L.E. CARPENTER QUARTERLY REPORT

SUMMARY OF GROUNDWATER ELEVATIONS AND OBSERVATIONS

Included in this report are summaries of groundwater elevations and product thicknesses for the months of May and July of 1991 for the L.E. Carpenter facility in Wharton, NJ. Due to a miscommunication between a previous subcontractor, Aquifer Systems, Inc., and Weston Services, Inc. (WSI), and to the plethora of other activities which took place at the site during the month of June, water level data was not collected for that month. However, the general groundwater flow patterns exhibited for the months of May and July are similar to patterns presented in previous quarterly reports and no substantial deviation from that pattern is suspected for the month of June.

Groundwater, surface water and product thickness data for May and July of 1991 are presented in Tables 1 and 2, respectively and are displayed graphically in Figures 1 through 6. Water level data from wells which featured free floating product were not used in the contouring shown in Figures 1 and 2 because the presence of floating product tends to depress the water table, causing in spurious results. The data sets presented in Tables 1 and 2 deviate slightly from previous data sets in several aspects. First quarter 1991 data and the data set for May 13, 1991 (see Table 1) include a surface water elevation measured at the infiltration gallery. The infiltration gallery was found to be dry during the water level measurement activities which took place on July 17, 1991 (see Table 2). Therefore, the water level at this location could not be measured. First quarter 1991 shallow zone equipotential maps show a significant groundwater mound at this location. The shallow zone equipotential map and for May 13, 1991 presented in Figure 1 shows a similar pattern. This mound does not show up on the July 17, 1991 (see Figure 2) shallow zone equipotential map because the water level could not be measured at this location.

Access problems prohibited the acquisition of water level data at GEI-2S, GEI-2I, MW-13S and MW-13I for the May 13, 1991 data set (see Table 1). Similar problems were encountered for GEI-1I, GEI-2S, GEI-2I, GEI-3I and the production well during the July 17, 1991 data acquisition activities (see Table 2). A comparison of the shallow and deep aquifer zone equipotential maps presented here (see Figures 1 through 4) with similar maps from the first quarter 1991 report reveals that the general equipotential patterns are very similar. Therefore, these missing data points did not have a significant impact the overall equipotential pattern. All access issues have been resolved and this should not be a problem for future quarterly reports.

The data set for July 17, 1991 was acquired subsequent to the completion of the Enhanced Immiscible Product Recovery System (EIPRS) field activities. These activities included the installation of three recovery wells; RW-1, RW-2 and RW-3; and three monitoring wells; MW-19, MW-20 and MW-21. The surveyed locations of these wells are presented in Figure 2 and the associated water level measurements are listed in Table 2. This data set includes water level measurements from these new wells and additional water level elevations measured along the drainage channel at surveyed locations DC-P1 through DC-P5.

The equipotential maps presented in Figures 1 through 6 reveal groundwater elevation patterns which are similar to those presented in previous quarterly reports. The general direction of

346112

groundwater flow in the intermediate aquifer zone is from west to east across the site (see Figures 3 and 4). Figures 5 and 6 show that the head elevations in the deep aquifer zone are higher in the eastern portion of the site. This pattern is related to the distinct upward vertical gradient and the resulting artesian conditions which are observed in this area.

The equipotential patterns shown in Figures 1 and 2 indicate that general direction of groundwater flow in the shallow aquifer zone is from west to east across the property. The local direction of groundwater flow in the vicinity of MW-13S on the Air Products property and RW-2, RW-3, MW-2, MW-3 and MW-14S on the L.E. Carpenter and the Wharton Enterprises property is toward the drainage channel. This information, if viewed in the context of the analytical data from the **Revised Remedial Investigation Report** showing that MW-13S and MW-13I are relatively free of contamination, indicates that the drainage channel appears to be a significant shallow aquifer zone interceptor prohibiting the contaminant plumes from extending onto the Air Products property.

Table 1. Summary of water level data collected on May 13, 1991, L.E. Carpenter Site, Wharton, NJ.

LOCATION	MEASURING PT. ELEVATION (FT MSL)	DEPTH TO PRODUCT (FT)	DEPTH TO WATER (FT)	WATER LEVEL ELEVATION (FT MSL)	THICKNESS OF PRODUCT
MW-001	639.18	12.41	13.58	625.60	1.17
MW-002	633.57		7.50	626.07	
MW-003	632.56	6.33	8.00	624.56	1.67
MW-004	632.50		6.17	626.33	
MW-005	632.42		5.75	626.67	
MW-006	632.00	6.17	7.00	625.00	0.83
MW-007	630.68		5.06	625.62	
MW-008	628.79		2.80	625.99	
MW-009	630.18		3.86	626.32	
MW-010	629.96	6.75	7.08	622.88	0.33
MW-11S	632.96	0.32	6.50	626.46	6.18
MW-11I	632.82		6.56	626.26	
MW-11D	632.42		3.09	629.33	
MW-12S	633.18	6.79	7.00	626.18	0.21
MW-12I	633.06		6.73	626.33	
MW-13S	631.23		NO ACCESS	NO ACCESS	
MW-13I	630.66		NO ACCESS	NO ACCESS	
MN-14S	628.51		2.86	625.65	
MW-14I	628.23		2.44	625.79	
MW-14D	628.53		ARTESIAN	ARTESIAN	
MW-15S	636.77		10.21	626.56	
MW-15I	636.66		10.08	626.58	
MW-16S	634.47		7.31	627.16	
MW-16I	634.96		7.72	627.24	
MW-17S	634.74		7.81	626.93	
MW-17D	634.86		7.90	626.96	
MW-18S	631.26		5.43	625.83	
MW-18I	631.04		4.85	626.19	
MW-18D	630.77		2.12	628.65	
Production Well	635.41		8.76	626.65	
GEI-1I	630.78		4.5	626.28	
GEI-2S	637.27		NO ACCESS	NO ACCESS	
GEI-2I	638.2		NO ACCESS	NO ACCESS	
GEI-3I	639.85		12.33	627.52	

Table 1 continued.

SURFACE WATER ELEVATIONS

LOCATION	FORESHOT READING	BACKSHOT READING	ELEVATION
BM-2			633.57
I-1		1.2	634.77
DC-PO	12.02		622.75
INF. GAL.	7.09		627.68
RP-2	10.2		624.57
BM-3			626.47
I-2		3.58	630.05
RP-3	5.48		618.03
BM-1			629.85
I-3		5.5	635.35
RP-1	7.76		627.59

FILE: WL591

TABLE 2. DEPTH TO WATER, WATER LEVEL ELEVATION AND PRODUCT THICKNESS DATA, MEASURED ON JULY 17, 1991, L.E. CARPENTER SITE, WHARTON, NJ.

LOCATION	MEASURING PT. ELEVATION (FT MSL)	DEPTH TO PRODUCT (FT)	DEPTH TO WATER (FT)	WATER LEVEL ELEVATION (FT MSL)	THICKNESS OF PRODUCT
MW-001	639.18	14.2	14.50	624.68	0.30
MW-002	633.57		9.20	624.37	0.00
MW-003	632.56	8.05	8.45	624.11	0.40
MW-004	632.50		8.10	624.40	0.00
MW-005	632.42		7.51	624.91	0.00
MW-006	632.00	7.46	7.47	624.53	0.01
MW-007	630.68		6.70	623.98	0.00
MW-008	628.79		3.96	624.83	0.00
MW-009	630.18		5.50	624.68	0.00
MW-010	629.96	5.72	6.64	623.32	0.92
MW-11S	632.96	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT	ALL PRODUCT
MW-11I	632.82		8.42	624.40	0.00
MW-11D	632.42		5.50	626.92	0.00
MW-12S	633.18	7.8	7.98	625.20	0.18
MW-12I	633.06		8.65	624.41	0.00
MW-13S	631.23		7.00	624.23	0.00
MW-13I	630.66		6.51	624.15	0.00
MN-14S	628.51		4.50	624.01	0.00
MW-14I	628.23		4.18	624.05	0.00
MW-14D	628.53		1.76	626.77	0.00
MW-15S	636.77		12.10	624.67	0.00
MW-15I	636.66		11.96	624.70	0.00
MW-16S	634.47		9.34	625.13	0.00
MW-16I	634.96		9.75	625.21	0.00
MW-17S	634.74		9.92	624.82	0.00
MW-17D	634.86		9.98	624.88	0.00
MW-18S	631.26		SPURIOUS DATA	SPURIOUS DATA	SPURIOUS DATA
MW-18I	631.04		6.38	624.66	0.00
MW-18D	630.77		4.58	626.19	0.00
MW-19	638.88		13.38	625.50	0.00
MW-20	636.77		11.58	625.19	0.00
MW-21	628.80		4.98	623.82	0.00
RW-1	637.38	12.66	12.68	624.70	0.02
RW-2	631.68	7.69	7.70	623.98	0.01
RW-3	631.99	7.53	7.56	624.43	0.03
GEI-1I	630.78		NO ACCESS	NO ACCESS	NO ACCESS
GEI-2S	637.27		NO ACCESS	NO ACCESS	NO ACCESS
GEI-2I	637.27		NO ACCESS	NO ACCESS	NO ACCESS
GEI-3I	639.85		NO ACCESS	NO ACCESS	NO ACCESS

TABLE 2 CONTINUED.

