100 TO 2720
05/16/90 8:51:00 CALI: T2609 #2
SAMPLE: CLP,VERSCDM,2565,10,M,5,16912,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
RANGE: G 1,3500 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: T2609

Data: T2609.TI
05/16/90 8:51:00
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

ORIGINAL (Red)

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	C330 2-CHLOROPHENOL
3	C315 PHENOL
4	C325 BIS (2-CHLOROETHYL) ETHER
5	C335 1,3-DICHLOROBENZENE
6	C340 1,4-DICHLOROBENZENE
7	C350 1,2-DICHLOROBENZENE
8	C345 BENZYL ALCOHOL
9	C360 BIS (2-CHLOROISOPROPYL) ETHER
10	C355 2-METHYLPHENOL
11	C375 HEXACHLOROETHANE
12	C365 4-METHYLPHENOL
13	C370 N-NITROSO-DI-N-PROPYLAMINE
14	CS50 2-FLUOROPHENOL**ACID SURR.**
15	CS45 PHENOL-D5**ACID SURR.**
16	CI40 NAPHTHALENE-D8**INT. STD.#2**
17	C410 NITROBENZENE
18	C415 ISOPHORONE
19	C420 2-NITROPHENOL
20	C425 2,4-DIMETHYLPHENOL
21	C435 BIS (2-CHLOROETHOXY) METHANE
22	C440 2,4-DICHLOROPHENOL
23	C445 1,2,4-TRICHLOROBENZENE
24	C450 NAPHTHALENE
25	C430 BENZOIC ACID
26	C455 4-CHLOROANILINE
27	C460 HEXACHLOROBUTADIENE
28	C465 4-CHLORO-3-METHYLPHENOL
29	C470 2-METHYLNAPHTHALENE
30	CS20 NITROBENZENE-D5**BN SURR.**
31	CI50 ACENAPHTHENE-D10**INT. STD.#3**
32	C510 HEXACHLOROCYCLOPENTADIENE
33	C515 2,4,6-TRICHLOROPHENOL
34	C520 2,4,5-TRICHLOROPHENOL
35	C525 2-CHLORONAPHTHALENE
36	C530 2-NITROANILINE
37	C540 ACENAPHTHYLENE
38	C535 DIMETHYL PHTHALATE
39	C544 2,6-DINITROTOLUENE
40	C550 ACENAPHTHENE
41	C545 3-NITROANILINE
42	C555 2,4-DINITROPHENOL
43	C565 DIBENZOFURAN
44	C560 4-NITROPHENOL
45	C570 2,4-DINITROTOLUENE
46	C590 FLUORENE
47	C585 4-CHLOROPHENYL-PHENYLETHER

1 acid surrogate recovery high. All other surrogate recoveries + IS areas are compliant. SJL 5-16-90

No HSL's QUANT
22 LIBR SRCHS
22

100202

T2609

ORIGINAL
(Red)

No	Name
48	C580 DIETHYLPHTHALATE
49	C595 4-NITROANILINE
50	C610 4,6-DINITRO-2-METHYLPHENOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	152	536	8:56	1	1.000	A BB	7937.	40.000	NG/UL	5.49
2	NOT FOUND									
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	NOT FOUND									
7	NOT FOUND									
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	112	356	5:56	1	0.664	A BB	27484.	113.655	NG*A1	15.61
15	99	490	8:10	1	0.914	A BB	35777.	99.608	NG*A2	13.69
16	136	756	12:36	16	1.000	A BB	24466.	40.000	NG/UL	5.49
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	82	636	10:36	16	0.841	A BB	26078.	52.558	NG*B1	7.22
31	164	1090	18:10	31	1.000	A BB	17577.	40.000	NG/UL	5.49
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									

T2609

ORIGINAL (Red)

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:59	0.99	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	8:31		0.948						
3	8:14		0.917						
4	8:27		0.941						
5	8:52		0.987						
6	9:01		1.004						
7	9:32		1.061						
8	9:28		1.054						
9	9:54		1.102						
10	9:49		1.093						
11	10:20		1.150						
12	10:14		1.139						
13	10:18		1.147						
14	5:58	0.99	0.664	1.00	113.65	50.00	2.770	1.219	2.27
15	8:12	1.00	0.913	1.00	99.61	50.00	3.606	1.810	1.99
16	12:39	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
17	10:42		0.846						
18	11:21		0.897						
19	11:36		0.917						
20	11:46		0.930						
21	12:05		0.955						
22	12:17		0.971						
23	12:32		0.991						
24	12:42		1.004						
25	12:08		0.959						
26	13:01		1.029						
27	13:15		1.047						
28	14:32		1.149						
29	14:50		1.173						
30	10:38	1.00	0.841	1.00	52.56	50.00	0.853	0.811	1.05
31	18:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
32	15:32		0.853						
33	15:51		0.871						
34	15:57		0.876						
35	16:22		0.899						
36	16:54		0.929						
37	17:43		0.973						
38	17:37		0.968						
39	17:51		0.981						
40	18:19		1.006						
41	18:15		1.003						
42	18:33		1.019						
43	18:49		1.034						
44	18:49		1.034						
45	19:04		1.048						
46	19:55		1.094						
47	19:58		1.097						
48	19:53		1.092						
49	20:15		1.113						
50	20:20		1.117						

Quantitation Report File: T2609

Data: T2609.TI
05/16/90 8:51:00
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

ORIGINAL
(Red)

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

No	Name
51	C615 N-NITROSODIPHENYLAMINE
52	C625 4-BROMOPHENYL-PHENYLETHER
53	C630 HEXACHLOROBENZENE
54	CS25 2-FLUOROBIPHENYL**BN SURR.**
55	CI60 PHENANTHRENE-D10**INT. STD.#4**
56	C635 PENTACHLOROPHENOL
57	C640 PHENANTHRENE
58	C645 ANTHRACENE
59	C650 DI-N-BUTYLPHTHALATE
60	C655 FLUORANTHENE
61	C715 PYRENE
62	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
63	CI70 CHRYSENE-D12**INT. STD.#5**
64	C720 BUTYLBENZYLPHTHALATE
65	C730 BENZO(A)ANTHRACENE
66	C740 CHRYSENE
67	C725 3,3'-DICHLOROBENZIDINE
68	C741 BIS(2-ETHYLHEXYL)PHTHALATE
69	CS30 P-TERPHENYL-D14**BN SURR.**
70	CI75 PERYLENE-D12**INT. STD.#6**
71	C760 DI-N-OCTYL PHTHALATE
72	C765 BENZO(B)FLUORANTHENE
73	C770 BENZO(K)FLUORANTHENE
74	C775 BENZO(A)PYRENE
75	C780 INDENO(1,2,3-CD)PYRENE
76	C785 DIBENZ(A,H)ANTHRACENE
77	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								
52	NOT FOUND								
53	NOT FOUND								
54	172	964	16:04	31	0.884	A BB	28905.	50.825 NG*B2	6.98
55	188	1373	22:53	55	1.000	A BB	42449.	40.000 NG/UL	5.49
56	NOT FOUND								
57	178	1377	22:57	55	1.003	A BB	191.	~~0.165 NG~~	0.02
58	NOT FOUND								
59	149	1504	25:04	55	1.095	A BB	257.	BRL ~~0.144 NG~~	0.02
60	202	1610	26:50	55	1.173	A BB	173.	~~0.128 NG~~	0.02
61	NOT FOUND								
62	330	1244	20:44	31	1.141	A BB	18803.	122.575 NG*A3	16.84
63	240	1893	31:33	63	1.000	A BV	41375.	40.000 NG/UL	5.49
64	149	1798	29:58	63	0.950	A BB	467.	BRL ~~0.533 NG~~	0.07
65	NOT FOUND								
66	NOT FOUND								

100205

T2609

ORIGINAL (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
67	NOT FOUND									
68	149	1909	31:49	63	1.008	A BB	323.	BRL ~~0.266 NG~~		0.04
69	244	1691	28:11	63	0.893	A BB	44789.	47.110	NG*B3	6.47
70	264	2201	36:41	70	1.000	A BB	40789.	40.000	NG/UL	5.49
71	NOT FOUND									
72	252	2108	35:08	70	0.958	A BB	892.	BRL ~~0.711 NG~~		0.10
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	20:25		1.122						
52	21:32		1.183						
53	21:56		1.205						
54	16:06	1.00	0.885	1.00	50.83	50.00	1.316	1.294	1.02
55	22:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
56	22:33		0.983						
57	23:01	1.00	1.004	1.00	0.17	50.00	0.004	1.089	0.00
58	23:09		1.009						
59	25:08	1.00	1.096	1.00	0.14	50.00	0.005	1.691	0.00
60	26:54	1.00	1.173	1.00	0.13	50.00	0.003	1.278	0.00
61	27:37		0.875						
62	20:47	1.00	1.142	1.00	122.58	50.00	0.856	0.349	2.45
63	31:34	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
64	29:59	1.00	0.950	1.00	0.53	50.00	0.009	0.846	0.01
65	31:31		0.998						
66	31:39		1.003						
67	31:33		0.999						
68	31:50	1.00	1.008	1.00	0.27	50.00	0.006	1.172	0.01
69	28:13	1.00	0.894	1.00	47.11	50.00	0.866	0.919	0.94
70	36:37	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
71	33:41		0.920						
72	35:02	1.00	0.957	1.00	0.71	50.00	0.017	1.231	0.01
73	35:08		0.959						
74	36:22		0.993						
75	42:30		1.161						
76	42:41		1.166						
77	44:19		1.210						

Quantitation Report File: QCREF

ORIGINAL
(Red)

Data: T2609.TI
05/16/90 8:51:00
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI40 NAPHTHALENE-D8**INT. STD.#2**
3	CI50 ACENAPHTHENE-D10**INT. STD.#3**
4	CI60 PHENANTHRENE-D10**INT. STD.#4**
5	CI70 CHRYSENE-D12**INT. STD.#5**
6	CI75 PERYLENE-D12**INT. STD.#6**
7	CS50 2-FLUOROPHENOL**ACID SURR.**
8	CS45 PHENOL-D5**ACID SURR.**
9	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
10	CS20 NITROBENZENE-D5**BN SURR.**
11	CS25 2-FLUOROBIPHENYL**BN SURR.**
12	CS30 P-TERPHENYL-D14**BN SURR.**

Scan	Time	Area(Hght)		Amount		Name
536	8:56	7937.	%	40.000	NG/UL	CI30 1,4-DICHLOROBENZENE-D4
756	12:36	24466.		40.000	NG/UL	CI40 NAPHTHALENE-D8**INT. ST
1090	18:10	17577.	Rec	40.000	NG/UL	CI50 ACENAPHTHENE-D10**INT.
1373	22:53	42449.		40.000	NG/UL	CI60 PHENANTHRENE-D10**INT.
1893	31:33	41375.		40.000	NG/UL	CI70 CHRYSENE-D12**INT. STD.
2201	36:41	40789.		40.000	NG/UL	CI75 PERYLENE-D12**INT. STD
356	5:56	27484.	114	113.655	NG*A1	CS50 2-FLUOROPHENOL**ACID SU
490	8:10	35777.	100	99.608	NG*A2	CS45 PHENOL-D5**ACID SURR.**
1244	20:44	18803*	123	122.575	NG*A3	CS55 2,4,6,-TRIBROMOPHENOL**
636	10:36	26078.	105	52.558	NG*B1	CS20 NITROBENZENE-D5**BN SUR
964	16:04	28905.	102	50.825	NG*B2	CS25 2-FLUOROBIPHENYL**BN SU
1691	28:11	44789.	94	47.110	NG*B3	CS30 P-TERPHENYL-D14**BN SUR

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:59	0.99	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:39	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	18:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	22:56	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	31:34	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	36:37	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	5:58	0.99	0.664	1.00	113.65	50.00	2.770	1.219	2.27
8	8:12	1.00	0.913	1.00	99.61	50.00	3.606	1.810	1.99
9	20:47	1.00	1.142	1.00	122.58	50.00	0.856	0.349	2.45
10	10:38	1.00	0.841	1.00	52.56	50.00	0.853	0.811	1.05
11	16:06	1.00	0.885	1.00	50.83	50.00	1.316	1.294	1.02
12	28:13	1.00	0.894	1.00	47.11	50.00	0.866	0.919	0.94

Quantitation Report File: ISREF

ORIGINAL
(Red)

Data: T2598.TI
05/15/90 22:57:00
Sample: CLP,,,SSTD50,,,22658,B,CC50,,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.003
Submitted by: VERSAR Analyst: TS Acct. No.: ---

Data: T2609.TI
05/16/90 8:51:00
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
3	CI40 NAPHTHALENE-D8**INT. STD. #2**
4	CI40 NAPHTHALENE-D8**INT. STD. #2**
5	CI50 ACENAPHTHENE-D10**INT. STD. #3**
6	CI50 ACENAPHTHENE-D10**INT. STD. #3**
7	CI60 PHENANTHRENE-D10**INT. STD. #4**
8	CI60 PHENANTHRENE-D10**INT. STD. #4**
9	CI70 CHRYSENE-D12**INT. STD. #5**
10	CI70 CHRYSENE-D12**INT. STD. #5**
11	CI75 PERYLENE-D12**INT. STD. #6**
12	CI75 PERYLENE-D12**INT. STD. #6**

Scan	Time	Area(Hght)	Amount	Name
539	8:59	8002.	40.000 NG/UL	CI30 1,4-DICHLOROBENZENE-D4
536	8:56	7937.	39.675 NG/UL	CI30 1,4-DICHLOROBENZENE-D4
759	12:39	27483.	40.000 NG/UL	CI40 NAPHTHALENE-D8**INT. ST
756	12:36	24466.	35.609 NG/UL	CI40 NAPHTHALENE-D8**INT. ST
1092	18:12	21537.	40.000 NG/UL	CI50 ACENAPHTHENE-D10**INT.
1090	18:10	17577.	32.645 NG/UL	CI50 ACENAPHTHENE-D10**INT.
1376	22:56	48429.	40.000 NG/UL	CI60 PHENANTHRENE-D10**INT.
1373	22:53	42449.	35.061 NG/UL	CI60 PHENANTHRENE-D10**INT.
1894	31:34	47266.	40.000 NG/UL	CI70 CHRYSENE-D12**INT. STD.
1893	31:33	41375.	35.015 NG/UL	CI70 CHRYSENE-D12**INT. STD.
2197	36:37	39233.	40.000 NG/UL	CI75 PERYLENE-D12**INT. STD.
2201	36:41	40789.	41.586 NG/UL	CI75 PERYLENE-D12**INT. STD.

ORIGINAL (Red)

Library Search Data: T2609 # 840 Base m/z: 57
05/16/90 8:51:00 + 14:00 Cali: T2609 # 2 RIC: 5375.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
81 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	4128	HEPTANE, 2,6-DIMETHYL-
2	4119	HEXANE, 2,3,4-TRIMETHYL-
3	4139	OCTANE, 2-METHYL-
4	4129	PENTANE, 2,2,3,4-TETRAMETHYL-
5	8724	NONANE, 2,6-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C9.H20	128	43	886	943	874
2	C9.H20	128	43	868	922	874
3	C9.H20	128	43	861	938	881
4	C9.H20	128	57	851	885	863
5	C11.H24	156	43	834	895	873

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	1072-05-5
2	—	—	—	—	921-47-1
3	—	—	—	—	3221-61-2
4	—	—	—	—	1186-53-4
5	—	—	—	—	17302-28-2

✓

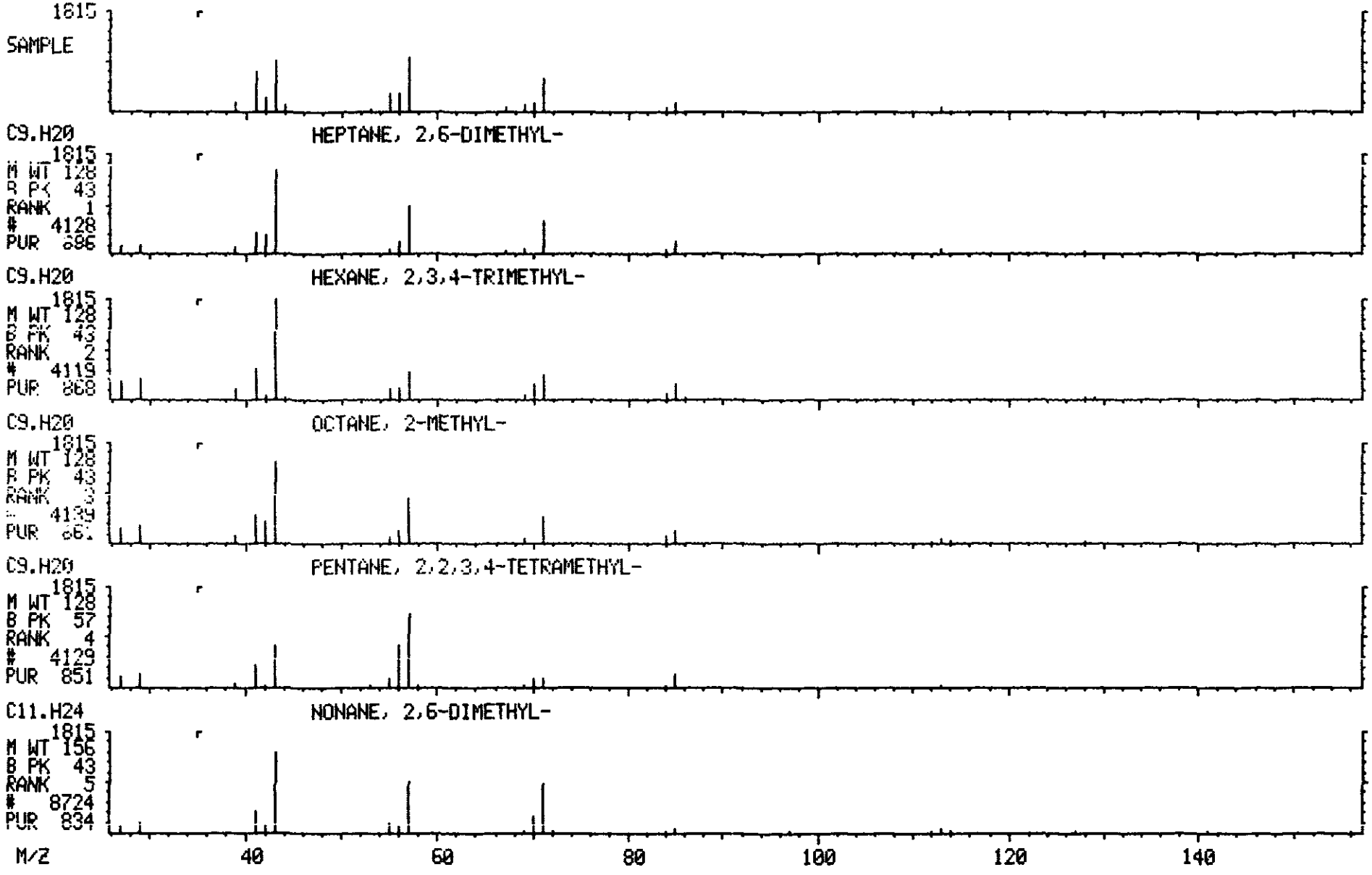
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 8:51:00 + 14:00
SAMPLE: CLP,VERSCDM,2565,10,M,S,16912,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 # 840
CALI: T2609 # 2

BASE M/Z: 57
RIC: 5375.

