WESTON

FORTH QUARTER 1991 PROGRESS REPORT
L.E. CARPENTER SITE, WHARTON, NEW JERSEY

FEB 1992

Prepared on behalf of L.E. Carpenter and Company
for the New Jersey Department of Environmental
Protection and Energy

February 1992

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L.E. CARPENTER QUARTERLY REPORT

1.0 Groundwater Activities

1.1 Groundwater Level Measurement

Water level and product thickness measurements were made at all of the L.E. Carpenter site on 25 November 1991, 18 December 1991 and 20 January 1992. For all monitoring wells except MW-10, the depth-to-water was measured from the top of the innermost casing. The depth-to-water at MW-10 was measured from the top to the PVC cover casing. The corresponding measuring point elevation was corrected to reflect this change in procedure. Water level measurements were also made at eight (8) staff gauges and at the RP-I measurement point. Surface water elevations were determined by measuring the vertical distance between the top of the staff gauge (or paint mark) and the water surface.

A water level measurement could not be made at MW-14D on 20 January 1992 due to the fact that the water in the well was frozen. This problem is expected during the winter months because upward vertical gradients at MW-14D generally result in a water level which is above the surrounding ground surface.

1.2 Groundwater Sampling

Groundwater monitoring wells MW-2 through MW-5 were sampled for volatile organic compounds plus xylene on 18 December 1991. Upon close inspection, MW-1 was found to be damaged. The internal casing was bent so as to prohibit the passage of sampling pumps or bailers. Therefore, this well could not be sampled.

1.3 Monitor Well Installation

One shallow monitoring well (MW-22) was installed on the Wharton Enterprises property and two shallow monitoring wells (MW-23 and MW-24) were installed on the Air Product property between 2 January 1992 and 8 January 1992. Since these wells have not been surveyed, water level measurements from these wells are not included in the data tables presented in Appendix 1, nor have their locations been presented on the equipotential maps presented in Appendix 2. Data from these wells will, however, be included in future quarterly reports.

1.4 Product Recovery

The Enhanced Immiscible Product Recovery System (EIPRS) became fully operational during this quarter. A total of 830 gallons of product was recovered by the system.

2.0 Results

2.1 Groundwater Elevation Data

Groundwater level elevation data for all three measurement rounds are presented in Tables 1, 2 and 3 in Appendix 1. For these data sets, water table depression caused by the floating product layer was corrected using the following equation:

$$DTW_c = DTW_o - \Delta h_{pr} (SG_{pr})$$ [1]

where:

DTW_c = depth to water corrected

DTW_o = depth to water observed

Δh_{pr} = thickness of product

SG_{pr} = specific gravity of product

A value for SG_{pr} of 0.86 was calculated by taking the weighed average specific gravity of the three main components of the product, bis (2-ethylhexyl) phthalate, ethylbenzene and xylene.

Due to the high viscosity of the floating product layer, difficulty was encountered in obtaining accurate product thickness values at MW-11S during the November measurement round (Table 1, Appendix 1), MW-12S during the December measurement round (Table 2, Appendix 1) and at MW-12S during the January measurement round (Table 3, Appendix 1). It is believed that the floating product actually coated the product/water interface probe used to make these measurements, resulting in product readings over the entire length of the well. Although the notation "All Product" was used in the data tables, the actual product thickness at these locations may be substantially less. During the December measurement round, readings of "all product" were also recorded for MW-4 and MW-7. These wells have not featured significant quantities of floating product in previous quarterly reports. MW-4 featured 0.10 and 0.14 feet of floating product during the November and January measurement rounds, respectively, whereas MW-7 did not show any floating product during either of these rounds. Therefore, the "all product" observations in MW-4 and MW-7 for the December measurement round are believed to be the result of a temporary equipment malfunction possibly caused by extreme temperature conditions.

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1 From Tests, S.M. and Weigardner, D.L., 1991. Restoration of Petroleum Contaminated Aquifers, p. 269 Lewis Publishers, Chelsey, Michigan

2.2 Volatile Organic Compound Analytical Results

Volatile organic compound plus xylene (VOC + xylene) analytical results for groundwater samples collected from MW-2 through MW-5 are presented in Appendix 3. These data are summarized in Table 2-1. Toluene was detected at a concentration of 13 ug/L in MW-3. Ethylbenzene was detected at concentrations ranging from 23 ug/L in MW-2 to 2600 ug/L in MW-3. Concentrations of ethylbenzene ranged from 2 J ug/L in MW-5 to 25000 ug/L in MW-3. The high organic compound concentration detected in MW-3 and MW-4 correlate to observations of floating product in these wells at the time of sampling (see Table 2, Appendix 1).

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Table 2-1

Summary of Detected Compounds
Fourth Quarter 1991
L.E. Carpenter Site, Wharton, New Jersey

Parameter	Concentration (in ug/L)			
	MW-2	MW-3	MW-4	MW-5
Toluene	5 U	13	5 U	5 U
Ethylbenzene	23	2600	390	5 U
Xylene	190	25000	1700	2 J

Data Qualifiers

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria, but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection os 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

3.0 Discussion

Figures 1, 3 and 5 (Appendix 2) show shallow groundwater levels which are similar to those presented in the **Third Quarter 1191 Progress Report for L.E. Carpenter Site, Wharton, New Jersey**. The maps represent base flow conditions for the shallow alluvial aquifer. These maps also show that during this season, the Rockaway River is a losing stream and, as such, it acts as a recharge boundary along the southern perimeter of the site. Note that on Figure 1 the water elevation at RP-2 is 625.86 feet above mean sea level (ft. MSL) and the water table elevation at MW-7 is 624.56 ft. MSL. In the area immediately adjacent to the river, the direction of the groundwater flow is toward the site. In the central portion of the site, the general direction of groundwater flow is easterly, parallel to the river. Although this pattern is most dramatic in the shallow aquifer zone, a similar pattern is apparent on the intermediate aquifer zone equipotential map for 25 November 1991 (see Figure 7, Appendix 2). This indicates that at the time of measurement, the recharge zone along the Rockaway River extended vertically through the shallow aquifer zone and into the intermediate aquifer zone. During this period, groundwater flow vectors in the intermediate aquifer zone along the Rockaway River were oriented towards the central portions of the site.

The shallow groundwater flows toward the Air Products drainage ditch in the northeastern area of the site. All three data sets show that the observed water levels in MW-13S, on Air Products side of the ditch, are consistently higher than those measure along the drainage ditch. This confirms that flow in the ditch is sustained by base flow discharge from the shallow zone. Observations presented in geologic logs for MW-2, MW-3, RW-2 and RW-3 (see Appendix 4) indicate that a lens of silty clay extends to the northwest along the drainage ditch (see WESTON, 1992). This unit has also been observed at similar depths on the Wharton Enterprises and Air Products properties. The unit has a high silt and sand content on the L.E. Carpenter property, suggesting that its permeability may be higher there and that the clay is not a confining unit in this area. These observations, in conjunction with the water level observations from the current and current and previous quarterly reports, indicate that the Air Products drainage ditch is in hydraulic communication with the shallow aquifer zone. If this is the case then the ditch acts as a hydrodynamic interceptor of low density organic compound flow off-site onto the Air Products property. It is WESTON's contention that this interpretation is most consistent with the hydrogeologic information and organic compound distribution patterns for the site.

The floating product isopach maps (Figures 2, 4 and 6, Appendix 2) show one main product area centered on MW-11S. Small isolated pockets of product are located at MW-1, MW-3, MW-4 and MW-12S. It can be shown that the operation of the EIPRS is reducing the average product thickness at MW-3. The average product thickness in this well during the third and fourth quarters of 1991 were 0.53 and 0.16 feet, respectively.

These maps continue to support several important conclusions for the site. First, discharge of

groundwater to the Rockaway River during this time period was not possible because recharge was occurring along that boundary and the shallow horizontal groundwater flow vectors along the river were oriented toward the site.

Second, the Air Products drainage ditch is an hydrodynamic barrier and receives shallow groundwater base flow discharges. Shallow groundwater flow on either side of the ditch is oriented toward the ditch. Since the floating organics detected at the site are less dense than water, infiltration on the organics into the intermediate and deep aquifer zones is not likely. The intermediate and deep wells did not show elevated concentrations of organics in any of the sampling which has taken place to date. Therefore, the majority of the organic compounds at the site are confined to the shallow aquifer zone. The Air Product drainage ditch is acting as a hydrochemical interceptor, preventing the flow of organics onto the Air Products property. This interpretation is confirmed by the fact that none of the organic compounds found in monitoring wells installed on the L.E. Carpenter property were detected in well MW-13S (located on the Air Products property) during the remedial investigation sampling activities.

Third, all three deep aquifer zone equipotential maps (Figures 10, 11 and 12, Appendix 2) show that direction of groundwater flow in this zone is westerly. There is no substantial data base to support the contention that dense organic compounds were released to the deep aquifer zone in the past. Even if such a release did occur, off-site flow of these organics onto the Wharton Enterprises or Air Products properties would not be possible because groundwater flow in the deep aquifer zone would carry these compounds back toward the central portion of the L.E. Carpenter property.

4.0 Conclusions

The equipotential maps presented in Appendix 2 illustrate groundwater flow patterns which are similar to those of previous quarterly reports. Discharge of organic compounds to the Rockaway River was not possible during this quarter because the river was acting as a recharge boundary. Conversely, the Air Products drainage ditch was acting as a discharge boundary which prohibited the flow of low density organic compounds from the L.E. Carpenter property onto the Air Products property.

APPENDIX 1

WATER LEVEL DATA TABLES

TABLE 1. DEPTH TO WATER, WATER LEVEL ELEVATION AND PRODUCT THICKNESS DATA, MEASURED ON NOVEMBER 25, 1991, L.E. CARPENTER SITE, WHARTON, NJ.

WELL	MEASURING PT. ELEVATION (FT MSL)	DEPTH TO PRODUCT (FT)	DEPTH TO WATER (FT)	THICKNESS OF PRODUCT (FT)	OBSERVED WATER LEVEL ELEVATION (FT MSL)	CORRECTED WATER LEVEL ELEVATION * (FT MSL)
MW-001	638.97	14.50	15.00	0.50	623.97	624.40
MW-002	633.39		9.50	0.00	623.89	623.89
MW-003	632.27	8.25	8.55	0.30	623.72	623.98
MW-004	632.31	8.25	8.35	0.10	623.96	624.05
MW-005	632.20		7.30	0.00	624.90	624.90
MW-006	632.00		7.28	0.00	624.72	624.72
MW-007	630.68		6.12	0.00	624.56	624.56
MW-008	628.79		3.15	0.00	625.64	625.64
MW-009	630.18		5.00	0.00	625.18	625.18
MW-010**	633.65		9.62	0.00	624.03	624.03
MW-11S	632.96	8.75	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT
MW-11I	632.82		8.60	0.00	624.22	624.22
MW-11D	632.42		6.50	0.00	625.92	625.92
MW-12S	633.18	7.80	8.00	0.20	625.18	625.35
MW-12I	633.06		7.10	0.00	625.96	625.96
MW-13S	631.23		6.30	0.00	624.93	624.93
MW-13I	630.66		6.80	0.00	623.86	623.86
MN-14S	628.51		4.70	0.00	623.81	623.81
MW-14I	628.23		4.40	0.00	623.83	623.83
MW-14D	628.53		2.40	0.00	626.13	626.13
MW-15S	636.77		12.30	0.00	624.47	624.47
MW-15I	636.66		12.25	0.00	624.41	624.41
MW-16S	634.47		9.40	0.00	625.07	625.07
MW-16I	634.96		10.20	0.00	624.76	624.76
MW-17S	634.74		10.30	0.00	624.44	624.44
MW-17D	634.86		10.30	0.00	624.56	624.56
MW-18S	631.26		6.80	0.00	624.46	624.46
MW-18I	631.04		6.55	0.00	624.49	624.49
MW-18D	630.77		6.75	0.00	624.02	624.02
MW-19	638.88		13.70	0.00	625.18	625.18
MW-20	636.77		11.80	0.00	624.97	624.97
MW-21	628.80		5.10	0.00	623.70	623.70
RW-1	637.38		13.00	0.00	624.38	624.38
RW-2	631.68		7.70	0.00	623.98	623.98
RW-3	631.99		7.90	0.00	624.09	624.09
GEI-1I	630.78		6.70	0.00	624.08	624.08
GEI-2S	637.27		12.70	0.00	624.57	624.57
GEI-2I	637.27		12.75	0.00	624.52	624.52
GEI-3I	639.85		14.85	0.00	625.00	625.00

* Estimated water level elevation calculated using a product specific gravity of 0.86.

** Measuring point elevation corrected to top of plastic cover casing.

TABLE 1 CONTINUED. DEPTH TO WATER, WATER LEVEL ELEVATION AND PRODUCT THICKNESS DATA, MEASURED ON NOVEMBER 25, 1991, L.E. CARPENTER SITE, WHARTON, NJ.

MEASURING POINT	ELEVATION OF MEASURING POINT	DEPTH TO WATER	WATER LEVEL ELEVATION
DC-P0	625.73	2.50	623.23
DC-P1	625.26	2.00	623.26
DC-P2	626.79	3.40	623.39
DC-P3	625.22	1.90	623.32
DC-P4	625.10	2.40	622.70
DC-P5	625.16	2.30	622.86
RP-1	629.65	3.15	626.50
RP-2	627.75	1.89	625.86
RP-3	627.11	2.65	624.46
INF. GAL.	630.74	2.7	628.04

TABLE 2. DEPTH TO WATER, WATER LEVEL ELEVATION AND PRODUCT THICKNESS DATA, MEASURED ON DECEMBER 18, 1991, L.E. CARPENTER SITE, WHARTON, NJ.

WELL	MEASURING PT. ELEVATION (FT MSL)	DEPTH TO PRODUCT (FT)	DEPTH TO WATER (FT)	PRODUCT THICKNESS OR SHEEN OBSERVATIONS (FT)	OBSERVED WATER LEVEL ELEVATION (FT MSL)	CORRECTED WATER LEVEL ELEVATION * (FT MSL)
MW-001	638.97	13.66	14.96	1.30	624.01	625.13
MW-002	633.39		9.70	SHEEN	623.69	623.69
MW-003	632.27	7.94	8.14	0.20	624.13	624.30
MW-004	632.31	7.86	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT
MW-005	632.20		7.30	0.00	624.90	624.90
MW-006	632.00	7.40	7.60	0.20	624.40	624.57
MW-007	630.68	5.56	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT
MW-008	628.79		3.14	0.00	625.65	625.65
MW-009	630.18		6.54	0.00	623.64	623.64
MW-010**	633.65	9.18	9.19	0.01	624.46	624.47
MW-11S	632.96	8.30	12.92	4.62	620.04	624.01
MW-11I	632.82		8.26	0.00	624.56	624.56
MW-11D	632.42		5.82	0.00	626.60	626.60
MW-12S	633.18	8.80	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT
MW-12I	633.06		8.52	0.00	624.54	624.54
MW-13S	631.23		6.50	0.00	624.73	624.73
MW-13I	630.66		6.32	0.00	624.34	624.34
MN-14S	628.51		4.30	0.00	624.21	624.21
MW-14I	628.23		3.96	0.00	624.27	624.27
MW-14D	628.53		2.04	0.00	626.49	626.49
MW-15S	636.77		12.76	0.00	624.01	624.01
MW-15I	636.66		11.85	0.00	624.81	624.81
MW-16S	634.47		9.10	0.00	625.37	625.37
MW-16I	634.96		9.62	0.00	625.34	625.34
MW-17S	634.74		9.76	0.00	624.98	624.98
MW-17D	634.86		9.82	0.00	625.04	625.04
MW-18S	631.26		6.60	0.00	624.66	624.66
MW-18I	631.04		6.18	0.00	624.86	624.86
MW-18D	630.77		4.91	0.00	625.86	625.86
MW-19	638.88		13.10	0.00	625.78	625.78
MW-20	636.77		11.36	0.00	625.41	625.41
MW-21	628.80		4.78	0.00	624.02	624.02
RW-1	637.38		12.52	SHEEN	624.86	624.86
RW-2	631.68	7.32	7.38	0.06	624.30	624.35
RW-3	631.99		7.52	0.00	624.47	624.47
GEI-1I	630.78		5.86	0.00	624.92	624.92
GEI-2S	637.27		12.04	0.00	625.23	625.23
GEI-2I	637.27		12.20	0.00	625.07	625.07
GEI-3I	639.85		14.40	0.00	625.45	625.45

* Estimated water level elevation calculated using a product specific gravity of 0.86.

** Measuring point elevation corrected to top of plastic cover casing.

TABLE 2 CONTINUED. DEPTH TO WATER, WATER LEVEL ELEVATION AND PRODUCT THICKNESS DATA, MEASURED ON DECEMBER 18, 1991, L.E. CARPENTER SITE, WHARTON, NJ.

MEASURING POINT	ELEVATION OF MEASURING POINT	DEPTH TO WATER	WATER LEVEL ELEVATION
DC-P0	625.73	2.40	623.33
DC-P1	625.26	2.00	623.26
DC-P2	626.79	3.20	623.59
DC-P3	625.22	1.90	623.32
DC-P4	625.10	2.20	622.90
DC-P5	625.16	2.20	622.96
RP-1	629.65	3.19	626.46
RP-2	627.75	1.83	625.92
RP-3	627.11	2.71	624.40
INF. GAL.	630.74	2.42	628.32

TABLE 3. DEPTH TO WATER, WATER LEVEL ELEVATION AND PRODUCT THICKNESS DATA, MEASURED ON JANUARY 20, 1992, L.E. CARPENTER SITE, WHARTON, NJ.

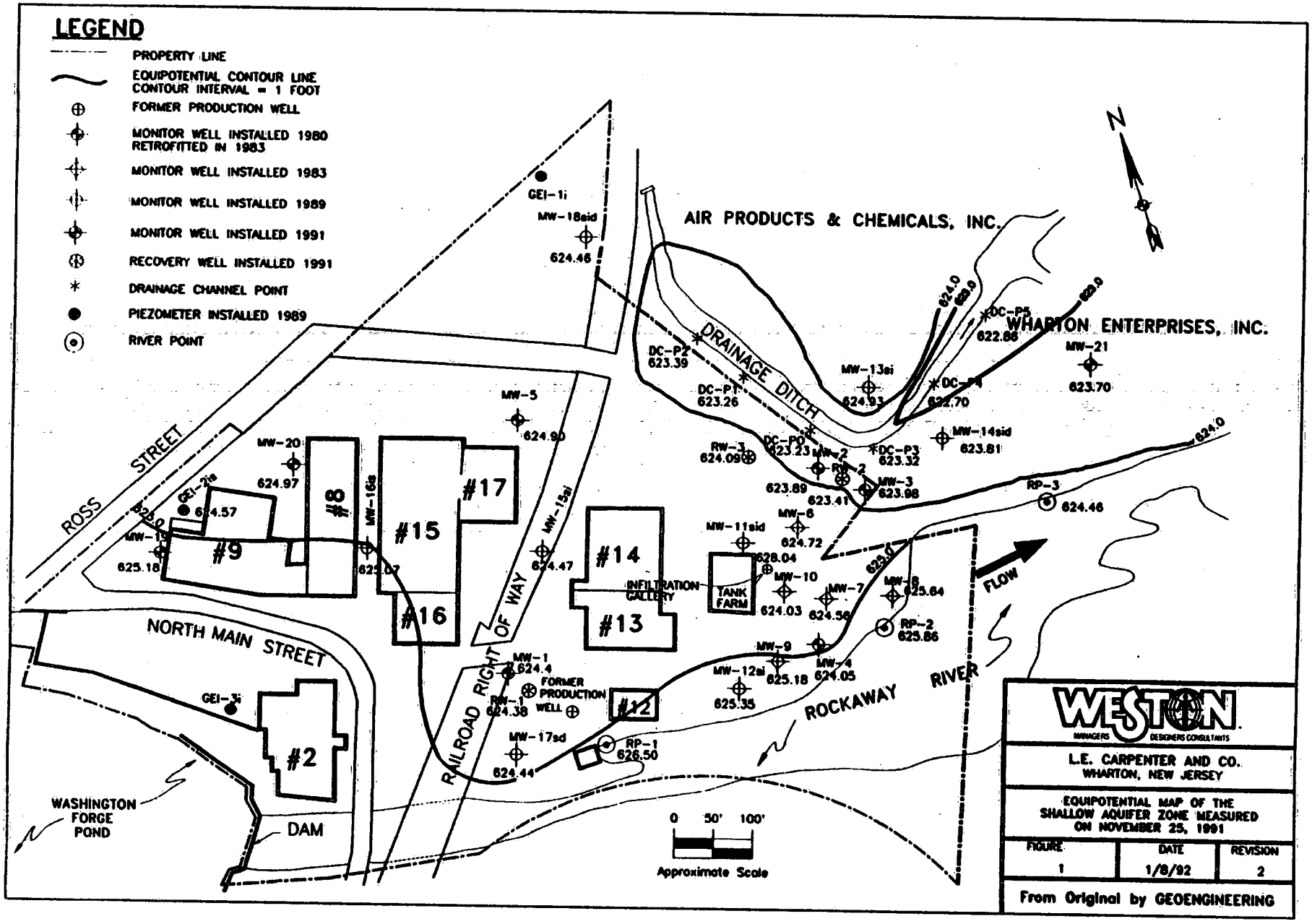
WELL	MEASURING PT. ELEVATION (FT MSL)	DEPTH TO PRODUCT (FT)	DEPTH TO WATER (FT)	PRODUCT THICKNESS OR SHEEN OBSERVATIONS (FT)	OBSERVED WATER LEVEL ELEVATION (FT MSL)	CORRECTED WATER LEVEL ELEVATION * (FT MSL)
MW-001	638.97	14.10	15.13	1.03	623.84	624.73
MW-002	633.39		9.10	SHEEN	624.29	624.29
MW-003	632.27		8.10	0.00	624.17	624.17
MW-004	632.31	7.86	8.00	0.14	624.31	624.43
MW-005	632.20		7.35	0.00	624.85	624.85
MW-006	632.00	7.40	7.42	0.02	624.58	624.60
MW-007	630.68		5.85	0.00	624.83	624.83
MW-008	628.79		3.50	0.00	625.29	625.29
MW-009	630.18		5.20	0.00	624.98	624.98
MW-010	633.65		8.89	0.00	624.76	624.76
MW-11S	632.96	8.41	13.75	5.34	619.21	623.80
MW-11I	632.82		8.38	0.00	624.44	624.44
MW-11D	632.42		5.68	0.00	626.74	626.74
MW-12S	633.18	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT
MW-12I	633.06		8.72	0.00	624.34	624.34
MW-13S	631.23		6.82	0.00	624.41	624.41
MW-13I	630.66		6.45	0.00	624.21	624.21
MN-14S	628.51		4.30	0.00	624.21	624.21
MW-14I	628.23		4.12	0.00	624.11	624.11
MW-14D	628.53		FROZEN	FROZEN	FROZEN	FROZEN
MW-15S	636.77		12.12	0.00	624.65	624.65
MW-15I	636.66		12.50	0.00	624.16	624.16
MW-16S	634.47		9.26	0.00	625.21	625.21
MW-16I	634.96		9.67	0.00	625.29	625.29
MW-17S	634.74		9.81	0.00	624.93	624.93
MW-17D	634.86		10.10	0.00	624.76	624.76
MW-18S	631.26		6.50	0.00	624.76	624.76
MW-18I	631.04		6.21	0.00	624.83	624.83
MW-18D	630.77		4.63	0.00	626.14	626.14
MW-019	638.88		13.21	0.00	625.67	625.67
MW-020	636.77		11.50	0.00	625.27	625.27
MW-021	628.80		4.89	0.00	623.91	623.91
RW-001	637.38		12.41	0.00	624.97	624.97
RW-002	631.68		7.64	0.00	624.04	624.04
RW-003	631.99		7.62	0.00	624.37	624.37
GEI-1I	630.78		5.90	0.00	624.88	624.88
GEI-2S	637.27		12.12	0.00	625.15	625.15
GEI-2I	637.27		12.33	0.00	624.94	624.94
GEI-3I	639.85		14.45	0.00	625.40	625.40

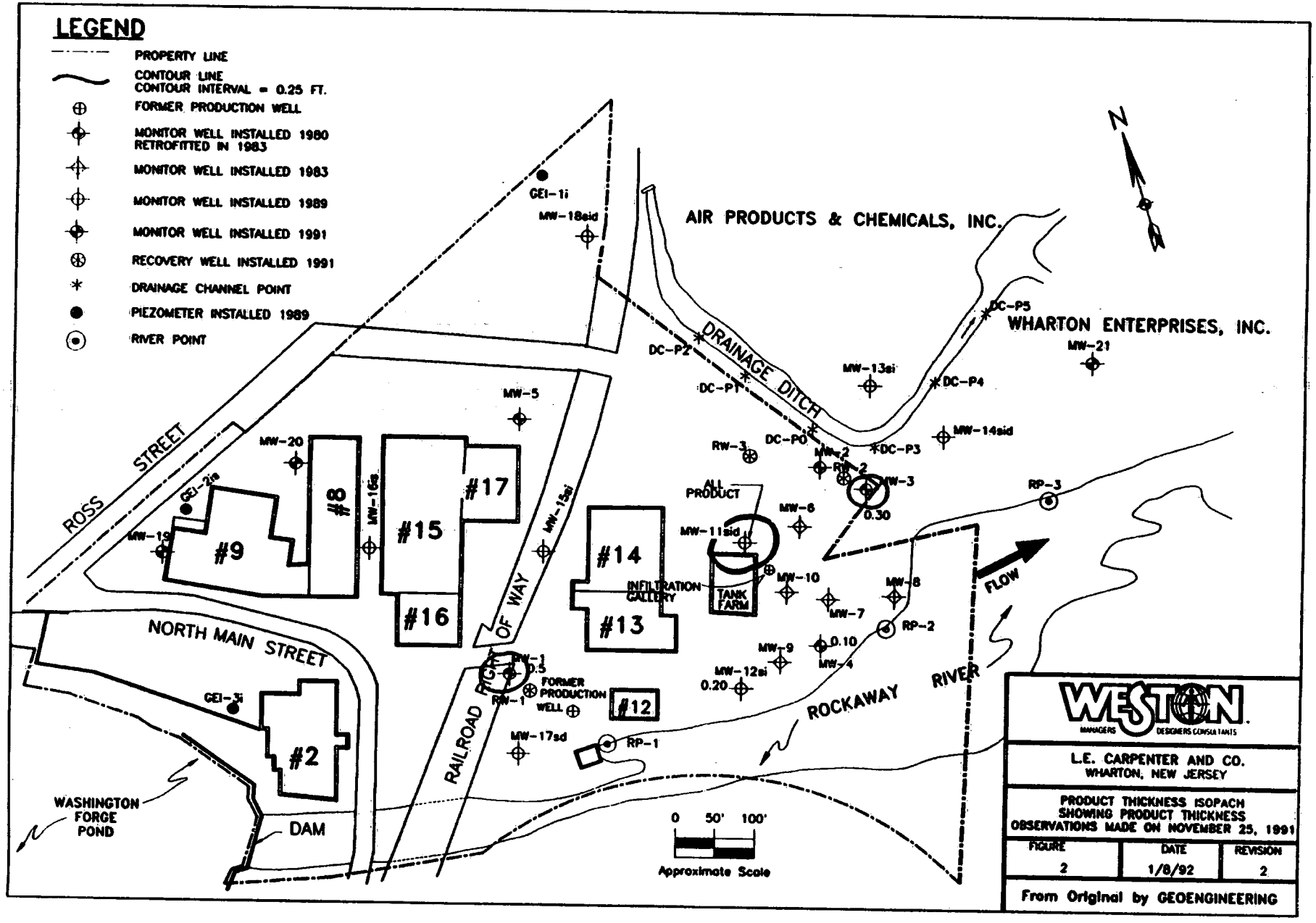
TABLE 3 CONTINUED. DEPTH TO WATER, WATER LEVEL ELEVATION AND PRODUCT THICKNESS DATA, MEASURED ON JANUARY 20, 1992, L.E. CARPENTER SITE, WHARTON, NJ.

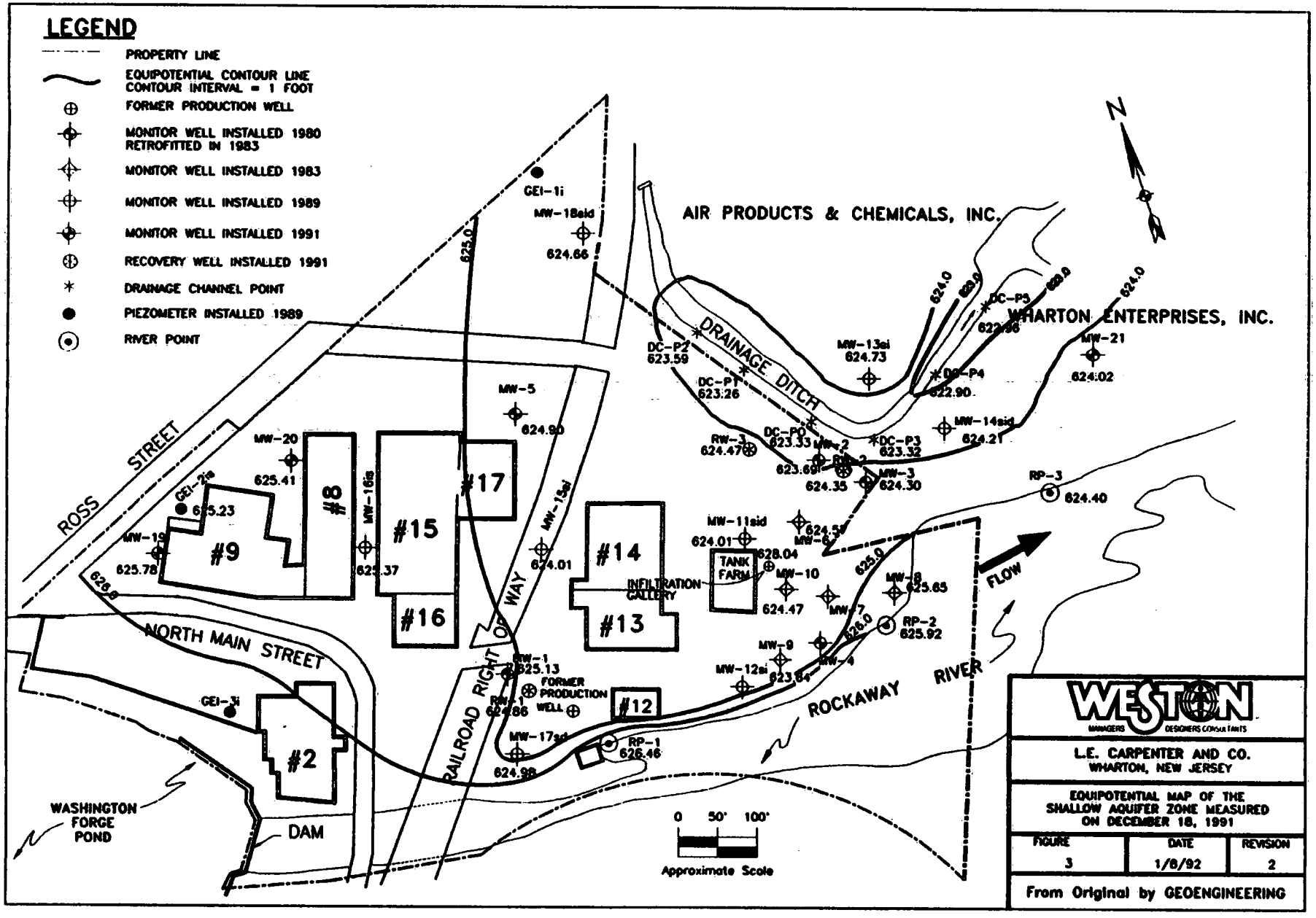
MEASURING POINT	ELEVATION OF MEASURING POINT	DEPTH TO WATER	WATER LEVEL ELEVATION
DC-P0	625.73	1.90	623.83
DC-P1	625.26	1.91	623.35
DC-P2	626.79	2.43	624.36
DC-P3	625.22	1.93	623.29
DC-P4	625.10	2.43	622.67
DC-P5	625.16	2.93	622.23
RP-01	629.65	3.00	626.65
RP-02	627.75	1.90	625.85
RP-03	627.11	2.60	624.51

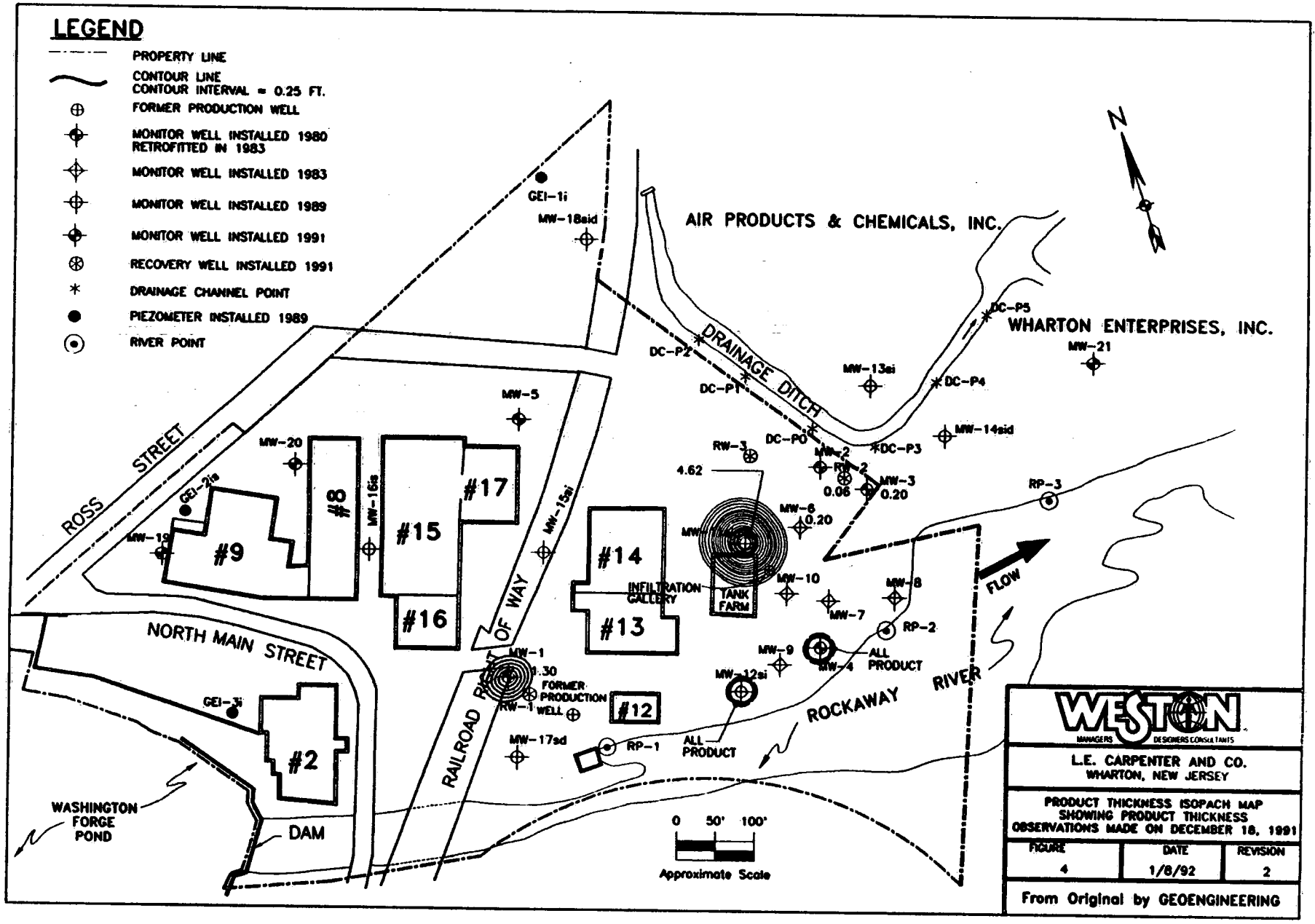
APPENDIX 2

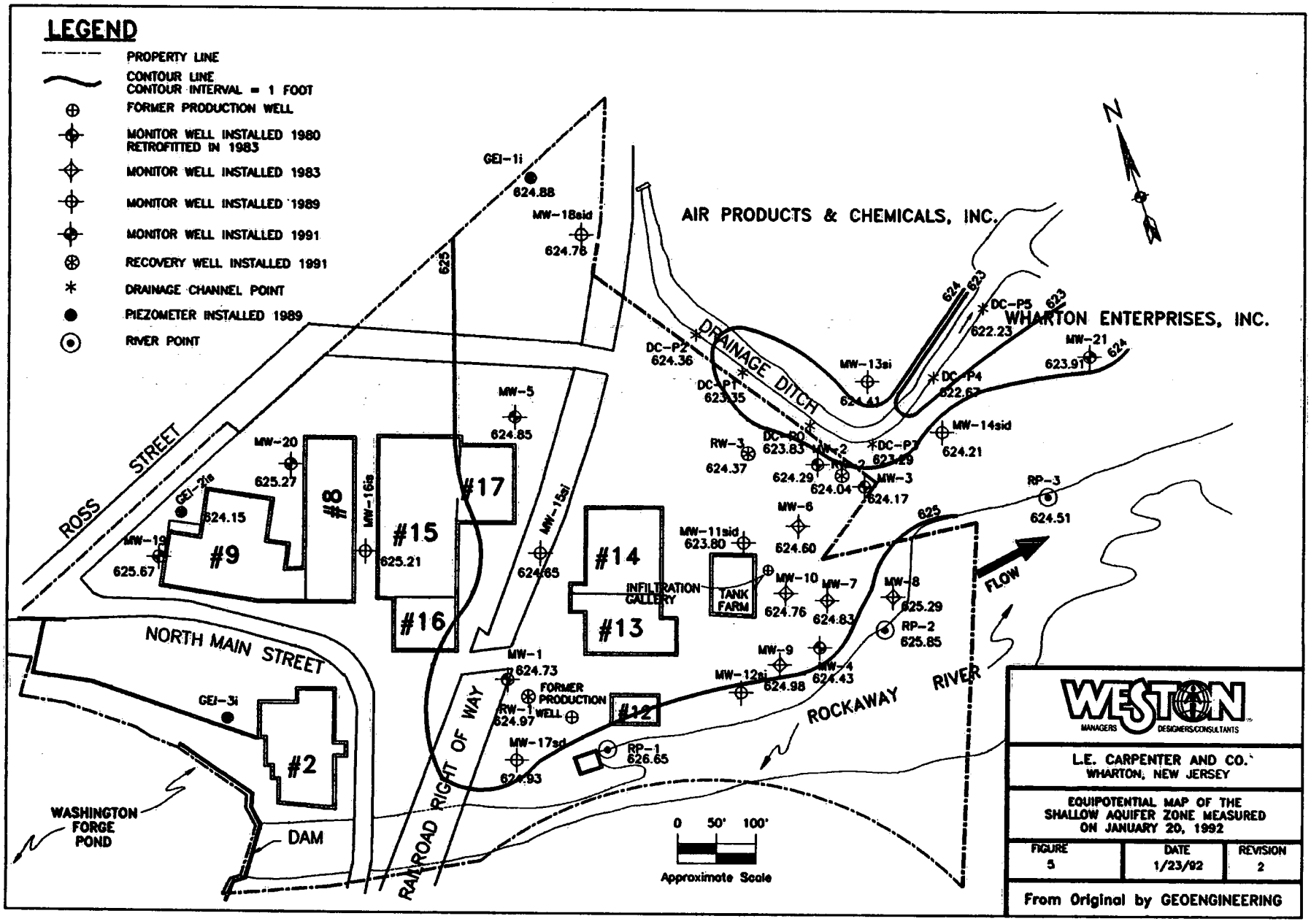
EQUIPOTENTIAL MAPS

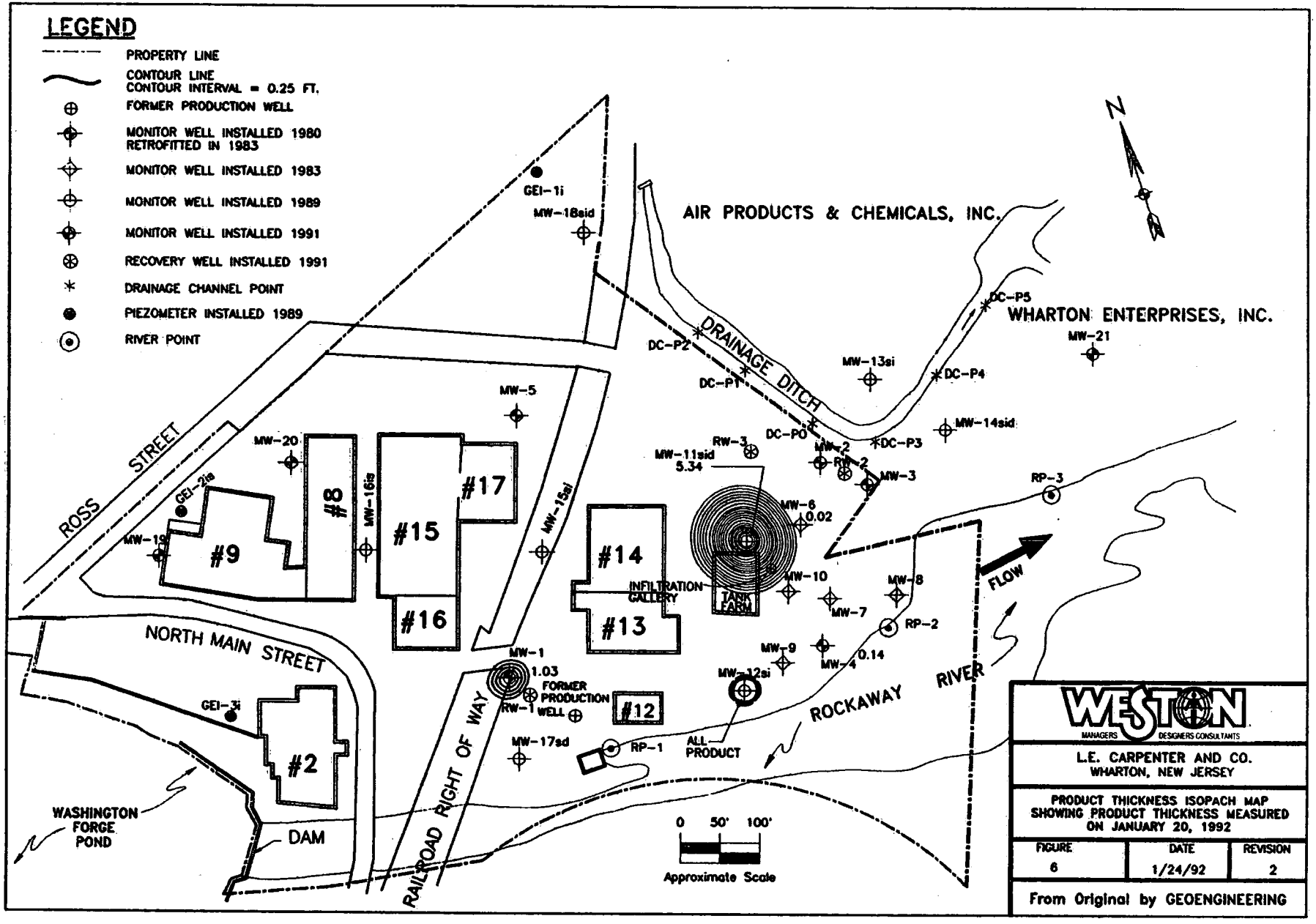

LEGEND
PROPERTY LINE
EQUIPOTENTIAL CONTOUR LINE CONTOUR INTERVAL = 1 FOOT
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980 RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
MONITOR WELL INSTALLED 1991
RECOVERY WELL INSTALLED 1991
DRAINAGE CHANNEL POINT
PIEZOMETER INSTALLED 1989
RIVER POINT
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
DRAINAGE DITCH
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
FLOW
WASHINGTON FORGE POND
DAM
INFILTRATION GALLERY
TANK FARM
FORMER PRODUCTION WELL
#2
#8
#9
#13
#14
#15
#16
#17
GEI-1i
MW-18sid
624.46
MW-5
624.90
MW-20
624.97
GEI-2ia
624.57
MW-19
625.18
MW-16ia
625.07
MW-15ai
624.47
GEI-3i
MW-1
624.4
RW-1
624.38
MW-17sd
624.44
RP-1
626.50
MW-12ai
625.35
MW-9
625.18
MW-4
624.05
RP-2
625.86
MW-8
625.64
MW-7
624.58
MW-10
624.03
MW-11sid
628.04
MW-6
624.72
RW-2
623.89
MW-2
623.41
MW-3
623.98
RW-3
624.09
DC-P0
623.23
DC-P1
623.26
DC-P2
623.39
DC-P3
623.32
DC-P4
622.70
DC-P5
622.86
MW-13ai
624.93
MW-14sid
623.81
MW-21
623.70
RP-3
624.46
624.0
625.0
N
0 50' 100'
Approximate Scale
WESTON
MANAGERS DESIGNERS CONSULTANTS
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP OF THE SHALLOW AQUIFER ZONE MEASURED ON NOVEMBER 25, 1991
FIGURE 1
DATE 1/8/92
REVISION 2
From Original by GEOENGINEERING

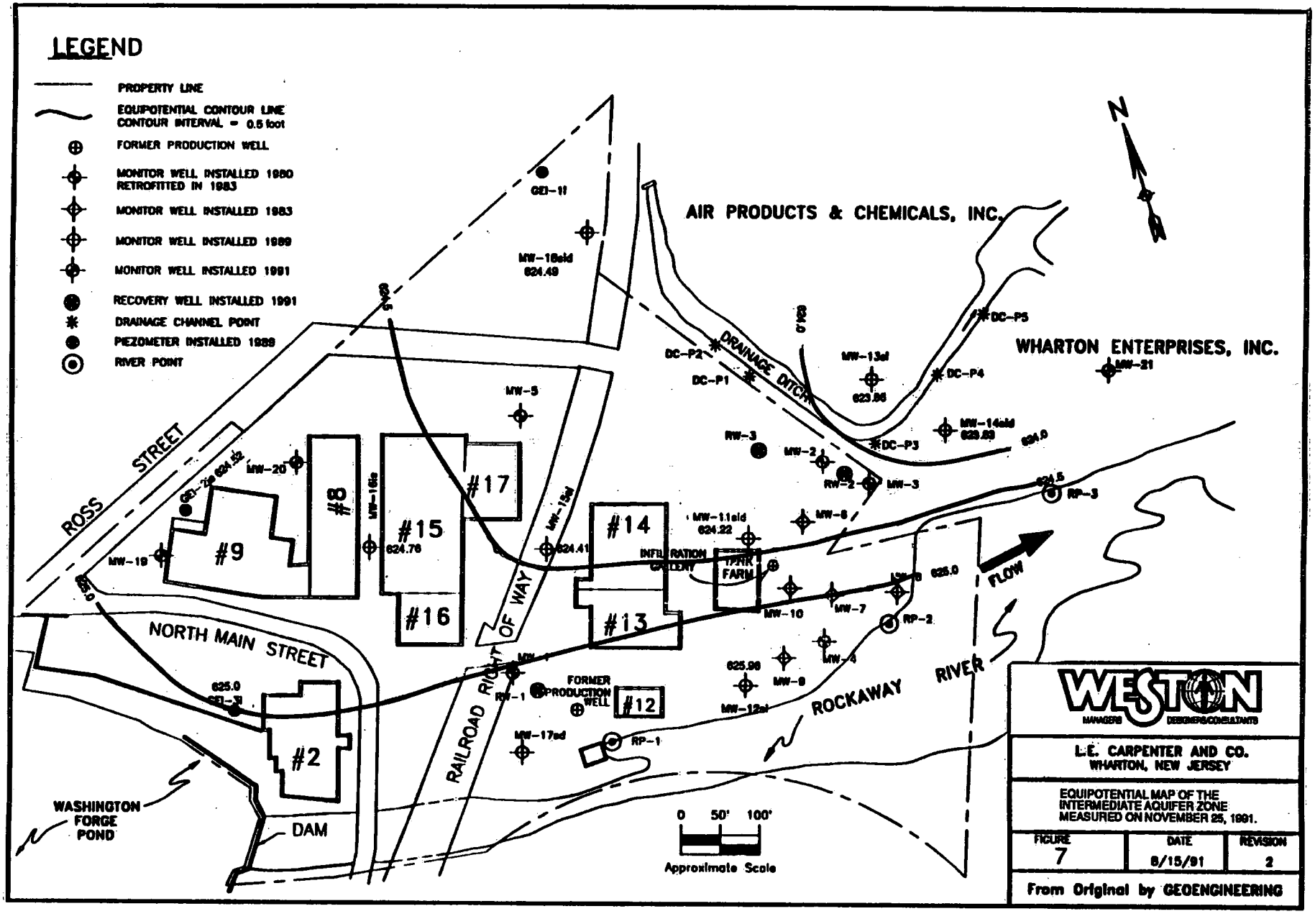

LEGEND
PROPERTY LINE
CONTOUR LINE
CONTOUR INTERVAL = 0.25 FT.
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980 RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
MONITOR WELL INSTALLED 1991
RECOVERY WELL INSTALLED 1991
DRAINAGE CHANNEL POINT
PIEZOMETER INSTALLED 1989
RIVER POINT
N
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
DRAINAGE DITCH
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
FLOW
WASHINGTON FORGE POND
DAM
#2
#8
#9
#12
#13
#14
#15
#16
#17
TANK FARM
INFILTRATION GALLERY
ALL PRODUCT
FORMER PRODUCTION WELL
GEI-1i
MW-18sid
MW-5
MW-20
GEI-2is
MW-19
MW-16s
MW-15si
MW-13si
MW-14sid
MW-21
DC-P5
DC-P4
DC-P3
DC-P2
DC-P1
DC-P0
RW-3
RW-2
MW-2
MW-3
0.30
RP-3
MW-6
MW-11sid
MW-10
MW-8
MW-7
RP-2
0.10
MW-4
MW-9
MW-12si
0.20
RW-1
0.5
GEI-3i
MW-17sd
RP-1
0 50' 100'
Approximate Scale
WESTON
MANAGERS DESIGNERS CONSULTANTS
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
PRODUCT THICKNESS ISOPACH
SHOWING PRODUCT THICKNESS
OBSERVATIONS MADE ON NOVEMBER 25, 1991
FIGURE 2
DATE 1/8/92
REVISION 2
From Original by GEOENGINEERING

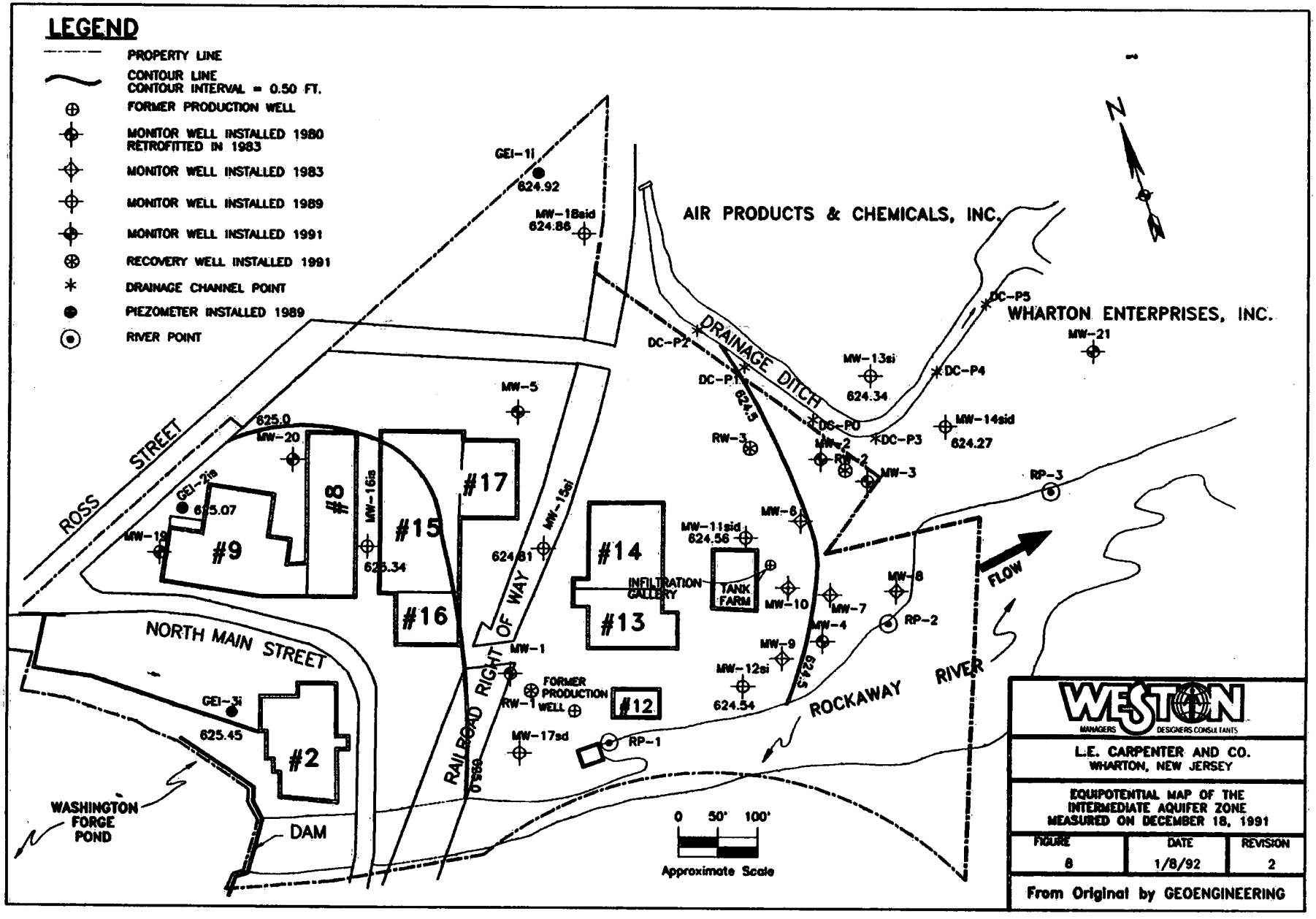

LEGEND
PROPERTY LINE
EQUIPOTENTIAL CONTOUR LINE CONTOUR INTERVAL = 1 FOOT
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980 RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
MONITOR WELL INSTALLED 1991
RECOVERY WELL INSTALLED 1991
DRAINAGE CHANNEL POINT
PIEZOMETER INSTALLED 1989
RIVER POINT
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
DRAINAGE DITCH
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
FLOW
WASHINGTON FORGE POND
DAM
#2
#9
#8
#15
#16
#17
#14
#13
#12
TANK FARM
INFILTRATION GALLERY
FORMER PRODUCTION WELL
GEI-1i
MW-18sid
624.66
MW-5
624.90
MW-20
625.41
GEI-2i
625.23
MW-19
625.78
MW-16s
625.37
MW-15s
624.01
MW-13si
624.73
MW-21
624.02
MW-14sid
624.21
DC-P2
623.59
DC-P1
623.26
DC-P0
623.33
DC-P3
623.32
DC-P4
622.90
DC-P5
RW-3
624.47
MW-2
623.69
MW-3
624.35
624.30
MW-11sid
624.01
MW-10
624.47
MW-8
625.65
MW-7
MW-9
MW-12si
623.84
MW-4
RP-1
626.46
RP-2
625.92
RP-3
624.40
MW-1
625.13
MW-17sd
624.98
GEI-3i
0 50' 100'
Approximate Scale
WESTON
MANAGERS DESIGNERS CONSULTANTS
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP OF THE SHALLOW AQUIFER ZONE MEASURED ON DECEMBER 18, 1991
FIGURE 3
DATE 1/8/92
REVISION 2
From Original by GEOENGINEERING

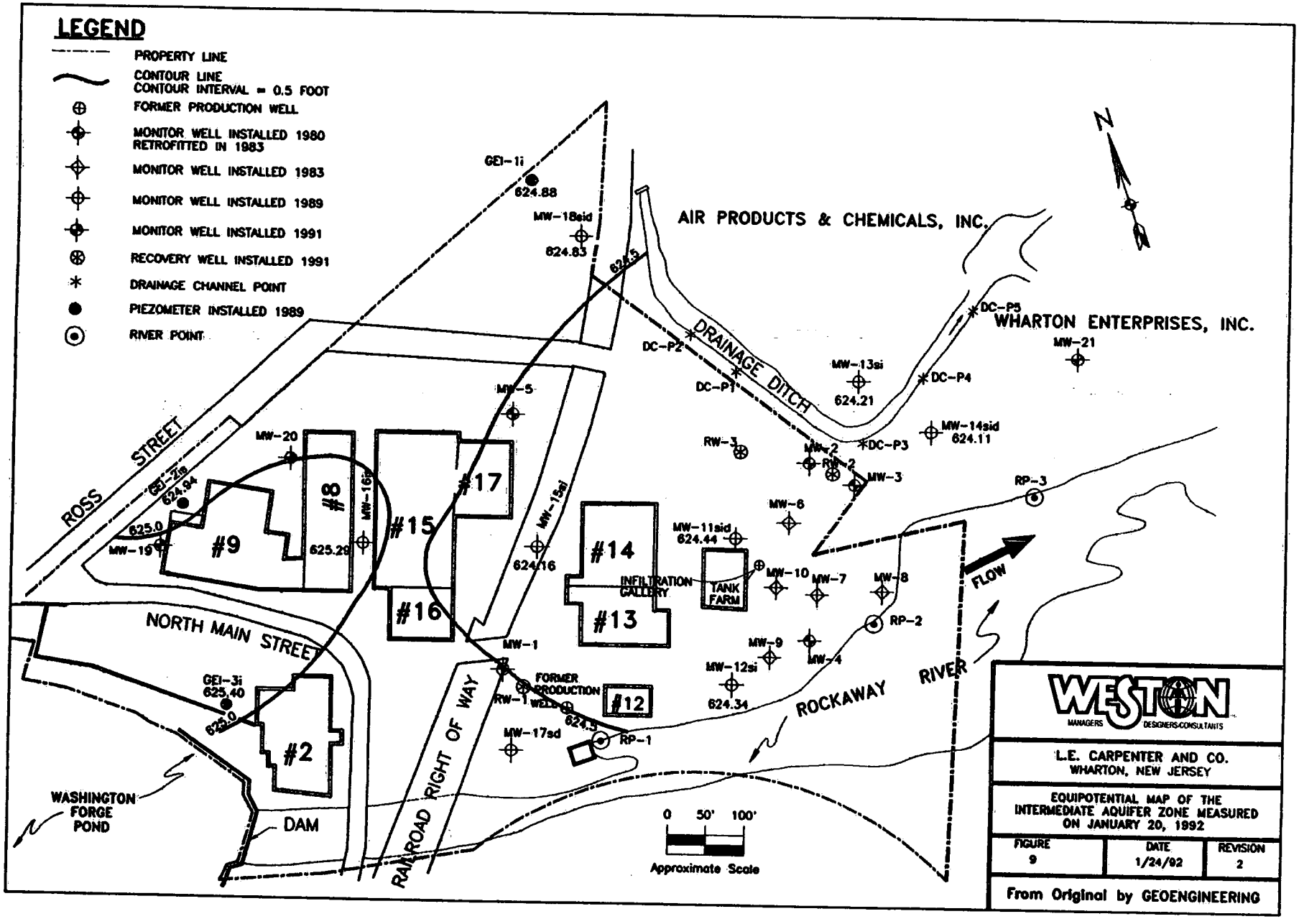

LEGEND
PROPERTY LINE
CONTOUR LINE
CONTOUR INTERVAL = 0.25 FT.
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980 RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
MONITOR WELL INSTALLED 1991
RECOVERY WELL INSTALLED 1991
DRAINAGE CHANNEL POINT
PIEZOMETER INSTALLED 1989
RIVER POINT
N
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
DRAINAGE DITCH
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
FLOW
WASHINGTON FORGE POND
DAM
#2
#8
#9
#12
#13
#14
#15
#16
#17
TANK FARM
INFILTRATION GALLERY
ALL PRODUCT
FORMER PRODUCTION WELL
GEI-1i
MW-18sid
MW-5
MW-20
GEI-2is
MW-19
MW-16is
MW-15si
MW-13si
MW-14sid
MW-21
DC-P1
DC-P2
DC-P3
DC-P4
DC-P5
DC-P0
RW-3
RW-2
MW-2
MW-3
MW-6
MW-10
MW-8
MW-7
MW-9
MW-4
MW-12si
MW-1
RW-1
MW-17sd
RP-1
RP-2
RP-3
GEI-3i
4.62
0.06
0.20
0.20
1.30
0 50' 100'
Approximate Scale
WESTON
MANAGERS DESIGNERS CONSULTANTS
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
PRODUCT THICKNESS ISOPACH MAP
SHOWING PRODUCT THICKNESS
OBSERVATIONS MADE ON DECEMBER 18, 1991
FIGURE 4
DATE 1/8/92
REVISION 2
From Original by GEOENGINEERING

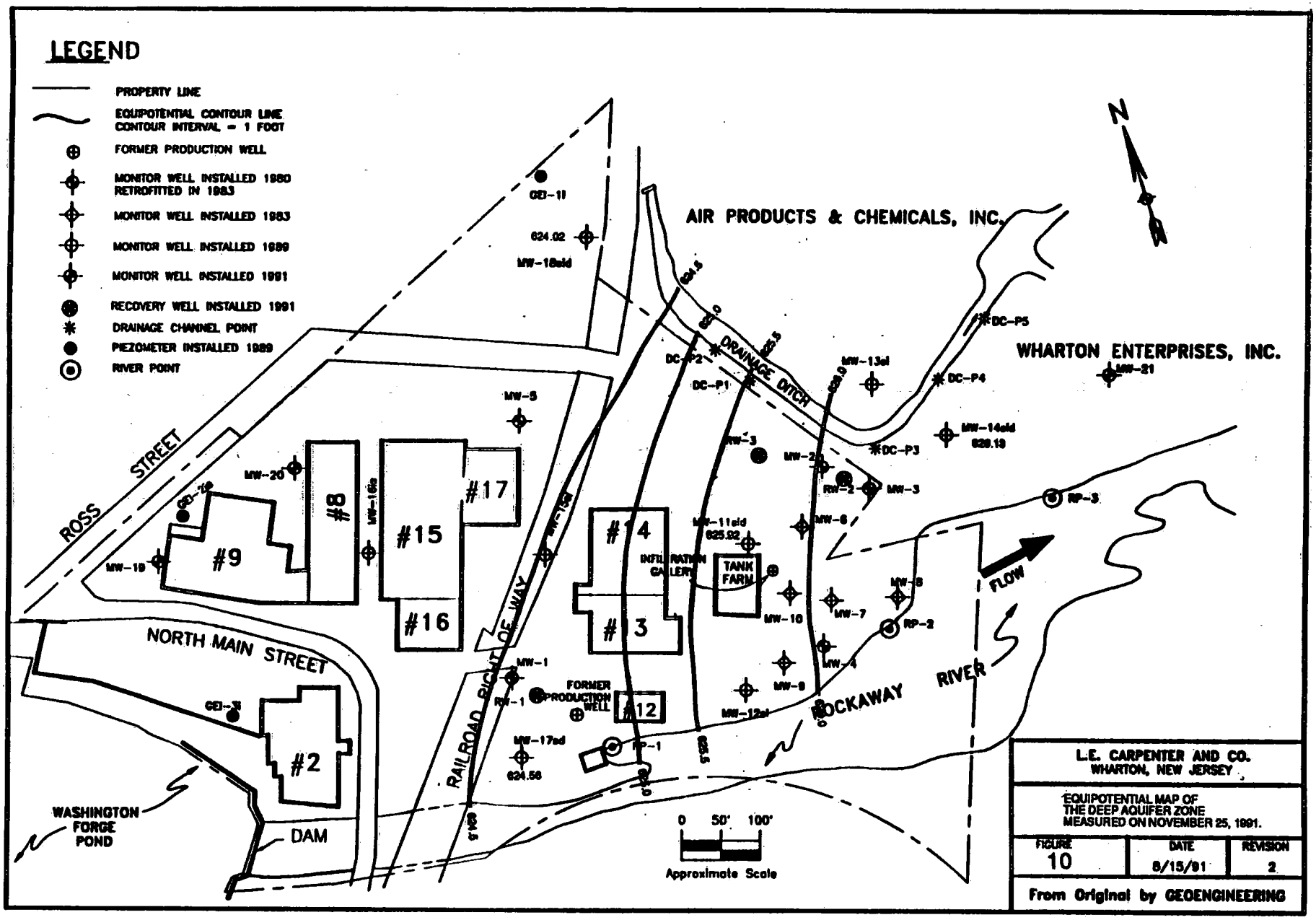

LEGEND
PROPERTY LINE
CONTOUR LINE
CONTOUR INTERVAL = 1 FOOT
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980
RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
MONITOR WELL INSTALLED 1991
RECOVERY WELL INSTALLED 1991
DRAINAGE CHANNEL POINT
PIEZOMETER INSTALLED 1989
RIVER POINT
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
DRAINAGE DITCH
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
FLOW
WASHINGTON FORGE POND
DAM
INFILTRATION GALLERY
TANK FARM
FORMER PRODUCTION WELL
#2
#8
#9
#12
#13
#14
#15
#16
#17
GEI-1i 624.88
MW-18sid 624.76
MW-5 624.85
MW-20 625.27
GEI-2i
624.15
MW-19 625.67
MW-16is 625.21
MW-15si 624.65
GEI-3i
MW-1 624.73
RW-1 624.97
MW-17sd 624.93
RP-1 626.65
MW-11sid 623.80
MW-10 624.76
MW-7 624.83
MW-6 624.60
MW-9
MW-12si 624.98
MW-4 624.43
MW-8 625.29
RP-2 625.85
RP-3 624.51
MW-13si 624.41
DC-P2 624.36
DC-P1 623.35
DC-P3 623.83
DC-P7 623.29
DC-P5 622.23
DC-P4 622.67
MW-21 623.91
MW-14sid 624.21
RW-3 624.37
MW-2 624.29
RW-2 624.04
MW-3 624.17
625
624
623
N
0 50' 100'
Approximate Scale
WESTON
MANAGERS DESIGNERS/CONSULTANTS
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP OF THE SHALLOW AQUIFER ZONE MEASURED ON JANUARY 20, 1992
FIGURE 5
DATE 1/23/92
REVISION 2
From Original by GEOENGINEERING

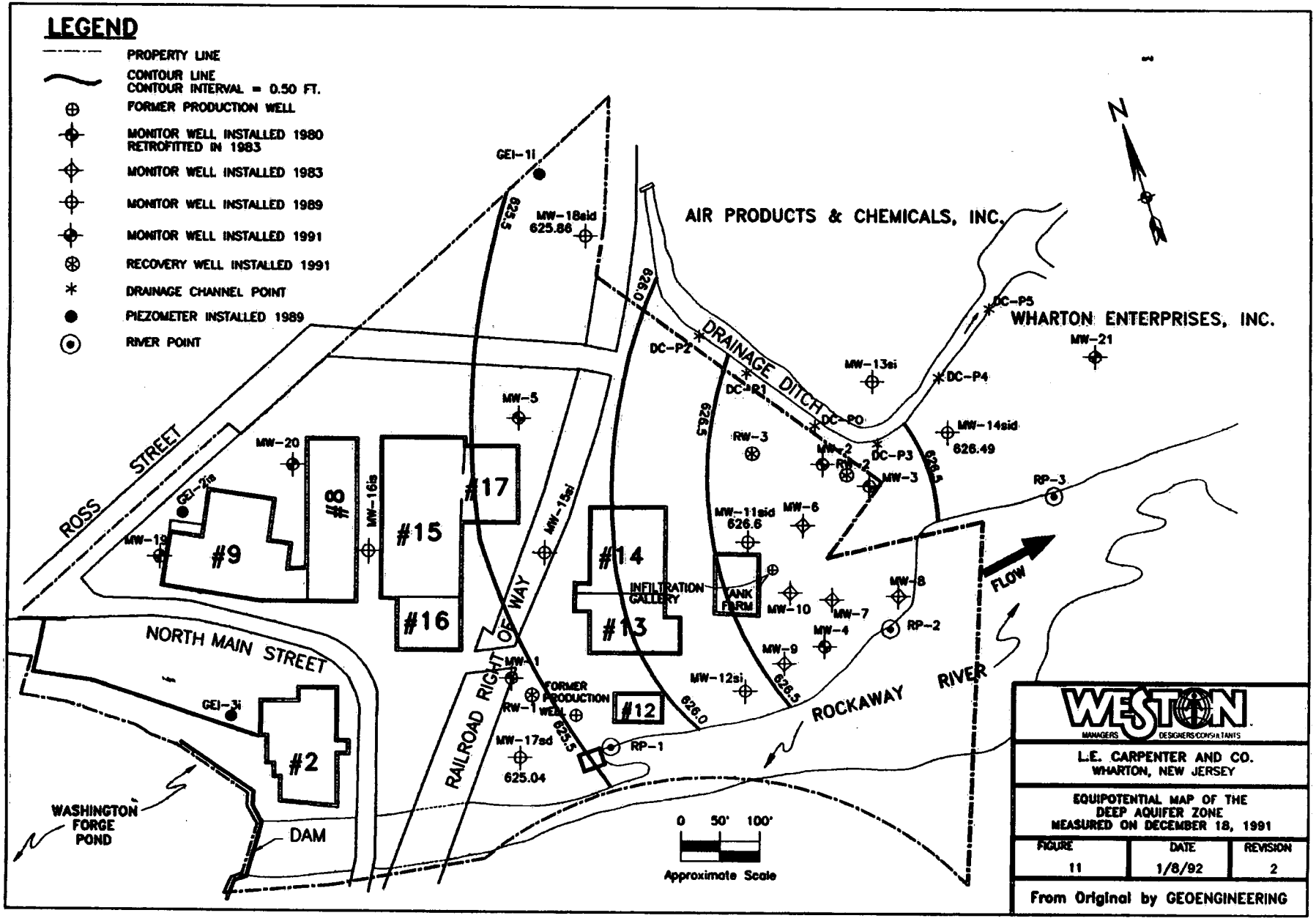

LEGEND
PROPERTY LINE
CONTOUR LINE
CONTOUR INTERVAL = 0.25 FT.
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980 RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
MONITOR WELL INSTALLED 1991
RECOVERY WELL INSTALLED 1991
DRAINAGE CHANNEL POINT
PIEZOMETER INSTALLED 1989
RIVER POINT
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
DRAINAGE DITCH
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
FLOW
WASHINGTON FORGE POND
DAM
#2
#8
#9
#12
#13
#14
#15
#16
#17
INFILTRATION GALLERY
TANK FARM
ALL PRODUCT
FORMER PRODUCTION WELL
GEI-1i
MW-18sid
MW-5
MW-20
GEI-2is
MW-19
MW-16is
MW-15si
MW-11sid
5.34
RW-3
RW-2
MW-2
MW-3
MW-6
0.02
MW-10
MW-7
MW-8
MW-9
MW-4
0.14
MW-12si
MW-1
1.03
RW-1
MW-17sd
RP-1
RP-2
RP-3
GEI-3i
DC-P0
DC-P1
DC-P2
DC-P3
DC-P4
DC-P5
MW-13si
MW-14sid
MW-21
N
0 50' 100'
Approximate Scale
WESTON
MANAGERS DESIGNERS CONSULTANTS
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
PRODUCT THICKNESS ISOPACH MAP
SHOWING PRODUCT THICKNESS MEASURED
ON JANUARY 20, 1992
FIGURE 6
DATE 1/24/92
REVISION 2
From Original by GEOENGINEERING

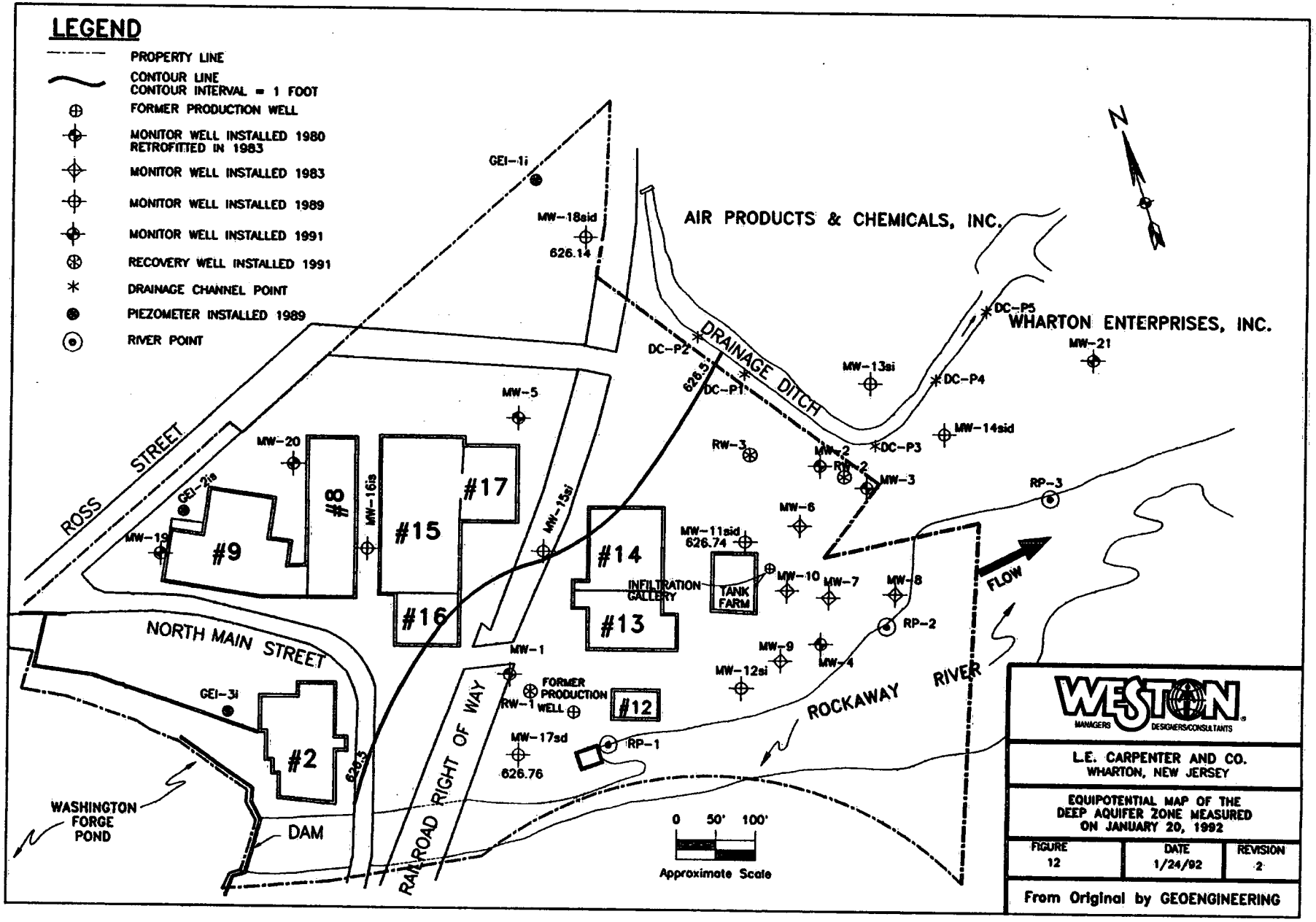

LEGEND
PROPERTY LINE
EQUIPOTENTIAL CONTOUR LINE
CONTOUR INTERVAL = 0.5 foot
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980
RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
MONITOR WELL INSTALLED 1991
RECOVERY WELL INSTALLED 1991
DRAINAGE CHANNEL POINT
PIEZOMETER INSTALLED 1989
RIVER POINT
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
DRAINAGE DITCH
ROCKAWAY RIVER
FLOW
WASHINGTON FORGE POND
DAM
INFILTRATION GALLERY
TANK FARM
FORMER PRODUCTION WELL
#2
#8
#9
#12
#13
#14
#15
#16
#17
GEI-1I
MW-18sid
624.49
MW-5
MW-20
MW-19
MW-16is
624.76
MW-15sl
624.41
MW-11sid
624.22
MW-13sl
623.86
MW-14sid
623.83
MW-21
DC-P1
DC-P2
DC-P3
DC-P4
DC-P5
RW-1
RW-2
RW-3
MW-2
MW-3
MW-4
MW-6
MW-7
MW-9
MW-10
MW-12sl
MW-17sd
RP-1
RP-2
RP-3
625.0
625.96
624.0
624.5
0 50' 100'
Approximate Scale
WESTON
MANAGERS DESIGNERS/CONSULTANTS
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP OF THE INTERMEDIATE AQUIFER ZONE MEASURED ON NOVEMBER 25, 1991.
FIGURE 7
DATE 8/15/91
REVISION 2
From Original by GEOENGINEERING


LEGEND
PROPERTY LINE
CONTOUR LINE
CONTOUR INTERVAL = 0.50 FT.
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980 RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
MONITOR WELL INSTALLED 1991
RECOVERY WELL INSTALLED 1991
DRAINAGE CHANNEL POINT
PIEZOMETER INSTALLED 1989
RIVER POINT
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
DRAINAGE DITCH
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
FLOW
WASHINGTON FORGE POND
DAM
#2
#8
#9
#12
#13
#14
#15
#16
#17
INFILTRATION GALLERY
TANK FARM
FORMER PRODUCTION WELL
GEI-1i
624.92
MW-18sid
624.86
MW-5
MW-20
625.0
GEI-2s
625.07
MW-19
MW-16is
625.34
MW-15sd
624.81
MW-1
RW-1
MW-17sd
RP-1
GEI-3i
625.45
MW-11sid
624.56
MW-6
MW-10
MW-7
MW-4
MW-9
MW-12si
624.54
MW-8
RP-2
RP-3
MW-13si
624.34
MW-14sid
624.27
MW-21
DC-P5
DC-P4
DC-P3
DC-P0
DC-P1
DC-P2
RW-3
RW-2
MW-2
MW-3
624.5
N
0 50' 100'
Approximate Scale
WESTON
MANAGERS DESIGNERS CONSULTANTS
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP OF THE INTERMEDIATE AQUIFER ZONE MEASURED ON DECEMBER 18, 1991
FIGURE 8
DATE 1/8/92
REVISION 2
From Original by GEOENGINEERING


LEGEND
PROPERTY LINE
CONTOUR LINE
CONTOUR INTERVAL = 0.5 FOOT
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980 RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
MONITOR WELL INSTALLED 1991
RECOVERY WELL INSTALLED 1991
DRAINAGE CHANNEL POINT
PIEZOMETER INSTALLED 1989
RIVER POINT
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
DRAINAGE DITCH
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
WASHINGTON FORGE POND
DAM
FLOW
INFILTRATION GALLERY
TANK FARM
FORMER PRODUCTION WELL
#2
#8
#9
#12
#13
#14
#15
#16
#17
GEI-1i 624.88
MW-18sid 624.83
624.5
DC-P2
DC-P1
DC-P3
DC-P4
DC-P5
MW-13si 624.21
MW-14sid 624.11
MW-21
MW-5
MW-20
MW-16s
MW-15si
GEI-2i 624.94
625.0
MW-19
625.29
624.16
RW-3
MW-2
RW-2
MW-3
MW-6
MW-11sid 624.44
MW-10
MW-7
MW-8
RP-3
RP-2
MW-9
MW-4
MW-12si 624.34
MW-1
RW-1
624.5
MW-17sd
RP-1
GEI-3i 625.40
625.0
0 50' 100'
Approximate Scale
N
WESTON
MANAGERS DESIGNERS/CONSULTANTS
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP OF THE INTERMEDIATE AQUIFER ZONE MEASURED ON JANUARY 20, 1992
FIGURE 9
DATE 1/24/92
REVISION 2
From Original by GEOENGINEERING


LEGEND
PROPERTY LINE
EQUIPOTENTIAL CONTOUR LINE
CONTOUR INTERVAL = 1 FOOT
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980
RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
MONITOR WELL INSTALLED 1991
RECOVERY WELL INSTALLED 1991
DRAINAGE CHANNEL POINT
PIEZOMETER INSTALLED 1989
RIVER POINT
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
DRAINAGE DITCH
ROCKAWAY RIVER
FLOW
WASHINGTON FORGE POND
DAM
#2
#8
#9
#15
#16
#17
#14
#13
#12
TANK FARM
INFILTRATION GALLERY
FORMER PRODUCTION WELL
GEI-1I
624.02
MW-18sid
MW-5
MW-20
MW-19
MW-16i
MW-1
RW-1
MW-17sd
624.56
RP-1
MW-11sid
625.92
MW-10
MW-9
MW-12sl
MW-7
MW-8
RP-2
MW-4
MW-6
MW-3
RW-2
MW-2
RW-3
MW-13sl
DC-P1
DC-P2
DC-P3
DC-P4
DC-P5
MW-14sid
629.13
MW-21
RP-3
0 50' 100'
Approximate Scale
N
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP OF
THE DEEP AQUIFER ZONE
MEASURED ON NOVEMBER 25, 1991.
FIGURE 10
DATE 8/15/91
REVISION 2
From Original by GEOENGINEERING


LEGEND
PROPERTY LINE
CONTOUR LINE
CONTOUR INTERVAL = 0.50 FT.
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980 RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
MONITOR WELL INSTALLED 1991
RECOVERY WELL INSTALLED 1991
DRAINAGE CHANNEL POINT
PIEZOMETER INSTALLED 1989
RIVER POINT
N
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
DRAINAGE DITCH
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
FLOW
WASHINGTON FORGE POND
DAM
INFILTRATION GALLERY
TANK FARM
FORMER PRODUCTION WELL
#2
#8
#9
#12
#13
#14
#15
#16
#17
GEI-1i
GEI-2s
GEI-3i
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9
MW-10
MW-11sid 626.6
MW-12si
MW-13si
MW-14sid 626.49
MW-15si
MW-16is
MW-17sd 625.04
MW-18sid 625.86
MW-19
MW-20
MW-21
MW-2
MW-3
MW-4
RW-1
RW-2
RW-3
RP-1
RP-2
RP-3
DC-P0
DC-P2
DC-P3
DC-P4
DC-P5
625.5
626.0
626.5
0 50' 100'
Approximate Scale
WESTON
MANAGERS DESIGNERS/CONSULTANTS
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP OF THE DEEP AQUIFER ZONE MEASURED ON DECEMBER 18, 1991
FIGURE 11
DATE 1/8/92
REVISION 2
From Original by GEOENGINEERING


LEGEND
PROPERTY LINE
CONTOUR LINE
CONTOUR INTERVAL = 1 FOOT
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980 RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
MONITOR WELL INSTALLED 1991
RECOVERY WELL INSTALLED 1991
DRAINAGE CHANNEL POINT
PIEZOMETER INSTALLED 1989
RIVER POINT
N
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
DRAINAGE DITCH
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
FLOW
WASHINGTON FORGE POND
DAM
GEI-1i
MW-18sid
626.14
DC-P5
DC-P2
626.5
DC-P1
MW-13si
DC-P4
MW-21
MW-14sid
DC-P3
MW-5
MW-20
RW-3
MW-2
RW-2
MW-3
RP-3
GEI-2is
MW-16is
MW-15si
MW-6
MW-19
#9
#8
#15
#17
#14
#13
#16
#2
#12
MW-11sid
626.74
INFILTRATION GALLERY
TANK FARM
MW-10
MW-7
MW-8
RP-2
MW-1
MW-9
MW-4
MW-12si
FORMER PRODUCTION WELL
RW-1
GEI-3i
MW-17sd
626.76
RP-1
0 50' 100'
Approximate Scale
WESTON
MANAGERS DESIGNERS/CONSULTANTS
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP OF THE DEEP AQUIFER ZONE MEASURED ON JANUARY 20, 1992
FIGURE 12
DATE 1/24/92
REVISION 2
From Original by GEOENGINEERING

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APPENDIX 3

VOLATILE ORGANIC COMPOUND PLUS XYLENE ANALYTICAL RESULTS

Roy F. Weston, Inc. - Lionville Laboratory
VOA ANALYTICAL DATA PACKAGE FOR
WSI-LE CARPENTER

DATE RECEIVED: 12/20/91 RFW LOT # :9112L841

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
MW-2	001	W	91LVW223	12/19/91	N/A	12/30/91
MW-3	002	W	91LVW223	12/19/91	N/A	12/30/91
MW-3	002 D1	W	91LVW224	12/19/91	N/A	12/30/91
MW-4	003	W	91LVW223	12/19/91	N/A	12/30/91
MW-4	003 D1	W	91LVW224	12/19/91	N/A	12/30/91
MW-5	004	W	91LVK223	12/19/91	N/A	12/30/91
MW-5	004 MS	W	91LVK223	12/19/91	N/A	12/30/91
MW-5	004 MSD	W	91LVK223	12/19/91	N/A	12/30/91
TRIP BLANK	005	W	91LVK223	12/19/91	N/A	12/30/91
FIELD BLANK	006	W	91LVK223	12/19/91	N/A	12/30/91

LAB QC:

VBLK	MB1	W	91LVW223	N/A	N/A	12/29/91
VBLK	MB1	W	91LVW224	N/A	N/A	12/30/91
VBLK	MB1	W	91LVK223	N/A	N/A	12/30/91

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b. HSL Spectra
c. TIC Spectra
d. GC/MS Library Search for TIC

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CHAIN OF CUSTODY

WESTON Analytics Use Only

9112L841

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 1

WSI-

Client L.E. CARPENTER

Est. Final Proj. Sampling Date

Work Order # 3600-04-90-0000

Project Contact/Phone # KEN TYSON/908 225 3990

AD Project Manager MARTIN O'NEIL / Mike Young

QC CLP Del CLP TAT 30 DAY

Date Rec'd 12-20-91 Date Due 1-19-92

Account # WSI-LE CARP

Refrigerator #		1
#/Type Container	Liquid	3G
	Solid	
Volume	Liquid	40A
	Solid	
Preservatives		None

ANALYSES REQUESTED →

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC VOA	BNA	Pest/PCB	Herb	INORG Metal	CN
S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish	001	MW-2			W	12/19	0900	✓					
	002	MW-3			W	12/19	1000	✓					
	003	MW-4			W	12/19	1100	✓					
	004	MW-5	✓	✓	W	12/19	1200	✓					
	005	TRIP BLANK (TB)			W	12/19		✓					
	006	FIELD BLANK (FB)			W	12/19	1300	✓					

WESTON Analytics Use Only

← date not on COC

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

PP 8624P = VOA + XYLENE

CLP SOW 88

10 day hold time

DATE/REVISIONS:

1.
2.
3.
4.
5.
6.

WESTON Analytics Use Only

Samples were:
1) Shipped ✓ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Relinquished by	Received by	Date	Time
Fred-X	[signature]	12-20-91	09:30
	[signature] 12-20-91		

Relinquished by	Received by	Date	Time
	[signature] 12-20-91		

Discrepancies Between Samples Labels and COC Record Y or N

NOTES: See above

RFW 21-21-001/A-7/91 ___ L372 ___ L373 ___ L375 ___ L377 ___ L378 Ref# 5569 Cooler# 48GCL157 381-596a

3422058485

0000002

WESTON

DATA SUMMARY

Roy F. Weston, Inc. - Lionville Laboratory
Volatiles by GC/MS, Priority Pollutant List

RFW Batch Number: 9112L841 | Client: WSI-LE CARPENTER | Work Order: 3600-04-90-0000 | Report Date: 01/16/92 09:46 | Page: 1a

	Cust ID:	MW-2	MW-3	MW-3	MW-4	MW-4	MW-5
Sample Information	RFW#:	001	002	002 DL	003	003 DL	004
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	250	1.00	10.0	1.00
	Units:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Surrogate Recovery	Toluene-d8	100 %	102 %	99 %	106 %	102 %	100 %
	Bromofluorobenzene	110 %	125 * %	105 %	118 * %	104 %	95 %
	1,2-Dichloroethane-d4	108 %	107 %	93 %	113 %	97 %	93 %
		fl	fl	fl	fl	fl	fl
Chloromethane		10 U	10 U	NA	10 U	NA	10 U
Bromomethane		10 U	10 U	NA	10 U	NA	10 U
Vinyl Chloride		10 U	10 U	NA	10 U	NA	10 U
Chloroethane		10 U	10 U	NA	10 U	NA	10 U
Methylene Chloride		7 B	5 B	NA	5 U	NA	1 JB
1,1-Dichloroethene		5 U	5 U	NA	5 U	NA	3 JB
1,1-Dichloroethane		5 U	5 U	NA	5 U	NA	5 U
1,2-Dichloroethene (total)		5 U	5 U	NA	5 U	NA	5 U
Chloroform		5 U	5 U	NA	5 U	NA	5 U
1,2-Dichloroethane		5 U	5 U	NA	5 U	NA	5 U
1,1,1-Trichloroethane		5 U	5 U	NA	5 U	NA	5 U
Carbon Tetrachloride		5 U	5 U	NA	5 U	NA	5 U
Bromodichloromethane		5 U	5 U	NA	5 U	NA	5 U
1,2-Dichloropropane		5 U	5 U	NA	5 U	NA	5 U
cis-1,3-Dichloropropene		5 U	5 U	NA	5 U	NA	5 U
Trichloroethene		5 U	5 U	NA	5 U	NA	5 U
Dibromochloromethane		5 U	5 U	NA	5 U	NA	5 U
1,1,2-Trichloroethane		5 U	5 U	NA	5 U	NA	5 U
Benzene		5 U	3 J	NA	5 U	NA	5 U
Trans-1,3-Dichloropropene		5 U	5 U	NA	5 U	NA	5 U
2-chloroethylvinylether		10 U	10 U	NA	10 U	NA	10 U
Bromoform		5 U	5 U	NA	5 U	NA	5 U
Tetrachloroethene		5 U	5 U	NA	5 U	NA	5 U
1,1,2,2-Tetrachloroethane		5 U	5 U	NA	5 U	NA	5 U
Toluene		5 U	13	NA	5 U	NA	5 U
Chlorobenzene		5 U	5 U	NA	5 U	NA	5 U
Ethylbenzene		23	E	2600	E	390	5 U
1,2-Dichlorobenzene		5 U	5 U	NA	5 U	NA	5 U
1,3-Dichlorobenzene		5 U	5 U	NA	5 U	NA	5 U

*= Outside of EPA CLP QC limits.