SURFACE WATER ELEVATIONS

LOCATION	FORESHOT READING	BACKSHOT READING	ELEVATION
BM-MW13S*			628.34
I-1		4.32	632.66
DC-P2	9.27		623.39
DC-P1	9.28		623.38
DC-P0	9.35		623.31
DC-P3	9.42		623.24
DC-P4	9.45		623.21
DC-P5	9.79		622.87
BM-1**			629.85
RP-1	3.7		626.15
BM-MW4***			632.31
I-2		0.88	633.19
RP-2	8.26		624.93
BM-3****			626.49
I-3		4.47	630.96
RP-3	7.02		623.94

* Ground surface at MW-13S was used as the bench mark for shooting in drainage channel points DC-P1. through DC-P5.

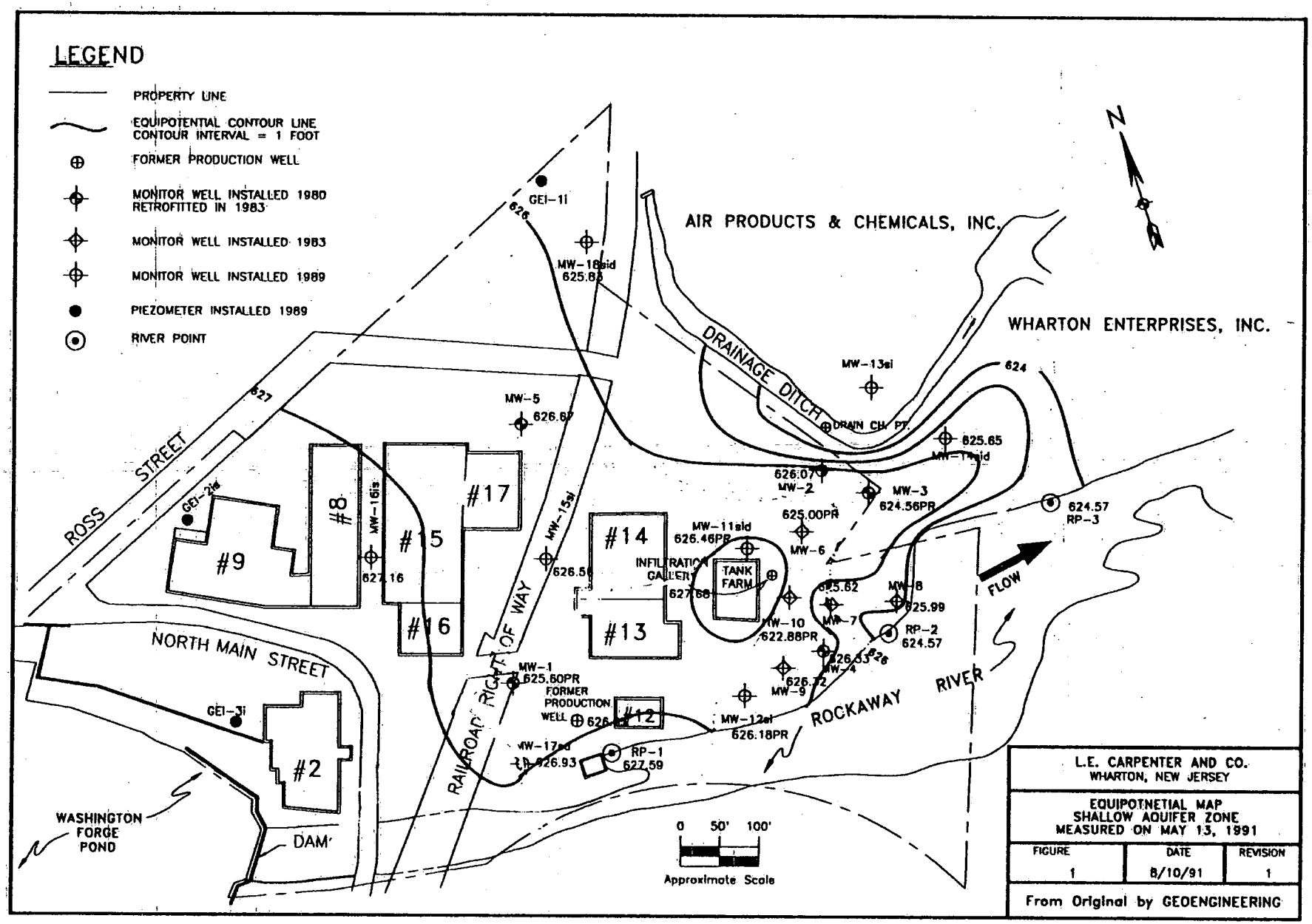
** BM-1 is located on the top of the concrete wall which lines the river in the vicinity of Building 12.

*** The top of the internal casing in MW-4 was used as the bench mark in the vicinity of RP-2.

**** BM-3 is marked by a steel bolt which is driven into a pin oak tree in the vicinity of RP-3. The pin oak tree is marked by a red flag.

SPURIOUS DATA - Aquisition of accurate measruements in MW-18S was not possible due to partial blockage of the well casing by algal growth.