100210



Library Search Data: T2609 # 871 Base m/z: 43 ORIGINAL
05/16/90 8:51:00 + 14:31 Cali: T2609 # 2 RIC: 8287.(Red)
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
224 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	4119	HEXANE, 2,3,4-TRIMETHYL-
2	9069	1-HEPTANOL, 2-PROPYL-
3	11940	HYDROXYLAMINE, O-DECYL-
4	14256	1-DECANOL, 2-ETHYL-
5	4134	OCTANE, 4-METHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C9.H20	128	43	860	941	869
2	C10.H22.O	158	43	851	926	897
3	C10.H23.O.N	173	43	843	908	916
4	C12.H26.O	186	43	838	903	873
5	C9.H20	128	43	828	909	850

Rank	Ret. Time	B.P. Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	921-47-1
2	—	—	—	—	10042-59-8
3	—	—	—	—	29812-79-1
4	—	—	—	—	21078-65-9
5	—	—	—	—	2216-34-4

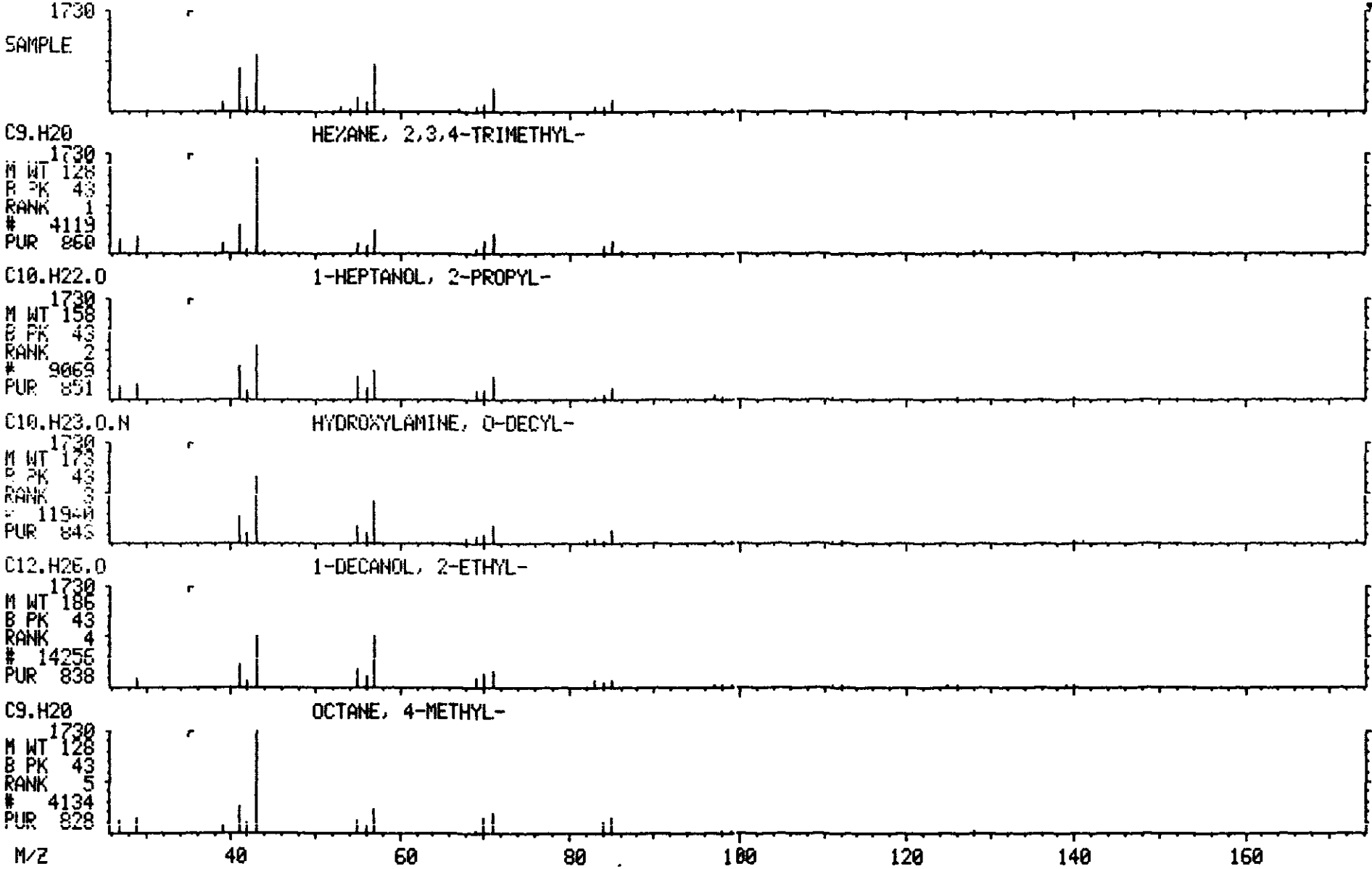
✓

ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 8:51:00 + 14:31
SAMPLE: CLP,VERSCDM,2563,10,M,S,16912,P,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 # 871
CALI: T2609 # 2

BASE M/Z: 43
RIC: 8267.



21200

ORIGINAL (Red)

Library Search Data: T2609 # 953 Base m/z: 57
05/16/90 8:51:00 + 15:53 Cali: T2609 # 2 RIC: 4879.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
125 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	4128	HEPTANE, 2,6-DIMETHYL-
2	4129	PENTANE, 2,2,3,4-TETRAMETHYL-
3	13913	DECANE, 2,5,6-TRIMETHYL-
4	25863	HEPTADECANE, 2,6-DIMETHYL-
5	13912	DECANE, 2,5,9-TRIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C9.H20	128	43	841	941	849
2	C9.H20	128	57	835	887	835
3	C13.H28	184	57	830	871	888
4	C19.H40	268	57	829	877	935
5	C13.H28	184	57	829	894	842

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	1072-05-5
2	—	—	—	—	1186-53-4
3	—	—	—	—	62108-23-0
4	—	—	—	—	54105-67-8
5	—	—	—	—	62108-22-9

✓

100213

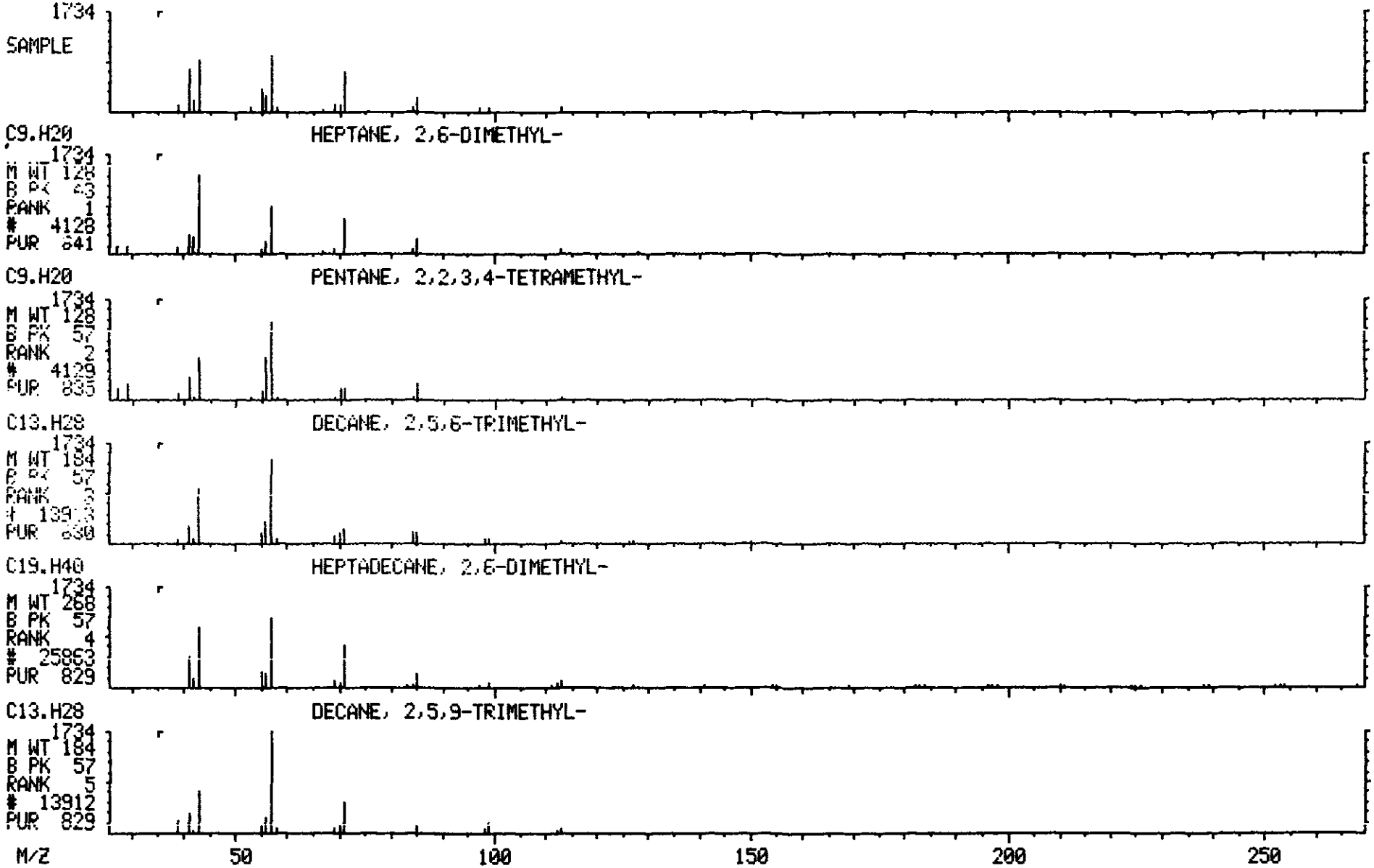
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 8:51:00 + 15:53
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 # 953
CALI: T2609 # 2

BASE M/Z: 57
RIC: 4879.

100214



Library Search Data: T2609 # 978 Base m/z: 43 ORIGINAL
05/16/90 8:51:00 + 16:18 Cali: T2609 # 2 RIC: 11167. (Red)
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
137 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	13913	DECANE, 2,5,6-TRIMETHYL-
2	6097	OCTANE, 3,5-DIMETHYL-
3	6090	HEXANE, 2,2,3,3-TETRAMETHYL-
4	6078	OCTANE, 2,7-DIMETHYL-
5	9069	1-HEPTANOL, 2-PROPYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C13.H28	184	57	851	925	858
2	C10.H22	142	57	843	948	850
3	C10.H22	142	57	840	939	816
4	C10.H22	142	43	836	944	805
5	C10.H22.O	158	43	831	944	864

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	62108-23-0
2	—	—	—	—	15869-93-9
3	—	—	—	—	13475-81-5
4	—	—	—	—	1072-16-8
5	—	—	—	—	10042-59-8

✓

100215

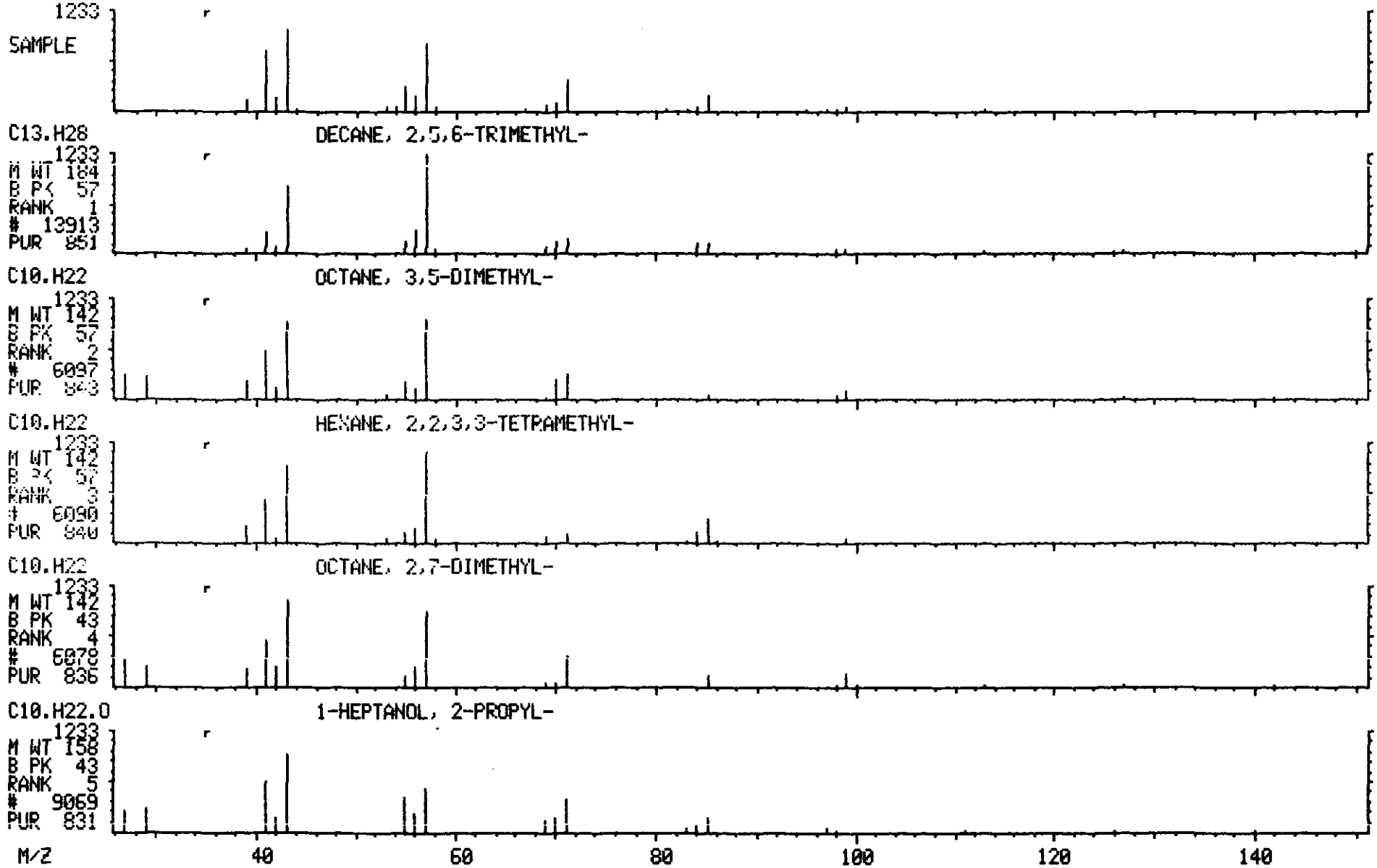
ORIGINAL (Red)

100216

LIBRARY SEARCH
05/16/90 8:51:00 + 16:18
SAMPLE: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4.1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30200C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 # 978
CALI: T2609 # 2

BASE M/Z: 43
RIC: 11167.



Library Search Data: T2609 #1042 Base m/z: 43 ORIGINAL (Red)
05/16/90 8:51:00 + 17:22 Cali: T2609 # 2 RIC: 6319.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
99 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	4128	HEPTANE, 2,6-DIMETHYL-
2	4119	HEXANE, 2,3,4-TRIMETHYL-
3	4139	OCTANE, 2-METHYL-
4	16282	DODECANE, 4,6-DIMETHYL-
5	4134	OCTANE, 4-METHYL-

Rank	Formula	M. Wt	B. Pk	Purity	Fit	RFit
1	C9.H20	128	43	839	958	846
2	C9.H20	128	43	839	951	846
3	C9.H20	128	43	828	951	846
4	C14.H30	198	43	625	890	875
5	C9.H20	128	43	822	899	843

Rank	Ret. Time	B. P. Int.	US. Par. 1	US. Par. 2	C. A. S. #
1	—	—	—	—	1072-05-5
2	—	—	—	—	921-47-1
3	—	—	—	—	3221-61-2
4	—	—	—	—	61141-72-8
5	—	—	—	—	2216-34-4

✓

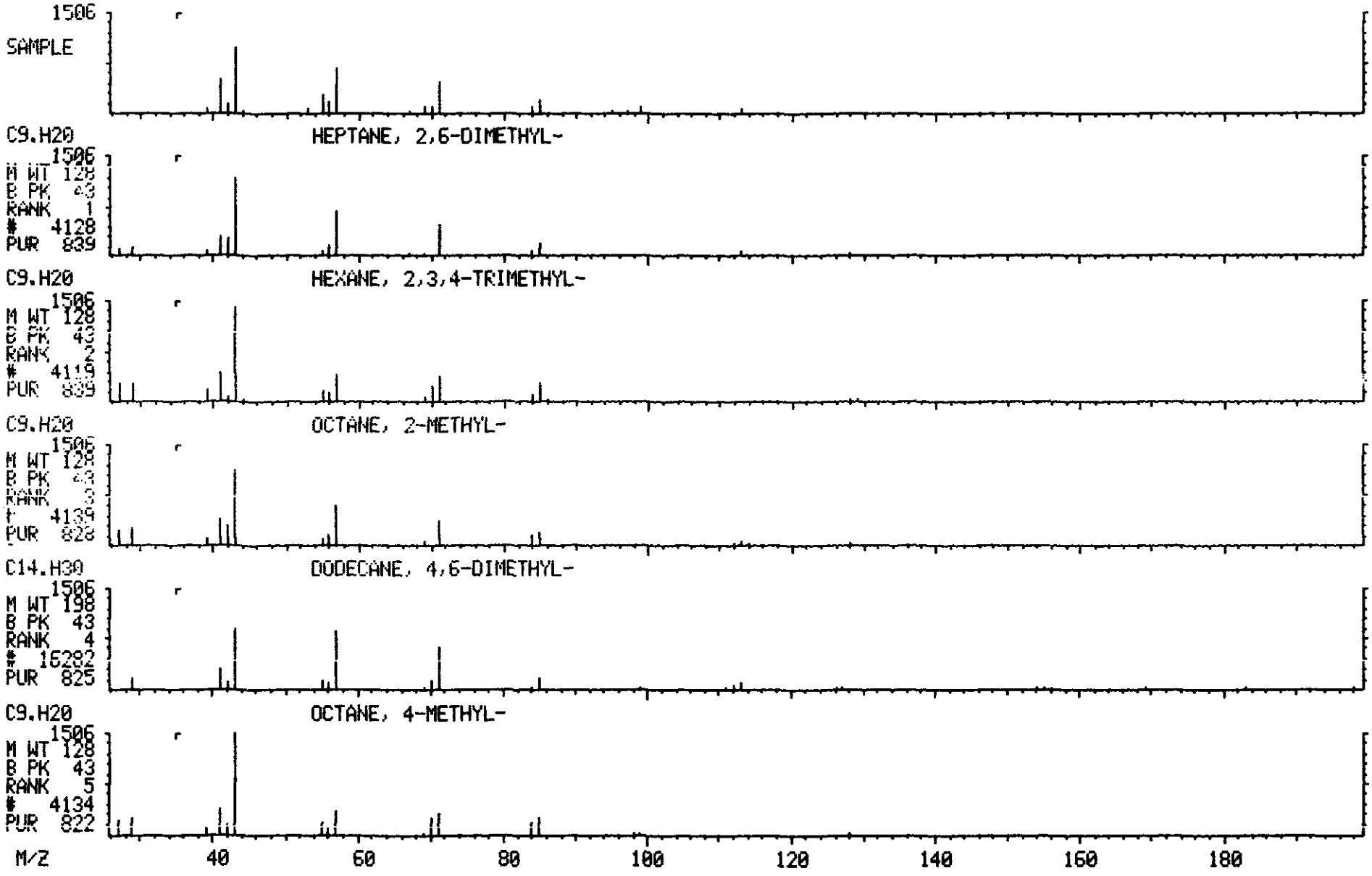
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 8:51:00 + 17:22
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #1042
CALI: T2609 # 2

BASE M/Z: 43
RIC: 6319.