000604

Cust ID:	MW-2		MW-3		MW-3	MW-4		MW-4	MW-5	
RFW#:	001		002		002 DL	003		003 DL	004	
1,4-Dichlorobenzene	5	U	5	U	NA	5	U	NA	5	U
Acrolein	10	U	10	U	NA	10	U	NA	10	U
Acrylonitrile	10	U	10	U	NA	10	U	NA	10	U
Trichlorofluoromethane	5	U	5	U	NA	5	U	NA	5	U
Xylene (total)	190			E	25000		E	1700	2	J

*= Outside of EPA CLP QC limits.

000005

Roy F. Weston, Inc. - Lionville Laboratory
Volatiles by GC/MS, Priority Pollutant List

RFW Batch Number: 9112L841 Client: WSI-LE CARPENTER Work Order: 3600-04-90-0000 Report Date: 01/16/92 09:46 Page: 2a

	Cust ID:	MW-5		MW-5		TRIP BLANK		FIELD BLANK		VBLK		VBLK	
Sample Information	RFW#:	004 MS		004 MSD		005		006		91LVW223-MB1		91LVW224-MB1	
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	D.F.:	1.00		1.00		1.00		1.00		1.00		1.00	
	Units:	UG/L		UG/L		UG/L		UG/L		UG/L		UG/L	
Surrogate Recovery	Toluene-d8	99	%	100	%	99	%	100	%	108	%	102	%
	Bromofluorobenzene	96	%	99	%	97	%	98	%	108	%	105	%
	1,2-Dichloroethane-d4	96	%	98	%	97	%	103	%	92	%	96	%
			fl		fl		fl		fl		fl		fl
Chloromethane		10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane		10	U	10	U	10	U	10	U	10	U	10	U
Vinyl Chloride		10	U	10	U	10	U	10	U	10	U	10	U
Chloroethane		10	U	10	U	10	U	10	U	10	U	10	U
Methylene Chloride		5	U	5	U	4	JB	3	JB	2	J	5	U
1,1-Dichloroethene		95	%	91	%	3	JB	3	JB	5	U	5	U
1,1-Dichloroethane		5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethene (total)		5	U	5	U	5	U	5	U	5	U	5	U
Chloroform		5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethane		5	U	5	U	5	U	5	U	5	U	5	U
1,1,1-Trichloroethane		5	U	5	U	5	U	5	U	5	U	5	U
Carbon Tetrachloride		5	U	5	U	5	U	5	U	5	U	5	U
Bromodichloromethane		5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloropropane		5	U	5	U	5	U	5	U	5	U	5	U
cis-1,3-Dichloropropene		5	U	5	U	5	U	5	U	5	U	5	U
Trichloroethene		112	%	109	%	5	U	5	U	5	U	5	U
Dibromochloromethane		5	U	5	U	5	U	5	U	5	U	5	U
1,1,2-Trichloroethane		5	U	5	U	5	U	5	U	5	U	5	U
Benzene		106	%	103	%	5	U	5	U	5	U	5	U
Trans-1,3-Dichloropropene		5	U	5	U	5	U	5	U	5	U	5	U
2-chloroethylvinylether		10	U	10	U	10	U	10	U	10	U	10	U
Bromoform		5	U	5	U	5	U	5	U	5	U	5	U
Tetrachloroethene		5	U	5	U	5	U	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane		5	U	5	U	5	U	5	U	5	U	5	U
Toluene		109	%	108	%	5	U	5	U	5	U	5	U
Chlorobenzene		109	%	106	%	5	U	5	U	5	U	5	U
Ethylbenzene		5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichlorobenzene		5	U	5	U	5	U	5	U	5	U	5	U
1,3-Dichlorobenzene		5	U	5	U	5	U	5	U	5	U	5	U

*= Outside of EPA CLP QC limits.

000006

Cust ID:	MW-5	MW-5	TRIP BLANK	FIELD BLANK	VBLK	VBLK
RFW#:	004 MS	004 MSD	005	006	91LVW223-MB1	91LVW224-MB1
1,4-Dichlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U
Acrolein	10 U	10 U	10 U	10 U	10 U	10 U
Acrylonitrile	10 U	10 U	10 U	10 U	10 U	10 U
Trichlorofluoromethane	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	2 J	2 J	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

000007

Cust ID: VBLK

Sample Information

RFW#: 91LVK223-MB1
Matrix: WATER
D.F.: 1.00
Units: UG/L

Surrogate Recovery	Toluene-d8	100	%
	Bromofluorobenzene	99	%
	1,2-Dichloroethane-d4	96	%

==========fl==========fl==========fl==========fl==========fl==========fl

Chloromethane	10	U
Bromomethane	10	U
Vinyl Chloride	10	U
Chloroethane	10	U
Methylene Chloride	4	J
1,1-Dichloroethene	3	J
1,1-Dichloroethane	5	U
1,2-Dichloroethene (total)	5	U
Chloroform	5	U
1,2-Dichloroethane	5	U
1,1,1-Trichloroethane	5	U
Carbon Tetrachloride	5	U
Bromodichloromethane	5	U
1,2-Dichloropropane	5	U
cis-1,3-Dichloropropene	5	U
Trichloroethene	5	U
Dibromochloromethane	5	U
1,1,2-Trichloroethane	5	U
Benzene	5	U
Trans-1,3-Dichloropropene	5	U
2-chloroethylvinylether	10	U
Bromoform	5	U
Tetrachloroethene	5	U
1,1,2,2-Tetrachloroethane	5	U
Toluene	5	U
Chlorobenzene	5	U
Ethylbenzene	5	U
1,2-Dichlorobenzene	5	U
1,3-Dichlorobenzene	5	U

*= Outside of EPA CLP QC limits.

000008

Cust ID: VBLK

RFW#: 91LVK223-MB1

1,4-Dichlorobenzene	5	U
Acrolein	10	U
Acrylonitrile	10	U
Trichlorofluoromethane	5	U
Xylene (total)	5	U

*= Outside of EPA CLP QC limits.

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CASE NARRATIVE

WESTON

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WSI-LE CARPENTER **SAMPLES RECEIVED:** 12-20-91
RFW #: 9112L841, GC/MS VOLATILE
W.O. #: 3600-04-90

NARRATIVE

The set of samples consisted of six (6) water samples collected on 12-19-91.

The samples were analyzed according to criteria set forth in CLP SOW 2/88 (Rev. 5/89) for Client Specified target compounds on 12-29,30-91.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. Non-target compounds were detected in these samples.

2. The following samples required dilutions because they contained high levels of target compounds:

SAMPLE ID	DILUTION FACTOR
MW-3	250
MW-4	10

3. Two (2) of thirty-nine (39) surrogate recoveries were outside EPA QC limits. Samples MW-3 and MW-4 were re-analyzed 12-30-91 and reported.

4. All matrix spike recoveries were within EPA QC limits.

5. The laboratory blanks 91LVW223-MB1 and 91LVK223-MB1 contained the common contaminant methylene chloride at levels less than the CRQL. The laboratory blank 91LVK223-MB1 also contained the target compound 1,1,-dichloroethene at a level less than the CRQL.

6. All internal standard area and retention time criteria were met.

1.20.92.

Jack R. Tuschall, Ph.D. Date
Laboratory Manager
Lionville Analytical Laboratory

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GLOSSARY OF VOA DATA

DATA QUALIFIERS

U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero; for example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.

E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

I = Interference.

X = Additional qualifiers used as required are explained in the case narrative.

NQ = Result qualitatively confirmed but not able to quantify.

ABBREVIATIONS

BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.

BSD = Indicates blank spike duplicate.

MS = Indicates matrix spike.

MSD = Indicates matrix spike duplicate.

DL = Indicates that surrogate recoveries were not obtained because the extract had to be diluted for analysis.

NA = Not applicable.

DF = Dilution factor.

NR = Not required.

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II. QC SUMMARY

A. SURROGATE % RECOVERY SUMMARY
(FORM 2)

B. MATRIX SPIKE
(FORM 3)

C. REAGENT BLANK SUMMARY
(FORM 4)

D. GC/MS TUNING AND CALIBRATION STANDARD
(FORM 5)

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER

RFW Lot No.: 9112L841

	CLIENT SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	MW-2	100	110	108		0
02	MW-3	102	125 *	107		1
03	MW-3DL	99	105	93		0
04	MW-4	106	118 *	113		1
05	MW-4DL	102	104	97		0
06	MW-5	100	95	93		0
07	MW-5MS	99	96	96		0
08	MW-5MSD	100	99	98		0
09	TRIP BLANK	99	97	97		0
10	FIELD BLANK	100	98	103		0
11	VBLKLVW223-MB1	108	108	92		0
12	VBLKLVW224-MB1	102	105	96		0
13	VBLKLVK223-MB1	100	99	96		0

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

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

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER RFW Lot No.: 9112L841-004

MATRIX Spike - Sample No.: MW-5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC
1,1-Dichloroethene	50.0	3.49	51.0	95	61-145
Trichloroethene	50.0	0	56.1	112	71-120
Benzene	50.0	0	53.2	106	76-127
Toluene	50.0	0	54.6	109	76-125
Chlorobenzene	50.0	0	54.6	109	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
1,1-Dichloroethene	50.0	48.9	91	4	14	61-145
Trichloroethene	50.0	54.5	109	2	14	71-120
Benzene	50.0	51.4	103	2	11	76-127
Toluene	50.0	54.1	108	0	13	76-125
Chlorobenzene	50.0	53.2	106	2	13	75-130

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER

Lab File ID: W122909 Lab Sample ID: 91LVW223-MB1

Date Analyzed: 12/29/91 Time Analyzed: 2327

Matrix:(Soil/Water) WATER Level:(low/med) LOW

Instrument ID: 1050W

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-2	9112L841-001	W122916	0451
02	MW-3	9112L841-002	W122917	0532
03	MW-4	9112L841-003	W122918	0612

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER

Lab File ID: W123004 Lab Sample ID: 91LVW224-MB1

Date Analyzed: 12/30/91 Time Analyzed: 1143

Matrix:(Soil/Water) WATER Level:(low/med) LOW

Instrument ID: 1050W

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-4DL	9112L841-003	W123007	1343
02	MW-3DL	9112L841-002	W123019	2145

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER

Lab File ID: AKCU03 Lab Sample ID: 91LVK223-MB1

Date Analyzed: 12/30/91 Time Analyzed: 1114

Matrix:(Soil/Water) WATER Level:(low/med) LOW

Instrument ID: HP-MSD K

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-5	9112L841-004	AKCU04	1203
02	TRIP BLANK	9112L841-005	AKCU05	1238
03	FIELD BLANK	9112L841-006	AKCU06	1312
04	MW-5MS	9112L841-004S	AKCU07	1346
05	MW-5MSD	9112L841-004T	AKCU08	1421

COMMENTS:

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

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER

Lab File ID: W122901 BFB Injection Date: 12/29/91

Instrument ID: 1050W BFB Injection Time: 1509 ✓

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0% of mass 95	21.1 ✓	
75	30.0 - 60.0% of mass 95	55.4 ✓	
95	Base peak, 100% relative abundance	100.0 ✓	
96	5.0 - 9.0% of mass 95	7.7 ✓	
173	Less than 2.0% of mass 174	0.0(0.0)1	✓
174	Greater than 50.0% of mass 95	86.3	✓
175	5.0 - 9.0% of mass 174	5.3(6.2)1	✓
176	Greater than 95.0% but less than 101.0% of mass 174	86.9(100.8)1	✓
177	5.0 - 9.0% of mass 176	6.2(7.2)2	✓

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	VSTD50	W122902	12/29/91	1552
02	VSTD100	VSTD100	W122903	12/29/91	1718
03	VSTD150	VSTD150	W122904	12/29/91	1758
04	VSTD200	VSTD200	W122905	12/29/91	1839
05	VSTD20	VSTD20	W122906	12/29/91	2029
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

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

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER

Lab File ID: W122907 BFB Injection Date: 12/29/91

Instrument ID: 1050W BFB Injection Time: 2224 ✓

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0% of mass 95	20.0 ✓	
75	30.0 - 60.0% of mass 95	42.2 ✓	
95	Base peak, 100% relative abundance	100.0 ✓	
96	5.0 - 9.0% of mass 95	7.9 ✓	
173	Less than 2.0% of mass 174	0.0(0.0)1	✓
174	Greater than 50.0% of mass 95	86.1	✓
175	5.0 - 9.0% of mass 174	7.3(8.5)1	✓
176	Greater than 95.0% but less than 101.0% of mass 174	86.3(100.2)1	✓
177	5.0 - 9.0% of mass 176	5.7(6.6)2	✓

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	VSTD50	W122908	12/29/91	2247
02	VBLKLVW223-MB1	91LVW223-MB1	W122909	12/29/91	2327
03	MW-2	9112L841-001	W122916	12/30/91	0451
04	MW-3	9112L841-002	W122917	12/30/91	0532
05	MW-4	9112L841-003	W122918	12/30/91	0612
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

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

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER

Lab File ID: W123002 BFB Injection Date: 12/30/91

Instrument ID: 1050W BFB Injection Time: 1044 ✓

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0% of mass 95	20.4 ✓	
75	30.0 - 60.0% of mass 95	46.5 ✓	
95	Base peak, 100% relative abundance	100.0 ✓	
96	5.0 - 9.0% of mass 95	6.4 ✓	
173	Less than 2.0% of mass 174	0.0(0.0)1	✓
174	Greater than 50.0% of mass 95	91.0	✓
175	5.0 - 9.0% of mass 174	8.0(8.8)1	✓
176	Greater than 95.0% but less than 101.0% of mass 174	88.9(97.7)1	✓
177	5.0 - 9.0% of mass 176	7.8(8.8)2	✓

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	VSTD50	W123003	12/30/91	1103
02	VBLKLVW224-MB1	91LVW224-MB1	W123004	12/30/91	1143
03	MW-4DL	9112L841-003	W123007	12/30/91	1343
04	MW-3DL	9112L841-002	W123019	12/30/91	2145
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

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

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER

Lab File ID: AKCQ01 BFB Injection Date: 12/26/91

Instrument ID: HP-MSD K BFB Injection Time: 915 ✓

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0% of mass 95	22.0 ✓	
75	30.0 - 60.0% of mass 95	52.6 ✓	
95	Base peak, 100% relative abundance	100.0 ✓	
96	5.0 - 9.0% of mass 95	7.0 ✓	
173	Less than 2.0% of mass 174	0.0(0.0)1	✓
174	Greater than 50.0% of mass 95	75.7	✓
175	5.0 - 9.0% of mass 174	6.4(8.4)1	✓
176	Greater than 95.0% but less than 101.0% of mass 174	75.6(99.9)1	✓
177	5.0 - 9.0% of mass 176	5.3(7.0)2	✓

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	VSTD50	AKCQ02	12/26/91	0949
02	VSTD200	VSTD200	AKCQ04	12/26/91	1115
03	VSTD150	VSTD150	AKCQ05	12/26/91	1149
04	VSTD100	VSTD100	AKCQ06	12/26/91	1223
05	VSTD20	VSTD20	AKCQ07	12/26/91	1332
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

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

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER

Lab File ID: AKCU01 BFB Injection Date: 12/30/91

Instrument ID: HP-MSD K BFB Injection Time: 949 ✓

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0% of mass 95	25.0 ✓	
75	30.0 - 60.0% of mass 95	53.2 ✓	
95	Base peak, 100% relative abundance	100.0 ✓	
96	5.0 - 9.0% of mass 95	7.5 ✓	
173	Less than 2.0% of mass 174	0.0(0.0)1	✓
174	Greater than 50.0% of mass 95	69.1	✓
175	5.0 - 9.0% of mass 174	4.0(5.8)1	✓
176	Greater than 95.0% but less than 101.0% of mass 174	67.8(98.1)1	✓
177	5.0 - 9.0% of mass 176	5.2(7.6)2	✓

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	VSTD50	AKCU02	12/30/91	1011
02	VBLKLVK223-MB1	91LVK223-MB1	AKCU03.	12/30/91	1114
03	MW-5	9112L841-004	AKCU04.	12/30/91	1203
04	TRIP BLANK	9112L841-005	AKCU05.	12/30/91	1238
05	FIELD BLANK	9112L841-006	AKCU06.	12/30/91	1312
06	MW-5MS	9112L841-004S	AKCU07.	12/30/91	1346
07	MW-5MSD	9112L841-004T	AKCU08.	12/30/91	1421
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

WESTON

III. SAMPLE DATA PACKAGE

A. SAMPLE DATA IN ORDER OF RFW SAMPLE NUMBER

1. TABULATED RESULTS
   (FORM 1)

2. TENTATIVELY IDENTIFIED COMPOUND
   (FORM 1E)

3. RAW DATA IN ORDER:

   a. RECONSTRUCTED ION CHROMATOGRAM(S)
   b. QUANTITATION REPORT(S)
   c. HSL MASS SPECTRA
   d. TIC MASS SPECTRA
   e. GC/MS LIBRARY SEARCH FOR TIC

1A 0000024

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

MW-2

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-001

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: W122916

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	7	B
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	23	
95-50-1	1,2-Dichlorobenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
107-02-8	Acrolein	10	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
1330-20-7	Xylene (total)	190	

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW-2

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-001

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: W122916

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 11

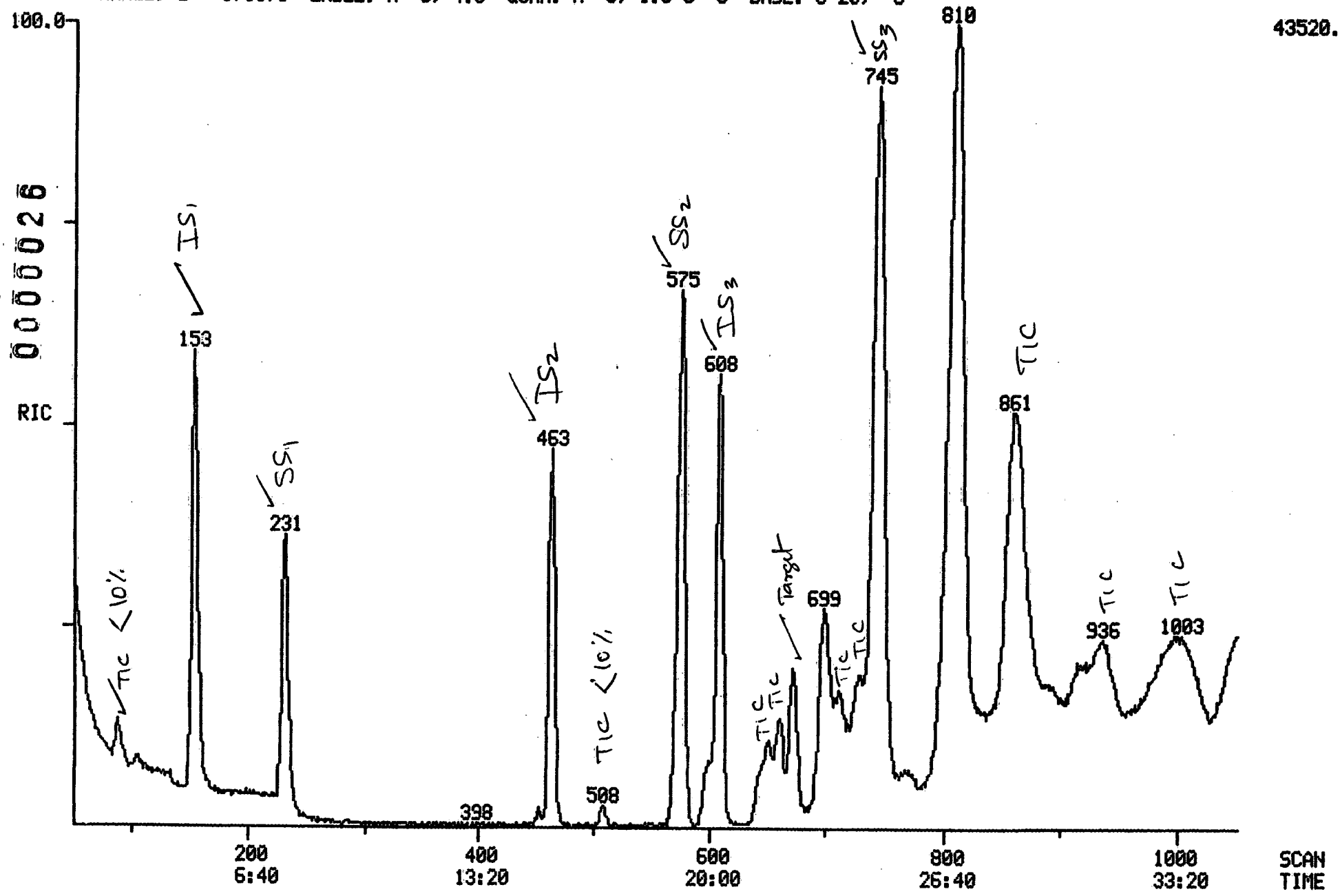
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	HYDROCARBON	19.93	7	J
2.	UNKNOWN	21.67	10	J
3.	AROMATIC HYDROCARBON	22.00	10	J
4.	UNKNOWN	23.30	30	J
5.	CYCLOALKANE	24.33	8	J
6.	HYDROCARBON	28.63	70	J
7.	UNKNOWN	30.60	8	J
8.	ALKANE	31.20	20	J
9.	UNKNOWN	33.10	10	J
10.	UNKNOWN	33.43	20	J
11.	UNKNOWN	34.97	10	J

RIC
12/30/91 4:51:00
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:17-SP1000
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: W122916 #1
CALI: W122916 #2

SCANS 50 TO 1050



Quantitation Report File: W122916 0000027

Data: W122916.TI
12/30/91 4:51:00
Sample: 9112L841-001 WSI-LE CARPENTER 5.0ML
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.011
Submitted by: W122907 Analyst: SSQ Acct. No.: 122991

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
19	14H	2-BUTANONE	
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

0000028

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	153	5:06	1	1.000	A BB	17267.	50.000 UG/L	9.05	
2	65	231	7:42	1	1.510	A BB	26886.	54.051 UG/L	9.79	
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	NOT FOUND									
7	84	87	2:54	1	0.569	A BB	2561.	6.614 UG/L	1.20	
8	43	104	3:28	1	0.680	A BV	3348.	22.453 UG/L	4.06	WT
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	NOT FOUND									
17	NOT FOUND									
18	114	463	15:26	18	1.000	A BB	56781.	50.000 UG/L	9.05	
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	117	607	20:14	33	1.000	A BB	49517.	50.000 UG/L	9.05	
34	98	575	19:10	33	0.947	A BB	50454.	50.216 UG/L	9.09	
35	95	745	24:50	33	1.227	A BB	52732.	54.869 UG/L	9.93	
36	NOT FOUND									
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									
42	106	671	22:22	33	1.105	A BB	7601.	22.569 UG/L	4.09	
43	NOT FOUND									
44	106	811	27:02	33	1.336	A BB	65766.	175.548 UG/L	31.78	
45	NOT FOUND									
46	NOT FOUND									
47	NOT FOUND									
48	106	843	28:06	33	1.389	A BB	5791.	16.275 UG/L	2.95	
49	NOT FOUND									
50	NOT FOUND									

AEP
1/13/92

Quantitation Report File: W122916 0000029

Data: W122916.TI
12/30/91 4:51:00
Sample: 9112L841-001 WSI-LE CARPENTER 5.0ML
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.011
Submitted by: W122907 Analyst: SSQ Acct. No.: 122991

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

No	Name
51	T-BUTYL ALCOHOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								

Quantitation Report File: W122916TI 000030

Data: W122916.TI
12/30/91 4:51:00
Sample: 9112L841-001 WSI-LE CARPENTER 5.0ML
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.011
Submitted by: W122907 Analyst: SSQ Acct. No.: 122991

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

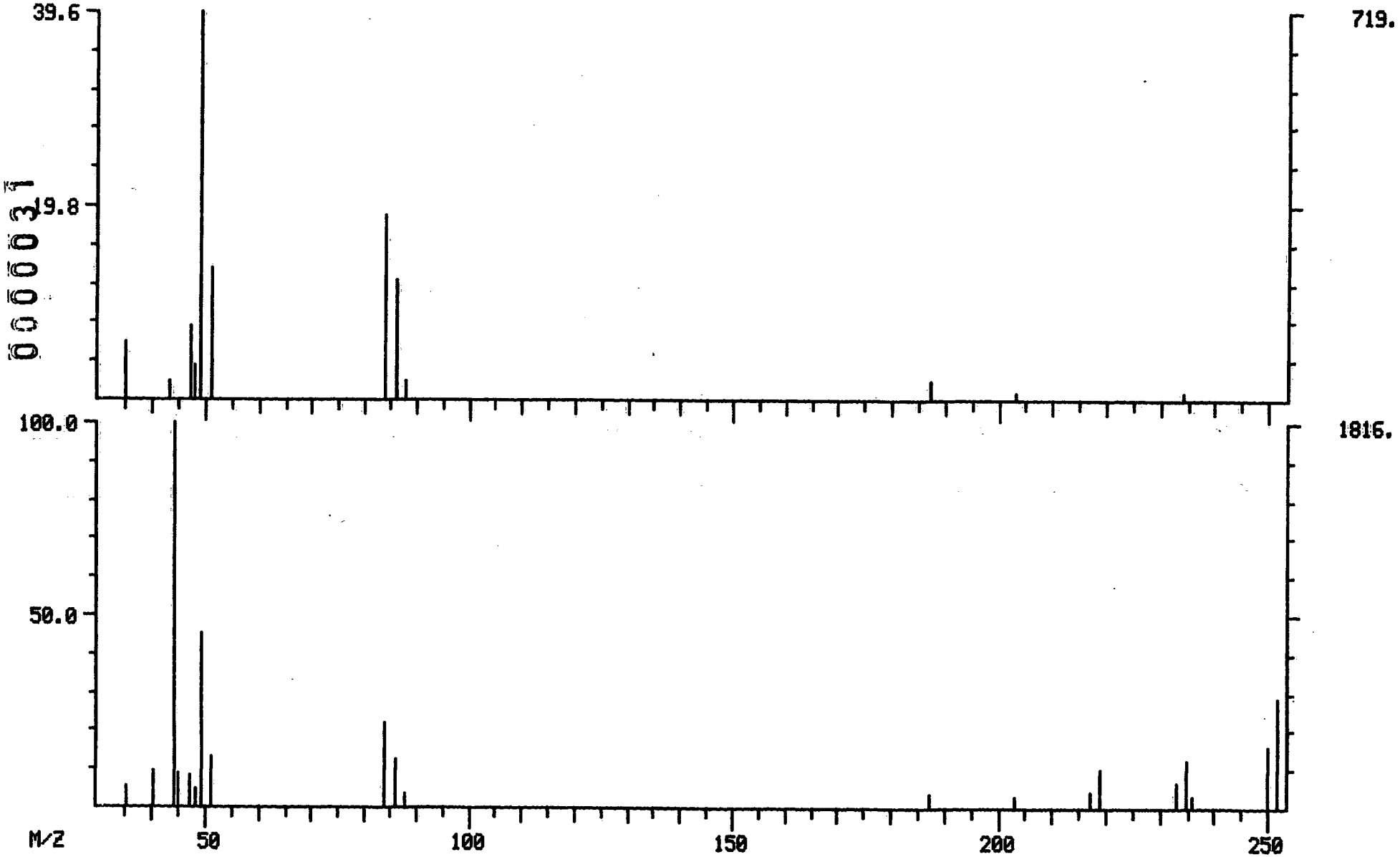
No	Name	
1	UNKNOWN	
2	IS3 CHLOROBENZENE D5	INTERNAL STANDARD #3
3	UNKNOWN	
4	UNKNOWN	
5	UNKNOWN	
6	UNKNOWN	
7	UNKNOWN	
8	UNKNOWN	
9	UNKNOWN	
10	UNKNOWN	
11	UNKNOWN	
12	UNKNOWN	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot	ug/L
1	RIC	598	19:56	7	0.696	A BV	21174.	9.480		2.59	6.54
2	RIC	608	20:16	2	1.000	A VB	161950.	50.000	UG/L	13.66	
3	RIC	650	21:40	7	0.757	A BV	47951.	21.470		5.87	14.80
4	RIC	660	22:00	7	0.768	A VV	41364.	18.520		5.06	12.77
5	RIC	699	23:18	7	0.814	A BV	102660.	45.965		12.56	31.69
6	RIC	730	24:20	7	0.850	A BV	26072.	11.673		3.19	8.05
7	RIC	859	28:38	7	1.000	A BB	223344.	100.000		27.32	68.95
8	RIC	918	30:36	7	1.069	A BV	26480.	11.856		3.24	8.18
9	RIC	936	31:12	7	1.090	A VB	66320.	29.694		8.11	20.48
10	RIC	993	33:06	7	1.156	A BV	40072.	17.942		4.90	12.37
11	RIC	1003	33:26	7	1.168	A VB	68984.	30.887		8.44	21.30
12	RIC	1049	34:58	7	1.221	A BB	41360.	18.518		5.06	12.80

DUAL MASS SPECTRUM
12/30/91 4:51:00 + 2:54
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 76 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W122916 #87
CALI: W122916 #2

BASE M/Z: 49/ 44
RIC: 1965./ 5831.

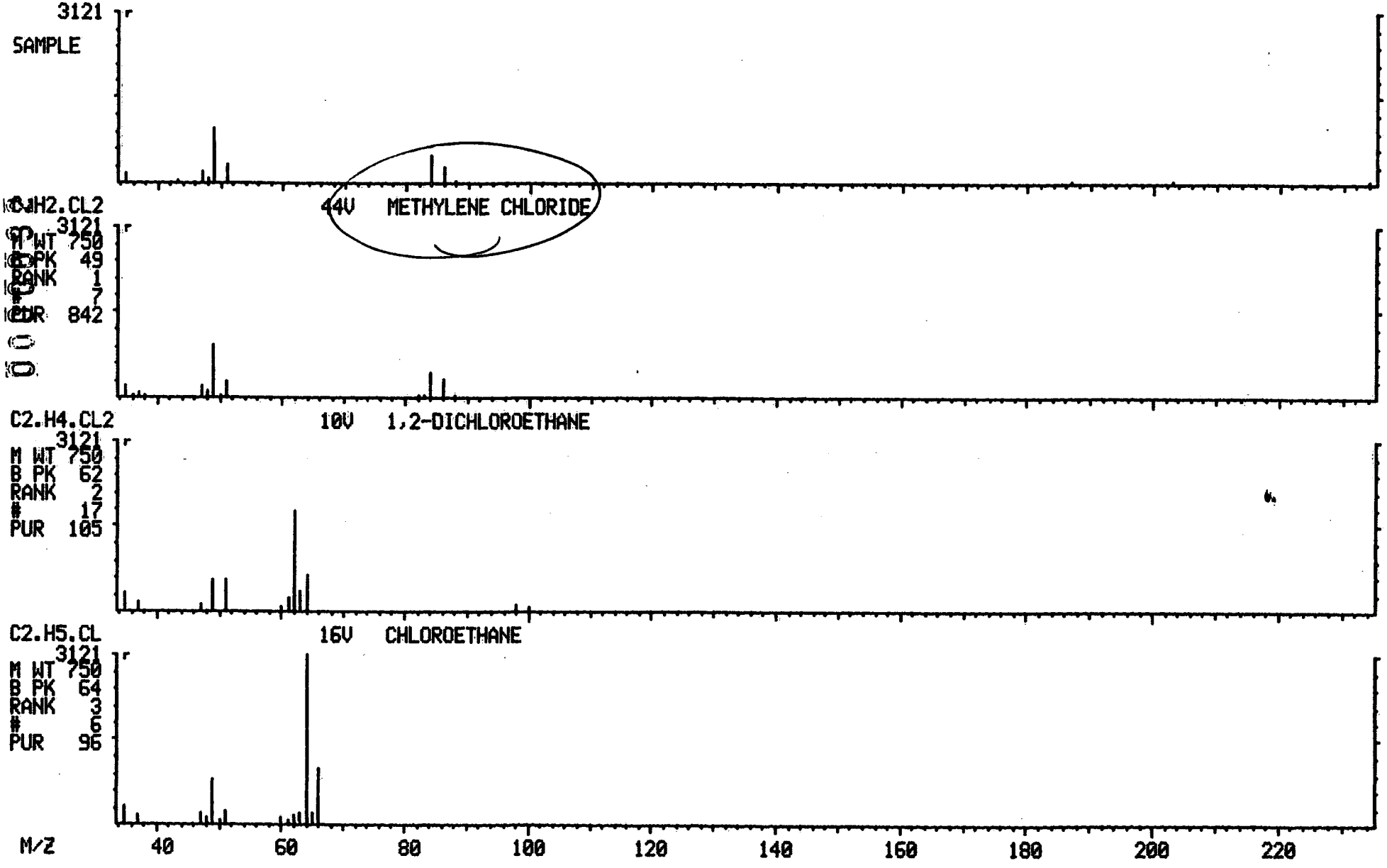


000031

LIBRARY SEARCH
12/30/91 4:51:00 + 2:54
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 87
CALI: W122916 # 2

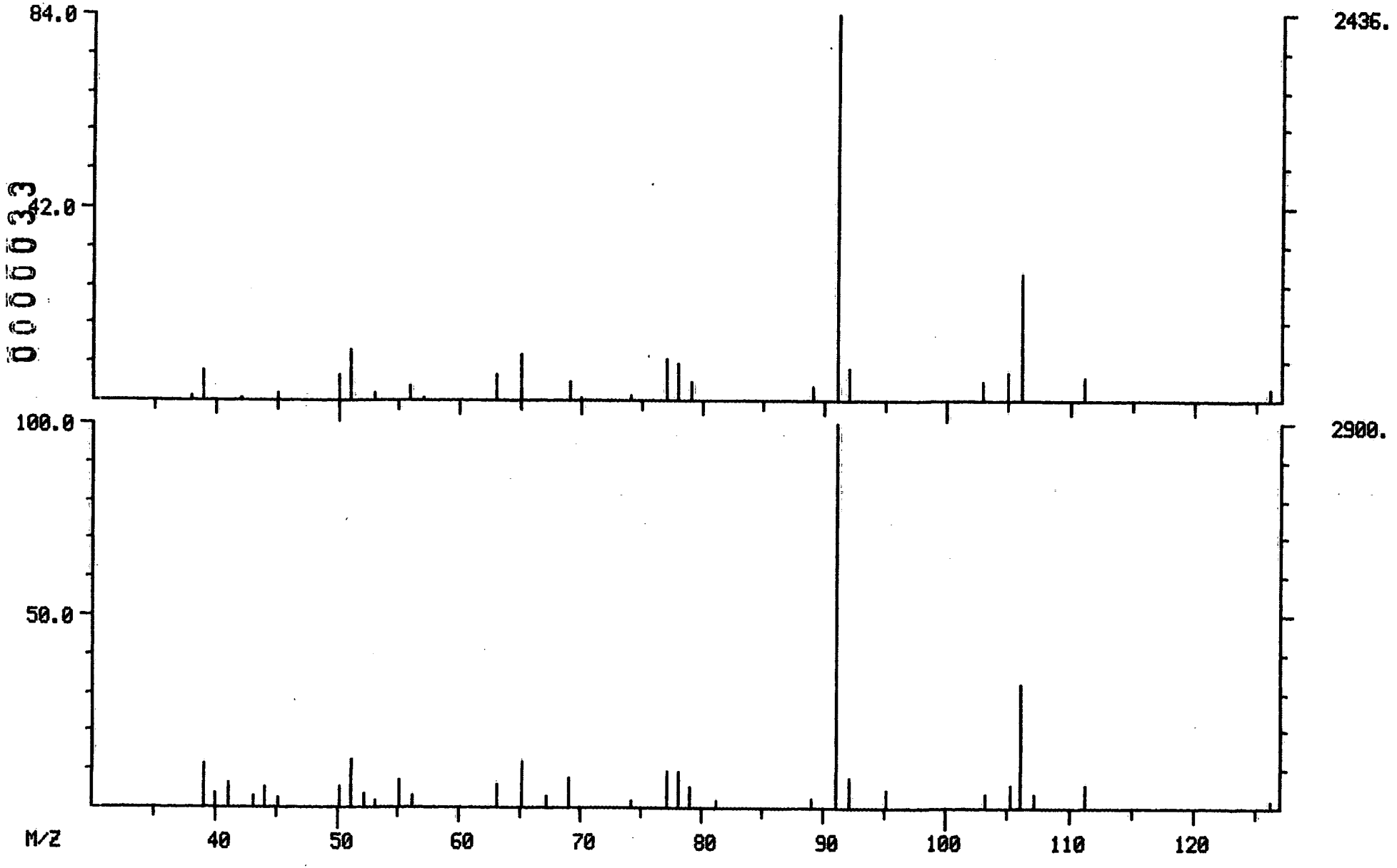
BASE M/Z: 49
RIC: 1963.



DUAL MASS SPECTRUM
12/30/91 4:51:00 + 22:22
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W122916 #671
CALI: W122916 #2

BASE M/Z: 91/ 91
RIC: 6119./ 8367.

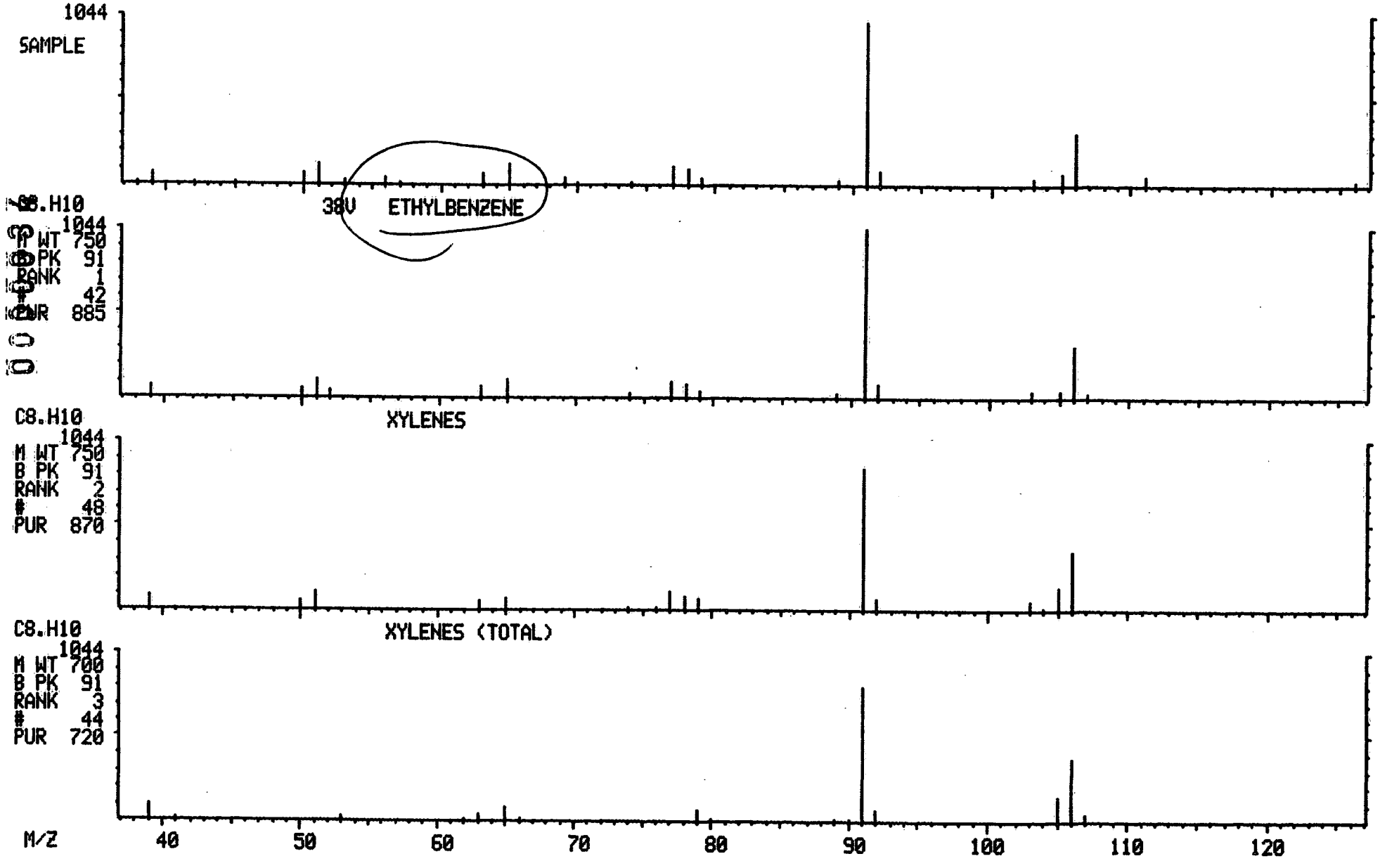


000033

LIBRARY SEARCH
12/30/91 4:51:00 + 22:22
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 671
CALI: W122916 # 2

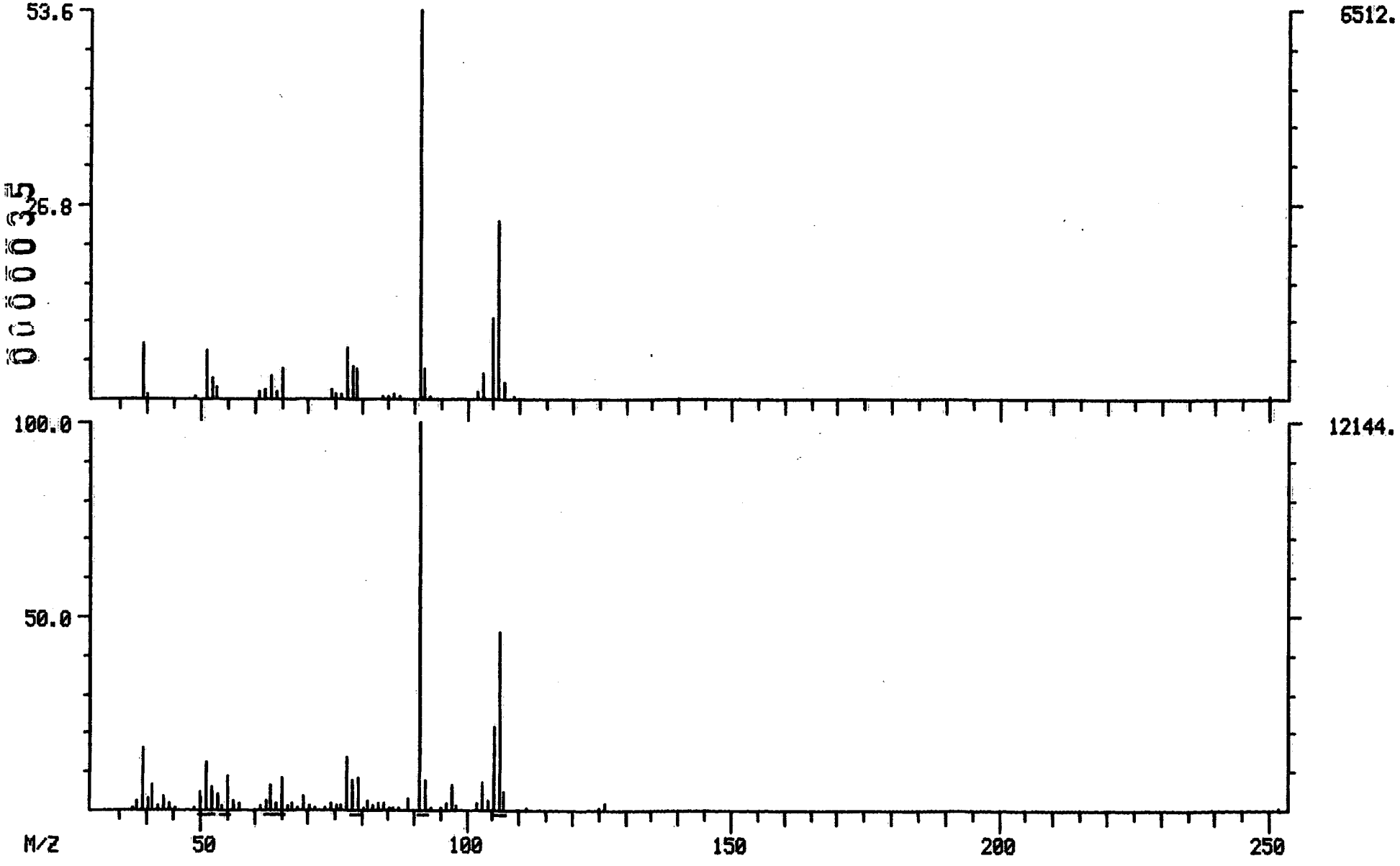
BASE M/Z: 91
RIC: 6119.



DUAL MASS SPECTRUM
12/30/91 4:51:00 + 27:02
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W122916 #811
CALI: W122916 #2

BASE M/Z: 91/ 91
RIC: 18399./ 43455.

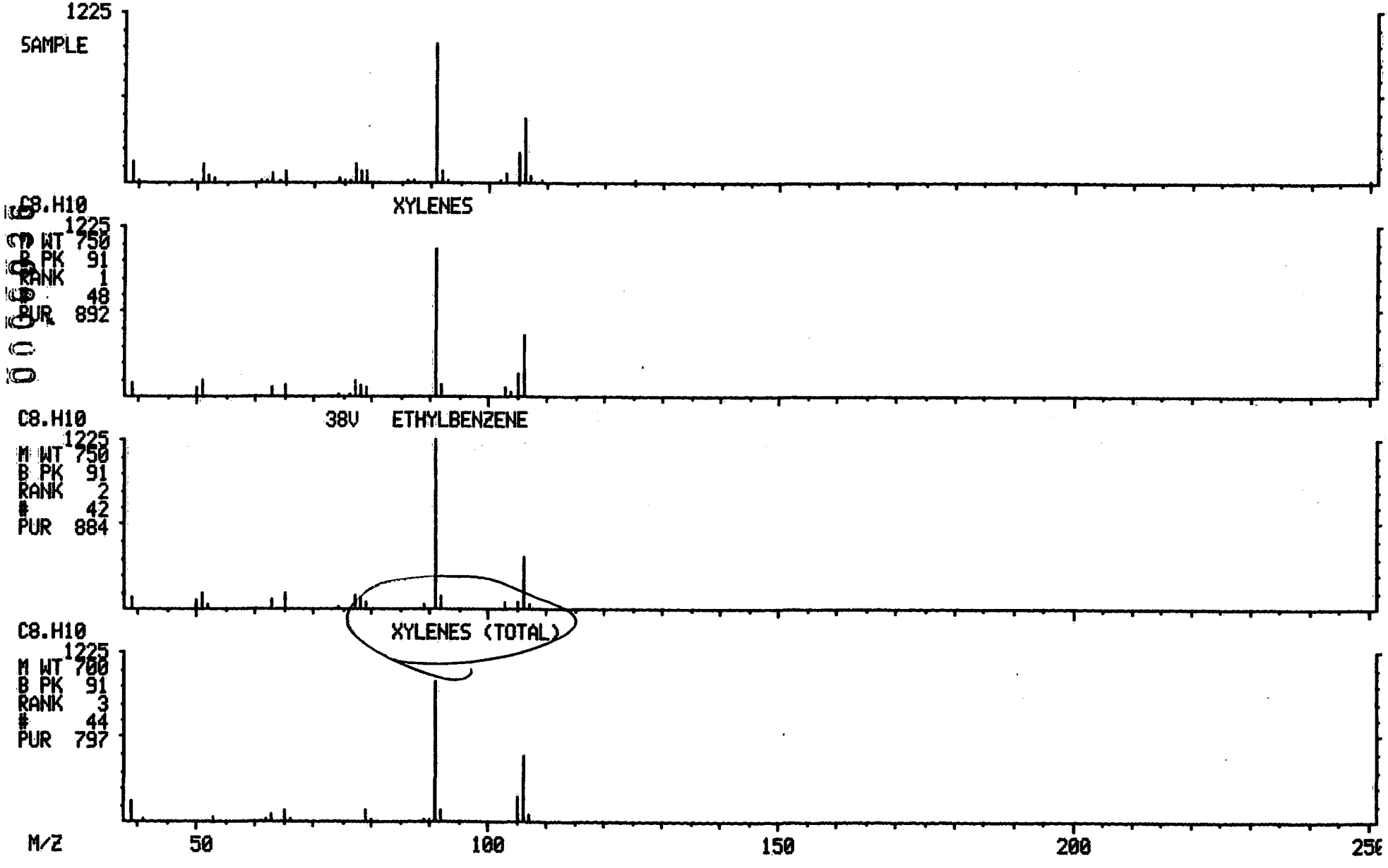


000035

LIBRARY SEARCH
12/30/91 4:51:00 + 27:02
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 811
CALI: W122916 # 2

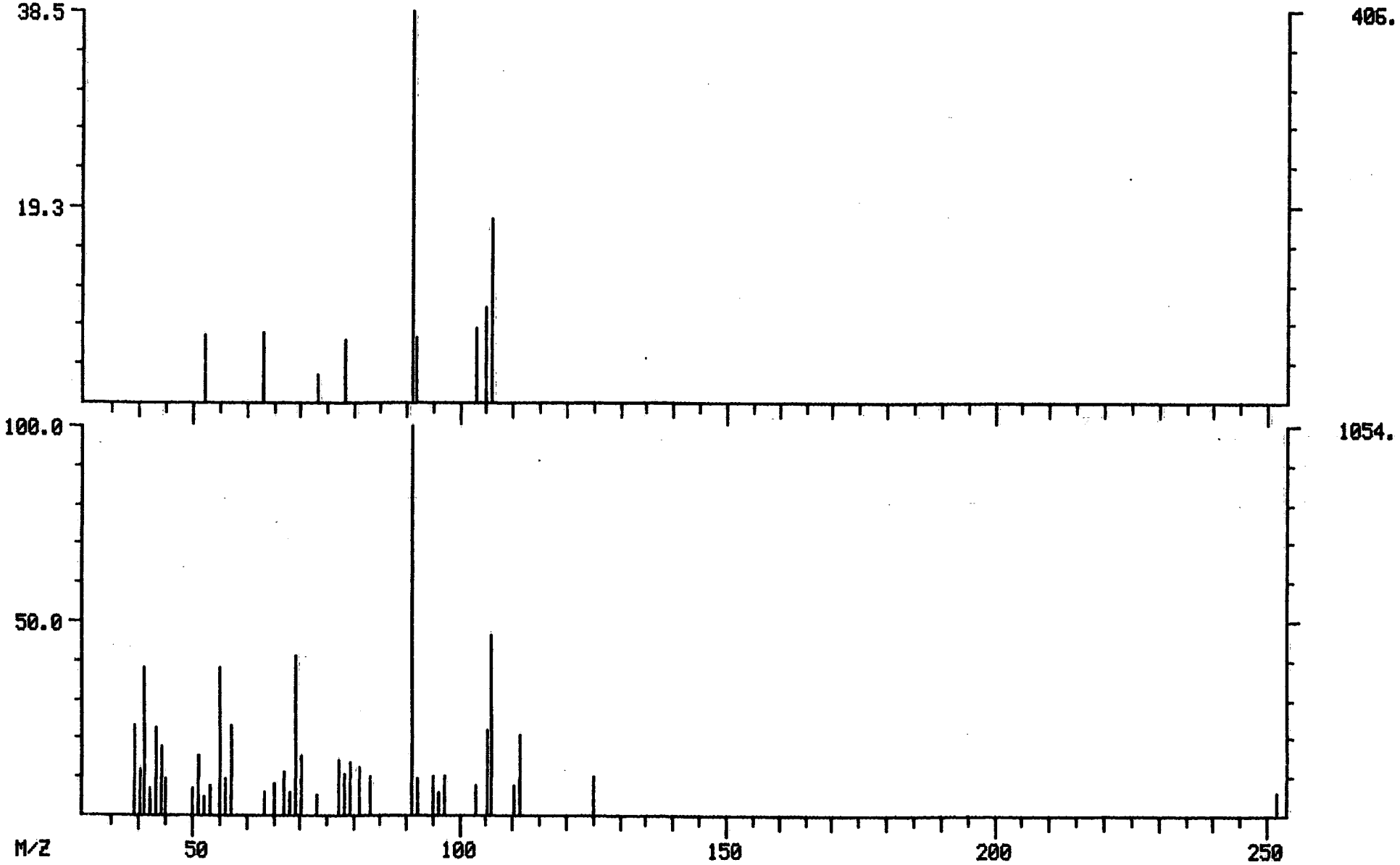
BASE M/Z: 91
RIC: 18303.



DUAL MASS SPECTRUM
12/30/91 4:51:00 + 28:06
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W122916 #843
CALI: W122916 #2

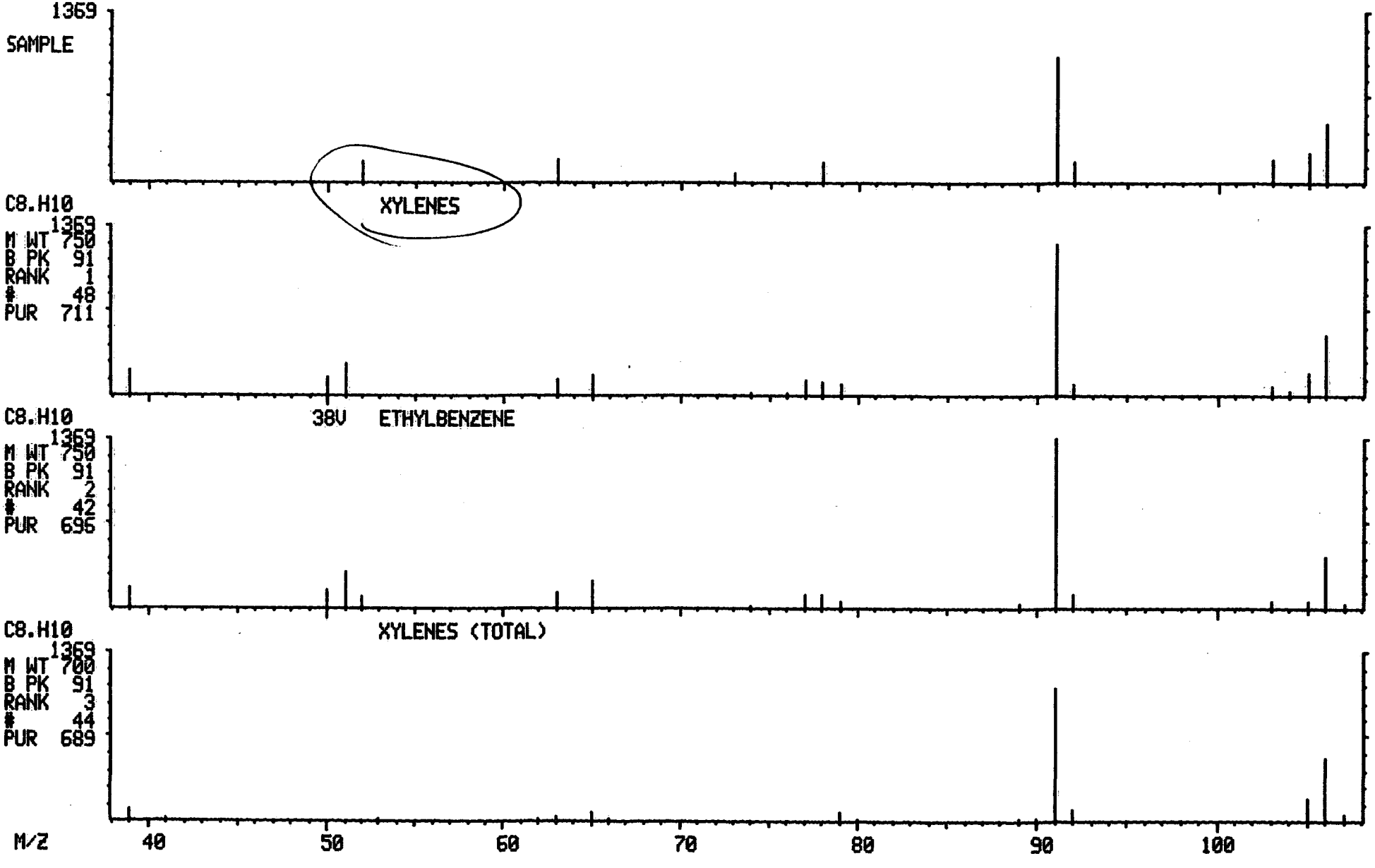
BASE M/Z: 91/ 91
RIC: 1077./ 6855.



LIBRARY SEARCH
12/30/91 4:51:00 + 28:06
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 843
CALI: W122916 # 2

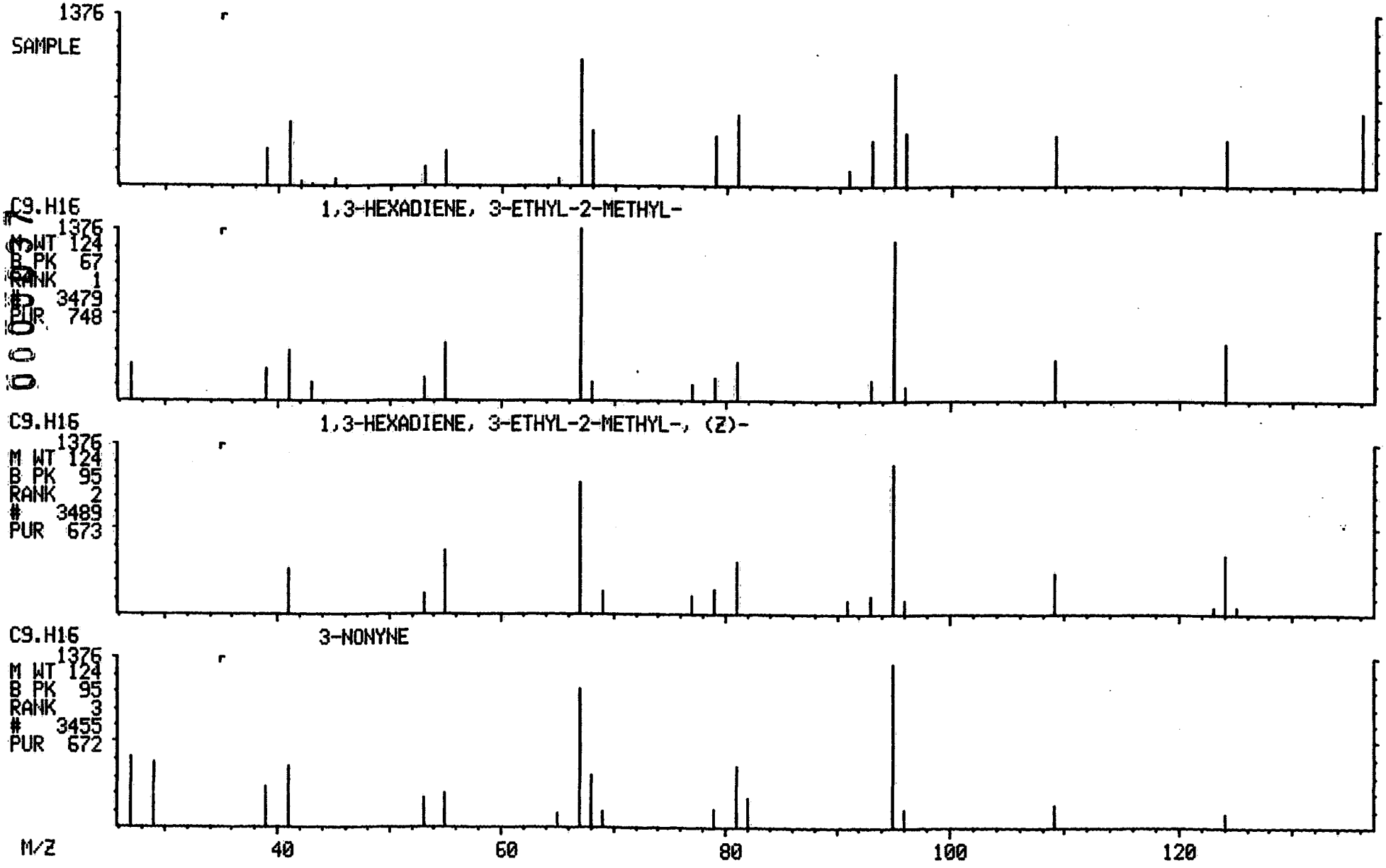
BASE M/Z: 91
RIC: 1077.



LIBRARY SEARCH
12/30/91 4:51:00 + 19:56
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 598
CALI: W122916 # 2

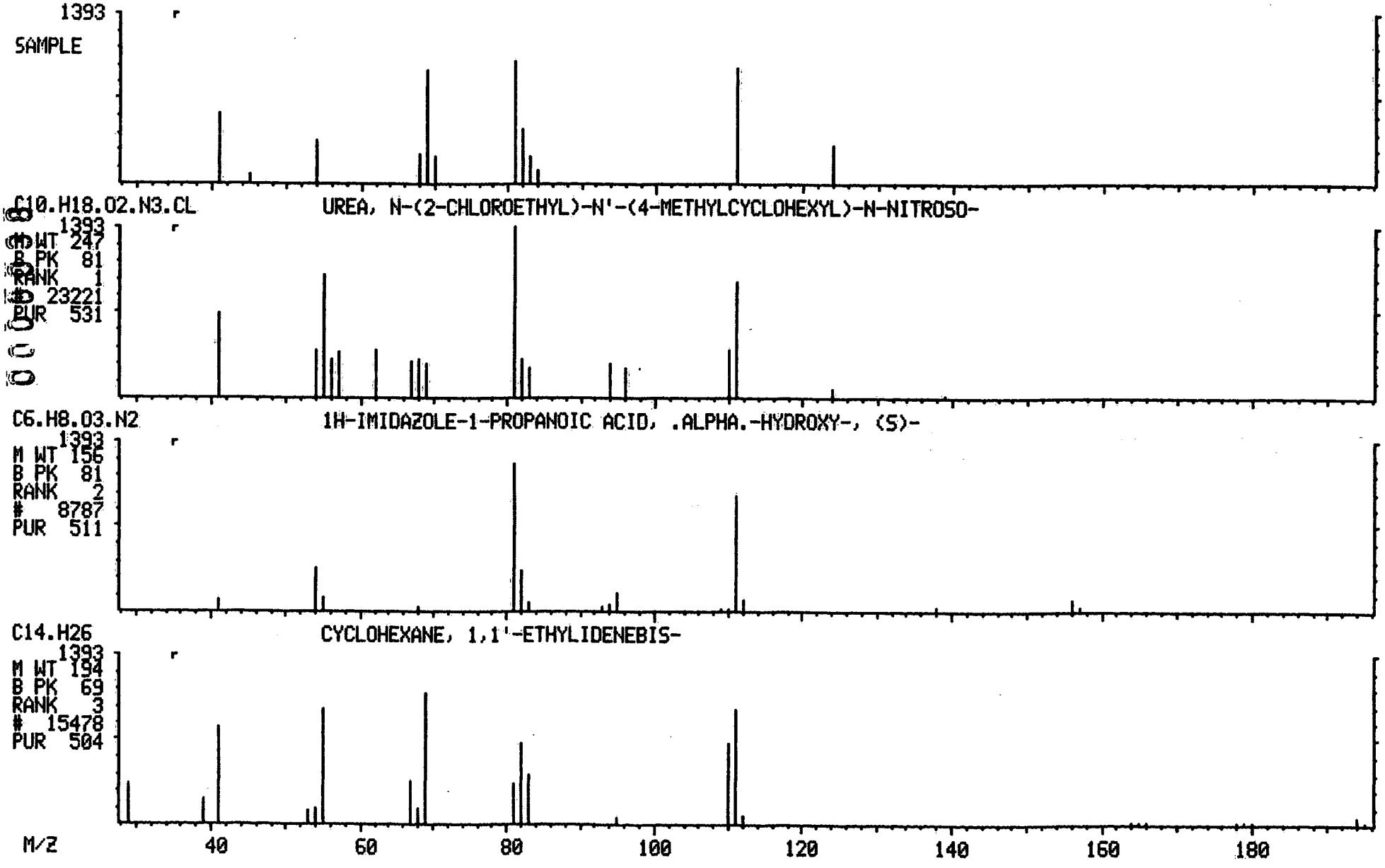
BASE M/Z: 67
RIC: 2335.



LIBRARY SEARCH
12/30/91 4:51:00 + 21:40
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 650
CALI: W122916 # 2

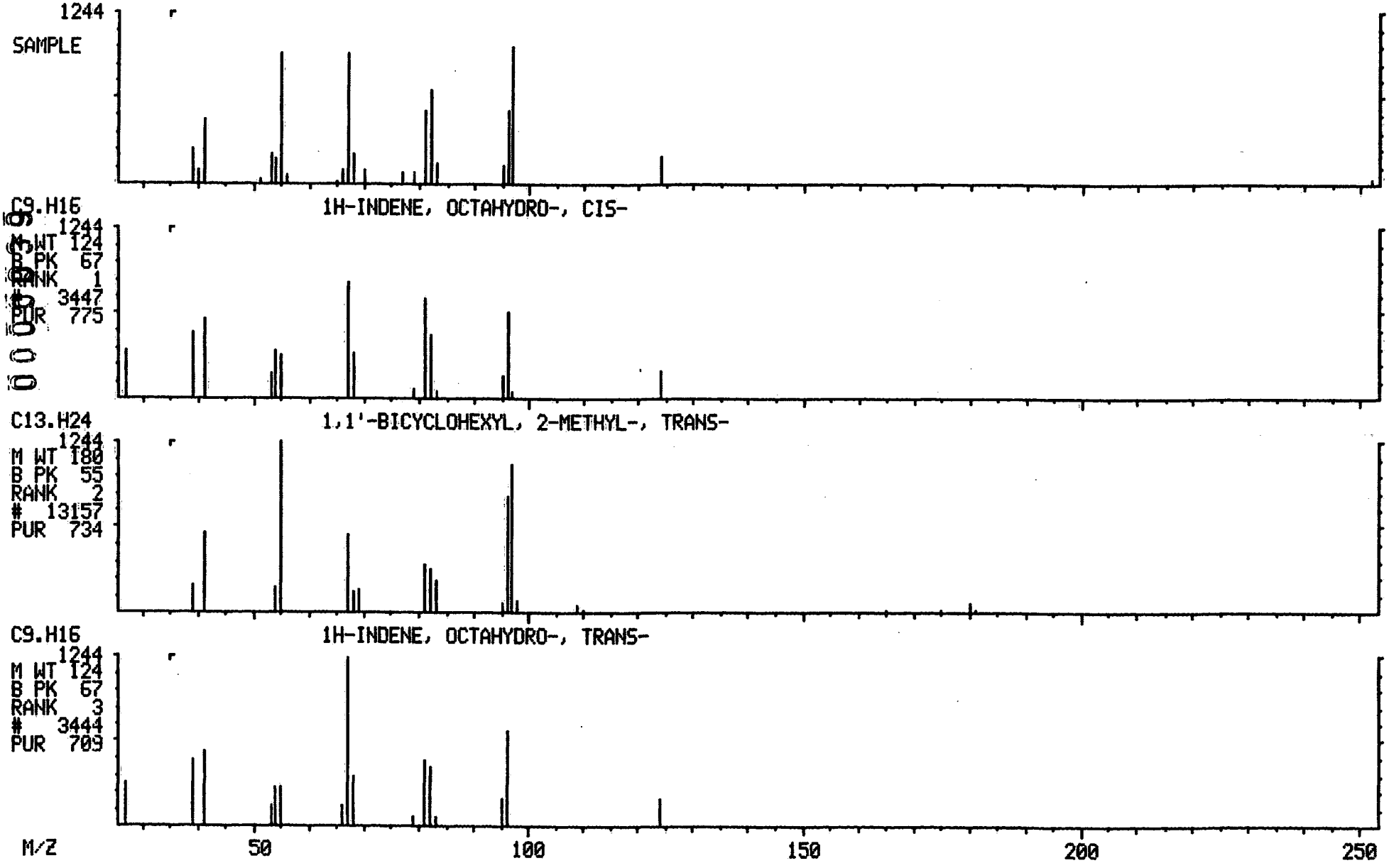
BASE M/Z: 81
RIC: 1095.



LIBRARY SEARCH
12/30/91 4:51:00 + 22:00
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 660
CALI: W122916 # 2

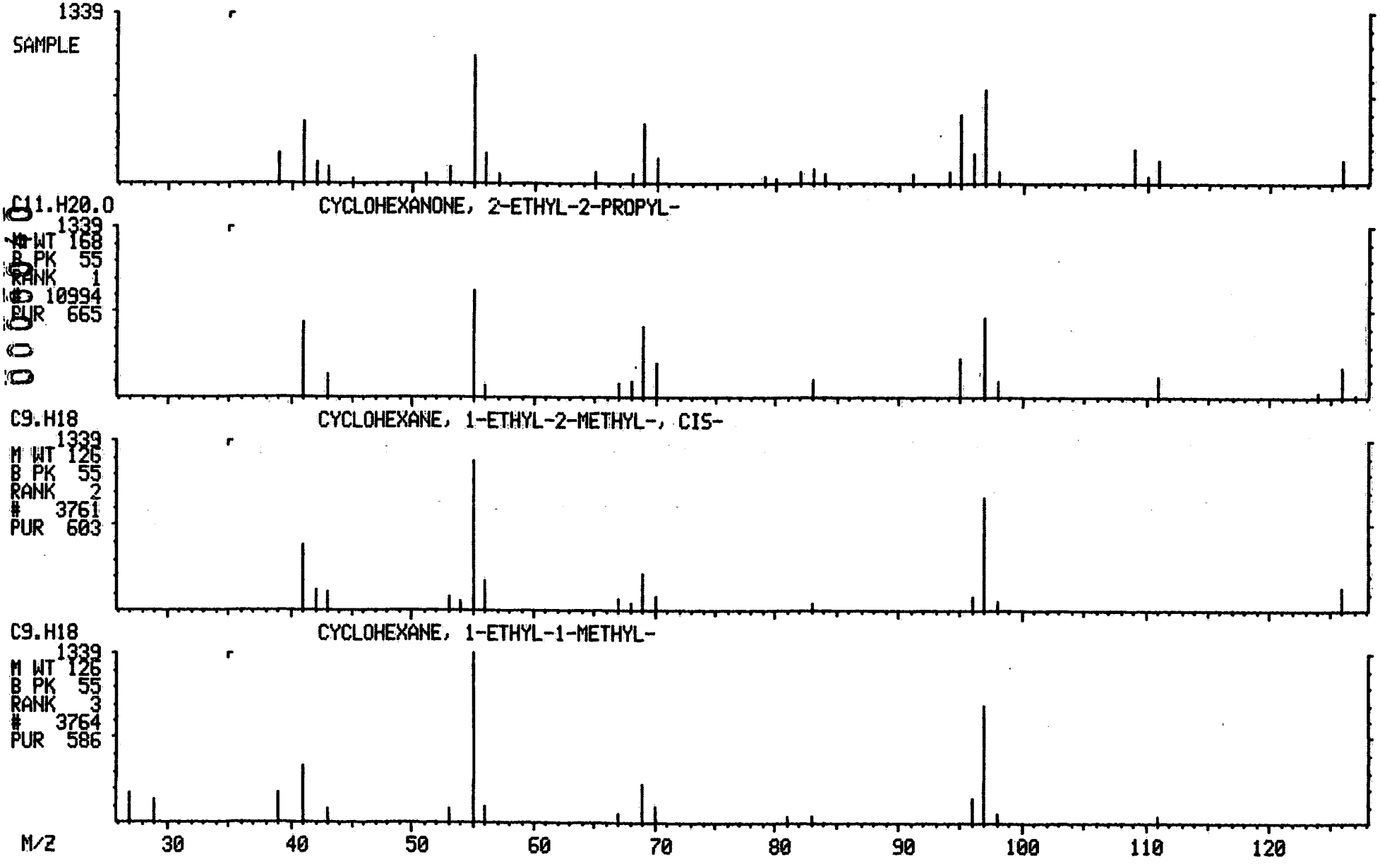
BASE M/Z: 97
RIC: 3351.



LIBRARY SEARCH
12/30/91 4:51:00 + 23:18
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 699
CALI: W122916 # 2

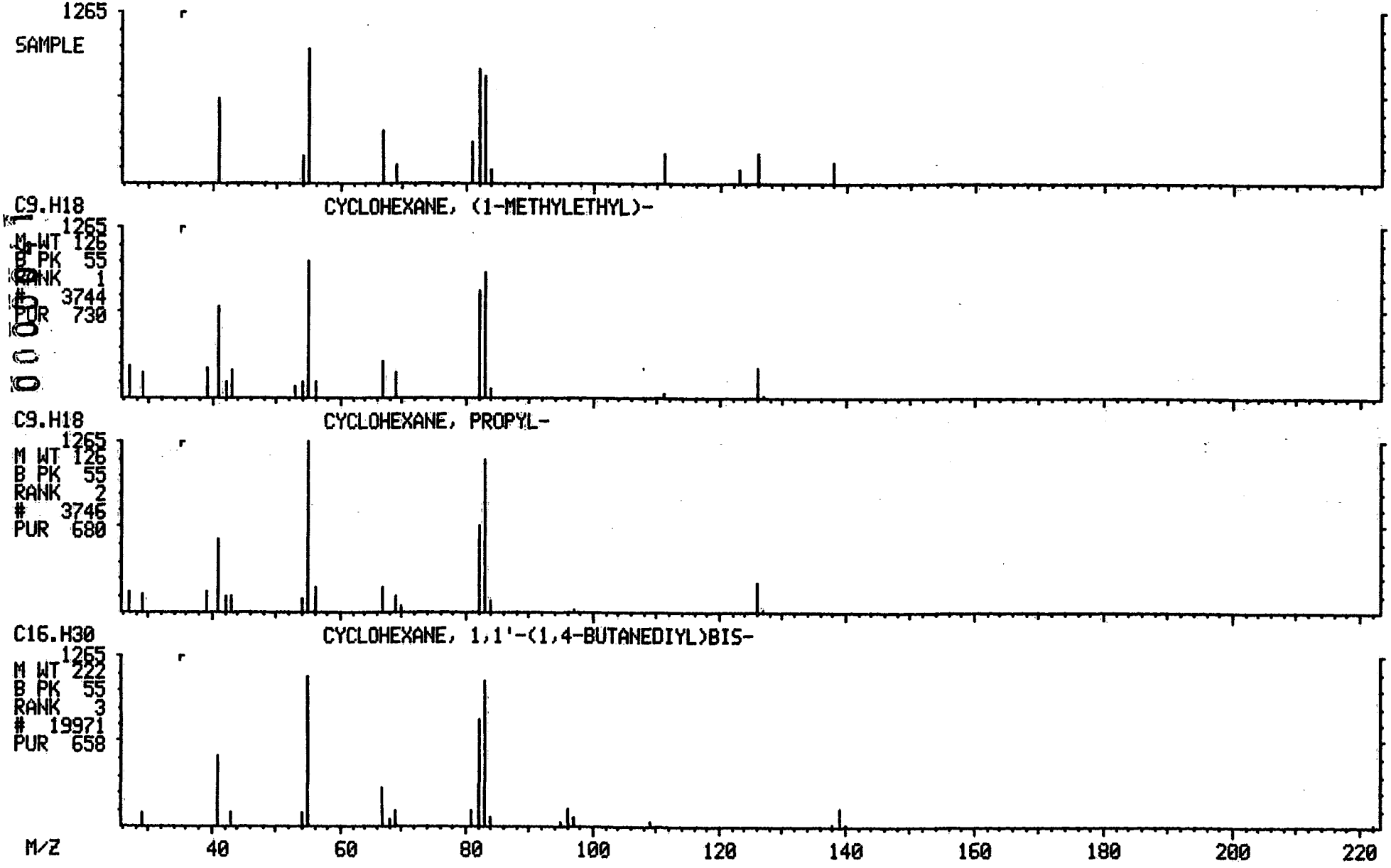
BASE M/Z: 55
RIC: 6095.



LIBRARY SEARCH
12/30/91 4:51:00 + 24:20
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 730
CALI: W122916 # 2

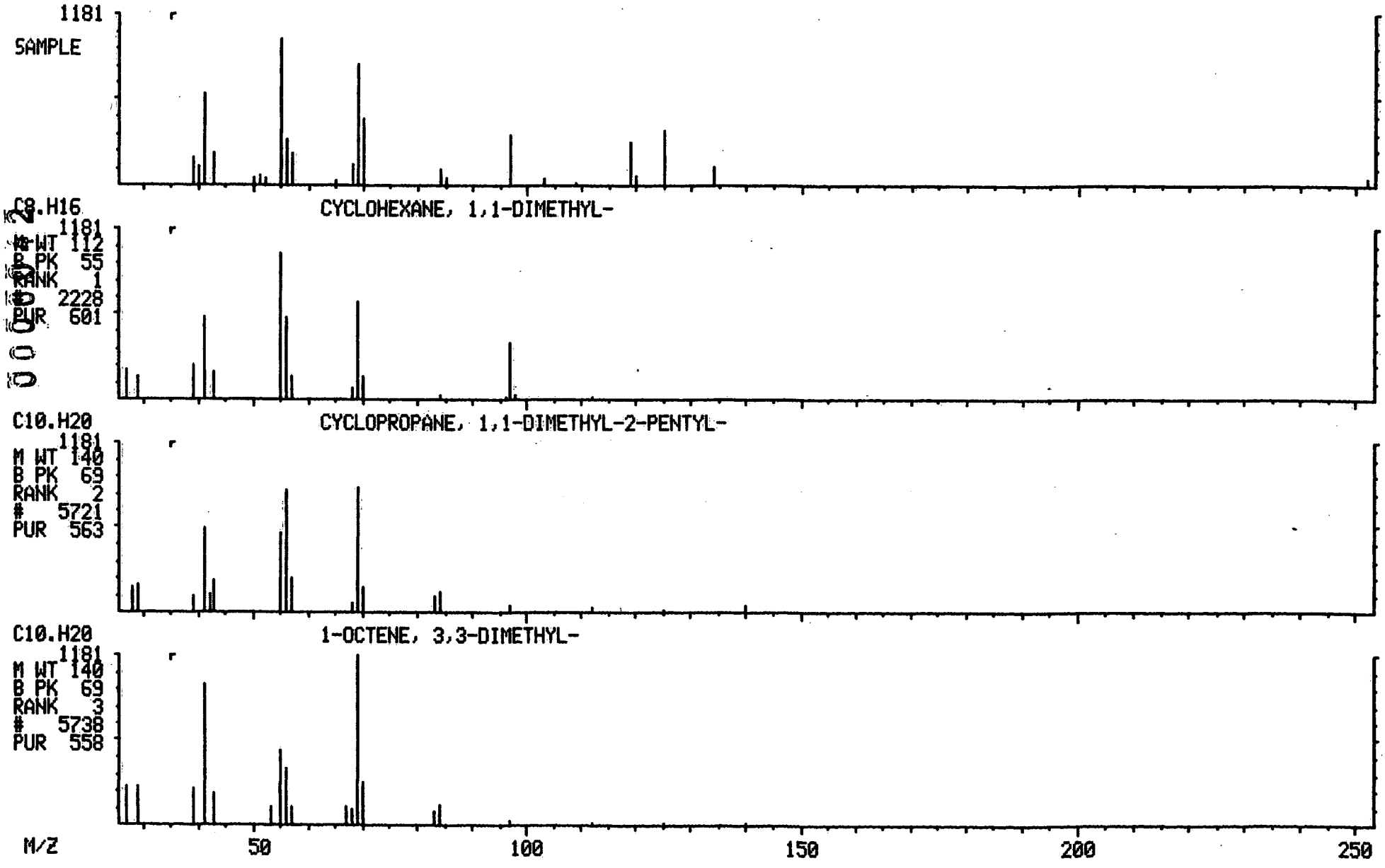
BASE M/Z: 55
RIC: 1919.



LIBRARY SEARCH
12/30/91 4:51:00 + 28:38
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 859
CALI: W122916 # 2

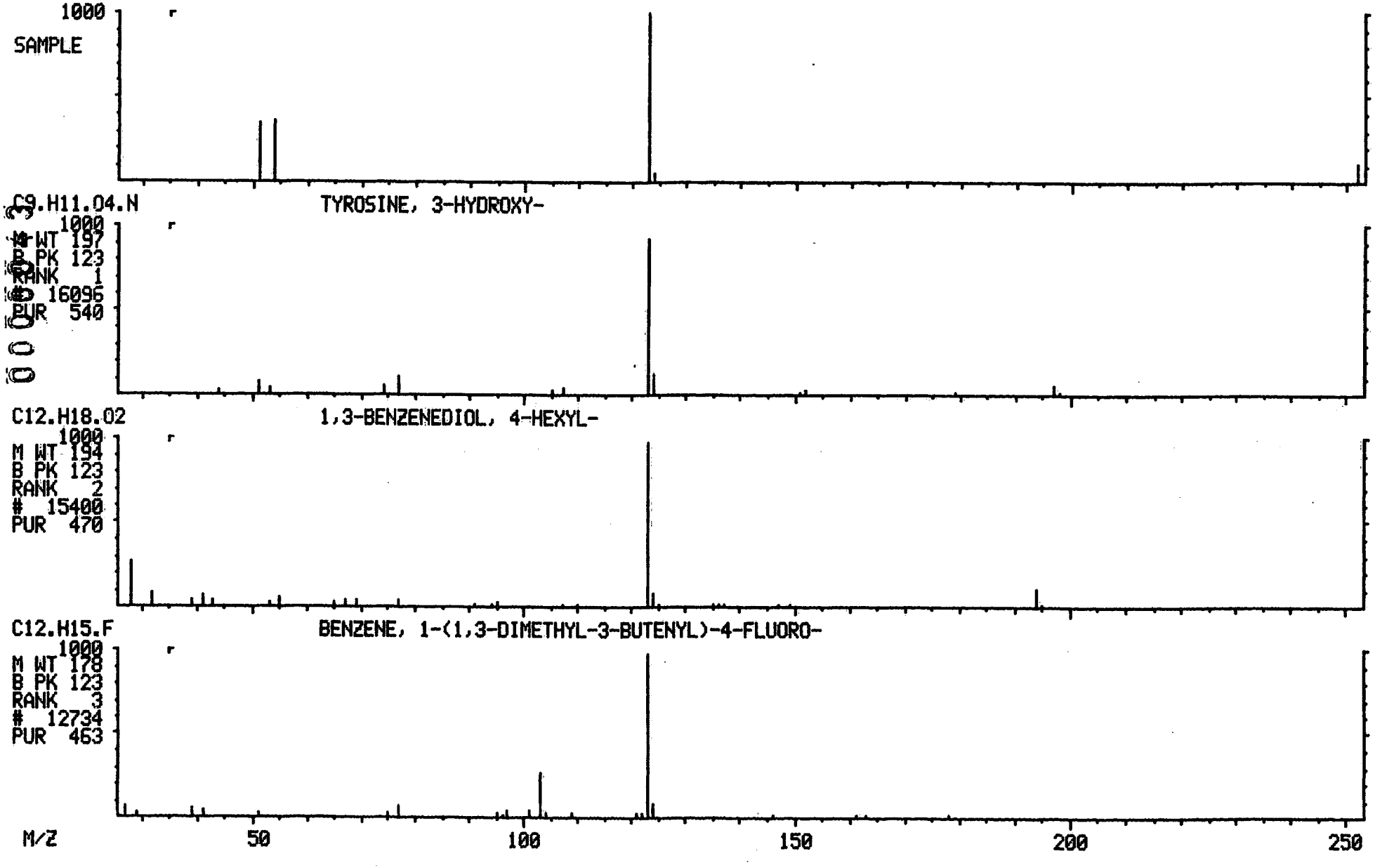
BASE M/Z: 55
RIC: 5159.



LIBRARY SEARCH
12/30/91 4:51:00 + 30:36
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 918
CALI: W122916 # 2

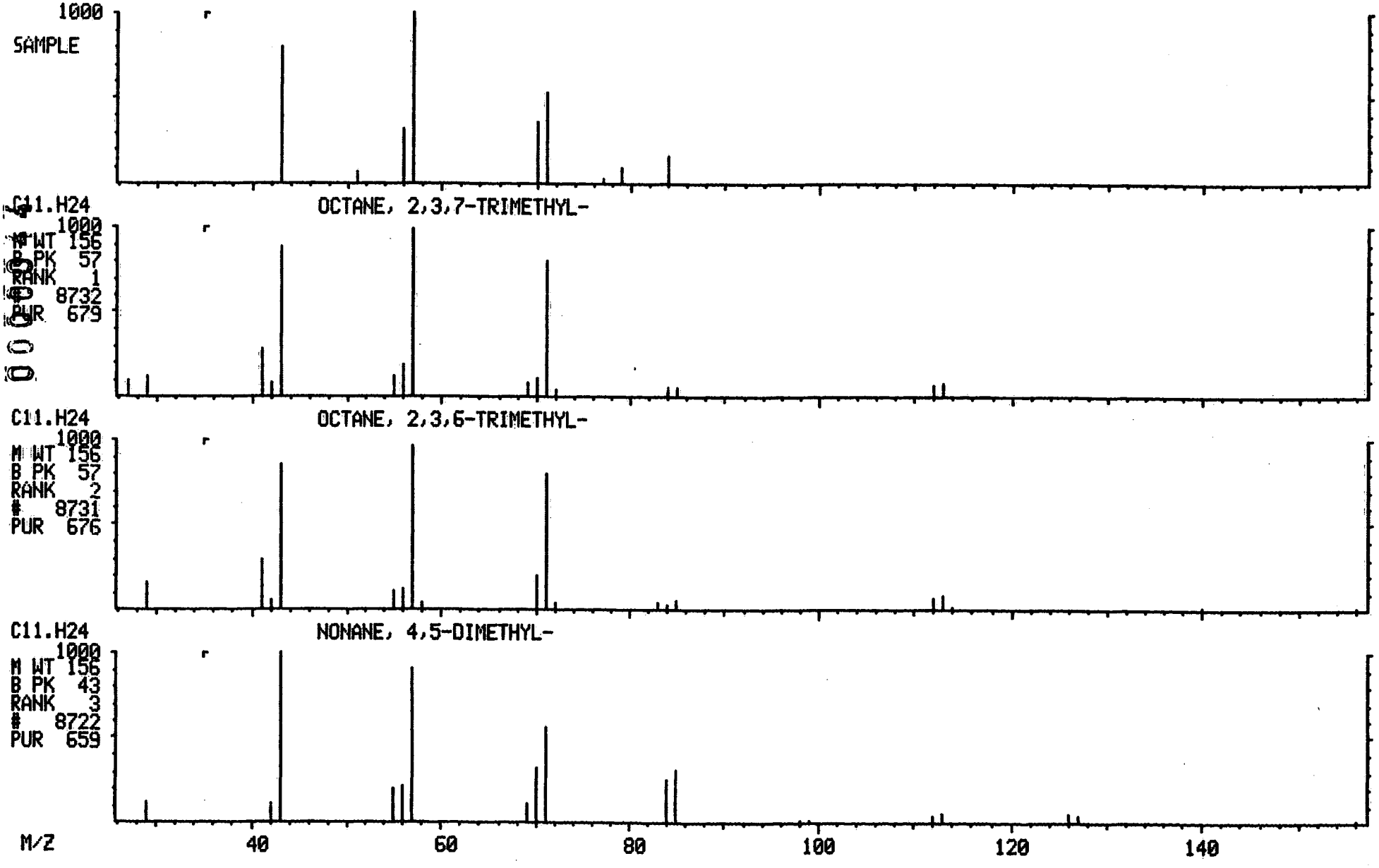
BASE M/Z: 123
RIC: 175.



LIBRARY SEARCH
12/30/91 4:51:00 + 31:12
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 936
CALI: W122916 # 2

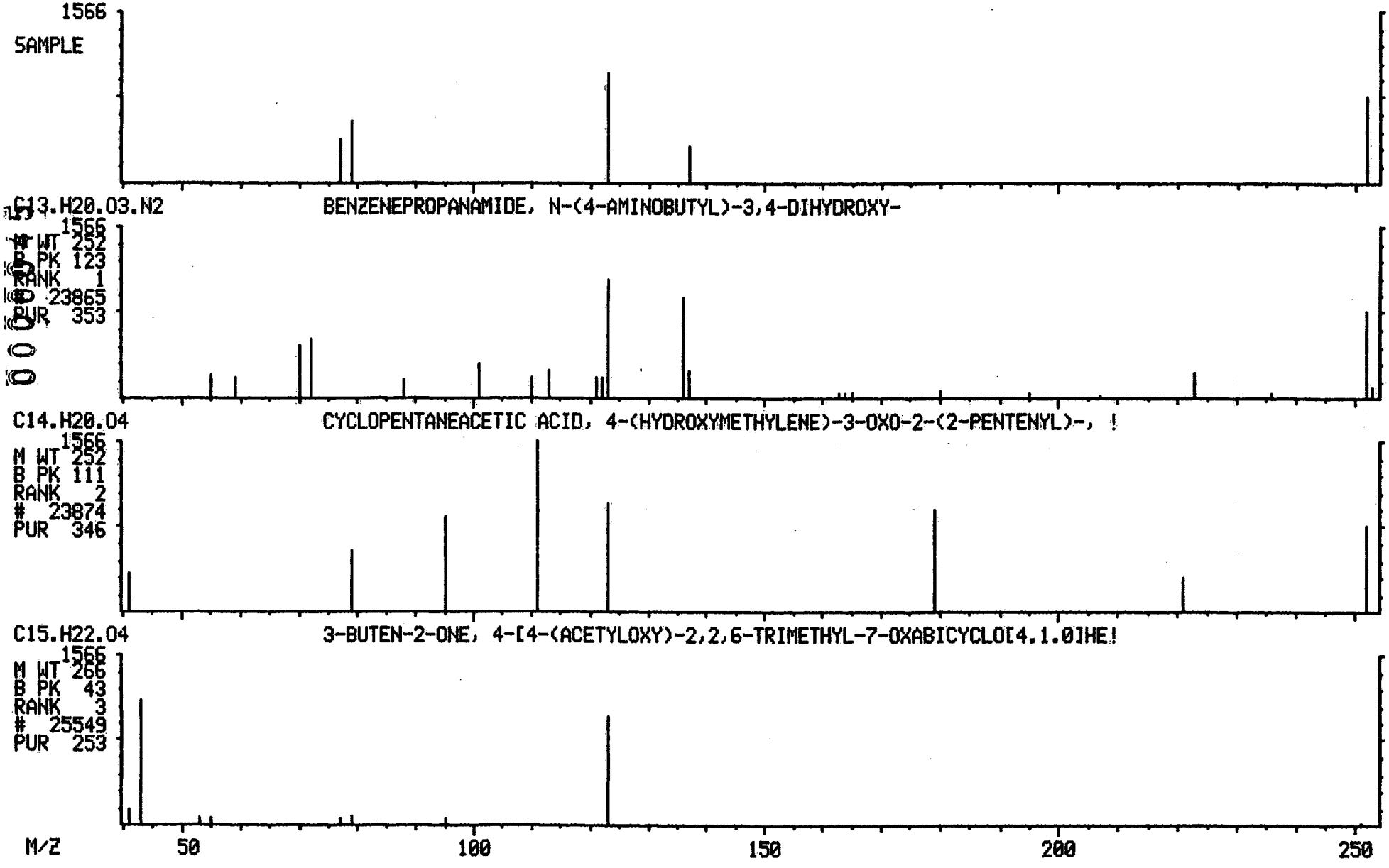
BASE M/Z: 57
RIC: 924.