FILE: WL791

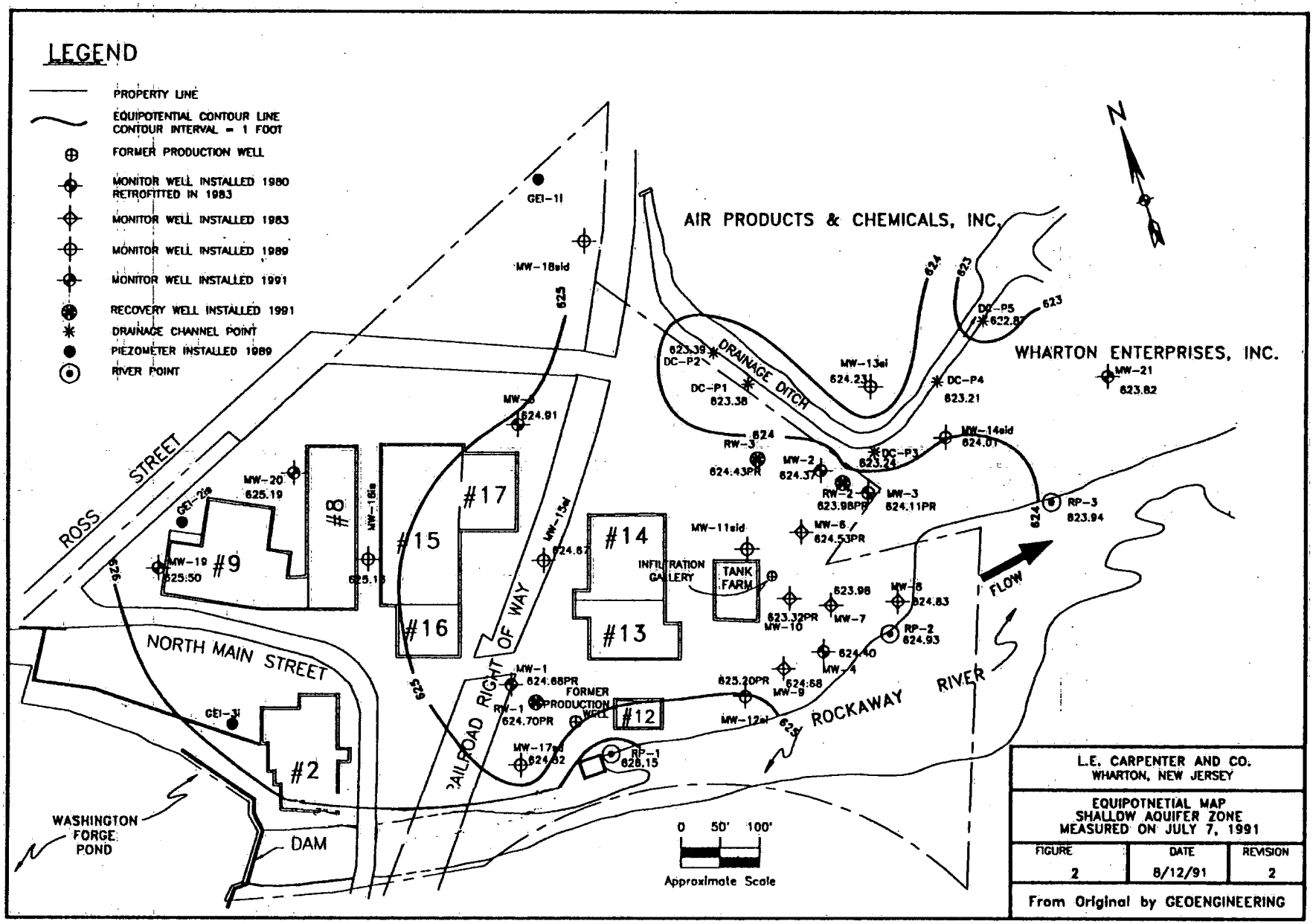


L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY

EQUIPOTNETIAL MAP
SHALLOW AQUIFER ZONE
MEASURED ON MAY 13, 1991

FIGURE	DATE	REVISION
1	8/10/91	1

From Original by GEOENGINEERING

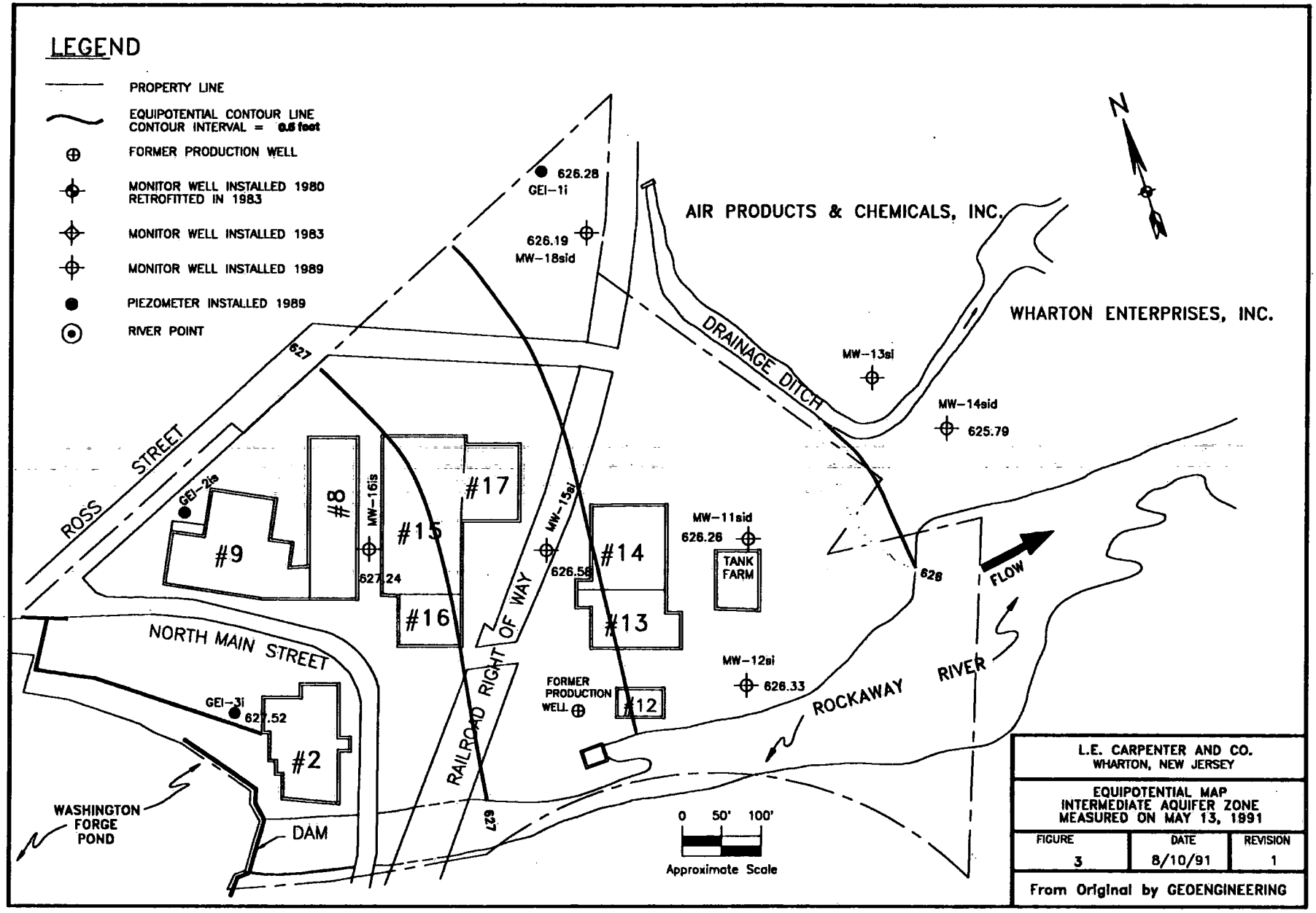


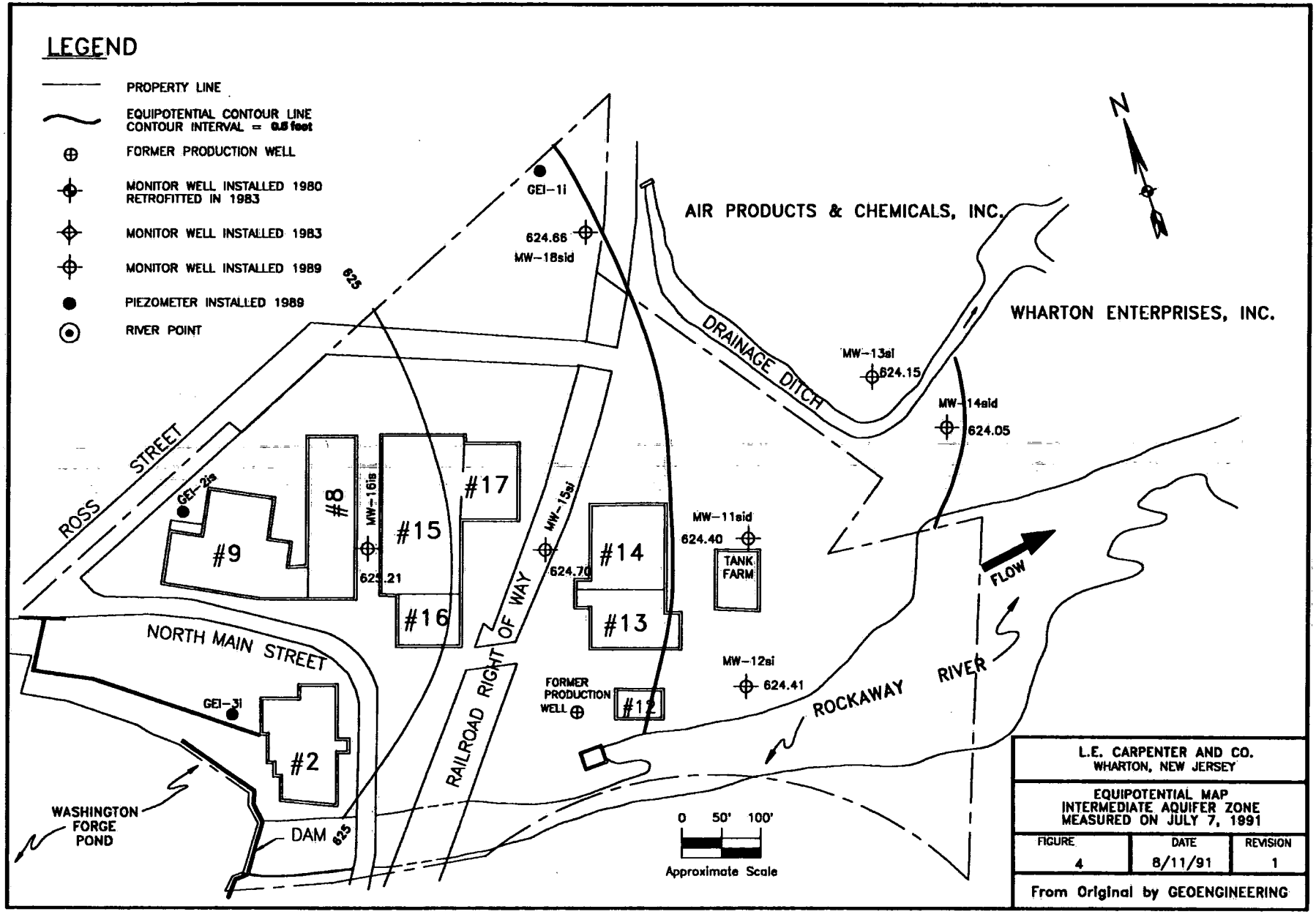
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY

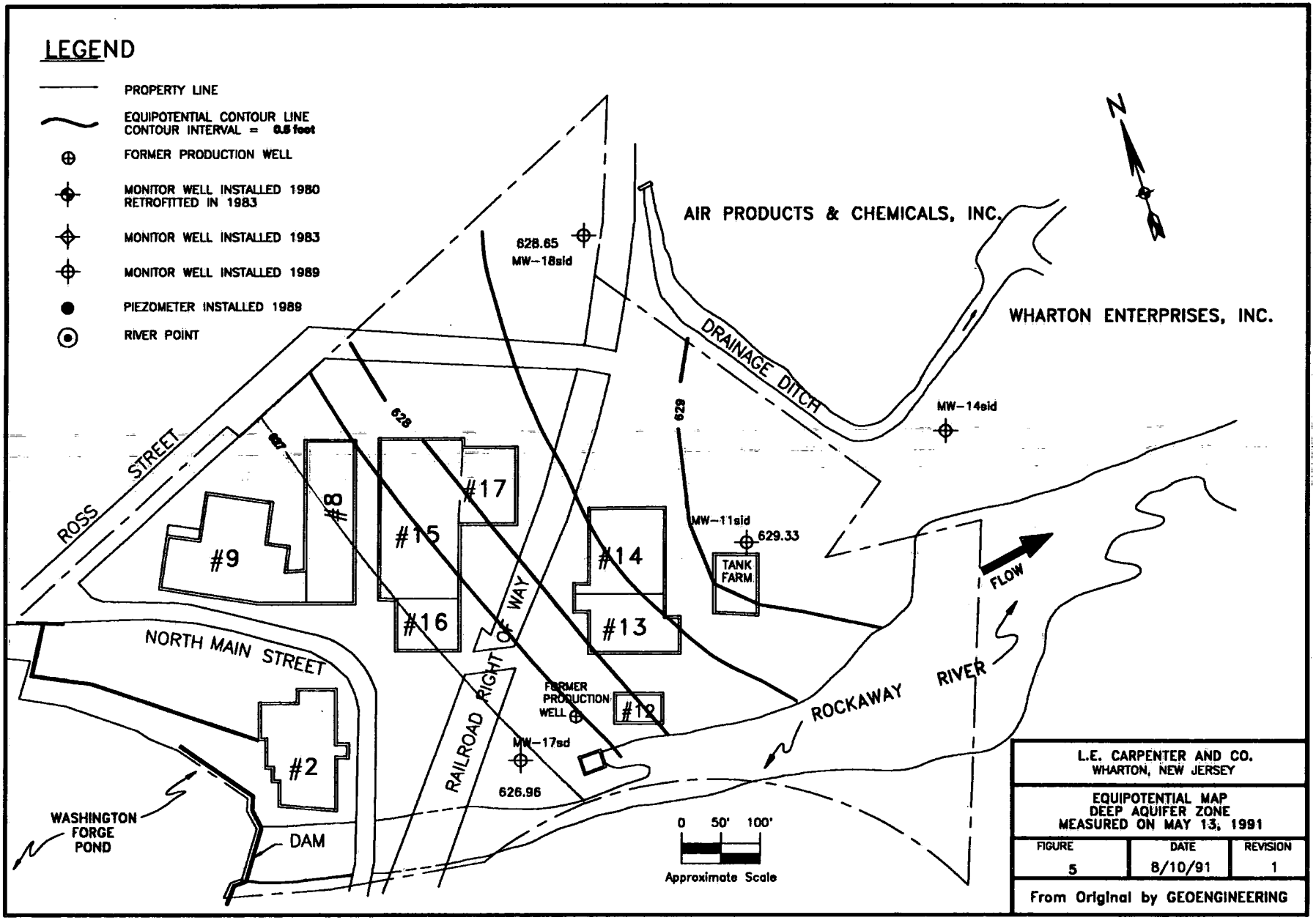
EQUIPOTNETIAL MAP
SHALLOW AQUIFER ZONE
MEASURED ON JULY 7, 1991

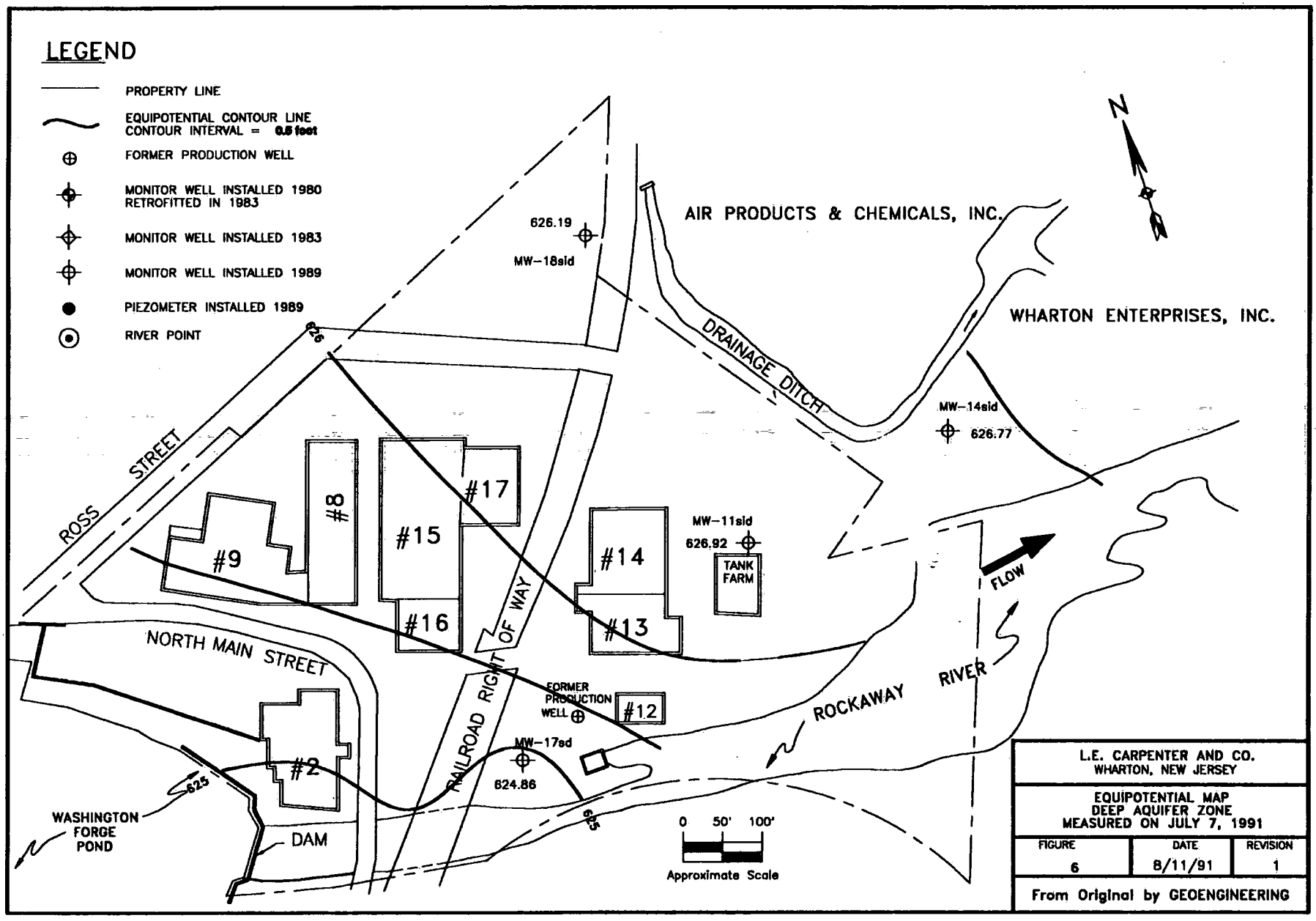
FIGURE	DATE	REVISION
2	8/12/91	2

From Original by GEOENGINEERING


LEGEND
PROPERTY LINE
EQUIPOTENTIAL CONTOUR LINE
CONTOUR INTERVAL = 0.5 feet
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980
RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
PIEZOMETER INSTALLED 1989
RIVER POINT
N
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
626.28
GEI-1i
626.19
MW-18sid
DRAINAGE DITCH
MW-13si
MW-14sid
625.79
627
ROSS STREET
GEI-2is
#9
#8
MW-16is
#15
#17
627.24
#16
MW-15si
626.58
#14
#13
MW-11sid
626.26
TANK FARM
628
FLOW
NORTH MAIN STREET
GEI-3i
627.52
#2
RAILROAD RIGHT OF WAY
FORMER PRODUCTION WELL
#12
MW-12si
626.33
ROCKAWAY RIVER
WASHINGTON FORGE POND
DAM
627
0 50' 100'
Approximate Scale
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP
INTERMEDIATE AQUIFER ZONE
MEASURED ON MAY 13, 1991
FIGURE 3
DATE 8/10/91
REVISION 1
From Original by GEOENGINEERING


LEGEND
PROPERTY LINE
EQUIPOTENTIAL CONTOUR LINE
CONTOUR INTERVAL = 0.5 feet
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980
RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
PIEZOMETER INSTALLED 1989
RIVER POINT
N
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
GEI-1i
624.66
MW-18sid
625
DRAINAGE DITCH
MW-13si
624.15
MW-14sid
624.05
ROSS STREET
GEI-2s
#9
#8
MW-16is
625.21
#15
#17
MW-15si
624.70
#14
#13
#16
MW-11sid
624.40
TANK FARM
FLOW
NORTH MAIN STREET
GEI-3i
#2
RAILROAD RIGHT OF WAY
FORMER PRODUCTION WELL
#12
MW-12si
624.41
ROCKAWAY RIVER
WASHINGTON FORGE POND
DAM
625
0 50' 100'
Approximate Scale
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP
INTERMEDIATE AQUIFER ZONE
MEASURED ON JULY 7, 1991
FIGURE 4
DATE 8/11/91
REVISION 1
From Original by GEOENGINEERING