100218



Library Search Data: T2609 #1080 Base m/z: 43
05/16/90 8:51:00 + 18:00 Cali: T2609 # 2 RIC: 7039.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
181 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	6090	HEXANE, 2,2,3,3-TETRAMETHYL-
2	6078	OCTANE, 2,7-DIMETHYL-
3	6097	OCTANE, 3,5-DIMETHYL-
4	4119	HEXANE, 2,3,4-TRIMETHYL-
5	8733	OCTANE, 2,4,6-TRIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C10.H22	142	57	892	942	879
2	C10.H22	142	43	863	949	887
3	C10.H22	142	57	859	927	882
4	C9.H20	128	43	856	935	843
5	C11.H24	156	57	854	933	877

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	13475-81-5
2	—	—	—	—	1072-16-8
3	—	—	—	—	15869-93-9
4	—	—	—	—	921-47-1
5	—	—	—	—	62016-37-9

✓

100219

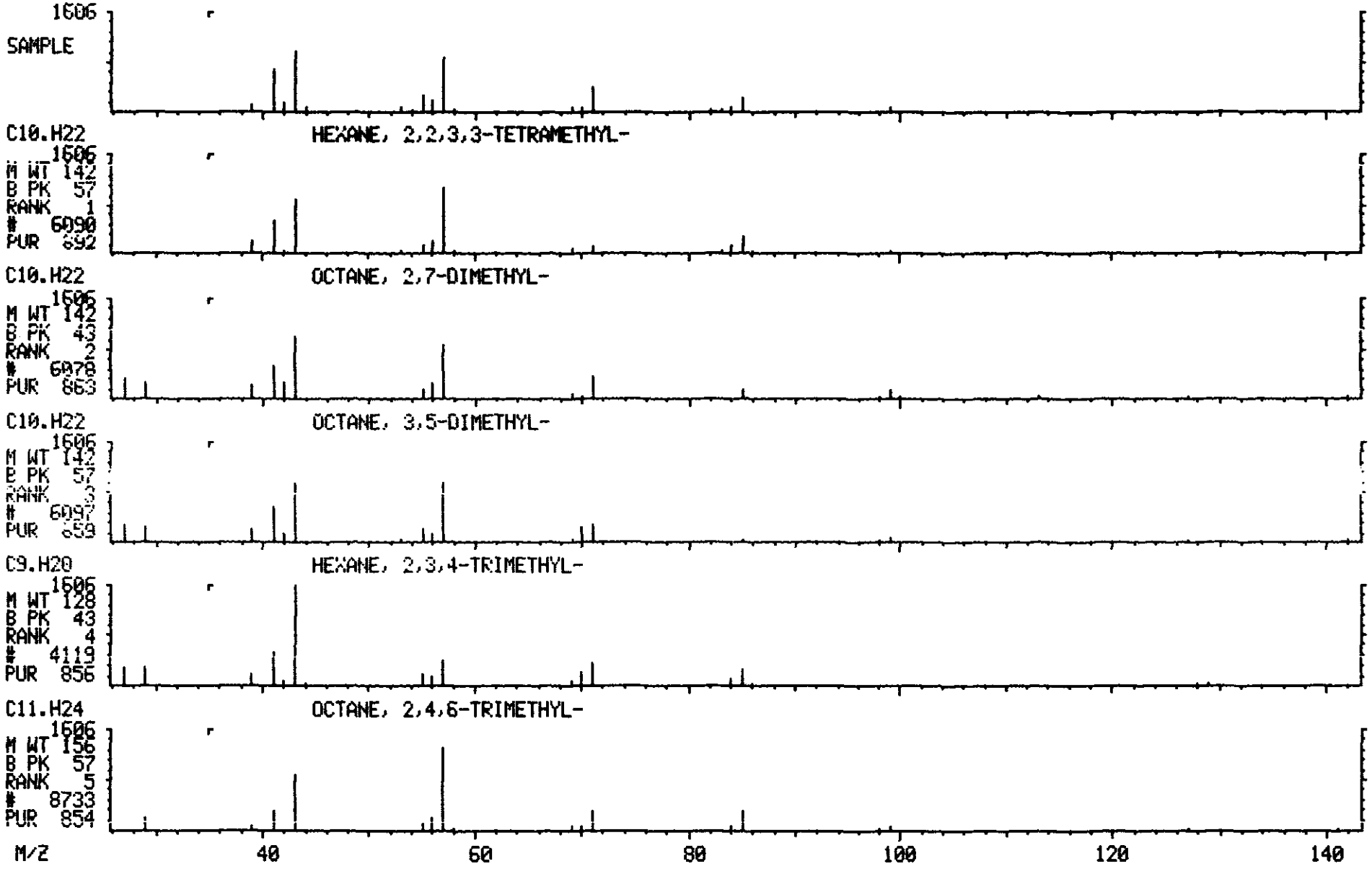
ORIGINAL (Red)

100220

LIBRARY SEARCH
05/16/90 8:51:00 + 18:00
SAMPLE: CLP,VERSCOM,2565,10,M,5,16012,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #1080
CALI: T2609 # 2

BASE M/Z: 43
RIC: 7039.



Library Search Data: T2609 #1272 Base m/z: 43
05/16/90 8:51:00 + 21:12 Cali: T2609 # 2 RIC: 5767.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
130 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	13915	DECANE, 2,6,7-TRIMETHYL-
2	16282	DODECANE, 4,6-DIMETHYL-
3	25863	HEPTADECANE, 2,6-DIMETHYL-
4	8732	OCTANE, 2,3,7-TRIMETHYL-
5	8718	NONANE, 2,3-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C13.H28	184	57	854	947	870
2	C14.H30	198	43	830	909	820
3	C19.H40	268	57	822	885	924
4	C11.H24	156	57	808	958	818
5	C11.H24	156	43	806	939	810

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	62108-25-2
2	—	—	—	—	61141-72-8
3	—	—	—	—	54105-67-8
4	—	—	—	—	62016-34-6
5	—	—	—	—	2884-06-2

√

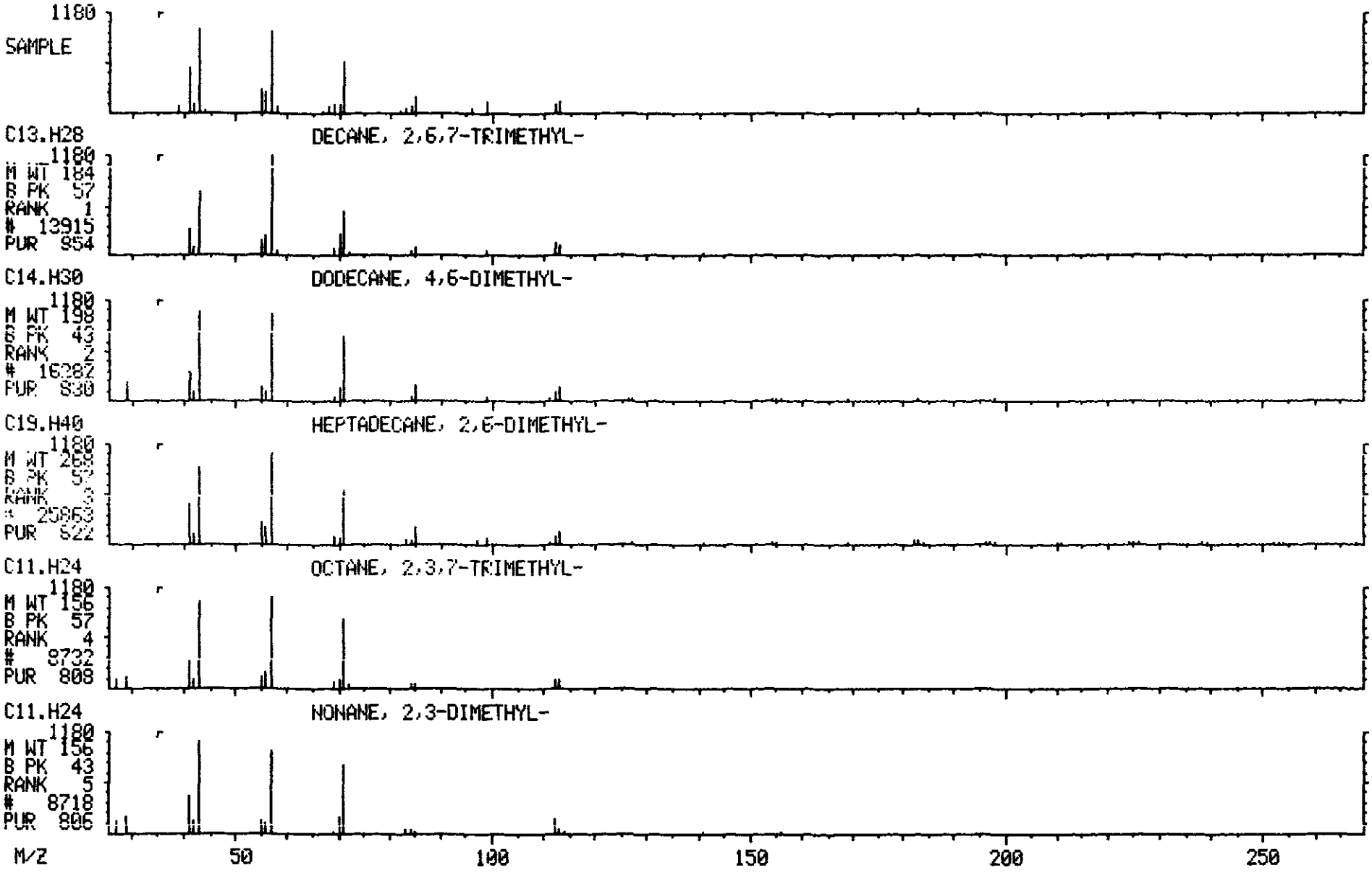
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 6:51:00 + 21:12
SAMPLE: CLP,VERSCOM,2565,10,M,5,16912,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #1272
CALI: T2609 # 2

BASE M/Z: 43
RIC: 5767.

100222



Library Search Data: T2609 #1363 Base m/z: 57
05/16/90 8:51:00 + 22:43 Cali: T2609 # 2 RIC: 10703.
Sample: CLP,VERSCDM,2565,10,N,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
93 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	18541	DODECANE, 2,7,10-TRIMETHYL-
2	25863	HEPTADECANE, 2,6-DIMETHYL-
3	18538	DODECANE, 2,6,11-TRIMETHYL-
4	25856	PENTADECANE, 2,6,10,14-TETRAMETHYL-
5	13915	DECANE, 2,6,7-TRIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C15.H32	212	57	832	946	858
2	C19.H40	268	57	824	908	874
3	C15.H32	212	57	819	931	845
4	C19.H40	268	71	818	915	874
5	C13.H28	184	57	803	954	803

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	74645-98-0
2	—	—	—	—	54105-67-8
3	—	—	—	—	31295-56-4
4	—	—	—	—	1921-70-6
5	—	—	—	—	62108-25-2

✓

100223

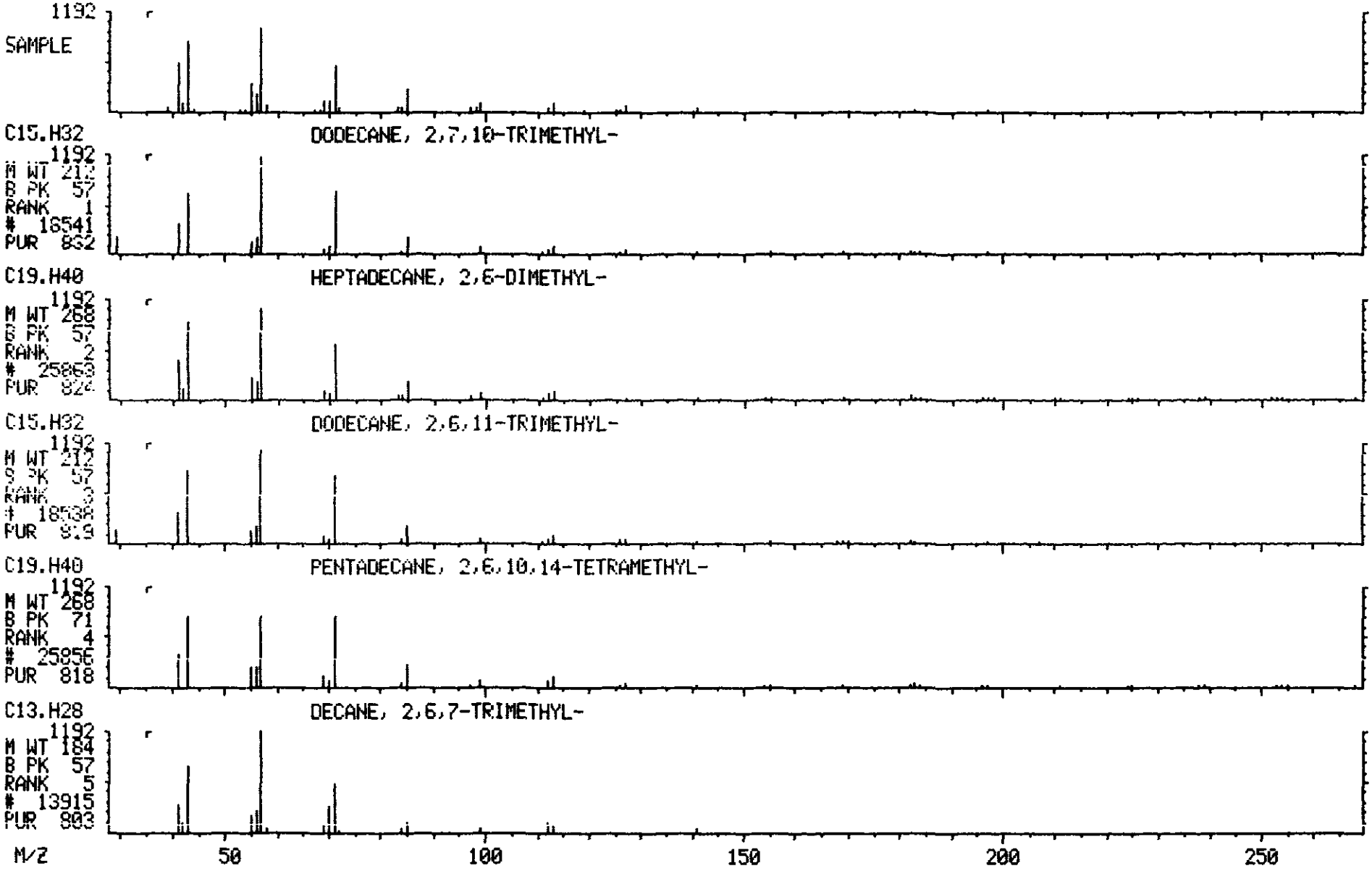
ORIGINAL (Red)

100224

LIBRARY SEARCH
05/16/90 8:51:00 + 22:43
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,P,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #1363
CALI: T2609 # 2

BASE M/Z: 57
RIC: 10703.



Library Search Data: T2609 #1431 Base m/z: 43
05/16/90 8:51:00 + 23:51 Cali: T2609 # 2 RIC: 4055.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNB searched for maximum PURITY
70 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	13915	DECANE, 2,6,7-TRIMETHYL-
2	18541	DODECANE, 2,7,10-TRIMETHYL-
3	18538	DODECANE, 2,6,11-TRIMETHYL-
4	13903	UNDECANE, 4,6-DIMETHYL-
5	16282	DODECANE, 4,6-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C13.H28	184	57	780	915	787
2	C15.H32	212	57	766	888	821
3	C15.H32	212	57	755	876	821
4	C13.H28	184	57	753	920	793
5	C14.H30	198	57	752	918	794

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	62108-25-2
2	—	—	—	—	74645-98-0
3	—	—	—	—	31295-56-4
4	—	—	—	—	17312-82-2
5	—	—	—	—	61141-72-8

✓

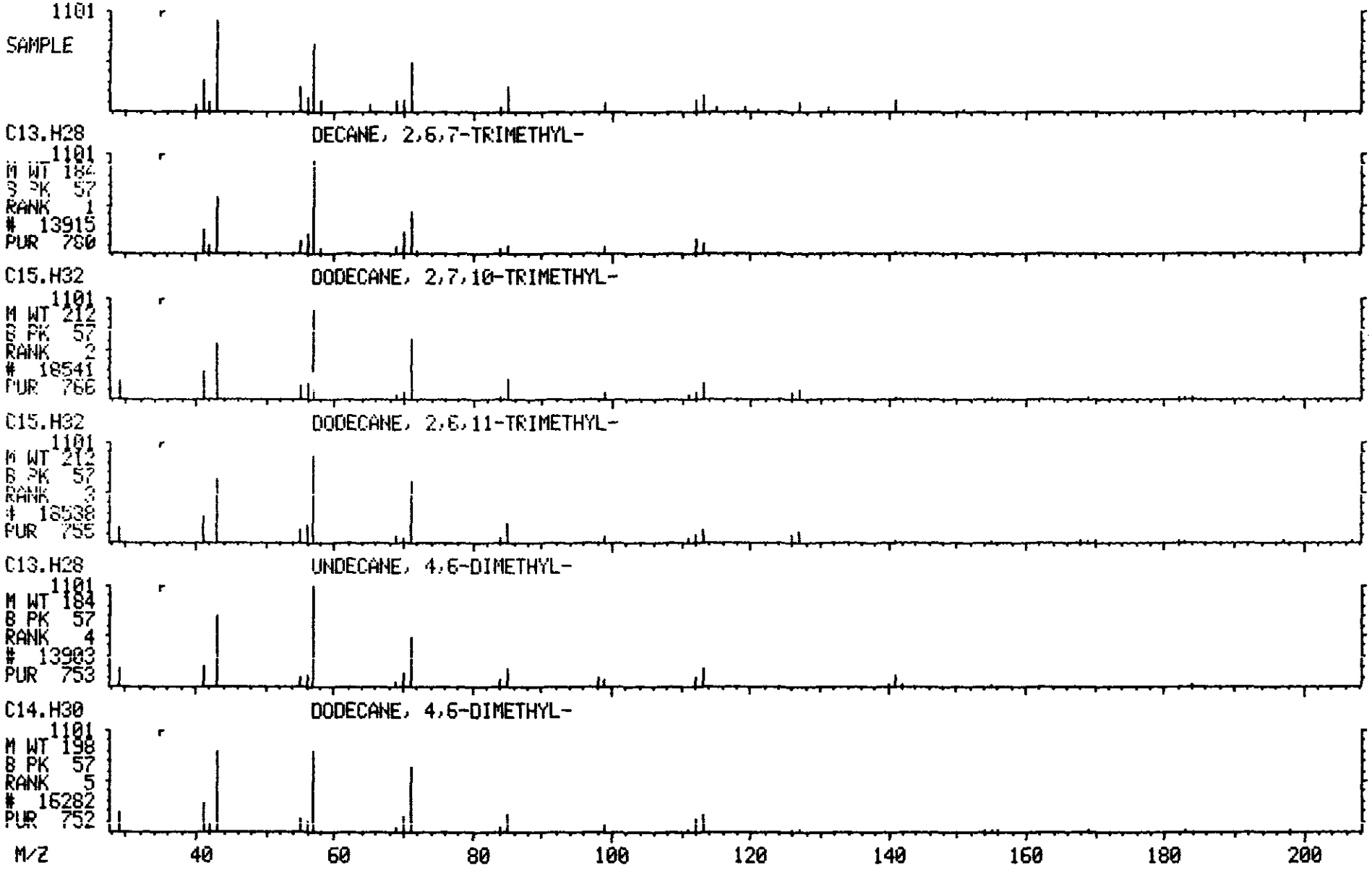
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 8:51:00 + 23:51
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,R,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN038C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #1431
CALI: T2609 # 2

BASE M/Z: 43
RIC: 4055.

100226



Library Search Data: T2609 #1575 Base m/z: 57
05/16/90 8:51:00 + 26:15 Cali: T2609 # 2 RIC: 10147.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42223 spectra in LIBRARYNR searched for maximum PURITY
65 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	20624	HEXADECANE
2	22453	HEPTADECANE
3	13916	DECANE, 2,6,8-TRIMETHYL-
4	25863	HEPTADECANE, 2,6-DIMETHYL-
5	18538	DODECANE, 2,6,11-TRIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C16.H34	226	57	835	938	876
2	C17.H36	240	57	808	891	887
3	C13.H28	184	57	806	953	812
4	C19.H40	268	57	803	896	851
5	C15.H32	212	57	799	944	813

Rank	Ret.Time	B.P.Int.	US Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	544-76-3
2	—	—	—	—	629-78-7
3	—	—	—	—	62108-26-3
4	—	—	—	—	54105-67-8
5	—	—	—	—	31295-56-4

✓

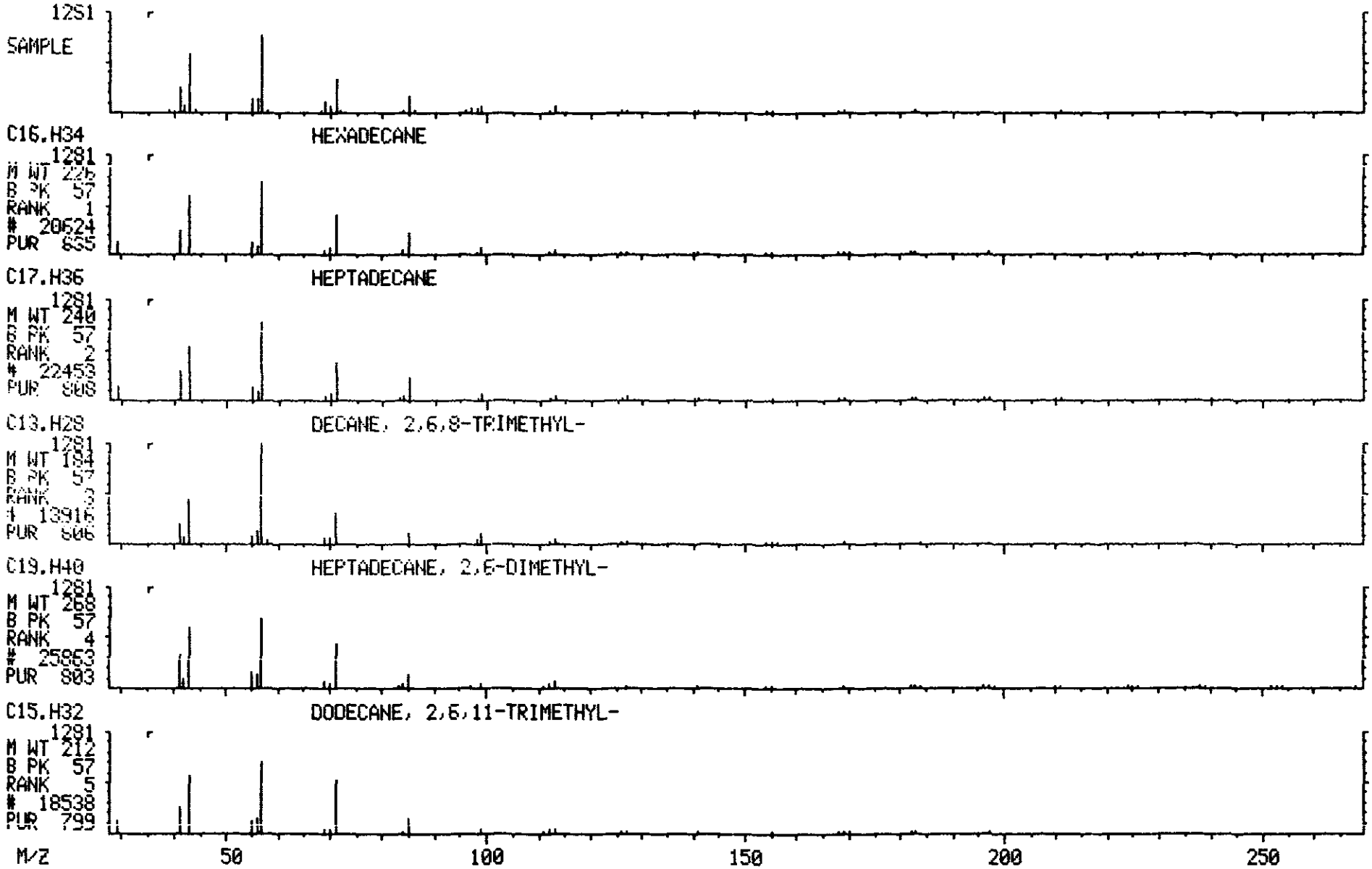
ORIGINAL (Red)

100228

LIBRARY SEARCH
05/16/90 8:51:00 + 26:15
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #1575
CALI: T2609 # 2

BASE M/Z: 57
RIC: 10447.