LIBRARY SEARCH
12/30/91 4:51:00 + 33:06
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 # 993
CALI: W122916 # 2

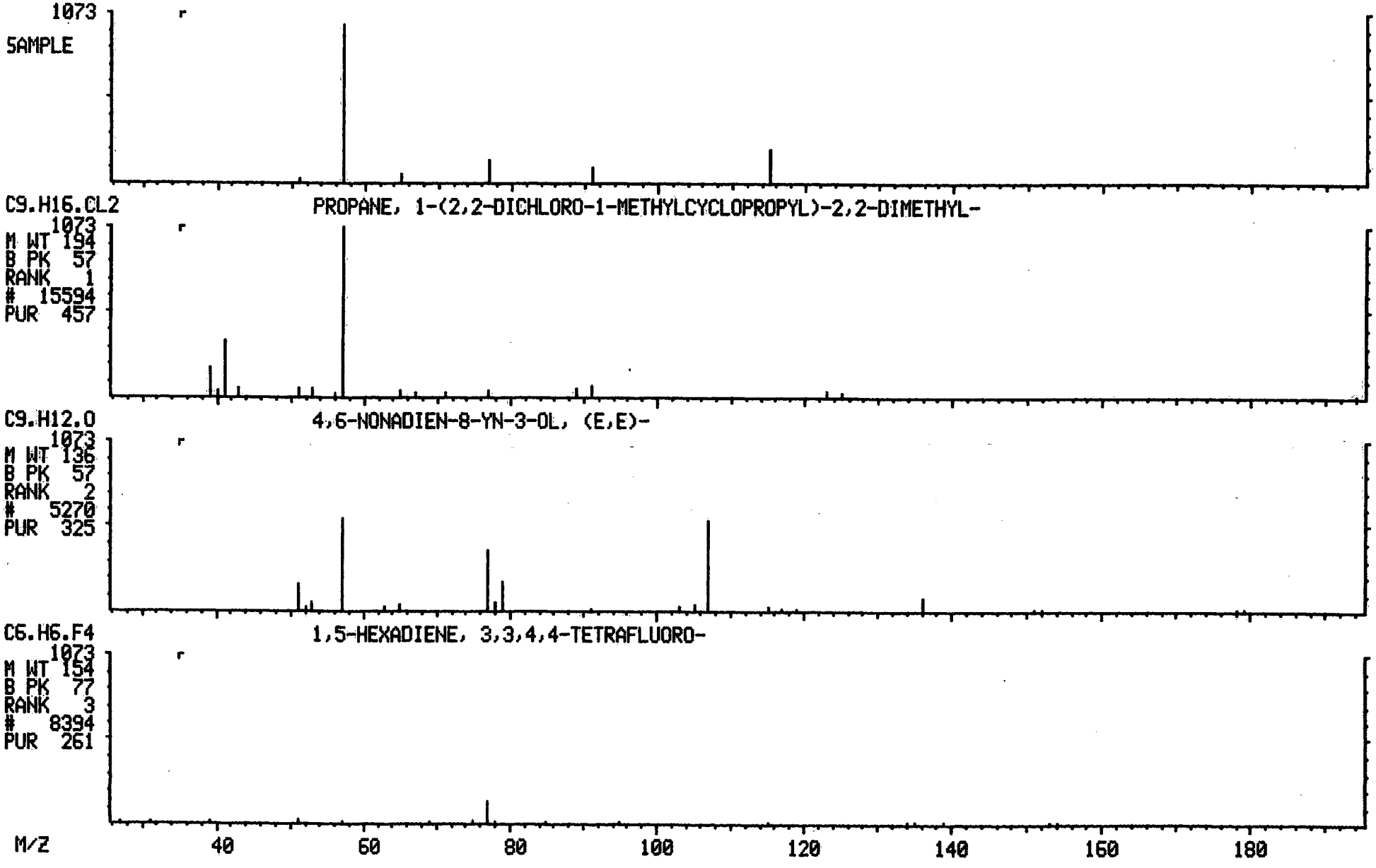
BASE M/Z: 123
RIC: 172.



LIBRARY SEARCH
12/30/91 4:51:00 + 33:26
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 #1003
CALI: W122916 # 2

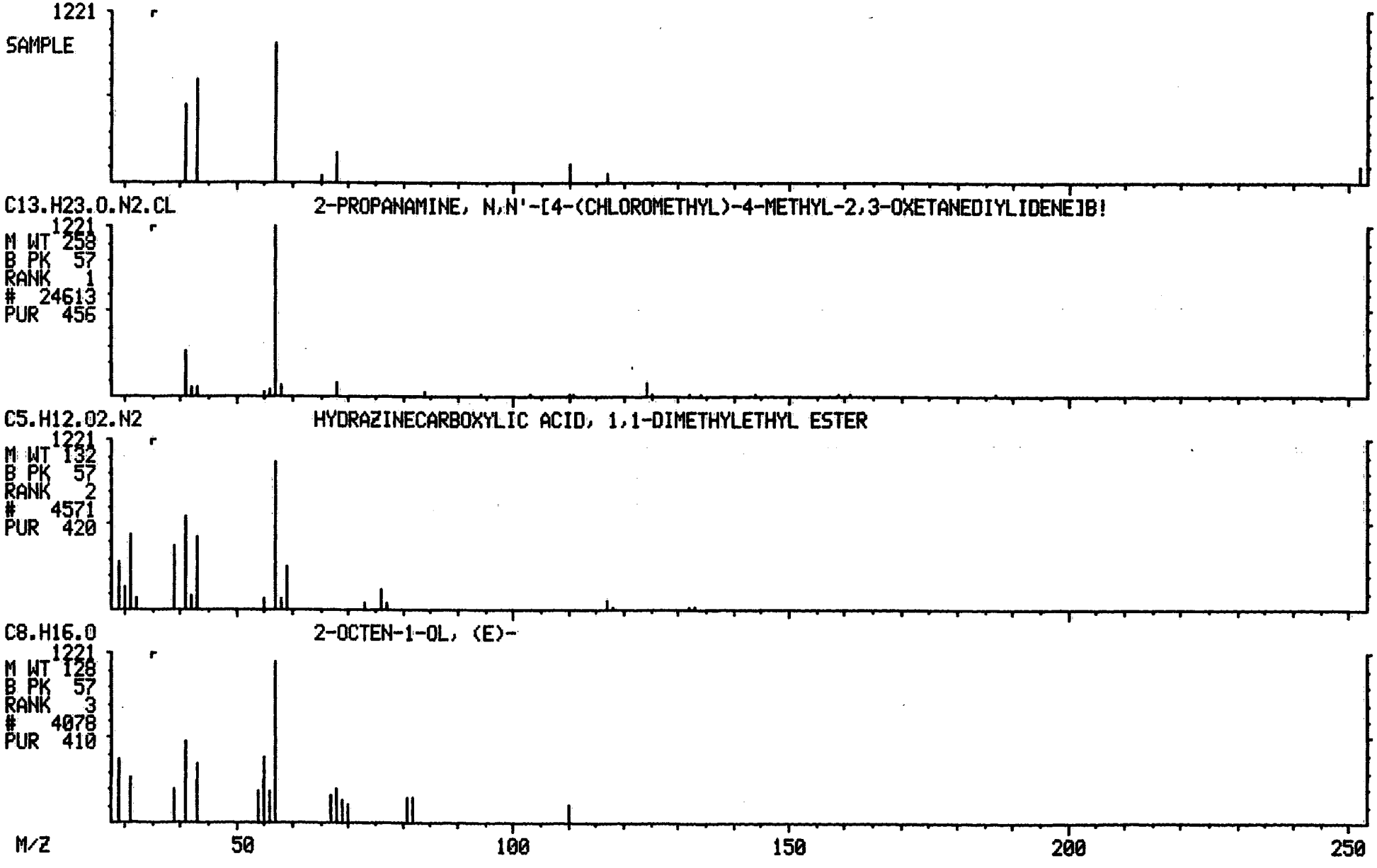
BASE M/Z: 57
RIC: 549.



LIBRARY SEARCH
12/30/91 4:51:00 + 34:58
SAMPLE: 9112L841-001 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122916 #1049
CALI: W122916 # 2

BASE M/Z: 57
RIC: 763.



1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

MW-3

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-002

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: W122917

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	B
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	3	J
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	13	
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene		E
95-50-1	1,2-Dichlorobenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
107-02-8	Acrolein	10	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
1330-20-7	Xylene (total)		E

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW-3

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-002

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: W122917

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 9

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

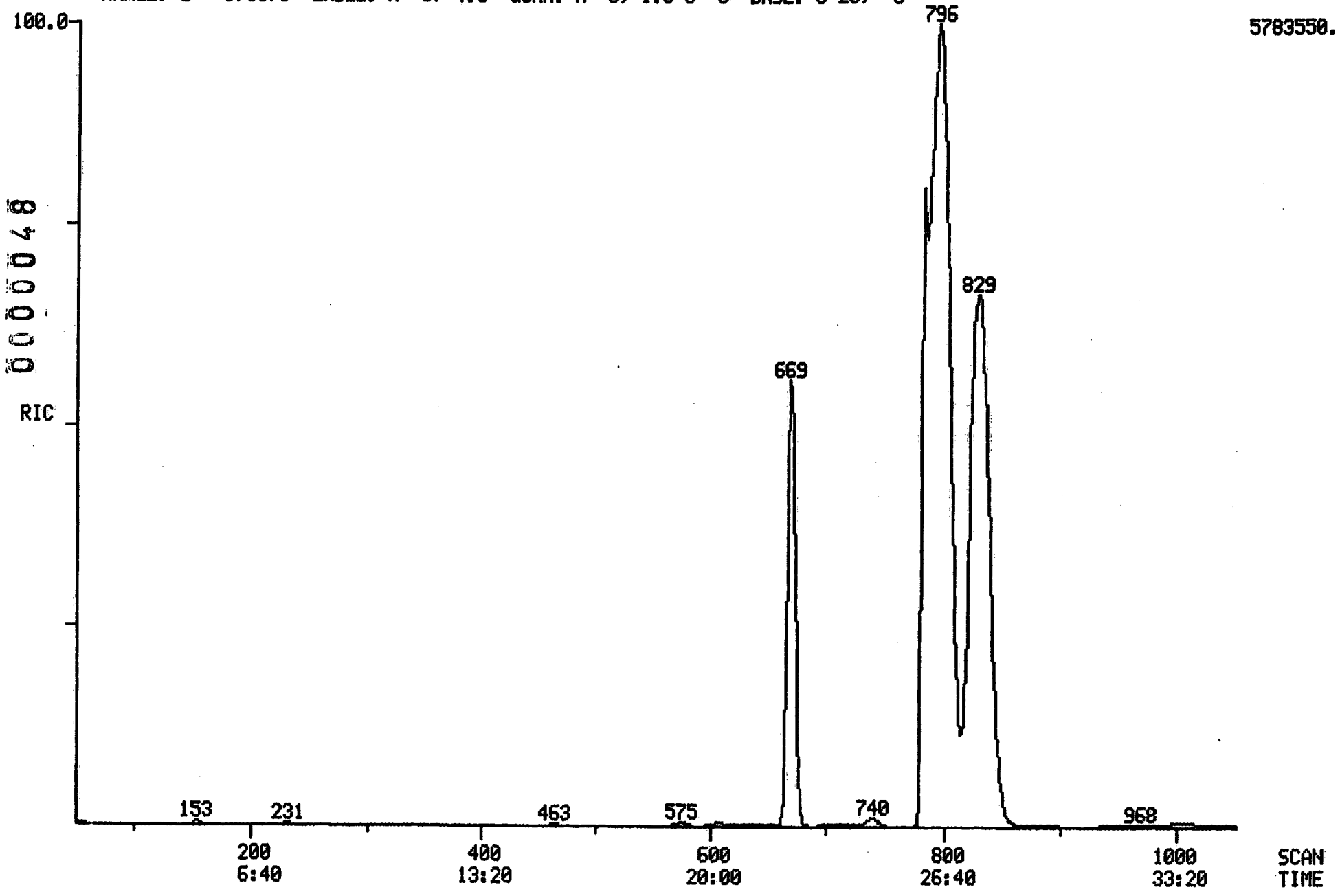
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	21.37	40	J
2.	UNKNOWN	23.30	6	J
3.	ALKYL BENZENAMINE	26.10	5000	J
4.	UNKNOWN	26.53	20000	J
5.	AROMATIC HYDROCARBON	27.67	10000	J
6.	UNKNOWN	29.60	20	J
7.	UNKNOWN	32.23	40	J
8.	C3 BENZENE	33.53	90	J
9.	UNKNOWN	35.00	60	J

SS3 4.5% need dil 1:500

RIC
12/30/91 5:32:00
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: W122917 #1
CALI: W122917 #2

SCANS 50 TO 1050



000048

Quantitation Report File: W122917 0000049

Data: W122917.TI
12/30/91 5:32:00
Sample: 9112L841-002 WSI-LE CARPENTER 5.0ML
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.011
Submitted by: W122907 Analyst: SSQ Acct. No.: 122991

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	14H	2-BUTANONE	
19	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

0000050

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot	
1	128	153	5:06	1	1.000	A BB	17928.	50.000	UG/L	0.23	
2	65	231	7:42	1	1.510	A BB	27710.	53.653	UG/L	0.25	
3	NOT FOUND										
4	NOT FOUND										
5	NOT FOUND										
6	NOT FOUND										
7	84	87	2:54	1	0.569	A BB	2058.	5.119	UG/L	0.02	
8	43	105	3:30	1	0.686	A BB	2521.	16.284	UG/L	0.08	NT
9	NOT FOUND										
10	76	128	4:16	1	0.837	A BB	622.	0.618	UG/L	0.00	
11	NOT FOUND										
12	NOT FOUND										
13	NOT FOUND										
14	NOT FOUND										
15	NOT FOUND										
16	NOT FOUND										
17	NOT FOUND										
18	NOT FOUND										
19	114	463	15:26	19	1.000	A BB	56432.	50.000	UG/L	0.23	
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	78	386	12:52	19	0.834	A BB	2276.	2.910	UG/L	0.01	
30	NOT FOUND										
31	NOT FOUND										
32	NOT FOUND										
33	117	607	20:14	33	1.000	A BB	53082.	50.000	UG/L	0.23	
34	98	575	19:10	33	0.947	A BB	55057.	51.117	UG/L	0.24	
35	95	741	24:42	33	1.221	A BB	64556.	62.662	UG/L	0.29	X
36	43	485	16:10	33	0.799	A*VV	754.	3.084	UG/L	0.01	X NT
37	NOT FOUND										
38	NOT FOUND										
39	NOT FOUND										
40	92	580	19:20	33	0.956	A BB	7691.	13.437	UG/L	0.06	
41	NOT FOUND										
42	106	669	22:18	33	1.102	A BB	3633370.	10063.700	UG/L	46.84	— E
43	104	795	26:30	33	1.310	A BB	1274870.	2060.080	UG/L	9.59	— E N
44	106	804	26:48	33	1.325	A BB	3614840.	9001.040	UG/L	41.90	— E
45	NOT FOUND										
46	NOT FOUND										
47	NOT FOUND										
48	NOT FOUND										
49	NOT FOUND										
50	NOT FOUND										

1/13/92

Quantitation Report File: W122917 0000051

Data: W122917.TI
12/30/91 5:32:00
Sample: 9112L841-002 WSI-LE CARPENTER 5.0ML
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.011
Submitted by: W122907 Analyst: SSG Acct. No.: 122991

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

No	Name
51	T-BUTYL ALCOHOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								

Quantitation Report File: W122917TI 0000052

Data: W122917.TI
12/30/91 5:32:00
Sample: 9112L841-002 WSI-LE CARPENTER 5.0ML
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.011
Submitted by: W122907 Analyst: SSQ Acct. No.: 122991

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

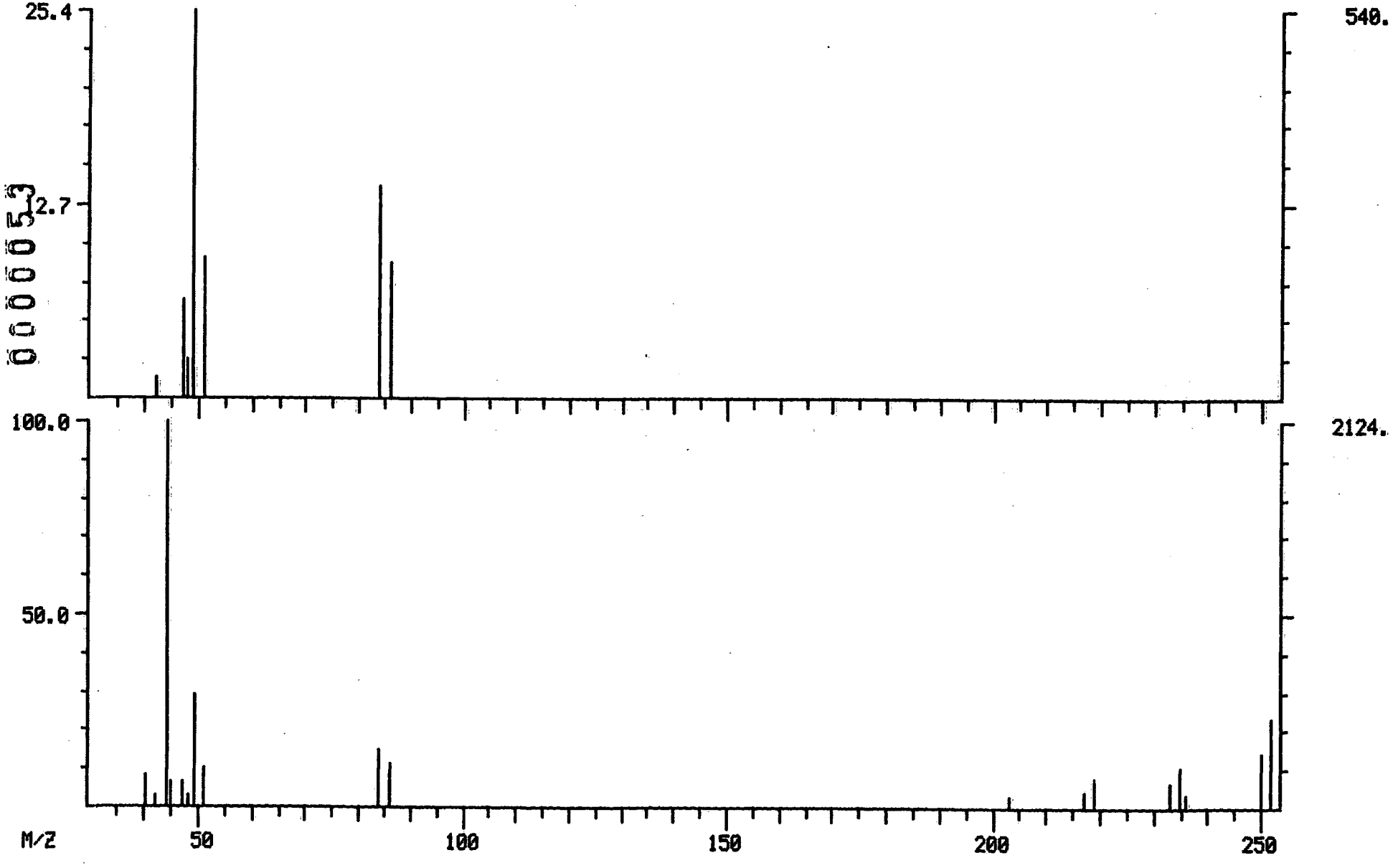
No	Name	
1	UNKNOWN	
2	IS3 CHLOROBENZENE D5	INTERNAL STANDARD #3
3	UNKNOWN	
4	UNKNOWN	
5	UNKNOWN	
6	UNKNOWN	
7	UNKNOWN	
8	UNKNOWN	
9	UNKNOWN	
10	UNKNOWN	
11	UNKNOWN	
12	UNKNOWN	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot	ug/L
1	RIC	549	18:18	7	0.690	A BV	18990.	0.020	<10%	0.01	4.94
2	RIC	607	20:14	2	1.000	A BB	192352.	50.000	UG/L	22.08	
3	RIC	620	20:40	7	0.779	A BV	15792.	0.017	<10%	0.01	4.10
4	RIC	641	21:22	7	0.805	A VB	161984.	0.171		0.08	42.11
5	RIC	699	23:18	7	0.878	A BB	22472.	0.024		0.01	5.84
6	RIC	783	26:06	7	0.984	A BV	19342800.	20.404		9.01	5027.9
7	RIC	796	26:32	7	1.000	A VB	94800800.	100.000		44.15	24642.5
8	RIC	830	27:40	7	1.043	A BB	52190200.	55.052		24.31	13566.3
9	RIC	888	29:36	7	1.116	A BB	64008.	0.068		0.03	16.64
10	RIC	967	32:14	7	1.215	A BB	138992.	0.147		0.06	36.13
11	RIC	1006	33:32	7	1.264	A BB	344624.	0.364		0.16	89.58
12	RIC	1050	35:00	7	1.319	A BB	216016.	0.228		0.10	56.15

DUAL MASS SPECTRUM
12/30/91 5:32:00 + 2:54
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 76 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W122917 #87
CALI: W122917 #2

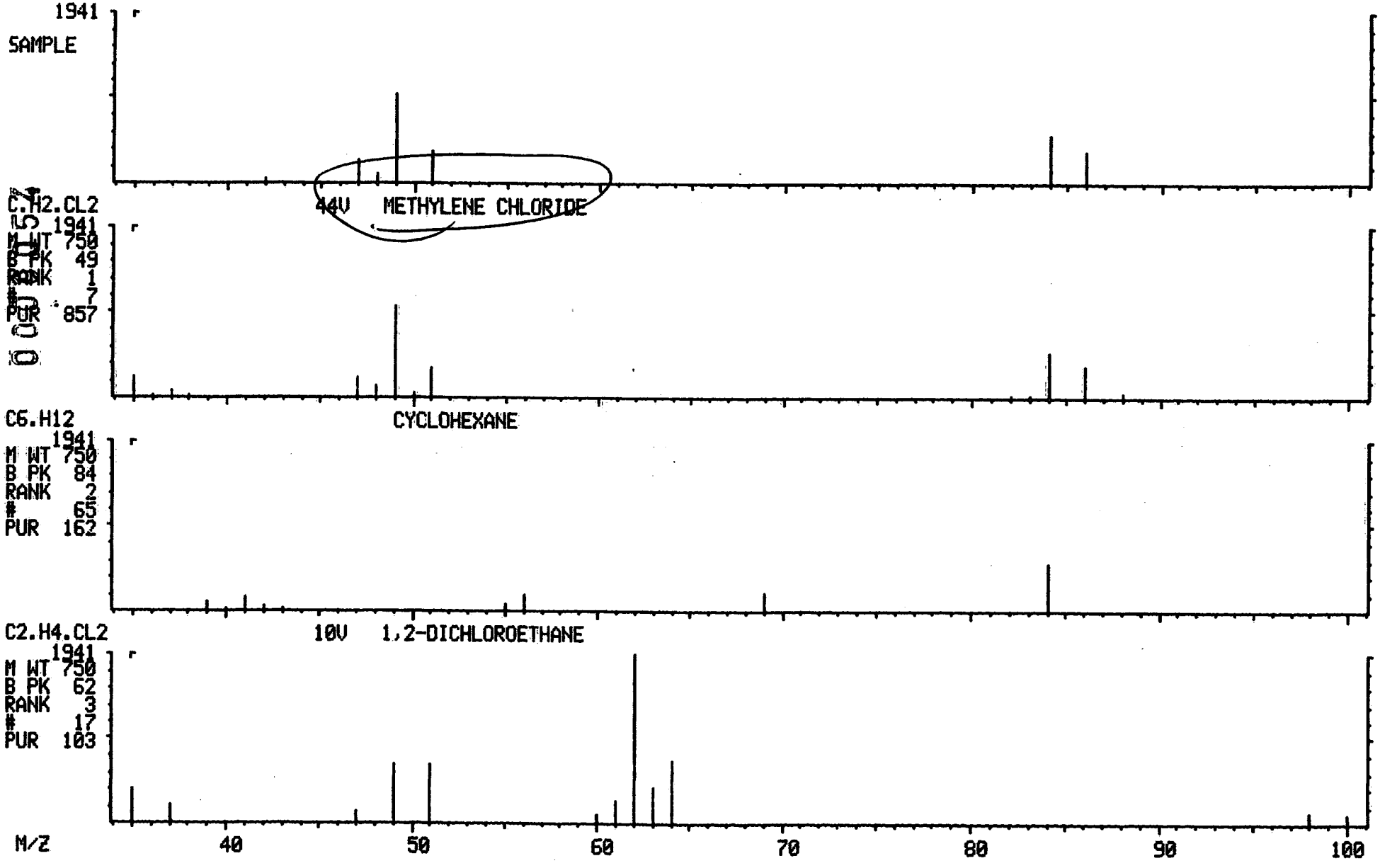
BASE M/Z: 49/ 44
RIC: 1443./ 5615.



LIBRARY SEARCH
12/30/91 5:32:00 + 2:54
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 # 87
CALI: W122917 # 2

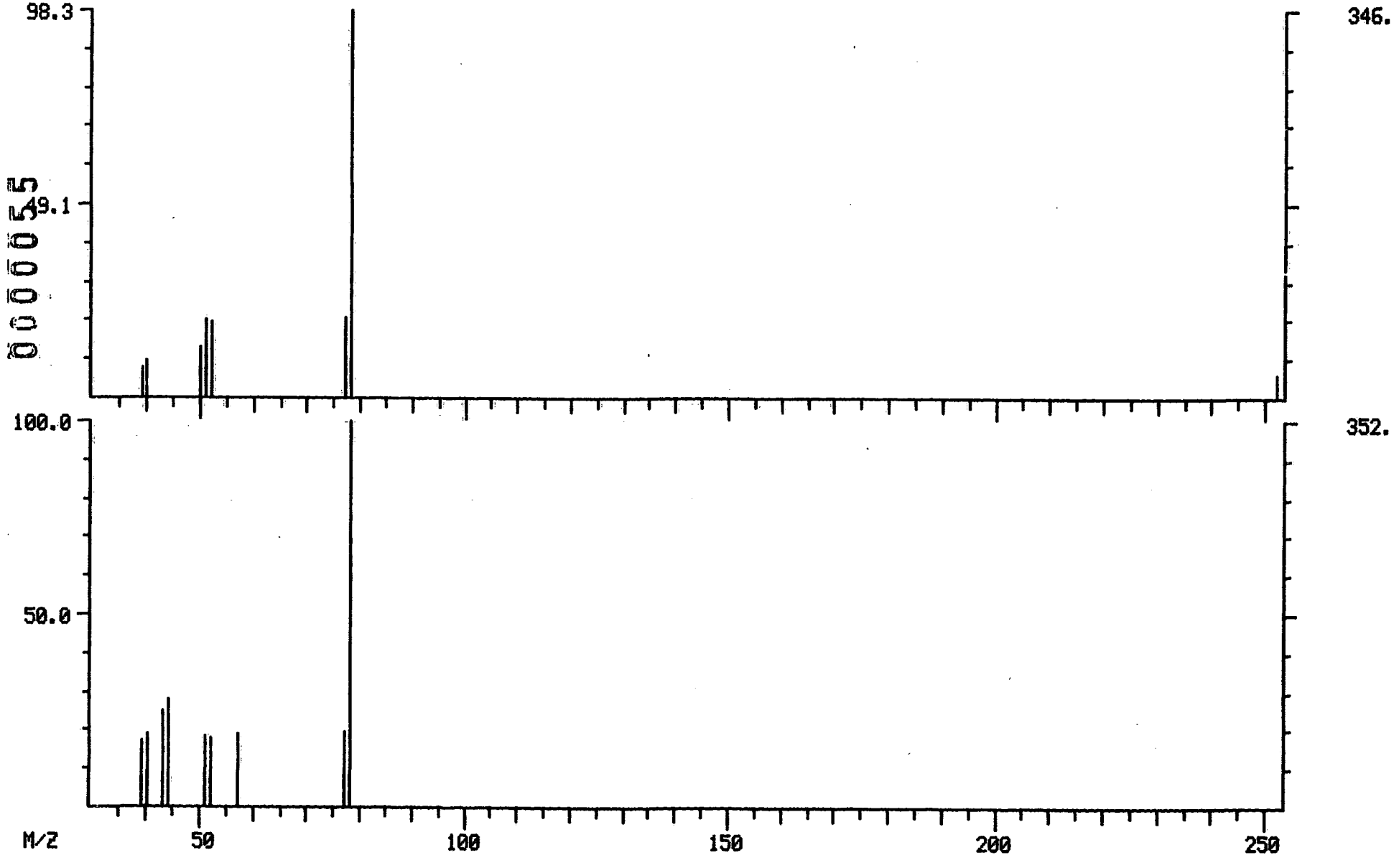
BASE M/Z: 49
RIC: 1443.



DUAL MASS SPECTRUM
12/30/91 5:32:00 + 12:52
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 150 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W122917 #386
CALI: W122917 #2

BASE M/Z: 78/ 78
RIC: 679./ 927.

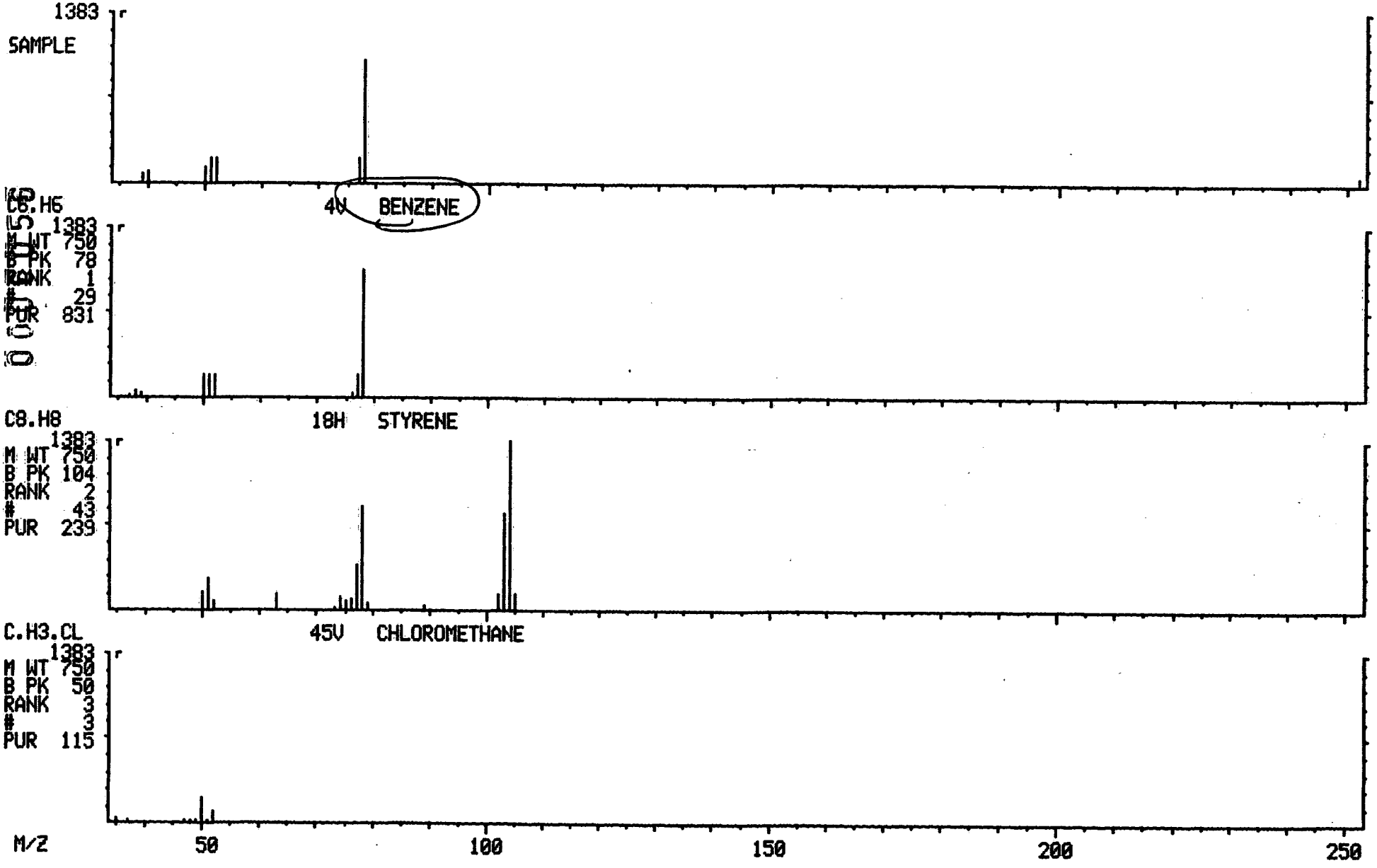


000055

LIBRARY SEARCH
12/30/91 5:32:00 + 12:52
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 # 386
CALI: W122917 # 2

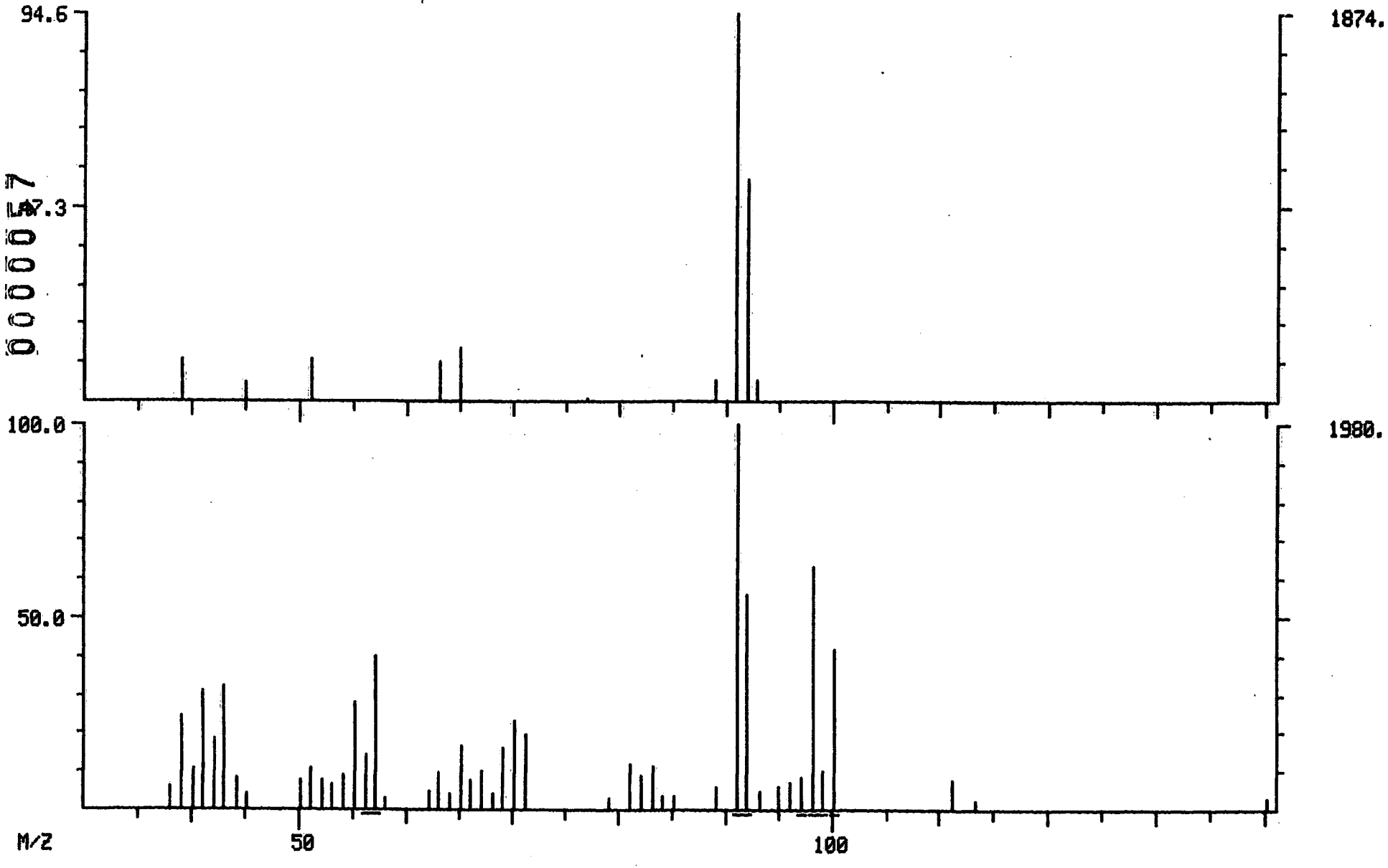
BASE M/Z: 78
RIC: 679.



DUAL MASS SPECTRUM
12/30/91 5:32:00 + 19:20
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 199 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W122917 #580
CALI: W122917 #2

BASE M/Z: 91/ 91
RIC: 4103./ 14591.

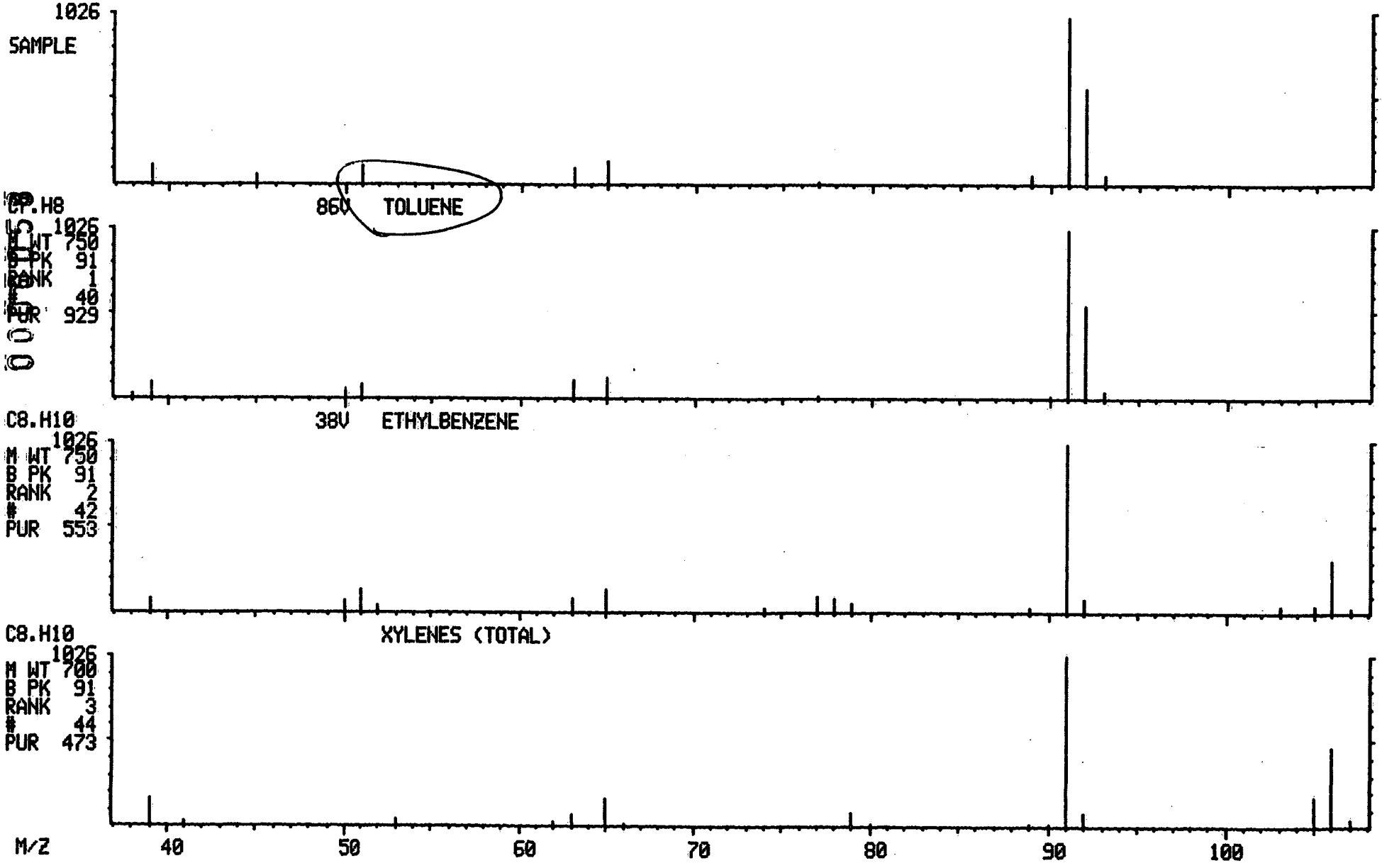


000057

LIBRARY SEARCH
12/30/91 5:32:00 + 19:20
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 # 580
CALI: W122917 # 2

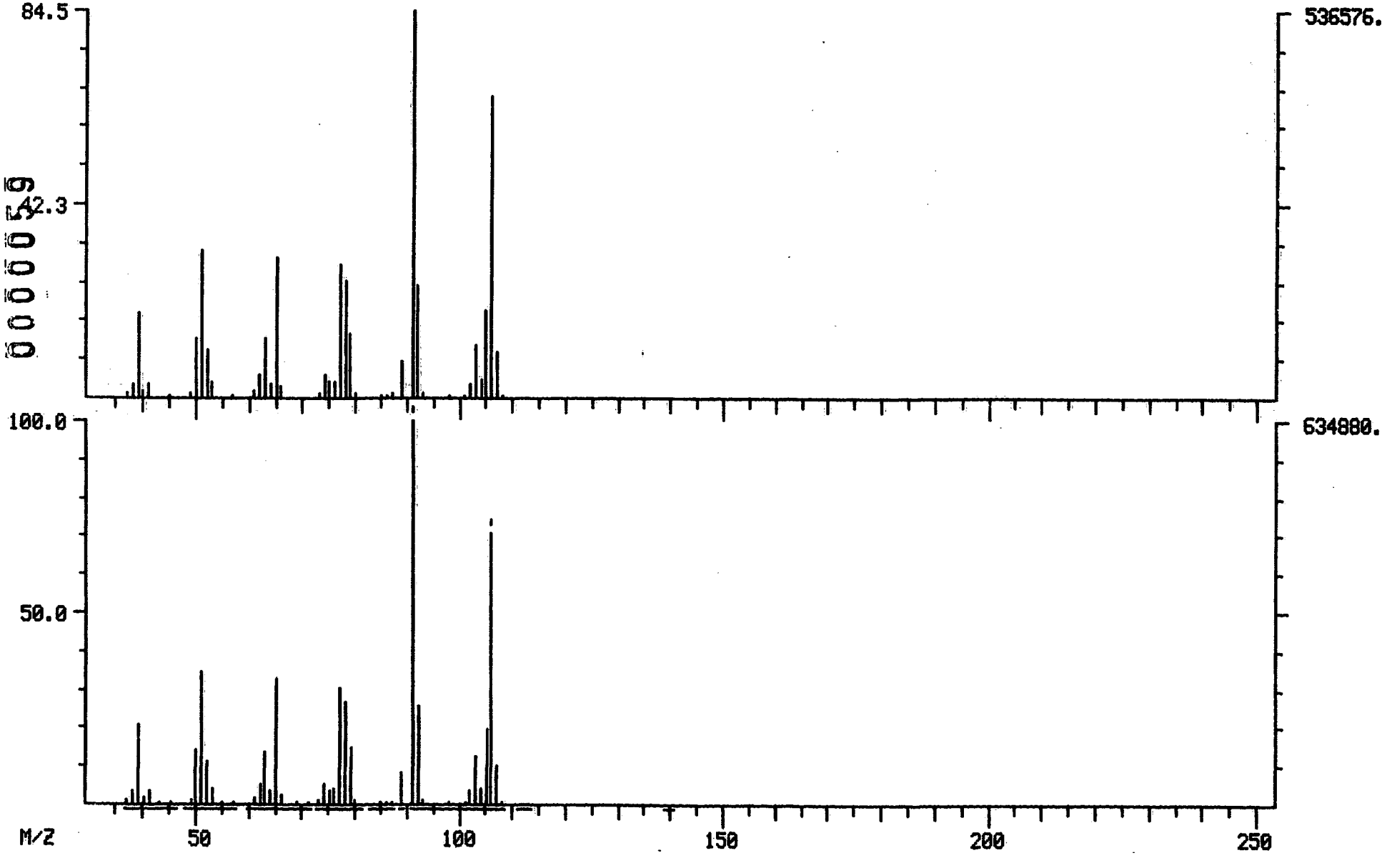
BASE M/Z: 91
RIC: 4103.



DUAL MASS SPECTRUM
12/30/91 5:32:00 + 22:18
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W122917 #669
CALI: W122917 #2

BASE M/Z: 91/ 91
RIC: 2953210./ 3219450.

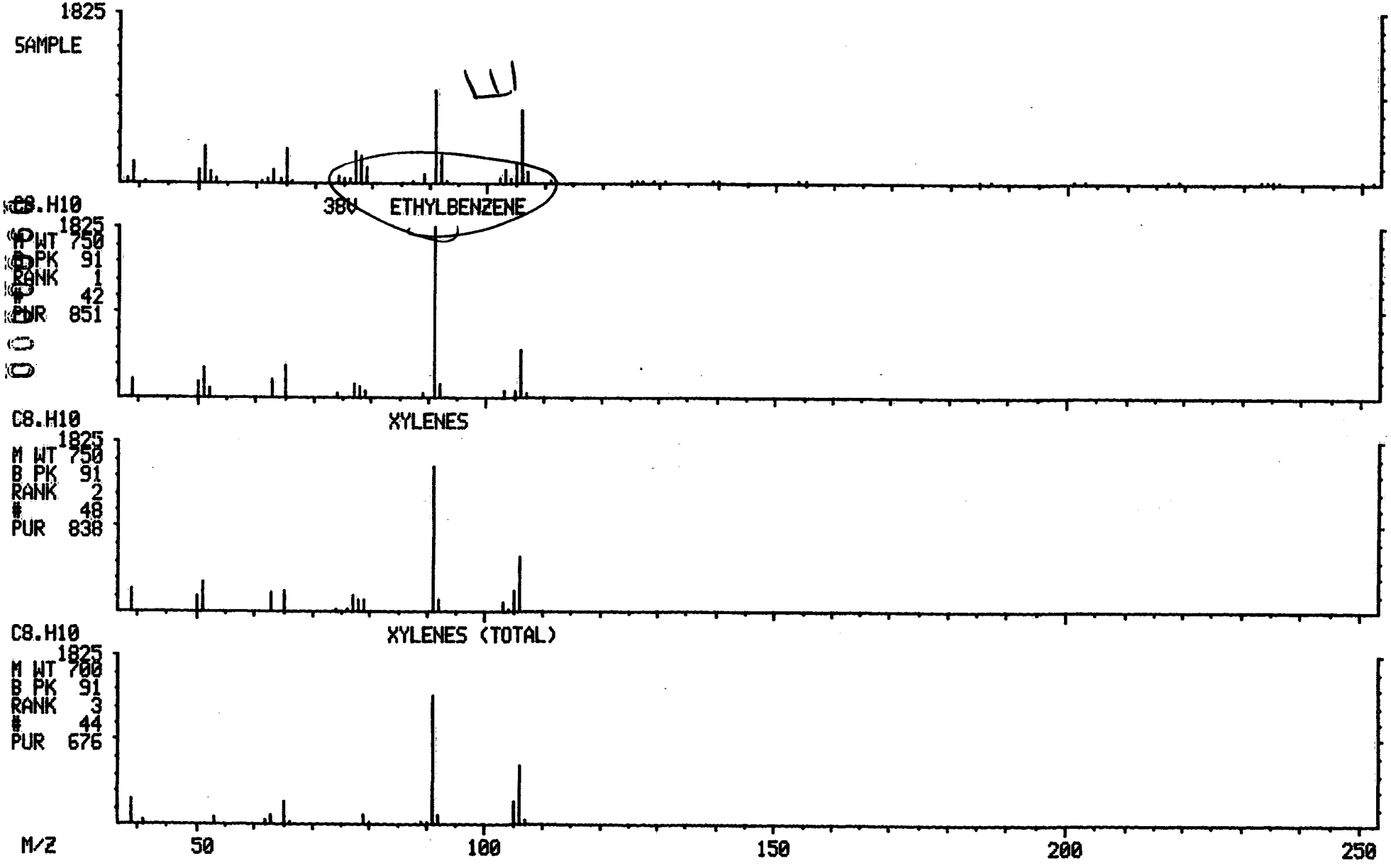


000059

LIBRARY SEARCH
12/30/91 5:32:00 + 22:18
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 # 669
CALI: W122917 # 2

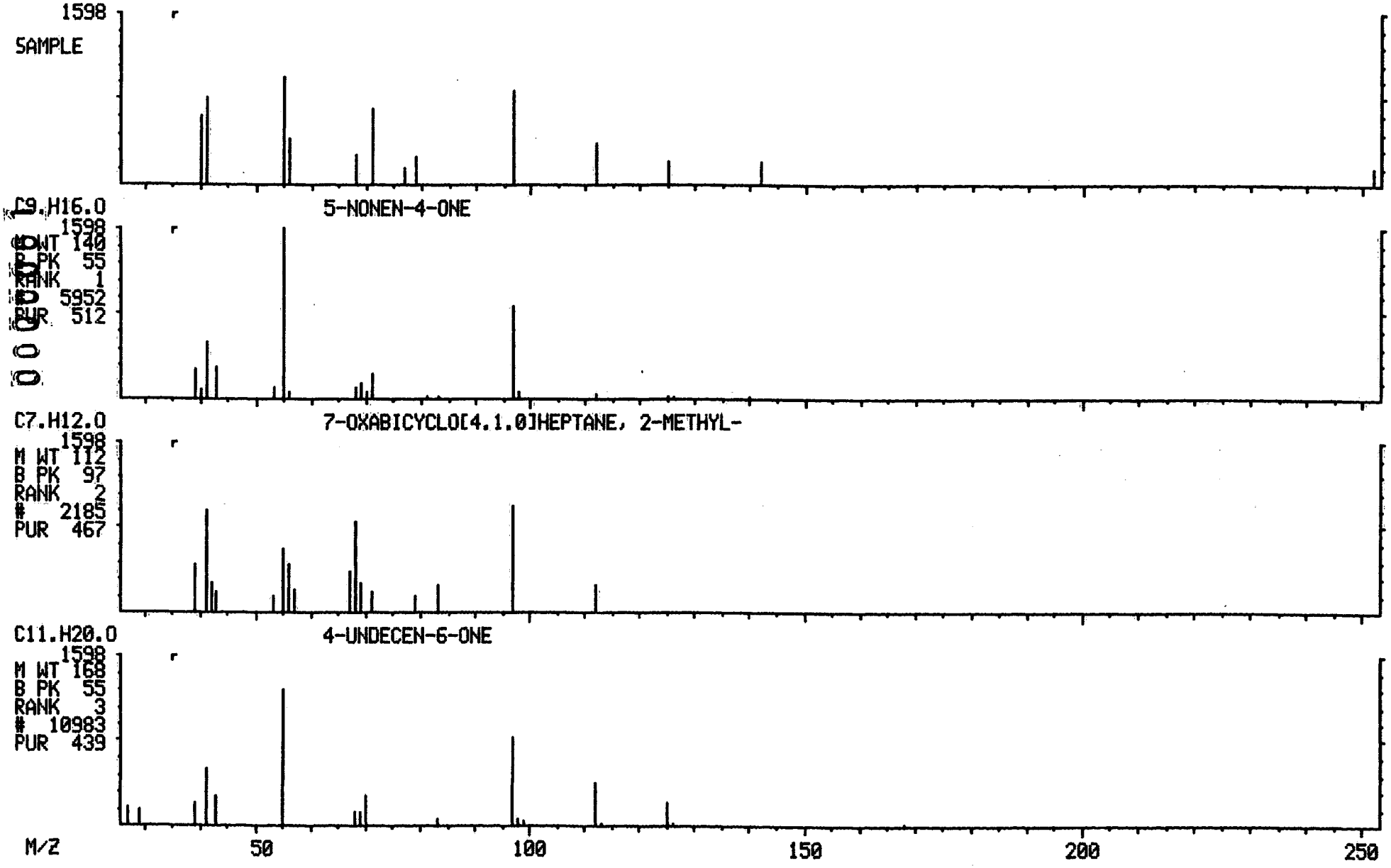
BASE M/Z: 91
RIC: 2883580.



LIBRARY SEARCH
12/30/91 5:32:00 + 21:22
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 # 641
CALI: W122917 # 2

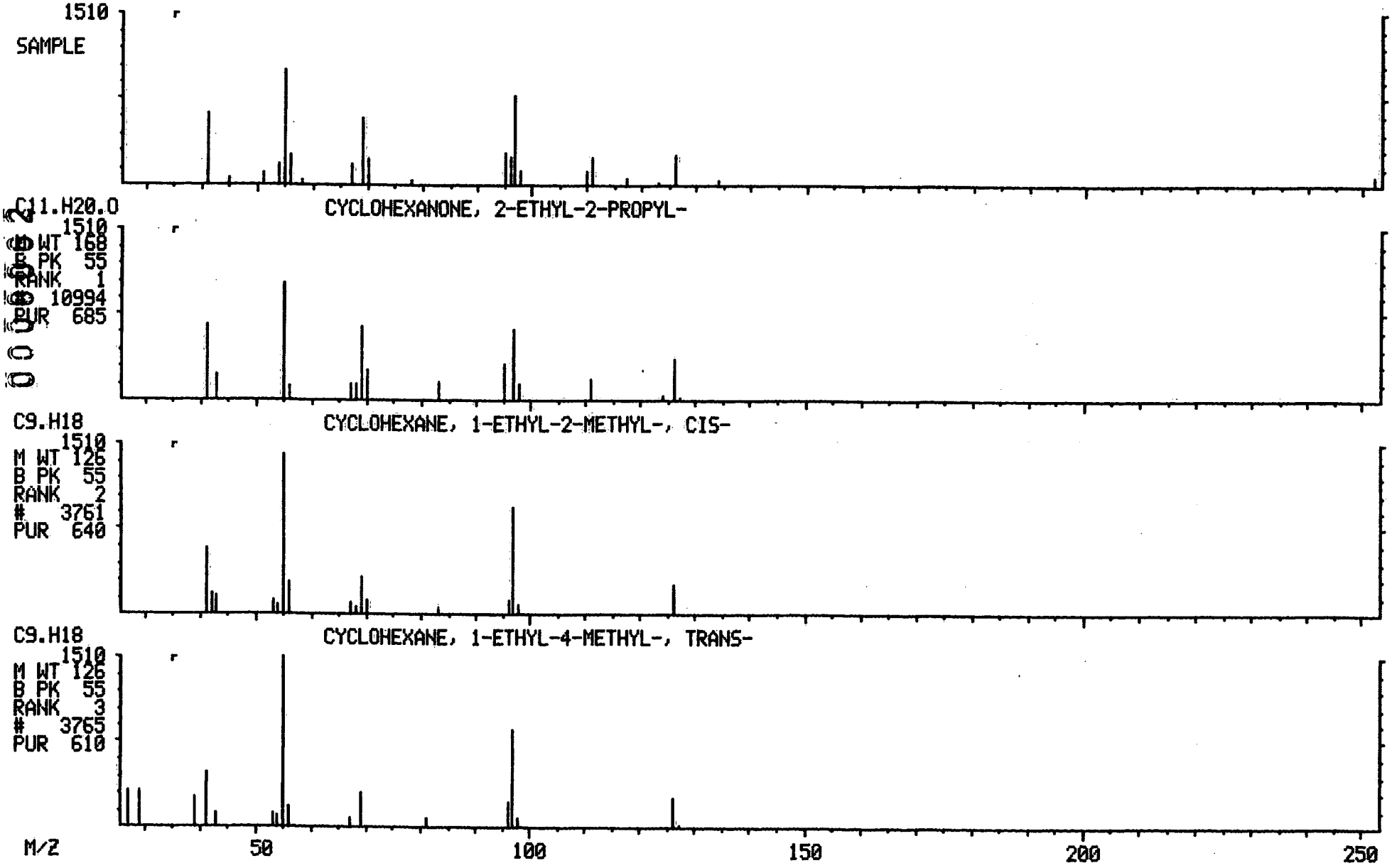
BASE M/Z: 55
RIC: 1561.



LIBRARY SEARCH
12/30/91 5:32:00 + 23:18
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 # 699
CALI: W122917 # 2

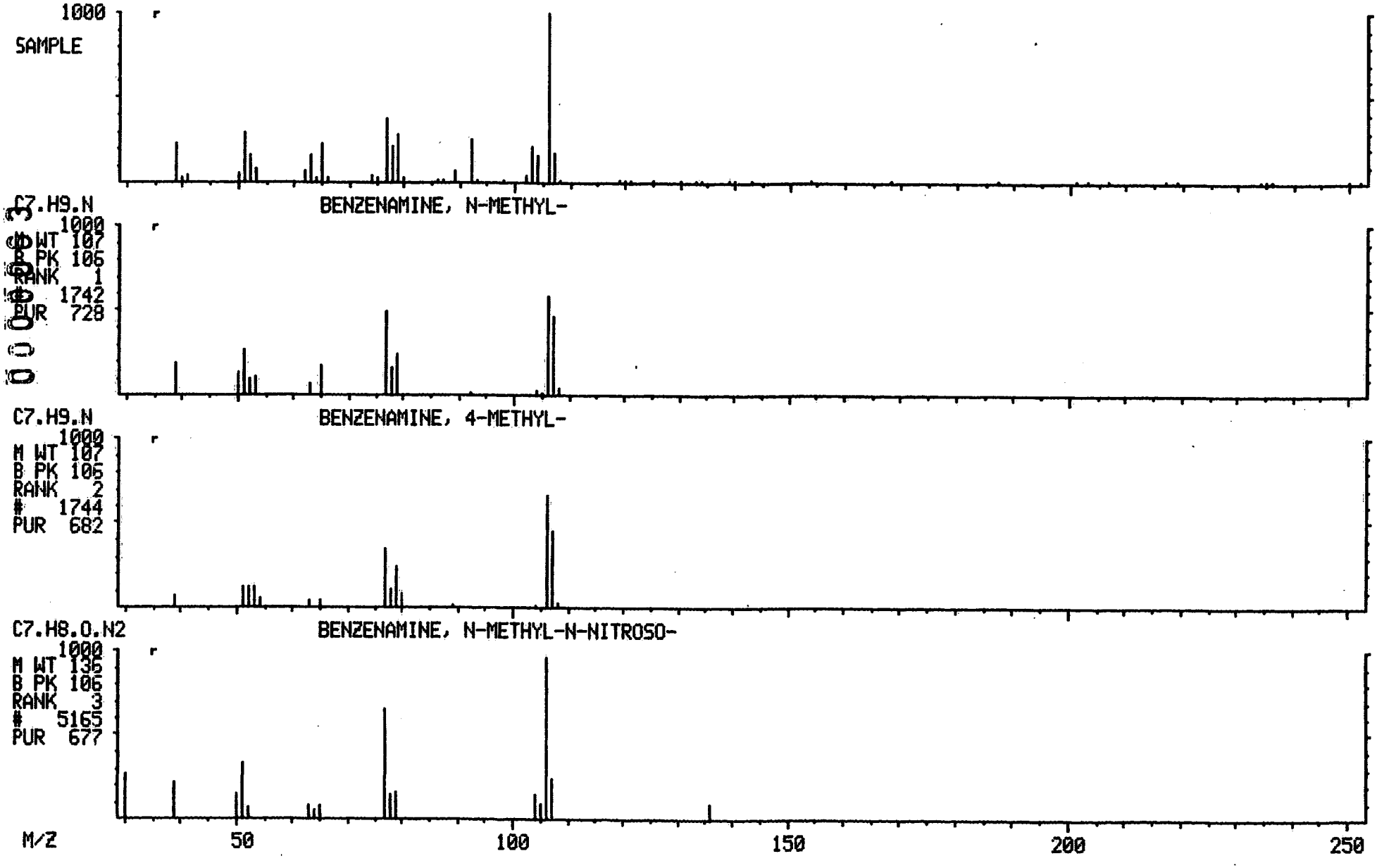
BASE M/Z: 55
RIC: 2679.



LIBRARY SEARCH
12/30/91 5:32:00 + 26:05
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 # 783
CALI: W122917 # 2

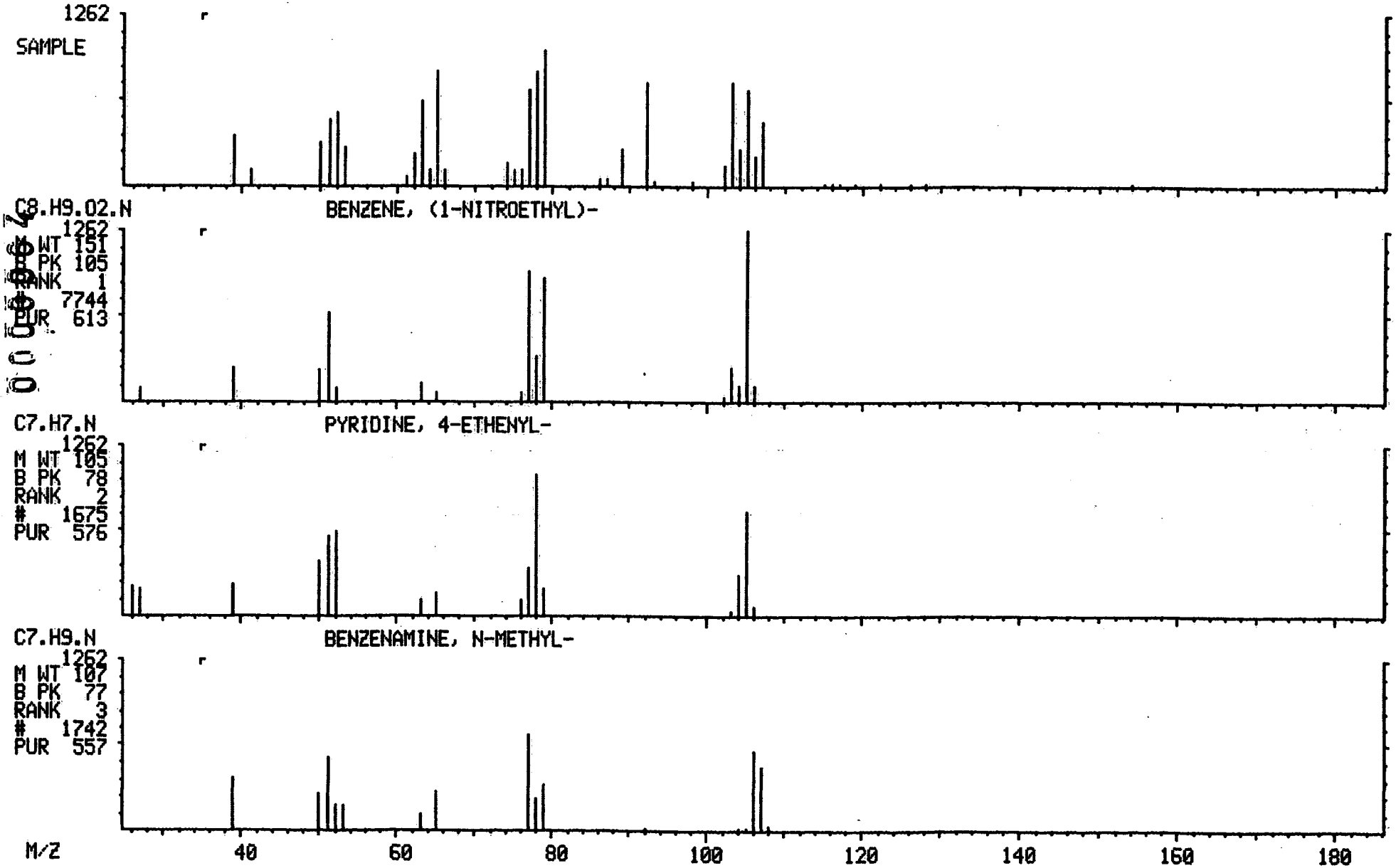
BASE M/Z: 106
RIC: 1241080.



LIBRARY SEARCH
12/30/91 5:32:00 + 26:32
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 # 796
CALI: W122917 # 2

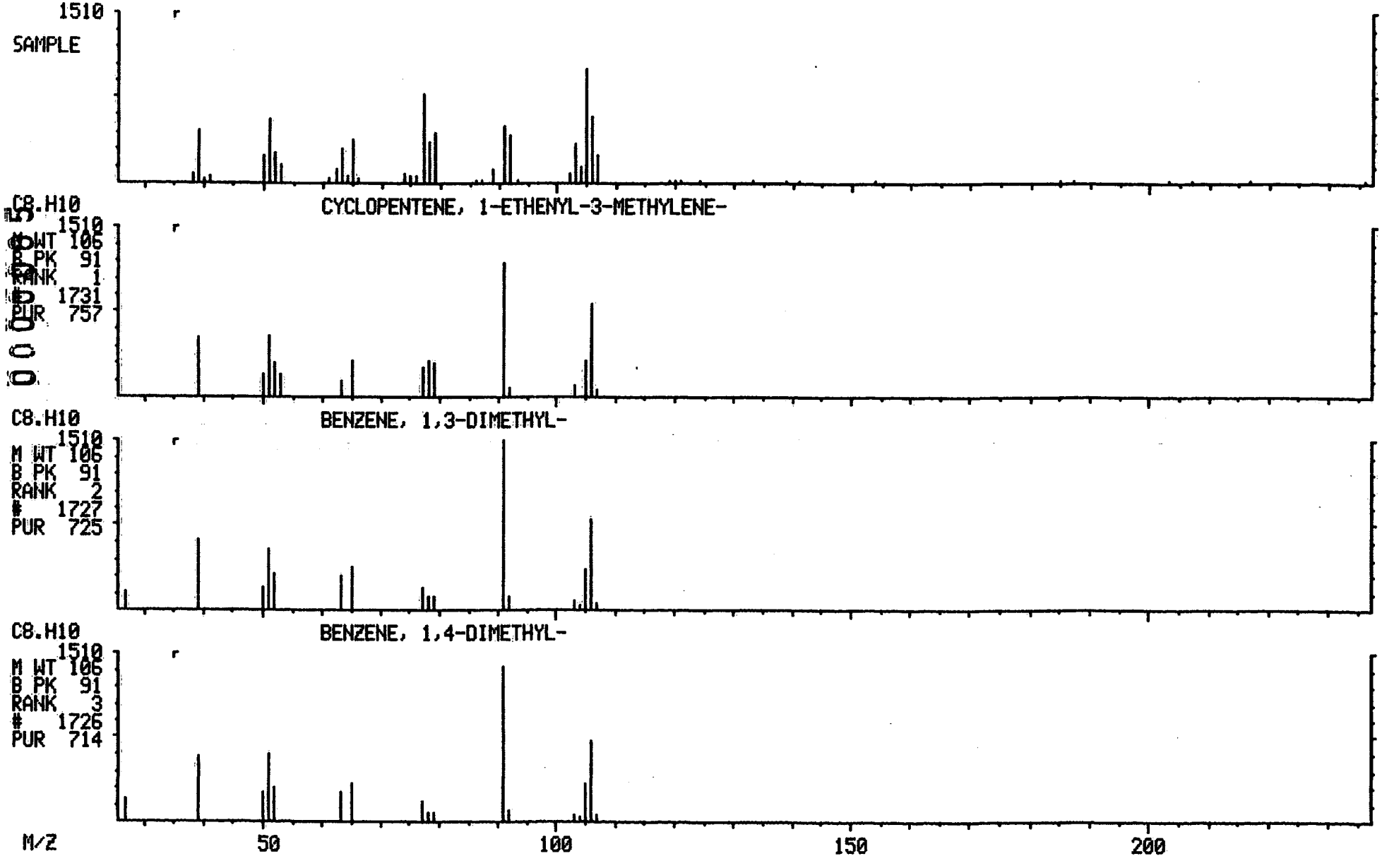
BASE M/Z: 79
RIC: 1097720.



LIBRARY SEARCH
12/30/91 5:32:00 + 27:40
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1Z-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 # 830
CALI: W122917 # 2

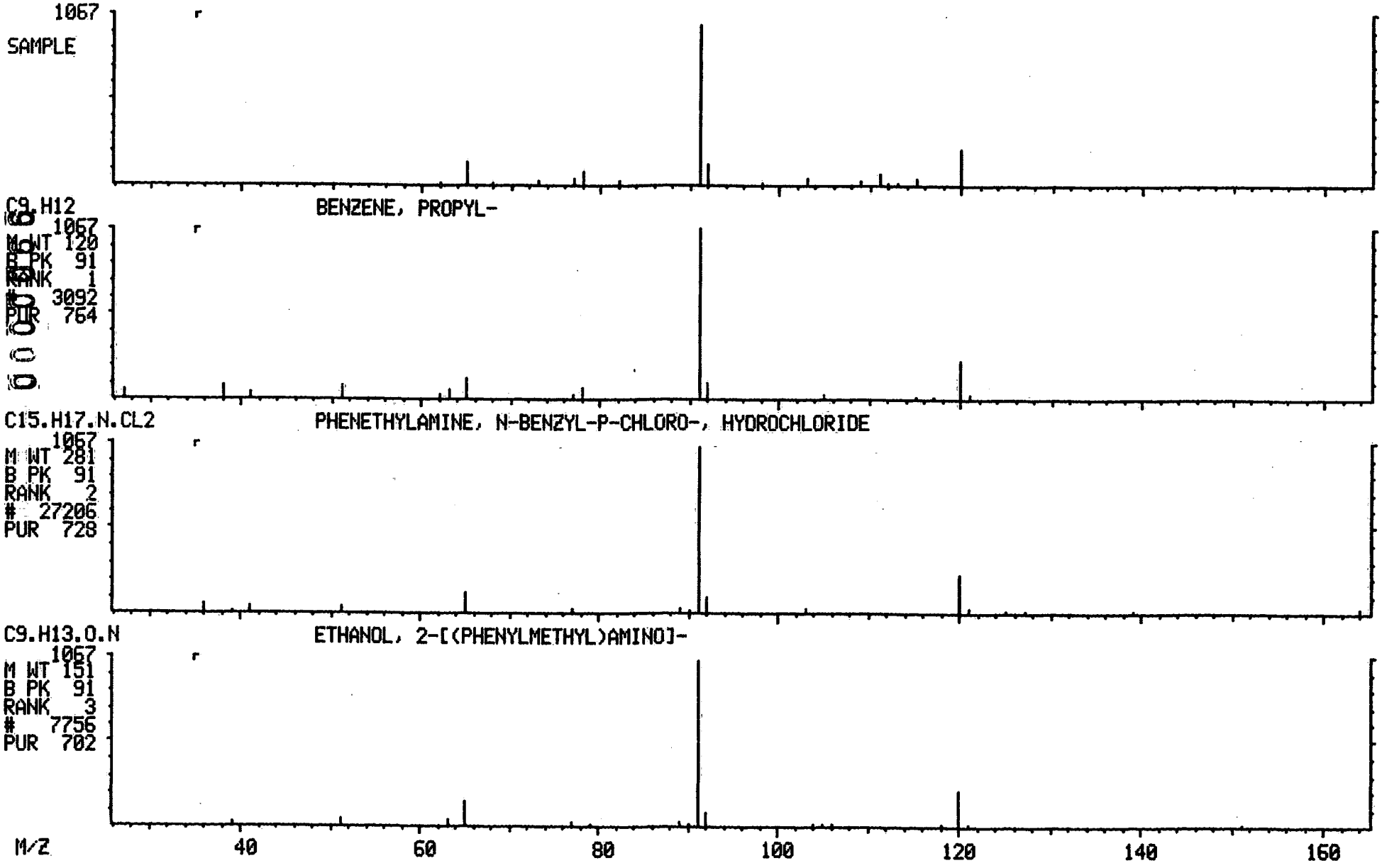
BASE M/Z: 105
RIC: 1052670.



LIBRARY SEARCH
12/30/91 5:32:00 + 29:36
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 # 888
CALI: W122917 # 2

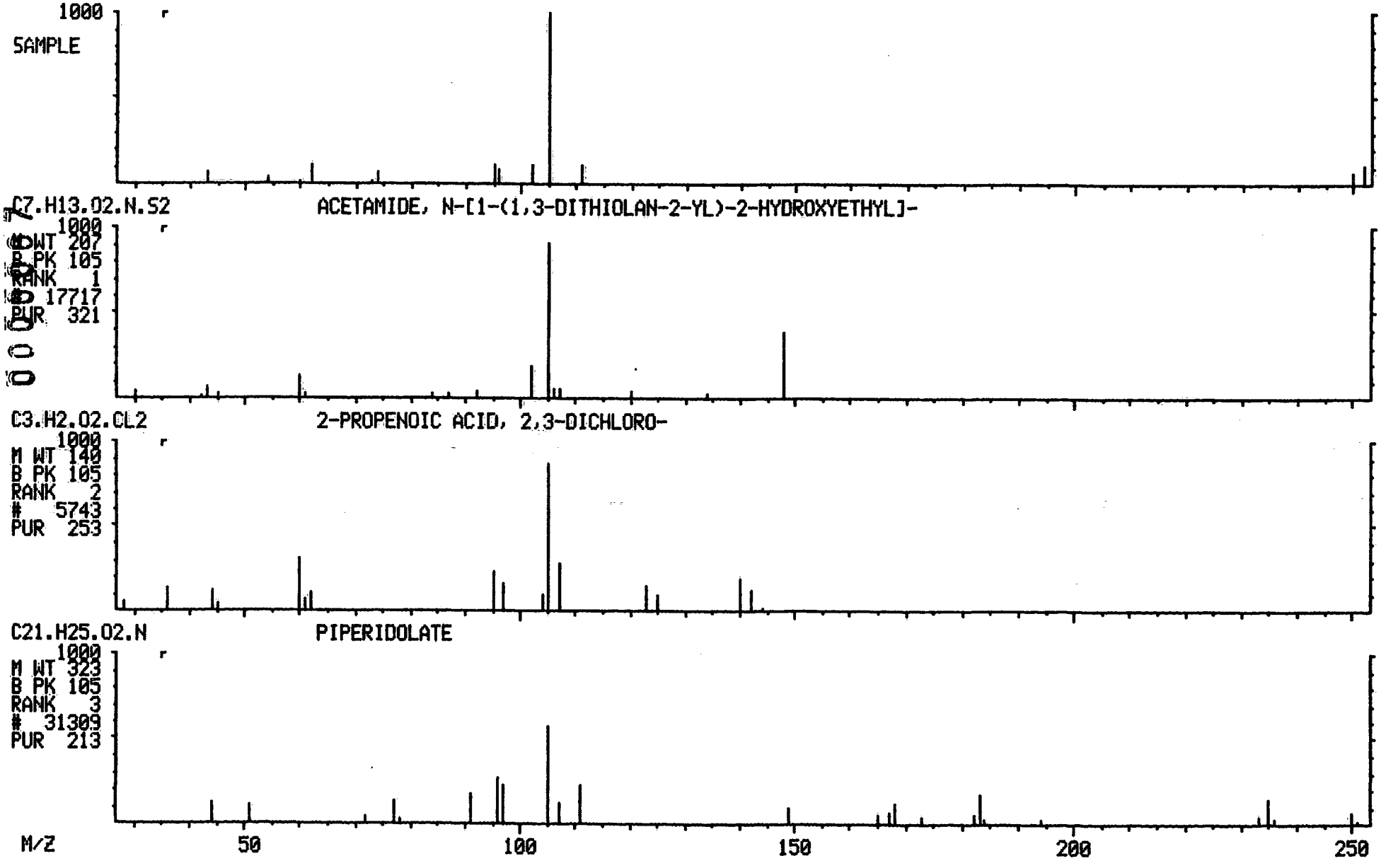
BASE M/Z: 91
RIC: 1995.



LIBRARY SEARCH
12/30/91 5:32:00 + 32:14
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 # 967
CALI: W122917 # 2

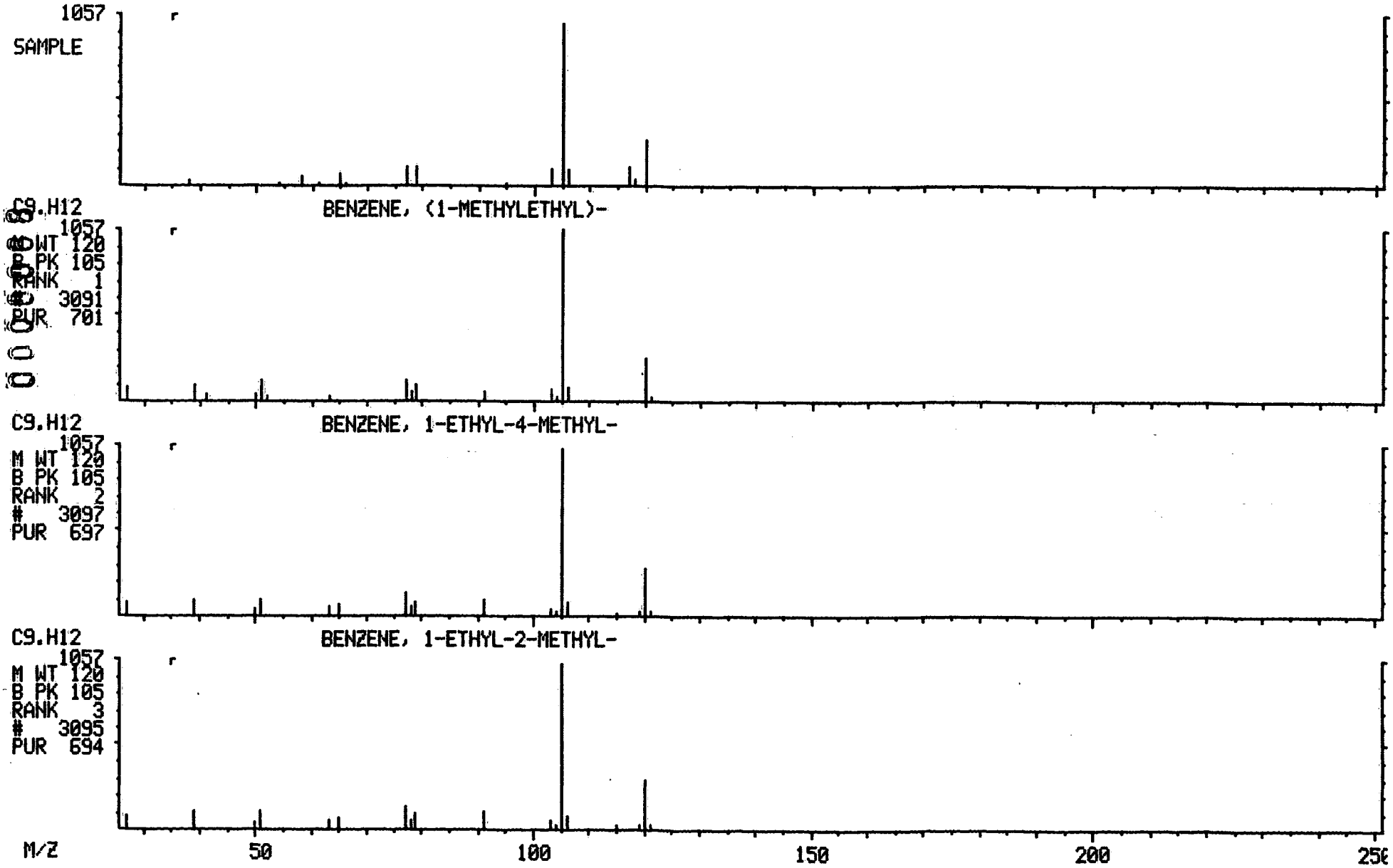
BASE M/Z: 105
RIC: 770.



LIBRARY SEARCH
12/30/91 5:32:00 + 33:32
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 #1006
CALI: W122917 # 2

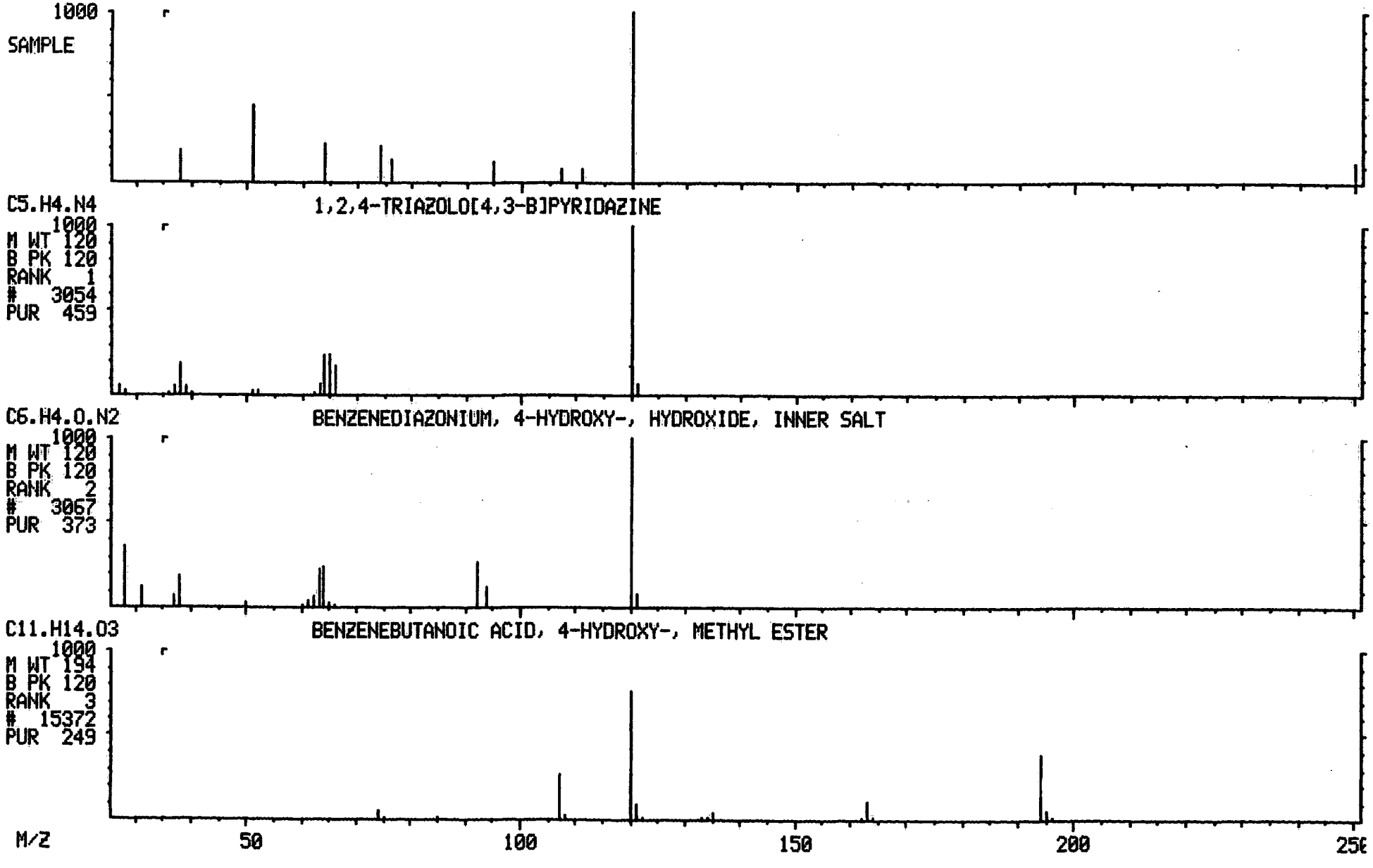
BASE M/Z: 105
RIC: 4783.



LIBRARY SEARCH
12/30/91 5:32:00 + 35:00
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 #1050
CALI: W122917 # 2

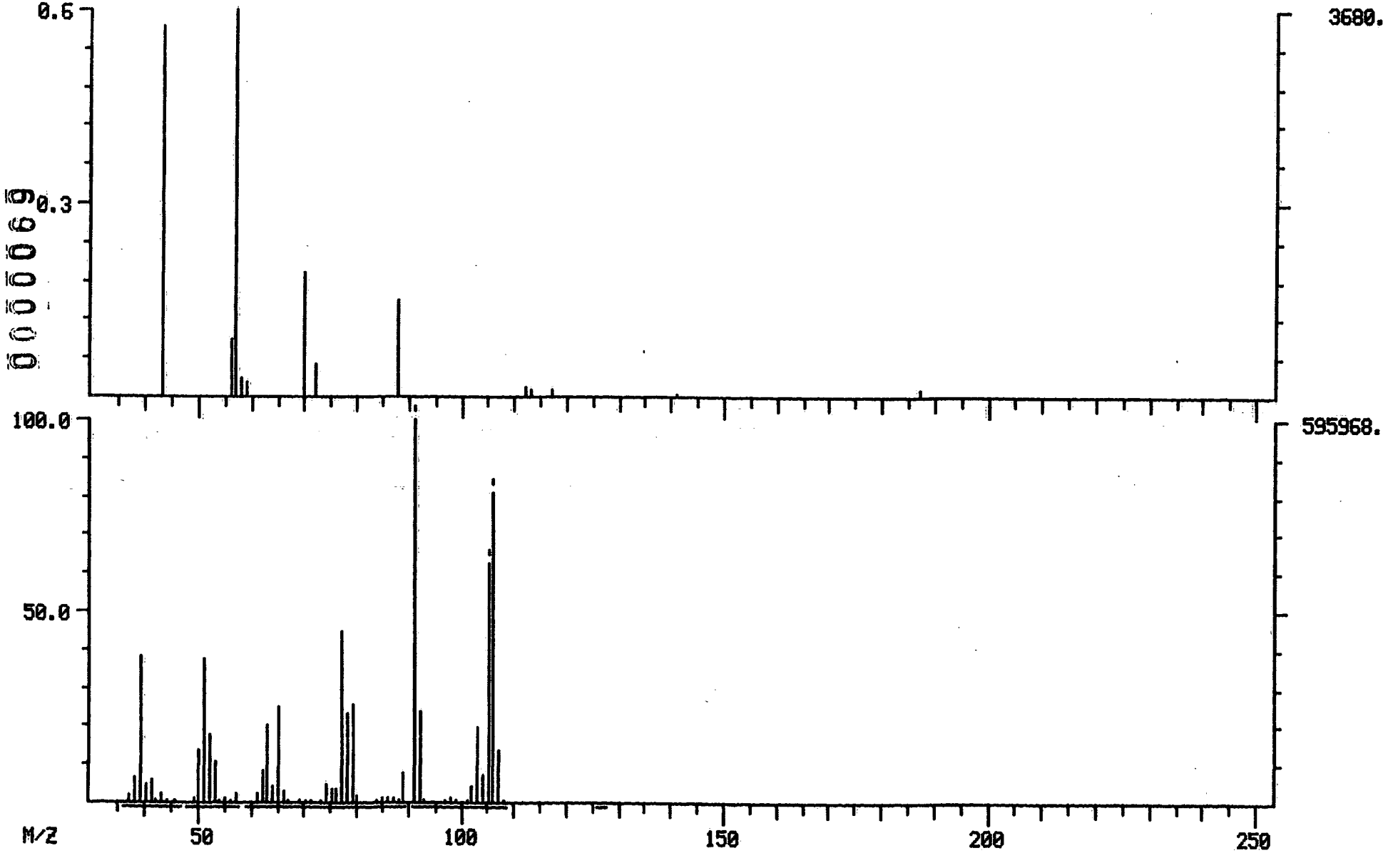
BASE M/Z: 120
RIC: 629.



DUAL MASS SPECTRUM
12/30/91 5:32:00 + 26:48
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 208 DEG. C
ENHANCED (5 15B 2N 0T)

DATA: W122917 #804
CALI: W122917 #2

BASE M/Z: 57/ 91
RIC: 10815./ 3870710.

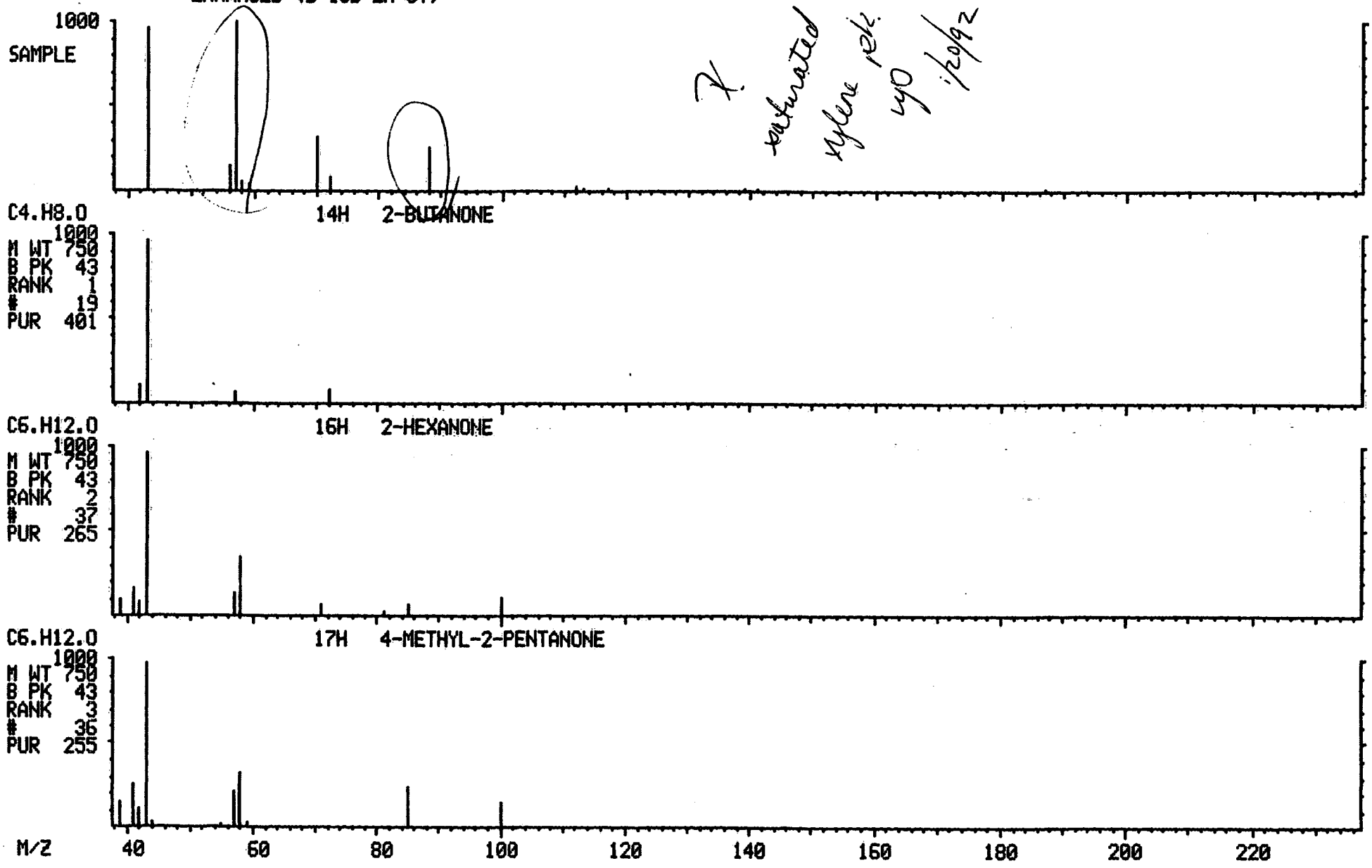


000069

LIBRARY SEARCH
12/30/91 5:32:00 + 26:48
SAMPLE: 9112L841-002 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122917 # 804
CALI: W122917 # 2

BASE M/Z: 57
RIC: 10815.