LEGEND
PROPERTY LINE
EQUIPOTENTIAL CONTOUR LINE
CONTOUR INTERVAL = 0.5 feet
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980
RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
PIEZOMETER INSTALLED 1989
RIVER POINT
N
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
628.65
MW-18sid
DRAINAGE DITCH
MW-14sid
628
629
627
ROSS STREET
#9
#8
#15
#17
#16
#14
#13
#12
#2
MW-11sid
629.33
TANK FARM
FLOW
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
FORMER PRODUCTION WELL
MW-17sd
626.96
ROCKAWAY RIVER
WASHINGTON FORGE POND
DAM
0 50' 100'
Approximate Scale
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP
DEEP AQUIFER ZONE
MEASURED ON MAY 13, 1991
FIGURE 5
DATE 8/10/91
REVISION 1
From Original by GEOENGINEERING


LEGEND
PROPERTY LINE
EQUIPOTENTIAL CONTOUR LINE
CONTOUR INTERVAL = 0.5 feet
FORMER PRODUCTION WELL
MONITOR WELL INSTALLED 1980
RETROFITTED IN 1983
MONITOR WELL INSTALLED 1983
MONITOR WELL INSTALLED 1989
PIEZOMETER INSTALLED 1989
RIVER POINT
N
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
626.19
MW-18sid
DRAINAGE DITCH
MW-14sid
626.77
626
ROSS STREET
#9
#8
#15
#17
#16
#14
#13
MW-11sid
626.92
TANK FARM
FLOW
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
FORMER PRODUCTION WELL
#12
MW-17sd
624.86
ROCKAWAY RIVER
#2
625
WASHINGTON FORGE POND
DAM
0 50' 100'
Approximate Scale
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
EQUIPOTENTIAL MAP
DEEP AQUIFER ZONE
MEASURED ON JULY 7, 1991
FIGURE 6
DATE 8/11/91
REVISION 1
From Original by GEOENGINEERING

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

DATE RECEIVED: 06/14/91 RFW LOT # :9106L857

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
TRIP BLANK	001	W	91LVK106	06/13/91	N/A	06/18/91
MW-1	002	W	91LVK106	06/13/91	N/A	06/18/91
MW-1	002 D1	W	91LVK107	06/13/91	N/A	06/19/91
MW-2	003	W	91LVK107	06/13/91	N/A	06/19/91
MW-3	004	W	91LVK106	06/13/91	N/A	06/18/91
MW-4	005	W	91LVK106	06/13/91	N/A	06/18/91
MW-5	006	W	91LVK106	06/13/91	N/A	06/18/91
MW-5	006 MS	W	91LVK106	06/13/91	N/A	06/18/91
MW-5	006 MSD	W	91LVK106	06/13/91	N/A	06/18/91
FIELD BLANK	007	W	91LVK106	06/13/91	N/A	06/18/91

LAB QC:

VBLK	MB1	W	91LVK106	N/A	N/A	06/18/91
VBLK	MB1	W	91LVK107	N/A	N/A	06/19/91

INTRO: PAGE

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B. Matrix Spike (Form 3)
C. Reagent Blank Summary (Form 4)
D. GC/MS Tuning and Calibration Standard (Form 5)

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1. Tabulated Results (Form 1)
2. Tentatively identified compound (form 1E)
3. Raw Data in order:
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b. Quantitation Report(s)
c. HSL Mass Spectra
d. TIC Mass Spectra
e. GC/MS Library Search for TIC

IV. Standards Data Package..... 91
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1. Form 6
2. Reconstructed Ion Chromatogram(s) and Quantitation Report(s)

B. Continuing Calibration Data
1. Form 7
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C. Internal Standard Summary (Form 8)

V. Raw QC Data Package..... 125
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)

VI. Additional Documentation..... 125
A. Extraction Record

WESTON

CHAIN OF CUSTODY

30 DAY T.A.T.

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
9106L857

WSI-LECAP

Client: LE CARPENTER
Work Order: ~~3600-05-67-0003~~ 3600-04-90
Date Rec'd.: 6/14/91 Date Due: 7/14/91
RFW Contact: KEN TYSON
Client Contact/Phone: Myrung

Refrigerator#	1
#/Type Container	3/6
Volume	40ml
Preservative	—
ANALYSES REQUESTED	VOA + XYLENE

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	0624P	Time
001	TRIP BLANK	W	6-13-91	✓	N/A
002	MW-1	W	6-13-91	✓	13 45
003	MW-2	W	6-13-91	✓	15 40
004	MW-3	W	6-13-91	✓	N/A
005	MW-4	W	6-13-91	✓	12 30
006	MW-5	W	6-13-91	✓	14 20
007	FIELD BLANK	W	6-13-91	✓	N/A

NJCLP II

QC/Del=CLP
TAT= 30 day

Matrix: S - Soil, SE - Sediment, SO - Solid, W - Water, O - Oil, A - Air, WI - Wipe, DS - Drum Solids, DL - Drum Liquids, F - Fish, L - EP/TCLP Leachate, X - Other

Special Instructions: CLP TIER II
30 DAY T.A.T.

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
17 SAMPLES/FEDEX	[signature]	[signature]	6/12/91	1:00					
All	Fed-Ex	B. Shaffer	6/14/91	9:30					
MSVOA	[signature]	[signature]	6/17	11:05					
MSVOA	[signature]		7/1	12:30					

WESTON Analytics Use Only

Samples Were:
1 Shipped or Hand-Delivered
NOTES:
2 Ambient or Chilled
NOTES:
3 Received Broken/Leaking (Improperly Sealed) Y N
NOTES:
4 Properly Preserved Y N
NOTES:
5 Received Within Holding Times Y N
NOTES:

COC Tape Was:
1 Present on Outer Package Y N
2 Unbroken on Outer Package Y N
3 Present on Sample Y N
4 Unbroken on Sample Y N
NOTES:

COC Record Was:
1 Present Upon Receipt of Samples Y N

Discrepancies Between Sample Labels and COC Record? Y N
NOTES:
Brian C. Shaffer 6/14/91

RFW 21-21-001/A-12/88 FEDEX AIR FR. #
~~AD 4933~~ 0299913266

Note: Only sent 1 trip Blank and Field Blank

7-115

0000002

WESTON

DATA SUMMARY

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

RFW Batch Number: 9106L857 Client: WSI-LE CARPENTER Work Order: 3600-04-90-0000 Report Date: 07/09/91 14:05 Page: 1a

	Cust ID:	TRIP BLANK		MW-1		MW-1		MW-2		MW-3		MW-4	
Sample Information	RFW#:	001		002		002 DL		003		004		005	
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	D.F.:	1.00		100		200		1.00		100		1.00	
	Units:	UG/L		UG/L		UG/L		UG/L		UG/L		UG/L	
Surrogate Recovery	Toluene-d8	98	%	101	%	98	%	99	%	99	%	99	%
	Bromofluorobenzene	96	%	103	%	97	%	111	%	100	%	100	%
	1,2-Dichloroethane-d4	97	%	99	%	98	%	101	%	101	%	101	%
			fl		fl		fl		fl		fl		fl
Chloromethane		10	U	1000	U	NA		10	U	1000	U	10	U
Bromomethane		10	U	1000	U	NA		10	U	1000	U	10	U
Vinyl Chloride		10	U	1000	U	NA		10	U	1000	U	10	U
Chloroethane		10	U	1000	U	NA		10	U	1000	U	10	U
Methylene Chloride		7	B	500	U	NA		3	JB	580	B	3	JB
1,1-Dichloroethene		5	U	500	U	NA		5	U	500	U	5	U
1,1-Dichloroethane		5	U	500	U	NA		5	U	500	U	5	U
1,2-Dichloroethene (total)		5	U	500	U	NA		5	U	500	U	5	U
Chloroform		5	U	500	U	NA		5	U	500	U	5	U
1,2-Dichloroethane		5	U	500	U	NA		5	U	500	U	5	U
1,1,1-Trichloroethane		5	U	500	U	NA		5	U	500	U	5	U
Carbon Tetrachloride		5	U	500	U	NA		5	U	500	U	5	U
Bromodichloromethane		5	U	500	U	NA		5	U	500	U	5	U
1,2-Dichloropropane		5	U	500	U	NA		5	U	500	U	5	U
cis-1,3-Dichloropropene		5	U	500	U	NA		5	U	500	U	5	U
Trichloroethene		5	U	500	U	NA		5	U	500	U	5	U
Dibromochloromethane		5	U	500	U	NA		5	U	500	U	5	U
1,1,2-Trichloroethane		5	U	500	U	NA		5	U	500	U	5	U
Benzene		5	U	500	U	NA		5	U	500	U	5	U
Trans-1,3-Dichloropropene		5	U	500	U	NA		5	U	500	U	5	U
2-chloroethylvinylether		10	U	1000	U	NA		10	U	1000	U	10	U
Bromoform		5	U	500	U	NA		5	U	500	U	5	U
Tetrachloroethene		5	U	500	U	NA		5	U	500	U	5	U
1,1,2,2-Tetrachloroethane		5	U	500	U	NA		5	U	500	U	5	U
Toluene		5	U	500	U	NA		5	U	500	U	5	U
Chlorobenzene		5	U	500	U	NA		5	U	500	U	5	U
Ethylbenzene		5	U	3500		NA		5	U	2900		5	U
1,2-Dichlorobenzene		5	U	500	U	NA		5	U	500	U	5	U
1,3-Dichlorobenzene		5	U	500	U	NA		5	U	500	U	5	U

*= Outside of EPA CLP QC limits.