Library Search Data: T2609 #1651 Base m/z: 5 ORIGINAL
05/16/90 8:51:00 + 27:31 Cali: T2609 # 2 RIC: 14671 (Red)
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNK searched for maximum PURITY
203 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	39944	HEXATRIACONTANE
2	33536	PENTACOSANE
3	36033	OCTACOSANE
4	41210	TETRACONTANE, 3,5,24-TRIMETHYL-
5	39695	PENTATRIACONTANE

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C36.H74	506	57	674	887	743
2	C25.H52	352	43	671	862	734
3	C28.H58	394	43	665	930	695
4	C43.H88	604	57	665	974	670
5	C35.H72	492	57	663	881	734

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	—	—	—	—	630-06-8
2	—	—	—	—	629-99-2
3	—	—	—	—	630-02-4
4	—	—	—	—	55162-61-3
5	—	—	—	—	630-07-9

✓

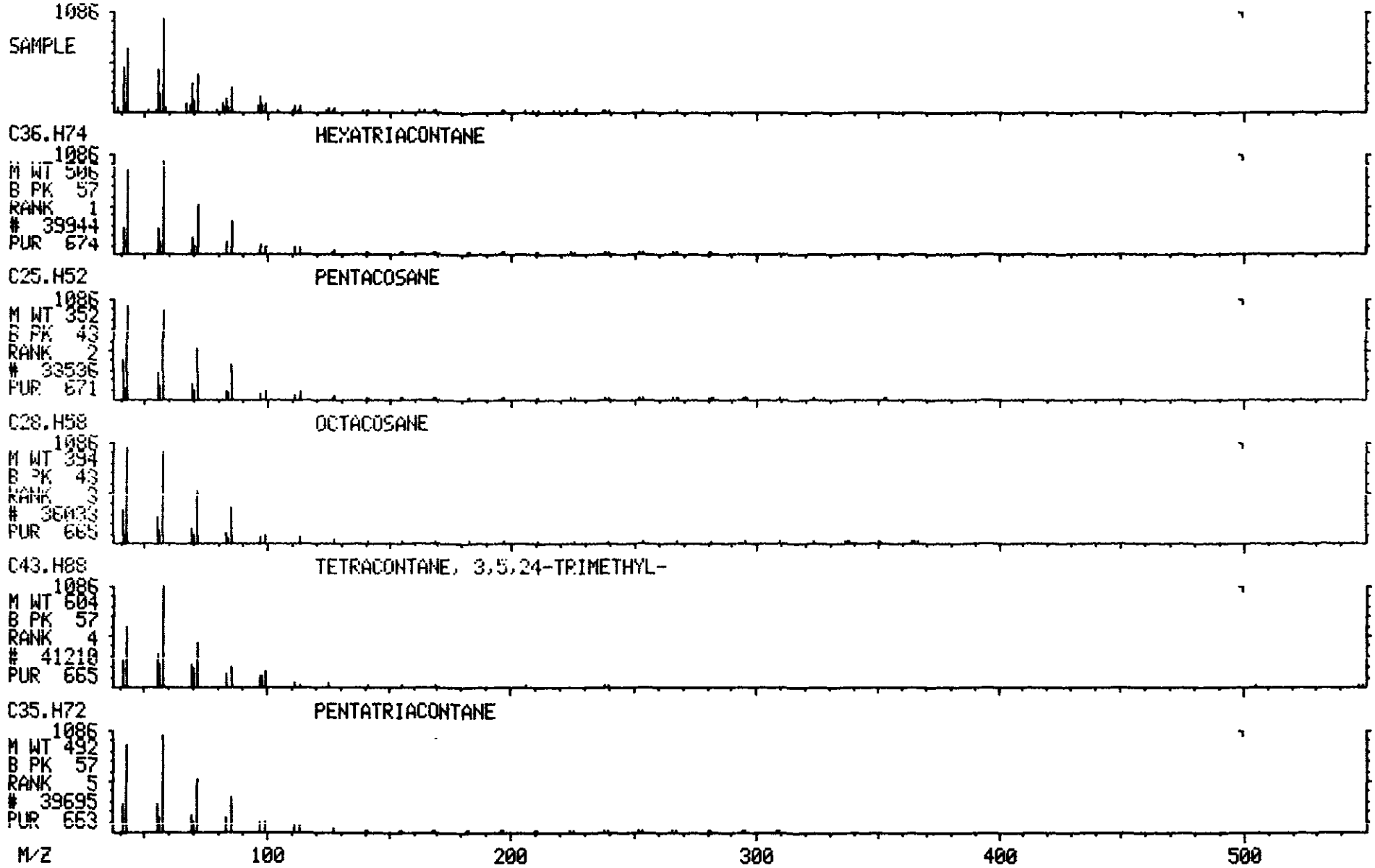
ORIGINAL (Red)

100230

LIBRARY SEARCH
05/16/90 8:51:00 + 27:31
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,6,,420,1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #1651
CALI: T2609 # 2

BASE M/Z: 57
RIC: 14671.



Library Search Data: T2609 #1749 Base m/z: 43
05/16/90 8:51:00 + 29:09 Cali: T2609 # 2 RIC: 24319.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
174 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	25863	HEPTADECANE, 2,6-DIMETHYL-
2	18533	DODECANE, 2,6,10-TRIMETHYL-
3	33536	PENTACOSANE
4	36033	OCTACOSANE
5	36165	IRON, TRICARBONYL[N-(PHENYL-2-PYRIDINYLMETHYLENE)BENZENAMINE-N,N']-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C19.H40	268	57	719	917	746
2	C15.H32	212	57	700	949	720
3	C25.H52	352	43	693	879	775
4	C28.H58	394	57	693	925	738
5	C21.H14.O3.N2.FE	398	57	690	893	741

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	54105-67-8
2	—	—	—	—	3891-98-3
3	—	—	—	—	629-99-2
4	—	—	—	—	630-02-4
5	—	—	—	—	74764-11-7

✓

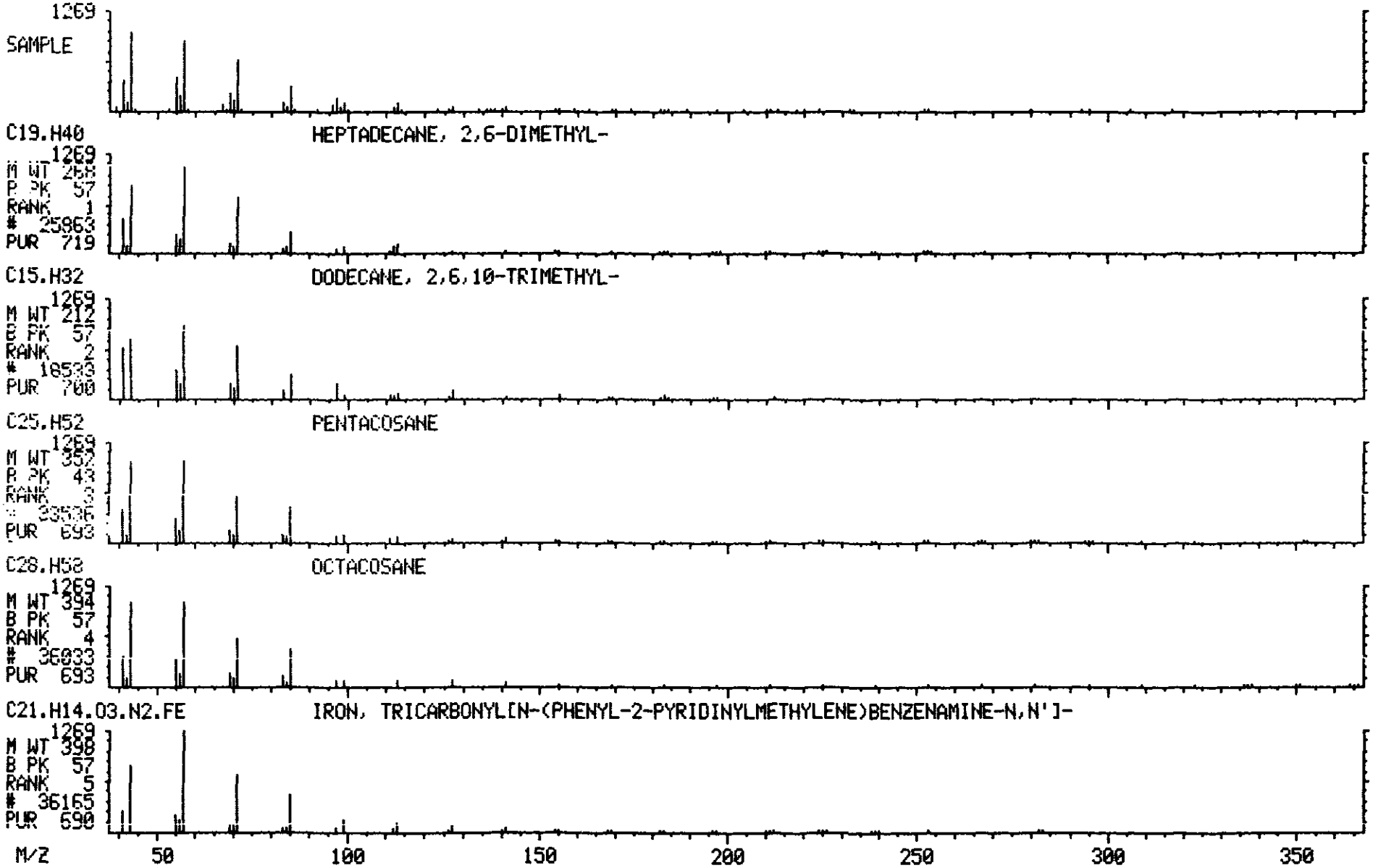
ORIGINAL (Red)

100232

LIBRARY SEARCH
05/16/90 8:51:00 + 29:09
SAMPLE: CLP,VERSCOM,2565,10,M,S,16312,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN038C TO 302C8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #1749
CALI: T2609 # 2

BASE M/Z: 43
RIC: 24319.



Library Search Data: T2609 #1819 Base m/z: 57
05/16/90 8:51:00 + 30:19 Cali: T2609 # 2 RIC: 35071. ORIGINAL (Red)
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
89 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	28842	HEPTADECANE, 2,6,10,15-TETRAMETHYL-
2	22453	HEPTADECANE
3	18541	DODECANE, 2,7,10-TRIMETHYL-
4	20624	HEXADECANE
5	18538	DODECANE, 2,6,11-TRIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C21.H44	296	57	715	933	750
2	C17.H36	240	57	708	925	743
3	C15.H32	212	57	707	940	709
4	C16.H34	226	57	701	933	728
5	C15.H32	212	57	701	933	703

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	54833-48-6
2	—	—	—	—	629-78-7
3	—	—	—	—	74645-98-0
4	—	—	—	—	544-76-3
5	—	—	—	—	31295-56-4

✓

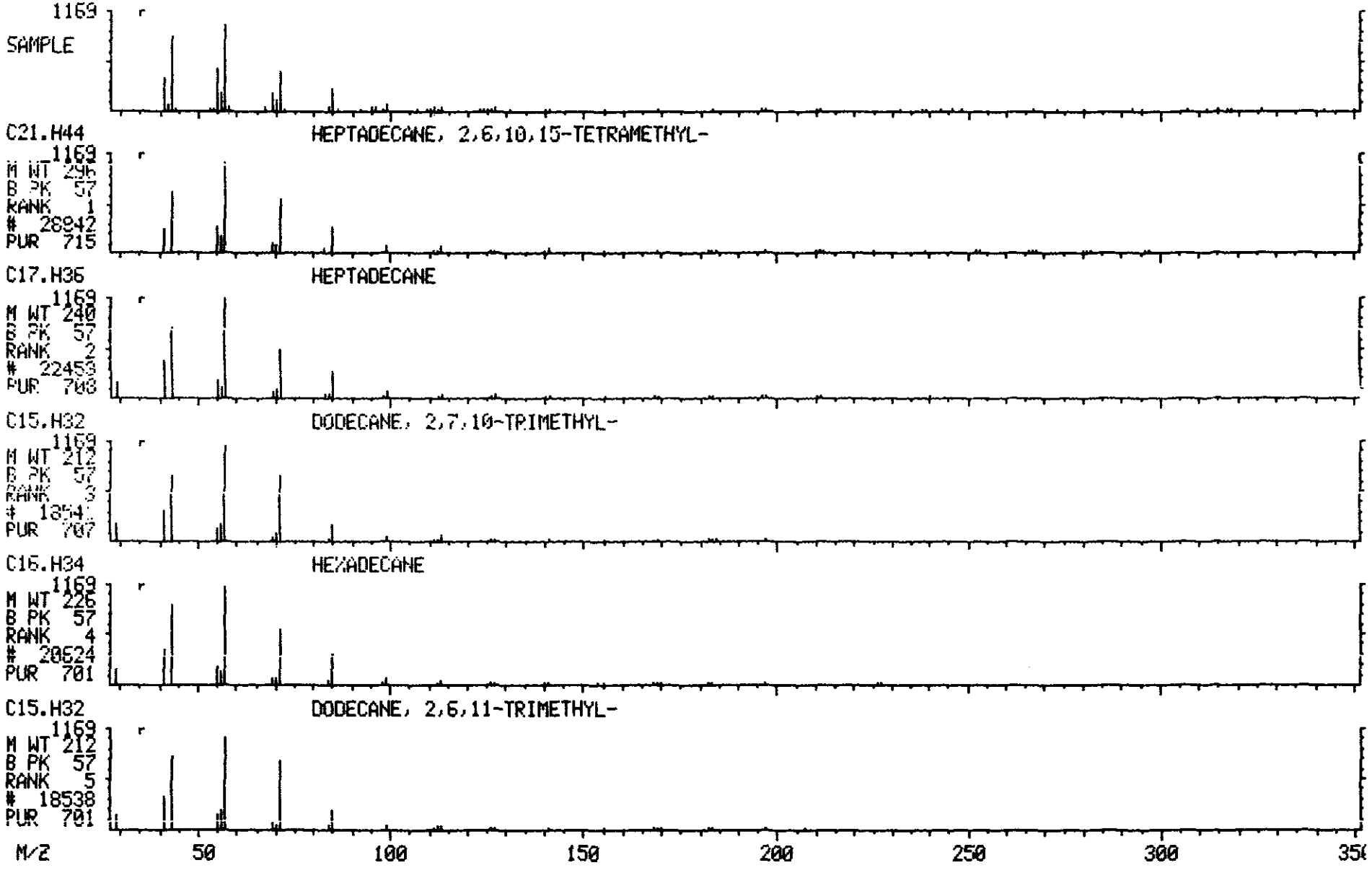
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 8:51:00 + 30:19
SAMPLE: CLP,VERSCOM,2565,10,M,5,16912,D,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #1819
CALI: T2609 # 2

BASE M/Z: 57
RIC: 35071.

100234



Library Search Data: T2609 #1929 Base m/z: 57
05/16/90 8:51:00 + 32:09 Cali: T2609 # 2 RIC: 48575 ORIGINAL (Red)
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNR searched for maximum PURITY
126 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	33536	PENTACOSANE
2	28842	HEPTADECANE, 2,6,10,15-TETRAMETHYL-
3	22453	HEPTADECANE
4	36033	OCTACOSANE
5	30170	DOCOSANE

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C25.H52	352	57	702	923	739
2	C21.H44	296	57	689	943	705
3	C17.H36	240	57	689	950	659
4	C28.H58	394	57	672	930	702
5	C22.H46	310	57	669	917	708

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	629-99-2
2	—	—	—	—	54833-48-6
3	—	—	—	—	629-78-7
4	—	—	—	—	630-02-4
5	—	—	—	—	629-97-0

✓

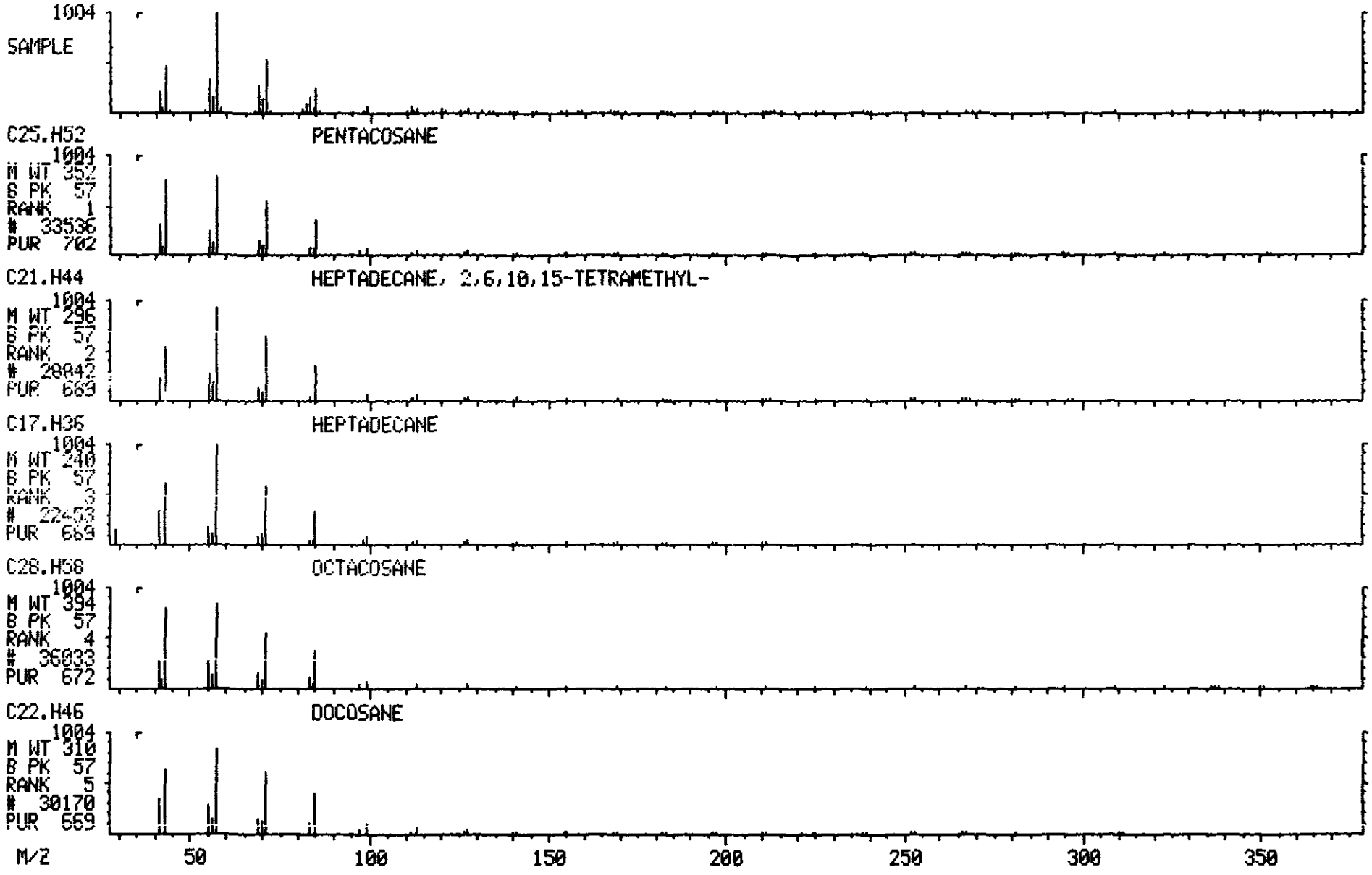
ORIGINAL (Red)

100236

LIBRARY SEARCH
05/16/90 8:51:00 + 32:09
SAMPLE: CLP,VERSCOM,25G,10,M,S,16912,P,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN038C TO 302080C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #1929
CALI: T2609 # 2

BASE M/Z: 57
RIC: 48575.