1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

MW-3DL

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-002 DL

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: W123019

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) PACK

Dilution Factor: 250

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

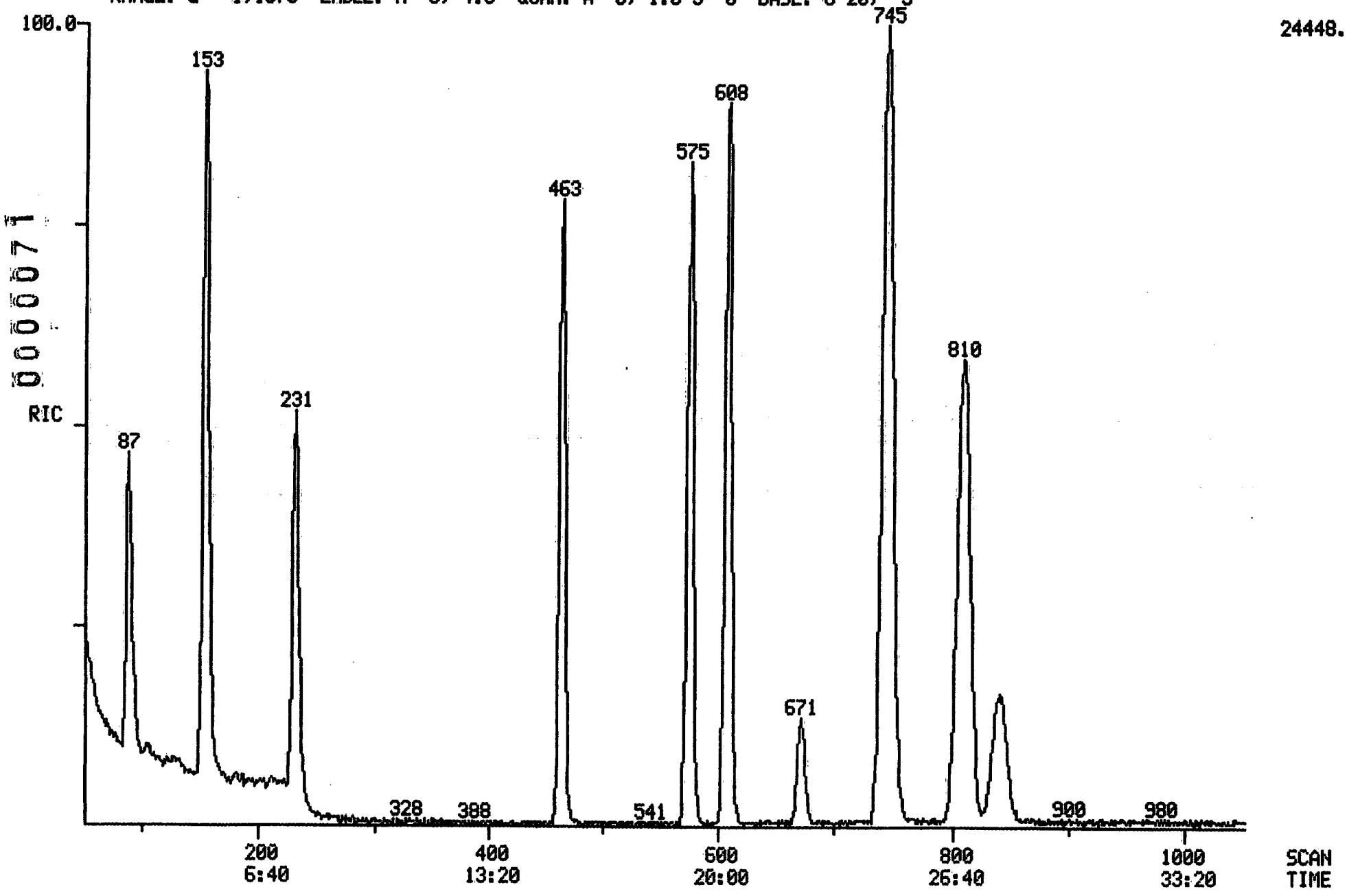
CAS NO.	COMPOUND		
74-87-3	Chloromethane	NA	
74-83-9	Bromomethane	NA	
75-01-4	Vinyl Chloride	NA	
75-00-3	Chloroethane	NA	
75-09-2	Methylene Chloride	NA	
75-35-4	1,1-Dichloroethene	NA	
75-34-3	1,1-Dichloroethane	NA	
540-59-0	1,2-Dichloroethene (total)	NA	
67-66-3	Chloroform	NA	
107-06-2	1,2-Dichloroethane	NA	
71-55-6	1,1,1-Trichloroethane	NA	
56-23-5	Carbon Tetrachloride	NA	
75-27-4	Bromodichloromethane	NA	
78-87-5	1,2-Dichloropropane	NA	
10061-01-5	cis-1,3-Dichloropropene	NA	
79-01-6	Trichloroethene	NA	
124-48-1	Dibromochloromethane	NA	
79-00-5	1,1,2-Trichloroethane	NA	
71-43-2	Benzene	NA	
10061-02-6	Trans-1,3-Dichloropropene	NA	
110-75-8	2-chloroethylvinylether	NA	
75-25-2	Bromoform	NA	
127-18-4	Tetrachloroethene	NA	
79-34-5	1,1,2,2-Tetrachloroethane	NA	
108-88-3	Toluene	NA	
108-90-7	Chlorobenzene	NA	
100-41-4	Ethylbenzene	2600	
95-50-1	1,2-Dichlorobenzene	NA	
541-73-1	1,3-Dichlorobenzene	NA	
106-46-7	1,4-Dichlorobenzene	NA	
107-02-8	Acrolein	NA	
107-13-1	Acrylonitrile	NA	
75-69-4	Trichlorofluoromethane	NA	
1330-20-7	Xylene (total)	25000	

OL

RIC
12/30/91 21:45:00
SAMPLE: 9112L841-002 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL250
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: W123019 #1
CALI: W123019 #2

SCANS 50 TO 1050



000071

Quantitation Report File: W123019 0000072

Data: W123019.TI
12/30/91 21:45:00
Sample: 9112L841-002 WSI LE CARPENTER 5.0 ML
Conds.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL250
Formula: W123002 Instrument: 1050W Weight: 0.014
Submitted by: Analyst: AIS Acct. No.:

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	14H	2-BUTANONE	
19	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

0000073

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	153	5:06	1	1.000	A BB	16275.	50.000 UG/L	11.20	
2	65	232	7:44	1	1.516	A BB	25192.	46.537 UG/L	10.43	
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	NOT FOUND									
7	84	87	2:54	1	0.569	A BB	10129.	25.746 UG/L	5.77	NR
8	43	105	3:30	1	0.686	A BB	1996.	13.335 UG/L	2.99	NT
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									
19	114	463	15:26	19	1.000	A BB	53090.	50.000 UG/L	11.20	
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	117	607	20:14	33	1.000	A BB	46142.	50.000 UG/L	11.20	
34	98	575	19:10	33	0.947	A BB	47971.	49.474 UG/L	11.09	
35	95	745	24:50	33	1.227	A BB	49717.	52.681 UG/L	11.81	
36	NOT FOUND									
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									
42	106	671	22:22	33	1.105	A BB	3610.	10.524 UG/L	2.36	
43	NOT FOUND									
44	106	809	26:58	33	1.333	A BB	26965.	76.437 UG/L	17.13	
45	NOT FOUND									
46	NOT FOUND									
47	NOT FOUND									
48	106	841	28:02	33	1.386	A BB	7339.	21.703 UG/L	4.86	
49	NOT FOUND									
50	NOT FOUND									

Quantitation Report File: W123019 0000074

Data: W123019.TI
12/30/91 21:45:00
Sample: 9112L841-002 WSI LE CARPENTER 5.0 ML
Conds.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL250
Formula: W123002 Instrument: 1050W Weight: 0.014
Submitted by: Analyst: AIS Acct. No.:

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

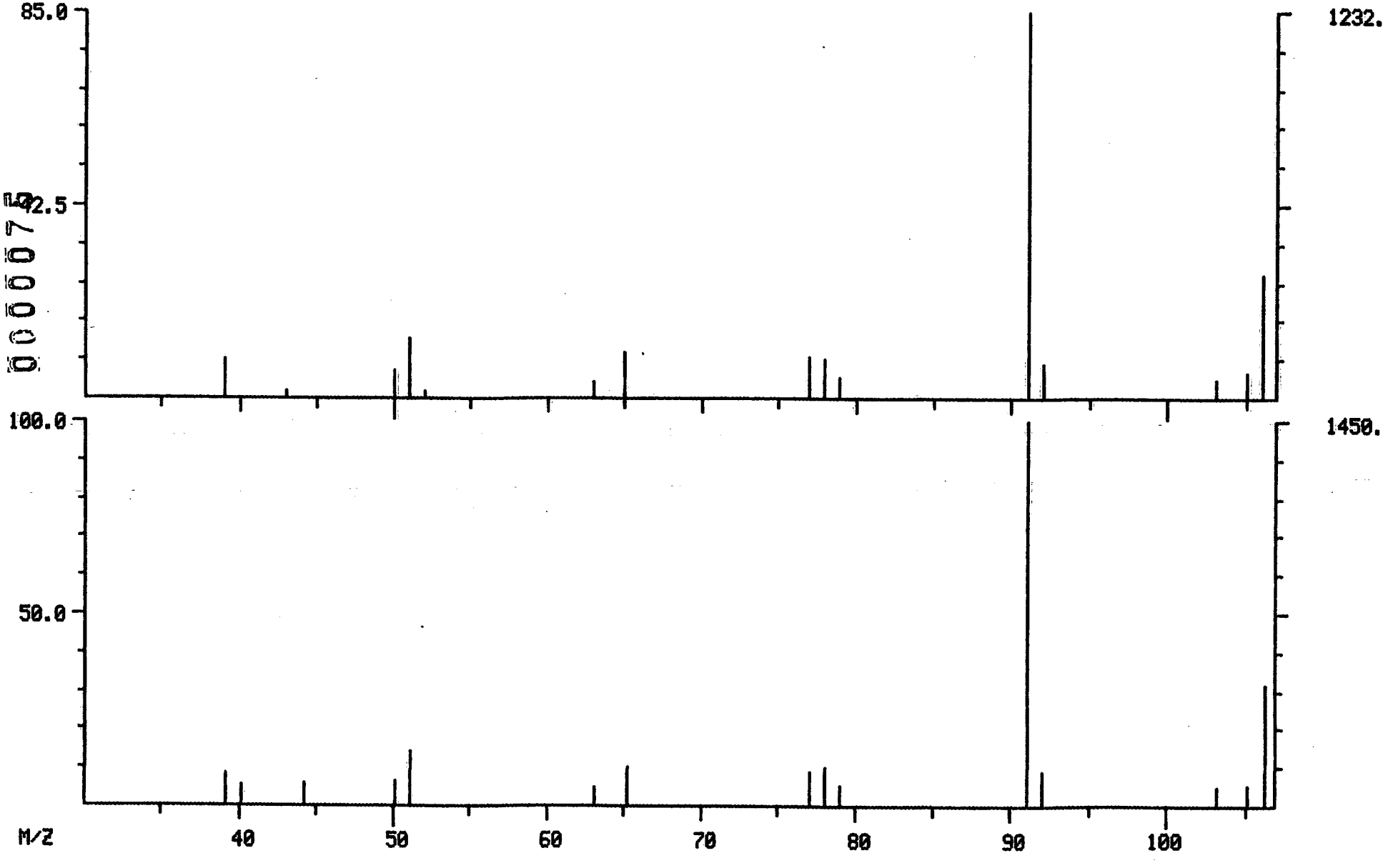
No	Name
51	T-BUTYL ALCOHOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								

DUAL MASS SPECTRUM
12/30/91 21:45:00 + 22:22
SAMPLE: 9112L841-002 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL250
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W123019 #671
CALI: W123019 #2

BASE M/Z: 91/ 91
RIC: 2843./ 3347.

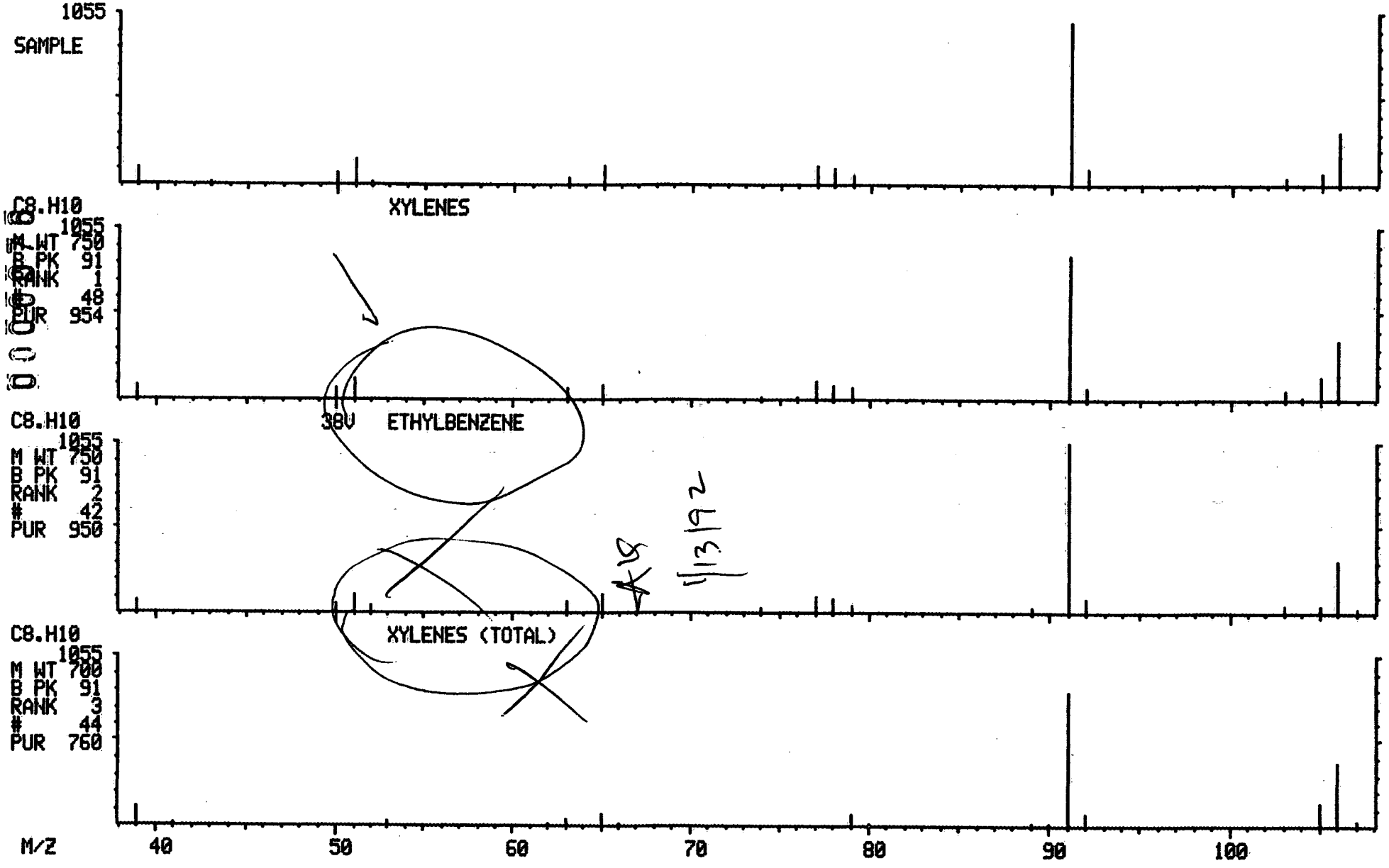


000075

LIBRARY SEARCH
12/30/91 21:45:00 + 22:22
SAMPLE: 9112L841-002 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL250
ENHANCED (S 15B 2N 0T)

DATA: W123019 # 671
CALI: W123019 # 2

BASE M/Z: 91
RIC: 2843.

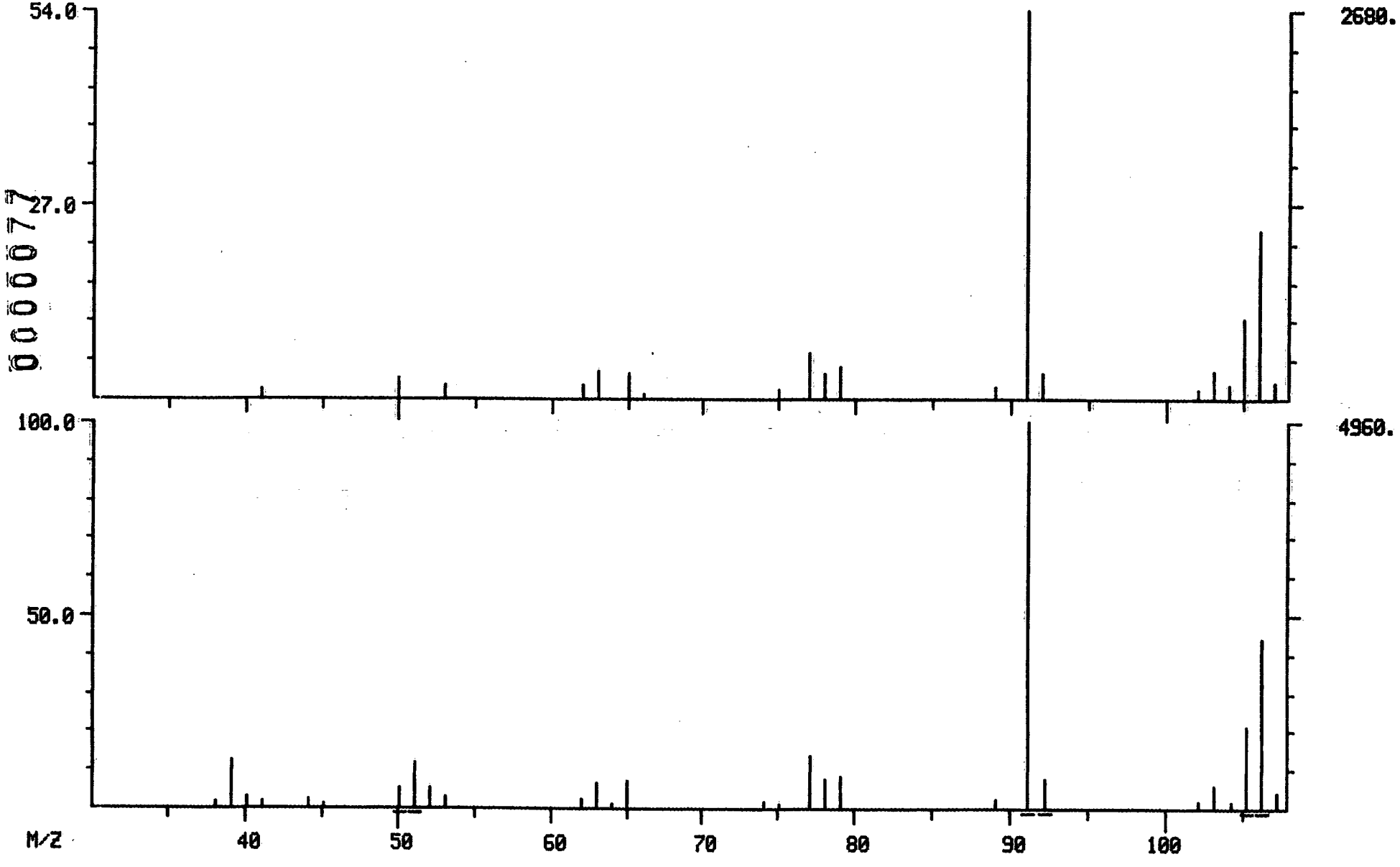


A18
1/13/92

DUAL MASS SPECTRUM
12/30/91 21:45:00 + 26:58
SAMPLE: 9112L841-002 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL250
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W123019 #809
CALI: W123019 #2

BASE M/Z: 91/ 91
RIC: 6711./ 14303.

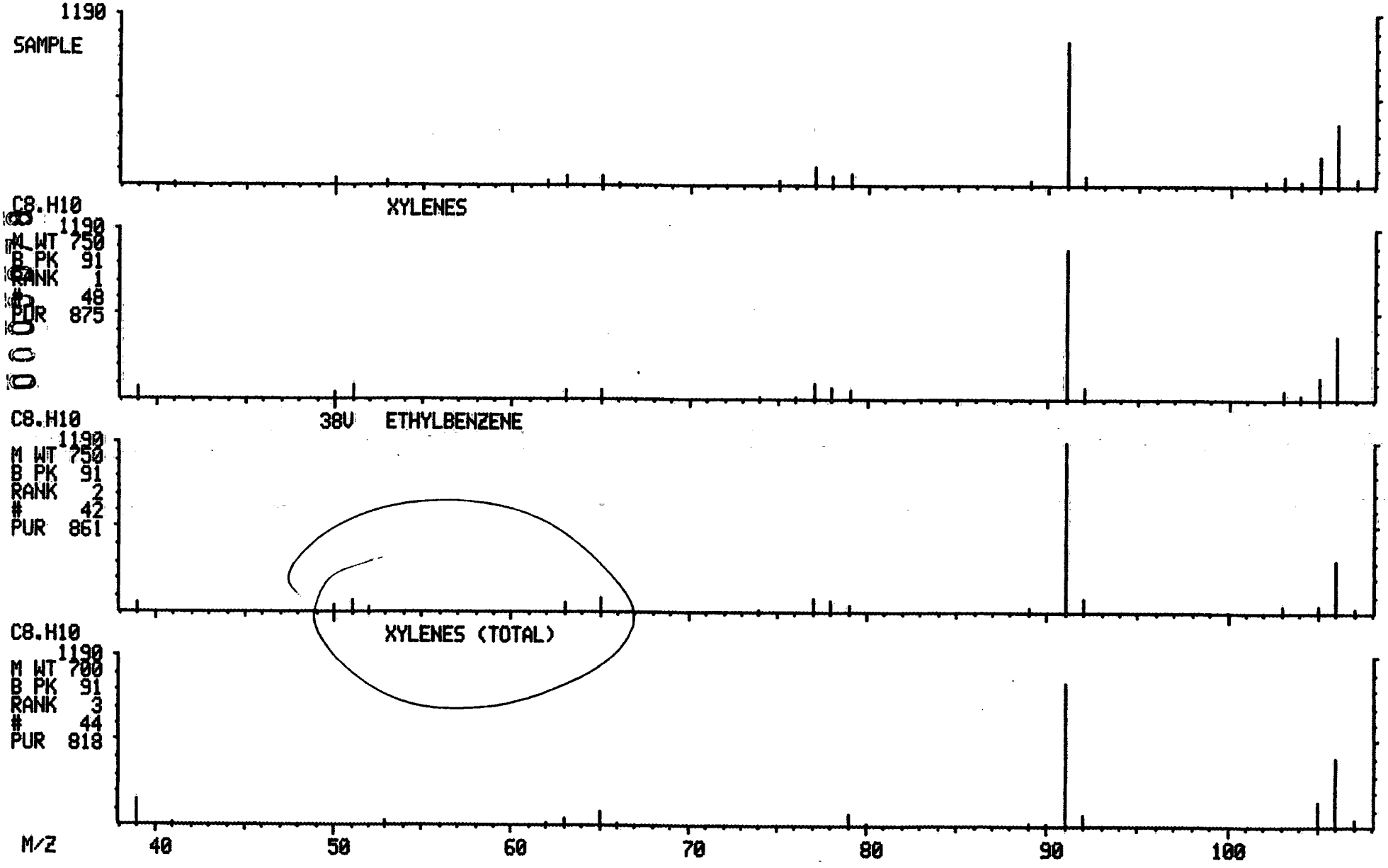


000077

LIBRARY SEARCH
12/30/91 21:45:00 + 26:58
SAMPLE: 9112L841-002 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL250
ENHANCED (S 15B 2N 0T)

DATA: W123019 # 809
CALI: W123019 # 2

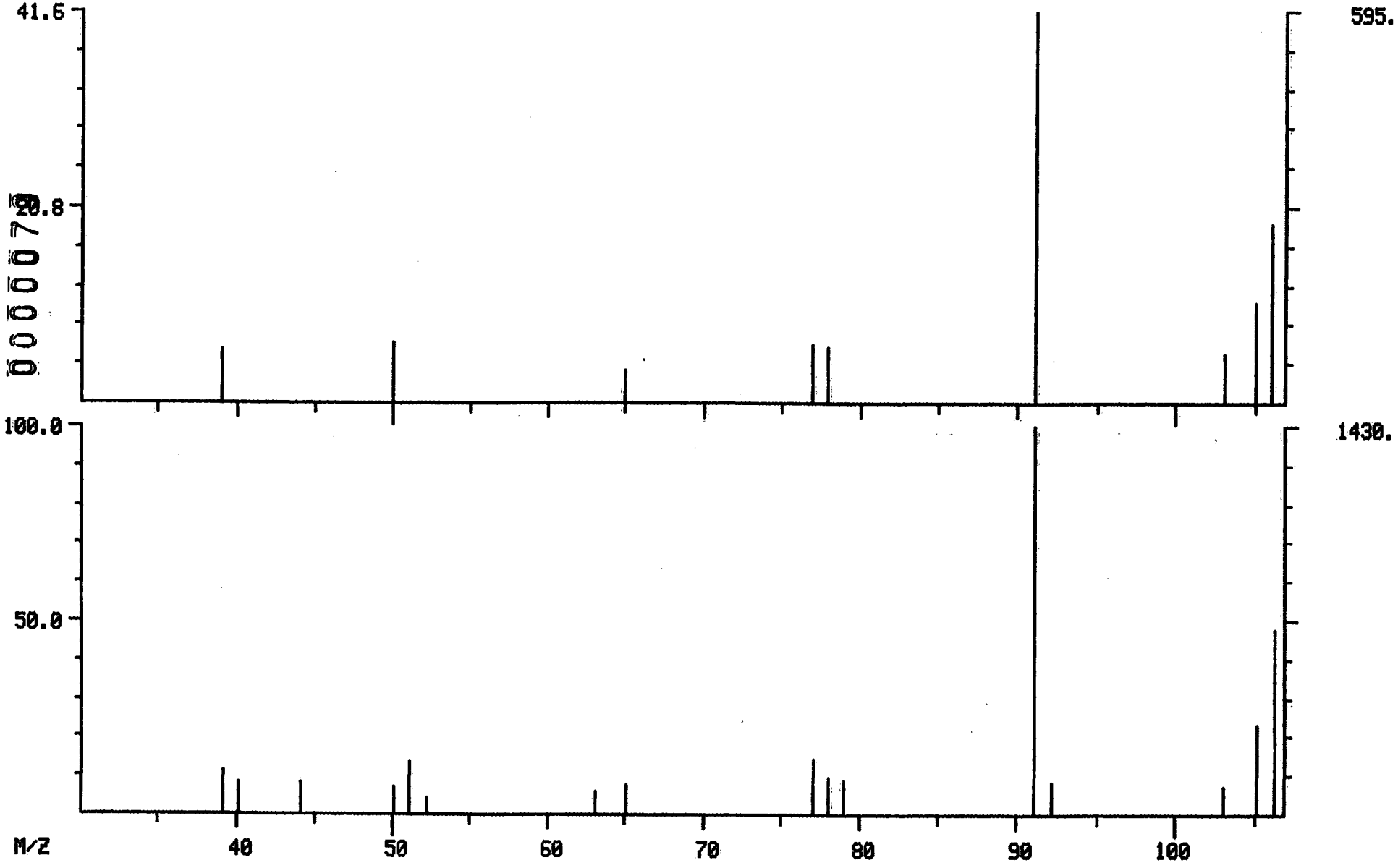
BASE M/Z: 91
RIC: 6711.



DUAL MASS SPECTRUM
12/30/91 21:45:00 + 28:02
SAMPLE: 9112L841-002 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL250
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W123019 #841
CALI: W123019 #2

BASE M/Z: 91/ 91
RIC: 1489./ 4079.

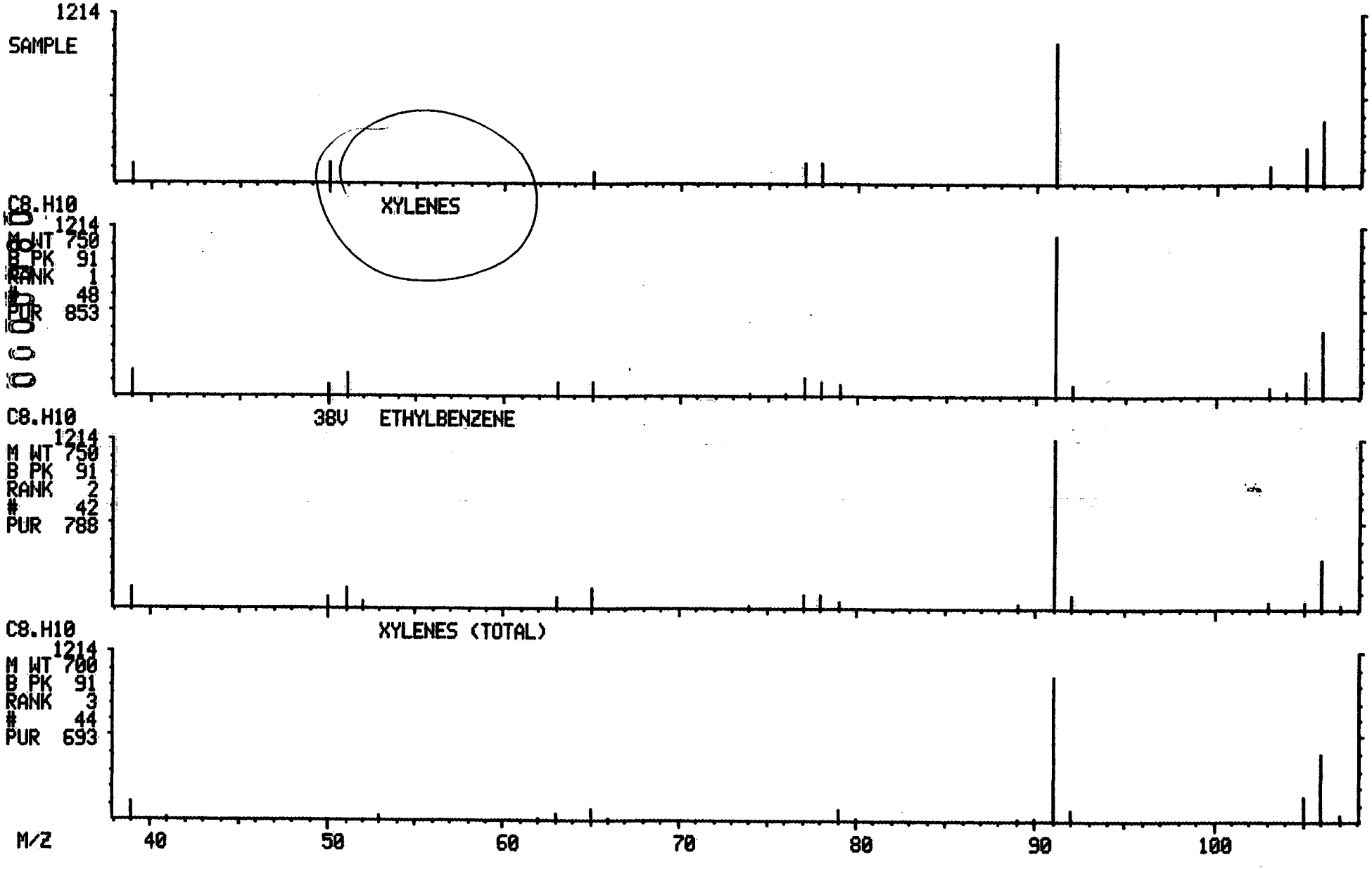


000070

LIBRARY SEARCH
12/30/91 21:45:00 + 28:02
SAMPLE: 9112L841-002 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL250
ENHANCED (S 15B 2N 0T)

DATA: W123019 # 841
CALI: W123019 # 2

BASE M/Z: 91
RIC: 1489.



1A

0000081

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS SHEET

MW-4

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-003

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: W122918

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene		E
95-50-1	1,2-Dichlorobenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
107-02-8	Acrolein	10	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
1330-20-7	Xylene (total)		E

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW-4

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-003

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: W122918

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 6

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

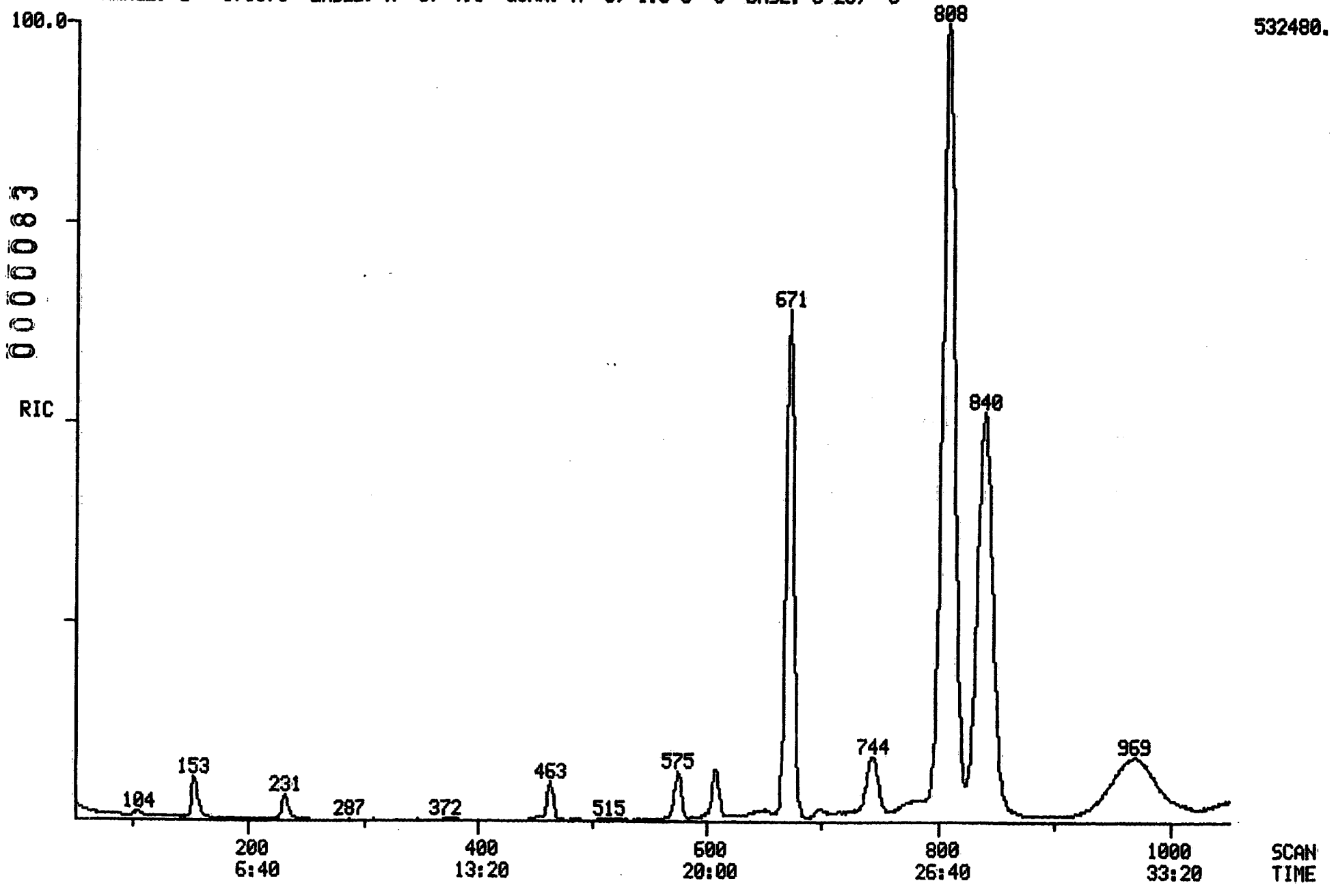
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ACETONE	3.47	79	C
2.	CYCLIC HYDROCARBON	15.07	5	J
3.	CYCLIC HYDROCARBON	21.63	8	J
4.	HYDROCARBON	23.27	9	J
5.	UNKNOWN	32.27	100	J
6.	UNKNOWN	35.10	20	J

C: Response Factor from daily standard.

RIC
12/30/91 6:12:00
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: W122918 #1
CALI: W122918 #2

SCANS 50 TO 1050



000083

Quantitation Report File: W122918 0000084

Data: W122918.TI
12/30/91 6:12:00
Sample: 9112L841-003 WSI-LE CARPENTER 5.0ML
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.011
Submitted by: W122907 Analyst: SSQ Acct. No.: 122991

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	14H	2-BUTANONE	
19	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

0000085

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	153	5:06	1	1.000	A BB	20806.	50.000 UG/L	1.18	
2	65	231	7:42	1	1.510	A BB	33921.	56.595 UG/L	1.33	✓
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	NOT FOUND									
7	NOT FOUND									
8	43	104	3:28	1	0.680	A BB	14144.	78.721 UG/L	1.85	NT
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									
19	114	463	15:26	19	1.000	A BB	67138.	50.000 UG/L	1.18	
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	117	608	20:16	33	1.000	A BB	59750.	50.000 UG/L	1.18	
34	98	575	19:10	33	0.946	A BB	64208.	52.960 UG/L	1.25	✓
35	95	745	24:50	33	1.225	A BB	68175.	58.789 UG/L	1.38	X
36	NOT FOUND									
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									
42	106	671	22:22	33	1.104	A BB	313622.	771.731 UG/L	18.18	— E
43	NOT FOUND									
44	106	808	26:56	33	1.329	A BB	848343.	1876.650 UG/L	44.21	— E
45	NOT FOUND									
46	NOT FOUND									
47	NOT FOUND									
48	106	840	28:00	33	1.382	A BB	515200.	1199.910 UG/L	28.27	— E
49	NOT FOUND									
50	NOT FOUND									

JBB
1/13/92

Quantitation Report File: W122918

Data: W122918.TI
12/30/91 6:12:00
Sample: 9112L841-003 WSI-LE CARPENTER 5.0ML
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.011
Submitted by: W122907 Analyst: SSQ Acct. No.: 122991

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

No	Name
51	T-BUTYL ALCOHOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								

Quantitation Report File: W122918TI 0000086

Data: W122918.TI
12/30/91 6:12:00
Sample: 9112L841-003 WSI-LE CARPENTER 5.0ML
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.011
Submitted by: W122907 Analyst: SSQ Acct. No.: 122991

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

No	Name		
1	UNKNOWN		
2	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
3	UNKNOWN		
4	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
5	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
6	UNKNOWN		
7	UNKNOWN		
8	UNKNOWN		
9	UNKNOWN		
10	UNKNOWN		

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot	ug/L
1	RIC	104	3:28	9	0.107	A BB	18616.	2.702		0.95	5.40
2	RIC	153	5:06	2	1.000	A BB	172203.	50.000	UG/L	17.65	
3	RIC	452	15:04	9	0.467	A BV	17664.	2.563		0.91	5.21
4	RIC	463	15:26	4	1.000	A VB	169648.	50.000	UG/L	17.65	
5	RIC	608	20:16	5	1.000	A BV	240452.	50.000	UG/L	17.65	
6	RIC	649	21:38	9	0.670	A BB	36592.	5.310		1.87	7.61
7	RIC	698	23:16	9	0.721	A BB	45492.	6.602		2.33	9.46
8	RIC	777	25:54	9	0.803	A VB	17694.	2.568	<10%	0.91	3.68
9	RIC	968	32:16	9	1.000	A BB	689088.	100.000		35.31	~~14.3~~
10	RIC	1053	35:06	9	1.088	A VB	92832.	13.472		4.76	19.3

ug/L

ACS 1/13/92

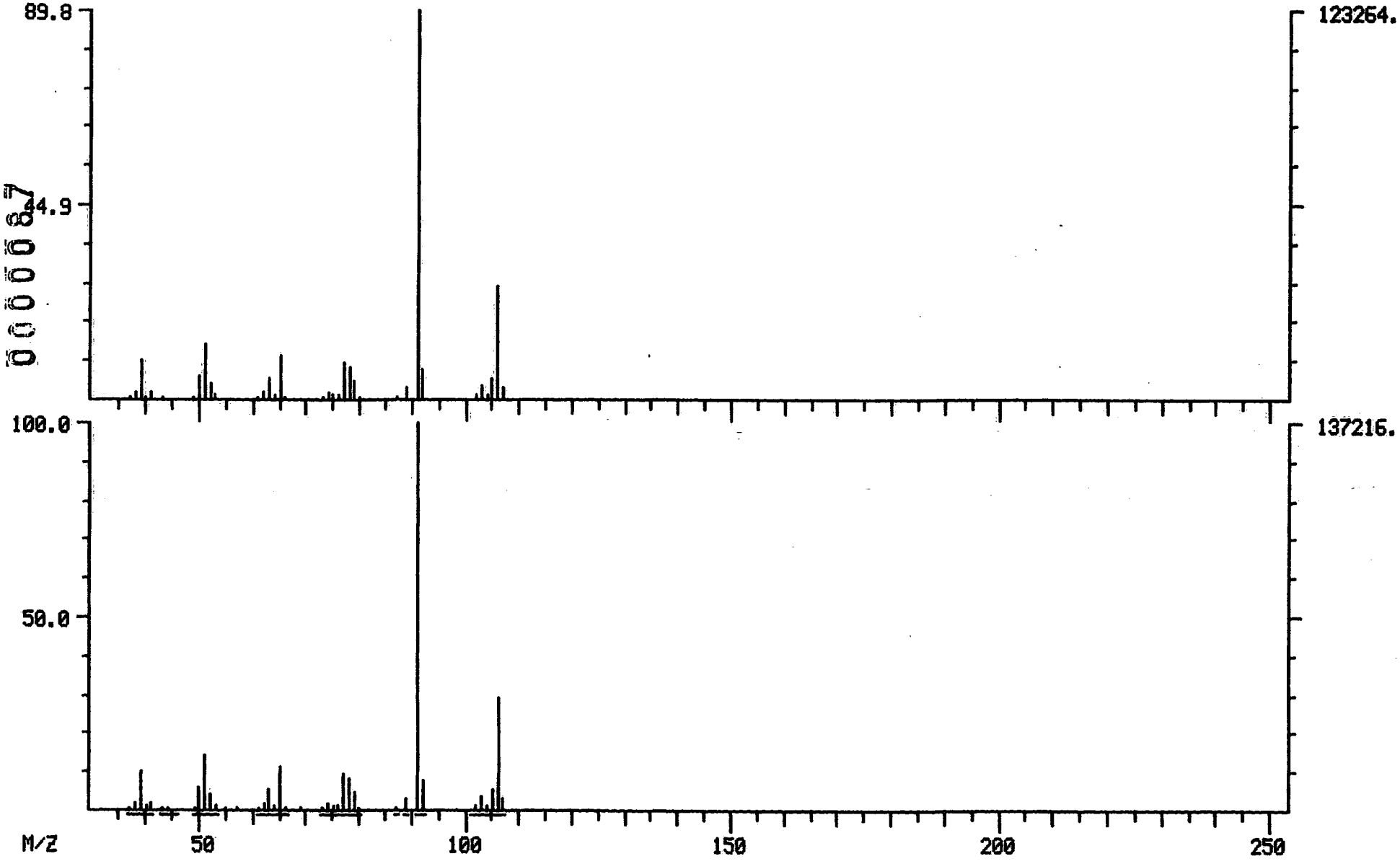
AS

1/13/92

DUAL MASS SPECTRUM
12/30/91 6:12:00 + 22:22
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W122918 #671
CALI: W122918 #2

BASE M/Z: 91/ 91
RIC: 302591./ 342527.

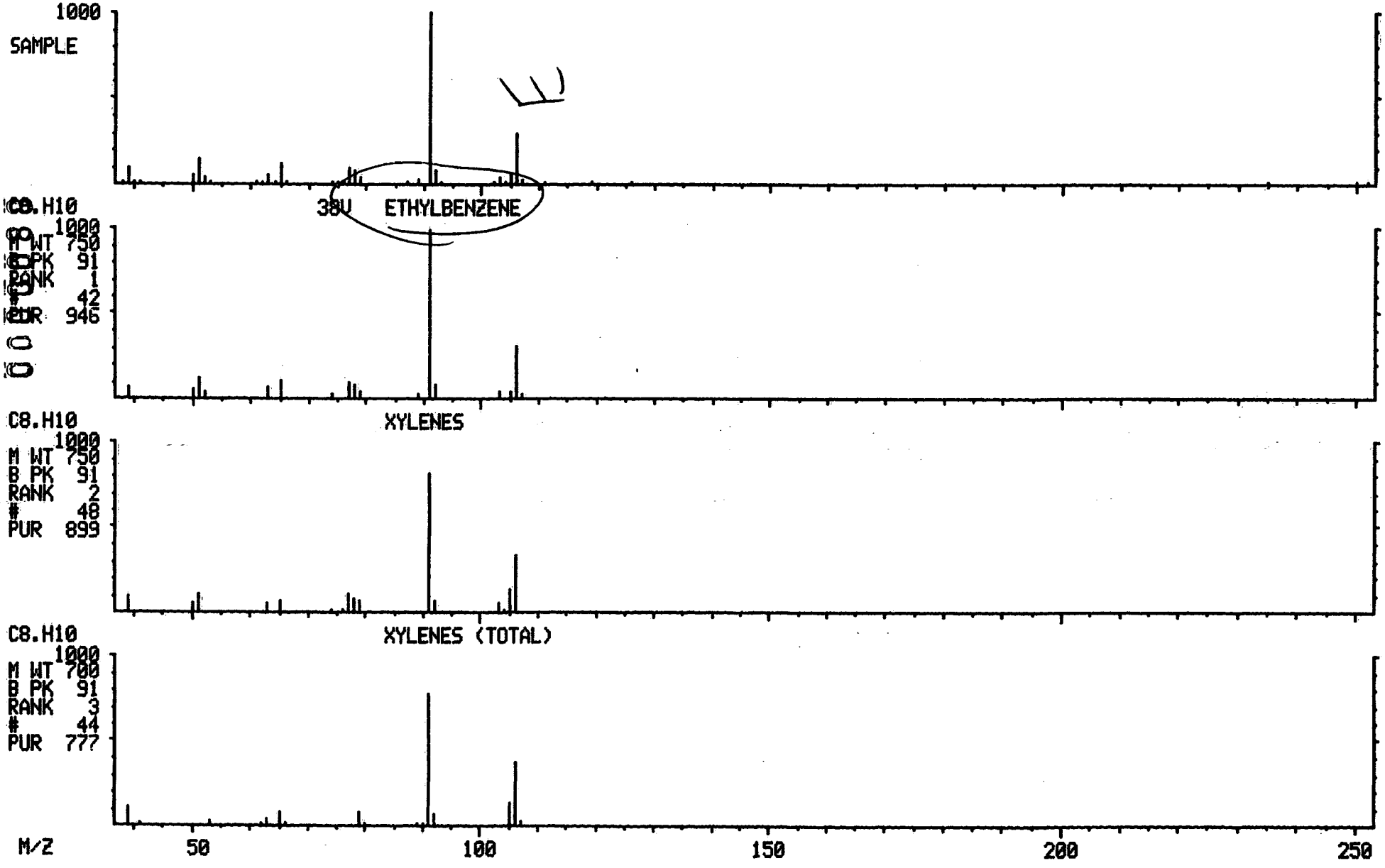


000087

LIBRARY SEARCH
12/30/91 6:12:00 + 22:22
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122918 # 671
CALI: W122918 # 2

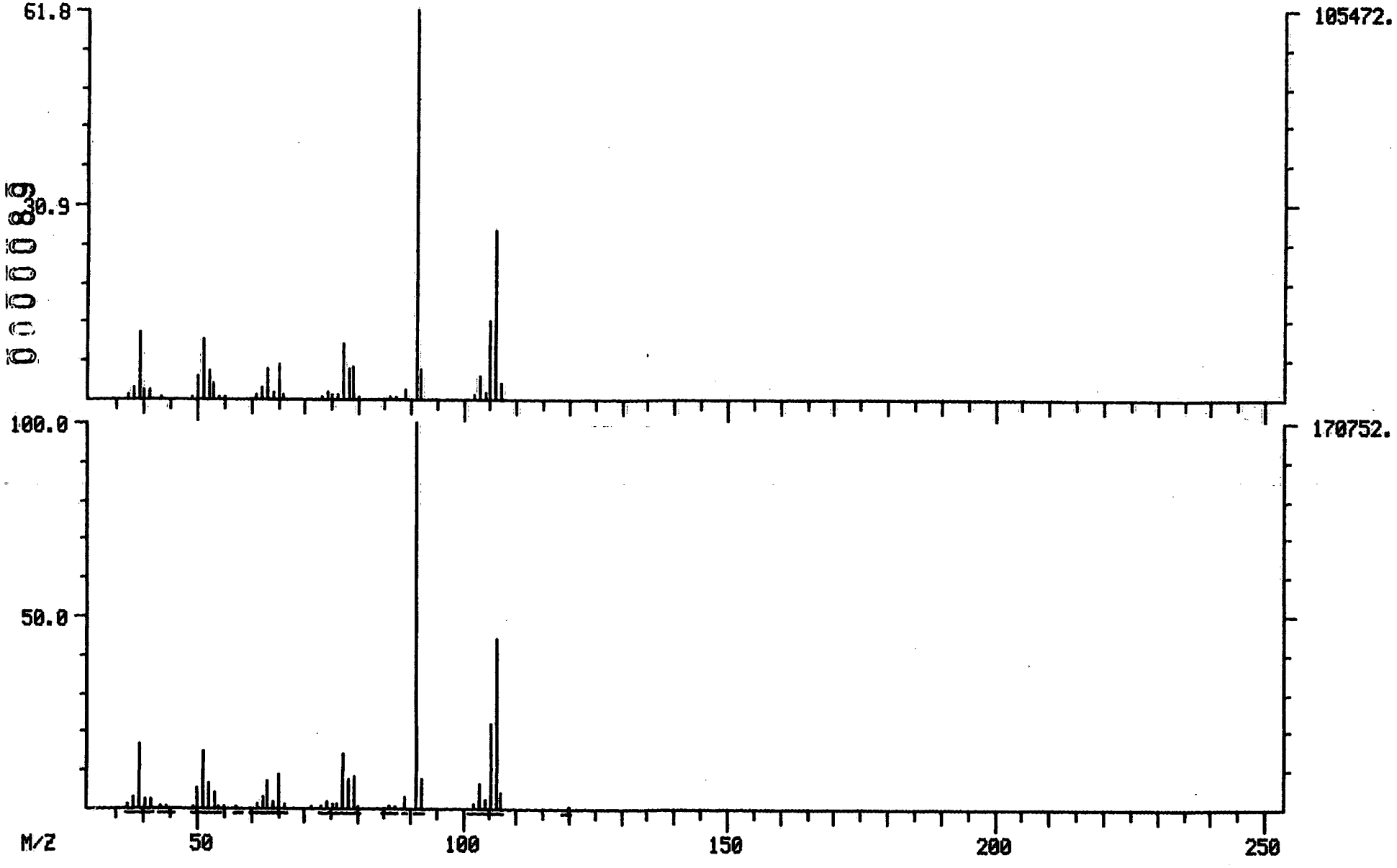
BASE M/Z: 91
RIC: 297471.



DUAL MASS SPECTRUM
12/30/91 6:12:00 + 26:56
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W122918 #808
CALI: W122918 #2

BASE M/Z: 91/ 91
RIC: 326143./ 531455.

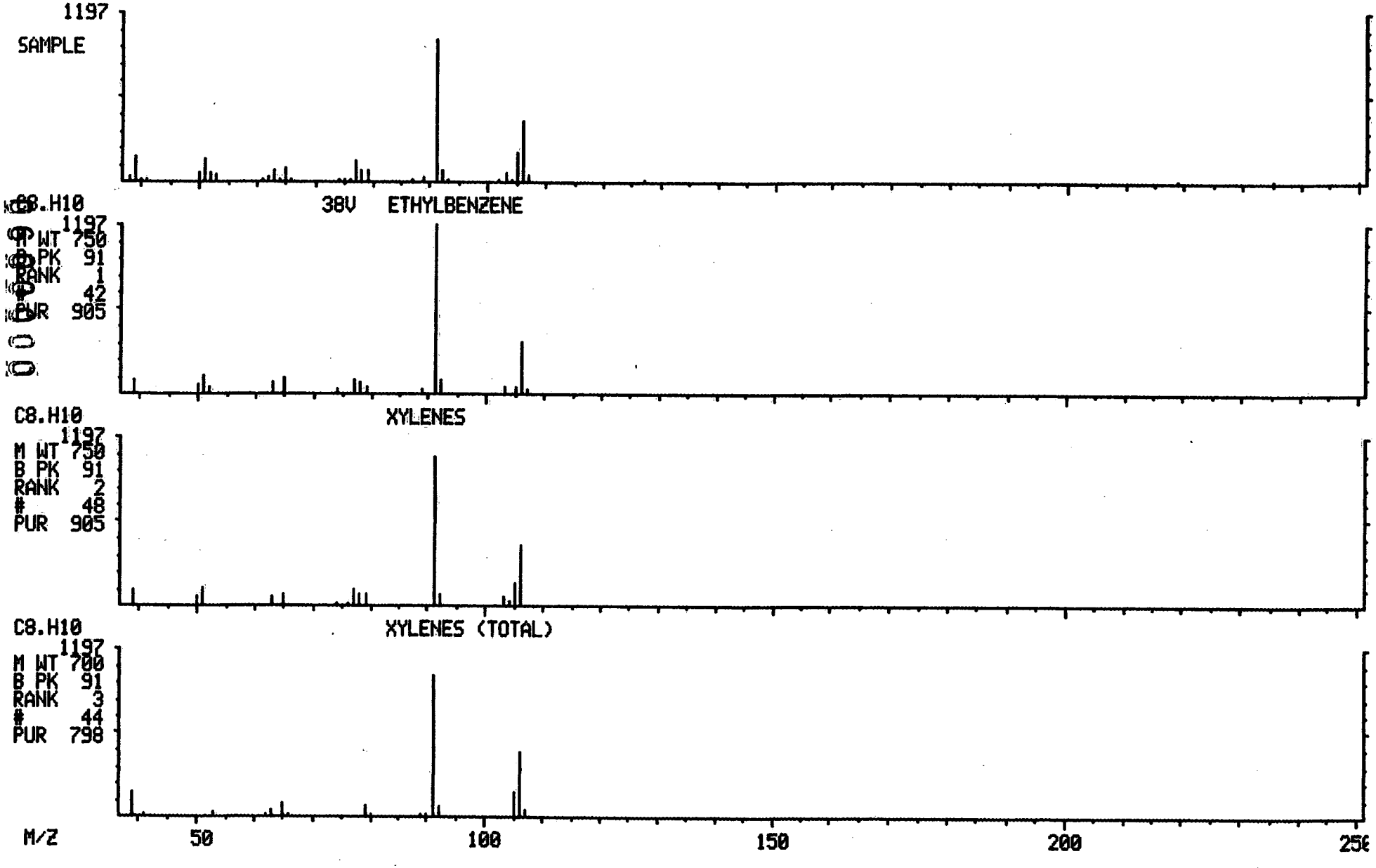


000089

LIBRARY SEARCH
12/30/91 6:12:00 + 26:56
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122918 # 808
CALI: W122918 # 2

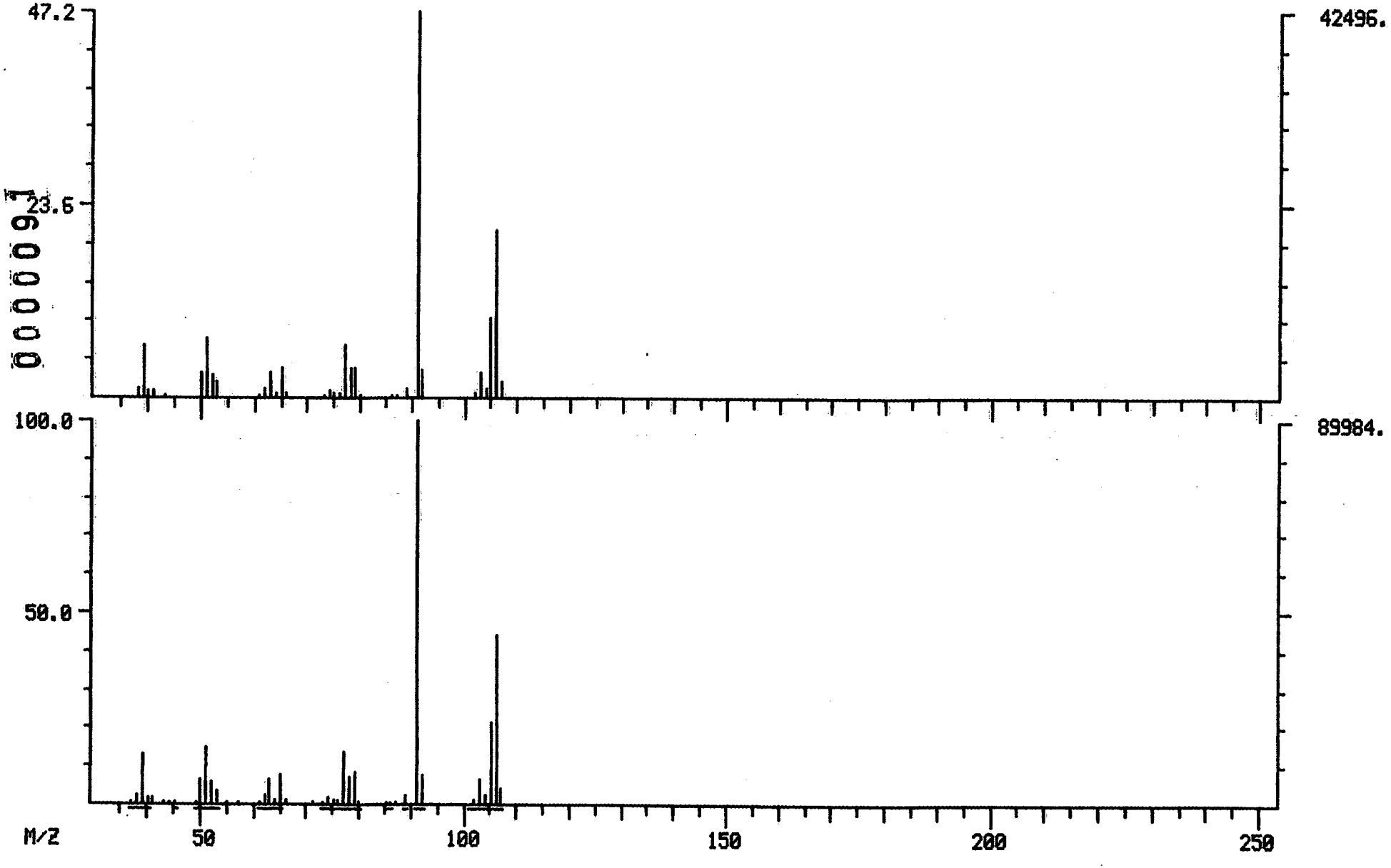
BASE M/Z: 91
RIC: 319999.



DUAL MASS SPECTRUM
12/30/91 6:12:00 + 28:00
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W122918 #840
CALI: W122918 #2

BASE M/Z: 91/ 91
RIC: 126335./ 272383.

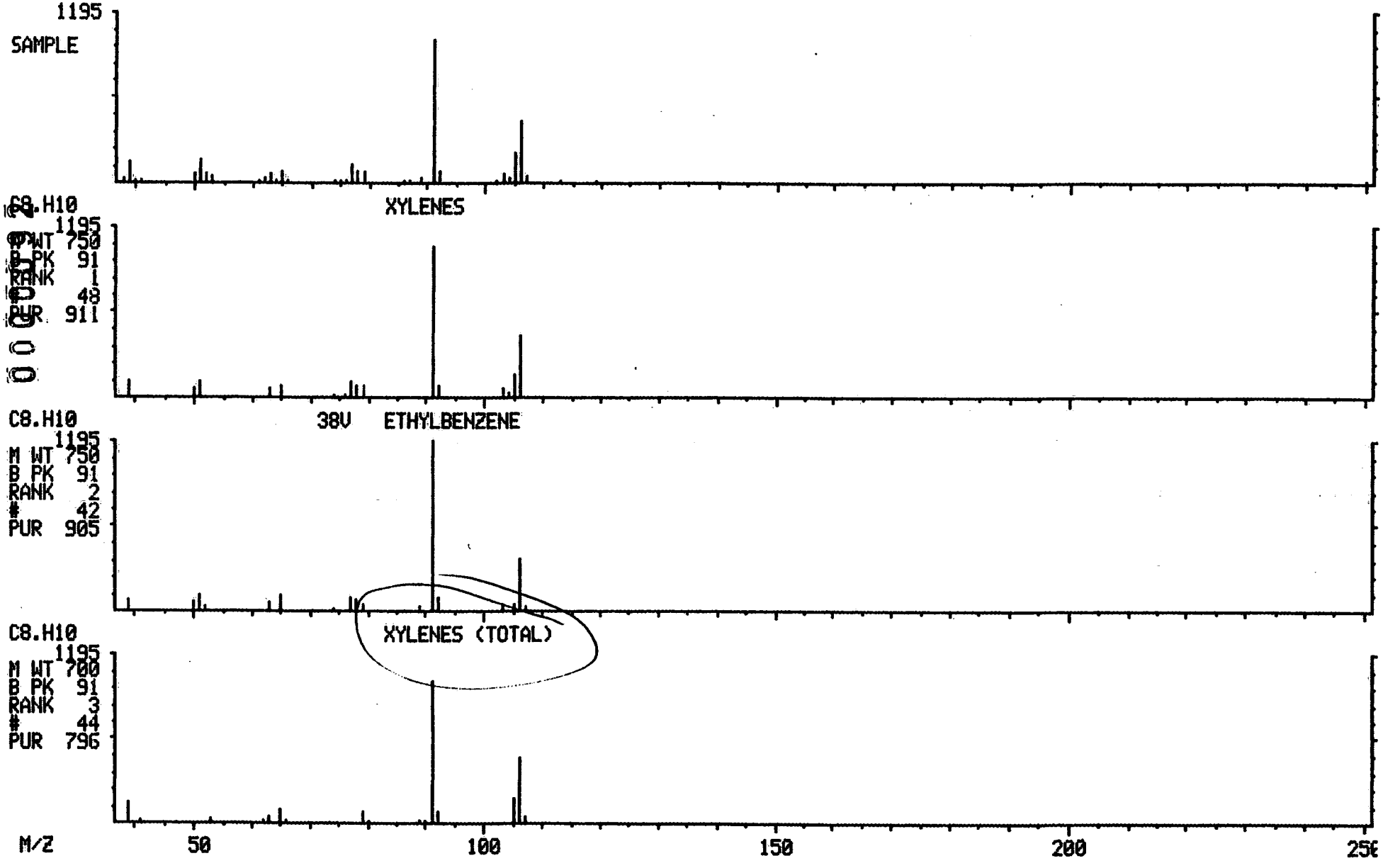


000009

LIBRARY SEARCH
12/30/91 6:12:00 + 28:00
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122918 # 840
CALI: W122918 # 2

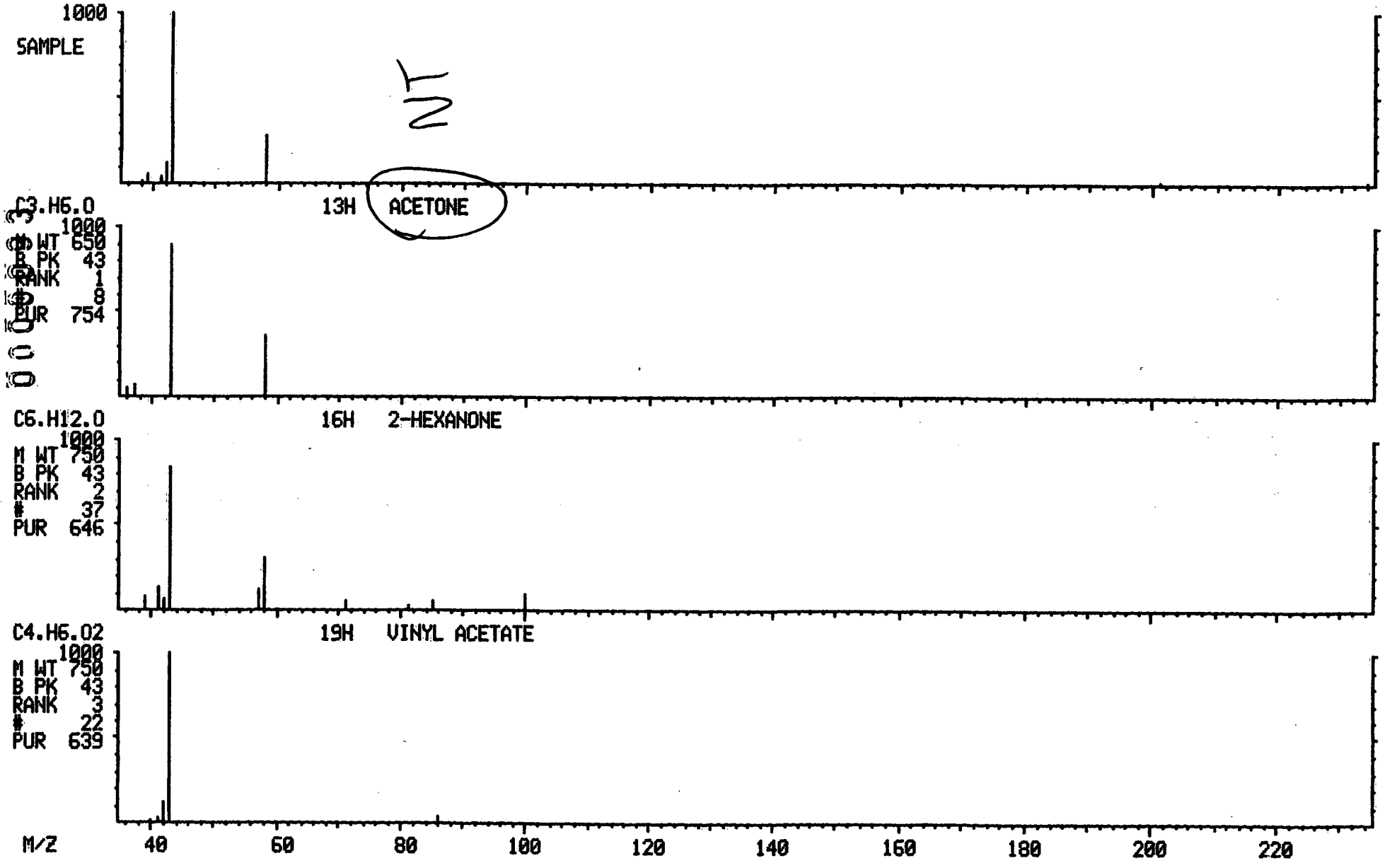
BASE M/Z: 91
RIC: 125183.



LIBRARY SEARCH
12/30/91 6:12:00 + 3:28
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1Z-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122918 # 104
CALI: W122918 # 2

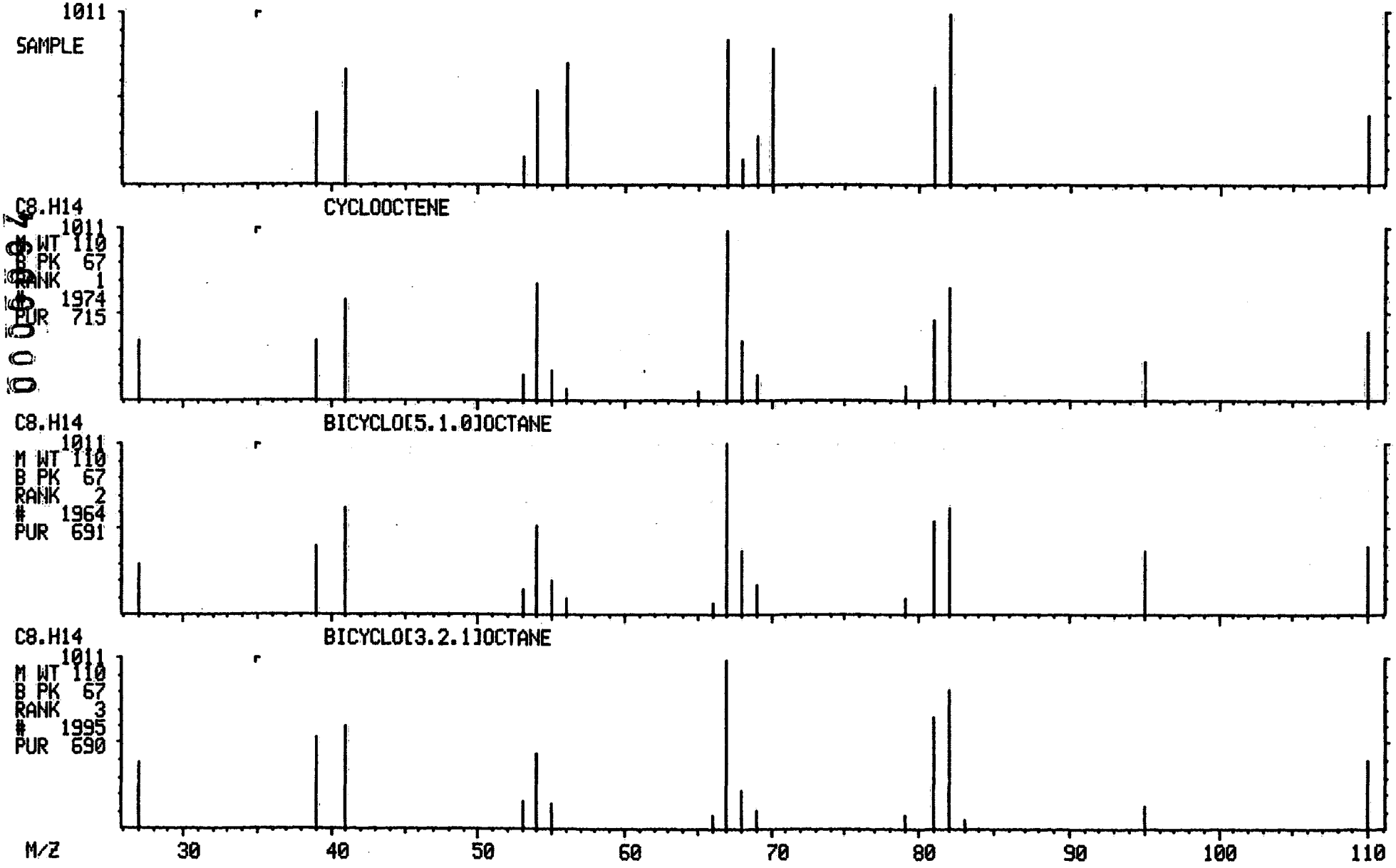
BASE M/Z: 43
RIC: 2783.



LIBRARY SEARCH
12/30/91 5:12:00 + 15:04
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122918 # 452
CALI: W122918 # 2

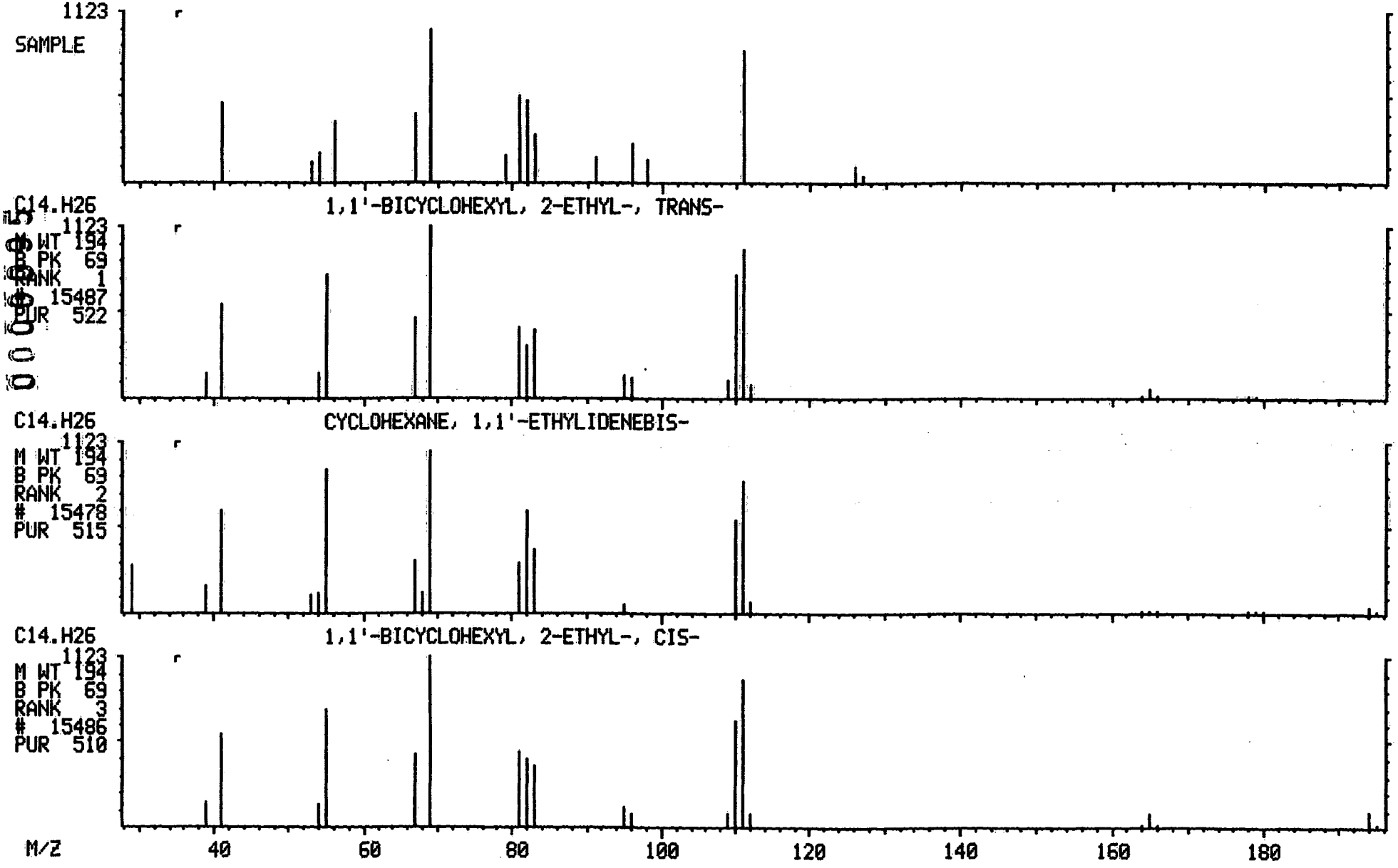
BASE M/Z: 82
RIC: 1365.



LIBRARY SEARCH
12/30/91 5:12:00 + 21:38
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122918 # 649
CALI: W122918 # 2

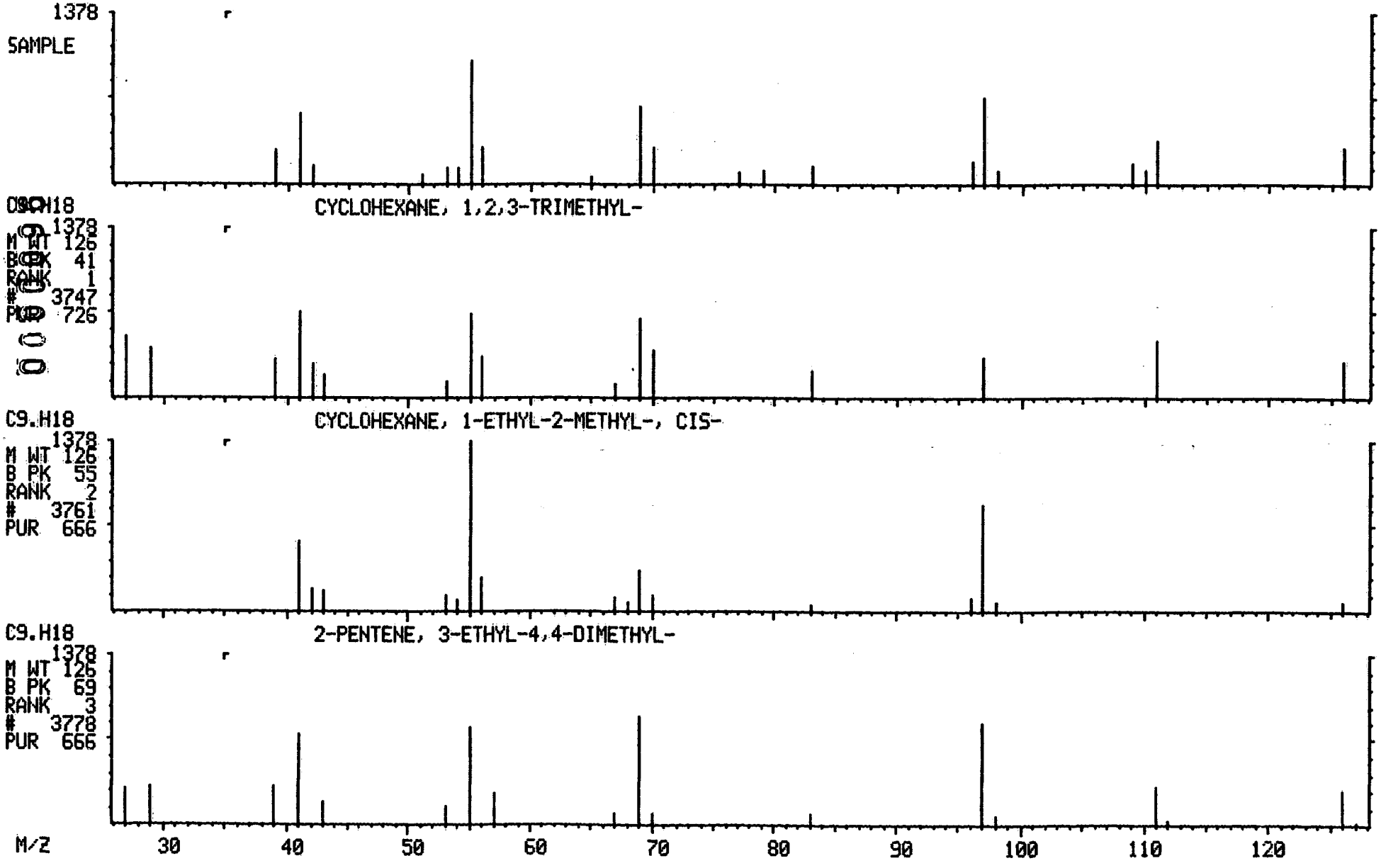
BASE M/Z: 69
RIC: 1305.



LIBRARY SEARCH
12/30/91 6:12:00 + 23:16
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122918 # 698
CALI: W122918 # 2

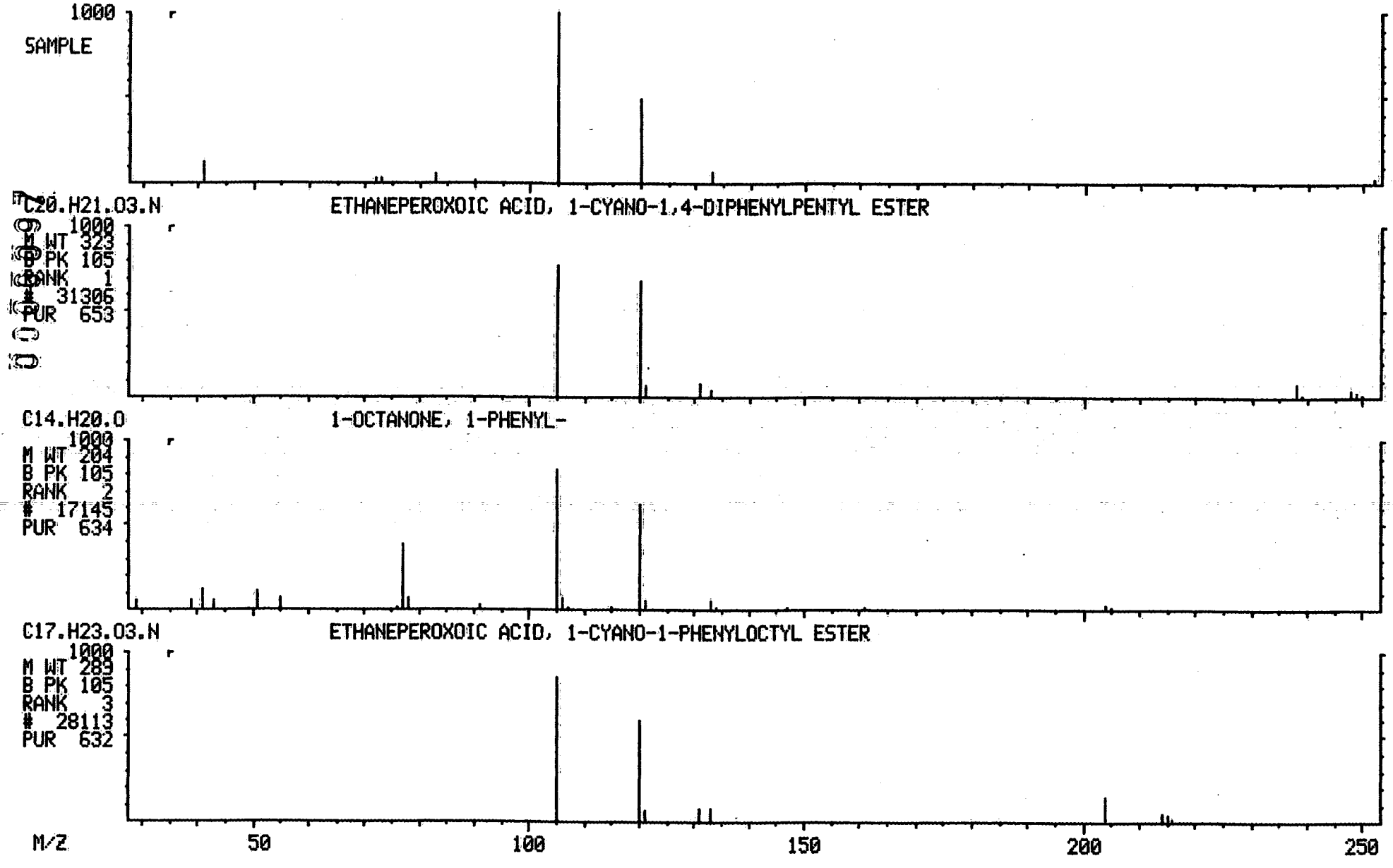
BASE M/Z: 55
RIC: 3167.



LIBRARY SEARCH
12/30/91 6:12:00 + 32:16
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122918 # 968
CALI: W122918 # 2

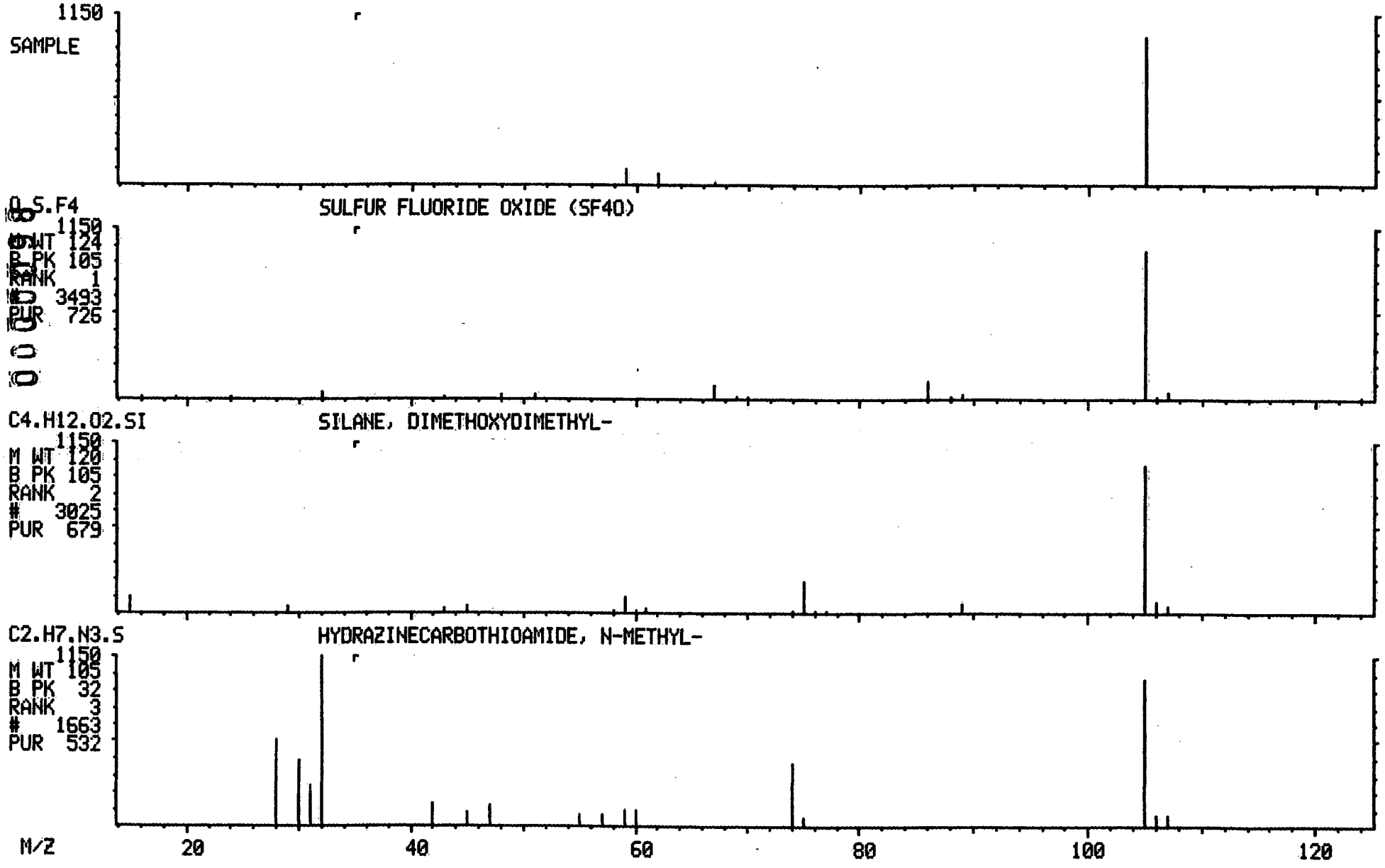
BASE M/Z: 105
RIC: 1649.



LIBRARY SEARCH
12/30/91 6:12:00 + 35:06
SAMPLE: 9112L841-003 WSI-LE CARPENTER 5.0ML
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122918 #1053
CALI: W122918 # 2

BASE M/Z: 105
RIC: 509.