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Cust ID:	TRIP BLANK	MW-1	MW-1	MW-2	MW-3	MW-4
RFW#:	001	002	002 DL	003	004	005
1,4-Dichlorobenzene	5 U	500 U	NA	5 U	500 U	5 U
Acrolein	10 U	1000 U	NA	10 U	1000 U	10 U
Acrylonitrile	10 U	1000 U	NA	10 U	1000 U	10 U
Trichlorofluoromethane	5 U	500 U	NA	5 U	500 U	5 U
Xylene (total)	5 U	E	26000	7	21000	5 U

*= Outside of EPA CLP QC limits.

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

RFW Batch Number: 9106L857 Client: WSI-LE CARPENTER Work Order: 3600-04-90-0000 Report Date: 07/09/91 14:05 Page: 2a

	Cust ID:	MW-5		MW-5		MW-5		FIELD BLANK		VBLK		VBLK	
Sample Information	RFW#:	006		006 MS		006 MSD		007		91LVK106-MB1		91LVK107-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	102	%	104	%	105	%	97	%	101	%	96	%
	Bromofluorobenzene	102	%	100	%	102	%	95	%	100	%	97	%
	1,2-Dichloroethane-d4	100	%	91	%	95	%	98	%	93	%	107	%
		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		4	J	5	J	3	J	10	U	10	U	10	U
Methylene Chloride		2	JB	1	JB	5	B	5	B	5		5	
1,1-Dichloroethene		5	U	105	%	97	%	5	U	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		5	U	107	%	101	%	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		5	U	104	%	103	%	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		5	U	108	%	107	%	5	U	5	U	5	U
Chlorobenzene		5	U	107	%	103	%	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.

Cust ID:	MW-5	MW-5	MW-5	FIELD BLANK	VBLK	VBLK
RFW#:	006	006 MS	006 MSD	007	91LVK106-MB1	91LVK107-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)	5 U	5 U	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

WESTON

CASE NARRATIVE

WESTON

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WSI LE CARPENTER **SAMPLES RECEIVED:** 06-14-91
RFW #: 9106L857, GC/MS VOLATILE
W.O. #: 3600-04-90

NARRATIVE

The set of samples consisted of seven (7) water samples collected on 06-13-91.

The samples were analyzed according to criteria set forth in CLP SOW 2/88 (rev 5/89) for Priority Pollutant Volatile target compounds on 06-18,19-91.

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

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

2. All surrogate recoveries were within EPA QC limits.

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

Sample ID	Dilution Factor
MW-1	100 & 200
MW-3	100

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

5. The laboratory blanks contained the common contaminant methylene chloride at levels less than 2x the CRQL.

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

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

7.12.91
Date

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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.: 9106L857

	CLIENT SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	TRIP BLANK	98	96	97		0
02	MW-1	101	103	99		0
03	MW-1DL	98	97	98		0
04	MW-2	99	111	101		0
05	MW-3	99	100	101		0
06	MW-4	99	100	101		0
07	MW-5	102	102	100		0
08	MW-5MS	104	100	91		0
09	MW-5MSD	105	102	95		0
10	FIELD BLANK	97	95	98		0
11	VBLKLVK106-MB1	101	100	93		0
12	VBLKLVK107-MB1	96	97	107		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.: 9106L857-006

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	0	52.7	105	61-145
Trichloroethene	50.0	0	53.6	107	71-120
Benzene	50.0	0	52.0	104	76-127
Toluene	50.0	0	54.0	108	76-125
Chlorobenzene	50.0	0	53.4	107	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	48.4	97	7	14	61-145
Trichloroethene	50.0	50.7	101	5	14	71-120
Benzene	50.0	51.4	103	0	11	76-127
Toluene	50.0	53.3	107	0	13	76-125
Chlorobenzene	50.0	51.7	103	3	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: AK6I04 Lab Sample ID: 91LVK106-MB1

Date Analyzed: 06/18/91 Time Analyzed: 1332

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	TRIP BLANK	9106L857-001	AK6I07	1531
02	FIELD BLANK	9106L857-007	AK6I08	1633
03	MW-5	9106L857-006	AK6I09	1724
04	MW-5MS	9106L857-006S	AK6I10	1802
05	MW-5MSD	9106L857-006T	AK6I11	1841
06	MW-4	9106L857-005	AK6I12	1918
07	MW-1	9106L857-002	AK6I13	1957
08	MW-3	9106L857-004	AK6I17	2233

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: AK6J04 Lab Sample ID: 91LVK107-MB1

Date Analyzed: 06/19/91 Time Analyzed: 1357

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-2	9106L857-003	AK6J05	1445
02	MW-1DL	9106L857-002	AK6J07	1650

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: AK6C01 BFB Injection Date: 6/12/91

Instrument ID: HP-MSD K BFB Injection Time: 1103

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	17.4
75	30.0 - 60.0% of mass 95	51.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	74.9
175	5.0 - 9.0% of mass 174	5.9(7.8)1
176	Greater than 95.0% but less than 101.0% of mass 174	75.3(100.6)1
177	5.0 - 9.0% of mass 176	4.5(6.0)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	AK6C03	06/12/91	1230
02	VSTD100	VSTD100	AK6C04	06/12/91	1345
03	VSTD20	VSTD20	AK6C05	06/12/91	1432
04	VSTD150	VSTD150	AK6C06	06/12/91	1517
05	VSTD200	VSTD200	AK6C07	06/12/91	1604
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: AK6I02 BFB Injection Date: 6/18/91

Instrument ID: HP-MSD K BFB Injection Time: 1219

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	23.3
75	30.0 - 60.0% of mass 95	54.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	79.3
175	5.0 - 9.0% of mass 174	5.6(7.0)1
176	Greater than 95.0% but less than 101.0% of mass 174	75.4(95.1)1
177	5.0 - 9.0% of mass 176	4.4(5.8)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	AK6I03	06/18/91	1239
02	VBLKLVK106-MB1	91LVK106-MB1	AK6I04.	06/18/91	1332
03	TRIP BLANK	9106L857-001	AK6I07.	06/18/91	1531
04	FIELD BLANK	9106L857-007	AK6I08.	06/18/91	1633
05	MW-5	9106L857-006	AK6I09.	06/18/91	1724
06	MW-5MS	9106L857-006S	AK6I10.	06/18/91	1802
07	MW-5MSD	9106L857-006T	AK6I11.	06/18/91	1841
08	MW-4	9106L857-005	AK6I12.	06/18/91	1918
09	MW-1	9106L857-002	AK6I13.	06/18/91	1957
10	MW-3	9106L857-004	AK6I17.	06/18/91	2233
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: AK6J02 BFB Injection Date: 6/19/91

Instrument ID: HP-MSD K BFB Injection Time: 1242

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	18.3
75	30.0 - 60.0% of mass 95	51.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.5(0.59)1
174	Greater than 50.0% of mass 95	77.7
175	5.0 - 9.0% of mass 174	6.8(8.7)1
176	Greater than 95.0% but less than 101.0% of mass 174	73.9(95.1)1
177	5.0 - 9.0% of mass 176	4.4(6.0)2

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

7/9/91

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	AK6J03	06/19/91	1304
02	VBLKLVK107-MB1	91LVK107-MB1	AK6J04.	06/19/91	1357
03	MW-2	9106L857-003	AK6J05.	06/19/91	1445
04	MW-1DL	9106L857-002	AK6J07.	06/19/91	1650
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

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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
VOLATILE ORGANICS ANALYSIS SHEET

000002 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: 9106L857-001

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: AK6I07

Level: (low/med) LOW Date Received: 06/14/91

% Moisture: not dec. _____ Date Analyzed: 06/18/91

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	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	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