Library Search Data: T2609 #1959 Base m/z: 57 ORIGINAL (Red)
05/16/90 8:51:00 + 32:39 Cali: T2609 # 2 RIC: 62783.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNH searched for maximum PURITY
226 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	39944	HEXATRIACONTANE
2	33536	PENTACOSANE
3	39695	PENTATRIACONTANE
4	36165	IRON, TRICARBONYL[N-(PHENYL-2 PYRIDINYLMETHYLENE)BENZENAMINE-N,N']-
5	18533	DODECANE, 2,6,10-TRIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C36.H74	506	57	809	965	824
2	C25.H52	352	57	805	936	835
3	C35.H72	492	57	800	959	819
4	C21.H14.O3.N2.FE	398	57	797	945	820
5	C15.H32	212	57	794	963	794

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	630-06-8
2	—	—	—	—	629-99-2
3	—	—	—	—	630-07-9
4	—	—	—	—	74764-11-7
5	—	—	—	—	3891-98-3

✓

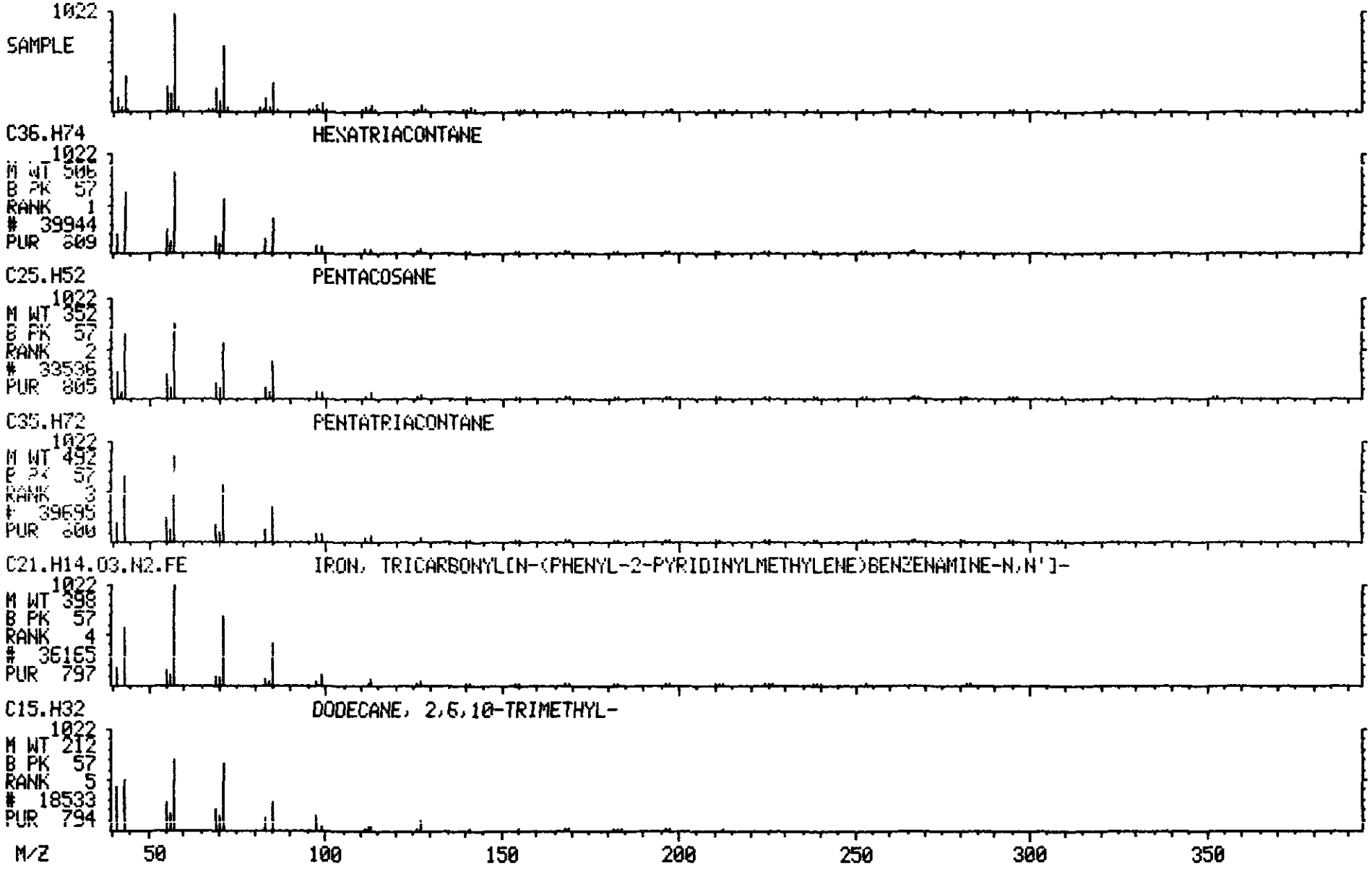
ORIGINAL (Red)

100238

LIBRARY SEARCH
05/16/90 8:51:00 + 32:39
SAMPLE: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #1959
CALI: T2609 # 2

BASE M/Z: 57
RIC: 62783.



Library Search Data: T2609 #2009 Base m/z: 55 ORIGINAL (Red)
05/16/90 8:51:00 + 33:29 Cali: T2609 # 2 RIC: 16863.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNH searched for maximum PURITY
245 matched at least 5 of the 16 largest peaks in the unknown

Rank	In.	Name
1	32435	2H-PYRAN, 2-(7-HEPTADECYNYLOXY)TETRAHYDRO-
2	35830	CHOLAN-24-OIC ACID, 3-HYDROXY-, METHYL ESTER, (3.ALPHA.,5.BETA.)-
3	28043	5.ALPHA.-ANDROSTAN-16-ONE, 17.BETA.-METHYL-
4	26561	D-HOMOANDROSTANE, (5.ALPHA.,13.ALPHA.)-
5	30003	1-NAPHTHALENEPROPANOL, .ALPHA.-ETHENYLDECAHYDRO-5-(HYDROXYMETHYL)-.*

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C22.H40.O2	336	41	300	657	390
2	C25.H42.O3	390	41	263	549	391
3	C20.H32.O	288	55	250	766	277
4	C20.H34	274	55	249	689	317
5	C20.H36.O2	308	41	245	688	377

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	56599-50-9
2	—	—	—	—	1249-75-8
3	—	—	—	—	25780-31-8
4	—	—	—	—	54482-31-4
5	—	—	—	—	72401-52-6

✓

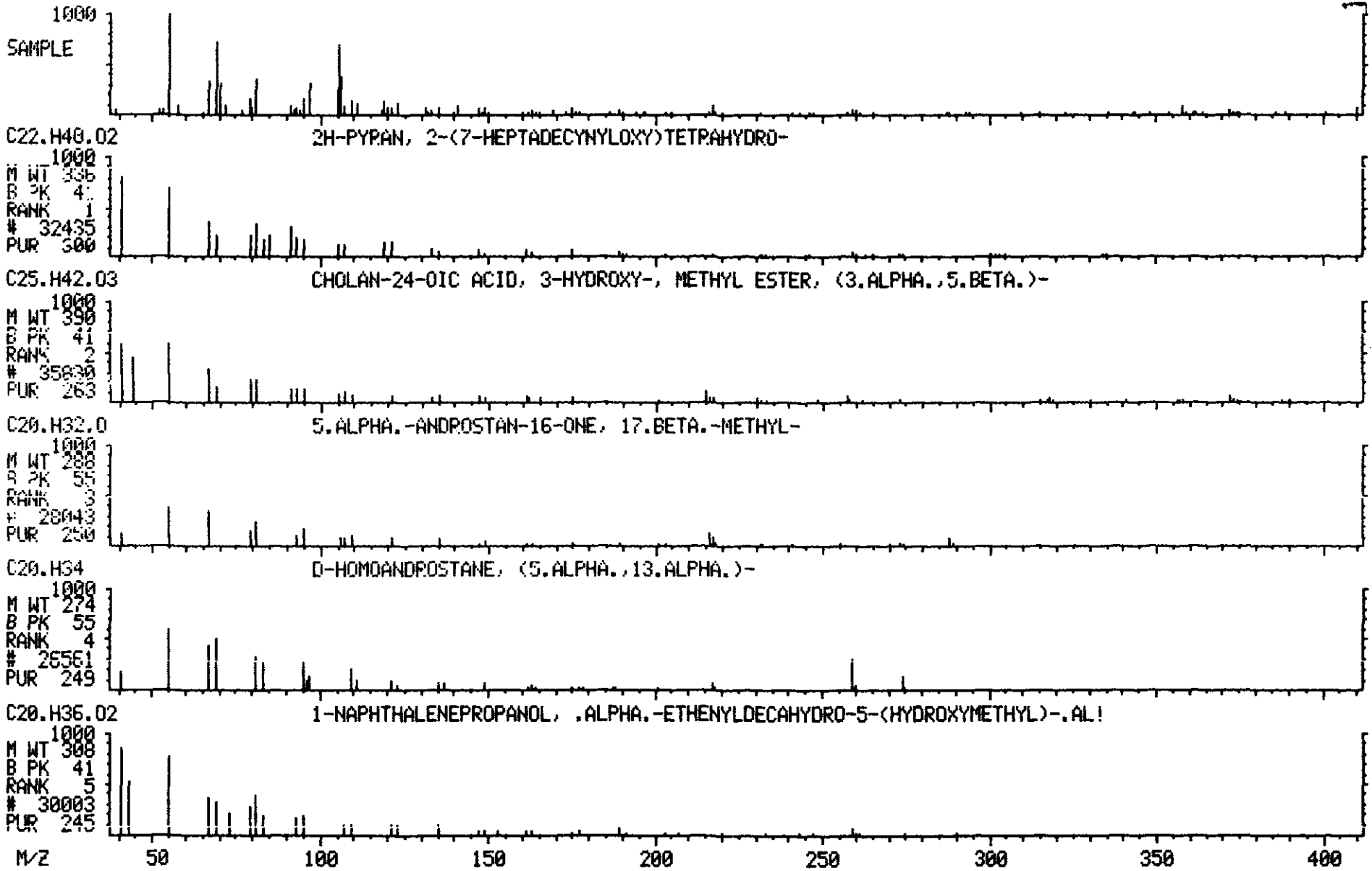
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 8:51:00 + 33:29
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,P,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #2009
CALI: T2609 # 2

BASE M/Z: 55
RIC: 16863.

100240



Library Search Data: T2609 #2139 Base m/z: 5 ORIGINAL
05/16/90 8:51:00 + 35:39 Cali: T2609 # 2 RIC: 22943 (Red)
Sample: CLP,VERSCDM,2565,10,M,S,16912,D,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNH searched for maximum PURITY
68 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	27354	NONADECANE, 3-METHYL-
2	25863	HEPTADECANE, 2,6-DIMETHYL-
3	13916	DECANE, 2,6,8-TRIMETHYL-
4	16277	TRIDECANE, 6-METHYL-
5	36033	OCTACOSANE

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C20.H42	282	57	453	902	488
2	C19.H40	268	57	451	877	494
3	C13.H28	184	57	448	924	464
4	C14.H30	198	57	446	926	457
5	C28.H58	394	43	445	884	493

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	6418-45-7
2	—	—	—	—	54105-67-8
3	—	—	—	—	62108-26-3
4	—	—	—	—	13287-21-3
5	—	—	—	—	630-02-4

✓

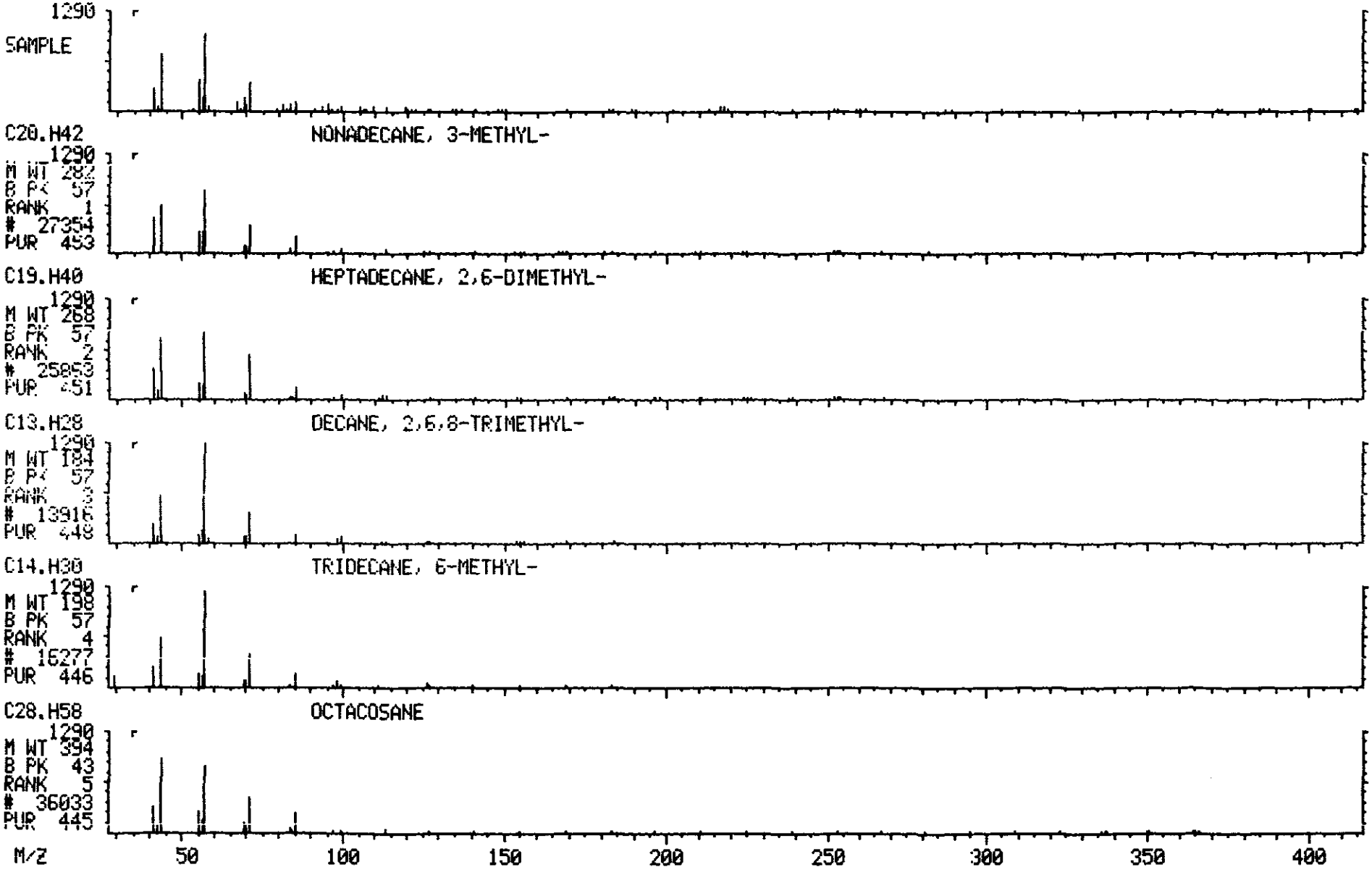
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 8:51:00 + 35:39
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #2139
CALI: T2609 # 2

BASE M/Z: 57
RIC: 22943.

100242



Library Search Data: T2609 #2187 Base m/z: 57
05/16/90 8:51:00 + 36:27 Cali: T2609 # 2 RIC: 22111 ORIGINAL (Red)
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
476 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
2	22446	OXIRANE, TETRADECYL-
3	4103	OXIRANE, (3,3-DIMETHYLBUTYL)-
4	8659	CYCLOHEXANOL, 2-METHYL-5-(1-METHYLETHYL)-, (1.ALPHA.,2.ALPHA.,5.BET*
5	8700	CYCLOPROPANEMETHANOL, .ALPHA.,2-BIS(1-METHYLETHYL)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	41	473	831	510
2	C16.H32.O	240	41	468	868	481
3	C8.H16.O	128	57	456	940	472
4	C10.H20.O	156	57	441	856	494
5	C10.H20.O	156	57	434	863	453

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55401-75-7
2	—	—	—	—	7320-37-8
3	—	—	—	—	53907-77-0
4	—	—	—	—	1126-40-5
5	—	—	—	—	56259-16-6

✓

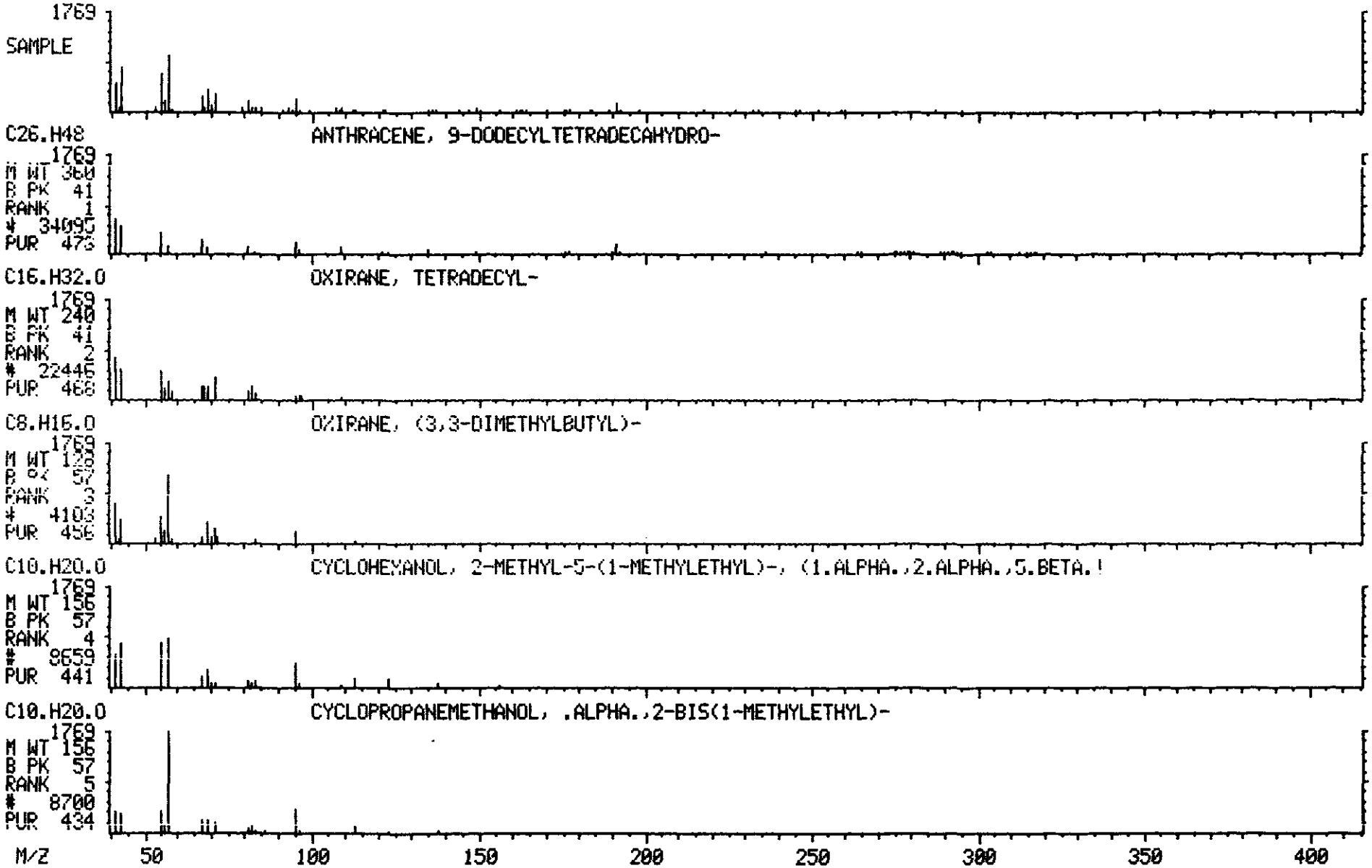
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 8:51:00 + 36:27
SAMPLE: CLP,VERSCDM,2565,10,M,S,16912,6,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 30208C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #2187
CALI: T2609 # 2

BASE M/Z: 57
RIC: 22111.