1A

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

MW-4DL

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-003 DL

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: W123007

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

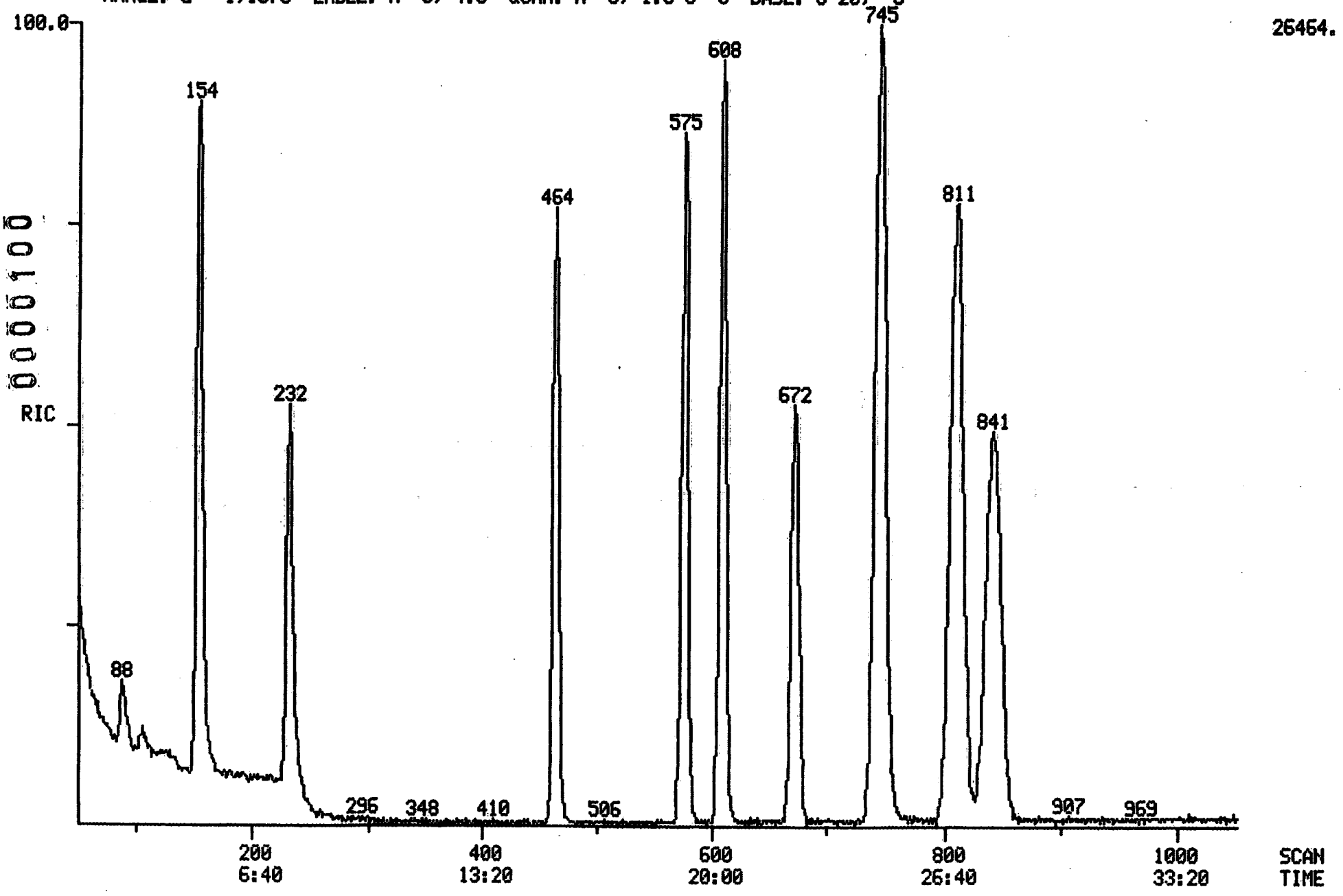
Column: (pack/cap) PACK

Dilution Factor: 10.0

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	NA	
74-83-9	Bromomethane	NA	
75-01-4	Vinyl Chloride	NA	
75-00-3	Chloroethane	NA	
75-09-2	Methylene Chloride	NA	
75-35-4	1,1-Dichloroethene	NA	
75-34-3	1,1-Dichloroethane	NA	
540-59-0	1,2-Dichloroethene (total)	NA	
67-66-3	Chloroform	NA	
107-06-2	1,2-Dichloroethane	NA	
71-55-6	1,1,1-Trichloroethane	NA	
56-23-5	Carbon Tetrachloride	NA	
75-27-4	Bromodichloromethane	NA	
78-87-5	1,2-Dichloropropane	NA	
10061-01-5	cis-1,3-Dichloropropene	NA	
79-01-6	Trichloroethene	NA	
124-48-1	Dibromochloromethane	NA	
79-00-5	1,1,2-Trichloroethane	NA	
71-43-2	Benzene	NA	
10061-02-6	Trans-1,3-Dichloropropene	NA	
110-75-8	2-chloroethylvinylether	NA	
75-25-2	Bromoform	NA	
127-18-4	Tetrachloroethene	NA	
79-34-5	1,1,2,2-Tetrachloroethane	NA	
108-88-3	Toluene	NA	
108-90-7	Chlorobenzene	NA	
100-41-4	Ethylbenzene	390	
95-50-1	1,2-Dichlorobenzene	NA	
541-73-1	1,3-Dichlorobenzene	NA	
106-46-7	1,4-Dichlorobenzene	NA	
107-02-8	Acrolein	NA	
107-13-1	Acrylonitrile	NA	
75-69-4	Trichlorofluoromethane	NA	
1330-20-7	Xylene (total)	1700	

RIC DATA: W123007 #1 SCANS 50 TO 1050
12/30/91 13:43:00 CALI: W123007 #2
SAMPLE: 9112L841-003 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL10
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: W123007 0000101

Data: W123007.TI
12/30/91 13:43:00
Sample: 9112L841-003 WSI LE CARPENTER 5.0 ML
Conds.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL10
Formula: W123002 Instrument: 1050W Weight: 0.012
Submitted by: Analyst: AIS Acct. No.:

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	14H	2-BUTANONE	
19	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

0000102

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	154	5:08	1	1.000	A BB	17168.	50.000 UG/L	9.26	
2	65	232	7:44	1	1.506	A BB	27724.	48.551 UG/L	8.99	✓
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	NOT FOUND									
7	84	88	2:56	1	0.571	A BB	2639.	6.359 UG/L	1.18	NR
8	43	105	3:30	1	0.682	A BB	4164.	26.372 UG/L	4.88	NT
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									
19	114	463	15:26	19	1.000	A BB	56101.	50.000 UG/L	9.26	
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	117	608	20:16	33	1.000	A BB	49248.	50.000 UG/L	9.26	✓
34	98	575	19:10	33	0.946	A BB	52881.	51.099 UG/L	9.46	✓
35	95	745	24:50	33	1.225	A BB	52448.	52.070 UG/L	9.64	✓
36	NOT FOUND									
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									
42	106	672	22:24	33	1.105	A BB	14408.	39.353 UG/L	7.28	✓
43	NOT FOUND									
44	106	810	27:00	33	1.332	A BB	36830.	97.816 UG/L	18.11	✓
45	NOT FOUND									
46	NOT FOUND									
47	NOT FOUND									
48	106	842	28:04	33	1.385	A BB	24818.	68.765 UG/L	12.73	✓
49	NOT FOUND									
50	NOT FOUND									

JBJ
1/13/92

Quantitation Report File: W123007 0000103

Data: W123007.TI
12/30/91 13:43:00
Sample: 9112L841-003 WSI LE CARPENTER 5.0 ML
Conds.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL10
Formula: W123002 Instrument: 1050W Weight: 0.012
Submitted by: Analyst: AIS Acct. No.:

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

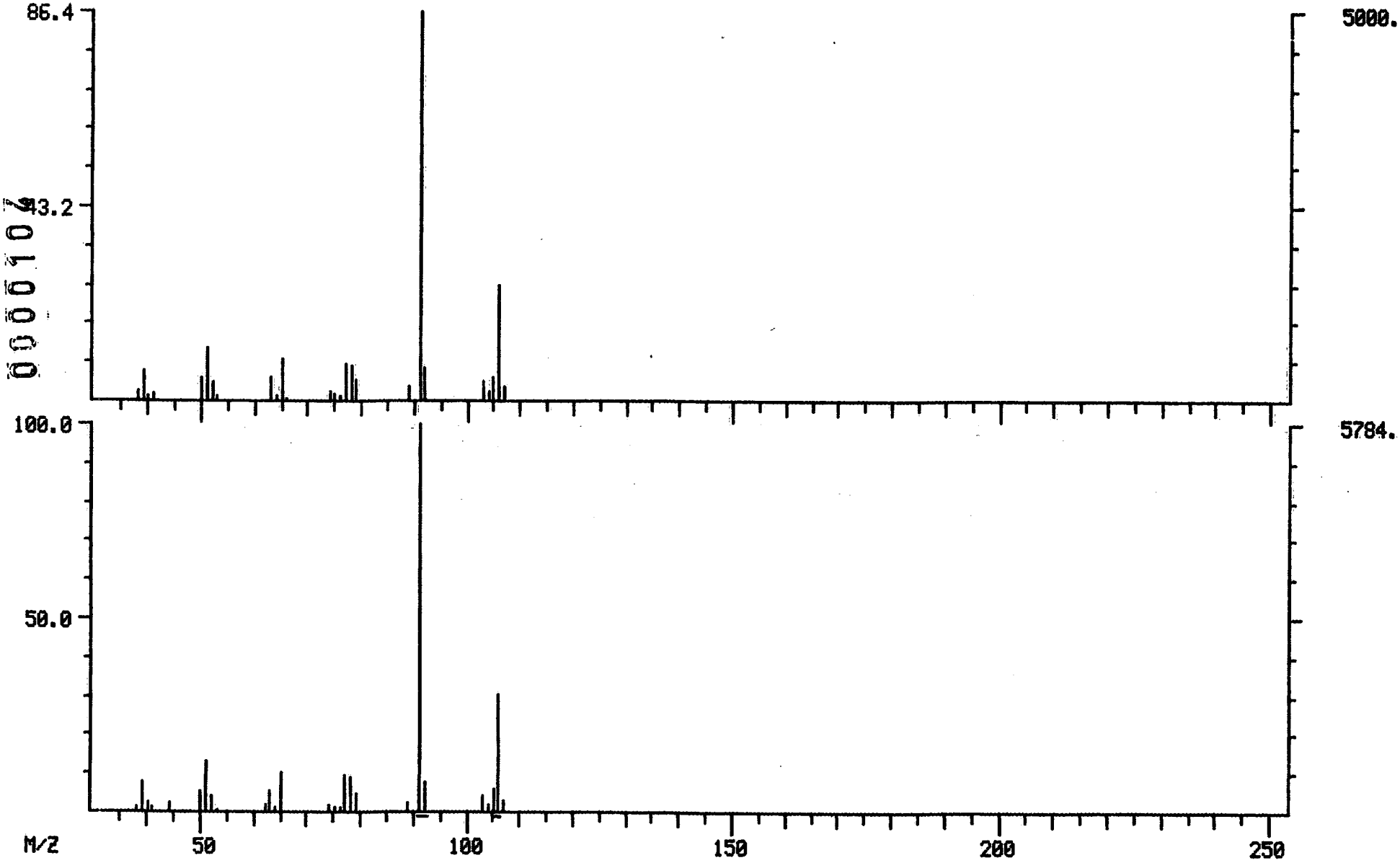
No	Name
51	T-BUTYL ALCOHOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								

DUAL MASS SPECTRUM
12/30/91 13:43:00 + 22:24
SAMPLE: 9112L841-003 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL10
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W123007 #672
CALI: W123007 #2

BASE M/Z: 91/ 91
RIC: 12255./ 13951.

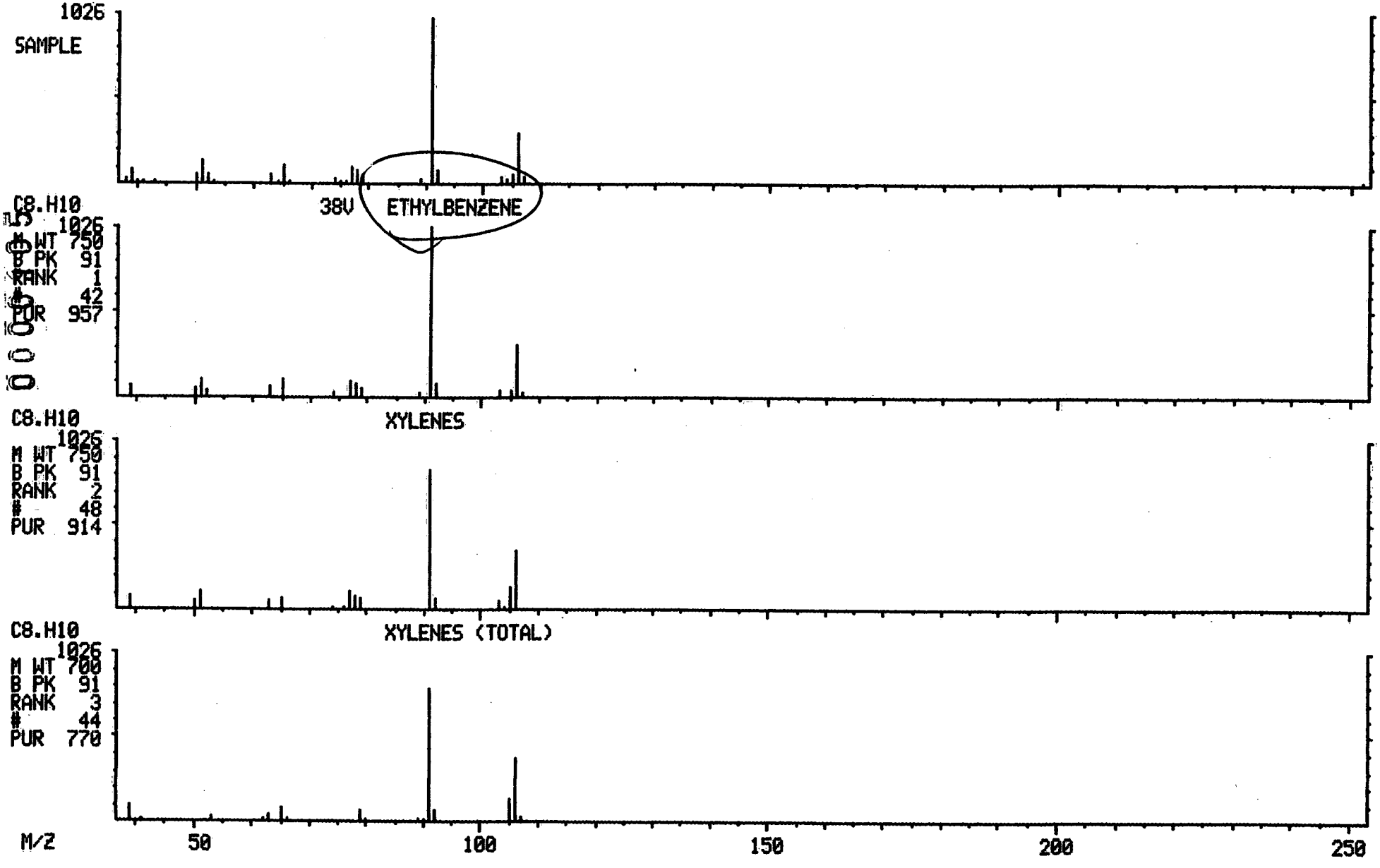


0000107

LIBRARY SEARCH
12/30/91 13:43:00 + 22:24
SAMPLE: 9112L841-003 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL10
ENHANCED (S 15B 2N 0T)

DATA: W123007 # 672
CALI: W123007 # 2

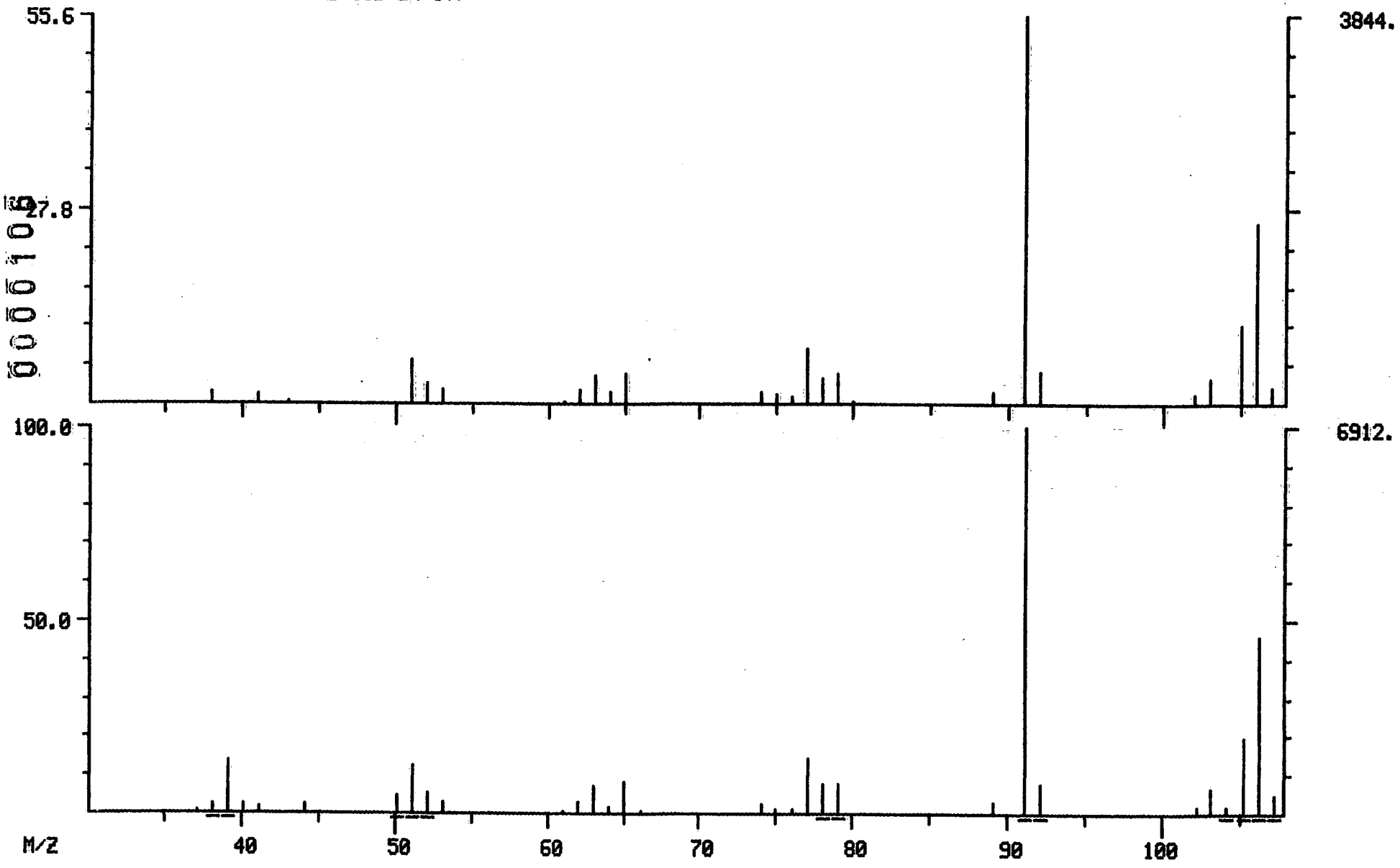
BASE M/Z: 91
RIC: 12255.



DUAL MASS SPECTRUM
12/30/91 13:43:00 + 27:00
SAMPLE: 9112L841-003 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL10
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W123007 #810
CALI: W123007 #2

BASE M/Z: 91/ 91
RIC: 10575./ 20511.

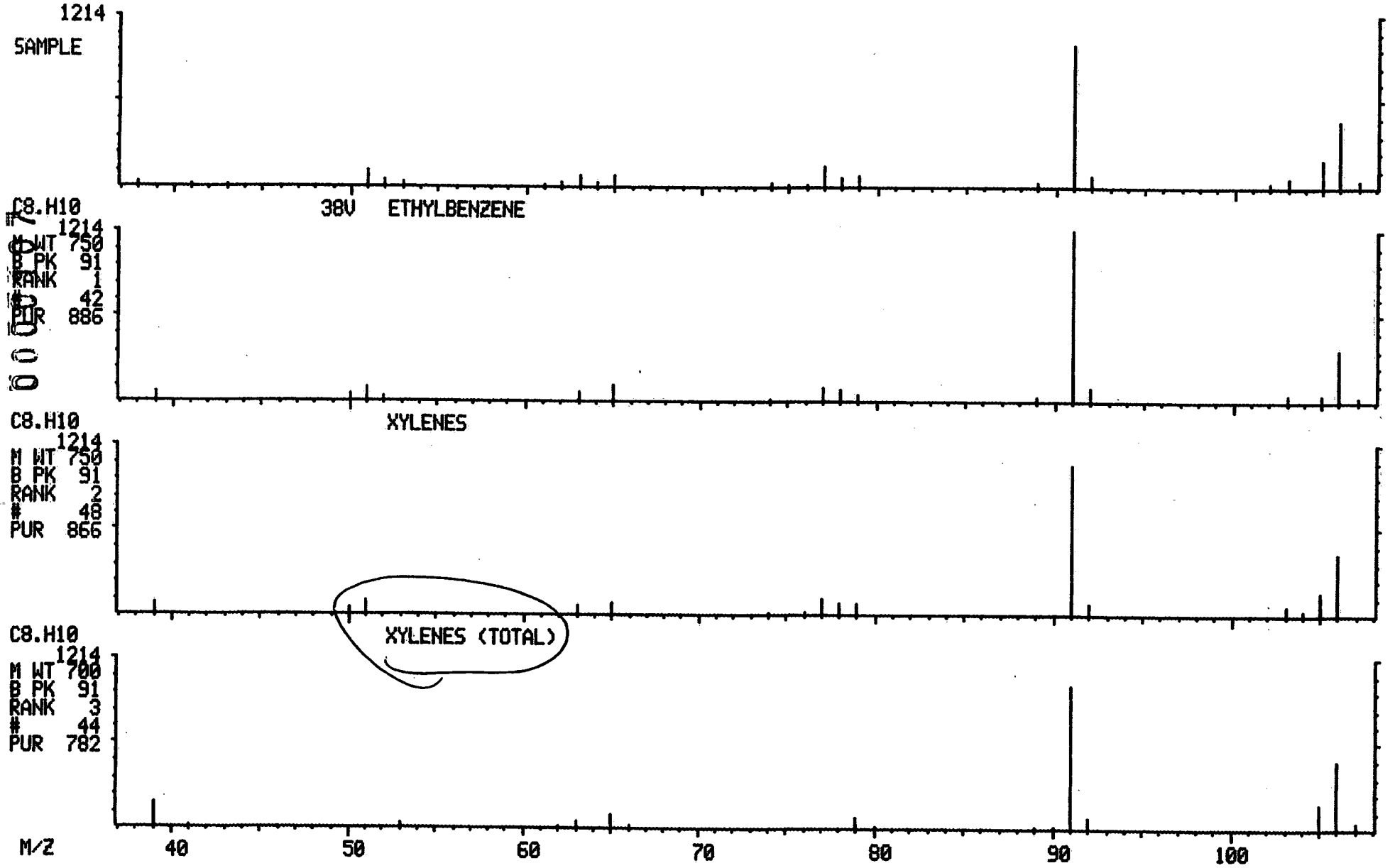


0000105

LIBRARY SEARCH
12/30/91 13:43:00 + 27:00
SAMPLE: 9112L841-003 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL10
ENHANCED (S 15B 2N 0T)

DATA: W123007 # 810
CALI: W123007 # 2

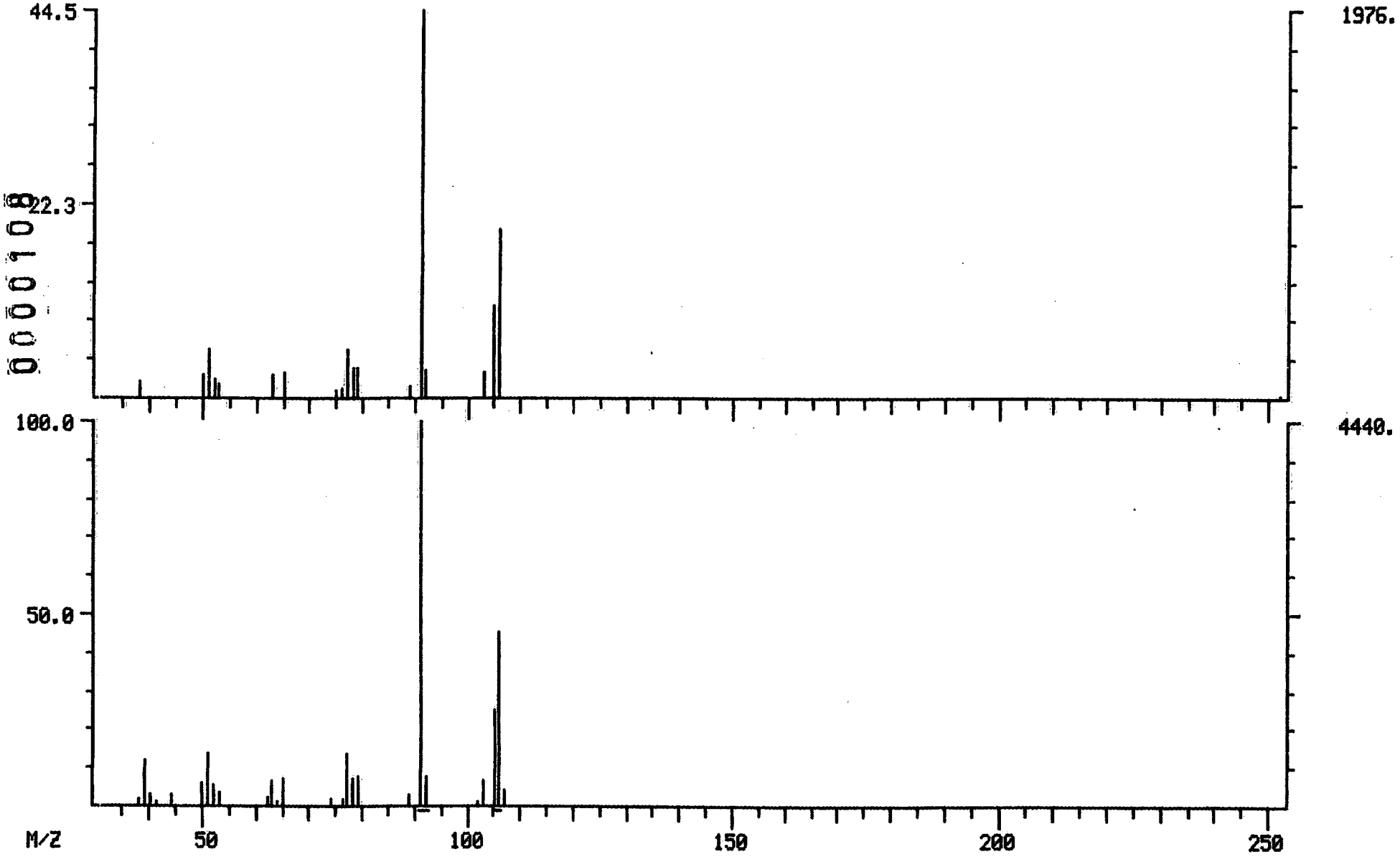
BASE M/Z: 91
RIC: 10559.



DUAL MASS SPECTRUM
12/30/91 13:43:00 + 28:04
SAMPLE: 9112L841-003 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL10
GC TEMP: 208 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W123007 #842
CALI: W123007 #2

BASE M/Z: 91/ 91
RIC: 5175./ 12943.

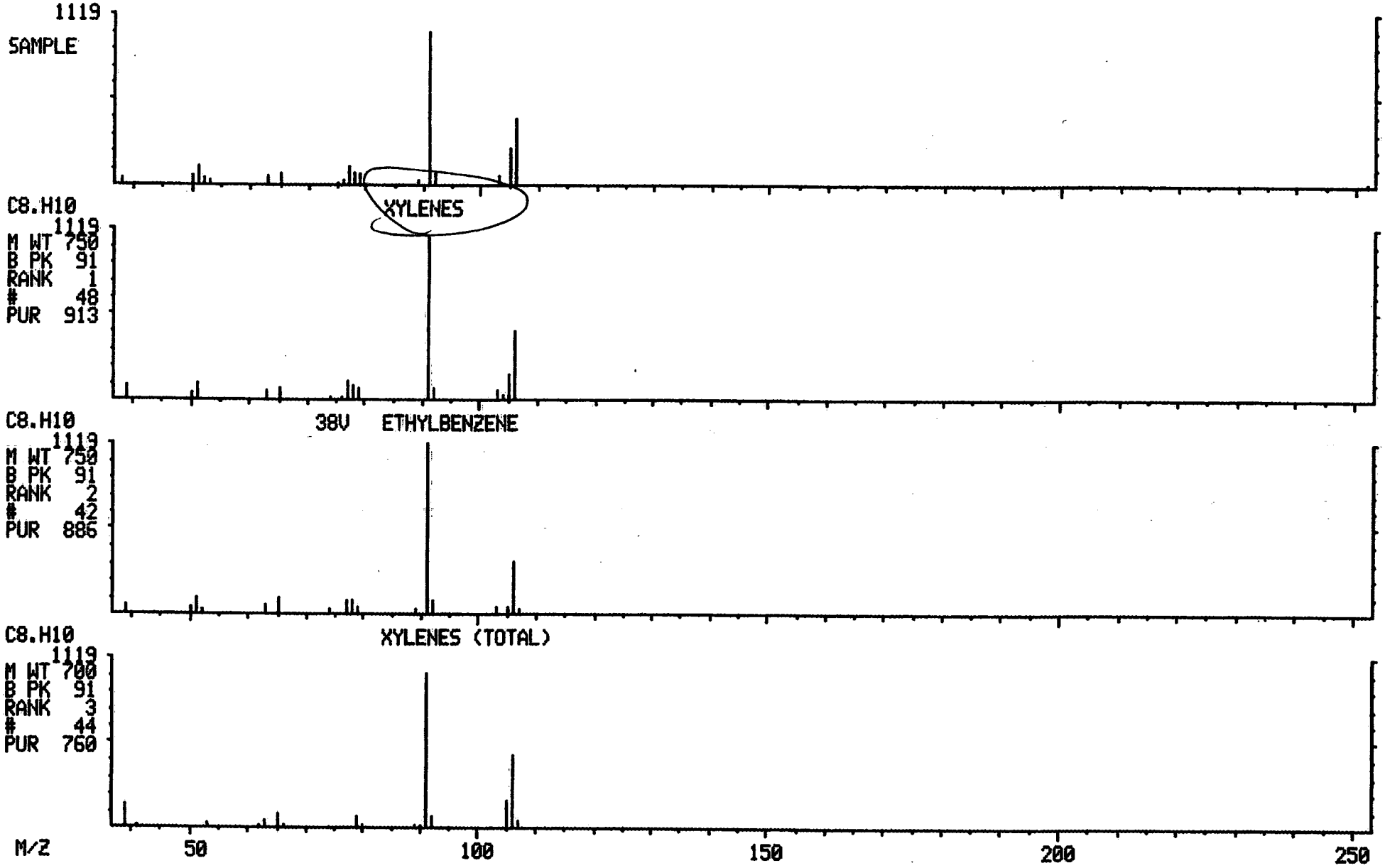


000010B

LIBRARY SEARCH
12/30/91 13:43:00 + 28:04
SAMPLE: 9112L841-003 WSI LE CARPENTER 5.0 ML
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000,DIL10
ENHANCED (S 15B 2N 0T)

DATA: W123007 # 842
CALI: W123007 # 2

BASE M/Z: 91
RIC: 5167.



1A

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

MW-5

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-004

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: AKCU04

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	JB
75-35-4	1,1-Dichloroethene	3	JB
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
107-02-8	Acrolein	10	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
1330-20-7	Xylene (total)	2	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW-5

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-004

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: AKCU04

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

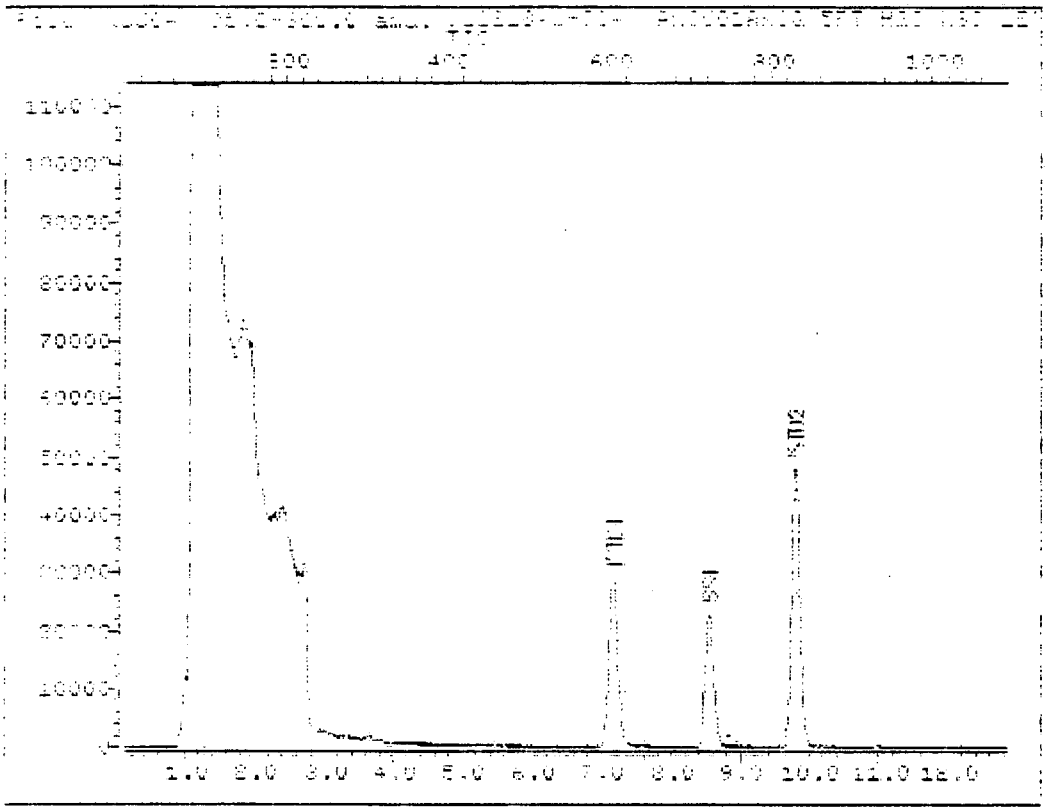
Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

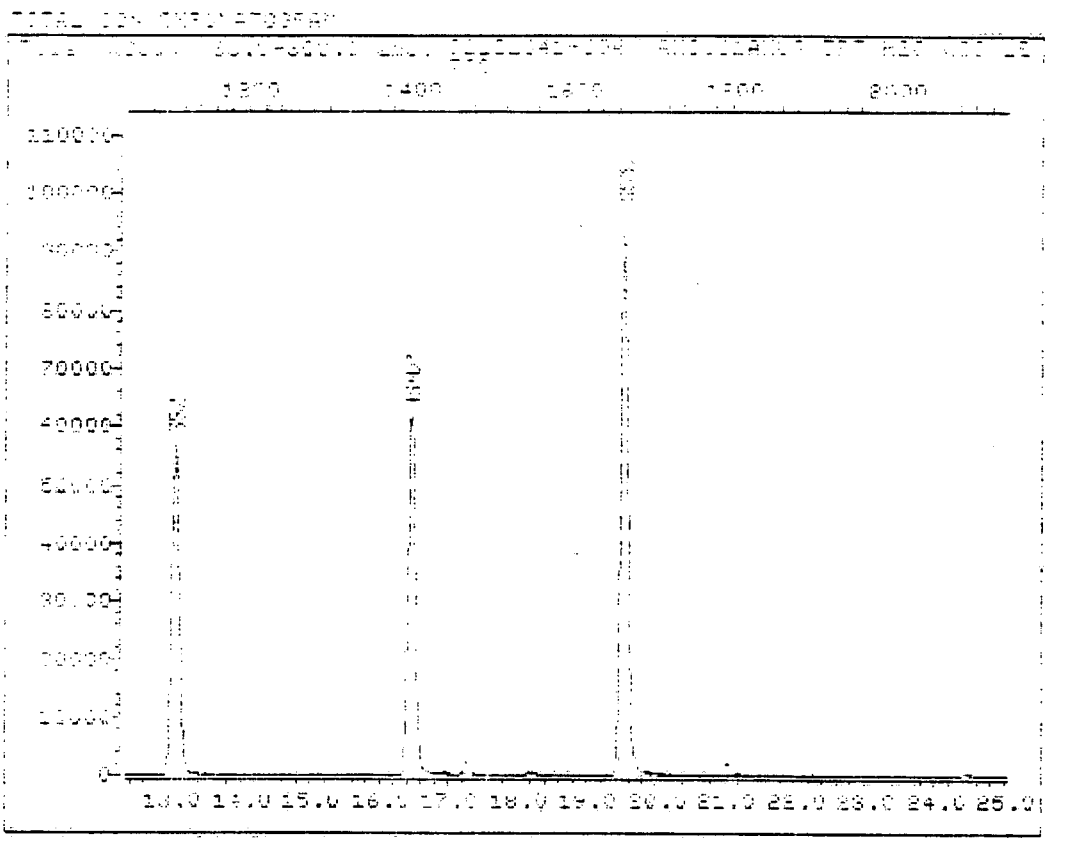


Data File: >KCU04::D2 Quant Output File: ^KCU04::QQ
Name: 9112L841-004 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB

Id File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

Operator ID: BB
Quant Time: 911230 12:32
Injected at: 911230 12:03

TIC page 1 of 2



Data File: >KCU04::D2 Quant Output File: ^KCU04::QQ
Name: 9112L841-004 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB

Id File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

Operator ID: BB
Quant Time: 911230 12:32
Injected at: 911230 12:03

TIC page 2 of 2

QUANT REPORT

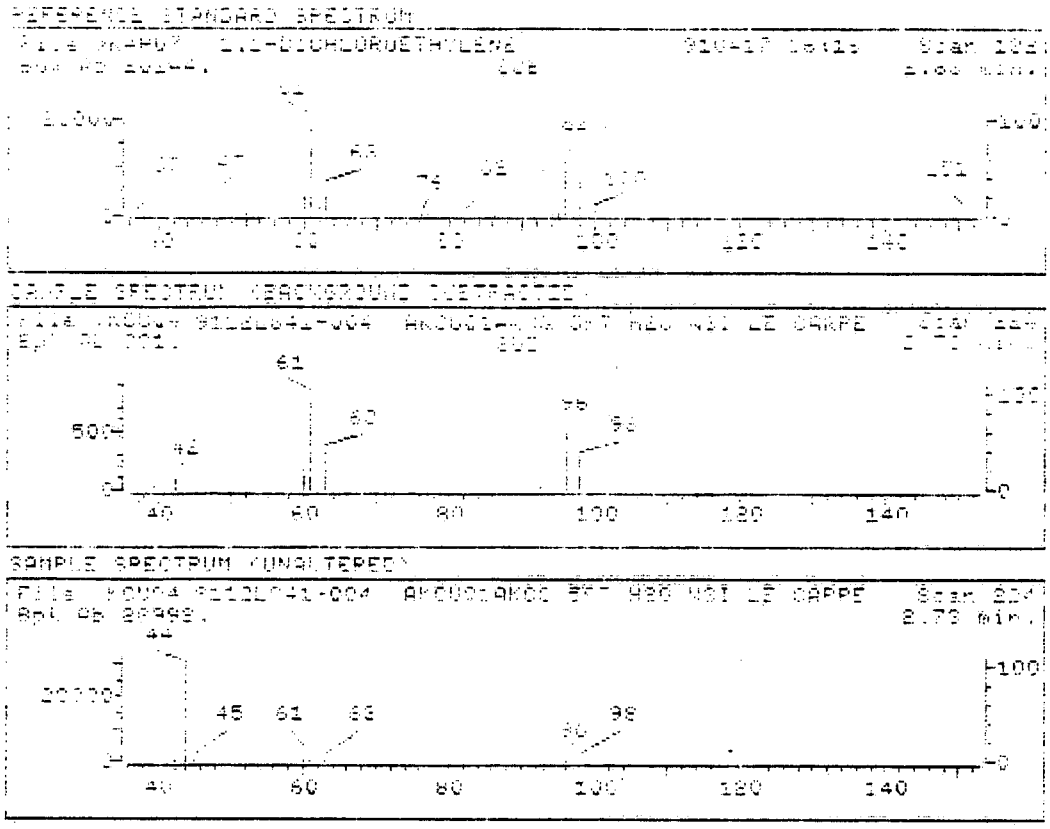
Operator ID: BB Quant Rev: 6 Quant Time: 911230 12:32
Output File: ^KCU04::QQ Injected at: 911230 12:03
Data File: >KCU04::D2 Dilution Factor: 1.00000
Name: 9112L841-004 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB

ID File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.17	128.0	36495	50.00	ug/L	76
8)	1,1-DICHLOROETHYLENE	2.73	96.0	2905	3.49	ug/L	90
11)	ACETONE	3.01	43.0	3573	15.51	ug/L	100
12)	METHYLENE CHLORIDE	3.64	84.0	1149	1.44	ug/L	90
24)	*1,4-DIFLUOROBENZENE	9.80	114.0	147507	50.00	ug/L	69
26)	1,2-DICHLOROETHANE D4	8.56	65.0	82804	46.32	ug/L	86
32)	*CHLOROBENZENE-D5	16.47	117.0	127270	50.00	ug/L	97
34)	TOLUENE D8	13.05	98.0	151114	49.75	ug/L	99
43)	ETHYLBENZENE	17.27	106.0	2443	2.79	ug/L	69
45)	XYLENE	17.27	106.0	2443M	2.27	ug/L	
48)	4-BROMOFLUOROBENZENE	19.54	95.0	140123	47.43	ug/L	93

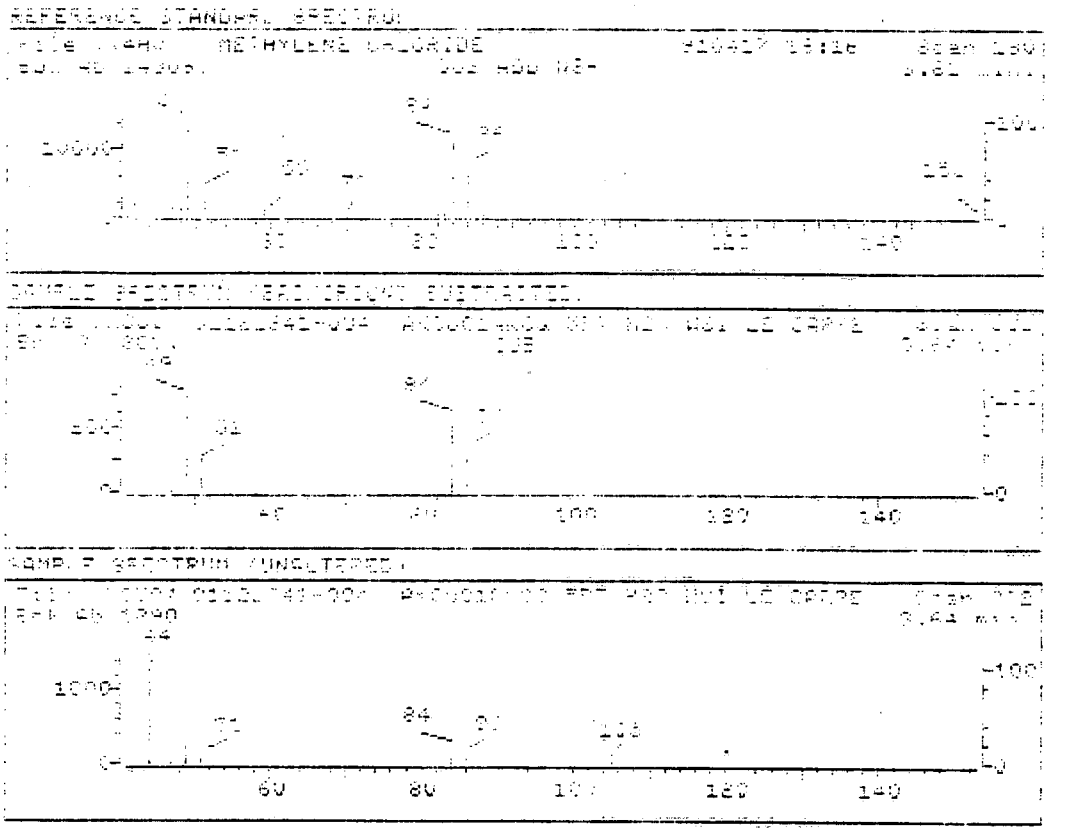
* Compound is ISTD

BB
12-30-91
No TICs



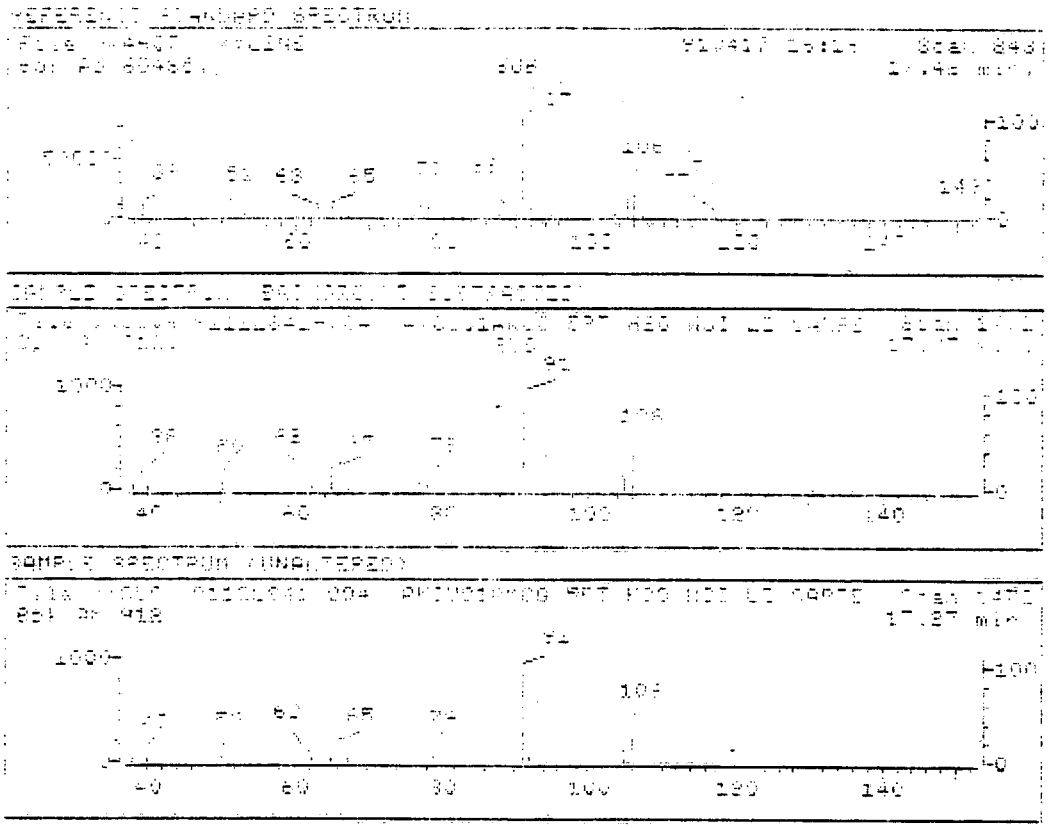
Data File: >KCU04::D2 Quant Output File: ^KCU04::QQ
Name: 9112L841-004 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB
Quant Time: 911230 12:32 Quant ID File: I_KCUA::QQ
Injected at: 911230 12:03 Last Calibration: 911230 10:59

Compound No: 8
Compound Name: 1,1-DICHLOROETHYLENE
Scan Number: 224
Retention Time: 2.73 min.
Quant Ion: 96.0
Area: 2905
Concentration: 3.49 ug/L
q-value: 90



Data File: >KCU04::D2 Quant Output File: ^KCU04::QQ
Name: 9112L841-004 AKCU01
Misc: AKCO 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB
Quant Time: 911230 12:32 Quant ID File: I_KCUA::QQ
Injected at: 911230 12:03 Last Calibration: 911230 10:59

Compound No: 12
Compound Name: METHYLENE CHLORIDE
Scan Number: 302
Retention Time: 3.64 min.
Quant Ion: 84.0
Area: 1149
Concentration: 1.44 ug/L
q-value: 90



Data File: >KCU04::D2 Quant Output File: ^KCU04::QQ
Name: 9112L841-004 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB
Quant Time: 911230 12:32 Quant ID File: I_KCUA::QQ
Injected at: 911230 12:03 Last Calibration: 911230 10:59

Compound No: 45
Compound Name: XYLENE
Scan Number: 1472
Retention Time: 17.27 min.
Quant Ion: 106.0
Area: 2443M
Concentration: 2.27 ug/L

1A

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-005

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: AKCU05

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	JB
75-35-4	1,1-Dichloroethene	3	JB
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
107-02-8	Acrolein	10	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

TRIP BLANK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-005

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: AKCU05

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

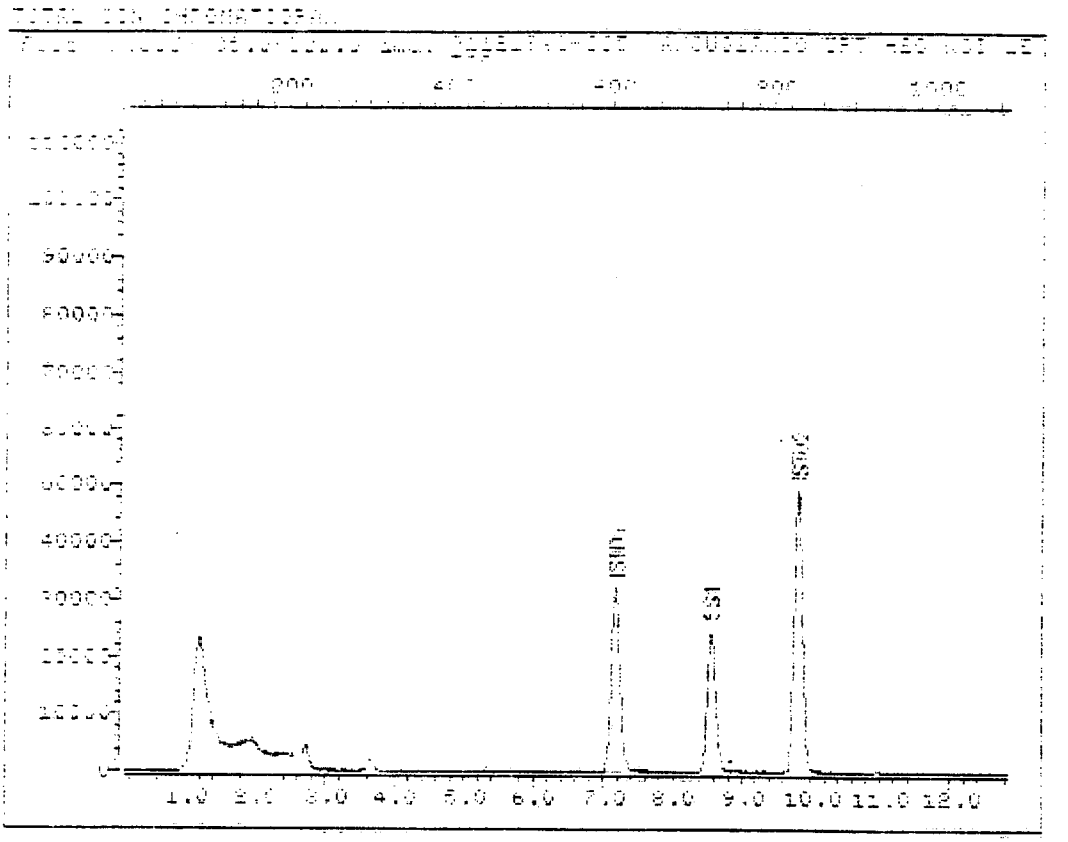
Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

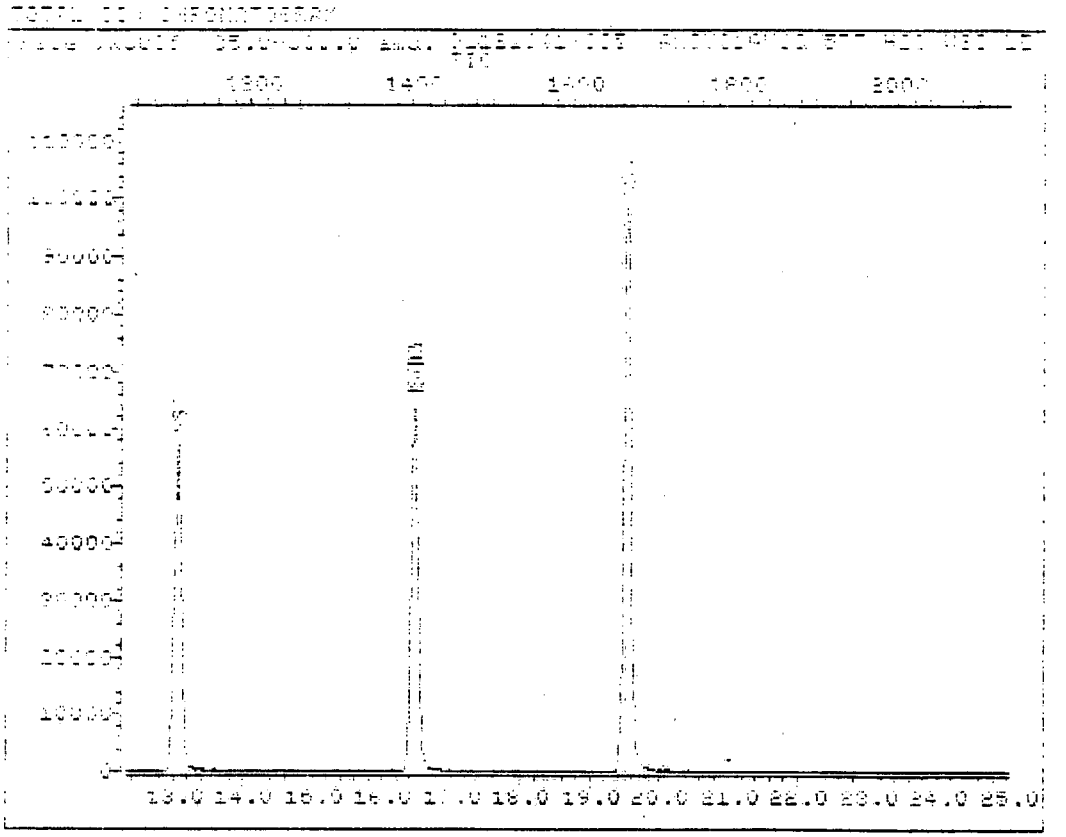


Data File: >KCU05::D2 Quant Output File: ^KCU05::QQ
Name: 9112L841-005 AKCU01
Misc: AKCO 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB

Id File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

Operator ID: BB
Quant Time: 911230 13:07
Injected at: 911230 12:38

TIC page 1 of 2



Data File: >KCU05::D2 Quant Output File: ^KCU05::QQ
Name: 9112L841-005 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB

Id File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

Operator ID: BB
Quant Time: 911230 13:07
Injected at: 911230 12:38

TIC page 2 of 2

QUANT REPORT

Operator ID: BB Quant Rev: 6 Quant Time: 911230 13:07
Output File: ^KCU05::QQ Injected at: 911230 12:38
Data File: >KCU05::D2 Dilution Factor: 1.00000
Name: 9112L841-005 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB

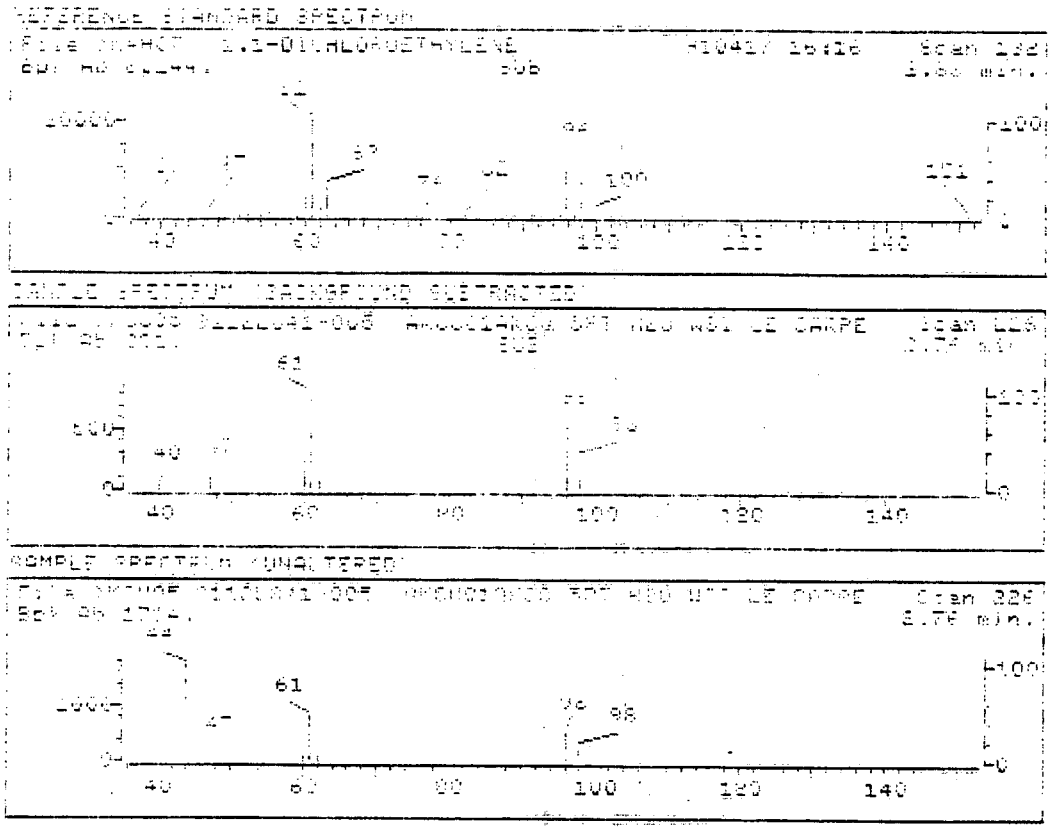
ID File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.18	128.0	38381	50.00	ug/L	76
8)	1,1-DICHLOROETHYLENE	2.76	96.0	2812	3.21	ug/L	84
12)	METHYLENE CHLORIDE	3.65	84.0	3313	3.96	ug/L	67
24)	*1,4-DIFLUOROBENZENE	9.82	114.0	150058	50.00	ug/L	68
26)	1,2-DICHLOROETHANE D4	8.56	65.0	88205	48.50	ug/L	85
32)	*CHLOROBENZENE-D5	16.47	117.0	128750	50.00	ug/L	95
34)	TOLUENE D8	13.07	98.0	151367	49.26	ug/L	98
48)	4-BROMOFLUOROBENZENE	19.54	95.0	144310	48.29	ug/L	94

* Compound is ISTD

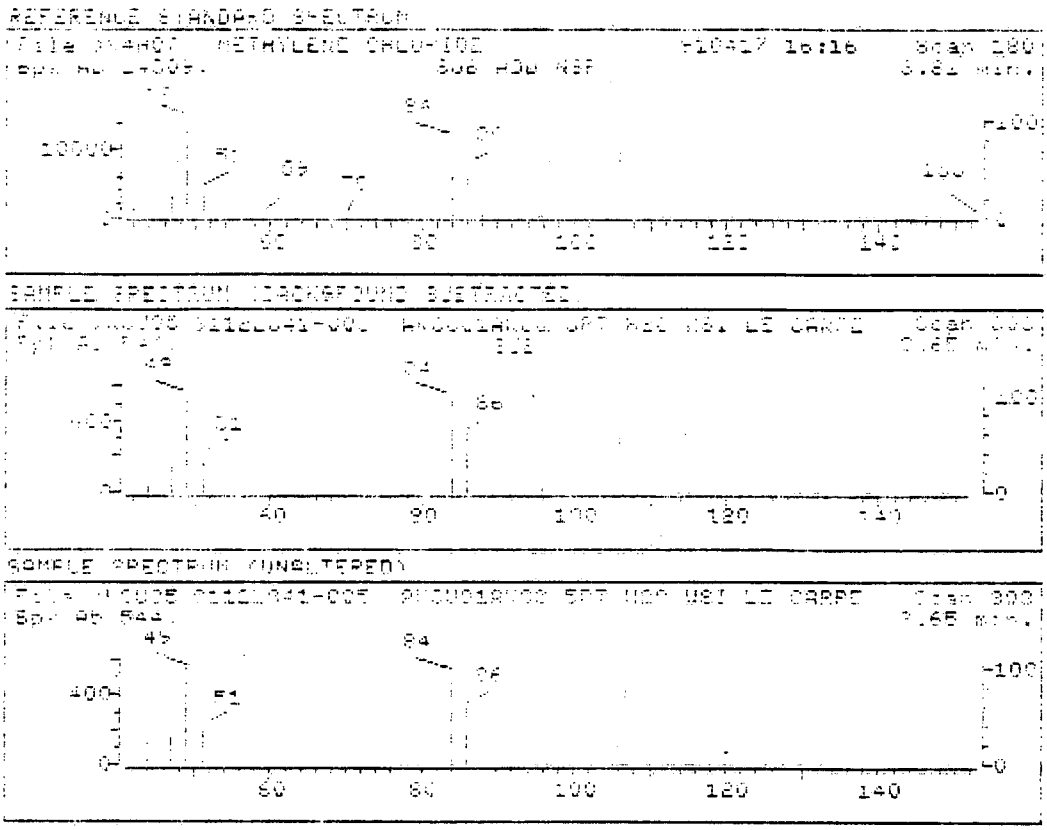
BB
12-30-91

no TICs



Data File: >KCU05::D2 Quant Output File: ^KCU05::QQ
Name: 9112L841-005 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB
Quant Time: 911230 13:07 Quant ID File: I_KCUA::QQ
Injected at: 911230 12:38 Last Calibration: 911230 10:59

Compound No: 8
Compound Name: 1,1-DICHLOROETHYLENE
Scan Number: 226
Retention Time: 2.76 min.
Quant Ion: 96.0
Area: 2812
Concentration: 3.21 ug/L
q-value: 84



Data File: >KCU05::D2 Quant Output File: ^KCU05::QQ
Name: 9112L841-005 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB
Quant Time: 911230 13:07 Quant ID File: I_KCUA::QQ
Injected at: 911230 12:38 Last Calibration: 911230 10:59

Compound No: 12
Compound Name: METHYLENE CHLORIDE
Scan Number: 303
Retention Time: 3.65 min.
Quant Ion: 84.0
Area: 3313
Concentration: 3.96 ug/L
q-value: 67

1A

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

FIELD BLANK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-006

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: AKCU06

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	JB
75-35-4	1,1-Dichloroethene	3	JB
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
107-02-8	Acrolein	10	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

FIELD BLANK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-006

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: AKCU06

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

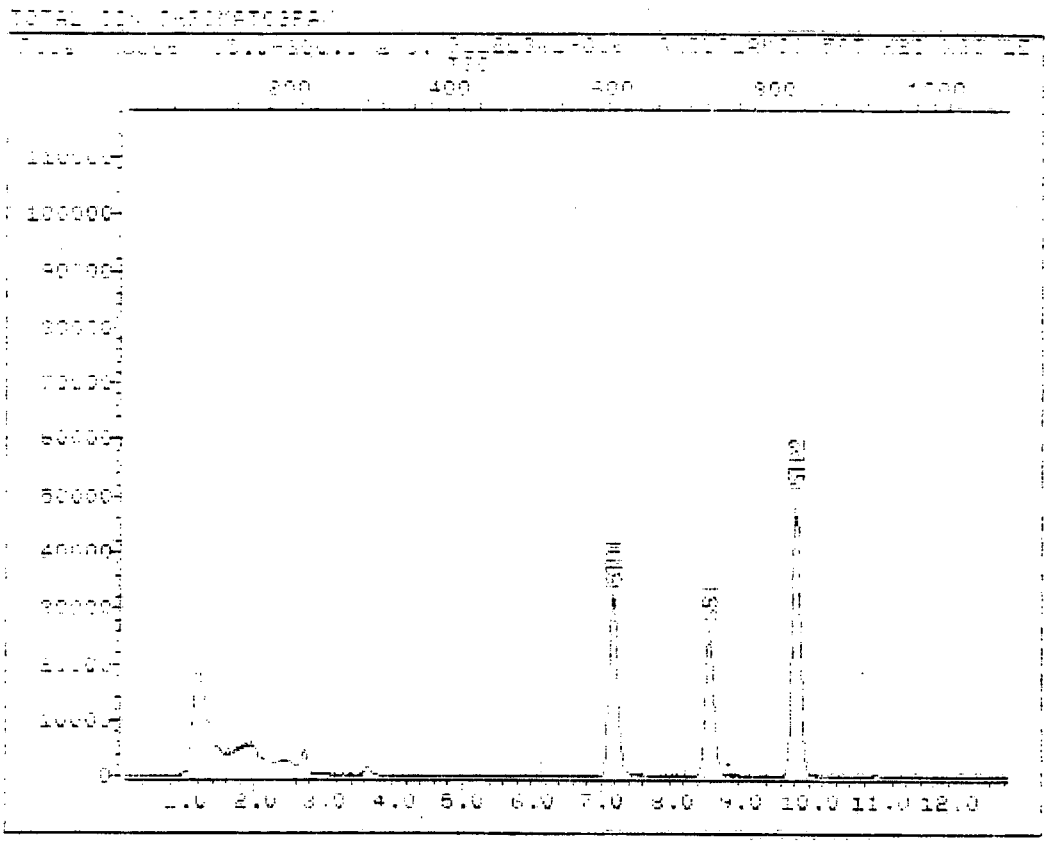
Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

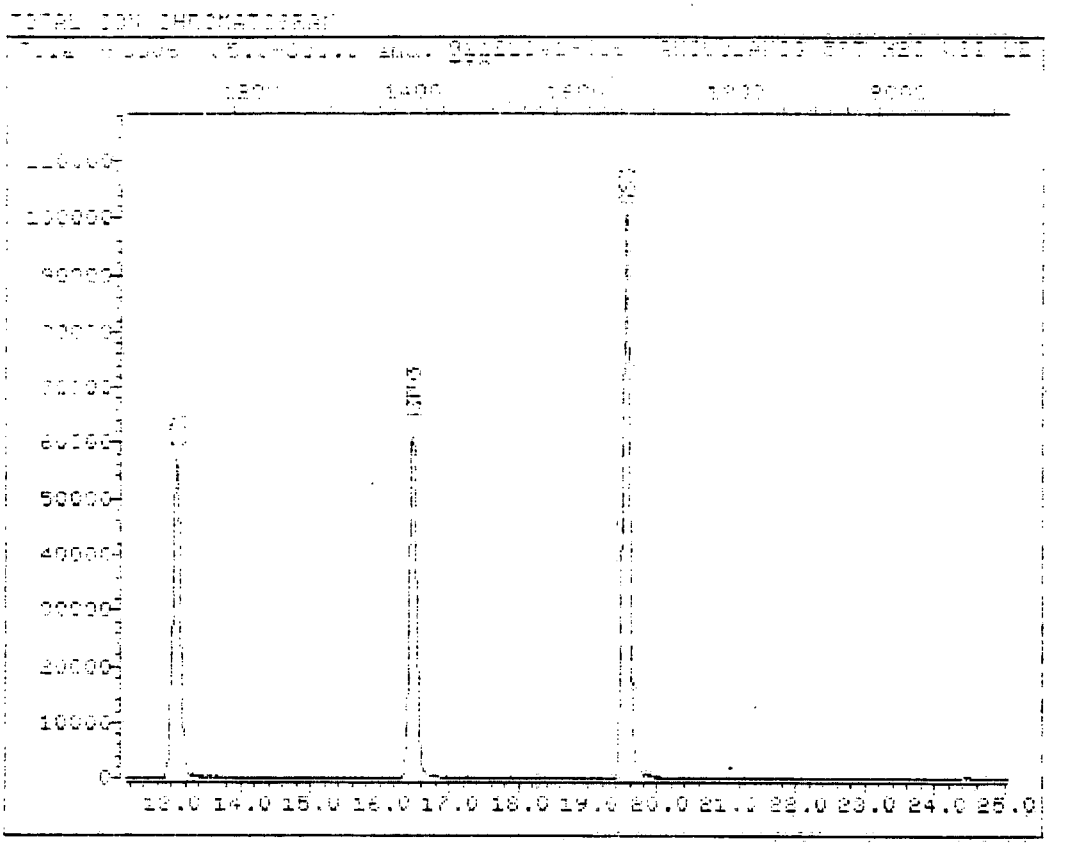


Data File: >KCU06::D2 Quant Output File: ^KCU06::QQ
Name: 9112L841-006 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB

Id File: I_KCUA::QO
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

Operator ID: BB
Quant Time: 911230 13:41
Injected at: 911230 13:12

TIC page 1 of 2



Data File: >KCU06::D2 Quant Output File: ^KCU06::QQ
Name: 9112L841-006 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB

Id File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

Operator ID: BB
Quant Time: 911230 13:41
Injected at: 911230 13:12

TIC page 2 of 2

QUANT REPORT

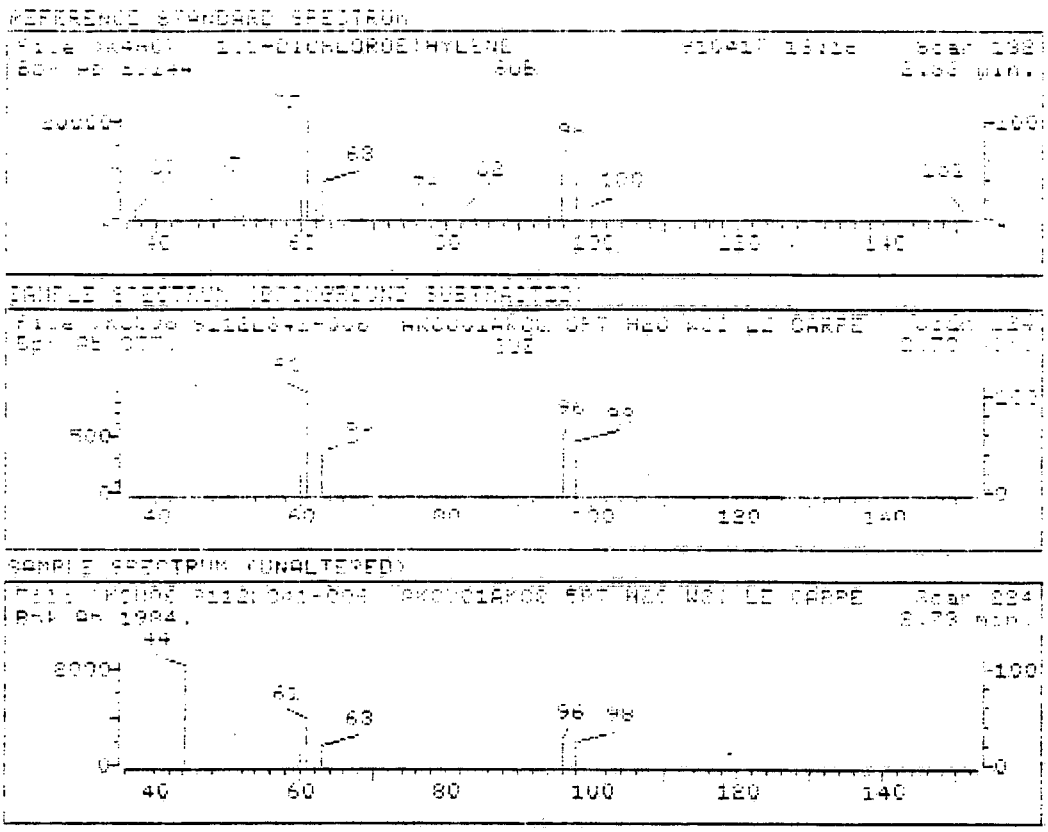
Operator ID: BB Quant Rev: 6 Quant Time: 911230 13:41
Output File: ~KCU06::OQ Injected at: 911230 13:12
Data File: >KCU06::D2 Dilution Factor: 1.00000
Name: 9112L841-006 AKCU01
Misc: AKCO 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB

ID File: I_KCUA::OQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.17	128.0	38621	50.00	ug/L	72
8)	1,1-DICHLOROETHYLENE	2.73	96.0	3057	3.47	ug/L	90
11)	ACETONE	3.01	43.0	1900	7.80	ug/L	100
12)	METHYLENE CHLORIDE	3.64	84.0	2628	3.12	ug/L	65
24)	*1,4-DIFLUOROBENZENE	9.81	114.0	149767	50.00	ug/L	70
26)	1,2-DICHLOROETHANE D4	8.56	65.0	93314	51.41	ug/L	83
32)	*CHLOROBENZENE-D5	16.47	117.0	129400	50.00	ug/L	95
34)	TOLUENE D8	13.07	98.0	153965	49.86	ug/L	99
48)	4-BROMOFLUOROBENZENE	19.53	95.0	147677	49.17	ug/L	90

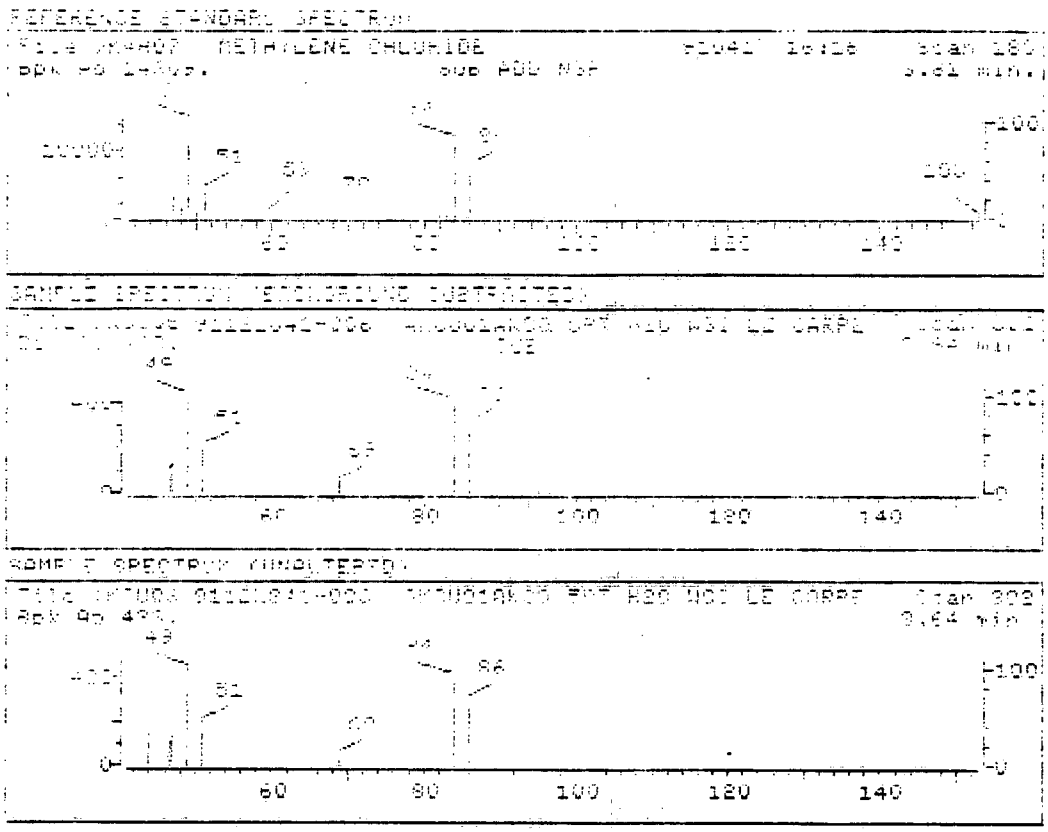
* Compound is ISTD

BB
12-30-91
no TICs



Data File: >KCU06::D2 Quant Output File: ^KCU06::QQ
Name: 9112L841-006 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB
Quant Time: 911230 13:41 Quant ID File: I_KCUA::QQ
Injected at: 911230 13:12 Last Calibration: 911230 10:59

Compound No: 8
Compound Name: 1,1-DICHLOROETHYLENE
Scan Number: 224
Retention Time: 2.73 min.
Quant Ion: 96.0
Area: 3057
Concentration: 3.47 ug/L
q-value: 90



Data File: >KCU06::D2 Quant Output File: ^KCU06::QQ
Name: 9112L841-006 AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML #HP-MSD K BB
Quant Time: 911230 13:41 Quant ID File: I_KCUA::QQ
Injected at: 911230 13:12 Last Calibration: 911230 10:59

Compound No: 12
Compound Name: METHYLENE CHLORIDE
Scan Number: 302
Retention Time: 3.64 min.
Quant Ion: 84.0
Area: 2628
Concentration: 3.12 ug/L
q-value: 65

WESTON

IV. Standards Data Package

A. Initial Calibration Data:

1. Form 6
2. Reconstructed Ion Chromatogram(s) and Quantitation Report(s)

B. Continuing Calibration Data

1. Form 7
2. Reconstructed Ion Chromatogram(s) and Quantitation Report(s)

C. Internal Standard Summary (Form 8)

6A

VOLATILE ORGANICS INTITIAL CALIBRATION DATA

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9112L841

Instrument ID: 1050W Calibration Date(s): 12/29/91 12/29/91

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

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

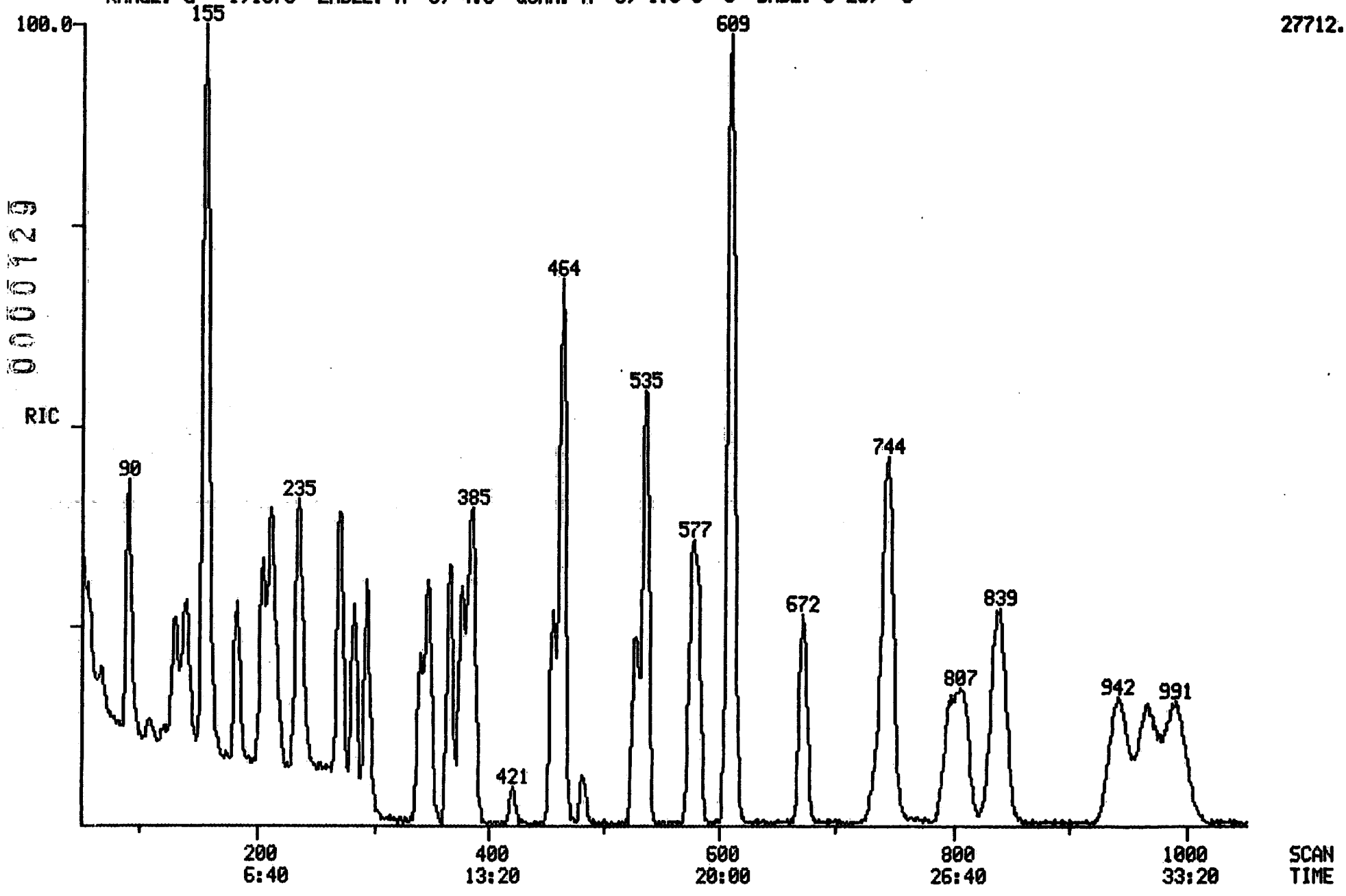
LAB FILE ID: RRF20 = W122906 RRF50 = W122902
RRF100= W122903 RRF150= W122904 RRF200= W122905

COMPOUND		RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD	
Chloromethane	#	0.840	0.622	0.473	0.599	0.562	0.619	21.9#	✓
Bromomethane		1.184	1.720	2.112	1.960	2.149	1.825	21.7	
Vinyl Chloride	*	0.926	0.979	1.343	1.143	1.287	1.136	16.1*	✓
Chloroethane		0.618	0.781	1.018	0.593	0.643	0.731	24.1	
Methylene Chloride		1.287	1.253	1.302	1.026	1.063	1.186	11.1	
1,1-Dichloroethene	*	1.178	1.032	0.996	0.911	0.933	1.010	10.5*	✓
1,1-Dichloroethane	#	2.513	2.260	2.174	1.975	2.055	2.195	9.5#	✓
1,2-Dichloroethene (total)		1.351	1.096	1.072	0.985	1.034	1.108	12.9	
Chloroform	*	2.938	2.544	2.517	2.371	2.424	2.559	8.7*	✓
1,2-Dichloroethane		2.042	1.673	1.679	1.575	1.615	1.717	10.9	
1,1,1-Trichloroethane		0.559	0.575	0.545	0.460	0.452	0.518	11.2	
Carbon Tetrachloride		0.615	0.606	0.604	0.529	0.525	0.576	7.8	
Bromodichloromethane		0.692	0.733	0.726	0.615	0.604	0.674	9.1	
1,2-Dichloropropane	*	0.305	0.381	0.378	0.322	0.322	0.342	10.3*	✓
cis-1,3-Dichloropropene		0.442	0.504	0.507	0.451	0.456	0.472	6.6	
Trichloroethene		0.547	0.486	0.499	0.452	0.461	0.489	7.7	
Dibromochloromethane		0.780	0.716	0.736	0.700	0.700	0.726	4.6	
1,1,2-Trichloroethane		0.336	0.312	0.332	0.302	0.298	0.316	5.5	
Benzene		0.800	0.860	0.835	0.733	0.727	0.791	7.5	
Trans-1,3-Dichloropropene		0.383	0.452	0.446	0.411	0.411	0.421	6.8	
2-chloroethylvinylether		0.101	0.130	0.146	0.136	0.137	0.130	13.2	
Bromoform	#	0.739	0.661	0.689	0.668	0.671	0.686	4.6#	✓
Tetrachloroethene		0.734	0.615	0.639	0.594	0.570	0.630	10.0	
1,1,2,2-Tetrachloroethane	#	0.684	0.619	0.649	0.592	0.601	0.629	6.0#	✓
Toluene	*	0.667	0.573	0.603	0.570	0.564	0.595	7.2*	✓
Chlorobenzene	#	1.086	0.900	0.923	0.880	0.865	0.931	9.6#	✓
Ethylbenzene	*	0.430	0.360	0.361	0.353	0.344	0.370	9.3*	✓
1,2-Dichlorobenzene		1.329	0.994	1.064	1.038	1.026	1.090	12.5	
1,3-Dichlorobenzene		1.368	1.015	1.070	1.040	1.045	1.108	13.3	
1,4-Dichlorobenzene		1.460	1.120	1.105	1.106	1.137	1.186	13.0	
Acrolein		0.163	0.178	0.176	0.140	0.139	0.159	11.9	
Acrylonitrile		0.348	0.326	0.323	0.269	0.278	0.309	10.9	
Trichlorofluoromethane		2.740	2.420	2.448	2.190	2.259	2.411	8.8	
Xylene (total)		0.432	0.374	0.373	0.376	0.362	0.383	7.2	
Toluene-d8		1.196	1.021	1.092	1.037	1.035	1.076	6.7	
Bromofluorobenzene		1.206	0.951	1.024	0.972	1.010	1.033	9.8	
1,2-Dichloroethane-d4		1.995	1.628	1.692	1.583	1.660	1.712	9.5	

RIC
12/29/91 20:29:00
SAMPLE: VSTD20 20PPB LOW WATER STD
CONDS.: INST:1050W COL:1%-SP1000
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: W122906 #1
CALI: W122906 #2

SCANS 50 TO 1050



000129

Quantitation Report File: W122906 0000130

Data: W122906.TI
12/29/91 20:29:00
Sample: VSTD20 20PPB LOW WATER STD
Conds.: INST:1050W COL:1%-SP1000
Formula: W122901 Instrument: 1050W Weight: 0.010
Submitted by: W122901 Analyst: SSQ Acct. No.: 122991

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
19	14H	2-BUTANONE	
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	156	5:12	1	1.000	A BB	15345.	50.000 UG/L	4.42
2	65	233	7:46	1	1.494	A BB	12246.	20.000 UG/L	1.77
3	50	37	1:14	1	0.237	A BB	5155.	20.000 UG/L	1.77
4	94	48	1:36	1	0.308	A BB	7270.	20.000 UG/L	1.77
5	62	56	1:52	1	0.359	A BB	5681.	20.000 UG/L	1.77
6	64	67	2:14	1	0.429	A BB	3793.	20.000 UG/L	1.77
7	84	90	3:00	1	0.577	A BB	7897.	20.000 UG/L	1.77
8	43	107	3:34	1	0.686	A BB	2825.	20.000 UG/L	1.77
9	56	110	3:40	1	0.705	A BB	999.	20.000 UG/L	1.77
10	76	130	4:20	1	0.833	A BB	20614.	20.000 UG/L	1.77
11	101	139	4:38	1	0.891	A BB	16817.	20.000 UG/L	1.77
12	53	121	4:02	1	0.776	A BB	2139.	20.000 UG/L	1.77
13	96	154	5:08	1	0.987	A BB	7232.	20.000 UG/L	1.77
14	63	182	6:04	1	1.167	A BB	15425.	20.000 UG/L	1.77
15	96	204	6:48	1	1.308	A BB	8291.	20.000 UG/L	1.77
16	83	212	7:04	1	1.359	A BB	18033.	20.000 UG/L	1.77
17	62	236	7:52	1	1.513	A BB	12536.	20.000 UG/L	1.77
18	114	464	15:28	18	1.000	A BB	51764.	50.000 UG/L	4.42
19	72	240	8:00	1	1.538	A BB	437.	20.000 UG/L	1.77
20	97	272	9:04	18	0.586	A BB	11574.	20.000 UG/L	1.77
21	117	283	9:26	18	0.610	A VB	12744.	20.000 UG/L	1.77
22	43	294	9:48	18	0.634	A BB	7009.	20.000 UG/L	1.77
23	83	294	9:48	18	0.634	A BB	14320.	20.000 UG/L	1.77
24	63	340	11:20	18	0.733	A BB	6307.	20.000 UG/L	1.77
25	75	347	11:34	18	0.748	A BB	14815.	32.400 UG/L	2.87
26	130	365	12:10	18	0.787	A BB	11322.	20.000 UG/L	1.77
27	129	375	12:30	18	0.808	A BB	16151.	20.000 UG/L	1.77
28	97	382	12:44	18	0.823	A BB	6967.	20.000 UG/L	1.77
29	78	386	12:52	18	0.832	A BB	16564.	20.000 UG/L	1.77
30	75	385	12:50	18	0.830	A BB	3014.	7.600 UG/L	0.67
31	63	421	14:02	18	0.907	A BB	2092.	20.000 UG/L	1.77
32	173	456	15:12	18	0.983	A BB	15301.	20.000 UG/L	1.77
33	117	608	20:16	33	1.000	A BB	45796.	50.000 UG/L	4.42
34	98	575	19:10	33	0.946	A BB	21901.	20.000 UG/L	1.77
35	95	745	24:50	33	1.225	A BB	22099.	20.000 UG/L	1.77
36	43	481	16:02	33	0.791	A BB	4227.	20.000 UG/L	1.77
37	43	529	17:38	33	0.870	A BB	3257.	20.000 UG/L	1.77
38	164	535	17:50	33	0.880	A BB	13450.	20.000 UG/L	1.77
39	83	526	17:32	33	0.865	A BB	12536.	20.000 UG/L	1.77
40	92	581	19:22	33	0.956	A BB	12222.	20.000 UG/L	1.77
41	112	612	20:24	33	1.007	A BB	19891.	20.000 UG/L	1.77
42	106	672	22:24	33	1.105	A BB	7883.	20.000 UG/L	1.77
43	104	797	26:34	33	1.311	A BB	13108.	20.000 UG/L	1.77
44	106	808	26:56	33	1.329	A BB	7908.	20.000 UG/L	1.77
45	146	940	31:20	33	1.546	M XX	25065.	20.000 UG/L	1.77
46	146	968	32:16	33	1.592	M XX	24344.	20.000 UG/L	1.77
47	146	991	33:02	33	1.630	M XX	26753.	20.000 UG/L	1.77
48	106	837	27:54	33	1.377	A BB	17373.	40.000 UG/L	3.54
49	73	269	8:58	1	1.724	A BB	10283.	20.000 UG/L	1.77
50	59	217	7:14	1	1.391	A BB	4196.	20.000 UG/L	1.77

0000132

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	5:12	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	7:46	1.00	1.494	1.00	20.00	20.00	1.995	1.995	1.00
3	1:14	1.00	0.237	1.00	20.00	20.00	0.840	0.840	1.00
4	1:36	1.00	0.308	1.00	20.00	20.00	1.184	1.184	1.00
5	1:52	1.00	0.359	1.00	20.00	20.00	0.926	0.926	1.00
6	2:14	1.00	0.429	1.00	20.00	20.00	0.618	0.618	1.00
7	3:00	1.00	0.577	1.00	20.00	20.00	1.287	1.287	1.00
8	3:34	1.00	0.686	1.00	20.00	20.00	0.460	0.460	1.00
9	3:40	1.00	0.705	1.00	20.00	20.00	0.163	0.163	1.00
10	4:20	1.00	0.833	1.00	20.00	20.00	3.358	3.358	1.00
11	4:38	1.00	0.891	1.00	20.00	20.00	2.740	2.740	1.00
12	4:02	1.00	0.776	1.00	20.00	20.00	0.348	0.348	1.00
13	5:08	1.00	0.987	1.00	20.00	20.00	1.178	1.178	1.00
14	6:04	1.00	1.167	1.00	20.00	20.00	2.513	2.513	1.00
15	6:48	1.00	1.308	1.00	20.00	20.00	1.351	1.351	1.00
16	7:04	1.00	1.359	1.00	20.00	20.00	2.938	2.938	1.00
17	7:52	1.00	1.513	1.00	20.00	20.00	2.042	2.042	1.00
18	15:28	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
19	8:00	1.00	1.538	1.00	20.00	20.00	0.071	0.071	1.00
20	9:04	1.00	0.586	1.00	20.00	20.00	0.559	0.559	1.00
21	9:26	1.00	0.610	1.00	20.00	20.00	0.615	0.615	1.00
22	9:48	1.00	0.634	1.00	20.00	20.00	0.339	0.339	1.00
23	9:48	1.00	0.634	1.00	20.00	20.00	0.692	0.692	1.00
24	11:20	1.00	0.733	1.00	20.00	20.00	0.305	0.305	1.00
25	11:34	1.00	0.748	1.00	32.40	32.40	0.442	0.442	1.00
26	12:10	1.00	0.787	1.00	20.00	20.00	0.547	0.547	1.00
27	12:30	1.00	0.808	1.00	20.00	20.00	0.780	0.780	1.00
28	12:44	1.00	0.823	1.00	20.00	20.00	0.336	0.336	1.00
29	12:52	1.00	0.832	1.00	20.00	20.00	0.800	0.800	1.00
30	12:50	1.00	0.830	1.00	7.60	7.60	0.383	0.383	1.00
31	14:02	1.00	0.907	1.00	20.00	20.00	0.101	0.101	1.00
32	15:12	1.00	0.983	1.00	20.00	20.00	0.739	0.739	1.00
33	20:16	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
34	19:10	1.00	0.946	1.00	20.00	20.00	1.196	1.196	1.00
35	24:50	1.00	1.225	1.00	20.00	20.00	1.206	1.206	1.00
36	16:02	1.00	0.791	1.00	20.00	20.00	0.231	0.231	1.00
37	17:38	1.00	0.870	1.00	20.00	20.00	0.178	0.178	1.00
38	17:50	1.00	0.880	1.00	20.00	20.00	0.734	0.734	1.00
39	17:32	1.00	0.865	1.00	20.00	20.00	0.684	0.684	1.00
40	19:22	1.00	0.956	1.00	20.00	20.00	0.667	0.667	1.00
41	20:24	1.00	1.007	1.00	20.00	20.00	1.086	1.086	1.00
42	22:24	1.00	1.105	1.00	20.00	20.00	0.430	0.430	1.00
43	26:34	1.00	1.311	1.00	20.00	20.00	0.716	0.716	1.00
44	26:56	1.00	1.329	1.00	20.00	20.00	0.432	0.432	1.00
45	31:20	1.00	1.546	1.00	20.00	20.00	1.368	1.368	1.00
46	32:16	1.00	1.592	1.00	20.00	20.00	1.329	1.329	1.00
47	33:02	1.00	1.630	1.00	20.00	20.00	1.460	1.460	1.00
48	27:54	1.00	1.377	1.00	40.00	40.00	0.474	0.474	1.00
49	8:58	1.00	1.724	1.00	20.00	20.00	1.675	1.675	1.00
50	7:14	1.00	1.391	1.00	20.00	20.00	0.684	0.684	1.00