000002 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: 9106L857-001

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

Lab File ID: AK6I07

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

Column: (pack/cap) CAP

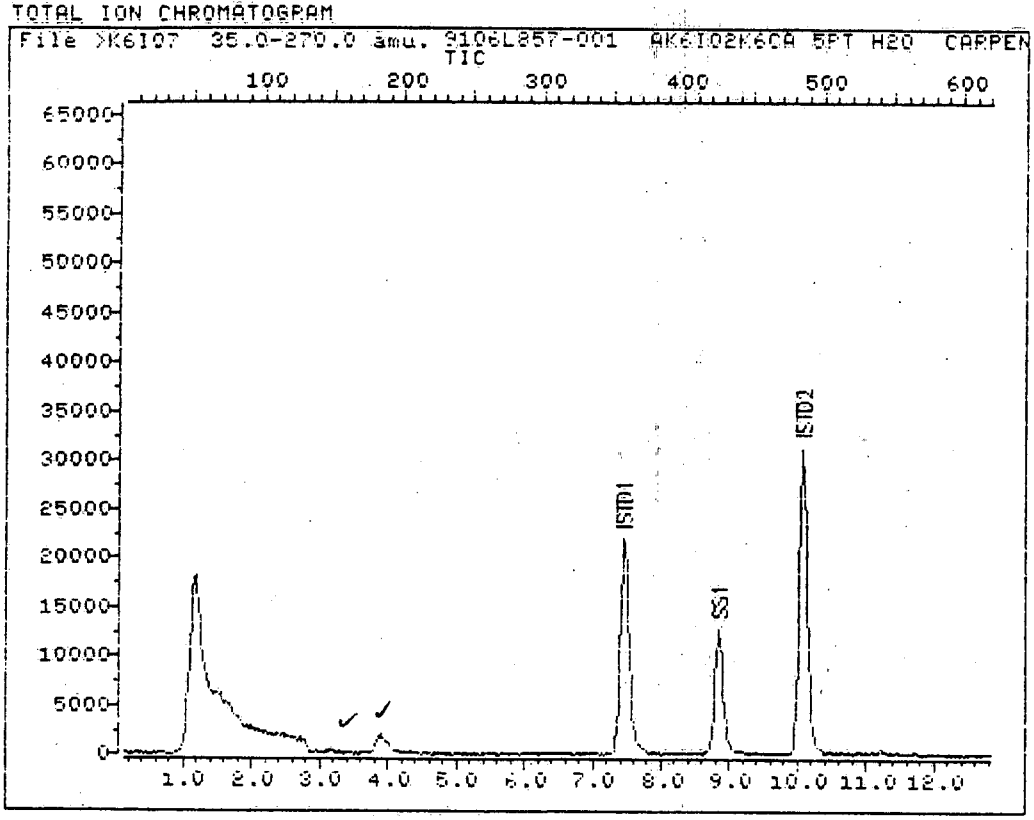
Dilution Factor: 1.00

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



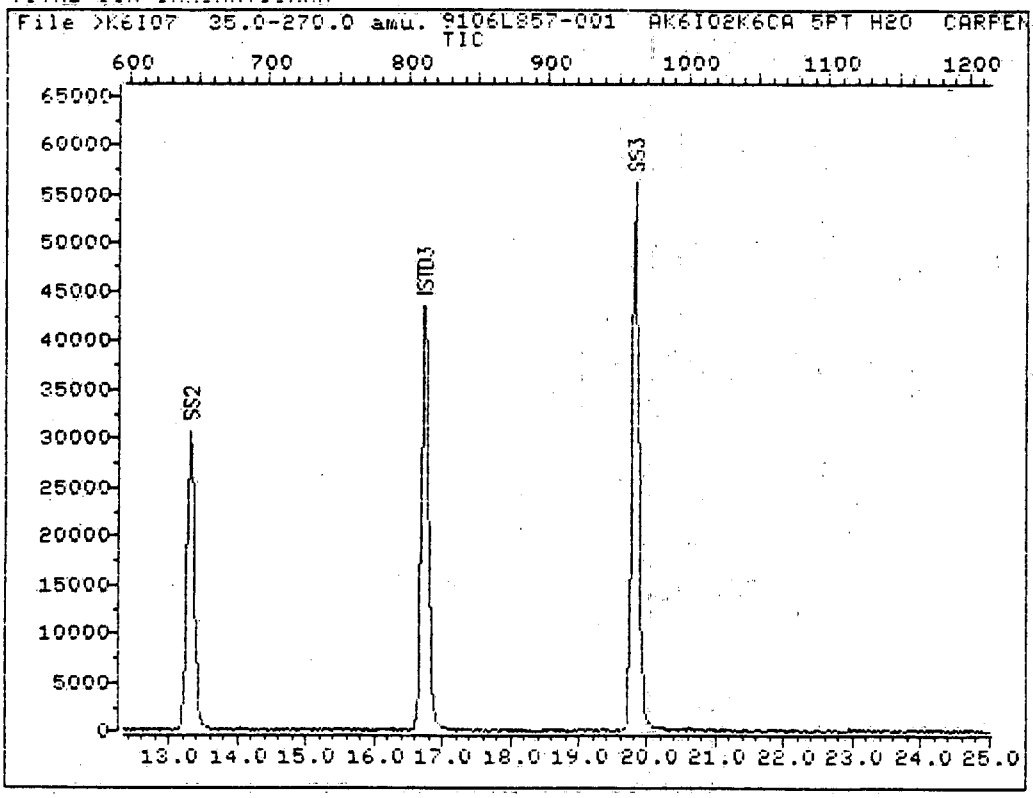
Data File: >K6I07::D2 Quant Output File: ^K6I07::QQ
Name: 9106L857-001 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 16:02
Injected at: 910618 15:31

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6I07::D2 Quant Output File: ^K6I07::QQ
Name: 9106L857-001 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 16:02
Injected at: 910618 15:31

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910618 16:02
Output File: ^K6I07::QQ Injected at: 910618 15:31
Data File: >K6I07::D2 Dilution Factor: 1.00000
Name: 9106L857-001 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

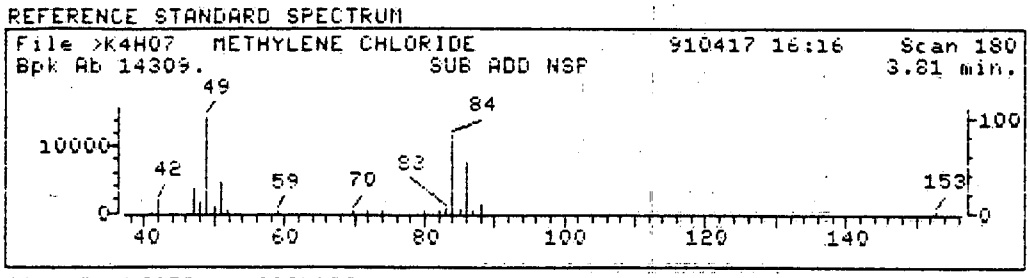
ID File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.45	128.0	27647 ✓	50.00	ug/L	83
11)	ACETONE	3.17	43.0	1857	16.63	ug/L ✓	100
12)	METHYLENE CHLORIDE	3.89	84.0	4564	6.58	ug/L ✓	97
24)	*1,4-DIFLUOROBENZENE	10.07	114.0	97294 ✓	50.00	ug/L	70
26)	1,2-DICHLOROETHANE D4	8.84	65.0	44942	48.58	ug/L ✓	84
32)	*CHLOROBENZENE-D5	16.73	117.0	95441 ✓	50.00	ug/L	93
34)	TOLUENE D8	13.31	98.0	84777	49.12	ug/L ✓	96
48)	4-BROMOFLUOROBENZENE	19.82	95.0	76185	48.21	ug/L ✓	95

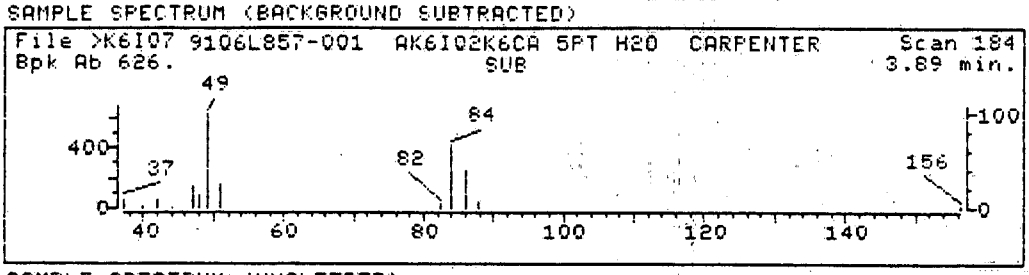
* Compound is ISTD

NO TIC
RSL
6/18/91

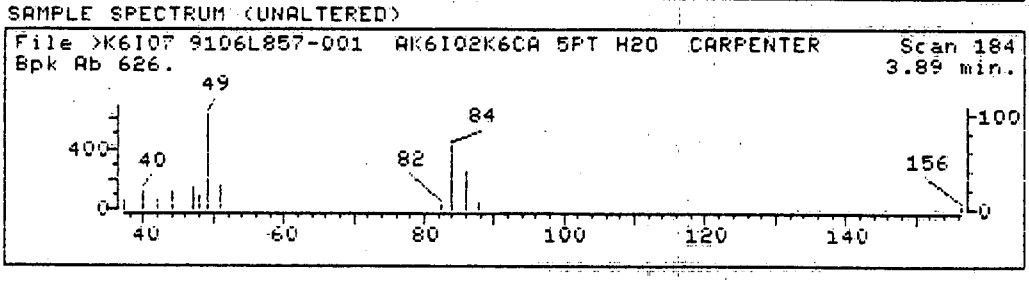
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6I07::D2 Quant Output File: ^K6I07::QQ
Name: 9106L857-001 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL
Quant Time: 910618 16:02 Quant ID File: I_K6IA::QQ
Injected at: 910618 15:31 Last Calibration: 910618 13:22