100244



Library Search Data: T2609 #2266 Base m/z: 43 ORIGINAL (Red)
05/16/90 8:51:00 + 37:46 Cali: T2609 # 2 RIC: 8415.
Sample: CLP,VERSCDM,2565,10,N,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
83 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	36389	STIGMASTANE
2	23460	2,5,9-TETRADECATRIENE, 3,12-DIETHYL-
3	28052	PREGNANE (VAN)
4	36822	SQUALENE
5	25570	2,5-FURANDIONE, 3-(DODECENYL)DIHYDRO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C29.H52	400	44	447	792	524
2	C18.H32	248	81	404	820	436
3	C21.H36	288	41	389	719	493
4	C30.H50	410	41	345	701	444
5	C16.H26.O3	266	41	338	669	467

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	601-58-1
2	—	—	—	—	74685-87-3
3	—	—	—	—	481-26-5
4	—	—	—	—	7683-64-9
5	—	—	—	—	25377-73-5

✓

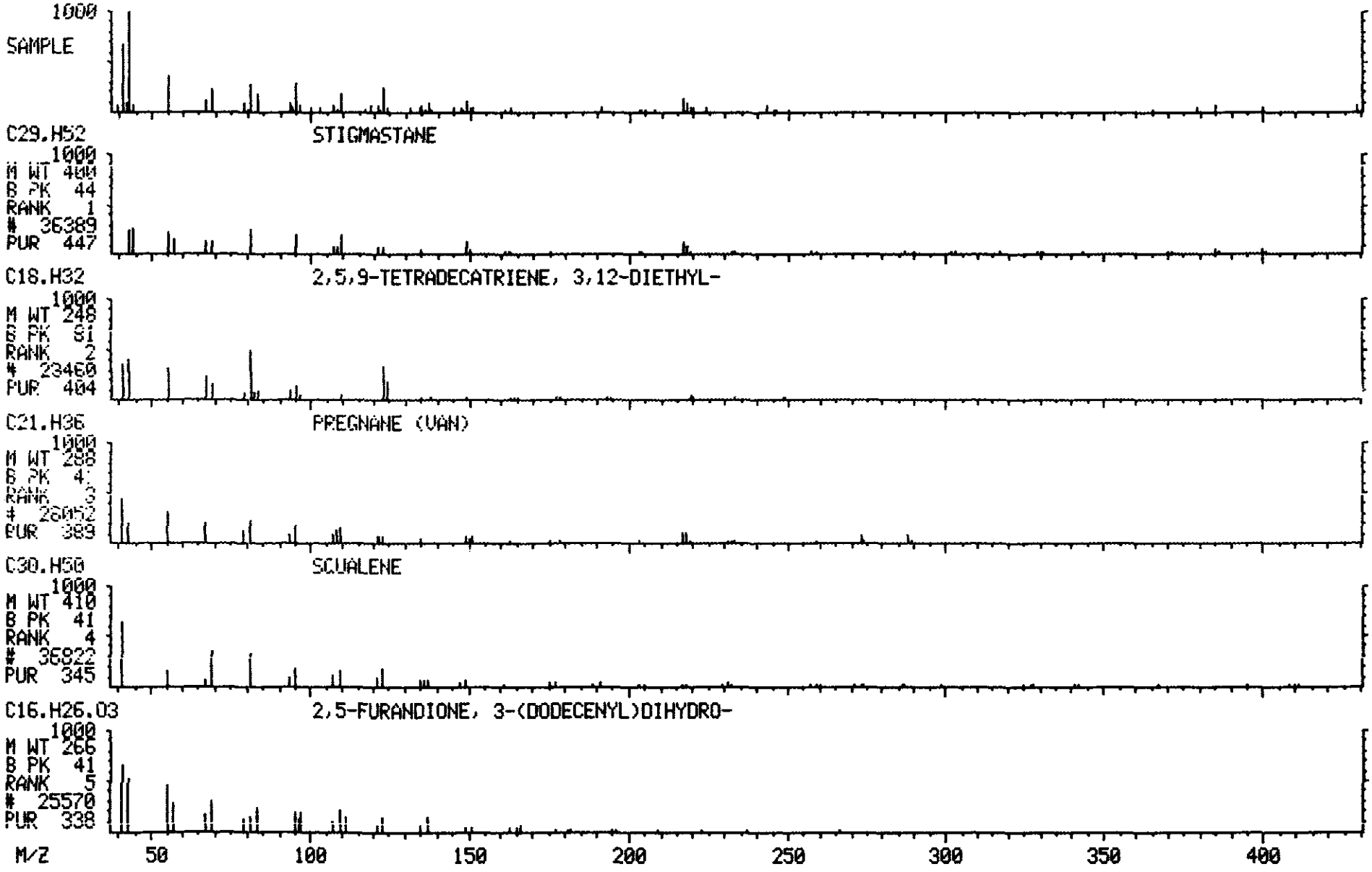
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 8:51:00 + 37:46
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #2266
CALI: T2609 # 2

BASE M/Z: 43
RIC: 8415.

100246



Library Search Data: T2609 #2369 Base m/z: 81 ORIGINAL (Red)
05/16/90 8:51:00 + 39:29 Cali: T2609 # 2 RIC: 39359.
Sample: CLP,VERSCDM,2565,10,N,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYND searched for maximum PURITY
228 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
2	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
3	32292	CYCLOPROPANEOCTANOIC ACID, 2-[[2-[(2-ETHYLCYCLOPROPYL)METHYL]CYCLOP*
4	39172	D:A-FRIEDOOLEANAN 7-OL, ACETATE, (7.ALPHA.)-
5	26562	ANTHRACENE, 9-CYCLOHEXYLTETRADECAHYDRO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	95	504	950	504
2	C26.H48	360	191	482	907	479
3	C22.H38.O2	334	41	476	800	525
4	C32.H54.O2	470	69	458	748	519
5	C20.H34	274	95	451	848	428

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55334-01-5
2	—	—	—	—	55401-75-7
3	—	—	—	—	10152-71-3
4	—	—	—	—	56588-24-0
5	—	—	—	—	55255-70-4

✓

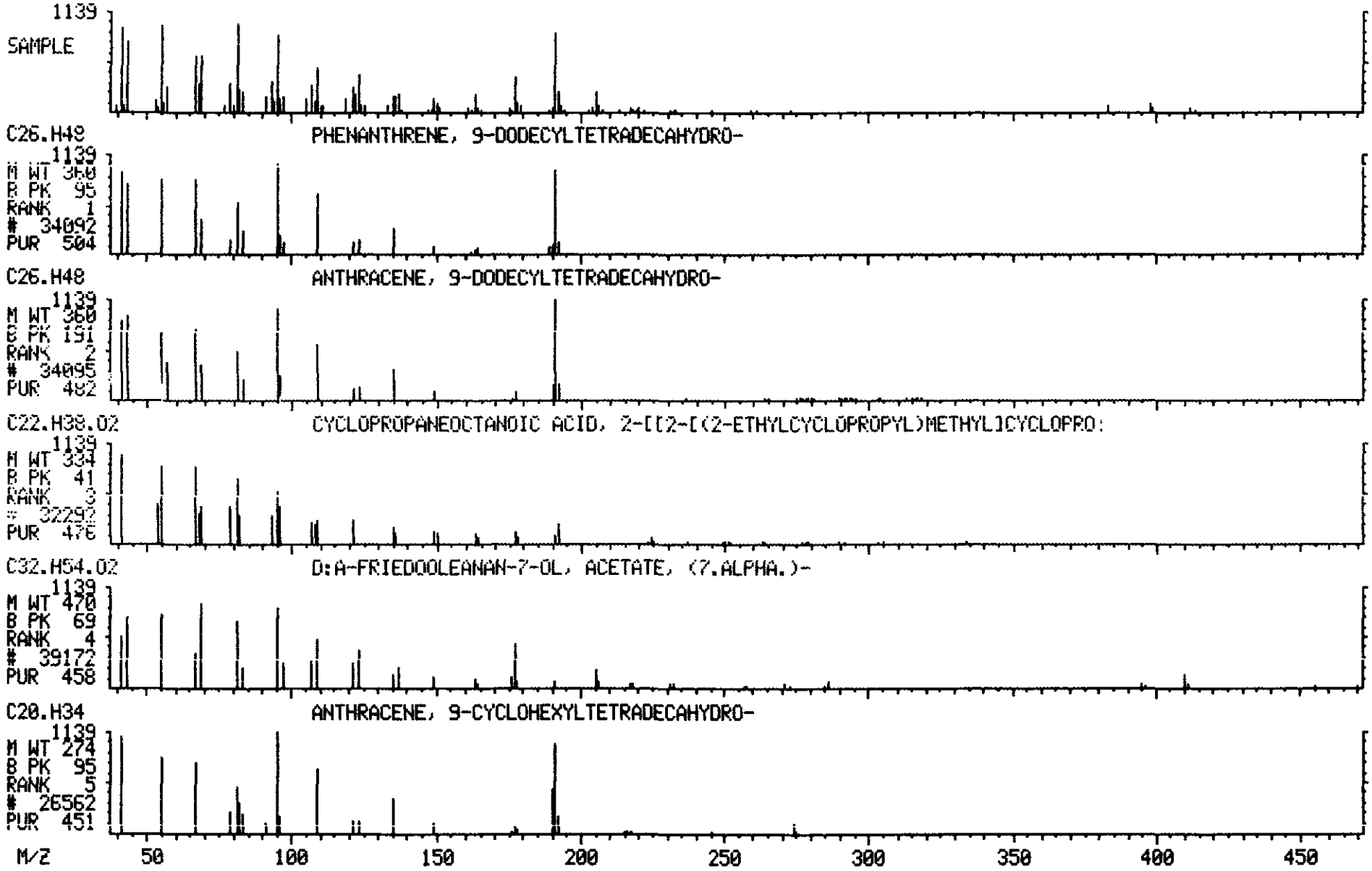
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 8:51:00 + 39:29
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #2369
CALI: T2609 # 2

BASE M/Z: 81
RIC: 39359.

100248



Library Search Data: T2609 #2438 Base m/z: 43
05/16/90 8:51:00 + 40:38 Cali: T2609 # 2 RIC: 11711. ORIGINAL (Red)
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum PURITY
233 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	40079	PROPANOIC ACID, 3,3'-THIOBIS-, DIDODECYL ESTER
2	16562	5-NONANOL, 5-BUTYL-
3	14192	PROPANOIC ACID, 2 METHYL-, HEPTYL ESTER
4	18984	PROPANOIC ACID, 2-METHYL-, 2-ETHYL-3-HYDROXYHEXYL ESTER
5	33831	PYRIDINIUM, 1-HEXADECYL-, CHLORIDE, MONOHYDRATE

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C30.H58.O4.S	514	43	621	890	659
2	C13.H28.O	200	41	401	882	405
3	C11.H22.O2	186	43	348	776	453
4	C12.H24.O3	216	43	345	771	348
5	C21.H40.O.N.CL	357	41	342	772	401

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	—	—	—	—	123-28-4
2	—	—	—	—	597-93-3
3	—	—	—	—	2349-13-5
4	—	—	—	—	74367-31-0
5	—	—	—	—	6004-24-6

✓

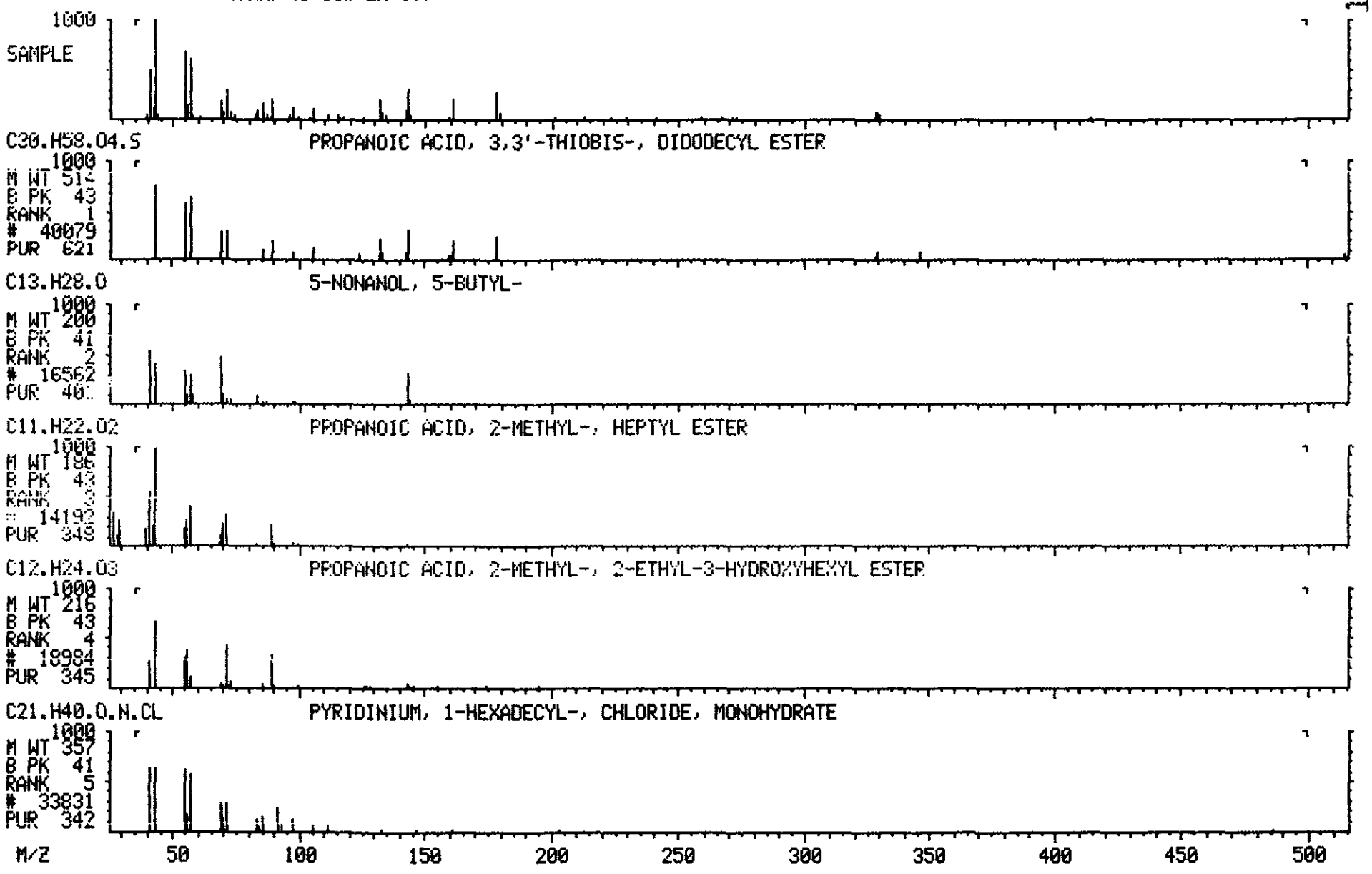
ORIGINAL (Red)

LIBRARY SEARCH
05/16/90 6:51:00 + 40:38
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #2438
CALI: T2609 # 2

BASE M/Z: 43
RIC: 11711.

100250



Library Search Data: T2609 #2479 Base m/z: 191
05/16/90 8:51:00 + 41:19 Cali: T2609 # 2 RIC: 2595 ORIGINAL (Red)
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYINR searched for maximum PURITY
76 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	34092	PHENANTHRENE, 9-DODECYLTETRADECAHYDRO-
2	17547	TRICYCLO[4.3.0.07,9]NONANE, 2,2,5,5,8,8-HEXAMETHYL-, (1.ALPHA.,6.BE*
3	34095	ANTHRACENE, 9-DODECYLTETRADECAHYDRO-
4	17549	CYCLOHEXANE, 1,1,2-TRIMETHYL-3,5-BIS(1-METHYLETHENYL)-, (2.ALPHA.,3*
5	36813	2,6,10,14,18,22-TETRACOSAHEXAENE, 2,6,10,15,19,23-HEXAMETHYL-, (ALL *

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C26.H48	360	191	521	942	521
2	C15.H26	206	69	515	960	515
3	C26.H48	360	191	475	907	495
4	C15.H26	206	41	443	839	443
5	C30.H50	410	81	431	741	496

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55334-01-5
2	—	—	—	—	54832-82-5
3	—	—	—	—	55401-75 7
4	—	—	—	—	62337-96-6
5	—	—	—	—	111-02-4

✓

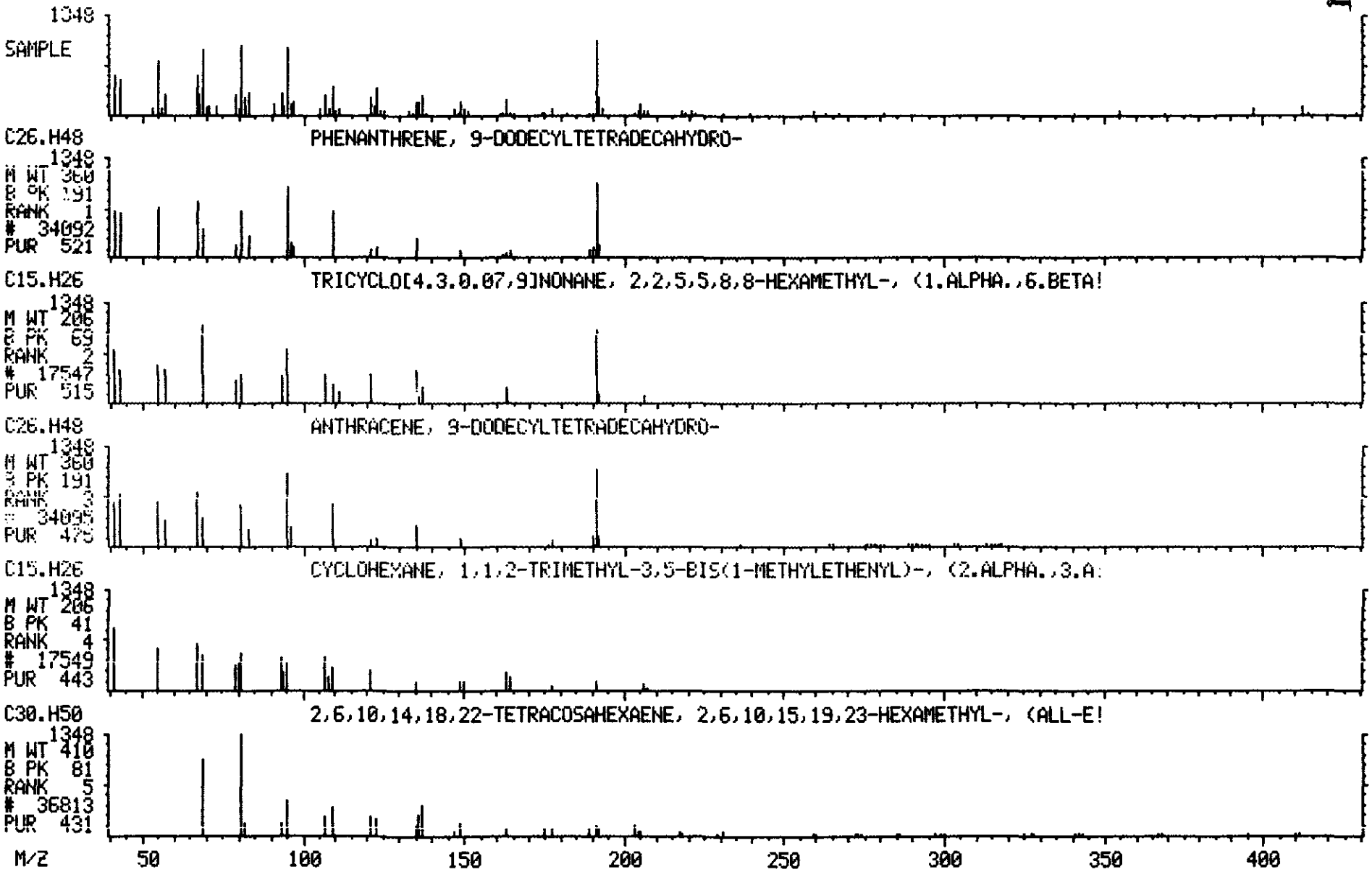
ORIGINAL (Red)

100252

LIBRARY SEARCH
05/16/90 8:51:00 + 41:19
SAMPLE: CLP,VERSCOM,2565,10,M,S,16912,B,,420.1,4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: T2609 #2479
CALI: T2609 # 2

BASE M/Z: 191
RIC: 25951.