Quantitation Report File: W122906 0000133

Data: W122906.TI
12/29/91 20:29:00
Sample: VSTD20 20PPB LOW WATER STD
Conds.: INST:1050W COL:1%-SP1000
Formula: W122901 Instrument: 1050W Weight: 0.010
Submitted by: W122901 Analyst: SSQ Acct. No.: 122991

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

No	Name
51	T-BUTYL ALCOHOL

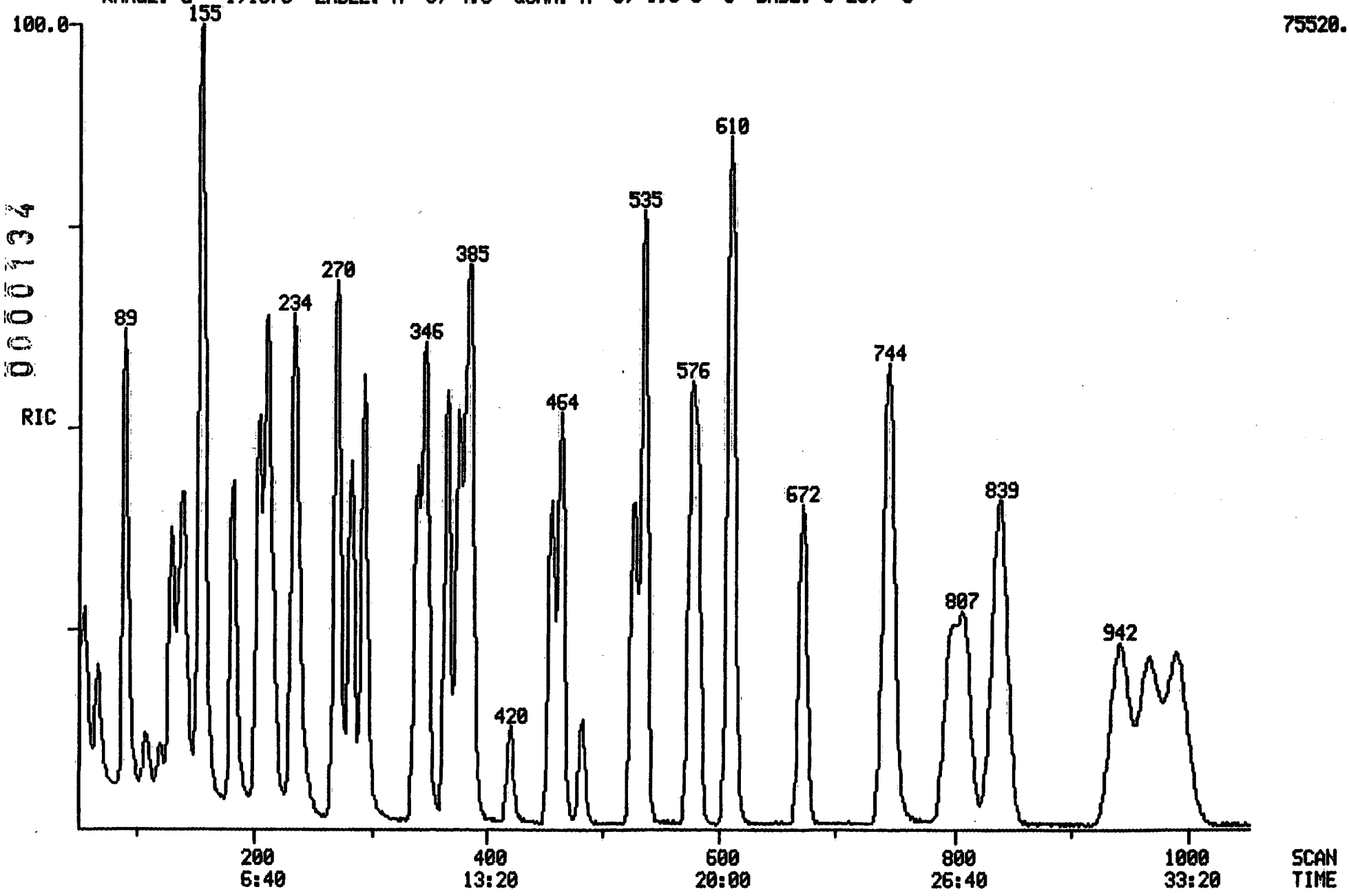
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	59	188	6:16	1	1.205	A BB	460.	20.000 UG/L	1.77

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	6:16	1.00	1.205	1.00	20.00	20.00	0.075	0.075	1.00

RIC
12/29/91 15:52:00
SAMPLE: VSTD50 50PPB LOW WATER CCL
CONDS.: INST:1050W COL:1%-SP1000
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: W122902 #1
CALI: W122902 #2

SCANS 50 TO 1050



000013 4

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	155	5:10	1	1.000	A BB	37042.	50.000 UG/L	1.92
2	65	233	7:46	1	1.503	A BB	60316.	50.000 UG/L	1.92
3	50	37	1:14	1	0.239	A BB	23023.	50.000 UG/L	1.92
4	94	47	1:34	1	0.303	A BB	63728.	50.000 UG/L	1.92
5	62	55	1:50	1	0.355	A BB	36261.	50.000 UG/L	1.92
6	64	67	2:14	1	0.432	A VB	28920.	50.000 UG/L	1.92
7	84	89	2:58	1	0.574	A BB	46426.	50.000 UG/L	1.92
8	43	106	3:32	1	0.684	A BB	17279.	50.000 UG/L	1.92
9	56	108	3:36	1	0.697	A BB	6576.	50.000 UG/L	1.92
10	76	129	4:18	1	0.832	A BB	121428.	50.000 UG/L	1.92
11	101	139	4:38	1	0.897	A BB	89643.	50.000 UG/L	1.92
12	53	119	3:58	1	0.768	A BB	12073.	50.000 UG/L	1.92
13	96	153	5:06	1	0.987	A BB	38238.	50.000 UG/L	1.92
14	63	182	6:04	1	1.174	A BB	83707.	50.000 UG/L	1.92
15	96	203	6:46	1	1.310	A BB	40590.	50.000 UG/L	1.92
16	83	210	7:00	1	1.355	A BB	94219.	50.000 UG/L	1.92
17	62	236	7:52	1	1.523	A BB	61987.	50.000 UG/L	1.92
18	114	464	15:28	18	1.000	A BB	89741.	50.000 UG/L	1.92
19	72	241	8:02	1	1.555	A BB	3683.	50.000 UG/L	1.92
20	97	271	9:02	18	0.584	A BB	51606.	50.000 UG/L	1.92
21	117	282	9:24	18	0.608	A VB	54408.	50.000 UG/L	1.92
22	43	294	9:48	18	0.634	A BB	42301.	50.000 UG/L	1.92
23	83	293	9:46	18	0.631	A BB	65736.	50.000 UG/L	1.92
24	63	340	11:20	18	0.733	A BB	34183.	50.000 UG/L	1.92
25	75	346	11:32	18	0.746	A BB	73341.	81.000 UG/L	3.12
26	130	365	12:10	18	0.787	A BB	43620.	50.000 UG/L	1.92
27	129	375	12:30	18	0.808	A BB	64271.	50.000 UG/L	1.92
28	97	382	12:44	18	0.823	A BB	28040.	50.000 UG/L	1.92
29	78	386	12:52	18	0.832	A BB	77166.	50.000 UG/L	1.92
30	75	385	12:50	18	0.830	A BB	15422.	19.000 UG/L	0.73
31	63	420	14:00	18	0.905	A BB	11675.	50.000 UG/L	1.92
32	173	455	15:10	18	0.981	A BB	59301.	50.000 UG/L	1.92
33	117	608	20:16	33	1.000	A BB	79634.	50.000 UG/L	1.92
34	98	575	19:10	33	0.946	A BB	81281.	50.000 UG/L	1.92
35	95	744	24:48	33	1.224	A BB	75750.	50.000 UG/L	1.92
36	43	482	16:04	33	0.793	A BB	24459.	50.000 UG/L	1.92
37	43	529	17:38	33	0.870	A BB	20408.	50.000 UG/L	1.92
38	164	535	17:50	33	0.880	A BB	48986.	50.000 UG/L	1.92
39	83	526	17:32	33	0.865	A BB	49255.	50.000 UG/L	1.92
40	92	581	19:22	33	0.956	A BB	45669.	50.000 UG/L	1.92
41	112	611	20:22	33	1.005	A BB	71667.	50.000 UG/L	1.92
42	106	672	22:24	33	1.105	A BB	28634.	50.000 UG/L	1.92
43	104	796	26:32	33	1.309	A BB	49106.	50.000 UG/L	1.92
44	106	808	26:56	33	1.329	A BB	29744.	50.000 UG/L	1.92
45	146	941	31:22	33	1.548	M XX	80846.	50.000 UG/L	1.92
46	146	967	32:14	33	1.590	M XX	79160.	50.000 UG/L	1.92
47	146	991	33:02	33	1.630	M XX	89219.	50.000 UG/L	1.92
48	106	838	27:56	33	1.378	A BB	55182.	100.000 UG/L	3.85
49	73	269	8:58	1	1.735	A BB	52479.	50.000 UG/L	1.92
50	59	216	7:12	1	1.394	A VB	23110.	50.000 UG/L	1.92

Quantitation Report File: W122902 0000135

Data: W122902.TI
12/29/91 15:52:00
Sample: VSTD50 50PPB LOW WATER CCL
Conds.: INST:1050W COL:1%-SP1000
Formula: W122901 Instrument: 1050W Weight: 0.010
Submitted by: W122901 Analyst: SSQ Acct. No.: 122991

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
19	14H	2-BUTANONE	
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	5:10	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	7:46	1.00	1.503	1.00	50.00	50.00	1.628	1.628	1.00
3	1:14	1.00	0.239	1.00	50.00	50.00	0.622	0.622	1.00
4	1:34	1.00	0.303	1.00	50.00	50.00	1.720	1.720	1.00
5	1:50	1.00	0.355	1.00	50.00	50.00	0.979	0.979	1.00
6	2:14	1.00	0.432	1.00	50.00	50.00	0.781	0.781	1.00
7	2:58	1.00	0.574	1.00	50.00	50.00	1.253	1.253	1.00
8	3:32	1.00	0.684	1.00	50.00	50.00	0.466	0.466	1.00
9	3:36	1.00	0.697	1.00	50.00	50.00	0.178	0.178	1.00
10	4:18	1.00	0.832	1.00	50.00	50.00	3.278	3.278	1.00
11	4:38	1.00	0.897	1.00	50.00	50.00	2.420	2.420	1.00
12	3:58	1.00	0.768	1.00	50.00	50.00	0.326	0.326	1.00
13	5:06	1.00	0.987	1.00	50.00	50.00	1.032	1.032	1.00
14	6:04	1.00	1.174	1.00	50.00	50.00	2.260	2.260	1.00
15	6:46	1.00	1.310	1.00	50.00	50.00	1.096	1.096	1.00
16	7:00	1.00	1.355	1.00	50.00	50.00	2.544	2.544	1.00
17	7:52	1.00	1.523	1.00	50.00	50.00	1.673	1.673	1.00
18	15:28	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
19	8:02	1.00	1.555	1.00	50.00	50.00	0.099	0.099	1.00
20	9:02	1.00	0.584	1.00	50.00	50.00	0.575	0.575	1.00
21	9:24	1.00	0.608	1.00	50.00	50.00	0.606	0.606	1.00
22	9:48	1.00	0.634	1.00	50.00	50.00	0.471	0.471	1.00
23	9:46	1.00	0.631	1.00	50.00	50.00	0.733	0.733	1.00
24	11:20	1.00	0.733	1.00	50.00	50.00	0.381	0.381	1.00
25	11:32	1.00	0.746	1.00	81.00	81.00	0.504	0.504	1.00
26	12:10	1.00	0.787	1.00	50.00	50.00	0.486	0.486	1.00
27	12:30	1.00	0.808	1.00	50.00	50.00	0.716	0.716	1.00
28	12:44	1.00	0.823	1.00	50.00	50.00	0.312	0.312	1.00
29	12:52	1.00	0.832	1.00	50.00	50.00	0.860	0.860	1.00
30	12:50	1.00	0.830	1.00	19.00	19.00	0.452	0.452	1.00
31	14:00	1.00	0.905	1.00	50.00	50.00	0.130	0.130	1.00
32	15:10	1.00	0.981	1.00	50.00	50.00	0.661	0.661	1.00
33	20:16	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
34	19:10	1.00	0.946	1.00	50.00	50.00	1.021	1.021	1.00
35	24:48	1.00	1.224	1.00	50.00	50.00	0.951	0.951	1.00
36	16:04	1.00	0.793	1.00	50.00	50.00	0.307	0.307	1.00
37	17:38	1.00	0.870	1.00	50.00	50.00	0.256	0.256	1.00
38	17:50	1.00	0.880	1.00	50.00	50.00	0.615	0.615	1.00
39	17:32	1.00	0.865	1.00	50.00	50.00	0.619	0.619	1.00
40	19:22	1.00	0.956	1.00	50.00	50.00	0.573	0.573	1.00
41	20:22	1.00	1.005	1.00	50.00	50.00	0.900	0.900	1.00
42	22:24	1.00	1.105	1.00	50.00	50.00	0.360	0.360	1.00
43	26:32	1.00	1.309	1.00	50.00	50.00	0.617	0.617	1.00
44	26:56	1.00	1.329	1.00	50.00	50.00	0.374	0.374	1.00
45	31:22	1.00	1.548	1.00	50.00	50.00	1.015	1.015	1.00
46	32:14	1.00	1.590	1.00	50.00	50.00	0.994	0.994	1.00
47	33:02	1.00	1.630	1.00	50.00	50.00	1.120	1.120	1.00
48	27:56	1.00	1.378	1.00	100.00	100.00	0.346	0.346	1.00
49	8:58	1.00	1.735	1.00	50.00	50.00	1.417	1.417	1.00
50	7:12	1.00	1.394	1.00	50.00	50.00	0.624	0.624	1.00

Quantitation Report File: W122902 0000138

Data: W122902.TI
12/29/91 15:52:00
Sample: VSTD50 50PPB LOW WATER CCL
Conds.: INST:1050W COL:1%-SP1000
Formula: W122901 Instrument: 1050W Weight: 0.010
Submitted by: W122901 Analyst: SSQ Acct. No.: 122991

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

No	Name
51	T-BUTYL ALCOHOL

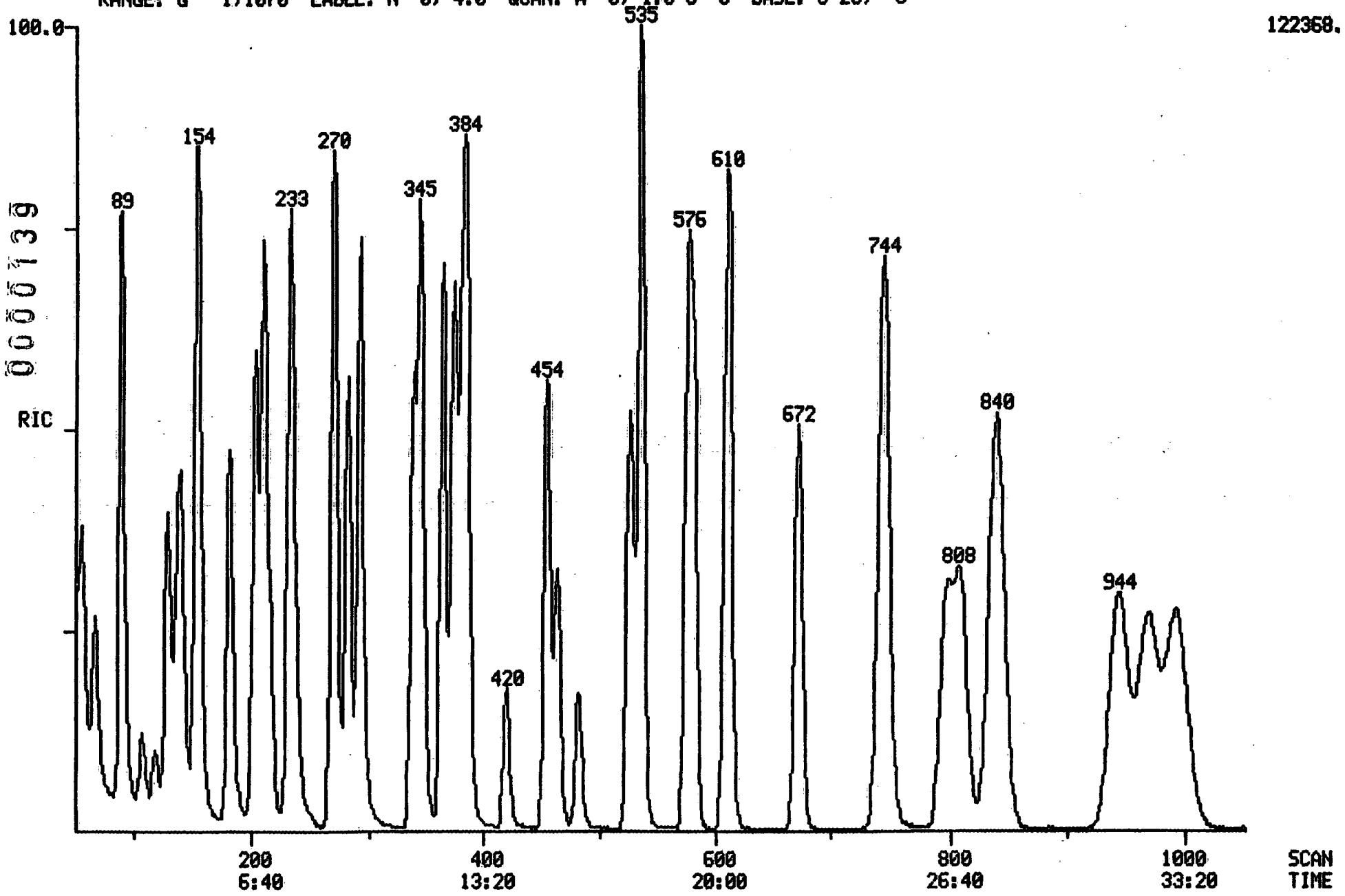
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	59	187	6:14	1	1.206	A BB	5040.	50.000 UG/L	1.92

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	6:14	1.00	1.206	1.00	50.00	50.00	0.136	0.136	1.00

RIC
12/29/91 17:18:00
SAMPLE: VSTD100 100PPB LOW WATER STD
CONDS.: INST:1050W COL:12-SP1000
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: W122903 #1
CALI: W122903 #2

SCANS 50 TO 1050



Quantitation Report File: W122903 0000140

Data: W122903.TI
12/29/91 17:18:00
Sample: VSTD100 100PPB LOW WATER STD
Conds.: INST:1050W COL:1%-SP1000
Formula: W122901 Instrument: 1050W Weight: 0.010
Submitted by: W122901 Analyst: SSQ Acct. No.: 122991

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
19	14H	2-BUTANONE	
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

0000141

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	154	5:08	1	1.000	A BB	35039.	50.000 UG/L	0.99
2	65	232	7:44	1	1.506	A BB	118553.	100.000 UG/L	1.98
3	50	38	1:16	1	0.247	A BB	33147.	100.000 UG/L	1.98
4	94	47	1:34	1	0.305	A BB	147998.	100.000 UG/L	1.98
5	62	55	1:50	1	0.357	A BB	94108.	100.000 UG/L	1.98
6	64	67	2:14	1	0.435	A VB	71332.	100.000 UG/L	1.98
7	84	88	2:56	1	0.571	A BB	91230.	100.000 UG/L	1.98
8	43	106	3:32	1	0.688	A BB	34049.	100.000 UG/L	1.98
9	56	107	3:34	1	0.695	A BB	12329.	100.000 UG/L	1.98
10	76	128	4:16	1	0.831	A BB	217046.	100.000 UG/L	1.98
11	101	139	4:38	1	0.903	A BB	171521.	100.000 UG/L	1.98
12	53	117	3:54	1	0.760	A BB	22649.	100.000 UG/L	1.98
13	96	153	5:06	1	0.994	A BB	69769.	100.000 UG/L	1.98
14	63	181	6:02	1	1.175	A BB	152322.	100.000 UG/L	1.98
15	96	203	6:46	1	1.318	A BB	75093.	100.000 UG/L	1.98
16	83	210	7:00	1	1.364	A BB	176403.	100.000 UG/L	1.98
17	62	235	7:50	1	1.526	A BB	117679.	100.000 UG/L	1.98
18	114	464	15:28	18	1.000	A BB	92142.	50.000 UG/L	0.99
19	72	240	8:00	1	1.558	A BB	7041.	100.000 UG/L	1.98
20	97	271	9:02	18	0.584	A BB	100422.	100.000 UG/L	1.98
21	117	282	9:24	18	0.608	A VB	111249.	100.000 UG/L	1.98
22	43	294	9:48	18	0.634	A BB	96062.	100.000 UG/L	1.98
23	83	293	9:46	18	0.631	A BB	133760.	100.000 UG/L	1.98
24	63	339	11:18	18	0.731	A BB	69620.	100.000 UG/L	1.98
25	75	345	11:30	18	0.744	A BB	151211.	162.000 UG/L	3.21
26	130	365	12:10	18	0.787	A BB	91972.	100.000 UG/L	1.98
27	129	374	12:28	18	0.806	A BB	135628.	100.000 UG/L	1.98
28	97	381	12:42	18	0.821	A BB	61240.	100.000 UG/L	1.98
29	78	385	12:50	18	0.830	A BB	153878.	100.000 UG/L	1.98
30	75	385	12:50	18	0.830	A BB	31258.	38.000 UG/L	0.75
31	63	420	14:00	18	0.905	A BB	26882.	100.000 UG/L	1.98
32	173	454	15:08	18	0.978	A BB	127028.	100.000 UG/L	1.98
33	117	608	20:16	33	1.000	A BB	79740.	50.000 UG/L	0.99
34	98	575	19:10	33	0.946	A BB	174078.	100.000 UG/L	1.98
35	95	744	24:48	33	1.224	A BB	163249.	100.000 UG/L	1.98
36	43	482	16:04	33	0.793	A BB	54325.	100.000 UG/L	1.98
37	43	529	17:38	33	0.870	A BB	45615.	100.000 UG/L	1.98
38	164	535	17:50	33	0.880	A BB	101966.	100.000 UG/L	1.98
39	83	525	17:30	33	0.863	A BB	103555.	100.000 UG/L	1.98
40	92	581	19:22	33	0.956	A BB	96143.	100.000 UG/L	1.98
41	112	611	20:22	33	1.005	A BB	147276.	100.000 UG/L	1.98
42	106	672	22:24	33	1.105	A BB	57518.	100.000 UG/L	1.98
43	104	798	26:36	33	1.312	A BB	102868.	100.000 UG/L	1.98
44	106	810	27:00	33	1.332	A BB	59530.	100.000 UG/L	1.98
45	146	943	31:26	33	1.551	M XX	170682.	100.000 UG/L	1.98
46	146	969	32:18	33	1.594	M XX	169712.	100.000 UG/L	1.98
47	146	991	33:02	33	1.630	M XX	176231.	100.000 UG/L	1.98
48	106	840	28:00	33	1.382	A BB	120867.	200.000 UG/L	3.96
49	73	269	8:58	1	1.747	A BB	101940.	100.000 UG/L	1.98
50	59	216	7:12	1	1.403	A VB	42745.	100.000 UG/L	1.98

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	5:08	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	7:44	1.00	1.506	1.00	100.00	100.00	1.692	1.692	1.00
3	1:16	1.00	0.247	1.00	100.00	100.00	0.473	0.473	1.00
4	1:34	1.00	0.305	1.00	100.00	100.00	2.112	2.112	1.00
5	1:50	1.00	0.357	1.00	100.00	100.00	1.343	1.343	1.00
6	2:14	1.00	0.435	1.00	100.00	100.00	1.018	1.018	1.00
7	2:56	1.00	0.571	1.00	100.00	100.00	1.302	1.302	1.00
8	3:32	1.00	0.688	1.00	100.00	100.00	0.486	0.486	1.00
9	3:34	1.00	0.695	1.00	100.00	100.00	0.176	0.176	1.00
10	4:16	1.00	0.831	1.00	100.00	100.00	3.097	3.097	1.00
11	4:38	1.00	0.903	1.00	100.00	100.00	2.448	2.448	1.00
12	3:54	1.00	0.760	1.00	100.00	100.00	0.323	0.323	1.00
13	5:06	1.00	0.994	1.00	100.00	100.00	0.996	0.996	1.00
14	6:02	1.00	1.175	1.00	100.00	100.00	2.174	2.174	1.00
15	6:46	1.00	1.318	1.00	100.00	100.00	1.072	1.072	1.00
16	7:00	1.00	1.364	1.00	100.00	100.00	2.517	2.517	1.00
17	7:50	1.00	1.526	1.00	100.00	100.00	1.679	1.679	1.00
18	15:28	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
19	8:00	1.00	1.558	1.00	100.00	100.00	0.100	0.100	1.00
20	9:02	1.00	0.584	1.00	100.00	100.00	0.545	0.545	1.00
21	9:24	1.00	0.608	1.00	100.00	100.00	0.604	0.604	1.00
22	9:48	1.00	0.634	1.00	100.00	100.00	0.521	0.521	1.00
23	9:46	1.00	0.631	1.00	100.00	100.00	0.726	0.726	1.00
24	11:18	1.00	0.731	1.00	100.00	100.00	0.378	0.378	1.00
25	11:30	1.00	0.744	1.00	162.00	162.00	0.507	0.507	1.00
26	12:10	1.00	0.787	1.00	100.00	100.00	0.499	0.499	1.00
27	12:28	1.00	0.806	1.00	100.00	100.00	0.736	0.736	1.00
28	12:42	1.00	0.821	1.00	100.00	100.00	0.332	0.332	1.00
29	12:50	1.00	0.830	1.00	100.00	100.00	0.835	0.835	1.00
30	12:50	1.00	0.830	1.00	38.00	38.00	0.446	0.446	1.00
31	14:00	1.00	0.905	1.00	100.00	100.00	0.146	0.146	1.00
32	15:08	1.00	0.978	1.00	100.00	100.00	0.689	0.689	1.00
33	20:16	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
34	19:10	1.00	0.946	1.00	100.00	100.00	1.092	1.092	1.00
35	24:48	1.00	1.224	1.00	100.00	100.00	1.024	1.024	1.00
36	16:04	1.00	0.793	1.00	100.00	100.00	0.341	0.341	1.00
37	17:38	1.00	0.870	1.00	100.00	100.00	0.286	0.286	1.00
38	17:50	1.00	0.880	1.00	100.00	100.00	0.639	0.639	1.00
39	17:30	1.00	0.863	1.00	100.00	100.00	0.649	0.649	1.00
40	19:22	1.00	0.956	1.00	100.00	100.00	0.603	0.603	1.00
41	20:22	1.00	1.005	1.00	100.00	100.00	0.923	0.923	1.00
42	22:24	1.00	1.105	1.00	100.00	100.00	0.361	0.361	1.00
43	26:36	1.00	1.312	1.00	100.00	100.00	0.645	0.645	1.00
44	27:00	1.00	1.332	1.00	100.00	100.00	0.373	0.373	1.00
45	31:26	1.00	1.551	1.00	100.00	100.00	1.070	1.070	1.00
46	32:18	1.00	1.594	1.00	100.00	100.00	1.064	1.064	1.00
47	33:02	1.00	1.630	1.00	100.00	100.00	1.105	1.105	1.00
48	28:00	1.00	1.382	1.00	200.00	200.00	0.379	0.379	1.00
49	8:58	1.00	1.747	1.00	100.00	100.00	1.455	1.455	1.00
50	7:12	1.00	1.403	1.00	100.00	100.00	0.610	0.610	1.00

Quantitation Report File: W122903 0000143

Data: W122903.TI
12/29/91 17:18:00
Sample: VSTD100 100PPB LOW WATER STD
Conds.: INST:1050W COL:1%-SP1000
Formula: W122901 Instrument: 1050W Weight: 0.010
Submitted by: W122901 Analyst: SSQ Acct. No.: 122991

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

No	Name
51	T-BUTYL ALCOHOL

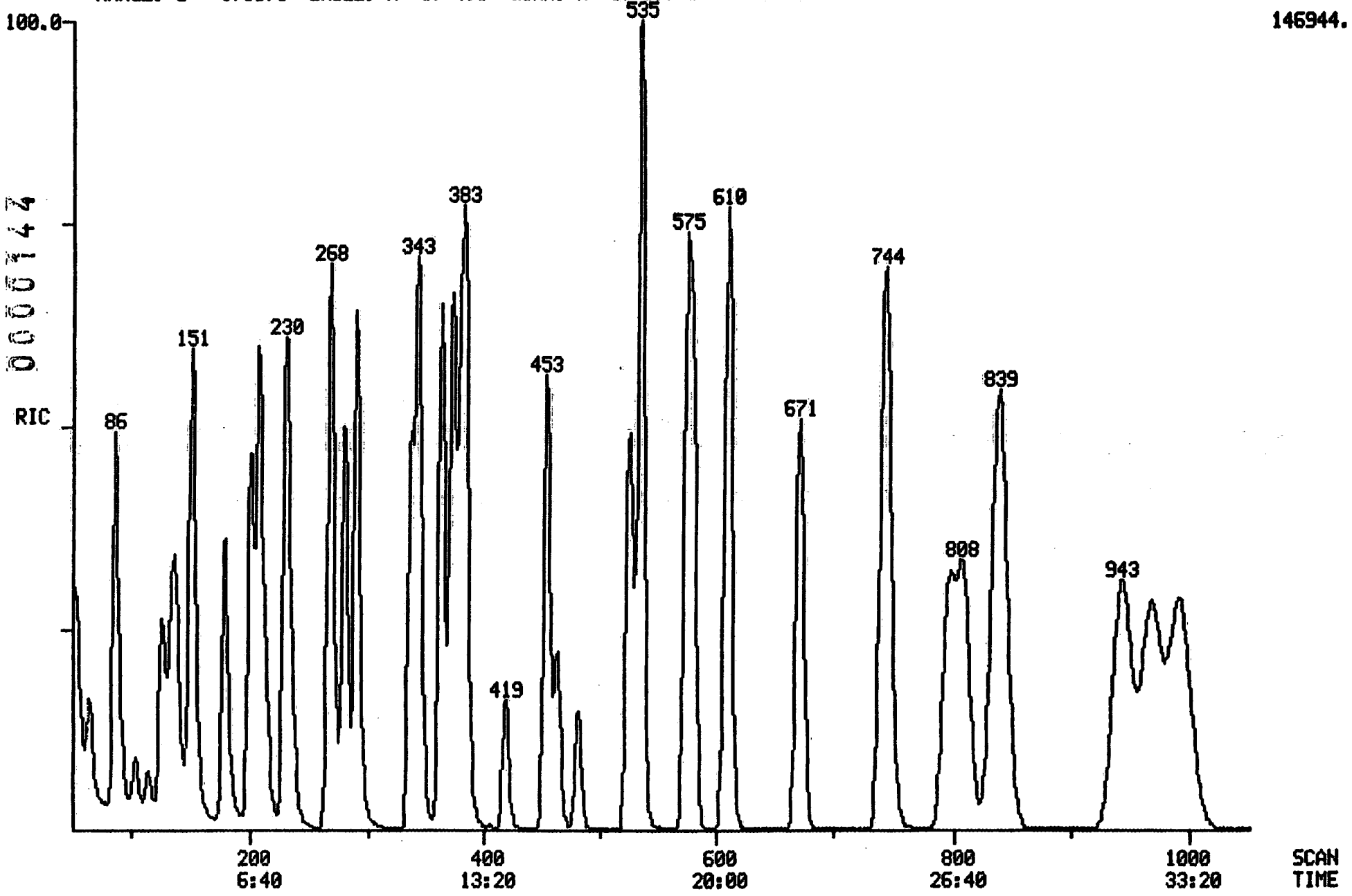
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	59	188	6:16	1	1.221	A BB	7237.	100.000 UG/L	1.98

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	6:16	1.00	1.221	1.00	100.00	100.00	0.103	0.103	1.00

RIC
12/29/91 17:58:00
SAMPLE: VSTD150 150PPB LOW WATER STD
CONDS.: INST:1050W COL:1%-SP1000
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: W122904 #1
CALI: W122904 #2

SCANS 50 TO 1050



Quantitation Report File: W122904 0000145

Data: W122904.TI
12/29/91 17:58:00
Sample: VSTD150 150PPB LOW WATER STD
Conds.: INST:1050W COL:1%-SP1000
Formula: W122901 Instrument: 1050W Weight: 0.010
Submitted by: W122901 Analyst: SSQ Acct. No.: 122991

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
19	14H	2-BUTANONE	
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	151	5:02	1	1.000	A BB	23502.	50.000	UG/L	0.67
2	65	229	7:38	1	1.517	A BB	111643.	150.000	UG/L	2.00
3	50	36	1:12	1	0.238	A BB	42217.	150.000	UG/L	2.00
4	94	46	1:32	1	0.305	A BB	138162.	150.000	UG/L	2.00
5	62	53	1:46	1	0.351	A BB	80564.	150.000	UG/L	2.00
6	64	64	2:08	1	0.424	A VB	41775.	150.000	UG/L	2.00
7	84	86	2:52	1	0.570	A BB	72315.	150.000	UG/L	2.00
8	43	102	3:24	1	0.675	A BB	26435.	150.000	UG/L	2.00
9	56	104	3:28	1	0.689	A BB	9837.	150.000	UG/L	2.00
10	76	126	4:12	1	0.834	A BB	182173.	150.000	UG/L	2.00
11	101	136	4:32	1	0.901	A BB	154387.	150.000	UG/L	2.00
12	53	114	3:48	1	0.755	A BB	18951.	150.000	UG/L	2.00
13	96	150	5:00	1	0.993	A BB	64238.	150.000	UG/L	2.00
14	63	178	5:56	1	1.179	A BB	139234.	150.000	UG/L	2.00
15	96	200	6:40	1	1.325	A BB	69453.	150.000	UG/L	2.00
16	83	207	6:54	1	1.371	A BB	167168.	150.000	UG/L	2.00
17	62	232	7:44	1	1.536	A BB	111030.	150.000	UG/L	2.00
18	114	463	15:26	18	1.000	A BB	77088.	50.000	UG/L	0.67
19	72	237	7:54	1	1.570	A BB	5700.	150.000	UG/L	2.00
20	97	269	8:58	18	0.581	A BB	106398.	150.000	UG/L	2.00
21	117	280	9:20	18	0.605	A VB	122324.	150.000	UG/L	2.00
22	43	292	9:44	18	0.631	A BB	99197.	150.000	UG/L	2.00
23	83	291	9:42	18	0.629	A BB	142268.	150.000	UG/L	2.00
24	63	337	11:14	18	0.728	A BV	74406.	150.000	UG/L	2.00
25	75	343	11:26	18	0.741	A BB	169089.	243.000	UG/L	3.24
26	130	363	12:06	18	0.784	A BB	104467.	150.000	UG/L	2.00
27	129	373	12:26	18	0.806	A BB	161960.	150.000	UG/L	2.00
28	97	379	12:38	18	0.819	A BB	69915.	150.000	UG/L	2.00
29	78	384	12:48	18	0.829	A BB	169441.	150.000	UG/L	2.00
30	75	383	12:46	18	0.827	A BB	36111.	57.000	UG/L	0.76
31	63	419	13:58	18	0.905	A BB	31512.	150.000	UG/L	2.00
32	173	453	15:06	18	0.978	A BB	154440.	150.000	UG/L	2.00
33	117	607	20:14	33	1.000	A BB	68791.	50.000	UG/L	0.67
34	98	574	19:08	33	0.946	A BB	214107.	150.000	UG/L	2.00
35	95	744	24:48	33	1.226	A BB	200556.	150.000	UG/L	2.00
36	43	481	16:02	33	0.792	A BB	53458.	150.000	UG/L	2.00
37	43	528	17:36	33	0.870	A BB	46799.	150.000	UG/L	2.00
38	164	535	17:50	33	0.881	A BB	122637.	150.000	UG/L	2.00
39	83	524	17:28	33	0.863	A BB	122164.	150.000	UG/L	2.00
40	92	580	19:20	33	0.956	A BB	117728.	150.000	UG/L	2.00
41	112	611	20:22	33	1.007	A BB	181602.	150.000	UG/L	2.00
42	106	671	22:22	33	1.105	A BB	72889.	150.000	UG/L	2.00
43	104	797	26:34	33	1.313	A BB	128051.	150.000	UG/L	2.00
44	106	809	26:58	33	1.333	A BB	77573.	150.000	UG/L	2.00
45	146	943	31:26	33	1.554	M XX	214656.	150.000	UG/L	2.00
46	146	967	32:14	33	1.593	M XX	214184.	150.000	UG/L	2.00
47	146	992	33:04	33	1.634	M XX	228260.	150.000	UG/L	2.00
48	106	839	27:58	33	1.382	A BB	153064.	300.000	UG/L	4.00
49	73	267	8:54	1	1.768	A BB	96697.	150.000	UG/L	2.00
50	59	214	7:08	1	1.417	A BB	39265.	150.000	UG/L	2.00

0000147

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	5:02	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	7:38	1.00	1.517	1.00	150.00	150.00	1.583	1.583	1.00
3	1:12	1.00	0.238	1.00	150.00	150.00	0.599	0.599	1.00
4	1:32	1.00	0.305	1.00	150.00	150.00	1.960	1.960	1.00
5	1:46	1.00	0.351	1.00	150.00	150.00	1.143	1.143	1.00
6	2:08	1.00	0.424	1.00	150.00	150.00	0.593	0.593	1.00
7	2:52	1.00	0.570	1.00	150.00	150.00	1.026	1.026	1.00
8	3:24	1.00	0.675	1.00	150.00	150.00	0.375	0.375	1.00
9	3:28	1.00	0.689	1.00	150.00	150.00	0.140	0.140	1.00
10	4:12	1.00	0.834	1.00	150.00	150.00	2.584	2.584	1.00
11	4:32	1.00	0.901	1.00	150.00	150.00	2.190	2.190	1.00
12	3:48	1.00	0.755	1.00	150.00	150.00	0.269	0.269	1.00
13	5:00	1.00	0.993	1.00	150.00	150.00	0.911	0.911	1.00
14	5:56	1.00	1.179	1.00	150.00	150.00	1.975	1.975	1.00
15	6:40	1.00	1.325	1.00	150.00	150.00	0.985	0.985	1.00
16	6:54	1.00	1.371	1.00	150.00	150.00	2.371	2.371	1.00
17	7:44	1.00	1.536	1.00	150.00	150.00	1.575	1.575	1.00
18	15:26	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
19	7:54	1.00	1.570	1.00	150.00	150.00	0.081	0.081	1.00
20	8:58	1.00	0.581	1.00	150.00	150.00	0.460	0.460	1.00
21	9:20	1.00	0.605	1.00	150.00	150.00	0.529	0.529	1.00
22	9:44	1.00	0.631	1.00	150.00	150.00	0.429	0.429	1.00
23	9:42	1.00	0.629	1.00	150.00	150.00	0.615	0.615	1.00
24	11:14	1.00	0.728	1.00	150.00	150.00	0.322	0.322	1.00
25	11:26	1.00	0.741	1.00	243.00	243.00	0.451	0.451	1.00
26	12:06	1.00	0.784	1.00	150.00	150.00	0.452	0.452	1.00
27	12:26	1.00	0.806	1.00	150.00	150.00	0.700	0.700	1.00
28	12:38	1.00	0.819	1.00	150.00	150.00	0.302	0.302	1.00
29	12:48	1.00	0.829	1.00	150.00	150.00	0.733	0.733	1.00
30	12:46	1.00	0.827	1.00	57.00	57.00	0.411	0.411	1.00
31	13:58	1.00	0.905	1.00	150.00	150.00	0.136	0.136	1.00
32	15:06	1.00	0.978	1.00	150.00	150.00	0.668	0.668	1.00
33	20:14	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
34	19:08	1.00	0.946	1.00	150.00	150.00	1.037	1.037	1.00
35	24:48	1.00	1.226	1.00	150.00	150.00	0.972	0.972	1.00
36	16:02	1.00	0.792	1.00	150.00	150.00	0.259	0.259	1.00
37	17:36	1.00	0.870	1.00	150.00	150.00	0.227	0.227	1.00
38	17:50	1.00	0.881	1.00	150.00	150.00	0.594	0.594	1.00
39	17:28	1.00	0.863	1.00	150.00	150.00	0.592	0.592	1.00
40	19:20	1.00	0.956	1.00	150.00	150.00	0.570	0.570	1.00
41	20:22	1.00	1.007	1.00	150.00	150.00	0.880	0.880	1.00
42	22:22	1.00	1.105	1.00	150.00	150.00	0.353	0.353	1.00
43	26:34	1.00	1.313	1.00	150.00	150.00	0.620	0.620	1.00
44	26:58	1.00	1.333	1.00	150.00	150.00	0.376	0.376	1.00
45	31:26	1.00	1.554	1.00	150.00	150.00	1.040	1.040	1.00
46	32:14	1.00	1.593	1.00	150.00	150.00	1.038	1.038	1.00
47	33:04	1.00	1.634	1.00	150.00	150.00	1.106	1.106	1.00
48	27:58	1.00	1.382	1.00	300.00	300.00	0.371	0.371	1.00
49	8:54	1.00	1.768	1.00	150.00	150.00	1.371	1.371	1.00
50	7:08	1.00	1.417	1.00	150.00	150.00	0.557	0.557	1.00

Quantitation Report File: W122904 0000148

Data: W122904.TI
12/29/91 17:58:00
Sample: VSTD150 150PPB LOW WATER STD
Conds.: INST:1050W COL:1%-SP1000
Formula: W122901 Instrument: 1050W Weight: 0.010
Submitted by: W122901 Analyst: SSG Acct. No.: 122991

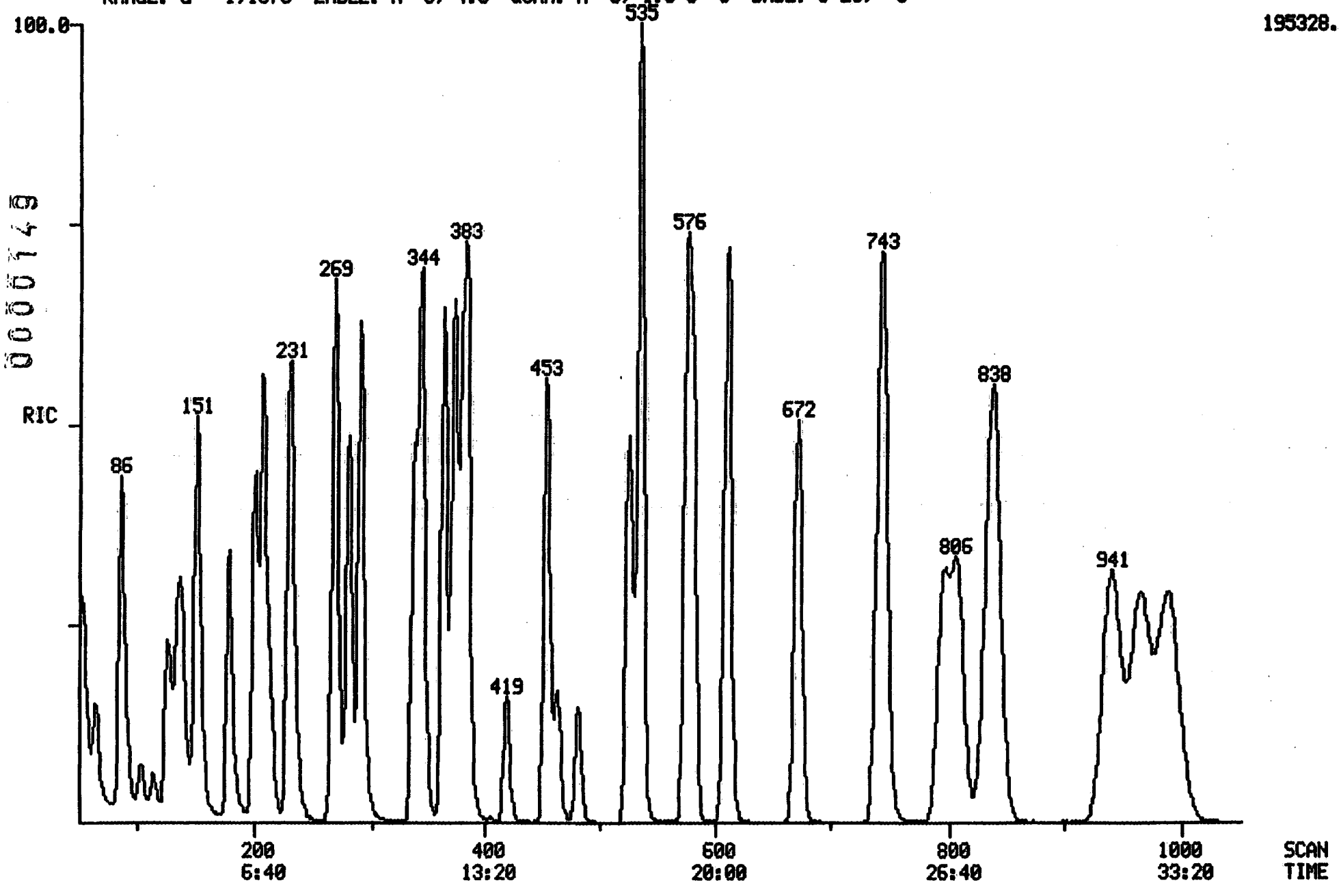
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
51	T-BUTYL ALCOHOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	59	185	6:10	1	1.225	A BB	5632.	150.000 UG/L	2.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	6:10	1.00	1.225	1.00	150.00	150.00	0.080	0.080	1.00

RIC DATA: W122905 #1 SCANS 50 TO 1050
12/29/91 18:39:00 CALI: W122905 #2
SAMPLE: VSTD200 200PPB LOW WATER STD
CONDS.: INST:1050W COL:1%-SP1000
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: W122905 0000150

Data: W122905.TI
12/29/91 18:39:00
Sample: VSTD200 200PPB LOW WATER STD
Conds.: INST:1050W COL:1%-SP1000
Formula: W122901 Instrument: 1050W Weight: 0.010
Submitted by: W122901 Analyst: SSG Acct. No.: 122991

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
19	14H	2-BUTANONE	
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	152	5:04	1	1.000	A BB	21376.	50.000	UG/L	0.50
2	65	229	7:38	1	1.507	A BB	141958.	200.000	UG/L	2.01
3	50	37	1:14	1	0.243	A BB	48028.	200.000	UG/L	2.01
4	94	46	1:32	1	0.303	A BB	183766.	200.000	UG/L	2.01
5	62	54	1:48	1	0.355	A BB	110052.	200.000	UG/L	2.01
6	64	64	2:08	1	0.421	A VB	54974.	200.000	UG/L	2.01
7	84	86	2:52	1	0.566	A BB	90892.	200.000	UG/L	2.01
8	43	103	3:26	1	0.678	A BB	30727.	200.000	UG/L	2.01
9	56	104	3:28	1	0.684	A BB	11888.	200.000	UG/L	2.01
10	76	126	4:12	1	0.829	A BB	220884.	200.000	UG/L	2.01
11	101	137	4:34	1	0.901	A BB	193185.	200.000	UG/L	2.01
12	53	114	3:48	1	0.750	A VB	23787.	200.000	UG/L	2.01
13	96	151	5:02	1	0.993	A BB	79774.	200.000	UG/L	2.01
14	63	179	5:58	1	1.178	A BB	175687.	200.000	UG/L	2.01
15	96	200	6:40	1	1.316	A BB	88408.	200.000	UG/L	2.01
16	83	207	6:54	1	1.362	A BB	207307.	200.000	UG/L	2.01
17	62	232	7:44	1	1.526	A BB	138098.	200.000	UG/L	2.01
18	114	463	15:26	18	1.000	A BB	74621.	50.000	UG/L	0.50
19	72	237	7:54	1	1.559	A BB	6733.	200.000	UG/L	2.01
20	97	269	8:58	18	0.581	A BB	135053.	200.000	UG/L	2.01
21	117	281	9:22	18	0.607	A VB	156758.	200.000	UG/L	2.01
22	43	292	9:44	18	0.631	A BB	130791.	200.000	UG/L	2.01
23	83	291	9:42	18	0.629	A BB	180376.	200.000	UG/L	2.01
24	63	338	11:16	18	0.730	A BB	96032.	200.000	UG/L	2.01
25	75	344	11:28	18	0.743	A BB	220537.	324.000	UG/L	3.26
26	130	364	12:08	18	0.786	A BB	137599.	200.000	UG/L	2.01
27	129	373	12:26	18	0.806	A BB	208856.	200.000	UG/L	2.01
28	97	380	12:40	18	0.821	A BB	88820.	200.000	UG/L	2.01
29	78	385	12:50	18	0.832	A BB	217133.	200.000	UG/L	2.01
30	75	384	12:48	18	0.829	A BB	46611.	76.000	UG/L	0.76
31	63	419	13:58	18	0.905	A BB	40995.	200.000	UG/L	2.01
32	173	453	15:06	18	0.978	A BB	200185.	200.000	UG/L	2.01
33	117	608	20:16	33	1.000	A BB	68518.	50.000	UG/L	0.50
34	98	575	19:10	33	0.946	A BB	283664.	200.000	UG/L	2.01
35	95	743	24:46	33	1.222	A BB	276912.	200.000	UG/L	2.01
36	43	481	16:02	33	0.791	A BB	70791.	200.000	UG/L	2.01
37	43	528	17:36	33	0.868	A BB	62396.	200.000	UG/L	2.01
38	164	535	17:50	33	0.880	A BB	156206.	200.000	UG/L	2.01
39	83	525	17:30	33	0.863	A BB	164645.	200.000	UG/L	2.01
40	92	580	19:20	33	0.954	A BB	154636.	200.000	UG/L	2.01
41	112	611	20:22	33	1.005	A BB	237148.	200.000	UG/L	2.01
42	106	671	22:22	33	1.104	A BB	94171.	200.000	UG/L	2.01
43	104	796	26:32	33	1.309	A BB	170863.	200.000	UG/L	2.01
44	106	807	26:54	33	1.327	A BB	99084.	200.000	UG/L	2.01
45	146	941	31:22	33	1.548	M XX	286277.	200.000	UG/L	2.01
46	146	965	32:10	33	1.587	M XX	281232.	200.000	UG/L	2.01
47	146	987	32:54	33	1.623	M XX	311648.	200.000	UG/L	2.01
48	106	837	27:54	33	1.377	A BB	200939.	400.000	UG/L	4.02
49	73	268	8:56	1	1.763	A BB	123030.	200.000	UG/L	2.01
50	59	214	7:08	1	1.408	A BB	45482.	200.000	UG/L	2.01

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	5:04	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	7:38	1.00	1.507	1.00	200.00	200.00	1.660	1.660	1.00
3	1:14	1.00	0.243	1.00	200.00	200.00	0.562	0.562	1.00
4	1:32	1.00	0.303	1.00	200.00	200.00	2.149	2.149	1.00
5	1:48	1.00	0.355	1.00	200.00	200.00	1.287	1.287	1.00
6	2:08	1.00	0.421	1.00	200.00	200.00	0.643	0.643	1.00
7	2:52	1.00	0.566	1.00	200.00	200.00	1.063	1.063	1.00
8	3:26	1.00	0.678	1.00	200.00	200.00	0.359	0.359	1.00
9	3:28	1.00	0.684	1.00	200.00	200.00	0.139	0.139	1.00
10	4:12	1.00	0.829	1.00	200.00	200.00	2.583	2.583	1.00
11	4:34	1.00	0.901	1.00	200.00	200.00	2.259	2.259	1.00
12	3:48	1.00	0.750	1.00	200.00	200.00	0.278	0.278	1.00
13	5:02	1.00	0.993	1.00	200.00	200.00	0.933	0.933	1.00
14	5:58	1.00	1.178	1.00	200.00	200.00	2.055	2.055	1.00
15	6:40	1.00	1.316	1.00	200.00	200.00	1.034	1.034	1.00
16	6:54	1.00	1.362	1.00	200.00	200.00	2.424	2.424	1.00
17	7:44	1.00	1.526	1.00	200.00	200.00	1.615	1.615	1.00
18	15:26	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
19	7:54	1.00	1.559	1.00	200.00	200.00	0.079	0.079	1.00
20	8:58	1.00	0.581	1.00	200.00	200.00	0.452	0.452	1.00
21	9:22	1.00	0.607	1.00	200.00	200.00	0.525	0.525	1.00
22	9:44	1.00	0.631	1.00	200.00	200.00	0.438	0.438	1.00
23	9:42	1.00	0.629	1.00	200.00	200.00	0.604	0.604	1.00
24	11:16	1.00	0.730	1.00	200.00	200.00	0.322	0.322	1.00
25	11:28	1.00	0.743	1.00	324.00	324.00	0.456	0.456	1.00
26	12:08	1.00	0.786	1.00	200.00	200.00	0.461	0.461	1.00
27	12:26	1.00	0.806	1.00	200.00	200.00	0.700	0.700	1.00
28	12:40	1.00	0.821	1.00	200.00	200.00	0.298	0.298	1.00
29	12:50	1.00	0.832	1.00	200.00	200.00	0.727	0.727	1.00
30	12:48	1.00	0.829	1.00	76.00	76.00	0.411	0.411	1.00
31	13:58	1.00	0.905	1.00	200.00	200.00	0.137	0.137	1.00
32	15:06	1.00	0.978	1.00	200.00	200.00	0.671	0.671	1.00
33	20:16	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
34	19:10	1.00	0.946	1.00	200.00	200.00	1.035	1.035	1.00
35	24:46	1.00	1.222	1.00	200.00	200.00	1.010	1.010	1.00
36	16:02	1.00	0.791	1.00	200.00	200.00	0.258	0.258	1.00
37	17:36	1.00	0.868	1.00	200.00	200.00	0.228	0.228	1.00
38	17:50	1.00	0.880	1.00	200.00	200.00	0.570	0.570	1.00
39	17:30	1.00	0.863	1.00	200.00	200.00	0.601	0.601	1.00
40	19:20	1.00	0.954	1.00	200.00	200.00	0.564	0.564	1.00
41	20:22	1.00	1.005	1.00	200.00	200.00	0.865	0.865	1.00
42	22:22	1.00	1.104	1.00	200.00	200.00	0.344	0.344	1.00
43	26:32	1.00	1.309	1.00	200.00	200.00	0.623	0.623	1.00
44	26:54	1.00	1.327	1.00	200.00	200.00	0.362	0.362	1.00
45	31:22	1.00	1.548	1.00	200.00	200.00	1.045	1.045	1.00
46	32:10	1.00	1.587	1.00	200.00	200.00	1.026	1.026	1.00
47	32:54	1.00	1.623	1.00	200.00	200.00	1.137	1.137	1.00
48	27:54	1.00	1.377	1.00	400.00	400.00	0.367	0.367	1.00
49	8:56	1.00	1.763	1.00	200.00	200.00	1.439	1.439	1.00
50	7:08	1.00	1.408	1.00	200.00	200.00	0.532	0.532	1.00

Quantitation Report File: W122905 0000152

Data: W122905.TI
12/29/91 18:39:00
Sample: VSTD200 200PPB LOW WATER STD
Conds.: INST:1050W COL:1%-SP1000
Formula: W122901 Instrument: 1050W Weight: 0.010
Submitted by: W122901 Analyst: SSQ Acct. No.: 122991

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

No	Name
51	T-BUTYL ALCOHOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	59	186	6:12	1	1.224	A BB	6157.	200.000 UG/L	2.01

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	6:12	1.00	1.224	1.00	200.00	200.00	0.072	0.072	1.00

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9112L841

Instrument ID: 1050W Calibration Date: 12/29/91 Time: 2247

Lab File ID: W122908 Init. Calib. Date(s): 12/29/91 12/29/91

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

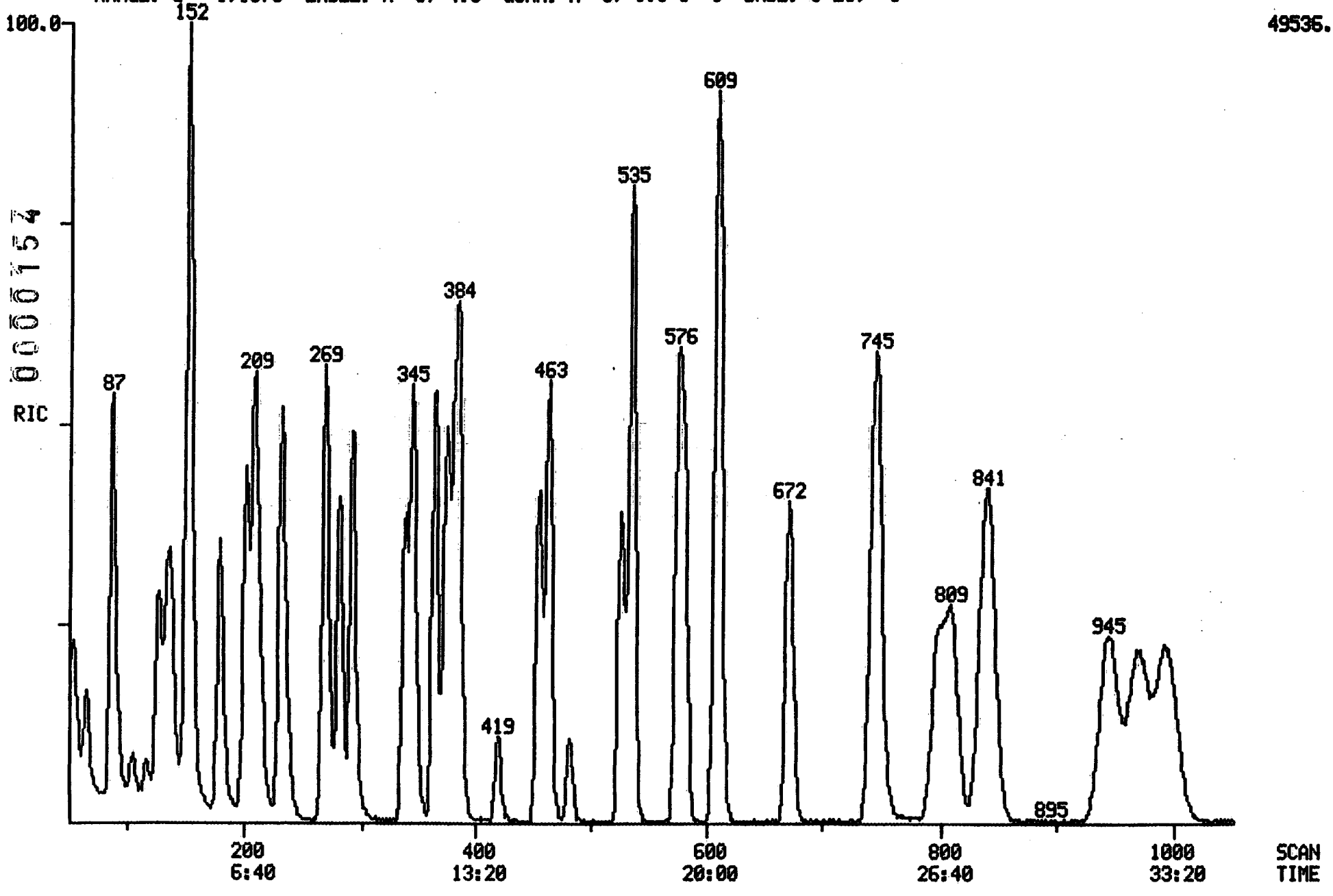
Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Chloromethane	#	0.619	0.754	-21.8	# ✓
Bromomethane		1.825	1.336	26.8	
Vinyl Chloride	*	1.136	0.956	15.8	* ✓
Chloroethane		0.731	0.704	3.7	
Methylene Chloride		1.186	1.121	5.5	
1,1-Dichloroethene	*	1.010	0.949	6.0	* ✓
1,1-Dichloroethane	#	2.195	2.012	8.3	# ✓
1,2-Dichloroethene (total)		1.108	1.065	3.9	
Chloroform	*	2.559	2.281	10.9	* ✓
1,2-Dichloroethane		1.717	1.251	27.1	
1,1,1-Trichloroethane		0.518	0.429	17.2	
Carbon Tetrachloride		0.576	0.495	14.1	
Bromodichloromethane		0.674	0.586	13.1	
1,2-Dichloropropane	*	0.342	0.289	15.5	* ✓
cis-1,3-Dichloropropene		0.472	0.406	14.0	
Trichloroethene		0.489	0.451	7.8	
Dibromochloromethane		0.726	0.610	16.0	
1,1,2-Trichloroethane		0.316	0.273	13.6	
Benzene		0.791	0.693	12.4	
Trans-1,3-Dichloropropene		0.421	0.363	13.8	
2-chloroethylvinylether		0.130	0.106	18.5	
Bromoform	#	0.686	0.576	16.0	# ✓
Tetrachloroethene		0.630	0.562	10.8	
1,1,2,2-Tetrachloroethane	#	0.629	0.565	10.2	# ✓
Toluene	*	0.595	0.539	9.4	* ✓
Chlorobenzene	#	0.931	0.850	8.7	# ✓
Ethylbenzene	*	0.370	0.340	8.1	* ✓
1,2-Dichlorobenzene		1.090	0.967	11.3	
1,3-Dichlorobenzene		1.108	0.973	12.2	
1,4-Dichlorobenzene		1.186	1.023	13.7	
Acrolein		0.159	0.146	8.2	
Acrylonitrile		0.309	0.325	-5.2	
Trichlorofluoromethane		2.411	2.139	11.3	
Xylene (total)		0.383	0.378	1.3	
Toluene-d8		1.076	1.015	5.7	
Bromofluorobenzene		1.033	0.970	6.1	
1,2-Dichloroethane-d4		1.712	1.440	15.9	

RIC
12/29/91 22:47:00
SAMPLE: VSTD50 50PPB LOW WATER CCL
CONDS.: INST:1050W COL:1%-SP1000
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: W122908 #1
CALI: W122908 #2

SCANS 50 TO 1050



Quantitation Report File: W122908 0000155

Data: W122908.TI
12/29/91 22:47:00
Sample: VSTD50 50PPB LOW WATER CCL
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.010
Submitted by: W122907 Analyst: SSQ Acct. No.: 122991

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
19	14H	2-BUTANONE	
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	153	5:06	1	1.000	A BB	23343.	50.000 UG/L	1.92
2	65	231	7:42	1	1.510	A BB	33623.	50.000 UG/L	1.92
3	50	36	1:12	1	0.235	A BB	17611.	50.000 UG/L	1.92
4	94	46	1:32	1	0.301	A BB	31182.	50.000 UG/L	1.92
5	62	54	1:48	1	0.353	A BB	22317.	50.000 UG/L	1.92
6	64	65	2:10	1	0.425	A VB	16445.	50.000 UG/L	1.92
7	84	86	2:52	1	0.562	A BB	26175.	50.000 UG/L	1.92
8	43	103	3:26	1	0.673	A BB	10079.	50.000 UG/L	1.92
9	56	106	3:32	1	0.693	A BB	3398.	50.000 UG/L	1.92
10	76	127	4:14	1	0.830	A BB	65541.	50.000 UG/L	1.92
11	101	136	4:32	1	0.889	A BB	49936.	50.000 UG/L	1.92
12	53	116	3:52	1	0.758	A BB	7580.	50.000 UG/L	1.92
13	96	151	5:02	1	0.987	A BB	22162.	50.000 UG/L	1.92
14	63	179	5:58	1	1.170	A BB	46968.	50.000 UG/L	1.92
15	96	201	6:42	1	1.314	A BB	24871.	50.000 UG/L	1.92
16	83	209	6:58	1	1.366	A BB	53252.	50.000 UG/L	1.92
17	62	233	7:46	1	1.523	A BB	29199.	50.000 UG/L	1.92
18	114	463	15:26	18	1.000	A BB	69739.	50.000 UG/L	1.92
19	72	239	7:58	1	1.562	A BB	1265.	50.000 UG/L	1.92
20	97	270	9:00	18	0.583	A BB	29899.	50.000 UG/L	1.92
21	117	281	9:22	18	0.607	A VB	34540.	50.000 UG/L	1.92
22	43	293	9:46	18	0.633	A BB	24365.	50.000 UG/L	1.92
23	83	292	9:44	18	0.631	A BB	40873.	50.000 UG/L	1.92
24	63	338	11:16	18	0.730	A BB	20151.	50.000 UG/L	1.92
25	75	345	11:30	18	0.745	A BB	45818.	81.000 UG/L	3.12
26	130	364	12:08	18	0.786	A BB	31435.	50.000 UG/L	1.92
27	129	374	12:28	18	0.808	A BB	42529.	50.000 UG/L	1.92
28	97	381	12:42	18	0.823	A BB	19063.	50.000 UG/L	1.92
29	78	385	12:50	18	0.832	A BB	48328.	50.000 UG/L	1.92
30	75	385	12:50	18	0.832	A BB	9616.	19.000 UG/L	0.73
31	63	419	13:58	18	0.905	A BB	7375.	50.000 UG/L	1.92
32	173	455	15:10	18	0.983	A BB	40199.	50.000 UG/L	1.92
33	117	608	20:16	33	1.000	A BB	59888.	50.000 UG/L	1.92
34	98	575	19:10	33	0.946	A BB	60760.	50.000 UG/L	1.92
35	95	745	24:50	33	1.225	A BB	58117.	50.000 UG/L	1.92
36	43	481	16:02	33	0.791	A BB	13792.	50.000 UG/L	1.92
37	43	529	17:38	33	0.870	A BB	10892.	50.000 UG/L	1.92
38	164	535	17:50	33	0.880	A BB	33647.	50.000 UG/L	1.92
39	83	526	17:32	33	0.865	A BB	33840.	50.000 UG/L	1.92
40	92	581	19:22	33	0.956	A BB	32289.	50.000 UG/L	1.92
41	112	611	20:22	33	1.005	A BB	50894.	50.000 UG/L	1.92
42	106	672	22:24	33	1.105	A BB	20366.	50.000 UG/L	1.92
43	104	798	26:36	33	1.312	A BB	34910.	50.000 UG/L	1.92
44	106	810	27:00	33	1.332	A BB	22655.	50.000 UG/L	1.92
45	146	946	31:32	33	1.556	M XX	58297.	50.000 UG/L	1.92
46	146	968	32:16	33	1.592	M XX	57942.	50.000 UG/L	1.92
47	146	993	33:06	33	1.633	M XX	61262.	50.000 UG/L	1.92
48	106	841	28:02	33	1.383	A BB	43036.	100.000 UG/L	3.85
49	73	268	8:56	1	1.752	A BB	27355.	50.000 UG/L	1.92
50	59	214	7:08	1	1.399	A BB	13133.	50.000 UG/L	1.92

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	5:06	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	7:42	1.00	1.510	1.00	50.00	50.00	1.440	1.440	1.00
3	1:12	1.00	0.235	1.00	50.00	50.00	0.754	0.754	1.00
4	1:32	1.00	0.301	1.00	50.00	50.00	1.336	1.336	1.00
5	1:48	1.00	0.353	1.00	50.00	50.00	0.956	0.956	1.00
6	2:10	1.00	0.425	1.00	50.00	50.00	0.704	0.704	1.00
7	2:52	1.00	0.562	1.00	50.00	50.00	1.121	1.121	1.00
8	3:26	1.00	0.673	1.00	50.00	50.00	0.432	0.432	1.00
9	3:32	1.00	0.693	1.00	50.00	50.00	0.146	0.146	1.00
10	4:14	1.00	0.830	1.00	50.00	50.00	2.808	2.808	1.00
11	4:32	1.00	0.889	1.00	50.00	50.00	2.139	2.139	1.00
12	3:52	1.00	0.758	1.00	50.00	50.00	0.325	0.325	1.00
13	5:02	1.00	0.987	1.00	50.00	50.00	0.949	0.949	1.00
14	5:58	1.00	1.170	1.00	50.00	50.00	2.012	2.012	1.00
15	6:42	1.00	1.314	1.00	50.00	50.00	1.065	1.065	1.00
16	6:58	1.00	1.366	1.00	50.00	50.00	2.281	2.281	1.00
17	7:46	1.00	1.523	1.00	50.00	50.00	1.251	1.251	1.00
18	15:26	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
19	7:58	1.00	1.562	1.00	50.00	50.00	0.054	0.054	1.00
20	9:00	1.00	0.583	1.00	50.00	50.00	0.429	0.429	1.00
21	9:22	1.00	0.607	1.00	50.00	50.00	0.495	0.495	1.00
22	9:46	1.00	0.633	1.00	50.00	50.00	0.349	0.349	1.00
23	9:44	1.00	0.631	1.00	50.00	50.00	0.586	0.586	1.00
24	11:16	1.00	0.730	1.00	50.00	50.00	0.289	0.289	1.00
25	11:30	1.00	0.745	1.00	81.00	81.00	0.406	0.406	1.00
26	12:08	1.00	0.786	1.00	50.00	50.00	0.451	0.451	1.00
27	12:28	1.00	0.808	1.00	50.00	50.00	0.610	0.610	1.00
28	12:42	1.00	0.823	1.00	50.00	50.00	0.273	0.273	1.00
29	12:50	1.00	0.832	1.00	50.00	50.00	0.693	0.693	1.00
30	12:50	1.00	0.832	1.00	19.00	19.00	0.363	0.363	1.00
31	13:58	1.00	0.905	1.00	50.00	50.00	0.106	0.106	1.00
32	15:10	1.00	0.983	1.00	50.00	50.00	0.576	0.576	1.00
33	20:16	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
34	19:10	1.00	0.946	1.00	50.00	50.00	1.015	1.015	1.00
35	24:50	1.00	1.225	1.00	50.00	50.00	0.970	0.970	1.00
36	16:02	1.00	0.791	1.00	50.00	50.00	0.230	0.230	1.00
37	17:38	1.00	0.870	1.00	50.00	50.00	0.182	0.182	1.00
38	17:50	1.00	0.880	1.00	50.00	50.00	0.562	0.562	1.00
39	17:32	1.00	0.865	1.00	50.00	50.00	0.565	0.565	1.00
40	19:22	1.00	0.956	1.00	50.00	50.00	0.539	0.539	1.00
41	20:22	1.00	1.005	1.00	50.00	50.00	0.850	0.850	1.00
42	22:24	1.00	1.105	1.00	50.00	50.00	0.340	0.340	1.00
43	26:36	1.00	1.312	1.00	50.00	50.00	0.583	0.583	1.00
44	27:00	1.00	1.332	1.00	50.00	50.00	0.378	0.378	1.00
45	31:32	1.00	1.556	1.00	50.00	50.00	0.973	0.973	1.00
46	32:16	1.00	1.592	1.00	50.00	50.00	0.967	0.967	1.00
47	33:06	1.00	1.633	1.00	50.00	50.00	1.023	1.023	1.00
48	28:02	1.00	1.383	1.00	100.00	100.00	0.359	0.359	1.00
49	8:56	1.00	1.752	1.00	50.00	50.00	1.172	1.172	1.00
50	7:08	1.00	1.399	1.00	50.00	50.00	0.563	0.563	1.00

Quantitation Report File: W122908 0000158

Data: W122908.TI
12/29/91 22:47:00
Sample: VSTD50 50PPB LOW WATER CCL
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.010
Submitted by: W122907 Analyst: SSQ Acct. No.: 122991

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

No	Name
51	T-BUTYL ALCOHOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	59	185	6:10	1	1.209	A BB	1995.	50.000 UG/L	1.92

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	6:10	1.00	1.209	1.00	50.00	50.00	0.085	0.085	1.00

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9112L841

Instrument ID: 1050W Calibration Date: 12/30/91 Time: 1103

Lab File ID: W123003 Init. Calib. Date(s): 12/29/91 12/29/91

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

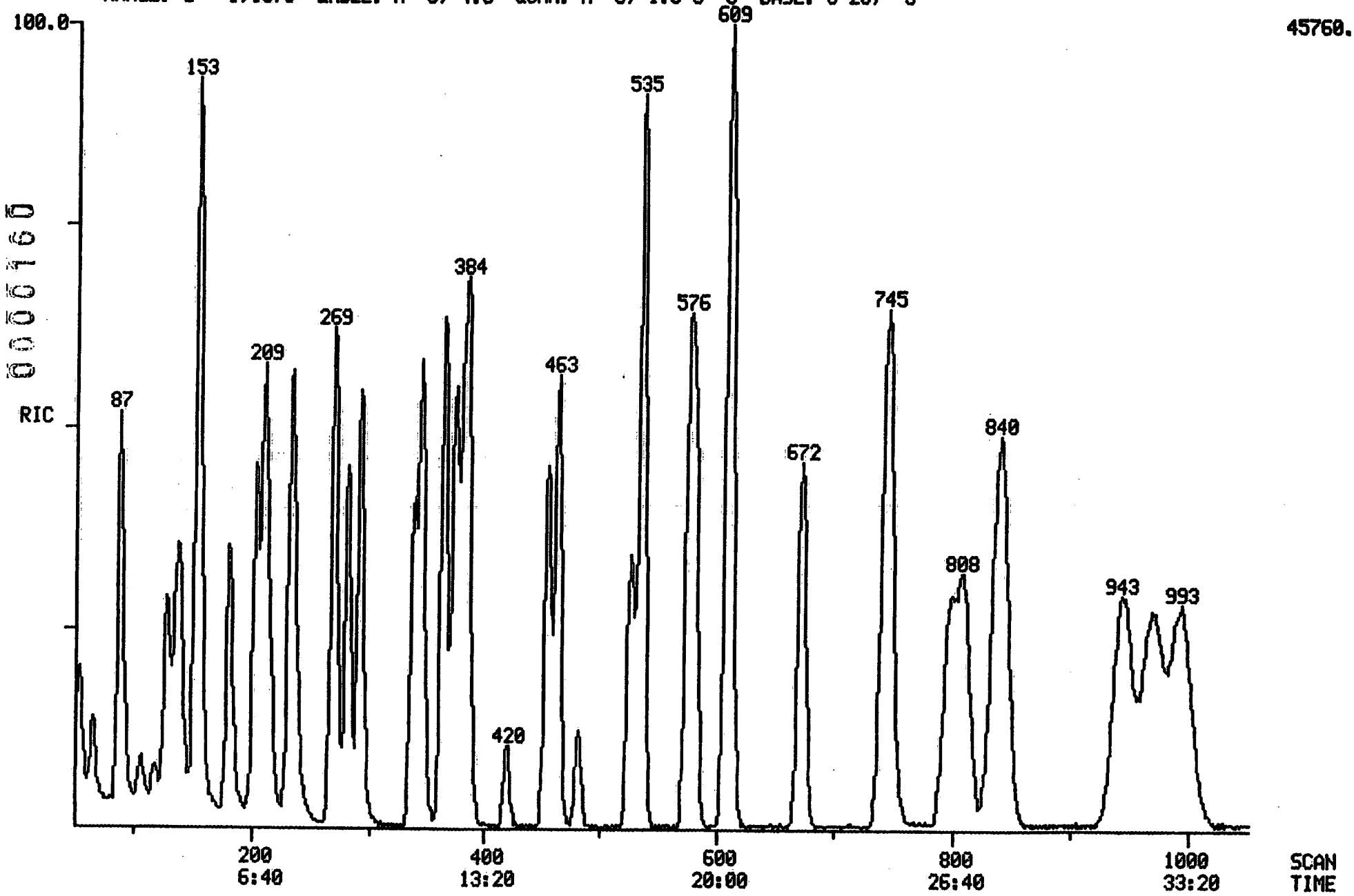
Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.619	0.885	-43.0	# ✓
Bromomethane		1.825	1.329	27.2	
Vinyl Chloride	*	1.136	0.932	18.0	* ✓
Chloroethane		0.731	0.633	13.4	
Methylene Chloride		1.186	1.209	-1.9	
1,1-Dichloroethene	*	1.010	1.017	-0.7	* ✓
1,1-Dichloroethane	#	2.195	2.115	3.6	# ✓
1,2-Dichloroethene (total)		1.108	1.159	-4.6	
Chloroform	*	2.559	2.489	2.7	* ✓
1,2-Dichloroethane		1.717	1.671	2.7	
1,1,1-Trichloroethane		0.518	0.451	12.9	
Carbon Tetrachloride		0.576	0.510	11.5	
Bromodichloromethane		0.674	0.590	12.5	
1,2-Dichloropropane	*	0.342	0.303	11.4	* ✓
cis-1,3-Dichloropropene		0.472	0.403	14.6	
Trichloroethene		0.489	0.515	-5.3	
Dibromochloromethane		0.726	0.653	10.1	
1,1,2-Trichloroethane		0.316	0.273	13.6	
Benzene		0.791	0.736	7.0	
Trans-1,3-Dichloropropene		0.421	0.395	6.2	
2-chloroethylvinylether		0.130	0.102	21.5	
Bromoform	#	0.686	0.606	11.7	# ✓
Tetrachloroethene		0.630	0.618	1.9	
1,1,2,2-Tetrachloroethane	#	0.629	0.471	25.1	# ✓
Toluene	*	0.595	0.593	0.3	* ✓
Chlorobenzene	#	0.931	0.937	-0.6	# ✓
Ethylbenzene	*	0.370	0.372	-0.5	* ✓
1,2-Dichlorobenzene		1.090	1.067	2.1	
1,3-Dichlorobenzene		1.108	1.118	-0.9	
1,4-Dichlorobenzene		1.186	1.165	1.8	
Acrolein		0.159	0.153	3.8	
Acrylonitrile		0.309	0.337	-9.1	
Trichlorofluoromethane		2.411	2.336	3.1	
Xylene (total)		0.383	0.382	0.3	
Toluene-d8		1.076	1.051	2.3	
Bromofluorobenzene		1.033	1.023	1.0	
1,2-Dichloroethane-d4		1.712	1.663	2.9	

RIC
12/30/91 11:03:00
SAMPLE: VSTD50 LOW WATER CCL
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:12-SP1000
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: W123003 #1
CALI: W123003 #2

SCANS 50 TO 1050



Quantitation Report File: W123003 0000161

Data: W123003.TI
12/30/91 11:03:00
Sample: VSTD50 LOW WATER CCL
Conds.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000
Formula: W123002 Instrument: 1050W Weight: 0.012
Submitted by: Analyst: AIS Acct. No.:

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
19	14H	2-BUTANONE	
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	153	5:06	1	1.000	A BB	19452.	50.000 UG/L	1.92
2	65	231	7:42	1	1.510	A BB	32350.	50.000 UG/L	1.92
3	50	36	1:12	1	0.235	A BB	17222.	50.000 UG/L	1.92
4	94	46	1:32	1	0.301	A BB	25854.	50.000 UG/L	1.92
5	62	54	1:48	1	0.353	A BB	18131.	50.000 UG/L	1.92
6	64	65	2:10	1	0.425	A VB	12315.	50.000 UG/L	1.92
7	84	87	2:54	1	0.569	A BB	23511.	50.000 UG/L	1.92
8	43	104	3:28	1	0.680	A BB	8945.	50.000 UG/L	1.92
9	56	107	3:34	1	0.699	A BB	2978.	50.000 UG/L	1.92
10	76	127	4:14	1	0.830	A BB	54193.	50.000 UG/L	1.92
11	101	137	4:34	1	0.895	A BB	45438.	50.000 UG/L	1.92
12	53	117	3:54	1	0.765	A BB	6565.	50.000 UG/L	1.92
13	96	152	5:04	1	0.993	A BB	19792.	50.000 UG/L	1.92
14	63	180	6:00	1	1.176	A BB	41147.	50.000 UG/L	1.92
15	96	202	6:44	1	1.320	A BB	22548.	50.000 UG/L	1.92
16	83	209	6:58	1	1.366	A BB	48412.	50.000 UG/L	1.92
17	62	234	7:48	1	1.529	A BB	32502.	50.000 UG/L	1.92
18	114	463	15:26	18	1.000	A BB	65600.	50.000 UG/L	1.92
19	72	239	7:58	1	1.562	A BB	1665.	50.000 UG/L	1.92
20	97	270	9:00	18	0.583	A BB	29609.	50.000 UG/L	1.92
21	117	281	9:22	18	0.607	A VB	33432.	50.000 UG/L	1.92
22	43	293	9:46	18	0.633	A BB	25582.	50.000 UG/L	1.92
23	83	292	9:44	18	0.631	A BB	38722.	50.000 UG/L	1.92
24	63	338	11:16	18	0.730	A BB	19848.	50.000 UG/L	1.92
25	75	345	11:30	18	0.745	A BB	42862.	81.000 UG/L	3.12
26	130	364	12:08	18	0.786	A BB	33761.	50.000 UG/L	1.92
27	129	374	12:28	18	0.808	A BB	42848.	50.000 UG/L	1.92
28	97	381	12:42	18	0.823	A BB	17913.	50.000 UG/L	1.92
29	78	385	12:50	18	0.832	A BB	48251.	50.000 UG/L	1.92
30	75	385	12:50	18	0.832	A BB	9849.	19.000 UG/L	0.73
31	63	420	14:00	18	0.907	A BB	6723.	50.000 UG/L	1.92
32	173	454	15:08	18	0.981	A BB	39749.	50.000 UG/L	1.92
33	117	607	20:14	33	1.000	A BB	57126.	50.000 UG/L	1.92
34	98	575	19:10	33	0.947	A BB	60022.	50.000 UG/L	1.92
35	95	744	24:48	33	1.226	A BB	58420.	50.000 UG/L	1.92
36	43	481	16:02	33	0.792	A BB	14139.	50.000 UG/L	1.92
37	43	528	17:36	33	0.870	A BB	12260.	50.000 UG/L	1.92
38	164	535	17:50	33	0.881	A BB	35312.	50.000 UG/L	1.92
39	83	525	17:30	33	0.865	A BB	26930.	50.000 UG/L	1.92
40	92	580	19:20	33	0.956	A BB	33848.	50.000 UG/L	1.92
41	112	611	20:22	33	1.007	A BB	53517.	50.000 UG/L	1.92
42	106	672	22:24	33	1.107	A BB	21234.	50.000 UG/L	1.92
43	104	797	26:34	33	1.313	A BB	35806.	50.000 UG/L	1.92
44	106	810	27:00	33	1.334	A BB	21838.	50.000 UG/L	1.92
45	146	942	31:24	33	1.552	M XX	63889.	50.000 UG/L	1.92
46	146	971	32:22	33	1.600	M XX	60980.	50.000 UG/L	1.92
47	146	994	33:08	33	1.638	M XX	66561.	50.000 UG/L	1.92
48	106	839	27:58	33	1.382	A BB	41864.	100.000 UG/L	3.85
49	73	268	8:56	1	1.752	A BB	26295.	50.000 UG/L	1.92
50	59	215	7:10	1	1.405	A VB	12080.	50.000 UG/L	1.92

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
1	5:06	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	7:42	1.00	1.510	1.00	50.00	50.00	1.663	1.663	1.00
3	1:12	1.00	0.235	1.00	50.00	50.00	0.885	0.885	1.00
4	1:32	1.00	0.301	1.00	50.00	50.00	1.329	1.329	1.00
5	1:48	1.00	0.353	1.00	50.00	50.00	0.932	0.932	1.00
6	2:10	1.00	0.425	1.00	50.00	50.00	0.633	0.633	1.00
7	2:54	1.00	0.569	1.00	50.00	50.00	1.209	1.209	1.00
8	3:28	1.00	0.680	1.00	50.00	50.00	0.460	0.460	1.00
9	3:34	1.00	0.699	1.00	50.00	50.00	0.153	0.153	1.00
10	4:14	1.00	0.830	1.00	50.00	50.00	2.786	2.786	1.00
11	4:34	1.00	0.895	1.00	50.00	50.00	2.336	2.336	1.00
12	3:54	1.00	0.765	1.00	50.00	50.00	0.337	0.337	1.00
13	5:04	1.00	0.993	1.00	50.00	50.00	1.017	1.017	1.00
14	6:00	1.00	1.176	1.00	50.00	50.00	2.115	2.115	1.00
15	6:44	1.00	1.320	1.00	50.00	50.00	1.159	1.159	1.00
16	6:58	1.00	1.366	1.00	50.00	50.00	2.489	2.489	1.00
17	7:48	1.00	1.529	1.00	50.00	50.00	1.671	1.671	1.00
18	15:26	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
19	7:58	1.00	1.562	1.00	50.00	50.00	0.086	0.086	1.00
20	9:00	1.00	0.583	1.00	50.00	50.00	0.451	0.451	1.00
21	9:22	1.00	0.607	1.00	50.00	50.00	0.510	0.510	1.00
22	9:46	1.00	0.633	1.00	50.00	50.00	0.390	0.390	1.00
23	9:44	1.00	0.631	1.00	50.00	50.00	0.590	0.590	1.00
24	11:16	1.00	0.730	1.00	50.00	50.00	0.303	0.303	1.00
25	11:30	1.00	0.745	1.00	81.00	81.00	0.403	0.403	1.00
26	12:08	1.00	0.786	1.00	50.00	50.00	0.515	0.515	1.00
27	12:28	1.00	0.808	1.00	50.00	50.00	0.653	0.653	1.00
28	12:42	1.00	0.823	1.00	50.00	50.00	0.273	0.273	1.00
29	12:50	1.00	0.832	1.00	50.00	50.00	0.736	0.736	1.00
30	12:50	1.00	0.832	1.00	19.00	19.00	0.395	0.395	1.00
31	14:00	1.00	0.907	1.00	50.00	50.00	0.102	0.102	1.00
32	15:08	1.00	0.981	1.00	50.00	50.00	0.606	0.606	1.00
33	20:14	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
34	19:10	1.00	0.947	1.00	50.00	50.00	1.051	1.051	1.00
35	24:48	1.00	1.226	1.00	50.00	50.00	1.023	1.023	1.00
36	16:02	1.00	0.792	1.00	50.00	50.00	0.248	0.248	1.00
37	17:36	1.00	0.870	1.00	50.00	50.00	0.215	0.215	1.00
38	17:50	1.00	0.881	1.00	50.00	50.00	0.618	0.618	1.00
39	17:30	1.00	0.865	1.00	50.00	50.00	0.471	0.471	1.00
40	19:20	1.00	0.956	1.00	50.00	50.00	0.593	0.593	1.00
41	20:22	1.00	1.007	1.00	50.00	50.00	0.937	0.937	1.00
42	22:24	1.00	1.107	1.00	50.00	50.00	0.372	0.372	1.00
43	26:34	1.00	1.313	1.00	50.00	50.00	0.627	0.627	1.00
44	27:00	1.00	1.334	1.00	50.00	50.00	0.382	0.382	1.00
45	31:24	1.00	1.552	1.00	50.00	50.00	1.118	1.118	1.00
46	32:22	1.00	1.600	1.00	50.00	50.00	1.067	1.067	1.00
47	33:08	1.00	1.638	1.00	50.00	50.00	1.165	1.165	1.00
48	27:58	1.00	1.382	1.00	100.00	100.00	0.366	0.366	1.00
49	8:56	1.00	1.752	1.00	50.00	50.00	1.352	1.352	1.00
50	7:10	1.00	1.405	1.00	50.00	50.00	0.621	0.621	1.00

Quantitation Report File: W123003

Data: W123003.TI
12/30/91 11:03:00
Sample: VSTD50 LOW WATER CCL
Conds.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000
Formula: W123002 Instrument: 1050W Weight: 0.012
Submitted by: Analyst: AIS Acct. No.:

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

No	Name
51	T-BUTYL ALCOHOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	59	187	6:14	1	1.222	A BB	1747.	50.000 UG/L	1.92

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
51	6:14	1.00	1.222	1.00	50.00	50.00	0.090	0.090	1.00

6A

VOLATILE ORGANICS INTITIAL CALIBRATION DATA

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9112L841

Instrument ID: HP-MSD K Calibration Date(s): 12/26/91 12/26/91

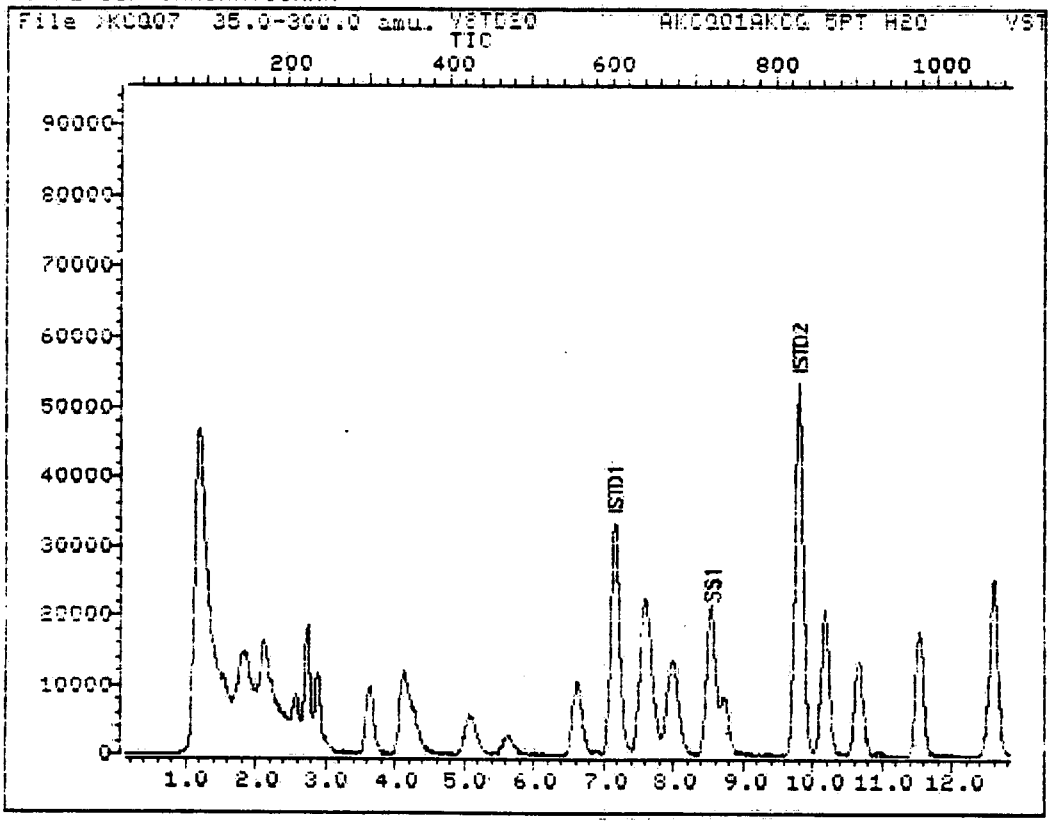
Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = AKCQ07 RRF50 = AKCQ02
RRF100= AKCQ06 RRF150= AKCQ05 RRF200= AKCQ04

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD	
Chloromethane #	0.560	0.611	0.478	0.509	0.494	0.530	10.3#	✓
Bromomethane	1.234	1.348	1.153	1.147	1.101	1.197	8.1	
Vinyl Chloride *	0.780	0.896	0.744	0.759	0.705	0.777	9.3*	✓
Chloroethane	0.513	0.570	0.477	0.459	0.472	0.498	9.0	
Methylene Chloride	0.985	1.087	0.900	0.905	0.851	0.946	9.8	
1,1-Dichloroethene *	1.041	1.049	0.947	0.926	0.890	0.971	7.3*	✓
1,1-Dichloroethane #	1.949	2.162	1.974	1.975	1.866	1.985	5.5#	✓
1,2-Dichloroethene (total)	0.983	1.089	0.996	1.001	0.945	1.003	5.3	
Chloroform *	2.798	2.870	2.620	2.609	2.486	2.677	5.8*	✓
1,2-Dichloroethane	0.500	0.469	0.458	0.462	0.421	0.462	6.1	
1,1,1-Trichloroethane	2.667	2.660	2.470	2.447	2.355	2.520	5.5	
Carbon Tetrachloride	2.707	2.790	2.608	2.530	2.446	2.616	5.2	
Bromodichloromethane	0.741	0.762	0.721	0.711	0.675	0.722	4.5	
1,2-Dichloropropane *	0.288	0.316	0.290	0.288	0.272	0.291	5.5*	✓
cis-1,3-Dichloropropene	0.542	0.572	0.535	0.525	0.503	0.535	4.7	
Trichloroethene	0.439	0.438	0.469	0.415	0.413	0.435	5.2	
Dibromochloromethane	0.849	0.849	0.833	0.818	0.770	0.824	4.0	
1,1,2-Trichloroethane	0.330	0.336	0.318	0.313	0.284	0.316	6.3	
Benzene	0.592	0.637	0.579	0.577	0.552	0.587	5.3	
Trans-1,3-Dichloropropene	0.481	0.506	0.489	0.480	0.451	0.481	4.2	
2-chloroethylvinylether	0.133	0.140	0.121	0.137	0.130	0.132	5.5	
Bromoform #	0.700	0.721	0.696	0.702	0.636	0.691	4.7#	✓
Tetrachloroethene	0.536	0.541	0.506	0.489	0.458	0.506	6.8	
1,1,2,2-Tetrachloroethane #	0.453	0.476	0.298	0.422	0.326	0.395	19.9#	✓
Toluene *	0.512	0.533	0.493	0.487	0.463	0.497	5.3*	✓
Chlorobenzene #	0.786	0.817	0.762	0.752	0.712	0.766	5.1#	✓
Ethylbenzene *	0.329	0.337	0.316	0.311	0.298	0.318	4.9*	✓
1,2-Dichlorobenzene	0.844	0.798	0.771	0.762	0.713	0.778	6.2	
1,3-Dichlorobenzene	0.873	0.867	0.826	0.818	0.772	0.831	5.0	
1,4-Dichlorobenzene	0.931	0.884	0.839	0.844	0.790	0.858	6.1	
Acrolein	0.039	0.064	0.054	0.058	0.053	0.054	17.1	
Acrylonitrile	0.065	0.113	0.113	0.119	0.107	0.103	21.2	
Trichlorofluoromethane	3.186	3.029	2.488	2.341	2.216	2.652	16.2	
Xylene (total)	0.403	0.414	0.384	0.381	0.362	0.389	5.3	
Toluene-d8	1.296	1.210	1.142	1.114	1.048	1.162	8.1	
Bromofluorobenzene	1.297	1.176	1.106	1.087	1.000	1.133	9.8	
1,2-Dichloroethane-d4	0.654	0.575	0.581	0.558	0.508	0.575	9.1	

TOTAL ION CHROMATOGRAM



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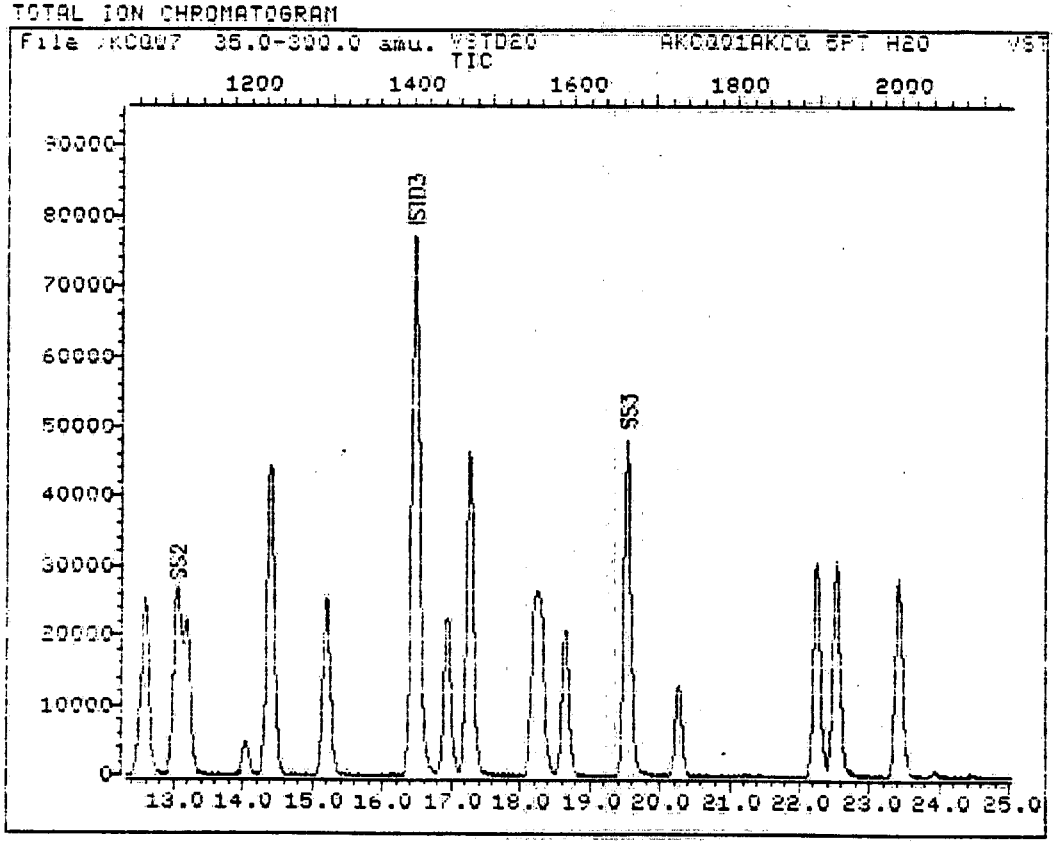
Name: VSTD20 AKCQ01
Misc: AKCQ 5PT H2O VSTD20 #HP-MSD K BB

Id File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 13:22

Operator ID: BB
Quant Time: 911226 13:59
Injected at: 911226 13:32

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



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Name: VSTD20 AKCQ01
Misc: AKCQ 5PT H2O VSTD20 #HP-MSD K BB

Id File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 13:22

Operator ID: BB
Quant Time: 911226 13:59
Injected at: 911226 13:32

TIC page 2 of 2

QUANT REPORT

Operator ID: BB Quant Rev: 6 Quant Time: 911226 13:59
Output File: ^KCQ07::QQ Injected at: 911226 13:32
Data File: >KCQ07::D2 Dilution Factor: 1.00000
Name: VSTD20 AKCQ01
Misc: AKCQ 5PT H2O VSTD20 #HP-MSD K BB

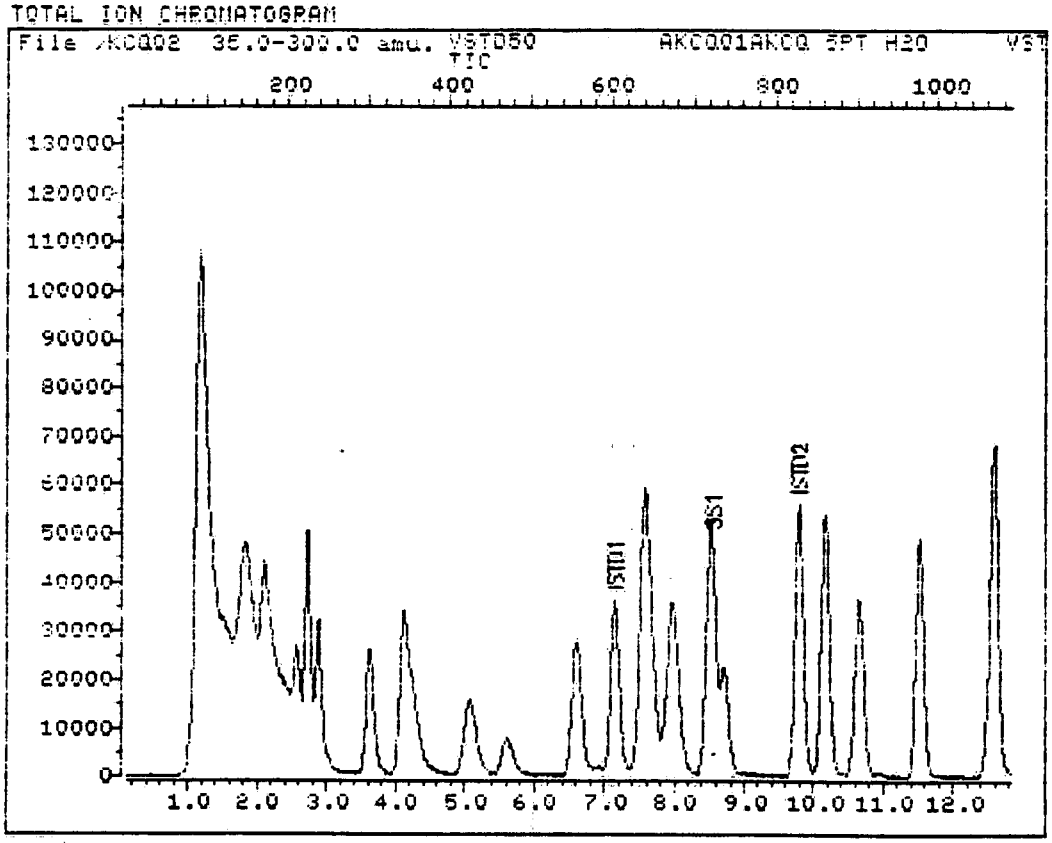
ID File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 13:22

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.15	128.0	41972	50.00	ug/L	77
2)	CHLOROMETHANE	1.51	50.0	9399M	18.32	ug/L	77
3)	VINYL CHLORIDE	1.54	62.0	13095M	17.40	ug/L	99
4)	BROMOMETHANE	1.79	94.0	20722	18.31	ug/L	81
5)	CHLOROETHANE	1.87	64.0	8615	18.01	ug/L	99
6)	TRICHLOROFLUOROMETHANE	2.12	101.0	53496	21.04	ug/L	98
7)	DIETHYLETHER	2.57	59.0	7723	16.91	ug/L	96
8)	1,1-DICHLOROETHYLENE	2.74	96.0	17484	19.85	ug/L	96
9)	ACROLEIN	2.71	56.0	659M	12.18	ug/L	
10)	CARBON DISULFIDE	2.89	76.0	43787	17.70	ug/L	92
11)	ACETONE	2.99	43.0	5013	27.90	ug/L	100
12)	METHYLENE CHLORIDE	3.63	84.0	16539	18.13	ug/L	94
13)	1,2-DICHLOROETHENE (TOTAL)	4.11	96.0	16509	18.05	ug/L	87
14)	ACRYLONITRILE	4.23	53.0	1089M	11.49	ug/L	71
15)	T-BUTYL ALCOHOL	4.55	59.0	877M	15.58	ug/L	1
16)	METHYL-T-BUTYLETHER	4.24	73.0	29568	18.98	ug/L	95
17)	1,1-DICHLOROETHANE	5.08	63.0	32719	18.03	ug/L	90
18)	VINYL ACETATE	5.63	43.0	24018	17.64	ug/L	73
19)	1,2-DICHLOROETHENE (CIS)	6.62	96.0	20462	18.82	ug/L	94
20)	2-BUTANONE	6.90	72.0	451M	12.78	ug/L	
21)	CHLOROFORM	7.57	83.0	46974	19.50	ug/L	94
22)	1,1,1-TRICHLOROETHANE	7.64	97.0	44773	20.05	ug/L	87
23)	CARBON TETRACHLORIDE	7.99	117.0	45446	19.41	ug/L	81
24)	*1,4-DIFLUOROBENZENE	9.80	114.0	157886	50.00	ug/L	70
25)	BENZENE	8.52	78.0	37390	18.58	ug/L	92
26)	1,2-DICHLOROETHANE D4	8.54	65.0	41279	22.72	ug/L	88
27)	1,2-DICHLOROETHANE	8.72	62.0	31547	21.32	ug/L	95
28)	TRICHLOROETHYLENE	10.18	130.0	27744	20.07	ug/L	95
29)	2-CHLOROETHYLVINYLETHER	12.52	63.0	8402	19.07	ug/L	80
30)	1,2-DICHLOROPROPANE	10.66	63.0	18168	18.18	ug/L	94
31)	BROMODICHLOROMETHANE	11.52	83.0	46780	19.44	ug/L	90
32)	*CHLOROBENZENE-D5	16.47	117.0	136524	50.00	ug/L	97
33)	TRANS-1,3-DICHLOROPROPENE	14.04	75.0	9976	7.22	ug/L	95
34)	TOLUENE D8	13.05	98.0	70759	21.41	ug/L	98
35)	TOLUENE	13.19	92.0	27932	19.20	ug/L	96
36)	4-METHYL-2-PENTANONE	13.16	43.0	12878^	20.05	ug/L	49
37)	CIS-1,3-DICHLOROPROPENE	12.60	75.0	47908	30.70	ug/L	94
38)	TETRACHLOROETHYLENE	14.40	164.0	29261	19.82	ug/L	94
39)	1,1,2-TRICHLOROETHANE	14.38	97.0	18011	19.65	ug/L	95
40)	DIBROMOCHLOROMETHANE	15.20	129.0	46374	20.00	ug/L	92
41)	2-HEXANONE	15.22	43.0	9863	23.71	ug/L	87
42)	CHLOROBENZENE	16.53	112.0	42937	19.26	ug/L	71
43)	ETHYLBENZENE	16.94	106.0	17950	19.49	ug/L	97

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.30	104.0	37740	19.39	ug/L	74
45)	XYLENE	17.27	106.0	45346	39.45	ug/L	92
46)	XYLENES (TOTAL)	18.21	106.0	22005^	19.46	ug/L	89
47)	BROMOFORM	18.66	173.0	38222	19.41	ug/L	96
48)	4-BROMOFLUOROBENZENE	19.54	95.0	70838	22.06	ug/L	92
49)	1,1,2,2-TETRACHLOROETHANE	20.27	83.0	24715	19.01	ug/L	97
50)	1,3-DICHLOROBENZENE	22.24	146.0	47691	20.15	ug/L	91
51)	1,4-DICHLOROBENZENE	22.52	146.0	50848	21.07	ug/L	89
52)	1,2-DICHLOROBENZENE	23.41	146.0	46112	21.15	ug/L	89

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: VSTD50 AKCQ01
Misc: AKCQ 5PT H2O VSTD50 #HP-MSD K BB

Id File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911223 16:49

Operator ID: BB
Quant Time: 911226 10:18
Injected at: 911226 09:49

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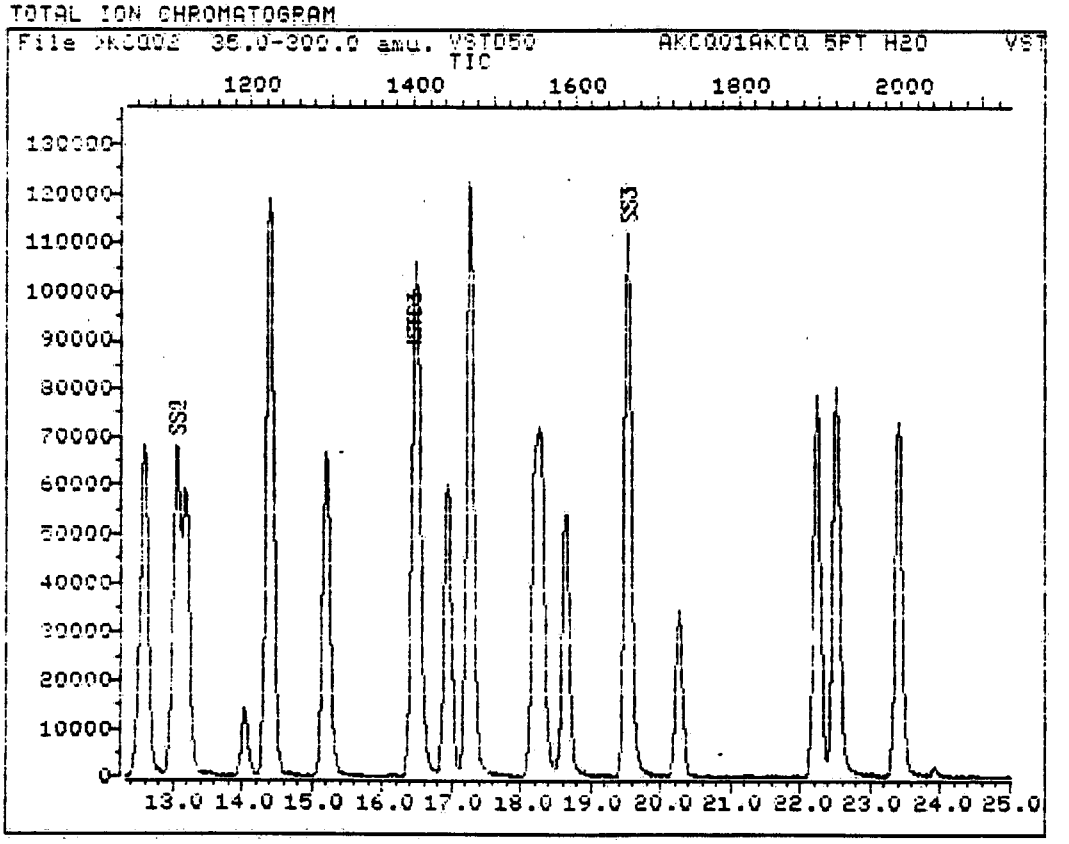
TOTAL ION CHROMATOGRAM



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Name: VSTD50 AKCQ01
Misc: AKCQ 5PT H2O VSTD50 #HP-MSD K BB

Id File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911223 16:49

Operator ID: BB
Quant Time: 911226 10:18
Injected at: 911226 09:49

TIC page 2 of 2

QUANT REPORT

Operator ID: BB Quant Rev: 6 Quant Time: 911226 10:18
Output File: ^KCQ02::QQ Injected at: 911226 09:49
Data File: >KCQ02::D2 Dilution Factor: 1.00000
Name: VSTD50 AKCQ01
Misc: AKCQ 5PT H2O VSTD50 #HP-MSD K BB

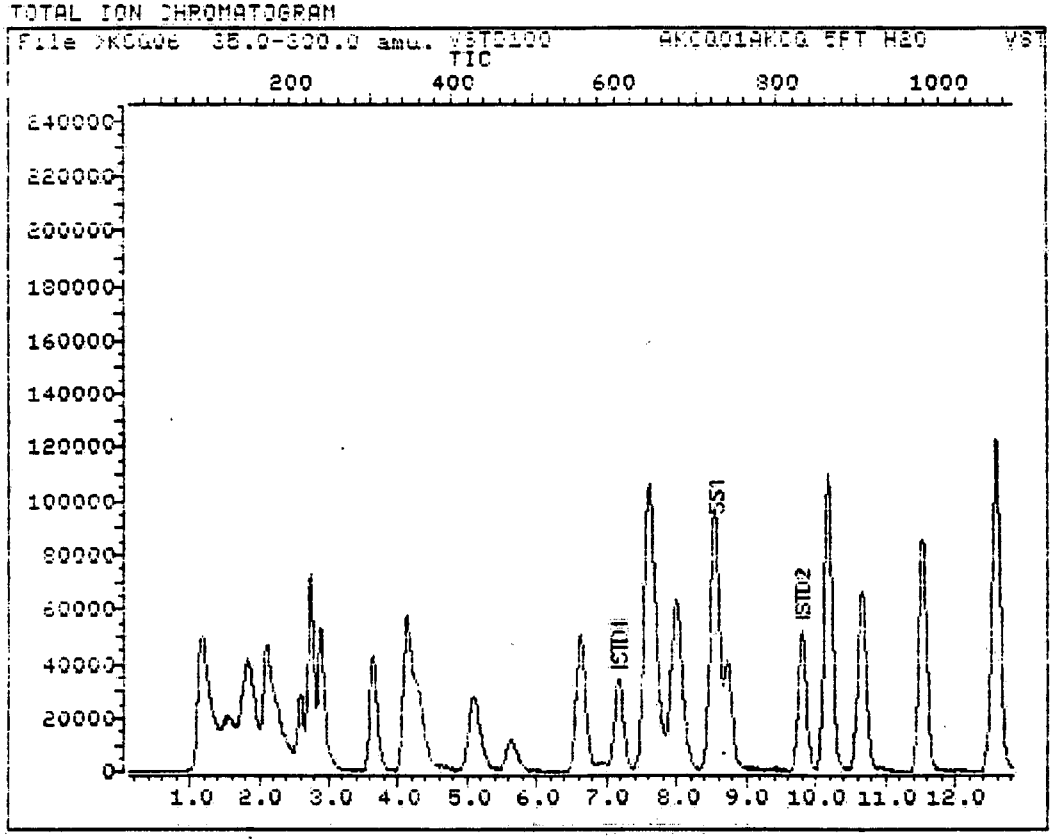
ID File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911223 16:49

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.15	128.0	43399	50.00	ug/L	76
2)	CHLOROMETHANE	1.53	50.0	26520	49.76	ug/L	91
3)	VINYL CHLORIDE	1.58	62.0	38901	57.27	ug/L	97
4)	BROMOMETHANE	1.82	94.0	58516	55.25	ug/L	99
5)	CHLOROETHANE	1.88	64.0	24724	56.90	ug/L	96
6)	TRICHLOROFLUOROMETHANE	2.11	101.0	131441	51.93	ug/L	99
7)	DIETHYLETHER	2.57	59.0	23608	52.44	ug/L	97
8)	1,1-DICHLOROETHYLENE	2.74	96.0	45531	51.79	ug/L	90
9)	ACROLEIN	2.72	56.0	2797	51.87	ug/L	89
10)	CARBON DISULFIDE	2.90	76.0	127912	55.38	ug/L	93
11)	ACETONE	2.99	43.0	9289	37.48	ug/L	100
12)	METHYLENE CHLORIDE	3.63	84.0	47161	49.31	ug/L	92
13)	1,2-DICHLOROETHENE (TOTAL)	4.11	96.0	47276	51.40	ug/L	85
14)	ACRYLONITRILE	4.26	53.0	4900	50.57	ug/L	79
15)	T-BUTYL ALCOHOL	4.52	59.0	2910M	43.61	ug/L	21
16)	METHYL-T-BUTYLETHER	4.26	73.0	80537	50.63	ug/L	94
17)	1,1-DICHLOROETHANE	5.08	63.0	93837	52.84	ug/L	97
18)	VINYL ACETATE	5.62	43.0	70404	47.73	ug/L	74
19)	1,2-DICHLOROETHENE (CIS)	6.62	96.0	56208	50.08	ug/L	89
20)	2-BUTANONE	6.89	72.0	1825	34.01	ug/L	84
21)	CHLOROFORM	7.57	83.0	124545	52.19	ug/L	94
22)	1,1,1-TRICHLOROETHANE	7.63	97.0	115453	51.89	ug/L	77
23)	CARBON TETRACHLORIDE	7.98	117.0	121077	52.44	ug/L	82
24)	*1,4-DIFLUOROBENZENE	9.79	114.0	168747	50.00	ug/L	68
25)	BENZENE	8.51	78.0	107523	51.31	ug/L	90
26)	1,2-DICHLOROETHANE D4	8.55	65.0	97097	47.51	ug/L	87
27)	1,2-DICHLOROETHANE	8.72	62.0	79092	47.26	ug/L	93
28)	TRICHLOROETHYLENE	10.15	130.0	73862	51.12	ug/L	95
29)	2-CHLOROETHYLVINYLETHER	12.49	63.0	23544	46.58	ug/L	76
30)	1,2-DICHLOROPROPANE	10.64	63.0	53397	51.63	ug/L	97
31)	BROMODICHLOROMETHANE	11.51	83.0	128567	50.71	ug/L	93
32)	*CHLOROBENZENE-D5	16.45	117.0	144514	50.00	ug/L	95
33)	TRANS-1,3-DICHLOROPROPENE	14.03	75.0	27783	18.14	ug/L	98
34)	TOLUENE D8	13.04	98.0	174941	49.97	ug/L	95
35)	TOLUENE	13.19	92.0	77002	50.29	ug/L	99
36)	4-METHYL-2-PENTANONE	13.15	43.0	34001^	42.78	ug/L	65
37)	CIS-1,3-DICHLOROPROPENE	12.59	75.0	133796	80.93	ug/L	97
38)	TETRACHLOROETHYLENE	14.40	164.0	78122	51.49	ug/L	96
39)	1,1,2-TRICHLOROETHANE	14.38	97.0	48514	47.67	ug/L	98
40)	DIBROMOCHLOROMETHANE	15.20	129.0	122709	47.37	ug/L	97
41)	2-HEXANONE	15.21	43.0	22019	36.41	ug/L	86
42)	CHLOROBENZENE	16.52	112.0	118014	50.82	ug/L	78
43)	ETHYLBENZENE	16.95	106.0	48755	50.07	ug/L	99

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.29	104.0	103002	48.40	ug/L	84
45)	XYLENE	17.27	106.0	121669	100.13	ug/L	91
46)	XYLENES (TOTAL)	18.20	106.0	59850^	49.16	ug/L	87
47)	BROMOFORM	18.65	173.0	104198	46.83	ug/L	94
48)	4-BROMOFLUOROBENZENE	19.53	95.0	169975	49.82	ug/L	89
49)	1,1,2,2-TETRACHLOROETHANE	20.26	83.0	68824	45.27	ug/L	97
50)	1,3-DICHLOROBENZENE	22.23	146.0	125272	47.86	ug/L	90
51)	1,4-DICHLOROBENZENE	22.51	146.0	127715	48.76	ug/L	90
52)	1,2-DICHLOROBENZENE	23.40	146.0	115386	47.05	ug/L	90

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: VSTD100 AKCQ01
Misc: AKCQ 5PT H2O VSTD100 #HP-MSD K BB

Id File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 10:31

Operator ID: BB
Quant Time: 911226 12:52
Injected at: 911226 12:23

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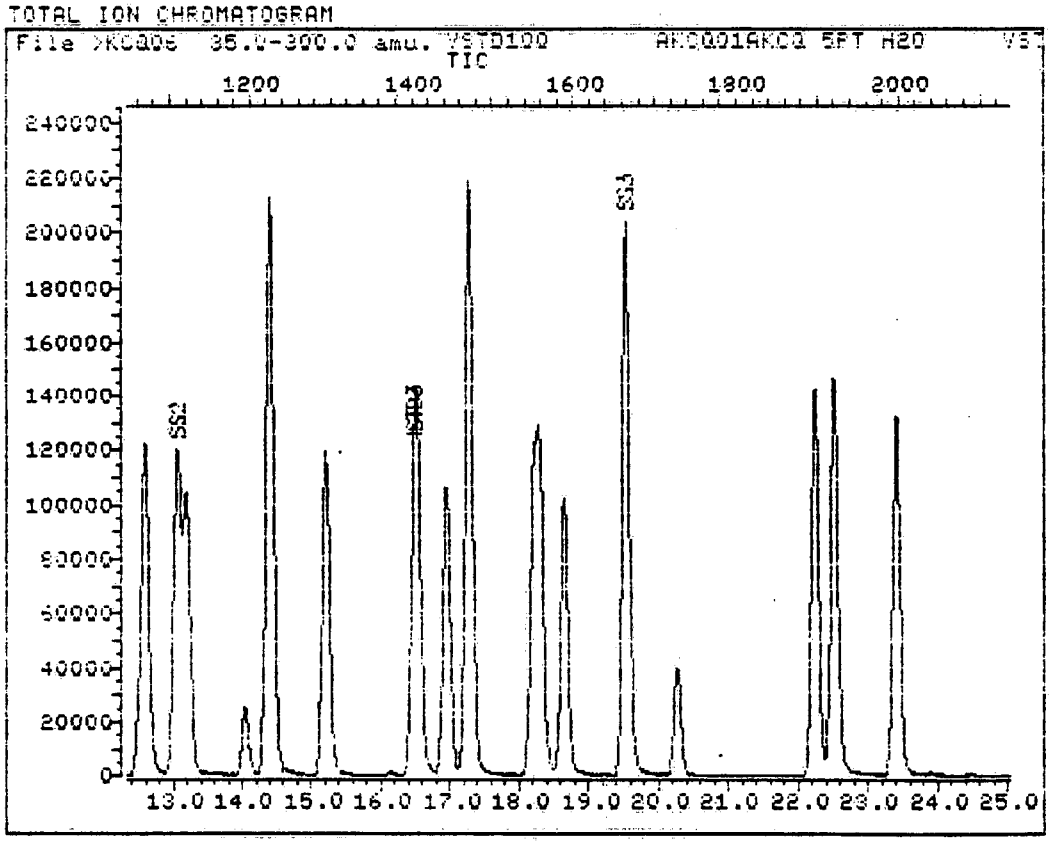
TOTAL ION CHROMATOGRAM



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Name: VSTD100 AKCQ01
Misc: AKCQ 5PT H2O VSTD100 #HP-MSD K BB

Id File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 10:31

Operator ID: BB
Quant Time: 911226 12:52
Injected at: 911226 12:23

TIC page 2 of 2

QUANT REPORT

Operator ID: BB Quant Rev: 6 Quant Time: 911226 12:52
Output File: ^KCQ06::QQ Injected at: 911226 12:23
Data File: >KCQ06::D2 Dilution Factor: 1.00000
Name: VSTD100 AKCQ01
Misc: AKCQ 5PT H2O VSTD100 #HP-MSD K BB

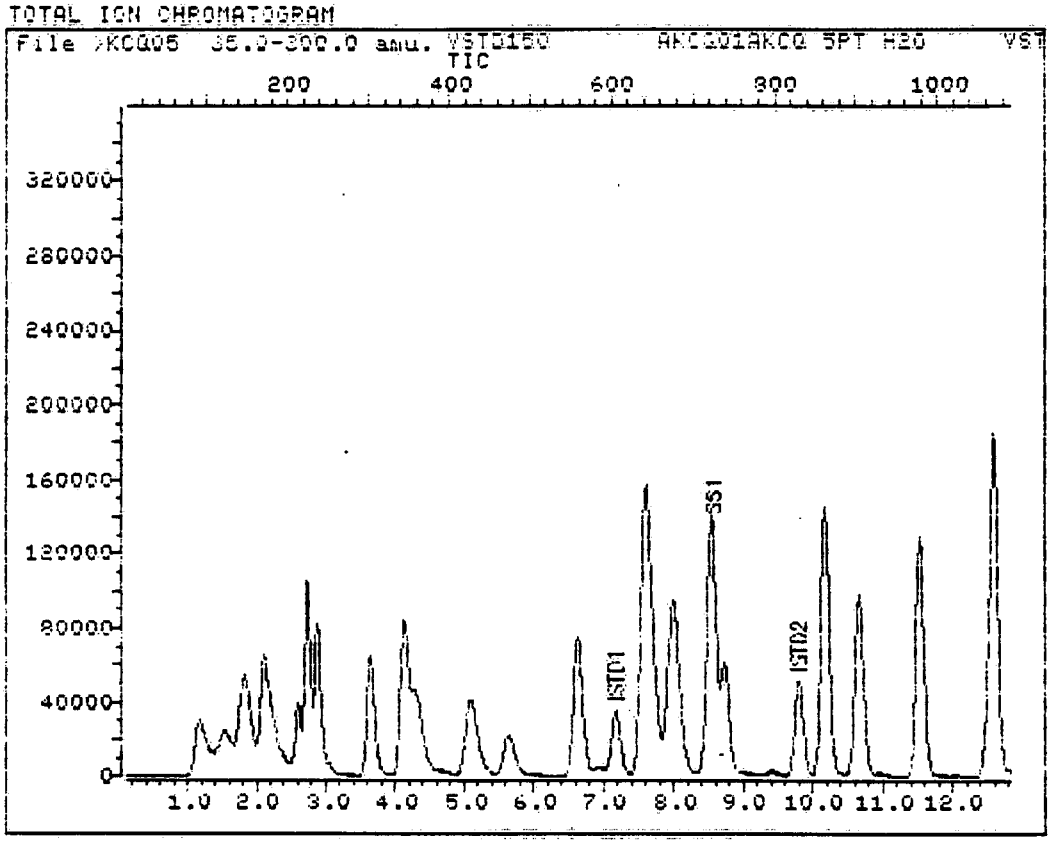
ID File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.18	128.0	41671	50.00	ug/L	81
2)	CHLOROMETHANE	1.53	50.0	39797	78.14	ug/L	92
3)	VINYL CHLORIDE	1.61	62.0	62045	83.05	ug/L	98
4)	BROMOMETHANE	1.83	94.0	96111	85.53	ug/L	95
5)	CHLOROETHANE	1.89	64.0	39721	83.66	ug/L	90
6)	TRICHLOROFLUOROMETHANE	2.11	101.0	207389	82.16	ug/L	99
7)	DIETHYLETHER	2.60	59.0	41805	92.21	ug/L	93
8)	1,1-DICHLOROETHYLENE	2.74	96.0	78939	90.28	ug/L	93
9)	ACROLEIN	2.74	56.0	4497	83.72	ug/L	89
10)	CARBON DISULFIDE	2.90	76.0	211724	86.19	ug/L	98
11)	ACETONE	3.04	43.0	12662	70.98	ug/L	100
12)	METHYLENE CHLORIDE	3.64	84.0	74976	82.79	ug/L	93
13)	1,2-DICHLOROETHENE (TOTAL)	4.12	96.0	82980	91.40	ug/L	87
14)	ACRYLONITRILE	4.30	53.0	9444M	100.36	ug/L	82
15)	T-BUTYL ALCOHOL	4.62	59.0	6129	232.62	ug/L	40
16)	METHYL-T-BUTYLETHER	4.28	73.0	143074	92.51	ug/L	88
17)	1,1-DICHLOROETHANE	5.10	63.0	164520	91.30	ug/L	97
18)	VINYL ACETATE	5.65	43.0	107006	79.15	ug/L	75
19)	1,2-DICHLOROETHENE (CIS)	6.63	96.0	98193	90.97	ug/L	90
20)	2-BUTANONE	6.92	72.0	3412M	97.36	ug/L	92
21)	CHLOROFORM	7.60	83.0	218354	91.30	ug/L	91
22)	1,1,1-TRICHLOROETHANE	7.64	97.0	205834	92.84	ug/L	78
23)	CARBON TETRACHLORIDE	7.99	117.0	217397	93.50	ug/L	92
24)	*1,4-DIFLUOROBENZENE	9.80	114.0	157797	50.00	ug/L	69
25)	BENZENE	8.53	78.0	182621	90.81	ug/L	92
26)	1,2-DICHLOROETHANE D4	8.56	65.0	183308	100.94	ug/L	85
27)	1,2-DICHLOROETHANE	8.74	62.0	144495	97.68	ug/L	95
28)	TRICHLOROETHYLENE	10.17	130.0	147960	107.11	ug/L	90
29)	2-CHLOROETHYLVINYLETHER	12.52	63.0	38224	86.81	ug/L	78
30)	1,2-DICHLOROPROPANE	10.67	63.0	91535	91.66	ug/L	99
31)	BROMODICHLOROMETHANE	11.53	83.0	227452	94.59	ug/L	98
32)	*CHLOROBENZENE-D5	16.47	117.0	135497	50.00	ug/L	97
33)	TRANS-1,3-DICHLOROPROPENE	14.04	75.0	50349	36.72	ug/L	96
34)	TOLUENE D8	13.06	98.0	309444	94.33	ug/L	98
35)	TOLUENE	13.20	92.0	133578	92.51	ug/L	96
36)	4-METHYL-2-PENTANONE	13.16	43.0	61564^	96.56	ug/L	64
37)	CIS-1,3-DICHLOROPROPENE	12.60	75.0	234958	151.71	ug/L	95
38)	TETRACHLOROETHYLENE	14.41	164.0	137054	93.56	ug/L	97
39)	1,1,2-TRICHLOROETHANE	14.40	97.0	86172	94.72	ug/L	94
40)	DIBROMOCHLOROMETHANE	15.20	129.0	225804	98.13	ug/L	95
41)	2-HEXANONE	15.21	43.0	40584	98.29	ug/L	85
42)	CHLOROBENZENE	16.52	112.0	206538	93.33	ug/L	76
43)	ETHYLBENZENE	16.94	106.0	85783	93.83	ug/L	97

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.31	104.0	183169	94.83	ug/L	80
45)	XYLENE	17.28	106.0	216222	189.54	ug/L	87
46)	XYLENES (TOTAL)	18.21	106.0	104013^	92.68	ug/L	88
47)	BROMOFORM	18.64	173.0	188654	96.55	ug/L	98
48)	4-BROMOFLUOROBENZENE	19.53	95.0	299612	94.00	ug/L	93
49)	1,1,2,2-TETRACHLOROETHANE	20.27	83.0	80791	62.60	ug/L	98
50)	1,3-DICHLOROBENZENE	22.24	146.0	223822	95.28	ug/L	88
51)	1,4-DICHLOROBENZENE	22.53	146.0	227461	94.98	ug/L	91
52)	1,2-DICHLOROBENZENE	23.40	146.0	208985	96.59	ug/L	80

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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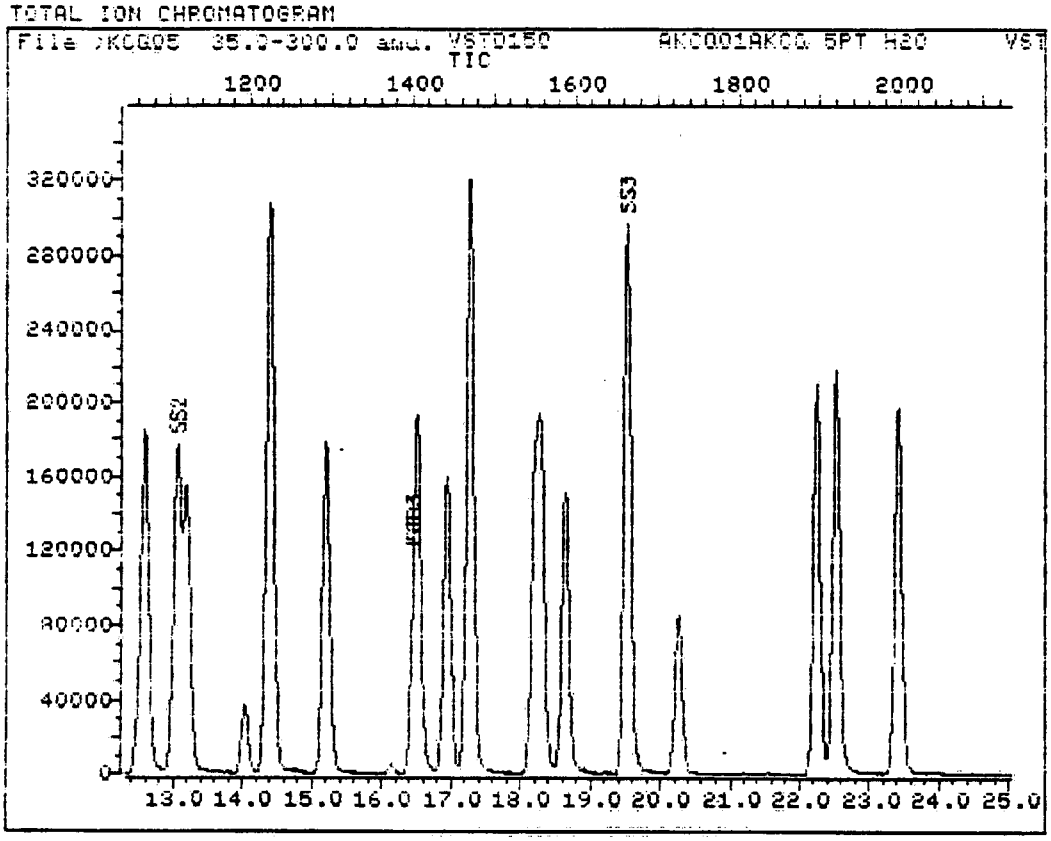
Name: VSTD150 AKCQ01
Misc: AKCQ 5PT H2O VSTD150 #HP-MSD K BB

Id File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 10:31

Operator ID: BB
Quant Time: 911226 12:17
Injected at: 911226 11:49

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



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Name: VSTD150 AKCQ01
Misc: AKCQ 5PT H2O VSTD150 #HP-MSD K BB

Id File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 10:31

Operator ID: BB
Quant Time: 911226 12:17
Injected at: 911226 11:49

TIC page 2 of 2

QUANT REPORT

Operator ID: BB Quant Rev: 6 Quant Time: 911226 12:17
Output File: ^KCQ05::QQ Injected at: 911226 11:49
Data File: >KCQ05::D2 Dilution Factor: 1.00000
Name: VSTD150 AKCQ01
Misc: AKCQ 5PT H2O VSTD150 #HP-MSD K BB

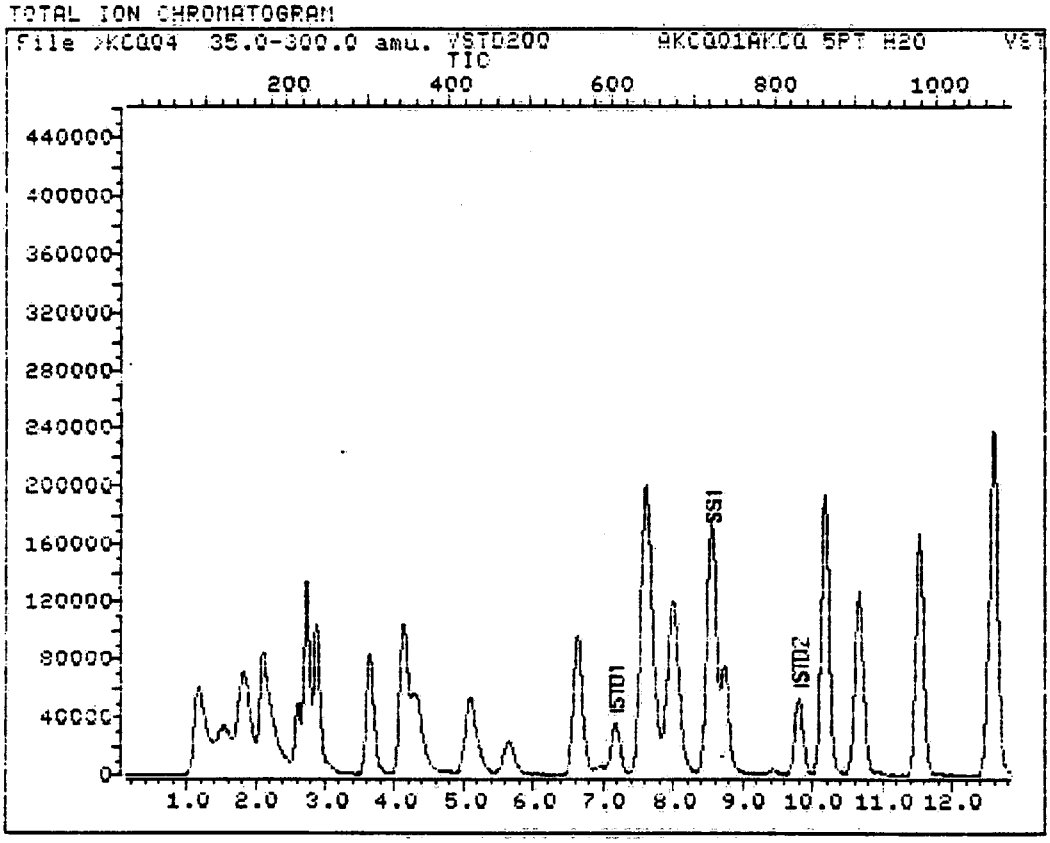
ID File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.17	128.0	41684	50.00	ug/L	78
2)	CHLOROMETHANE	1.52	50.0	63641	124.92	ug/L	98
3)	VINYL CHLORIDE	1.58	62.0	94970	127.09	ug/L	96
4)	BROMOMETHANE	1.81	94.0	143433	127.60	ug/L	92
5)	CHLOROETHANE	1.87	64.0	57355	120.76	ug/L	95
6)	TRICHLOROFLUOROMETHANE	2.11	101.0	292793	115.96	ug/L	98
7)	DIETHYLETHER	2.60	59.0	61231	135.02	ug/L	94
8)	1,1-DICHLOROETHYLENE	2.73	96.0	115843	132.45	ug/L	93
9)	ACROLEIN	2.75	56.0	7222	134.41	ug/L	93
10)	CARBON DISULFIDE	2.89	76.0	325362	132.41	ug/L	97
11)	ACETONE	3.05	43.0	18504	103.70	ug/L	100
12)	METHYLENE CHLORIDE	3.64	84.0	113165	124.91	ug/L	90
13)	1,2-DICHLOROETHENE (TOTAL)	4.12	96.0	125208	137.87	ug/L	83
14)	ACRYLONITRILE	4.28	53.0	14893	158.22	ug/L	88
15)	T-BUTYL ALCOHOL	4.70	59.0	8961	340.00	ug/L	73
16)	METHYL-T-BUTYLETHER	4.31	73.0	211261	136.55	ug/L	92
17)	1,1-DICHLOROETHANE	5.09	63.0	247015	137.03	ug/L	97
18)	VINYL ACETATE	5.65	43.0	191516	141.61	ug/L	73
19)	1,2-DICHLOROETHENE (CIS)	6.63	96.0	150090	139.01	ug/L	91
20)	2-BUTANONE	6.94	72.0	4916	140.23	ug/L	97
21)	CHLOROFORM	7.59	83.0	326295	136.38	ug/L	94
22)	1,1,1-TRICHLOROETHANE	7.66	97.0	305976	137.96	ug/L	77
23)	CARBON TETRACHLORIDE	8.01	117.0	316378	136.03	ug/L	84
24)	*1,4-DIFLUOROBENZENE	9.79	114.0	159308	50.00	ug/L	69
25)	BENZENE	8.52	78.0	275553	135.73	ug/L	90
26)	1,2-DICHLOROETHANE D4	8.57	65.0	266749	145.50	ug/L	85
27)	1,2-DICHLOROETHANE	8.73	62.0	220556	147.69	ug/L	96
28)	TRICHLOROETHYLENE	10.18	130.0	198473	142.31	ug/L	89
29)	2-CHLOROETHYLVINYLETHER	12.53	63.0	65562	147.48	ug/L	75
30)	1,2-DICHLOROPROPANE	10.67	63.0	137536	136.42	ug/L	95
31)	BROMODICHLOROMETHANE	11.54	83.0	339600	139.90	ug/L	95
32)	*CHLOROBENZENE-D5	16.46	117.0	136433	50.00	ug/L	95
33)	TRANS-1,3-DICHLOROPROPENE	14.04	75.0	74638	54.07	ug/L	98
34)	TOLUENE D8	13.06	98.0	456173	138.10	ug/L	98
35)	TOLUENE	13.20	92.0	199186	137.00	ug/L	96
36)	4-METHYL-2-PENTANONE	13.17	43.0	91470^	142.48	ug/L	71
37)	CIS-1,3-DICHLOROPROPENE	12.59	75.0	348281	223.34	ug/L	95
38)	TETRACHLOROETHYLENE	14.39	164.0	200331	135.81	ug/L	98
39)	1,1,2-TRICHLOROETHANE	14.40	97.0	127952	139.68	ug/L	97
40)	DIBROMOCHLOROMETHANE	15.21	129.0	334877	144.53	ug/L	98
41)	2-HEXANONE	15.22	43.0	57549	138.42	ug/L	86
42)	CHLOROBENZENE	16.53	112.0	307881	138.17	ug/L	78
43)	ETHYLBENZENE	16.95	106.0	127213	138.19	ug/L	99

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.30	104.0	274790	141.29	ug/L	77
45)	XYLENE	17.28	106.0	315787	274.92	ug/L	89
46)	XYLENES (TOTAL)	18.21	106.0	155909	137.96	ug/L	90
47)	BROMOFORM	18.65	173.0	287440	146.10	ug/L	97
48)	4-BROMOFLUOROBENZENE	19.53	95.0	445041	138.67	ug/L	92
49)	1,1,2,2-TETRACHLOROETHANE	20.26	83.0	172859	133.02	ug/L	99
50)	1,3-DICHLOROBENZENE	22.24	146.0	334980	141.62	ug/L	85
51)	1,4-DICHLOROBENZENE	22.51	146.0	345660	143.34	ug/L	89
52)	1,2-DICHLOROBENZENE	23.41	146.0	311747	143.09	ug/L	89

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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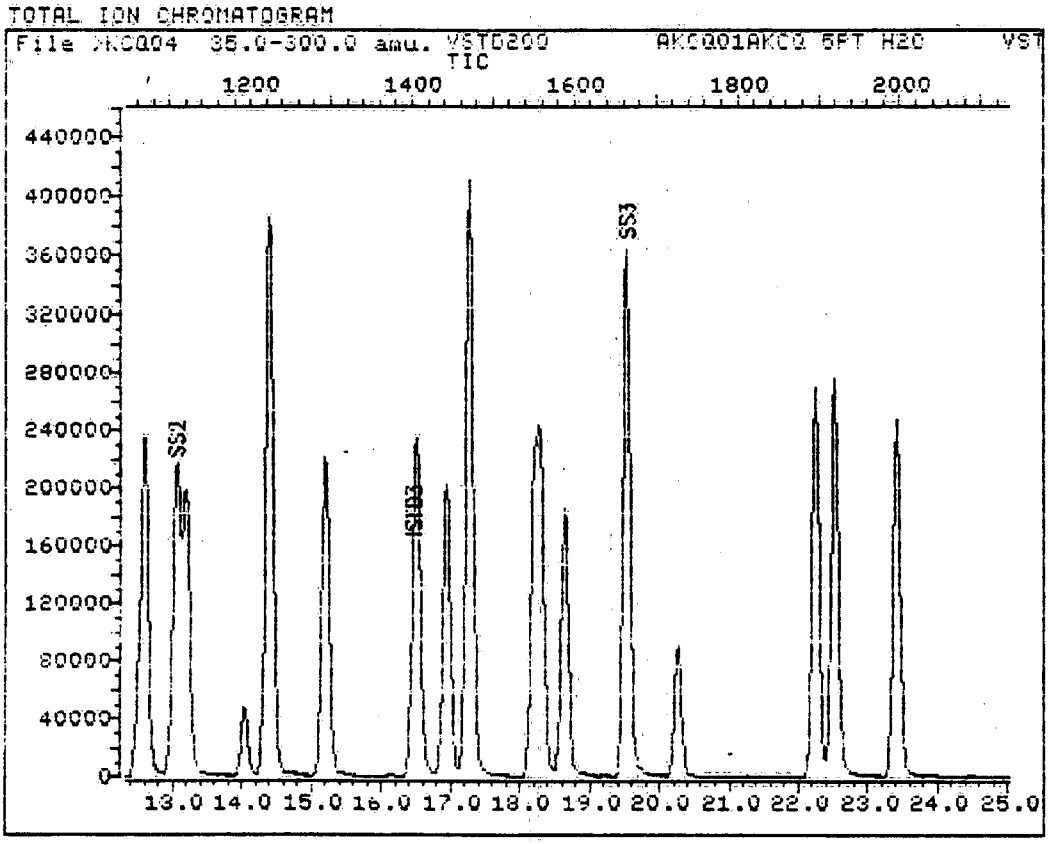
Name: VSTD200 AKCQ01
Misc: AKCQ 5PT H2O VSTD200 #HP-MSD K BB

Id File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 10:31

Operator ID: BB
Quant Time: 911226 11:43
Injected at: 911226 11:15

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >KCQ04::D2 Quant Output File: ^KCQ04::QQ
Name: VSTD200 AKCQ01
Misc: AKCQ 5PT H2O VSTD200 #HP-MSD K BB

Id File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 10:31

Operator ID: BB
Quant Time: 911226 11:43
Injected at: 911226 11:15

TIC page 2 of 2

QUANT REPORT

Operator ID: BB Quant Rev: 6 Quant Time: 911226 11:43
Output File: ^KCQ04::QQ Injected at: 911226 11:15
Data File: >KCQ04::D2 Dilution Factor: 1.00000
Name: VSTD200 AKCQ01
Misc: AKCQ 5PT H2O VSTD200 #HP-MSD K BB

ID File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.18	128.0	41638	50.00	ug/L	76
2)	CHLOROMETHANE	1.50	50.0	82362	161.85	ug/L	94
3)	VINYL CHLORIDE	1.57	62.0	117443	157.34	ug/L	96
4)	BROMOMETHANE	1.81	94.0	183432	163.37	ug/L	92
5)	CHLOROETHANE	1.87	64.0	78547	165.57	ug/L	96
6)	TRICHLOROFLUOROMETHANE	2.11	101.0	369114	146.35	ug/L	94
7)	DIETHYLETHER	2.61	59.0	88725	195.86	ug/L	95
8)	1,1-DICHLOROETHYLENE	2.73	96.0	148216	169.65	ug/L	93
9)	ACROLEIN	2.76	56.0	8820	164.34	ug/L	89
10)	CARBON DISULFIDE	2.89	76.0	416529	169.70	ug/L	98
11)	ACETONE	3.06	43.0	24111M	135.27	ug/L	100
12)	METHYLENE CHLORIDE	3.63	84.0	141789	156.68	ug/L	93
13)	1,2-DICHLOROETHENE (TOTAL)	4.13	96.0	157395	173.50	ug/L	87
14)	ACRYLONITRILE	4.30	53.0	17819	189.52	ug/L	98
15)	T-BUTYL ALCOHOL	4.73	59.0	11432	434.24	ug/L	65
16)	METHYL-T-BUTYLETHER	4.31	73.0	262370	169.78	ug/L	92
17)	1,1-DICHLOROETHANE	5.10	63.0	310856	172.64	ug/L	94
18)	VINYL ACETATE	5.65	43.0	204757	151.57	ug/L	72
19)	1,2-DICHLOROETHENE (CIS)	6.63	96.0	187765	174.09	ug/L	90
20)	2-BUTANONE	6.98	72.0	6523	186.27	ug/L	94
21)	CHLOROFORM	7.59	83.0	414101	173.28	ug/L	93
22)	1,1,1-TRICHLOROETHANE	7.66	97.0	392274	177.07	ug/L	81
23)	CARBON TETRACHLORIDE	8.00	117.0	407332	175.33	ug/L	88
24)	*1,4-DIFLUOROBENZENE	9.81	114.0	160381	50.00	ug/L	69
25)	BENZENE	8.53	78.0	354125	173.26	ug/L	90
26)	1,2-DICHLOROETHANE D4	8.57	65.0	325966	176.61	ug/L	83
27)	1,2-DICHLOROETHANE	8.76	62.0	270232	179.75	ug/L	95
28)	TRICHLOROETHYLENE	10.17	130.0	265217	188.90	ug/L	89
29)	2-CHLOROETHYLVINYLETHER	12.52	63.0	83302	186.14	ug/L	76
30)	1,2-DICHLOROPROPANE	10.67	63.0	174709	172.13	ug/L	96
31)	BROMODICHLOROMETHANE	11.53	83.0	433245	177.28	ug/L	92
32)	*CHLOROBENZENE-D5	16.47	117.0	137280	50.00	ug/L	97
33)	TRANS-1,3-DICHLOROPROPENE	14.05	75.0	94064	67.72	ug/L	98
34)	TOLUENE D8	13.05	98.0	575643	173.19	ug/L	98
35)	TOLUENE	13.20	92.0	254285	173.82	ug/L	95
36)	4-METHYL-2-PENTANONE	13.17	43.0	111461^	172.55	ug/L	68
37)	CIS-1,3-DICHLOROPROPENE	12.60	75.0	447133	284.96	ug/L	97
38)	TETRACHLOROETHYLENE	14.40	164.0	251502	169.45	ug/L	96
39)	1,1,2-TRICHLOROETHANE	14.39	97.0	156216	169.48	ug/L	91
40)	DIBROMOCHLOROMETHANE	15.21	129.0	422683	181.31	ug/L	99
41)	2-HEXANONE	15.22	43.0	72149	172.47	ug/L	84
42)	CHLOROBENZENE	16.53	112.0	390830	174.31	ug/L	76
43)	ETHYLBENZENE	16.96	106.0	163479	176.49	ug/L	99

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.30	104.0	348599	178.14	ug/L	82
45)	XYLENE	17.29	106.0	405301	350.67	ug/L	89
46)	XYLENES (TOTAL)	18.21	106.0	198494	174.56	ug/L	88
47)	BROMOFORM	18.64	173.0	348974	176.28	ug/L	97
48)	4-BROMOFLUOROBENZENE	19.54	95.0	549405	170.13	ug/L	91
49)	1,1,2,2-TETRACHLOROETHANE	20.26	83.0	179283	137.11	ug/L	98
50)	1,3-DICHLOROBENZENE	22.25	146.0	423670	178.01	ug/L	87
51)	1,4-DICHLOROBENZENE	22.52	146.0	433958	178.85	ug/L	94
52)	1,2-DICHLOROBENZENE	23.40	146.0	391329	178.51	ug/L	89

* Compound is ISTD

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9112L841

Instrument ID: HP-MSD K Calibration Date: 12/30/91 Time: 1011

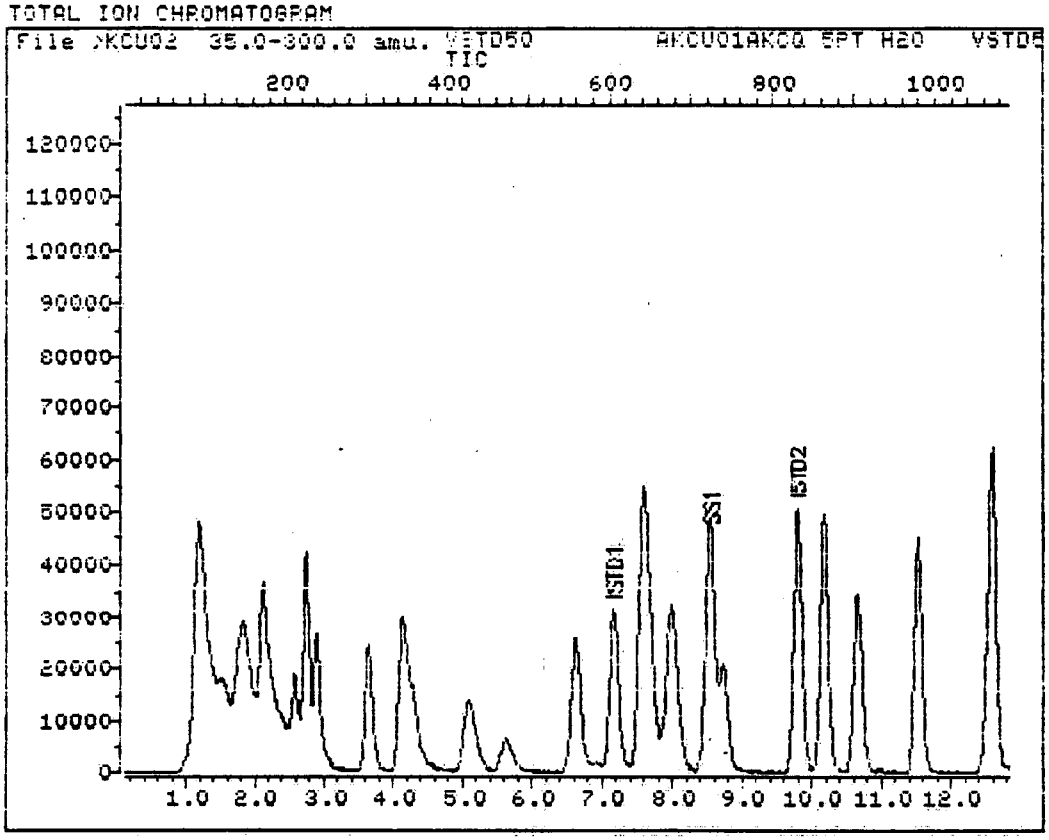
Lab File ID: AKCU02 Init. Calib. Date(s): 12/26/91 12/26/91

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

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Chloromethane	#	0.530	0.589	-11.1	# ✓
Bromomethane		1.197	1.339	-11.9	
Vinyl Chloride	*	0.777	0.828	-6.5	* ✓
Chloroethane		0.498	0.560	-12.5	
Methylene Chloride		0.946	1.090	-15.2	
1,1-Dichloroethene	*	0.971	1.142	-17.6	* ✓
1,1-Dichloroethane	#	1.985	2.176	-9.6	# ✓
1,2-Dichloroethene (total)		1.003	1.112	-10.9	
Chloroform	*	2.677	3.013	-12.6	* ✓
1,2-Dichloroethane		0.462	0.521	-12.8	
1,1,1-Trichloroethane		2.520	2.786	-10.6	
Carbon Tetrachloride		2.616	2.804	-7.2	
Bromodichloromethane		0.722	0.774	-7.1	
1,2-Dichloropropane	*	0.291	0.313	-7.4	* ✓
cis-1,3-Dichloropropene		0.535	0.559	-4.4	
Trichloroethene		0.435	0.438	-0.6	
Dibromochloromethane		0.824	0.818	0.8	
1,1,2-Trichloroethane		0.316	0.336	-6.4	
Benzene		0.587	0.638	-8.7	
Trans-1,3-Dichloropropene		0.481	0.490	-1.9	
2-chloroethylvinylether		0.132	0.133	-0.7	
Bromoform	#	0.691	0.622	9.9	# ✓
Tetrachloroethene		0.506	0.535	-5.8	
1,1,2,2-Tetrachloroethane	#	0.395	0.477	-20.7	# ✓
Toluene	*	0.497	0.529	-6.5	* ✓
Chlorobenzene	#	0.766	0.816	-6.6	# ✓
Ethylbenzene	*	0.318	0.344	-8.0	* ✓
1,2-Dichlorobenzene		0.778	0.815	-4.8	
1,3-Dichlorobenzene		0.831	0.880	-5.9	
1,4-Dichlorobenzene		0.858	0.900	-4.9	
Acrolein		0.054	0.054	-0.4	
Acrylonitrile		0.103	0.103	-0.2	
Trichlorofluoromethane		2.652	3.225	-21.6	
Xylene (total)		0.389	0.418	-7.4	
Toluene-d8		1.162	1.193	-2.7	
Bromofluorobenzene		1.133	1.161	-2.4	
1,2-Dichloroethane-d4		0.575	0.606	-5.4	

TOTAL ION CHROMATOGRAM



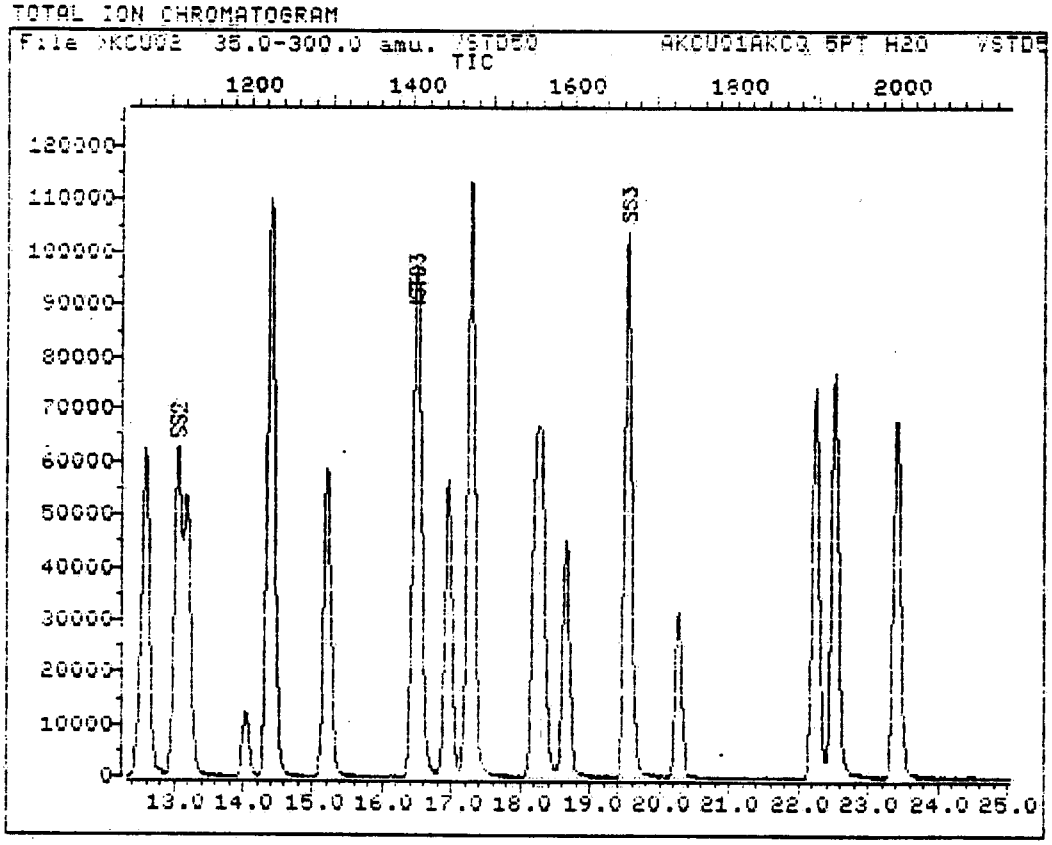
Data File: >KCU02::D2 Quant Output File: ^KCU02::QQ
Name: VSTD50 AKCU01
Misc: AKCQ 5PT H2O VSTD50 #HP-MSD K BB

Id File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 14:23

Operator ID: BB
Quant Time: 911230 10:39
Injected at: 911230 10:11

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



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Name: VSTD50 AKCU01
Misc: AKCQ 5PT H2O VSTD50 #HP-MSD K BB

Id File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 14:23

Operator ID: BB
Quant Time: 911230 10:39
Injected at: 911230 10:11

TIC page 2 of 2

QUANT REPORT

Operator ID: BB Quant Rev: 6 Quant Time: 911230 10:39
Output File: ^KCU02::QQ Injected at: 911230 10:11
Data File: >KCU02::D2 Dilution Factor: 1.00000
Name: VSTD50 AKCU01
Misc: AKCQ 5PT H2O VSTD50 #HP-MSD K BB

ID File: I_KCQA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911226 14:23

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.17	128.0	38530	50.00	ug/L	79
2)	CHLOROMETHANE	1.47	50.0	22690M	55.52	ug/L	97
3)	VINYL CHLORIDE	1.55	62.0	31884	53.25	ug/L	96
4)	BROMOMETHANE	1.80	94.0	51589	55.94	ug/L	93
5)	CHLOROETHANE	1.88	64.0	21585	56.25	ug/L	99
6)	TRICHLOROFLUOROMETHANE	2.13	101.0	124245	60.79	ug/L	99
7)	DIETHYLETHER	2.58	59.0	19954	51.22	ug/L	97
8)	1,1-DICHLOROETHYLENE	2.74	96.0	43985	58.80	ug/L	94
9)	ACROLEIN	2.72	56.0	2090	50.53	ug/L	88
10)	CARBON DISULFIDE	2.90	76.0	107459	52.83	ug/L	95
11)	ACETONE	3.02	43.0	12158	82.41	ug/L	100
12)	METHYLENE CHLORIDE	3.64	84.0	41983	57.62	ug/L	94
13)	1,2-DICHLOROETHENE (TOTAL)	4.13	96.0	42840	55.43	ug/L	91
14)	ACRYLONITRILE	4.28	53.0	3976M	49.88	ug/L	86
15)	T-BUTYL ALCOHOL	4.53	59.0	2339M	45.56	ug/L	1
16)	METHYL-T-BUTYLETHER	4.27	73.0	70607	53.28	ug/L	89
17)	1,1-DICHLOROETHANE	5.10	63.0	83836	54.80	ug/L	97
18)	VINYL ACETATE	5.62	43.0	58268	53.27	ug/L	72
19)	1,2-DICHLOROETHENE (CIS)	6.61	96.0	50893	54.86	ug/L	92
20)	2-BUTANONE	6.94	72.0	1694M	58.36	ug/L	99
21)	CHLOROFORM	7.59	83.0	116092	56.28	ug/L	95
22)	1,1,1-TRICHLOROETHANE	7.64	97.0	107358	55.29	ug/L	78
23)	CARBON TETRACHLORIDE	8.00	117.0	108019	53.58	ug/L	86
24)	*1,4-DIFLUOROBENZENE	9.80	114.0	150837	50.00	ug/L	69
25)	BENZENE	8.53	78.0	96205	54.30	ug/L	88
26)	1,2-DICHLOROETHANE D4	8.56	65.0	91403	52.67	ug/L	85
27)	1,2-DICHLOROETHANE	8.73	62.0	78603	56.43	ug/L	93
28)	TRICHLOROETHYLENE	10.17	130.0	66027	50.33	ug/L	91
29)	2-CHLOROETHYLVINYLETHER	12.51	63.0	20043	50.28	ug/L	80
30)	1,2-DICHLOROPROPANE	10.66	63.0	47151	53.74	ug/L	93
31)	BROMODICHLOROMETHANE	11.52	83.0	116673	53.58	ug/L	88
32)	*CHLOROBENZENE-D5	16.47	117.0	131736	50.00	ug/L	94
33)	TRANS-1,3-DICHLOROPROPENE	14.03	75.0	24536	19.35	ug/L	98
34)	TOLUENE D8	13.05	98.0	157195	51.34	ug/L	98
35)	TOLUENE	13.19	92.0	69699	53.19	ug/L	96
36)	4-METHYL-2-PENTANONE	13.14	43.0	28991M	48.92	ug/L	
37)	CIS-1,3-DICHLOROPROPENE	12.60	75.0	119205	84.53	ug/L	96
38)	TETRACHLOROETHYLENE	14.42	164.0	70498	52.89	ug/L	99
39)	1,1,2-TRICHLOROETHANE	14.40	97.0	44289	53.18	ug/L	98
40)	DIBROMOCHLOROMETHANE	15.21	129.0	107706	49.62	ug/L	99
41)	2-HEXANONE	15.21	43.0	21311	53.59	ug/L	88
42)	CHLOROBENZENE	16.53	112.0	107548	53.30	ug/L	76
43)	ETHYLBENZENE	16.95	106.0	45257	53.98	ug/L	98

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.30	104.0	95075	53.29	ug/L	78
45)	XYLENE	17.27	106.0	111362	106.20	ug/L	88
46)	XYLENES (TOTAL)	18.21	106.0	55042	53.75	ug/L	89
47)	BROMOFORM	18.65	173.0	81989	45.04	ug/L	94
48)	4-BROMOFLUOROBENZENE	19.54	95.0	152888	51.20	ug/L	95
49)	1,1,2,2-TETRACHLOROETHANE	20.27	83.0	62795	60.31	ug/L	98
50)	1,3-DICHLOROBENZENE	22.25	146.0	115982	52.96	ug/L	88
51)	1,4-DICHLOROBENZENE	22.52	146.0	118560	52.46	ug/L	88
52)	1,2-DICHLOROBENZENE	23.41	146.0	107405	52.42	ug/L	85

* Compound is ISTD

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9112L841

Lab File ID (Standard): W122908 Date Analyzed: 12/29/91

Instrument ID: 1050W Time Analyzed: 2247

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

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	23343	5.10	69739	15.43	59888	20.27
	UPPER LIMIT	46686	5.60	139478	15.93	119776	20.77
	LOWER LIMIT	11672	4.60	34870	14.93	29944	19.77
	CLIENT SAMPLE NO.						
01	MW-2	17267	5.10	56781	15.43	49517	20.23
02	MW-3	17928	5.10	56432	15.43	53082	20.23
03	MW-4	20806	5.10	67138	15.43	59750	20.27
04	VBLKLVW223-MB1	17487	5.10	56708	15.43	48866	20.27

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9112L841

Lab File ID (Standard): W123003 Date Analyzed: 12/30/91

Instrument ID: 1050W Time Analyzed: 1103

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

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	19452	5.10	65600	15.43	57126	20.23
	UPPER LIMIT	38904	5.60	131200	15.93	114252	20.73
	LOWER LIMIT	9726	4.60	32800	14.93	28563	19.73
	CLIENT SAMPLE NO.						
01	MW-3DL	16275	5.10	53090	15.43	46142	20.23
02	MW-4DL	17168	5.13	56101	15.43	49248	20.27
03	VBLKLVW224-MB1	17416	5.10	55982	15.47	50141	20.30

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-90-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9112L841

Lab File ID (Standard): AKCU02 Date Analyzed: 12/30/91

Instrument ID: HP-MSD K Time Analyzed: 1011

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

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	38530	7.17	150837	9.80	131736	16.47
	UPPER LIMIT	77060	7.67	301674	10.30	263472	16.97
	LOWER LIMIT	19265	6.67	75419	9.30	65868	15.97
	CLIENT SAMPLE NO.						
01	MW-5	36495	7.17	147507	9.80	127270	16.47
02	MW-5MS	37738	7.18	148713	9.82	128615	16.47
03	MW-5MSD	37916	7.17	150527	9.80	128154	16.47
04	TRIP BLANK	38381	7.18	150058	9.82	128750	16.47
05	FIELD BLANK	38621	7.17	149767	9.81	129400	16.47
06	VBLKLVK223-MB1	39691	7.17	154251	9.80	130819	16.47

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

WESTON

V. **Raw QC Data Package**

A. GC/MS Tuning and Calibration Standard: DFTPP

1. Bar Graph
2. Mass Listing

B. Blank Data

1. Tabulated Results (Form 1)
2. TIC Results (Form 1B)
3. Raw Data
   a. Reconstructed Ion Chromatogram(s) and Quantitation Report(s)
   b. HSL Spectra
   c. TIC Spectra
   d. GC/MS Library Search for TIC

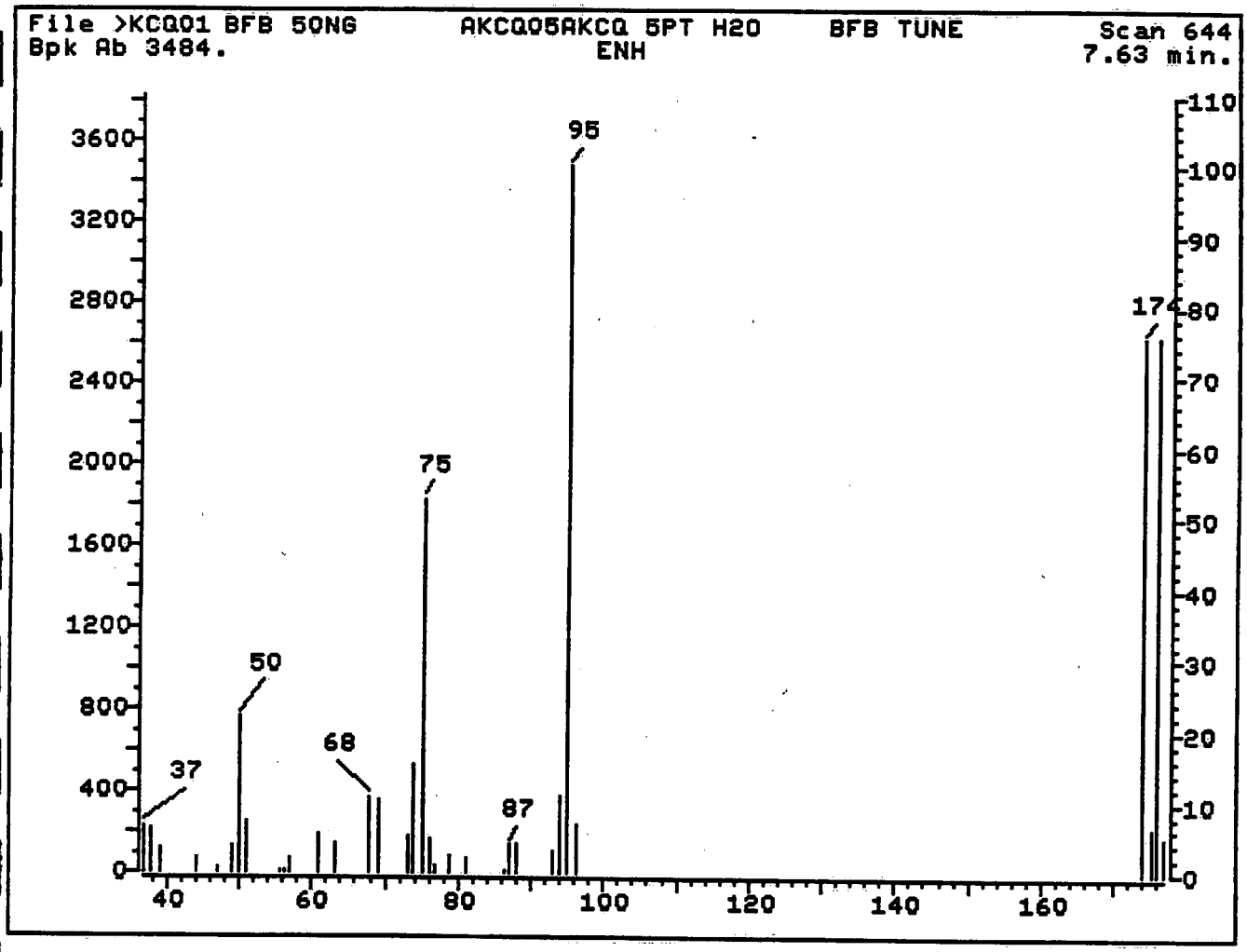
C. Matrix Spike Data

1. Tabulated Results (Form 1)
2. Raw Data
   a. Reconstructed Ion Chromatogram(s)
   b. Quantitation Report(s)

MS data file header from : >KCQ01

Sample: BFB 50NG AKCQ05 Operator: BB SUPER GRP. 12/26/91 9:15
Misc : AKCQ 5PT H2O BFB TUNE #HP-MSD K BB
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: BFBK Tuning file: MT_KCQ No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

Chromatographic temperatures :	40.	200.	0.	0.	0.
Chromatographic times, min. :	2.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0



>KCQ01 BFB 50NG AKCQ05AKCQ 5PT H2O BFB TUNE #HP-MSD K B

644 NRM ENH

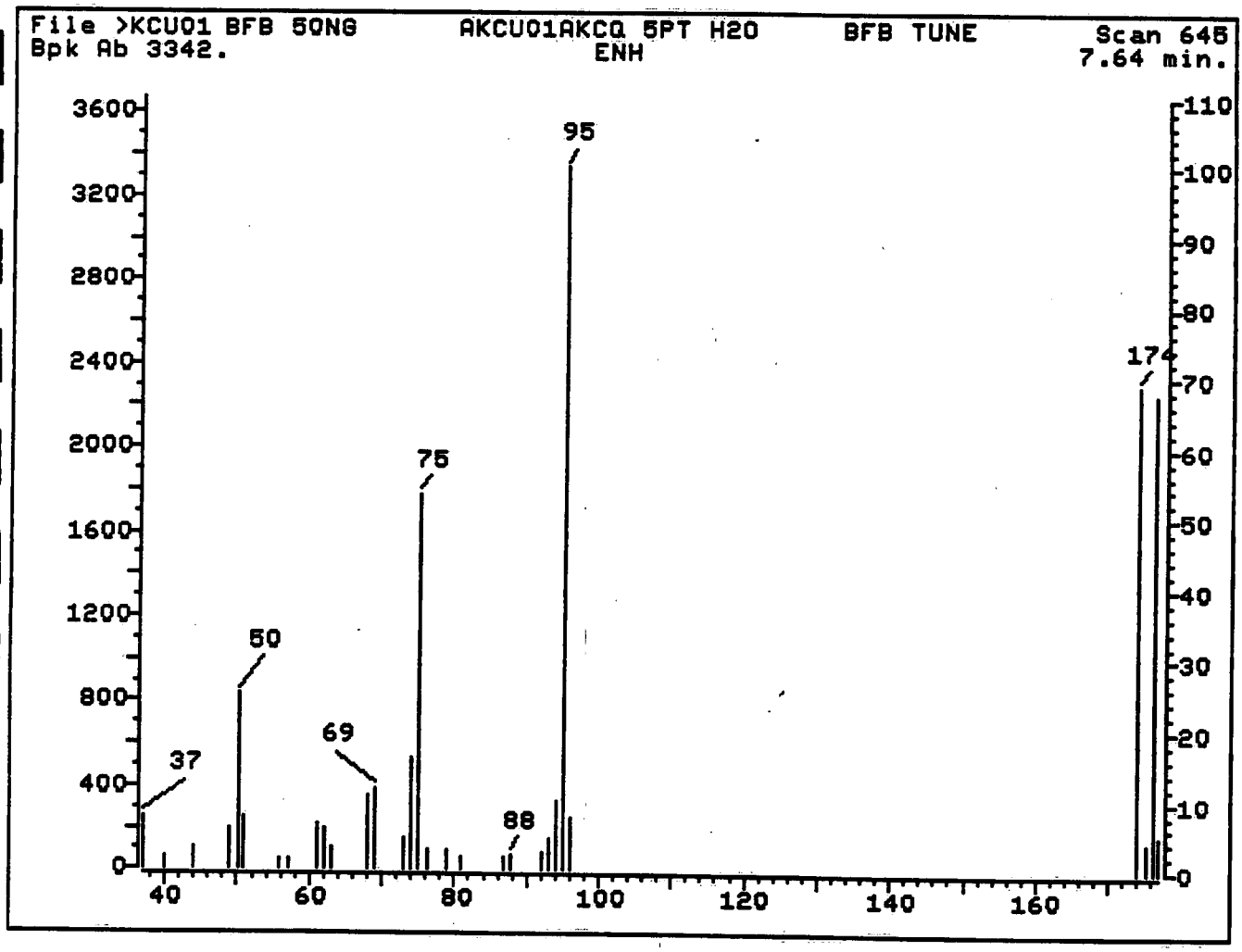
File: >KCQ01 Scan #: 644 Retn. time: 7.63

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.85	6.611	50.95	7.042	67.95	10.639	78.80	2.555	94.00	10.773
37.85	6.047	55.75	.450	69.05	10.237	81.00	2.210	95.00	100.000
39.05	3.368	56.35	.402	73.05	5.061	86.30	.402	96.10	6.984
43.95	2.239	57.05	2.095	73.95	15.155	86.90	4.047	174.00	75.698
46.95	.746	60.75	1.473	75.05	52.583	88.00	4.047	175.10	6.353
48.85	3.741	60.95	5.635	76.00	4.812	92.80	3.071	176.00	75.622
50.05	21.967	63.15	4.038	76.90	1.167	93.10	1.110	177.00	5.300

MS data file header from : >KCU01

Sample: BFB 50NG AKCU01 Operator: BB SUPER GRP. 12/30/91 9:49
Misc : AKCQ 5PT H2O BFB TUNE #HP-MSD K BB
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: BFBK Tuning file: MT_KCU No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

Chromatographic temperatures :	40.	200.	0.	0.	0.
Chromatographic times, min. :	2.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0



>KCU01 BFB 50NG AKCU01AKCQ 5PT H2O BFB TUNE #HP-MS

645 NRM ENH

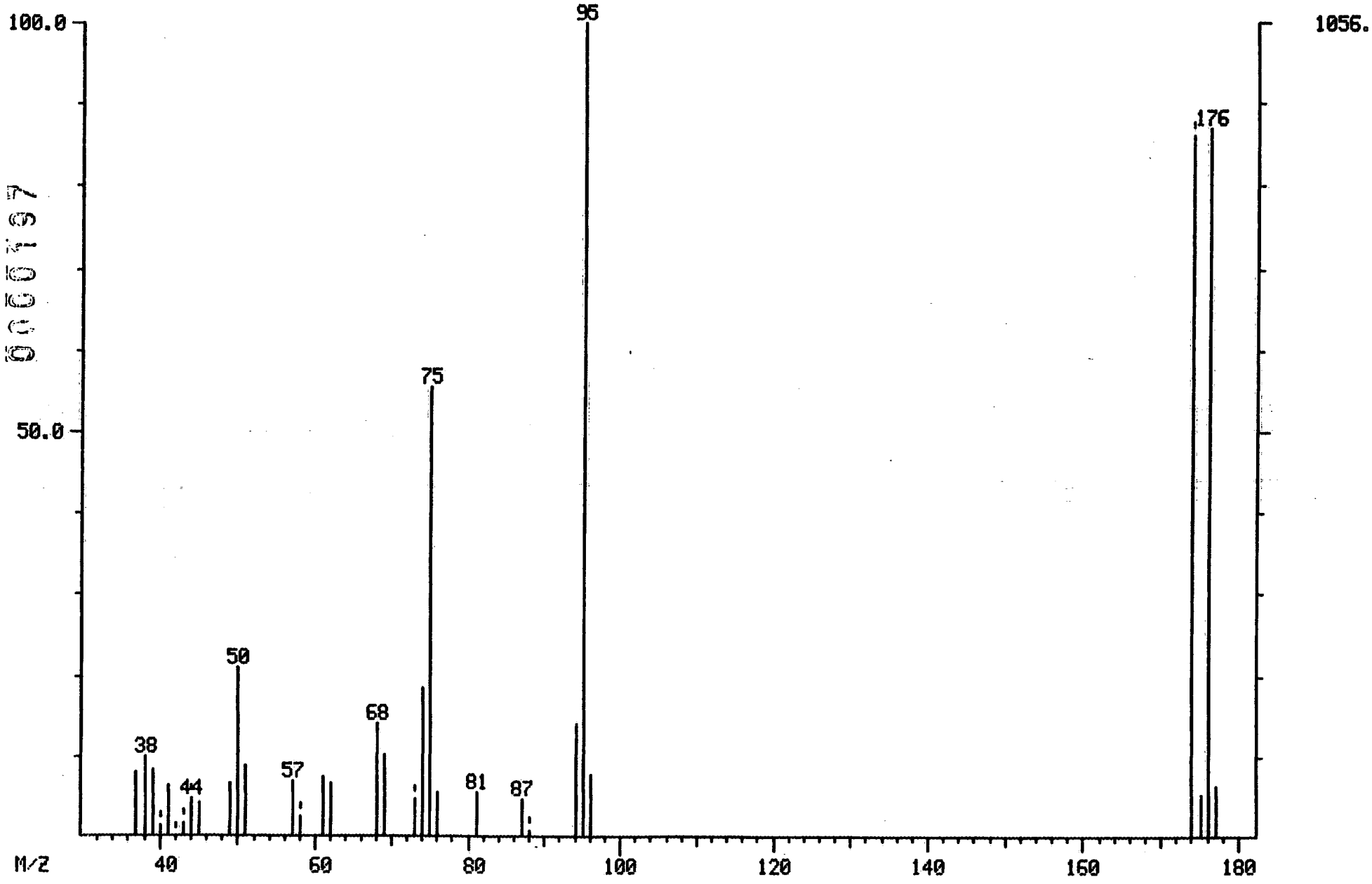
File: >KCU01 Scan #: 645 Retn. time: 7.64

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.05	7.550	57.05	1.307	73.05	4.498	86.90	1.885	95.00	100.000
39.85	1.646	60.95	6.563	74.05	15.879	87.70	2.244	96.00	7.530
43.95	2.992	61.95	5.865	75.05	53.152	87.90	1.117	174.00	69.120
48.95	5.855	63.05	3.022	76.10	2.932	92.00	2.354	175.20	4.010
50.05	25.015	67.95	10.413	78.90	2.763	93.00	4.448	176.10	67.824
50.85	7.570	69.05	11.600	80.90	1.925	94.10	10.014	177.00	5.157
55.85	1.386								

MASS SPECTRUM
12/29/91 15:09:00 + 8:18
SAMPLE: BFB50 50NG
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 208 DEG. C
#249 - #259

DATA: W122901 #249
CALI: W122901 #2

BASE M/Z: 95
RIC: 5608.