ORIGINAL (Red)

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>>>>INTERNAL STANDARD RIC REPORT<<<<
*****************************INTERNAL STANDARD#1******************RIC
Mass List                        Data: T2609 # 536          Base m/z:  150
05/16/90  8:51:00 + 8:56         Cali: T2609 #   2          RIC:     28416.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     35        0.00   0.00        0. Minima     Min inten:      0.
     30                        #   0  Maxima
*****************************INTERNAL STANDARD#2******************RIC
Mass List                        Data: T2609 # 756          Base m/z:  136
05/16/90  8:51:00 + 12:36        Cali: T2609 #   2          RIC:     34944.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     38        0.00   0.00        0. Minima     Min inten:      0.
     30                        #   0  Maxima
*****************************INTERNAL STANDARD#3******************RIC
Mass List                        Data: T2609 #1090          Base m/z:  164
05/16/90  8:51:00 + 18:10        Cali: T2609 #   2          RIC:     24352.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     39        0.00   0.00        0. Minima     Min inten:      0.
     30                        #   0  Maxima
*****************************INTERNAL STANDARD#4******************RIC
Mass List                        Data: T2609 #1373          Base m/z:  188
05/16/90  8:51:00 + 22:53        Cali: T2609 #   2          RIC:     31328.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     39        0.00   0.00        0. Minima     Min inten:      0.
     30                        #   0  Maxima
*****************************INTERNAL STANDARD#5******************RIC
Mass List                        Data: T2609 #1893          Base m/z:  240
05/16/90  8:51:00 + 31:33        Cali: T2609 #   2          RIC:     42752.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     52        0.00   0.00        0. Minima     Min inten:      0.
     30                        #   0  Maxima
*****************************INTERNAL STANDARD#6******************RIC
Mass List                        Data: T2609 #2201          Base m/z:  264
05/16/90  8:51:00 + 36:41        Cali: T2609 #   2          RIC:     30208.
Sample: CLP,VERSCDM,2565,10,M,S,16912,B,,420.1,4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Enhanced (S 15B 2N OT)