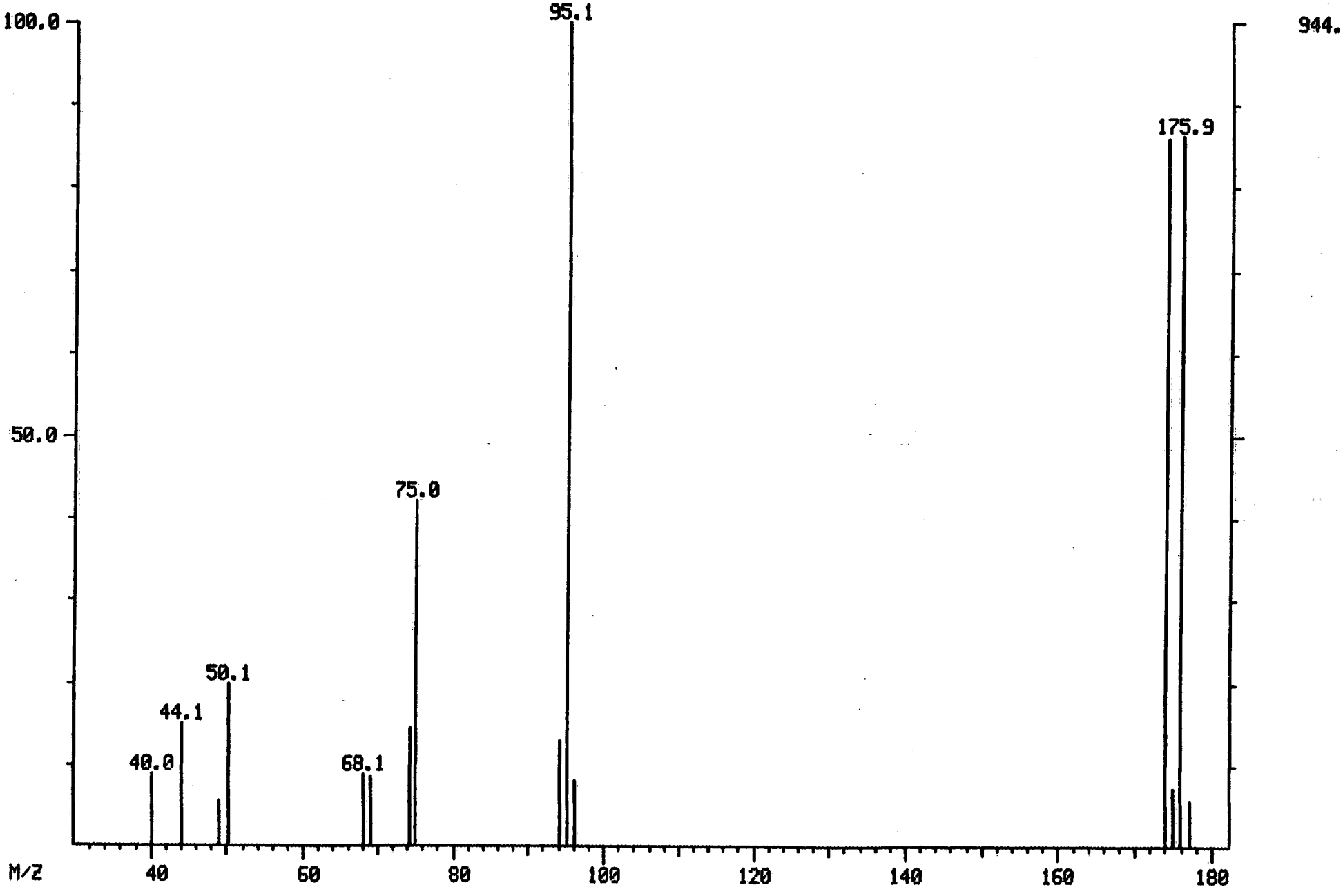
Mass List Data: W122901 #249 Base m/z: 95
12/29/91 15:09:00 + 8:18 Cali: W122901 #0 2 RIC: 5608.
Sample: BFB50 50NG
Conds.: INST: 1050W COL: 1%-SP1000
#249 - #259

37	0.00	0.00	0.	Minima	Min inten:	0.
177			# 0	Maxima		
Mass	% RA	% RIC	Inten.			
37.00?	8.14	1.53	86.			
38.00?	10.04	1.89	106.			
39.00?	8.24	1.55	87.			
40.00? S	1.52	0.29	16.			
41.00?	6.25	1.18	66.			
42.00? S	0.09	0.02	1.			
43.00? S	1.61	0.30	17.			
44.00? S	4.64	0.87	49.			
45.00? S	4.17	0.78	44.			
49.00?	6.72	1.27	71.			
50.00?	21.12	3.98	223.			
51.00?	8.71	1.64	92.			
57.00?	6.82	1.28	72.			
58.00? S	2.37	0.45	25.			
61.00?	7.58	1.43	80.			
62.00?	6.63	1.25	70.			
68.00?	14.11	2.66	149.			
69.00	10.32	1.94	109.			
73.00 S	4.64	0.87	49.			
74.00	18.56	3.50	196.			
75.00	55.40	10.43	585.			
76.00	5.59	1.05	59.			
81.00	5.59	1.05	59.			
87.00	4.83	0.91	51.			
88.00 S	0.76	0.14	8.			
94.00	14.02	2.64	148.			
95.00 S	100.00	18.83	1056.			
96.00	7.67	1.44	81.			
174.00 S	86.27	16.24	911.			
175.00	5.30	1.00	56.			
176.00	86.93	16.37	918.			
177.00	6.25	1.18	66.			

MASS SPECTRUM
12/29/91 22:24:00 + 8:14
SAMPLE: BFB50 50NG
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 208 DEG. C

DATA: W122907 #247
CALI: W122907 #2

BASE M/Z: 95
RIC: 4064.



Mass List
12/29/91 22:24:00 + 8:14
Sample: BFB50 50NG
Conds.: INST: 1050W COL: 1%-SP1000

Data: W122907 # 247
Cali: W122907 # 2

0 0 0 1 9 9

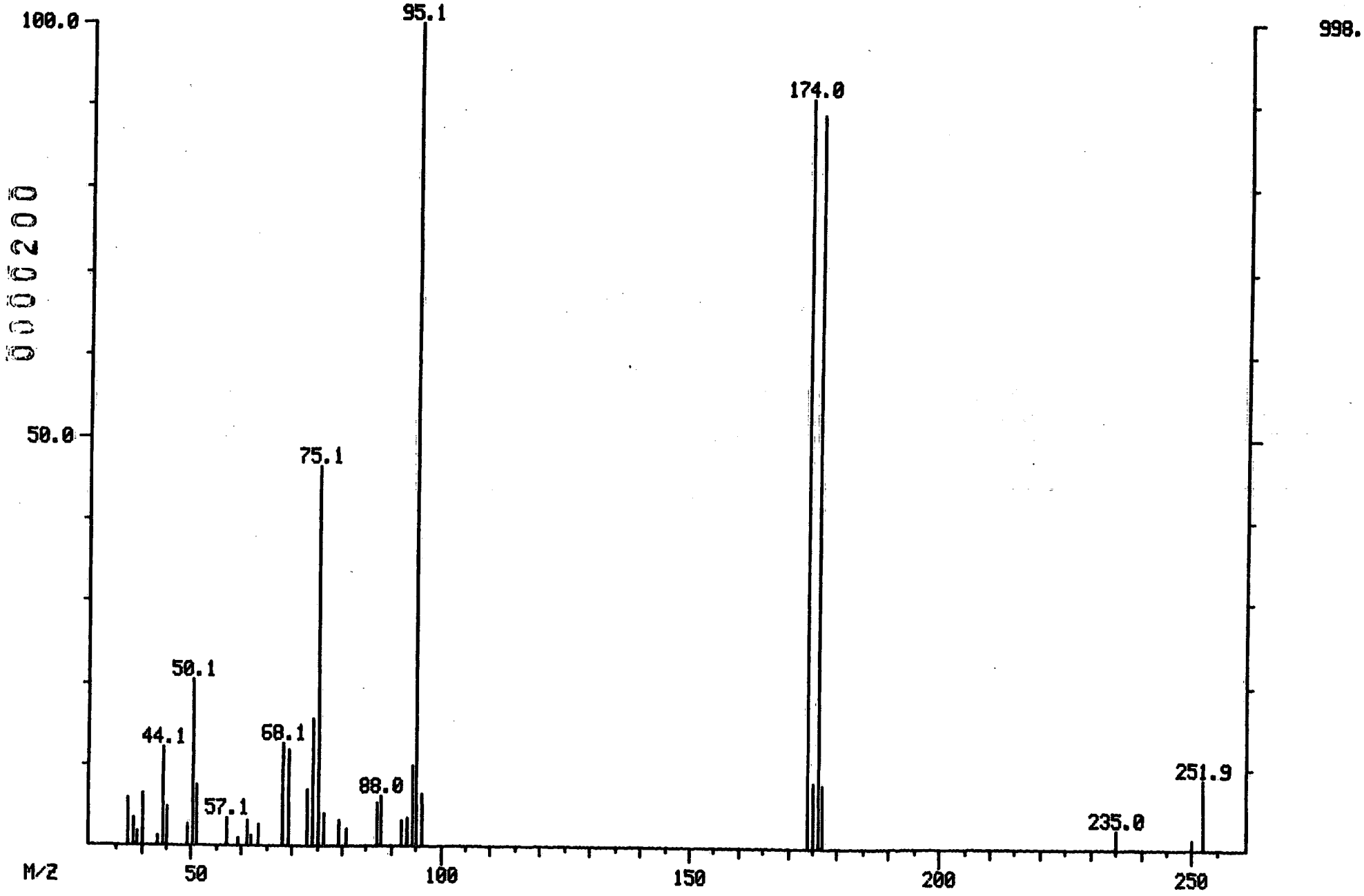
Base m/z: 95
RIC: 4064.

40	0.00	0.00	0.	Minima	Min inten: 0.
177			# 0	Maxima	
Mass	% RA	% RIC	Inten.		
40.04?	8.90	2.07	84.		
44.11?	15.04	3.49	142.		
49.02?	5.61	1.30	53.		
50.07?	20.02	4.65	189.		
68.07?	9.00	2.09	85.		
69.06	8.47	1.97	80.		
74.08	14.51	3.37	137.		
75.02	42.16	9.79	398.		
94.06	12.92	3.00	122.		
95.05	100.00	23.23	944.		
96.11	7.94	1.85	75.		
173.91	86.12	20.00	813.		
174.89	7.31	1.70	69.		
175.87	86.33	20.05	815.		
176.95	5.72	1.33	54.		

MASS SPECTRUM
12/30/91 10:44:00 + 8:00
SAMPLE: BFB 50NG TUNE
CONDS.: INST:1050W,BF,METHOD 1,COLUMN:1%-SP1000
GC TEMP: 208 DEG. C

DATA: W123002 #240
CALI: W123002 #2

BASE M/Z: 95
RIC: 5248.



000020

Mass List
12/30/91 10:44:00 + 8:00
Sample: BFB 50NG TUNE
Conds.: INST: 1050W, BF, METHOD 1, COLUMN: 1%-SP1000

Data: W123002 # 240 0 0 2 0 1
Cali: W123002 # 2

Base m/z: 95
RIC: 5248.

37	0.00	0.00	0.	Minima	Min inten: 0.
252			# 0	Maxima	
Mass	% RA	% RIC	Inten.		
37.09?	5.81	1.11	58.		
38.18?	3.61	0.69	36.		
39.09?	1.80	0.34	18.		
40.07?	6.51	1.24	65.		
43.32?	1.30	0.25	13.		
44.12?	12.22	2.32	122.		
45.15?	4.81	0.91	48.		
49.09?	2.71	0.51	27.		
50.12? M	20.44	3.89	204.		
51.07?	7.52	1.43	75.		
57.06? M	3.41	0.65	34.		
59.18?	1.10	0.21	11.		
61.01? M	3.11	0.59	31.		
61.94?	1.30	0.25	13.		
63.13? M	2.81	0.53	28.		
68.08?	12.63	2.40	126.		
69.06	11.72	2.23	117.		
73.07 M	7.11	1.35	71.		
74.09	15.53	2.95	155.		
75.08	46.49	8.84	464.		
76.17 M	4.11	0.78	41.		
79.05 M	3.21	0.61	32.		
80.94 M	2.10	0.40	21.		
87.11	5.31	1.01	53.		
88.04	6.11	1.16	61.		
91.94	3.11	0.59	31.		
93.04	3.41	0.65	34.		
94.09	9.92	1.89	99.		
95.09	100.00	19.02	998.		
96.16	6.41	1.22	64.		
173.95	90.98	17.30	908.		
174.97	8.02	1.52	80.		
175.95	88.88	16.90	887.		
176.98	7.82	1.49	78.		
234.98	2.30	0.44	23.		
249.87	1.40	0.27	14.		
251.87	8.62	1.64	86.		

1A

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

VBLK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 91LVW223-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: W122909

Level: (low/med) LOW

Date Received: 12/29/91

% Moisture: not dec. _____

Date Analyzed: 12/29/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
107-02-8	Acrolein	10	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 91LVW223-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: W122909

Level: (low/med) LOW

Date Received: 12/29/91

% Moisture: not dec. _____

Date Analyzed: 12/29/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

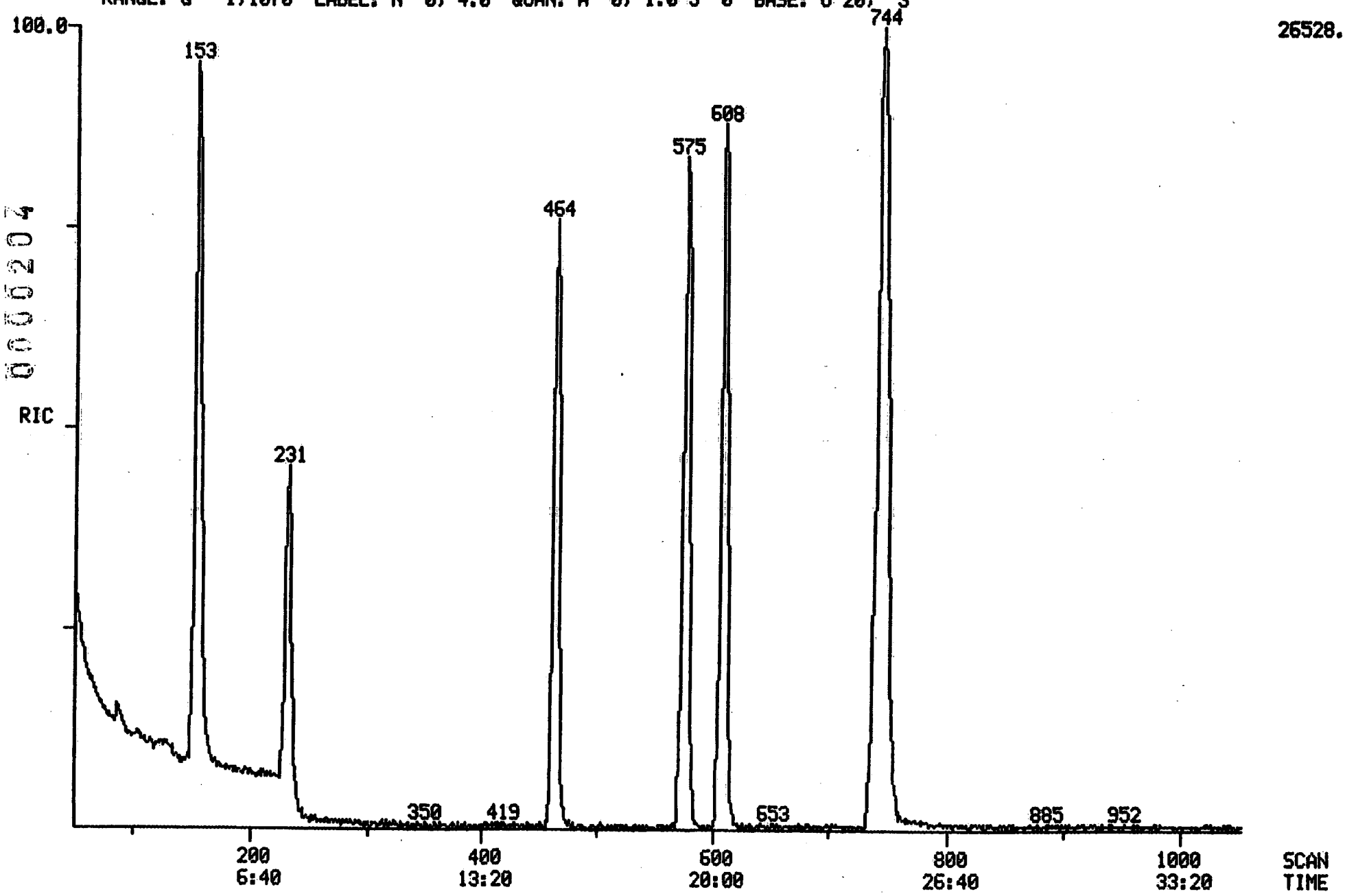
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

RIC
12/29/91 23:27:00
SAMPLE: 91LVW223-MB1 LOW WATER BLANK
CONDS.: INST:1050W COL:1%-SP1000
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: W122909 #1
CALI: W122909 #2

SCANS 50 TO 1050



0000204

Quantitation Report File: W122909 0000205

Data: W122909.TI
12/29/91 23:27:00
Sample: 91LVW223-MB1 LOW WATER BLANK
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.010
Submitted by: W122907 Analyst: SSQ Acct. No.: 122991

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	14H	2-BUTANONE	
19	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

0000208

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	153	5:06	1	1.000	A BB	17487.	50.000 UG/L	16.23
2	65	231	7:42	1	1.510	A BB	23094.	45.844 UG/L	14.88
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	84	87	2:54	1	0.569	A BB	675.	1.721 UG/L	0.56
8	43	103	3:26	1	0.673	A BB	372.	2.463 UG/L	0.80 NT
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	114	463	15:26	19	1.000	A BB	56708.	50.000 UG/L	16.23
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	117	608	20:16	33	1.000	A BB	48866.	50.000 UG/L	16.23
34	98	575	19:10	33	0.946	A BB	53702.	54.160 UG/L	17.58
35	95	744	24:48	33	1.224	A BB	51326.	54.118 UG/L	17.57
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								

XCS
4/13/92

Quantitation Report File: W122909 0000207

Data: W122909.TI
12/29/91 23:27:00
Sample: 91LVW223-MB1 LOW WATER BLANK
Conds.: INST:1050W COL:1%-SP1000
Formula: W122907 Instrument: 1050W Weight: 0.010
Submitted by: W122907 Analyst: SSQ Acct. No.: 122991

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

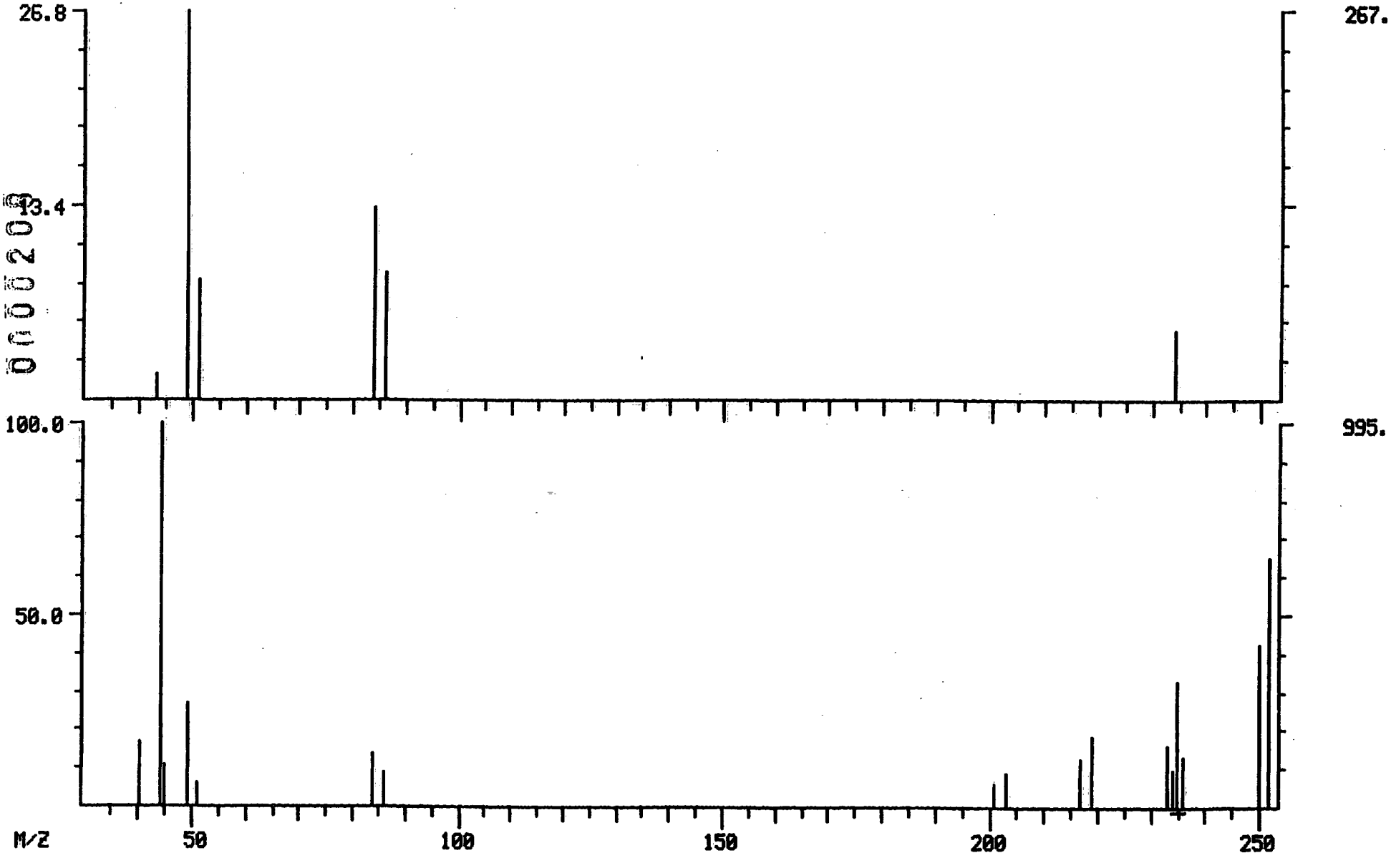
No	Name
51	T-BUTYL ALCOHOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								

DUAL MASS SPECTRUM
12/29/91 23:27:00 + 2:54
SAMPLE: 91LVW223-MB1 LOW WATER BLANK
CONDS.: INST:1050W COL:1%-SP1000
GC TEMP: 76 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: W122909 #87
CALI: W122909 #2

BASE M/Z: 49/ 44
RIC: 633./ 4051.

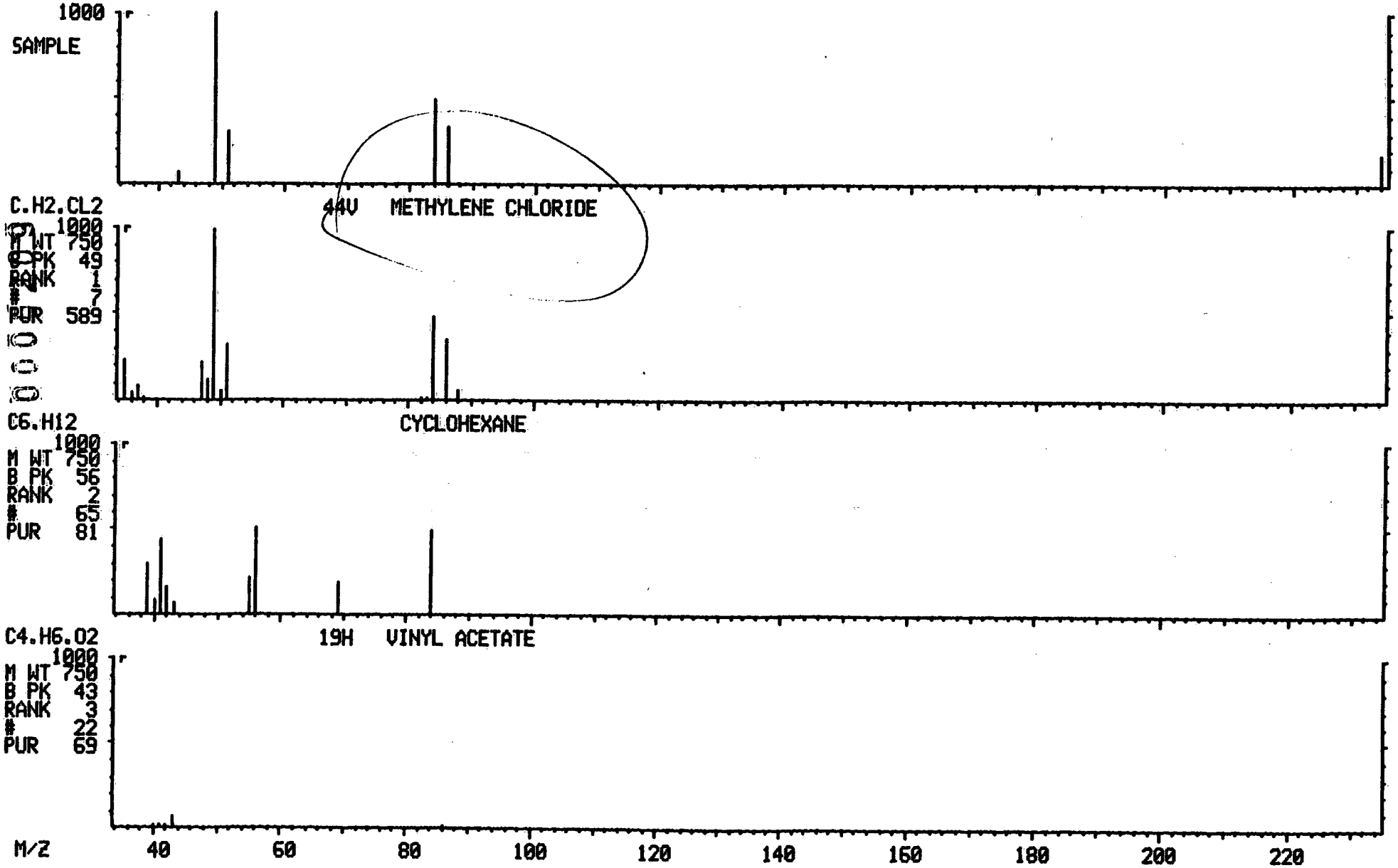


000020

LIBRARY SEARCH
12/29/91 23:27:00 + 2:54
SAMPLE: 91LVW223-MB1 LOW WATER BLANK
CONDS.: INST:1050W COL:1%-SP1000
ENHANCED (S 15B 2N 0T)

DATA: W122909 # 87
CALI: W122909 # 2

BASE M/Z: 49
RIC: 633.



1A

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

VBLK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 91LVW224-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: W123004

Level: (low/med) LOW

Date Received: 12/30/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
107-02-8	Acrolein	10	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 91LVW224-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: W123004

Level: (low/med) LOW

Date Received: 12/30/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) PACK

Dilution Factor: 1.00

Number TICs found: 0

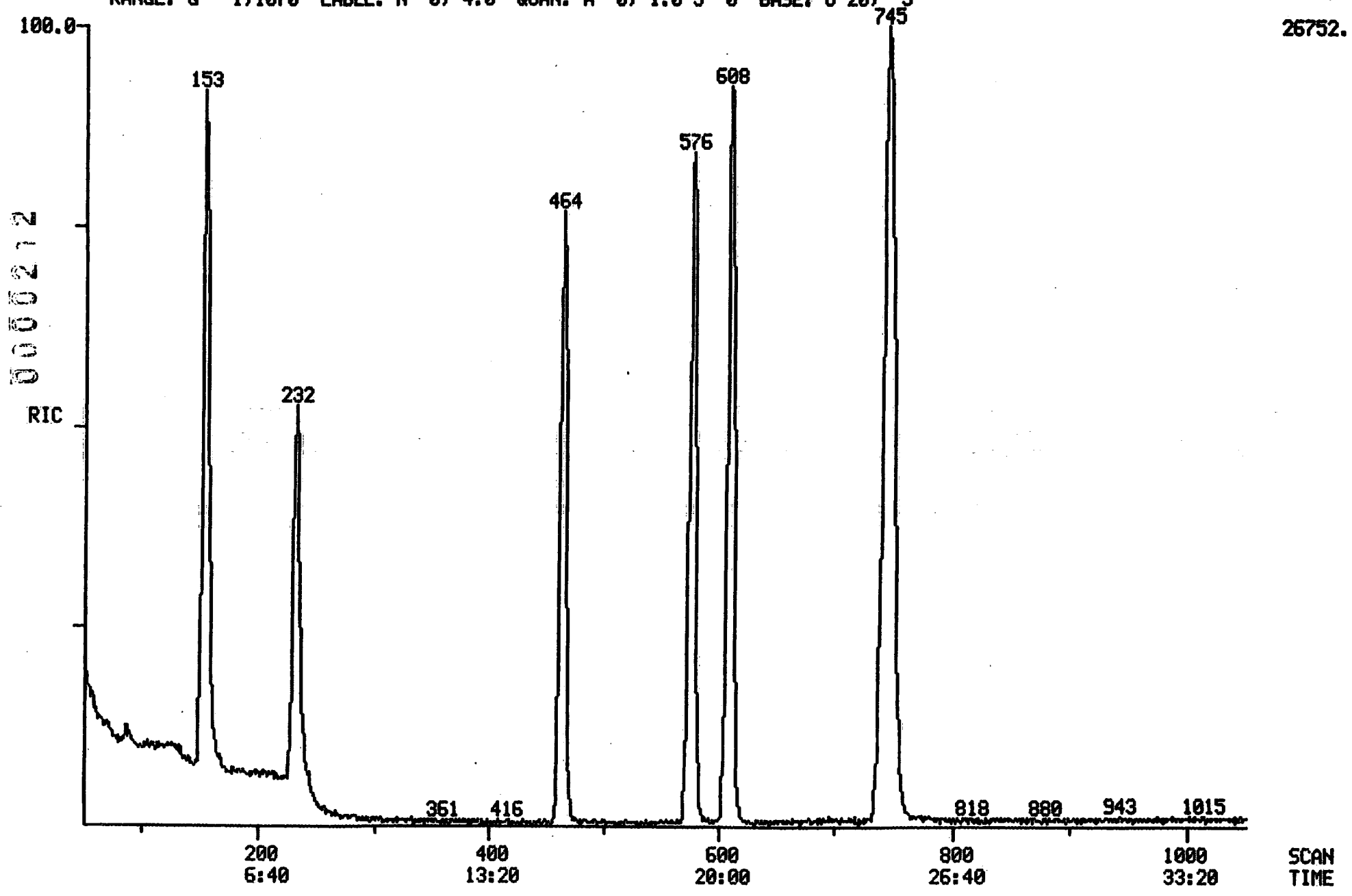
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

RIC
12/30/91 11:43:00
SAMPLE: 91LVW224-MB1 VOA BLANK
CONDS.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000
RANGE: G 1,1070 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: W123004 #1
CALI: W123004 #2

SCANS 50 TO 1050



Quantitation Report File: W123004 0000213

Data: W123004.TI
12/30/91 11:43:00
Sample: 91LVW224-MB1 VOA BLANK
Conds.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000
Formula: W123002 Instrument: 1050W Weight: 0.012
Submitted by: Analyst: AIS Acct. No.:

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

No	Name		
1	IS1	BROMOCHLOROMETHANE	INTERNAL STANDARD #1
2	SS1	1,2-DICHLOROETHANE D4	SURROGATE STANDARD#1
3	45V	CHLOROMETHANE	
4	46V	BROMOMETHANE	
5	88V	VINYL CHLORIDE	
6	16V	CHLOROETHANE	
7	44V	METHYLENE CHLORIDE	
8	13H	ACETONE	
9	21H	ACROLEIN	
10	15H	CARBON DISULFIDE	
11	24H	TRICHLOROFLUOROMETHANE	
12	22H	ACRYLONITRILE	
13	29V	1,1-DICHLOROETHYLENE	
14	13V	1,1-DICHLOROETHANE	
15		1,2-DICHLOROETHENE (TOTAL)	
16	23V	CHLOROFORM	
17	10V	1,2-DICHLOROETHANE	
18	14H	2-BUTANONE	
19	IS2	1,4-DIFLUOROBENZENE	INTERNAL STANDARD #2
20	11V	1,1,1-TRICHLOROETHANE	
21	6V	CARBON TETRACHLORIDE	
22	19H	VINYL ACETATE	
23	48V	BROMODICHLOROMETHANE	
24	32V	1,2-DICHLOROPROPANE	
25	33VC	CIS-1,3-DICHLOROPROPENE	
26		TRICHLOROETHYLENE	
27	51V	DIBROMOCHLOROMETHANE	
28	14V	1,1,2-TRICHLOROETHANE	
29	4V	BENZENE	
30	33VT	TRANS-1,3-DICHLOROPROPENE	
31		2-CHLOROETHYLVINYLETHER	
32	47V	BROMOFORM	
33	IS3	CHLOROBENZENE D5	INTERNAL STANDARD #3
34	SS2	TOLUENE D8	SURROGATE STANDARD #2
35	SS3	4-BROMOFLUOROBENZENE	SURROGATE STANDARD #3
36	17H	4-METHYL-2-PENTANONE	
37	16H	2-HEXANONE	
38	85V	TETRACHLOROETHYLENE	
39	15V	1,1,2,2-TETRACHLOROETHANE	
40	86V	TOLUENE	
41	7V	CHLOROBENZENE	
42	38V	ETHYLBENZENE	
43	18H	STYRENE	
44		XYLENES (TOTAL)	
45	26B	1,3-DICHLOROBENZENE	
46	25B	1,2-DICHLOROBENZENE	
47	27B	1,4-DICHLOROBENZENE	

No	Name
48	XYLENES
49	METHYL-T-BUTYLETHER
50	DIETHYLETHER

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	153	5:06	1	1.000	A BB	17416.	50.000 UG/L	16.13	
2	65	232	7:44	1	1.516	A BB	27869.	48.110 UG/L	15.52	
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	NOT FOUND									
7	84	87	2:54	1	0.569	A BB	327.	0.777 UG/L	0.25	
8	43	104	3:28	1	0.680	A BB	1264.	7.891 UG/L	2.55	NT
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									
19	114	464	15:28	19	1.000	A BB	55982.	50.000 UG/L	16.13	
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	117	609	20:18	33	1.000	A BB	50141.	50.000 UG/L	16.13	
34	98	576	19:12	33	0.946	A BB	53580.	50.852 UG/L	16.40	
35	95	745	24:50	33	1.223	A BB	53896.	52.554 UG/L	16.95	
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									

JBB
1/13

Quantitation Report File: W123004 0000215

Data: W123004.TI
12/30/91 11:43:00
Sample: 91LVW224-MB1 VOA BLANK
Conds.: INST:1050W,VO,METHOD 2,COLUMN:1%-SP1000
Formula: W123002 Instrument: 1050W Weight: 0.012
Submitted by: Analyst: AIS Acct. No.:

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

No	Name
51	T-BUTYL ALCOHOL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
51	NOT FOUND								

1A

VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

VBLK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 91LVK223-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: AKCU03

Level: (low/med) LOW

Date Received: 12/30/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	J
75-35-4	1,1-Dichloroethene	3	J
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
107-02-8	Acrolein	10	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 91LVK223-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: AKCU03

Level: (low/med) LOW

Date Received: 12/30/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

Column: (pack/cap) CAP

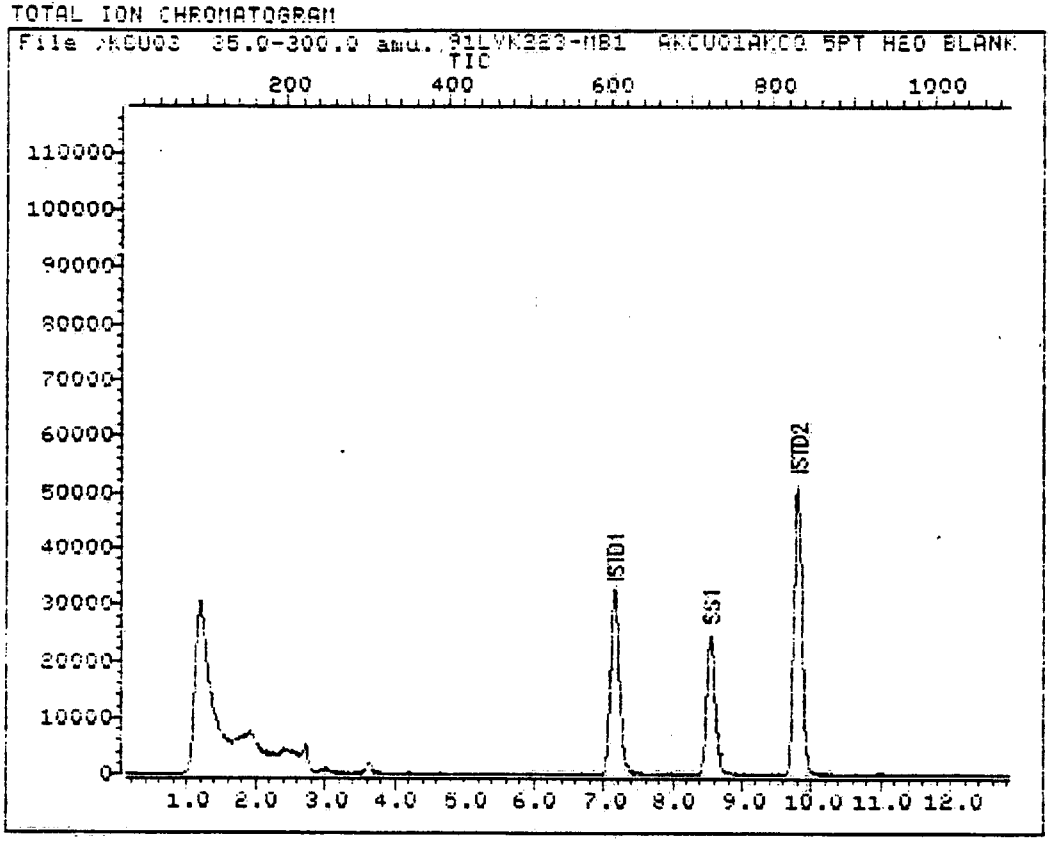
Dilution Factor: 1.00

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

TOTAL ION CHROMATOGRAM



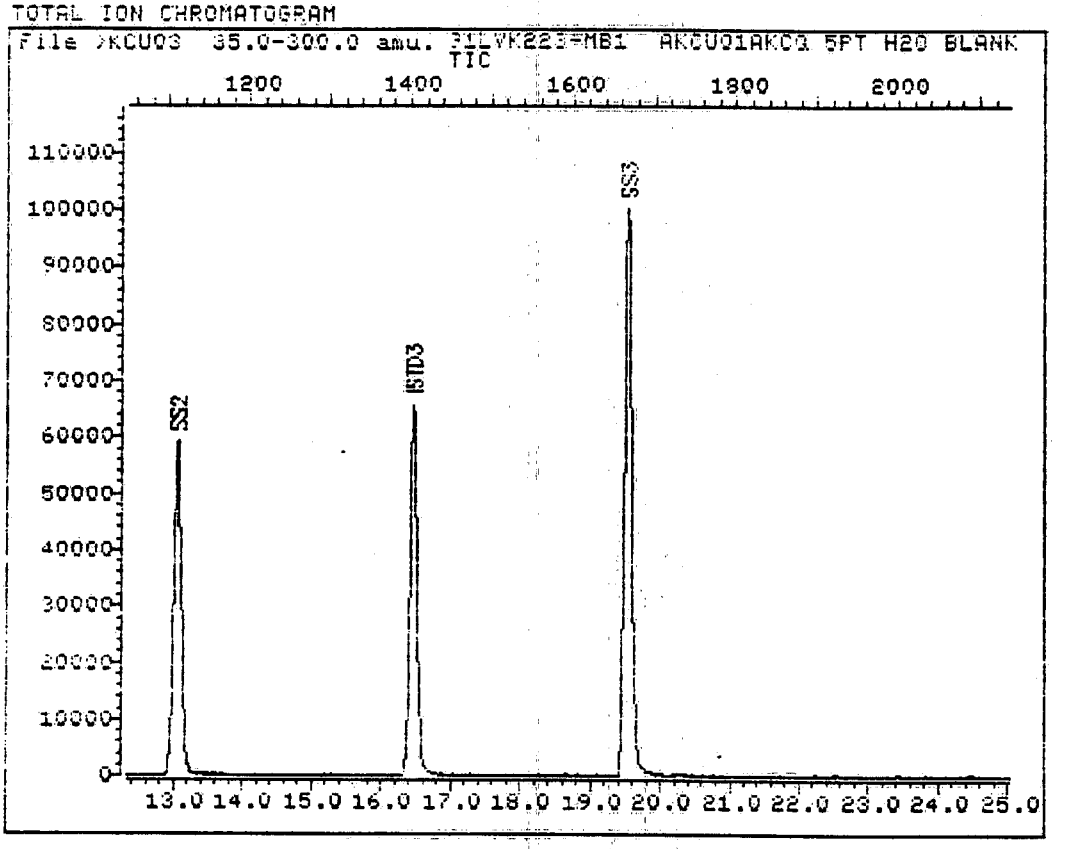
Data File: >KCU03::D2 Quant Output File: ^KCU03::QQ
Name: 91LVK223-MB1 AKCU01
Misc: AKCQ 5PT H2O BLANK #HP-MSD K BB

Id File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

Operator ID: BB
Quant Time: 911230 11:43
Injected at: 911230 11:14

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >KCU03::D2 Quant Output File: ^KCU03::QQ
Name: 91LVK223-MB1 AKCU01
Misc: AKCQ 5PT H2O BLANK #HP-MSD K BB

Id File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

Operator ID: BB
Quant Time: 911230 11:43
Injected at: 911230 11:14

TIC page 2 of 2

QUANT REPORT

Operator ID: BB
Output File: ^KCU03::QQ
Data File: >KCU03::D2
Name: 91LVK223-MB1 AKCU01
Misc: AKCQ 5PT H2O BLANK

Quant Rev: 6
Quant Time: 911230 11:43
Injected at: 911230 11:14
Dilution Factor: 1.00000

#HP-MSD K BB

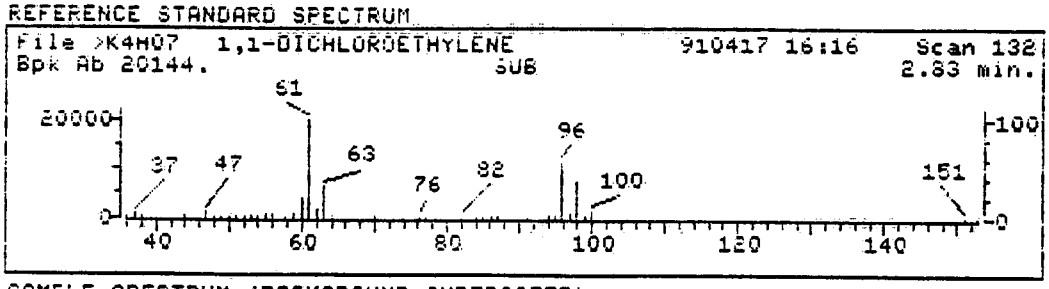
ID File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.17	128.0	39691	50.00	ug/L	80
8)	1,1-DICHLOROETHYLENE	2.73	96.0	3096	3.42	ug/L	93
11)	ACETONE	3.01	43.0	5203	20.77	ug/L	100
12)	METHYLENE CHLORIDE	3.62	84.0	3174	3.67	ug/L	77
24)	*1,4-DIFLUOROBENZENE	9.80	114.0	154251	50.00	ug/L	68
26)	1,2-DICHLOROETHANE D4	8.56	65.0	90175	48.24	ug/L	87
32)	*CHLOROBENZENE-D5	16.47	117.0	130819	50.00	ug/L	98
34)	TOLUENE D8	13.05	98.0	156255	50.05	ug/L	99
47)	BROMOFORM	18.67	173.0	479	.29	ug/L	77
48)	4-BROMOFLUOROBENZENE	19.54	95.0	149696	49.30	ug/L	94
52)	1,2-DICHLOROBENZENE	23.40	146.0	507	.24	ug/L	88

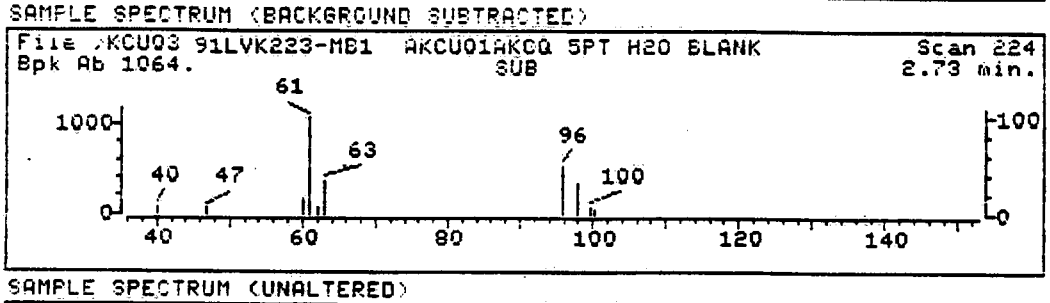
* Compound is ISTD

BB
12-30-91

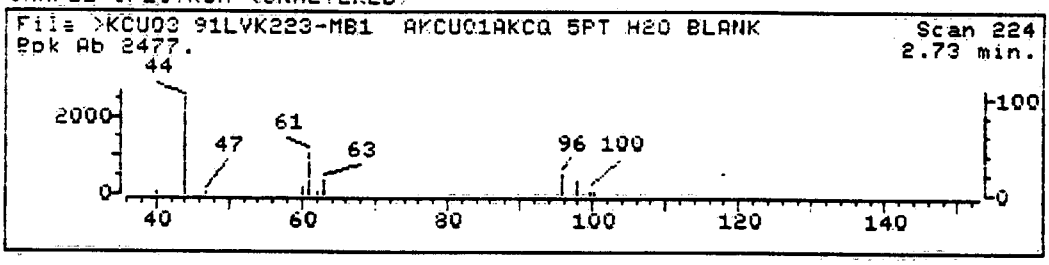
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

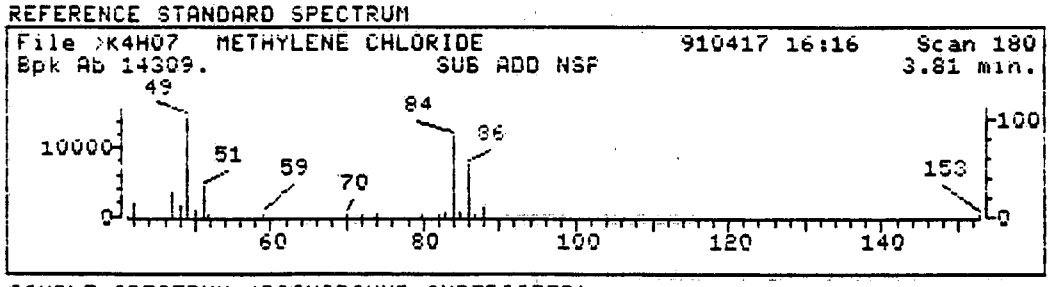


Data File: >KCU03::D2
Name: 91LVK223-MB1 AKCU01
Misc: AKCQ 5PT H2O BLANK
Quant Time: 911230 11:43
Injected at: 911230 11:14

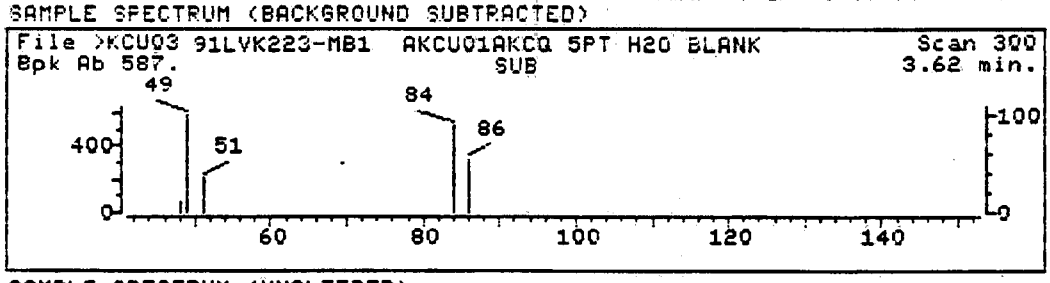
Quant Output File: ^KCU03::QQ
#HP-MSD K BB
Quant ID File: I_KCUA::QQ
Last Calibration: 911230 10:59

Compound No: 8
Compound Name: 1,1-DICHLOROETHYLENE
Scan Number: 224
Retention Time: 2.73 min.
Quant Ion: 96.0
Area: 3096
Concentration: 3.42 ug/L
q-value: 93

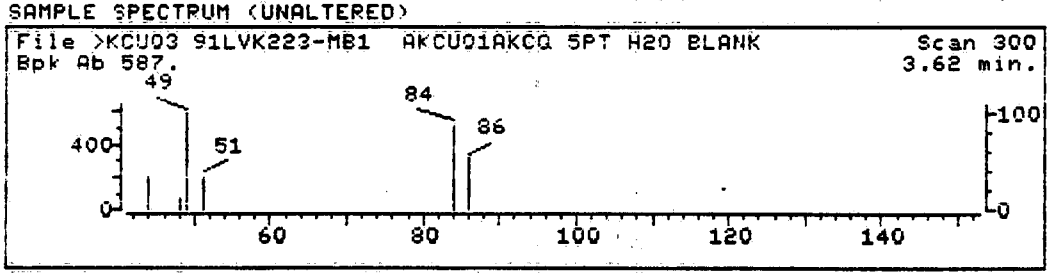
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >KCU03::D2
Name: 91LVK223-MB1 AKCU01
Misc: AKCQ 5PT H2O BLANK
Quant Time: 911230 11:43
Injected at: 911230 11:14

Quant Output File: ^KCU03::QQ
#HP-MSD K BB
Quant ID File: I_KCUA::QQ
Last Calibration: 911230 10:59

Compound No: 12
Compound Name: METHYLENE CHLORIDE
Scan Number: 300
Retention Time: 3.62 min.
Quant Ion: 84.0
Area: 3174
Concentration: 3.67 ug/L
q-value: 77

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

MW-5MS

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-004 MS

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: AKCU07

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

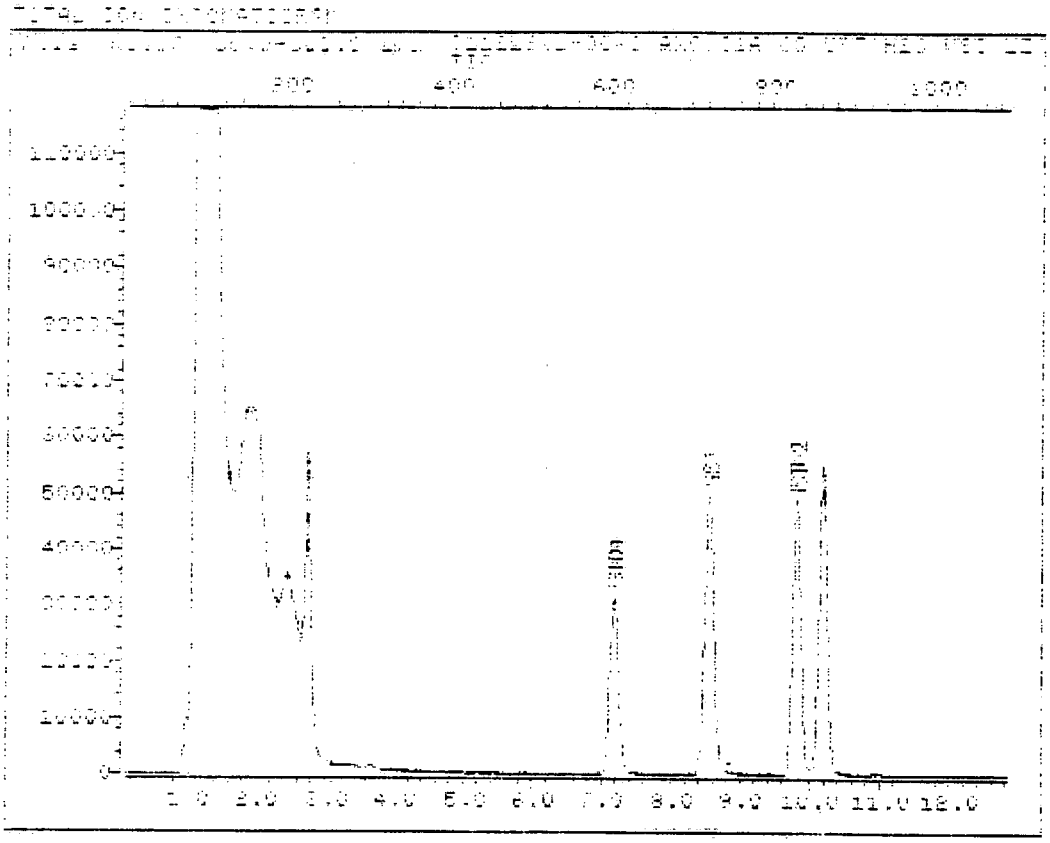
Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
75-35-4	1,1-Dichloroethene		S
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene		S
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene		S
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene		S
108-90-7	Chlorobenzene		S
100-41-4	Ethylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
107-02-8	Acrolein	10	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
1330-20-7	Xylene (total)	2	J

S: SPIKE COMPOUND

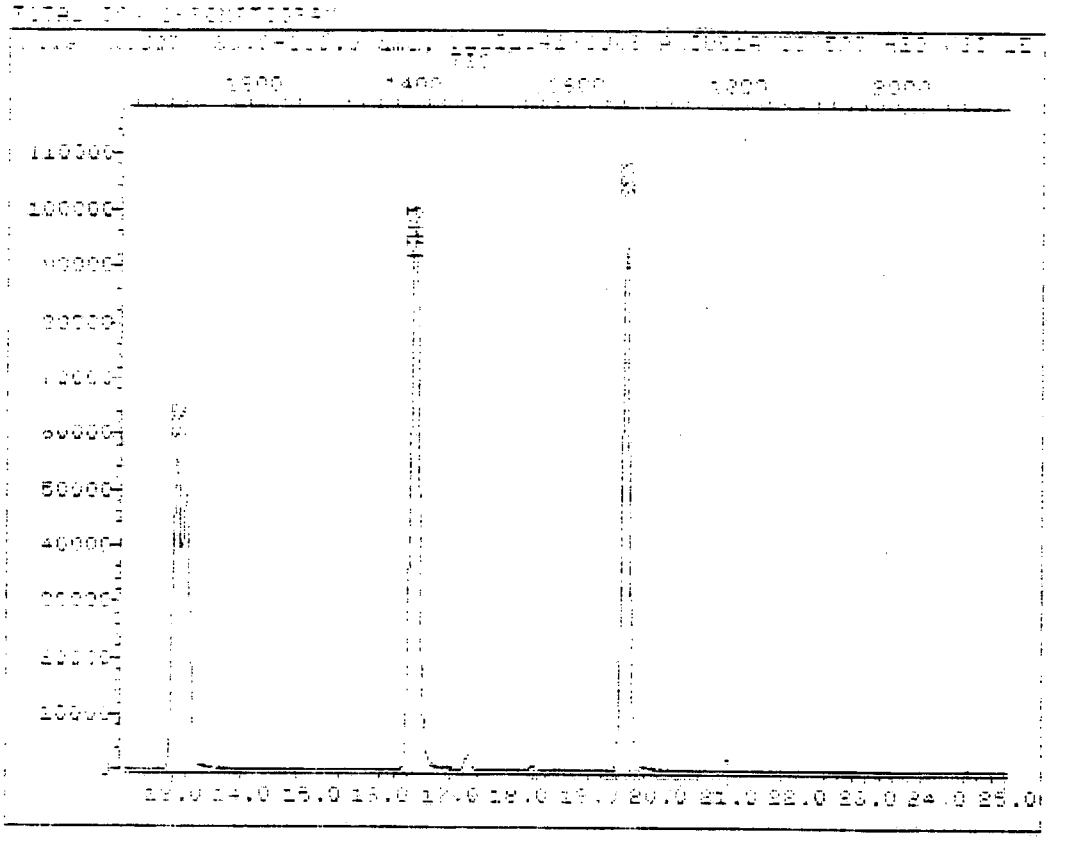


Data File: >KCU07::D2 Quant Output File: ^KCU07::QQ
Name: 9112L841-004S AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML MS #HP-MSD K BB

Id File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

Operator ID: BB
Quant Time: 911230 14:15
Injected at: 911230 13:46

TIC page 1 of 2



Data File: >KCU07::D2 Quant Output File: ^KCU07::QQ
Name: 9112L841-004S AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML MS #HP-MSD K BB

Id File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

Operator ID: BB
Quant Time: 911230 14:15
Injected at: 911230 13:46

TIC page 2 of 2

QUANT REPORT

Operator ID: BB Quant Rev: 6 Quant Time: 911230 14:15
Output File: ^KCU07::QQ Injected at: 911230 13:46
Data File: >KCU07::D2 Dilution Factor: 1.00000
Name: 9112L841-004S AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML MS #HP-MSD K BB

ID File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB=624)
Last Calibration: 911230 10:59

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.18	128.0	37738	50.00	ug/L	72
8)	1,1-DICHLOROETHYLENE	2.74	96.0	43904	50.96	ug/L	91
11)	ACETONE	3.00	43.0	2319M	9.74	ug/L	100
12)	METHYLENE CHLORIDE	3.64	84.0	470	.57	ug/L	90
24)	*1,4-DIFLUOROBENZENE	9.82	114.0	148713	50.00	ug/L	68
25)	BENZENE	8.53	78.0	100974	53.23	ug/L	88
26)	1,2-DICHLOROETHANE D4	8.56	65.0	86408	47.94	ug/L	85
28)	TRICHLOROETHYLENE	10.18	130.0	73009	56.08	ug/L	91
32)	*CHLOROBENZENE-D5	16.47	117.0	128615	50.00	ug/L	98
34)	TOLUENE D8	13.07	98.0	152176	49.58	ug/L	98
35)	TOLUENE	13.21	92.0	74276	54.58	ug/L	98
42)	CHLOROBENZENE	16.53	112.0	114559	54.55	ug/L	79
43)	ETHYLBENZENE	17.29	106.0	2540	2.87	ug/L	66
45)	XYLENE	17.29	106.0	2540	2.34	ug/L	93
46)	XYLENES (TOTAL)	18.22	106.0	733	.68	ug/L	73
48)	4-BROMOFLUOROBENZENE	19.53	95.0	143416	48.04	ug/L	97

* Compound is ISTD

BB
12-30-91

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

MW-5MSD

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-90-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9112L841-004 MSD

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: AKCU08

Level: (low/med) LOW

Date Received: 12/20/91

% Moisture: not dec. _____

Date Analyzed: 12/30/91

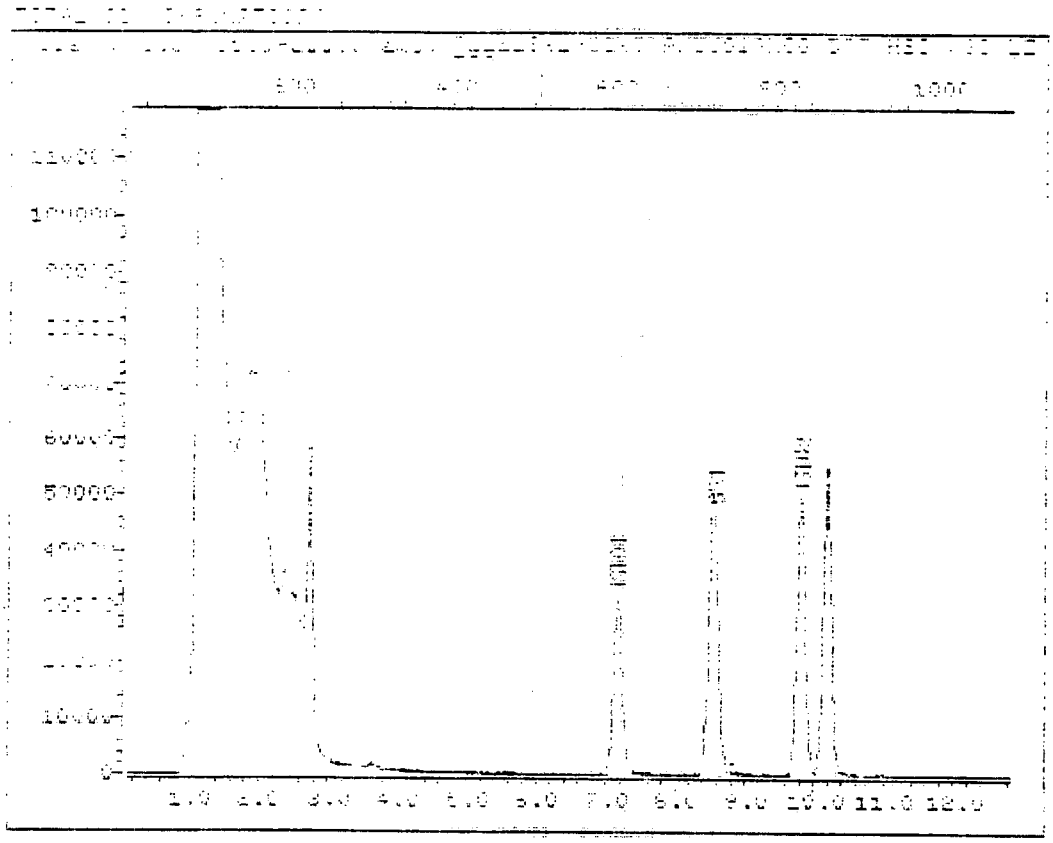
Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
75-35-4	1,1-Dichloroethene		S
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene		S
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene		S
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene		S
108-90-7	Chlorobenzene		S
100-41-4	Ethylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
107-02-8	Acrolein	10	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
1330-20-7	Xylene (total)	2	J

S: SPIKE COMPOUND

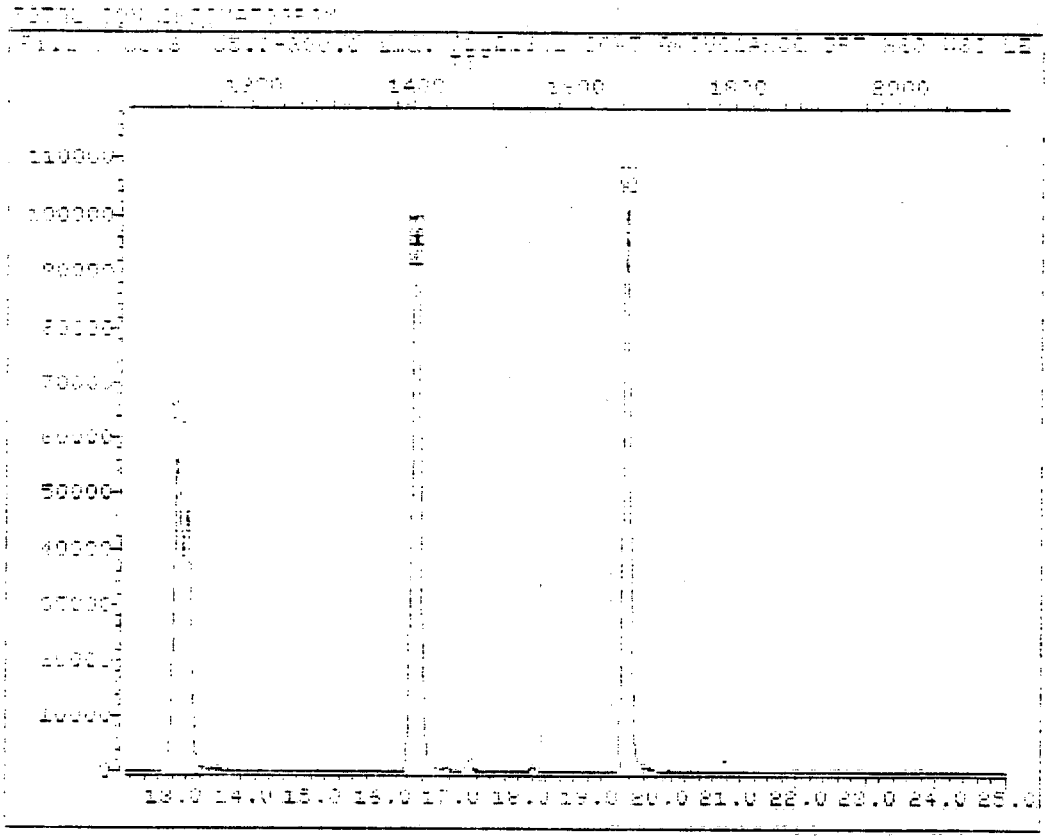


Data File: >KCU08::D2 Quant Output File: ^KCU08::QQ
Name: 9112L841-004T AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML MSD #HP-MSD K BB

Id File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

Operator ID: BB
Quant Time: 911230 14:49
Injected at: 911230 14:21

TIC page 1 of 2



Data File: >KCU08::D2 Quant Output File: ^KCU08::QQ
Name: 9112L841-004T AKCU01
Misc: AKCC 5PT H2O WSI LE CARPENTER 5ML MSD #HP-MSD K BB

Id File: I_KCUA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

Operator ID: BB
Quant Time: 911230 14:49
Injected at: 911230 14:21

TIC page 2 of 2

QUANT REPORT

Operator ID: BB Quant Rev: 6 Quant Time: 911230 14:49
Output File: ^KCU08::OQ Injected at: 911230 14:21
Data File: >KCU08::D2 Dilution Factor: 1.00000
Name: 9112L841-004T AKCU01
Misc: AKCQ 5PT H2O WSI LE CARPENTER 5ML MSD #HP-MSD K BB

ID File: I_KCUA::OQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 911230 10:59

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.17	128.0	37916	50.00	ug/L	74
8)	1,1-DICHLOROETHYLENE	2.76	96.0	42342	48.91	ug/L	94
11)	ACETONE	3.01	43.0	745	3.11	ug/L	100
12)	METHYLENE CHLORIDE	3.63	84.0	606	.73	ug/L	91
24)	*1,4-DIFLUOROBENZENE	9.80	114.0	150527	50.00	ug/L	69
25)	BENZENE	8.53	78.0	98792	51.45	ug/L	88
26)	1,2-DICHLOROETHANE D4	8.57	65.0	89817	49.23	ug/L	82
28)	TRICHLOROETHYLENE	10.18	130.0	71876	54.54	ug/L	94
32)	*CHLOROBENZENE-D5	16.47	117.0	128154	50.00	ug/L	97
34)	TOLUENE D8	13.07	98.0	153039	50.04	ug/L	95
35)	TOLUENE	13.21	92.0	73321	54.07	ug/L	99
42)	CHLOROBENZENE	16.53	112.0	111374	53.23	ug/L	77
43)	ETHYLBENZENE	17.26	106.0	2509	2.85	ug/L	77
45)	XYLENE	17.26	106.0	2509	2.32	ug/L	91
48)	4-BROMOFLUOROBENZENE	19.55	95.0	147004	49.42	ug/L	90

* Compound is ISTD

BB
12-30-91

WESTON

VI. Additional Documentation

A. Extraction Record

SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 12/30/91 Extraction Batch No: 91LVK223 Analyst: BB Method: N/A

Test: O624 Cleanup Date: Analyst: Client: BECHTEL-511

LIMS Report Date: 01/20/92 Solvent: Adsorbent:

Sample No:	Client Name / Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
9112L796-	BECHTEL-511										
001 H	WS0167	2.00	5	1.0		5		1.0	N		1.0
002 H	WS0168	2.00	5	1.0		5		1.0	N		1.0
9112L802-	USPS-OCEAN CITY										
001 P	MW-1	7.00	5	1.0		5		1.0	N		1.0
002 P	MW-1 DUP	7.00	5	1.0		5		1.0	N		1.0
003 P	MW-2	7.00	5	1.0		5		1.0	N		1.0
004 P	MW-3	7.00	5	1.0		5		1.0	N		1.0
9112L805-	USPS-MILLVILLE										
001 P	MW-1	7.00	5	1.0		5		1.0	N		1.0
002 P	MW-2	6.00	5	1.0		5		1.0	N		1.0
003 P	MW-3	6.00	5	1.0		5		1.0	N		1.0
004 P	FB-2	6.00	5	1.0		5		1.0	N		1.0
9112L841-	WSI-LE CARPENTER										
004 P	MW-5	6.00	5	1.0		5		1.0	N		1.0
004 PS	MW-5	6.00	5	1.0	1.0	5		1.0	N		1.0
004 PT	MW-5	6.00	5	1.0	1.0	5		1.0	N		1.0
005 P	TRIP BLANK	6.00	5	1.0		5		1.0	N		1.0
006 P	FIELD BLANK	6.00	5	1.0		5		1.0	N		1.0
9112L842-	M&E POPE AFB										
001 H	ACBN-1	6.00	5	1.0		5		1.0	N		1.0
002 HT	ACBS-1	6.00	5	1.0	1.0	5		1.0	N		1.0
91LVK223-MB1 H		7.00	5	1.0		5		1.0	N		1.0
91LVK223-MB1 P		7.00	5	1.0		5		1.0	N		1.0

Comments:
Surrogate:
Spike:

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer

000227

SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 12/30/91 Extraction Batch No: 91LVW224 Analyst: AS Method: N/A

Test: O624 Cleanup Date: Analyst: Client: WSI-LE CARPENTER

LIMS Report Date: 01/16/92 Solvent: Adsorbent:

Sample No:	Client Name Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
9112L841-	WSI-LE CARPENTER										
002 P	D1 MW-3	7.00	5	1.0		5		1.0	N		1.0
003 P	D1 MW-4	7.00	5	1.0		5		1.0	N		1.0
91LVW224-MB1 P		7.00	5	1.0		5		1.0	N		1.0

Comments:
Surrogate:
Spike:

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer

000028

SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 12/29/91 Extraction Batch No: 91LVW223 Analyst: AS Method: N/A

Test: O624 Cleanup Date: Analyst: Client: USPS-WOODBURY

LIMS Report Date: 01/16/92 Solvent: Adsorbent:

Sample No:	Client Name Client ID	pH	Initial WT/VOL	Surr. Mult.	Spike Mult.	Final VOL	Final VOL	Split Mult.	GPC Y/N	% Solids	C/D FACTOR
9112L804-	USPS-WOODBURY										
001 P	MW-1	7.00	5	1.0		5		1.0	N		1.0
002 P	MW-2	7.00	5	1.0		5		1.0	N		1.0
003 P	FB-1	7.00	5	1.0		5		1.0	N		1.0
9112L841-	WSI-LE CARPENTER										
001 P	MW-2	7.00	5	1.0		5		1.0	N		1.0
002 P	MW-3	7.00	5	1.0		5		1.0	N		1.0
003 P	MW-4	7.00	5	1.0		5		1.0	N		1.0
91LVW223-MB1 P		7.00	5	1.0		5		1.0	N		1.0

Comments:
Surrogate:
Spike:

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer

000529

WESTON

END OF DATA PACKAGE

APPENDIX 4

WELL LOGS FOR MW-2, MW-3, RW-2 AND RW-3

WEHRAN ENGINEERING
CONSULTING ENGINEERS

TEST BORING LOG

BORING No. W-2

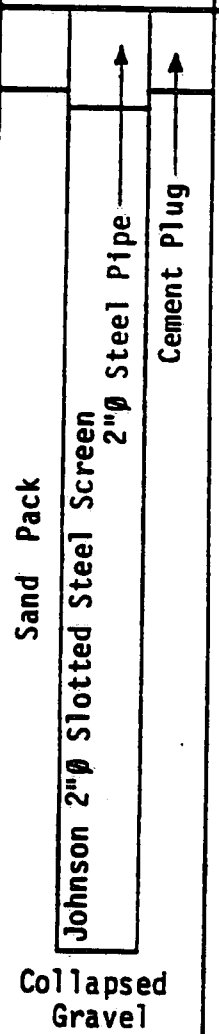
PROJECT Hydrogeologic Investigation
CLIENT L. E. Carpenter and Company, Wharton, N. J.
BORING CONTRACTOR H P Drilling, Inc.

SHEET No. 1 of 1
JOB No. 02369080
ELEVATION 95.56
DATUM site
DATE START 5/12/80
DATE FINISHED 5/14/80
DRILLER Bob Harrison
INSPECTOR RCM

GROUND WATER

DATE	TIME	DEPTH	CASING	TYPE	CAS.	SAMP.	CORE	TUBE
					flush	ss		
				DIA.	4"Ø	2"		
				WT.	300 lb	140 lb.		
				FALL	30"	30"		

DEPTH FEET	SAMPLE No.	TYPE	BLOWS PER FOOT	DEPTH	CLASSIFICATION	WELL CONSTRUCTION	TEST RESULTS
0	1	ss	21		FILL 4" brown cf SAND, little (-) Silt, changing to 6" black Clayey SILT, little (-) f Sand, trace (-) m Gravel, moist 5'0"		S. U. = 40.5"
5	2	ss	44		GLACIAL OUTWASH Dark grey SILT & CLAY, trace f Sand, wet, with small (1/16 to 1/8") green zones		Moderate chemical @ 5'
10	3	ss	20		@ 10' changing to grey c SAND some (+) fm Gravel, trace Silt, frequent Boulders, saturated		Heavy chemical odo @ 10'
15	4	ss	68		@ 15' grading to fm Gravel, some (-) cf Sand, trace (-) Silt, occasional Cobbles and/or Boulders		
20					Boulder from 20 to 22'		
25	5	ss	25		@ 25' grading to grey cf GRAVEL, little (+) cf Sand		
30	6	ss	76		32'0"		
35					End of Boring		
40							
45							



FIGURE

WEHRAN ENGINEERING
CONSULTING ENGINEERS

TEST BORING LOG

BORING No. W-3

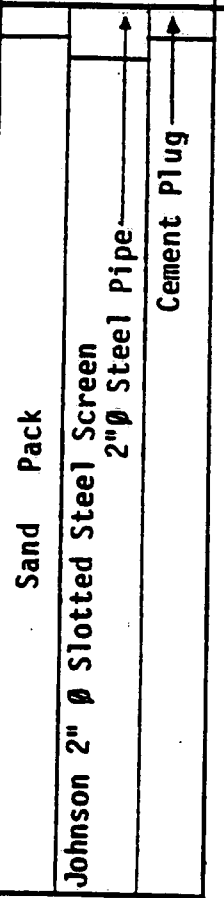
PROJECT Hydrogeologic Investigation
CLIENT L. E. Carpenter and Company, Wharton, N. J.
BORING CONTRACTOR H P Drilling, Inc.

SHEET No. 1 **of** 1
JOB No. 02369080
ELEVATION 94.52
DATUM site
DATE START 5/15/80
DATE FINISHED 5/19/80
DRILLER Bob Harrison
INSPECTOR RCM

GROUND WATER

DATE	TIME	DEPTH	CASING	TYPE	CAS.	SAMP.	CORE	TUBE
					flush	ss		
				DIA.	4"Ø	2"		
				WT.	300 lb	140 lb		
				FALL	30"	30"		

DEPTH FEET	SAMPLE No.	TYPE	BLOWS PER FOOT	DEPTH	CLASSIFICATION	WELL CONSTRUCTION	TEST RESULTS
0	1	ss	70/6"		TOPSOIL - FILL Brown cf SAND, some (-) Silt little (-) m Gravel, dry, some organic material 5'0"		S.U. = 45.0"
5	2	ss	2		GLACIAL OUTWASH Black to dark brown CLAY & SILT, little (+) cf Sand, occasional Gravel or Cobble, wet to saturated		
10	3	ss	92		@ 10' changing to grey cf SAND & mf GRAVEL, little (+) Silt, occasional Cobble and/or Boulder, saturated		Heavy chemical odor @ 10'
15	4	ss	100/3"		@ 15' grading to grey cf GRAVEL, little cf Sand, occasional Cobble and/or Boulder		
20	5	ss	42				
25					27'0"		
30					End of Boring		
35							
40							
45							



FIGURE

MONITOR WELL INSTALLATION

Client: L. E. CARPENTER Job No: 3600-05-67 Date Drilled: 6/22/91 Well No: RW-2

Site: WHARTON, NJ Elevation: Pad 629.80 Top of Steel Casing: 631.68

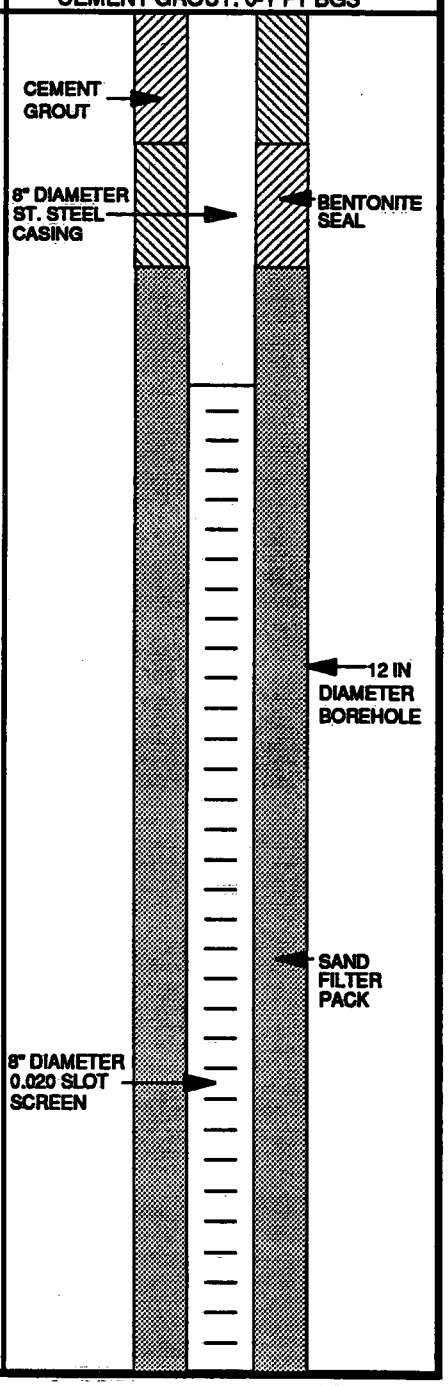
Total Depth: 30 FT BGS Casing Size & Type: 8" ST. STEEL Screen Size: 0.020

Comments: Well installed using air rotary with 12" diameter temporary drive casing.
Level C protection.

Depth	Blow Count	Sample Description
	35	ASPHALT
	12	
1		GRAY, CLAY RICH SILT
	7	25% RECOVERY
	6	
2		25% RECOVERY
	14	GRAY, CLAY RICH SILT
	12	
3		25% RECOVERY
	14	GRAY, CLAY RICH SILT
	16	
4		
	14	
	12	BLACK STAINED SANDY GRAVEL
5		WATER AT 4 FT.
	14	HNU ON SPOON = 10 PPM.
	16	
6		
	11	
	7	BLACK STAINED COARSE GRAVEL
7		HNU = 5 - 10 PPM ON SPOON
	7	SHEEN IN WATER - OILY
	7	
8		
	27	
	38	
9		BLACK STAINED COARSE SANDY GRAVEL
	30	HNU ON SPOON = 5 - 10 PPM
	4	
10		GRAY, COARSE GRAINED GRAVEL

Completion Data

SCREEN: 3-30 FT BGS
SAND FILTER PACK: 2-30 FT BGS
BENTONITE SEAL: 1-2 FT BGS
CEMENT GROUT: 0-1 FT BGS



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MONITOR WELL INSTALLATION

Client: L. E. CARPENTER Job No: 3600-05-67 Date Drilled: 6/22/91 Well No: RW-2

Site: WHARTON, NJ Elevation: Pad 629.89 Top of Steel Casing: 631.68

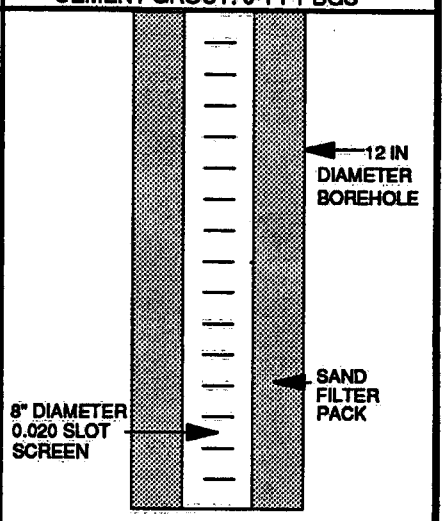
Total Depth: 30 FT BGS Casing Size & Type: 8" ST. STEEL Screen Size: 0.020

Comments: Well installed using air rotary with 12" diameter temporary drive casing.
Level C protection.

Depth	Blow Count	Sample Description
		SPLIT SPOON COLLECTED AT 5 FT. INTERVALS FROM 15 FT. TO 28 FT. BGS
15		GRAY, COARSE GRAINED GRAVEL. HNU IN BREATHING ZONE = 10 - 15 PPM.
20		A/A
25		A/A
30		

Completion Data

SCREEN: 3-30 FT BGS
SAND FILTER PACK: 2-30 FT BGS
BENTONITE SEAL: 1-2 FT BGS
CEMENT GROUT: 0-1 FT BGS



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MONITOR WELL INSTALLATION

Client: L. E. CARPENTER Job No: 3600-05-67 Date Drilled: 6/21/91 Well No: RW-3

Site: WHARTON, NJ Elevation: Pad 629.89 Top of Steel Casing: 631.99

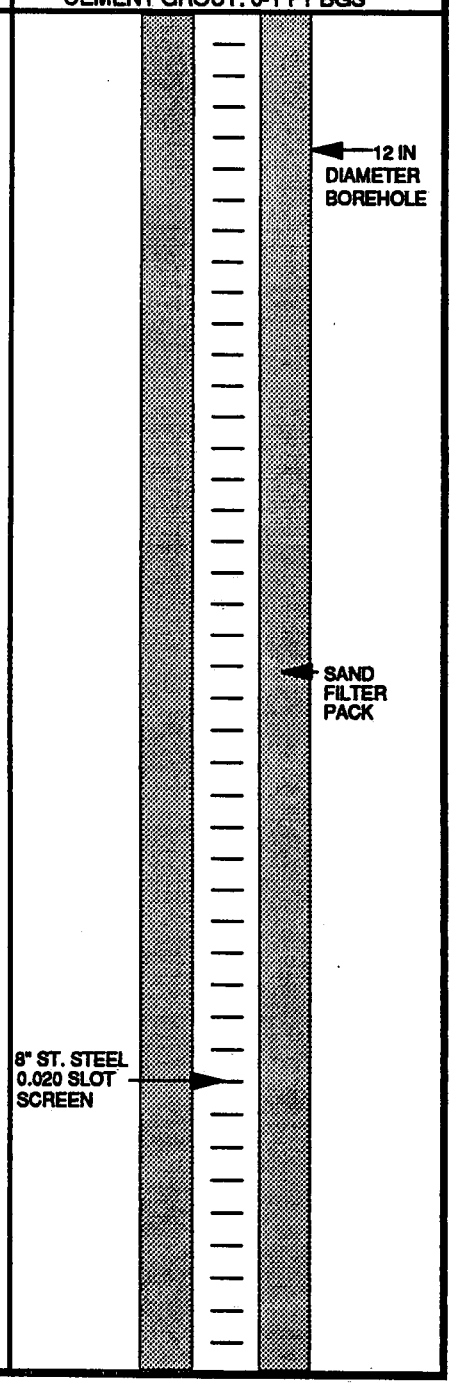
Total Depth: 28 FT BGS Casing Size & Type: 8" ST. STEEL Screen Size: 0.020

Comments: Split spoons driven continuously to 16 ft. in level D protection. HNu breathing zone = 0 ppm. Borehole advanced using air rotary, level C protection.

Depth	Blow Count	Sample Description
	9	
	24	75% RECOVERY. GRAY SANDY GRAVEL HNU ON SPOON = 200 PPM
11	17	
	18	
12	18	
	38	75% RECOVERY. GRAY COARSE GRAINED SANDY GRAVEL HNU ON SPOON = 200 PPM
13	29	
	20	
14	34	
	21	75% RECOVERY. GRAY COARSE GRAINED SANDY GRAVEL HNU ON SPOON = 40 PPM
15	22	
	31	
16		A/A
		NO SPLIT SPOONS COLLECTED BELOW 16 FT. BGS, DUE TO SAMPLE WASHOUT. ALL DESCRIPTIONS ARE FROM DRILL CUTTINGS.
17		
18		
19		
20		

Completion Data

SCREEN: 3-28 FT BGS
SAND FILTER PACK: 2-28 FT BGS
BENTONITE SEAL: 1-2 FT BGS
CEMENT GROUT: 0-1 FT BGS



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MONITOR WELL INSTALLATION

Client: L. E. CARPENTER Job No: 3600-05-67 Date Drilled: 6/21/91 Well No: RW-3

Site: WHARTON, NJ Elevation: Pad 629.89 Top of Steel Casing: 631.99

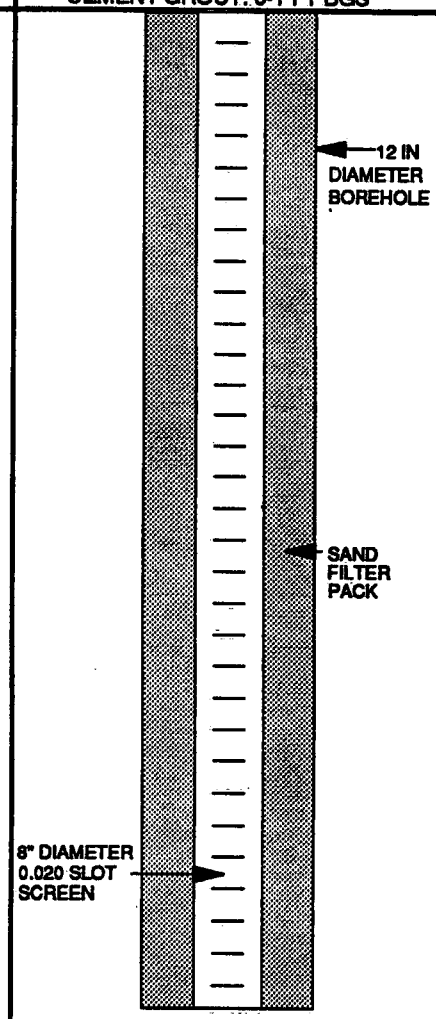
Total Depth: 28 FT BGS Casing Size & Type: 8" ST. STEEL Screen Size: 0.020

Comments: Split spoons driven continuously to 16 ft. in level D protection. HNu breathing zone = 0 ppm. Borehole advanced using air rotary, level C protection.

Depth	Blow Count	Sample Description
		NO SPLIT SPOON DESCRIPTIONS TAKEN FROM BOTTOM OF CASING CUTTINGS
21		GRAY COARSE GRAINED GRAVEL MANY ROUNDED PEBBLES AND COBBLES
22		
23		
24		
25		
26		
27		
28		A/A

Completion Data

SCREEN: 3-28 FT BGS
SAND FILTER PACK: 2-28 FT BGS
BENTONITE SEAL: 1-2 FT BGS
CEMENT GROUT: 0-1 FT BGS



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MONITOR WELL INSTALLATION

Client: L. E. CARPENTER Job No: 3600-05-67 Date Drilled: 6/21/91 Well No: RW-3

Site: WHARTON, NJ Elevation: Pad 629.89 Top of Steel Casing: 631.99

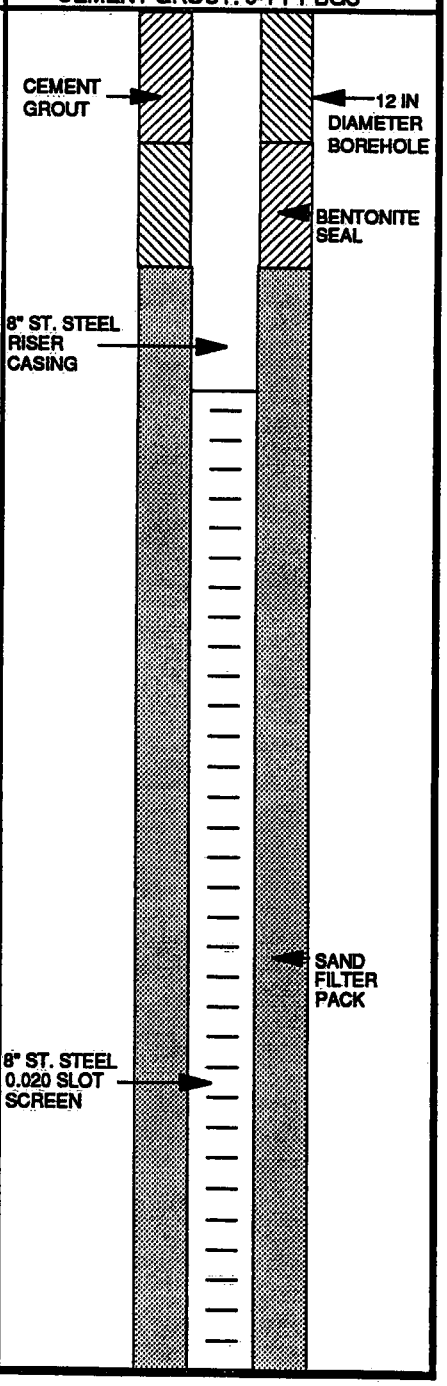
Total Depth: 28 FT BGS Casing Size & Type: 8" ST. STEEL Screen Size: 0.020

Comments: Split spoons driven continuously to 16 ft. in level D protection. HNu breathing zone = 0 ppm. Borehole advanced using air rotary, level C protection, HNu = 50 ppm in breathing zone.

Depth	Blow Count	Sample Description
	7	
	64	
1	14	10% RECOVERY. SILTY TOPSOIL.
	4	
2	4	
	8	10% RECOVERY. SILTY CLAY. SOME PEEBLES IN CLAY MATRIX HNU ON SPOON = 50 PPM
3	9	
	4	
4	4	
	8	50% RECOVERY. GRAY STIFF CLAY. HNU ON SPOON = 500 PPM WATER AT 4.5 FT. HNU IN AIR = 50 PPM.
5	10	
	16	
6	18	
	15	25% RECOVERY. GRAY SILTY CLAY SOME PEEBLES IN CLAY MATRIX HNU ON SPOON = 100 PPM HNU IN AIR = 200 PPM.
7	17	
	9	
8	5	GRAY STIFF CLAY
	4	GRAY SANDY GRAVEL
9	6	25% RECOVERY, HNU ON SPOON = 25 PPM HNU IN AIR = 75 PPM.
	24	
10		

Completion Data

SCREEN: 3-28 FT BGS
SAND FILTER PACK: 2-28 FT BGS
BENTONITE SEAL: 1-2 FT BGS
CEMENT GROUT: 0-1 FT BGS



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