     40        0.00   0.00        0. Minima     Min inten:      0.
     30                        #   0  Maxima
```

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

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

11 ORIGINAL (Red)

L. Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16913

Sample wt/vol: 1.0 (g/mL) G Lab File ID: T2629

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

% Moisture: not dec. 4 dec. ____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/16/90

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 0.93

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	19000	U
111-44-4	bis(2-Chloroethyl)ether	19000	U
95-57-8	2-Chlorophenol	19000	U
541-73-1	1,3-Dichlorobenzene	19000	U
106-46-7	1,4-Dichlorobenzene	19000	U
100-51-6	Benzyl alcohol	19000	U
95-50-1	1,2-Dichlorobenzene	19000	U
95-48-7	2-Methylphenol	19000	U
108-60-1	bis(2-Chloroisopropyl)ether	19000	U
106-44-5	4-Methylphenol	19000	U
621-64-7	N-Nitroso-di-n-propylamine	19000	U
67-72-1	Hexachloroethane	19000	U
98-95-3	Nitrobenzene	19000	U
78-59-1	Isophorone	19000	U
88-75-5	2-Nitrophenol	19000	U
105-67-9	2,4-Dimethylphenol	19000	U
65-85-0	Benzoic Acid	93000	U
111-91-1	bis(2-Chloroethoxy)methane	19000	U
120-83-2	2,4-Dichlorophenol	19000	U
120-82-1	1,2,4-Trichlorobenzene	19000	U
91-20-3	Naphthalene	19000	U
106-47-8	4-Chloroaniline	19000	U
87-68-3	Hexachlorobutadiene	19000	U
59-50-7	4-Chloro-3-methylphenol	19000	U
91-57-6	2-Methylnaphthalene	19000	U
77-47-4	Hexachlorocyclopentadiene	19000	U
88-06-2	2,4,6-Trichlorophenol	19000	U
95-95-4	2,4,5-Trichlorophenol	93000	U
91-58-7	2-Chloronaphthalene	19000	U
88-74-4	2-Nitroaniline	93000	U
131-11-3	Dimethylphthalate	19000	U
208-96-8	Acenaphthylene	19000	U
606-20-2	2,6-Dinitrotoluene	19000	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

11 ORIGINAL (Red)

L. Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16913

Sample wt/vol: 1.0 (g/mL) G Lab File ID: T2629

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

% Moisture: not dec. 4 dec. ____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/16/90

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 0.93

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	93000	U
83-32-9	Acenaphthene	19000	U
51-28-5	2,4-Dinitrophenol	93000	U
100-02-7	4-Nitrophenol	93000	U
132-64-9	Dibenzofuran	19000	U
121-14-2	2,4-Dinitrotoluene	19000	U
84-66-2	Diethylphthalate	19000	U
7005-72-3	4-Chlorophenyl-phenylether	19000	U
86-73-7	Fluorene	19000	U
100-01-6	4-Nitroaniline	93000	U
534-52-1	4,6-Dinitro-2-methylphenol	93000	U
86-30-6	N-nitrosodiphenylamine (1)	19000	U
101-55-3	4-Bromophenyl-phenylether	19000	U
118-74-1	Hexachlorobenzene	19000	U
87-86-5	Pentachlorophenol	93000	U
85-01-8	Phenanthrene	44000	
120-12-7	Anthracene	10000	J
84-74-2	Di-n-butylphthalate	19000	U
206-44-0	Fluoranthene	86000	
129-00-0	Pyrene	57000	
85-68-7	Butylbenzylphthalate	19000	U
91-94-1	3,3'-Dichlorobenzidine	38000	U
56-55-3	Benzo(a)anthracene	42000	
218-01-9	Chrysene	49000	
117-81-7	bis(2-Ethylhexyl)phthalate	19000	U
117-84-0	Di-n-octyl phthalate	19000	U
205-99-2	Benzo(b)fluoranthene	37000	
207-08-9	Benzo(k)fluoranthene	35000	
50-32-8	Benzo(a)pyrene	31000	
193-39-5	Indeno(1,2,3-cd)pyrene	23000	
53-70-3	Dibenz(a,h)anthracene	19000	U
191-24-2	Benzo(g,h,i)perylene	19000	J

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

11 ORIGINAL (Red)

L Name: VERSAR INC. Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: 16913

Sample wt/vol: 1.0 (g/mL) G Lab File ID: T2629

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

% Moisture: not dec. 4 dec. ____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 05/16/90

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 0.93

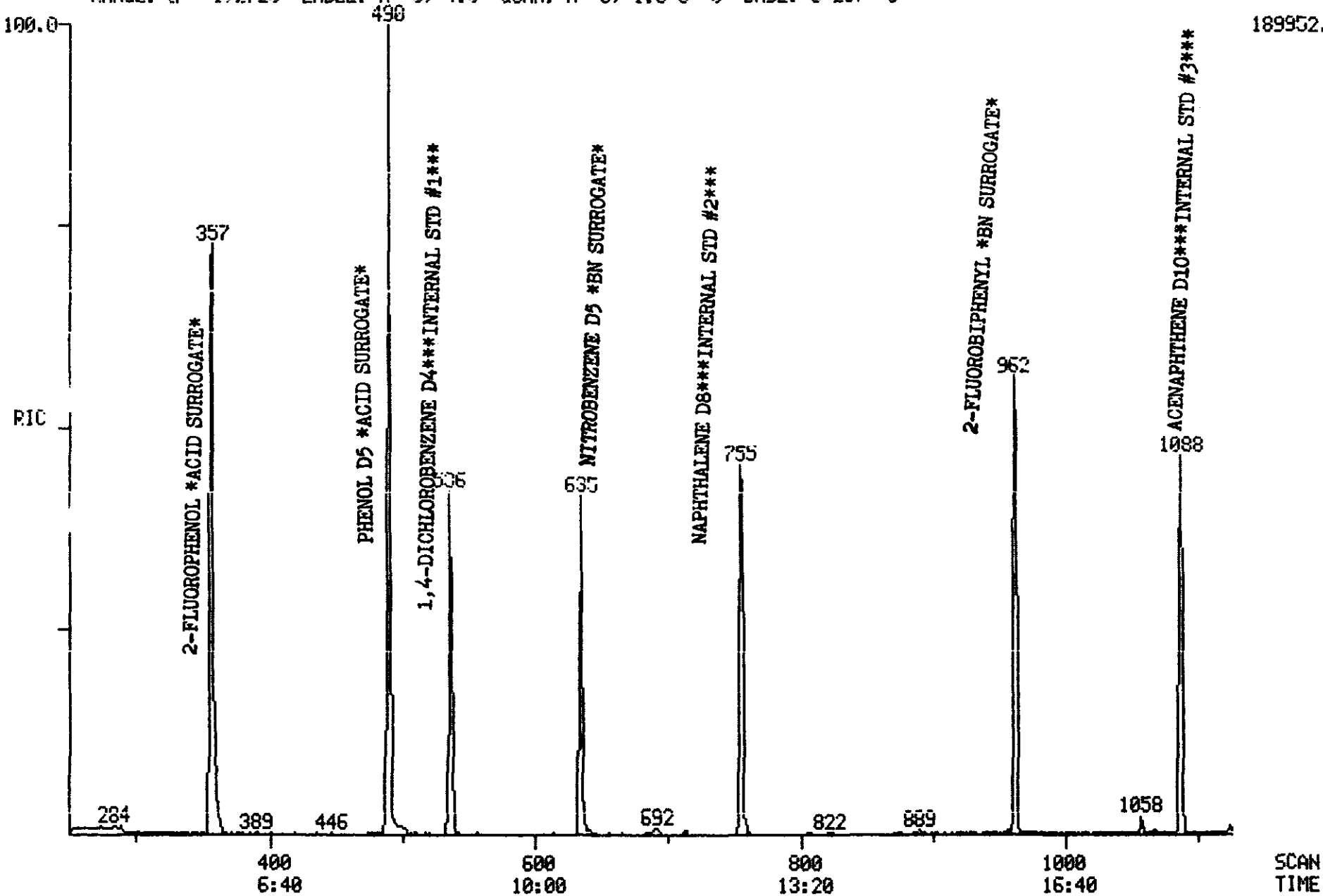
Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
3.	UNKNOWN	23.65	7700	J
4.	UNK. POLYCYCLIC AROMATIC	24.89	9600	J
5.	UNK. POLYCYCLIC AROMATIC	27.12	13000	J
6.	UNK. POLYCYCLIC AROMATIC	28.66	12000	J
7. 82-05-3	7H-BENZ[DE]ANTHRACEN-7-ONE	31.94	9600	J
8.	UNK. POLYCYCLIC AROMATIC	35.97	27000	J

ORIGINAL (Red)

RIC DATA: T2629 #1 SCANS 250 TO 1125
05/16/90 22:28:00 CALI: T2629 #2
SAMPLE: CLP,VERSCDM,2565,11,M,S,16913,B,,420.1 6#4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
RANGE: G 1,2720 LABEL: N 0, 4.0 CUAN: A 0, 1.0 J 0 BASE: U 20, 2



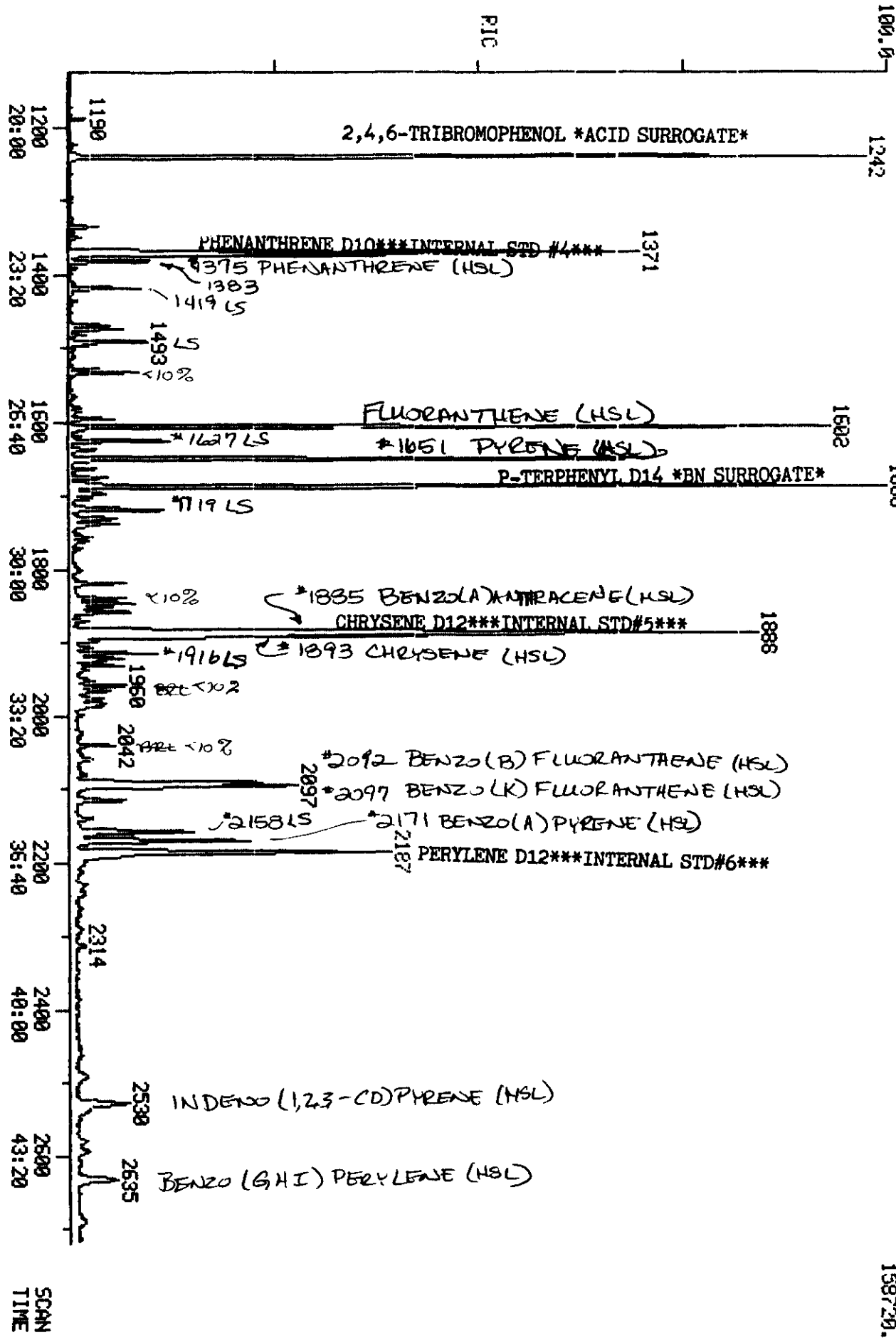
100257

ORIGINAL (Red)

RIC
05/16/90 22:26:00
SAMPLE: CLP,VERSCOM,2565,11,M,S,16913,P,,420.1 P#4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN=38C TO 302BC/MIN
RANGE: G 1,2720 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: T2629 #1
CALI: T2629 #2

SCANS 1125 TO 2720



100258

Quantitation Report File: T2629

ORIGINAL (Red)

Data: T2629.TI
05/16/90 22:28:00
Sample: CLP,VERSCDM,2565,11,M,S,16913,B,,420.1 B#4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	C330 2-CHLOROPHENOL
3	C315 PHENOL
4	C325 BIS (2-CHLOROETHYL) ETHER
5	C335 1,3-DICHLOROBENZENE
6	C340 1,4-DICHLOROBENZENE
7	C350 1,2-DICHLOROBENZENE
8	C345 BENZYL ALCOHOL
9	C360 BIS (2-CHLOROISOPROPYL) ETHER
10	C355 2-METHYLPHENOL
11	C375 HEXACHLOROETHANE
12	C365 4-METHYLPHENOL
13	C370 N-NITROSO-DI-N-PROPYLAMINE
14	CS50 2-FLUOROPHENOL**ACID SURR.**
15	CS45 PHENOL-D5**ACID SURR.**
16	CI40 NAPHTHALENE-D8**INT. STD.#2**
17	C410 NITROBENZENE
18	C415 ISOPHORONE
19	C420 2-NITROPHENOL
20	C425 2,4-DIMETHYLPHENOL
21	C435 BIS (2-CHLOROETHOXY) METHANE
22	C440 2,4-DICHLOROPHENOL
23	C445 1,2,4-TRICHLOROBENZENE
24	C450 NAPHTHALENE
25	C430 BENZOIC ACID
26	C455 4-CHLOROANILINE
27	C460 HEXACHLOROBUTADIENE
28	C465 4-CHLORO-3-METHYLPHENOL
29	C470 2-METHYLNAPHTHALENE
30	CS20 NITROBENZENE-D5**BN SURR.**
31	CI50 ACENAPHTHENE-D10**INT. STD.#3**
32	C510 HEXACHLOROCYCLOPENTADIENE
33	C515 2,4,6-TRICHLOROPHENOL
34	C520 2,4,5-TRICHLOROPHENOL
35	C525 2-CHLORONAPHTHALENE
36	C530 2-NITROANILINE
37	C540 ACENAPHTHYLENE
38	C535 DIMETHYL PHTHALATE
39	C544 2,6-DINITROTOLUENE
40	C550 ACENAPHTHENE
41	C545 3-NITROANILINE
42	C555 2,4-DINITROPHENOL
43	C565 DIBENZOFURAN
44	C560 4-NITROPHENOL
45	C570 2,4-DINITROTOLUENE
46	C590 FLUORENE
47	C585 4-CHLOROPHENYL-PHENYLETHER

All IS areas & Surrogate recoveries are compliant.
SJD
5/17/90.

11 NBL's detected

6 LIBR SRCHS

100259

T2629

ORIGINAL (Red)

No	Name
48	C580 DIETHYLPHTHALATE
49	C595 4-NITROANILINE
50	C610 4,6-DINITRO-2-METHYLPHENOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	536	8:56	1	1.000	A BB	21665.	40.000 NG/UL	4.35
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	112	356	5:56	1	0.664	A BB	72780.	107.101 NG*A1	11.65
15	99	490	8:10	1	0.914	A BB	99426.	101.570 NG*A2	11.05
16	136	755	12:35	16	1.000	A BB	66001.	40.000 NG/UL	4.35
17	77	635	10:35	16	0.841	A BB	189.	BRL ~~0.163 NG~~	0.02
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	128	759	12:39	16	1.005	A BB	2478.	BRL ~~1.082 NG~~	0.12
25	122	713	11:53	16	0.944	A BB	247.	~~0.802 NG~~	0.09
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	82	635	10:35	16	0.841	A BB	54500.	50.012 NG*B1	5.44
31	164	1088	18:08	31	1.000	A BB	44453.	40.000 NG/UL	4.35
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	152	1058	17:38	31	0.972	A BB	4285.	BRL ~~1.909 NG~~	0.21
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	168	1124	18:44	31	1.033	A BB	1872.	BRL ~~0.882 NG~~	0.10
44	NOT FOUND								
45	NOT FOUND								
46	166	1190	19:50	31	1.094	A BB	2535.	BRL ~~1.462 NG~~	0.16
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								

T2629 ORIGINAL (Red)

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	8:54	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	8:27		0.949						
3	8:10		0.918						
4	8:23		0.942						
5	8:48		0.989						
6	8:57		1.006						
7	9:27		1.062						
8	9:23		1.054						
9	9:49		1.103						
10	9:45		1.096						
11	10:16		1.154						
12	10:10		1.142						
13	10:14		1.150						
14	5:54	1.01	0.663	1.00	107.10	50.00	2.687	1.255	2.14
15	8:08	1.00	0.914	1.00	101.57	50.00	3.671	1.807	2.03
16	12:34	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
17	10:37	1.00	0.845	1.00	0.16	50.00	0.002	0.702	0.00
18	11:16		0.897						
19	11:32		0.918						
20	11:41		0.930						
21	12:01		0.956						
22	12:12		0.971						
23	12:27		0.991						
24	12:38	1.00	1.005	1.00	1.08	50.00	0.030	1.388	0.02
25	12:02	0.99	0.958	0.99	0.80	50.00	0.003	0.187	0.02
26	12:56		1.029						
27	13:10		1.048						
28	14:26		1.149						
29	14:45		1.174						
30	10:34	1.00	0.841	1.00	50.01	50.00	0.661	0.660	1.00
31	18:06	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
32	15:27		0.854						
33	15:45		0.870						
34	15:51		0.876						
35	16:17		0.900						
36	16:48		0.928						
37	17:37	1.00	0.973	1.00	1.91	50.00	0.077	2.019	0.04
38	17:31		0.968						
39	17:45		0.981						
40	18:13		1.006						
41	18:09		1.003						
42	18:28		1.020						
43	18:43	1.00	1.034	1.00	0.88	50.00	0.034	1.911	0.02
44	18:43		1.034						
45	18:58		1.048						
46	19:49	1.00	1.095	1.00	1.46	50.00	0.046	1.561	0.03
47	19:52		1.098						
48	19:47		1.093						
49	20:09		1.113						
50	20:14		1.118						

Quantitation Report File: T2629

ORIGINAL
(Red)

Data: T2629.TI
05/16/90 22:28:00
Sample: CLP,VERSCDM,2565,11,M,S,16913,B,,420.1 B#4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

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

No	Name
51	C615 N-NITROSODIPHENYLAMINE
52	C625 4-BROMOPHENYL-PHENYLETHER
53	C630 HEXACHLOROBENZENE
54	CS25 2-FLUOROBIPHENYL**BN SURR.**
55	CI60 PHENANTHRENE-D10**INT. STD.#4**
56	C635 PENTACHLOROPHENOL
57	C640 PHENANTHRENE
58	C645 ANTHRACENE
59	C650 DI-N-BUTYLPHTHALATE
60	C655 FLUORANTHENE
61	C715 PYRENE
62	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
63	CI70 CHRYSENE-D12**INT. STD.#5**
64	C720 BUTYLBENZYLPHTHALATE
65	C730 BENZO(A)ANTHRACENE
66	C740 CHRYSENE
67	C725 3,3'-DICHLOROBENZIDINE
68	C741 BIS(2-ETHYLHEXYL)PHTHALATE
69	CS30 P-TERPHENYL-D14**BN SURR.**
70	CI75 PERYLENE-D12**INT. STD.#6**
71	C760 DI-N-OCTYL PHTHALATE
72	C765 BENZO(B)FLUORANTHENE
73	C770 BENZO(K)FLUORANTHENE
74	C775 BENZO(A)PYRENE
75	C780 INDENO(1,2,3-CD)PYRENE
76	C785 DIBENZ(A,H)ANTHRACENE
77	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								
52	NOT FOUND								
53	NOT FOUND								
54	172	962	16:02	31	0.884	A BB	69249.	46.852 NG*B2	5.10
55	188	1371	22:51	55	1.000	A BB	102877.	40.000 NG/UL	4.35
56	NOT FOUND								
57	178	1375	22:55	55	1.003	A BV	62399.	22.596 NG	2.46
58	178	1383	23:03	55	1.009	A VB	14796.	5.227 NG	0.57
59	149	1502	25:02	55	1.096	A BB	1158.	BR ~~0.313 NG~~	0.03
60	202	1608	26:48	55	1.173	A BB	161380.	~~44.709 NG~~	4.86
61	202	1651	27:31	63	0.874	A BB	116779.	29.498 NG	3.21
62	330	1242	20:42	31	1.142	A BB	44826.	91.514 NG*A3	9.96
63	240	1888	31:28	63	1.000	A BB	128721.	40.000 NG/UL	4.35
64	149	1794	29:54	63	0.950	A BB	208.	BR ~~0.108 NG~~	0.01
65	228	1885	31:25	63	0.998	A BV	71236.	21.704 NG	2.36
66	228	1893	31:33	63	1.003	A VB	65771.	25.311 NG	2.75

100262

T2629

ORIGINAL (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
67	252	1887	31:27	63	0.999	A BB	439.	BRL ~~0.418 NG~~	0.05
68	149	1905	31:45	63	1.009	A BB	265.	~~0.098 NG~~	0.01
69	244	1688	28:08	63	0.894	A BB	142811.	46.927 NG*B3	5.11
70	264	2187	36:27	70	1.000	A BB	100072.	40.000 NG/UL	4.35
71	149	2014	33:34	70	0.921	A BB	296.	BRL ~~0.082 NG~~	0.01
72	252	2092	34:52	70	0.957	A BV	56033.	19.374 NG	2.11
73	252	2097	34:57	70	0.959	A VB	48990.	18.033 NG	1.76
74	252	2171	36:11	70	0.993	A VB	44239.	16.064 NG	1.75
75	276	2530	42:10	70	1.157	A BB	25981.	11.857 NG	1.29
76	278	2539	42:19	70	1.161	A BV	7929.	NC ~~3.815 NG~~	0.42
77	276	2634	43:54	70	1.204	A BB	21551.	9.636 NG	1.05

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	20:19		1.122						
52	21:26		1.184						
53	21:50		1.206						
54	16:01	1.00	0.885	1.00	46.85	50.00	1.246	1.330	0.94
55	22:50	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
56	22:27		0.983						
57	22:54	1.00	1.003	1.00	22.60	50.00	0.485	1.074	0.45
58	23:03	1.00	1.009	1.00	5.23	50.00	0.115	1.101	0.10
59	25:01	1.00	1.096	1.00	0.31	50.00	0.009	1.439	0.01
60	26:47	1.00	1.173	1.00	44.71	50.00	1.255	1.403	0.89
61	27:30	1.00	0.874	1.00	29.50	50.00	0.726	1.230	0.59
62	20:40	1.00	1.142	1.00	91.51	50.00	0.807	0.441	1.83
63	31:27	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
64	29:53	1.00	0.950	1.00	0.11	50.00	0.001	0.598	0.00
65	31:24	1.00	0.998	1.00	21.70	50.00	0.443	1.020	0.43
66	31:32	1.00	1.003	1.00	25.31	50.00	0.409	0.807	0.51
67	31:26	1.00	0.999	1.00	0.42	50.00	0.003	0.326	0.01
68	31:44	1.00	1.009	1.00	0.10	50.00	0.002	0.838	0.00
69	28:06	1.00	0.893	1.00	46.93	50.00	0.888	0.946	0.94
70	36:26	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
71	33:33	1.00	0.921	1.00	0.08	50.00	0.002	1.437	0.00
72	34:53	1.00	0.957	1.00	19.37	50.00	0.448	1.156	0.39
73	34:58	1.00	0.960	1.00	18.03	50.00	0.392	1.086	0.36
74	36:11	1.00	0.993	1.00	16.06	50.00	0.354	1.101	0.32
75	42:13	1.00	1.159	1.00	11.86	50.00	0.208	0.876	0.24
76	42:24	1.00	1.164	1.00	3.81	50.00	0.063	0.831	0.08
77	44:00	1.00	1.208	1.00	9.64	50.00	0.172	0.894	0.19

Quantitation Report File: QCREF

Data: T2629.TI
05/16/90 22:28:00
Sample: CLP,VERSCDM,2565,11,M,S,16913,B,,420.1 B#4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

ORIGINAL
(Red)

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI40 NAPHTHALENE-D8**INT. STD.#2**
3	CI50 ACENAPHTHENE-D10**INT. STD.#3**
4	CI60 PHENANTHRENE-D10**INT. STD.#4**
5	CI70 CHRYSENE-D12**INT. STD.#5**
6	CI75 PERYLENE-D12**INT. STD.#6**
7	CS50 2-FLUOROPHENOL**ACID SURR.**
8	CS45 PHENOL-D5**ACID SURR.**
9	CS55 2,4,6,-TRIBROMOPHENOL**ACID SURR.**
10	CS20 NITROBENZENE-D5**BN SURR.**
11	CS25 2-FLUOROBIPHENYL**BN SURR.**
12	CS30 P-TERPHENYL-D14**BN SURR.**

Scan	Time	Area(Hght)		Amount		Name
536	8:56	21665.	90	40.000	NG/UL	CI30 1,4-DICHLOROBENZENE-D4
755	12:35	66001.		40.000	NG/UL	CI40 NAPHTHALENE-D8**INT. ST
1088	18:08	44453.		40.000	NG/UL	CI50 ACENAPHTHENE-D10**INT.
1371	22:51	102877.	Rec	40.000	NG/UL	CI60 PHENANTHRENE-D10**INT.
1888	31:28	128721.		40.000	NG/UL	CI70 CHRYSENE-D12**INT. STD.
2187	36:27	100072.		40.000	NG/UL	CI75 PERYLENE-D12**INT. STD.
356	5:56	72780.	107	107.101	NG*A1	CS50 2-FLUOROPHENOL**ACID SU
490	8:10	99426.	102	101.570	NG*A2	CS45 PHENOL-D5**ACID SURR.**
1242	20:42	44826.	92	91.514	NG*A3	CS55 2,4,6,-TRIBROMOPHENOL**
635	10:35	54500.	100	50.012	NG*B1	CS20 NITROBENZENE-D5**BN SUR
962	16:02	69249.	94	46.852	NG*B2	CS25 2-FLUOROBIPHENYL**BN SU
1688	28:08	142811.	94	46.927	NG*B3	CS30 P-TERPHENYL-D14**BN SUR

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	8:54	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	12:34	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	18:06	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	22:50	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	31:27	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	36:26	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	5:54	1.01	0.663	1.00	107.10	50.00	2.687	1.255	2.14
8	8:08	1.00	0.914	1.00	101.57	50.00	3.671	1.807	2.03
9	20:40	1.00	1.142	1.00	91.51	50.00	0.807	0.441	1.83
10	10:34	1.00	0.841	1.00	50.01	50.00	0.661	0.660	1.00
11	16:01	1.00	0.885	1.00	46.85	50.00	1.246	1.330	0.94
12	28:06	1.00	0.893	1.00	46.93	50.00	0.888	0.946	0.94

Quantitation Report File: ISREF

Data: T2624.TI
05/16/90 17:01:00
Sample: CLP,,,SSTD50,,,22658,B,CC050,,,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: ____

ORIGINAL
(Red)

Data: T2629.TI
05/16/90 22:28:00
Sample: CLP,VERSCDM,2565,11,M,S,16913,B,,420.1 B#4,1UL,
Conds.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
Formula: --- Instrument: T Weight: 0.004
Submitted by: VERSAR Analyst: TS Acct. No.: 420.1

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

No	Name
1	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
2	CI30 1,4-DICHLOROBENZENE-D4 **INT. STD. #1**
3	CI40 NAPHTHALENE-D8**INT. STD. #2**
4	CI40 NAPHTHALENE-D8**INT. STD. #2**
5	CI50 ACENAPHTHENE-D10**INT. STD. #3**
6	CI50 ACENAPHTHENE-D10**INT. STD. #3**
7	CI60 PHENANTHRENE-D10**INT. STD. #4**
8	CI60 PHENANTHRENE-D10**INT. STD. #4**
9	CI70 CHRYSENE-D12**INT. STD. #5**
10	CI70 CHRYSENE-D12**INT. STD. #5**
11	CI75 PERYLENE-D12**INT. STD. #6**
12	CI75 PERYLENE-D12**INT. STD. #6**

Scan	Time	Area(Hght)	Amount	Name
534	8:54	21230.	40.000 NG/UL	CI30 1,4-DICHLOROBENZENE-D4
536	8:56	21665.	40.820 NG/UL	CI30 1,4-DICHLOROBENZENE-D4
754	12:34	67127.	40.000 NG/UL	CI40 NAPHTHALENE-D8**INT. ST
755	12:35	66001.	39.329 NG/UL	CI40 NAPHTHALENE-D8**INT. ST
1086	18:06	45485.	40.000 NG/UL	CI50 ACENAPHTHENE-D10**INT.
1088	18:08	44453.	39.092 NG/UL	CI50 ACENAPHTHENE-D10**INT.
1370	22:50	109533.	40.000 NG/UL	CI60 PHENANTHRENE-D10**INT.
1371	22:51	102877.	37.569 NG/UL	CI60 PHENANTHRENE-D10**INT.
1887	31:27	129519.	40.000 NG/UL	CI70 CHRYSENE-D12**INT. STD.
1888	31:28	128721.	39.754 NG/UL	CI70 CHRYSENE-D12**INT. STD.
2186	36:26	121131.	40.000 NG/UL	CI75 PERYLENE-D12**INT. STD.
2187	36:27	100072.	33.046 NG/UL	CI75 PERYLENE-D12**INT. STD.

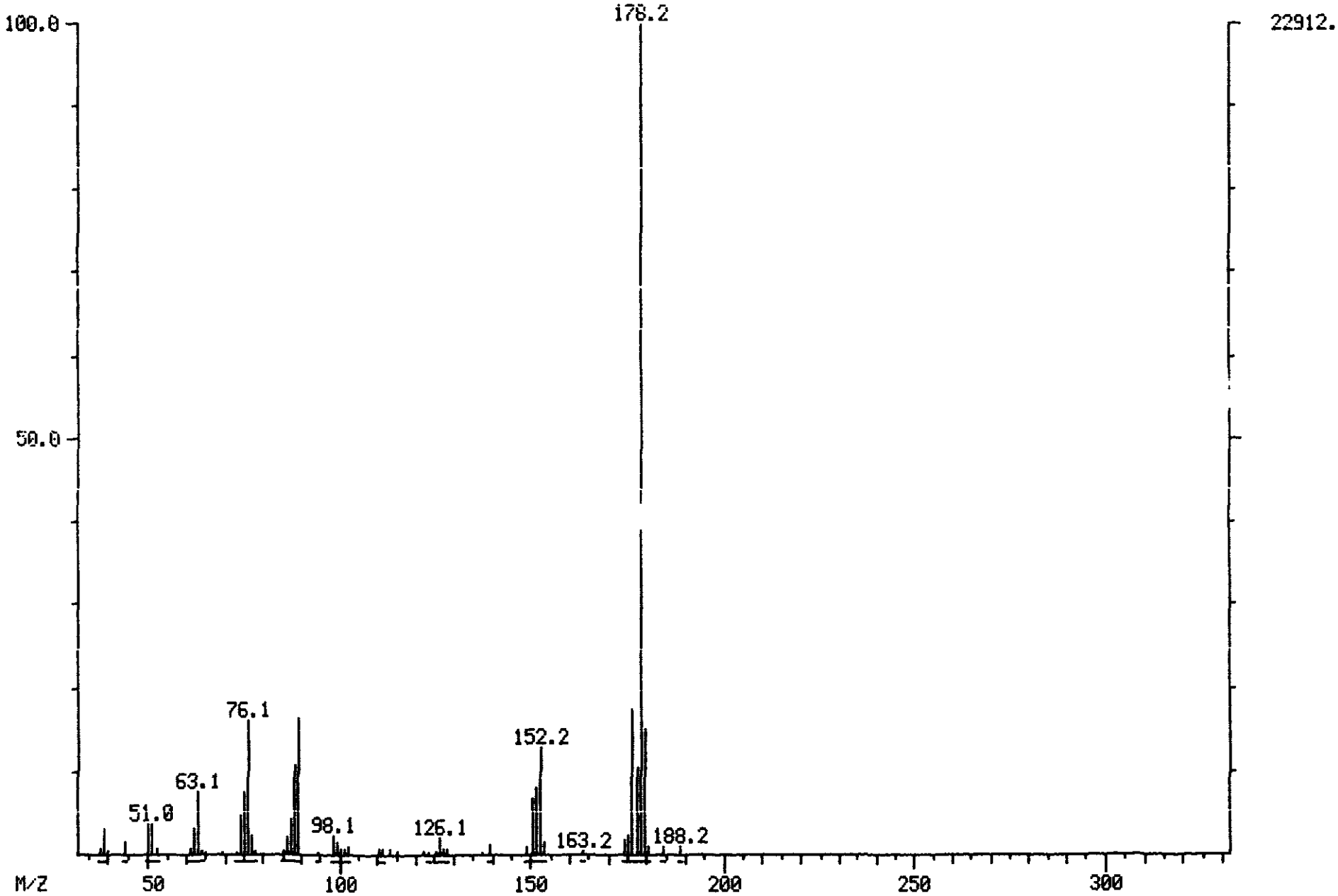
ORIGINAL (Red)

MASS SPECTRUM
05/16/90 22:28:00 + 22:55
SAMPLE: CLP,VERSCDM,2565,11,M,S,16913,R,,420.1 B#4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
** NAME: C640 PHENANTHRENE

DATA: T2629 #1375
CALI: T2629 #2

BASE M/Z: 178
RIC: 66616.

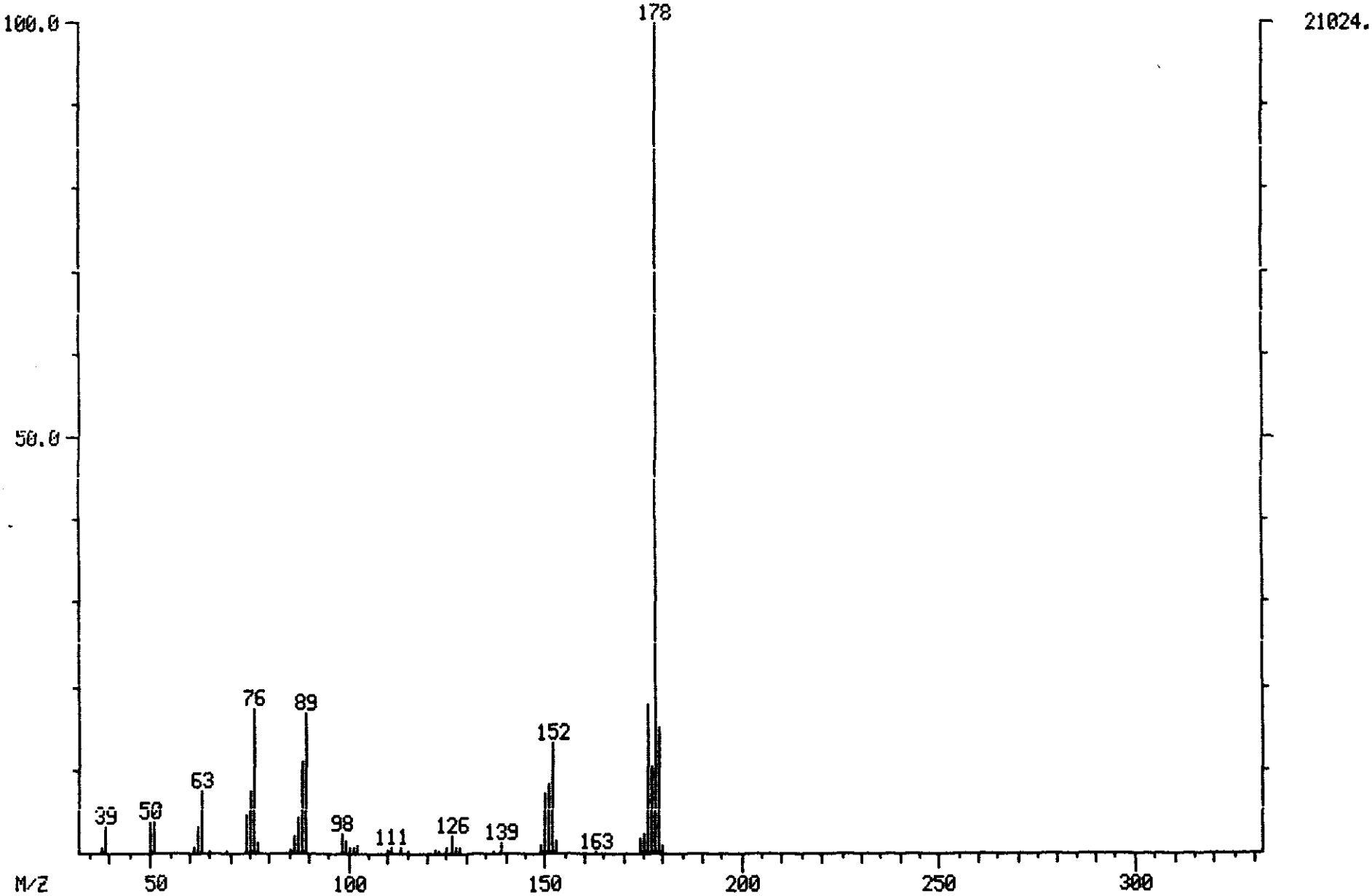
100269



ORIGINAL (Red)

MASS SPECTRUM
05/16/90 22:26:00 + 22:55
SAMPLE: CLP,VERSCDM,2565,11,M,S,16913,B,,420.1 B#4,1UL,
CONDS.: INST T COLUMN=RESTEK 30M RTX-5 4MIN@38C TO 302@8C/MIN
** NAME: C640 PHENANTHRENE
ENHANCED (S 15B 2N 0T)

DATA: T2629 #1375
CALI: T2629 #2

BASE M/Z: 178
RIC: 60736.

100267