Compound No: 12
Compound Name: METHYLENE CHLORIDE
Scan Number: 184
Retention Time: 3.89 min.
Quant Ion: 84.0
Area: 4564
Concentration: 6.58 ug/L
q-value: 97

1A
VOLATILE ORGANICS ANALYSIS SHEET

000002 CLIENT SAMPLE NO.

MW-1

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

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9106L857-002

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

Lab File ID: AK6I13

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

Column: (pack/cap) CAP

Dilution Factor: 100

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	1000	U
74-83-9	Bromomethane	1000	U
75-01-4	Vinyl Chloride	1000	U
75-00-3	Chloroethane	1000	U
75-09-2	Methylene Chloride	500	U
75-35-4	1,1-Dichloroethene	500	U
75-34-3	1,1-Dichloroethane	500	U
540-59-0	1,2-Dichloroethene (total)	500	U
67-66-3	Chloroform	500	U
107-06-2	1,2-Dichloroethane	500	U
71-55-6	1,1,1-Trichloroethane	500	U
56-23-5	Carbon Tetrachloride	500	U
75-27-4	Bromodichloromethane	500	U
78-87-5	1,2-Dichloropropane	500	U
10061-01-5	cis-1,3-Dichloropropene	500	U
79-01-6	Trichloroethene	500	U
124-48-1	Dibromochloromethane	500	U
79-00-5	1,1,2-Trichloroethane	500	U
71-43-2	Benzene	500	U
10061-02-6	Trans-1,3-Dichloropropene	500	U
110-75-8	2-chloroethylvinylether	1000	U
75-25-2	Bromoform	500	U
127-18-4	Tetrachloroethene	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
108-88-3	Toluene	500	U
108-90-7	Chlorobenzene	500	U
100-41-4	Ethylbenzene	3500	
95-50-1	1,2-Dichlorobenzene	500	U
541-73-1	1,3-Dichlorobenzene	500	U
106-46-7	1,4-Dichlorobenzene	500	U
107-02-8	Acrolein	1000	U
107-13-1	Acrylonitrile	1000	U
75-69-4	Trichlorofluoromethane	500	U
1330-20-7	Xylene (total)		E

1E

0000027

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW-1

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

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9106L857-002

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

Lab File ID: AK6I13

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

Column: (pack/cap) CAP

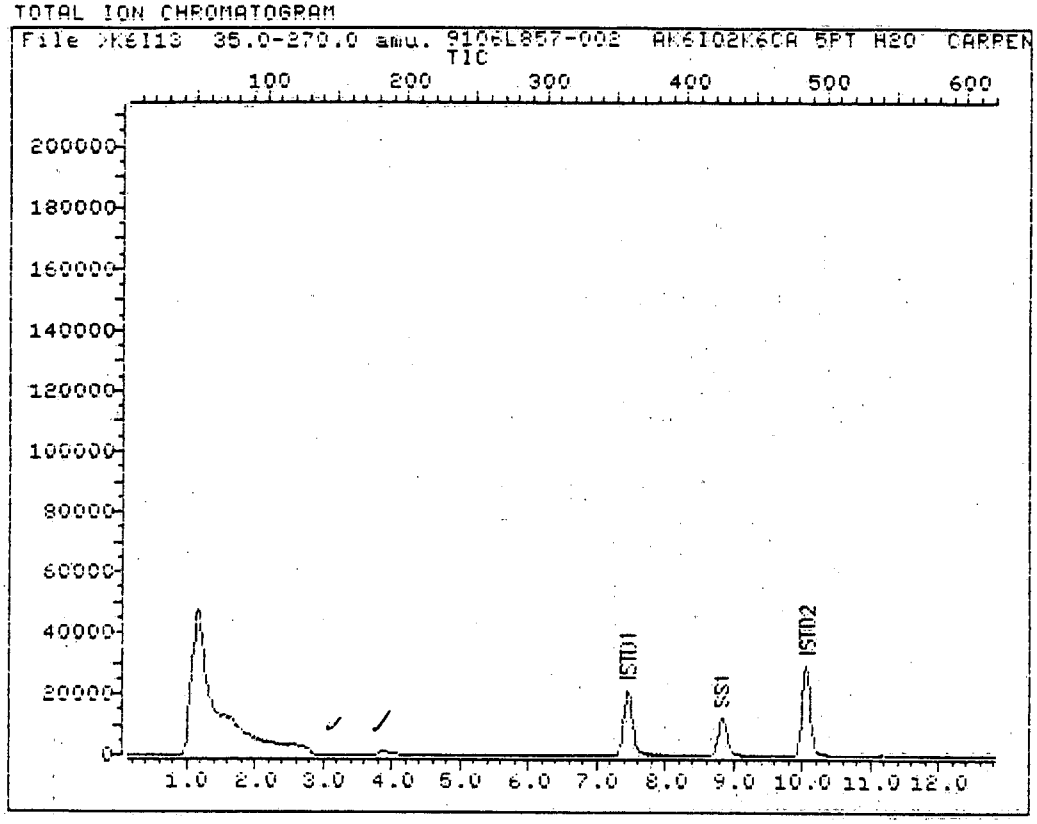
Dilution Factor: 100

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



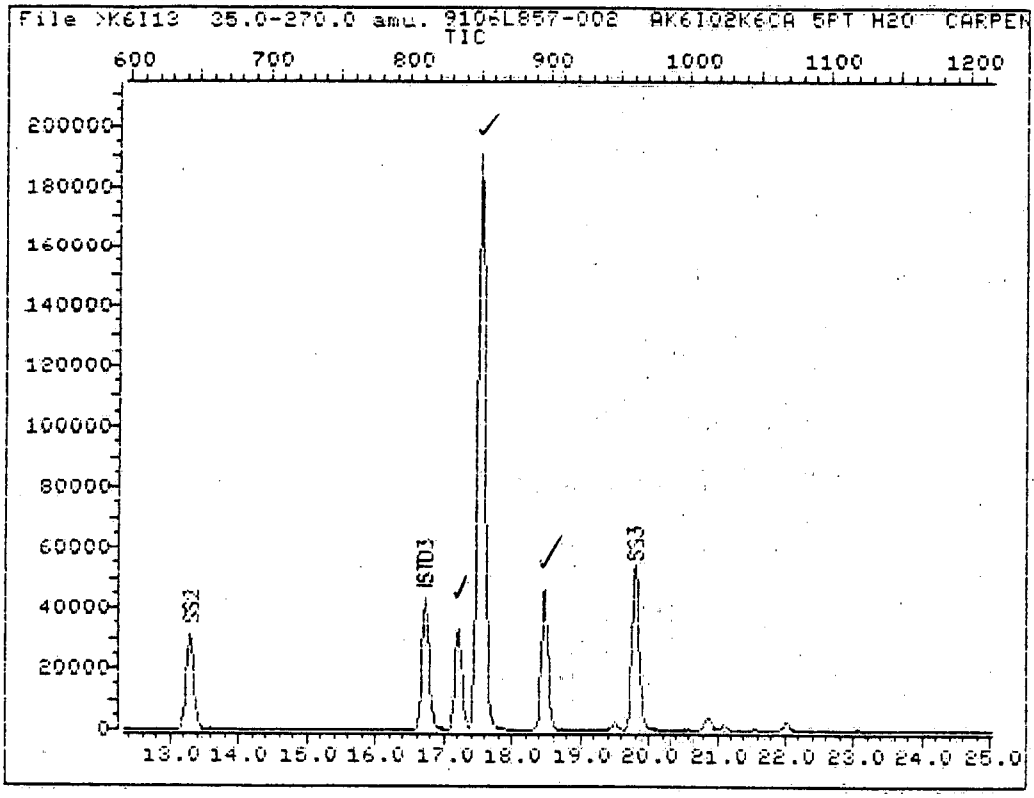
Data File: >K6I13::D2 Quant Output File: ^K6I13::QQ
Name: 9106L857-002 AK6I02
Misc: K6CA 5PT H2O CARPENTER DIL 100 #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 20:27
Injected at: 910618 19:57

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6I13::D2 Quant Output File: ^K6I13::QQ
Name: 9106L857-002 AK6I02
Misc: K6CA 5PT H2O CARPENTER DIL 100 #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 20:27
Injected at: 910618 19:57

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910618 20:27
Output File: ^K6I13::QQ Injected at: 910618 19:57
Data File: >K6I13::D2 Dilution Factor: 1.00000
Name: 9106L857-002 AK6I02
Misc: K6CA 5PT H2O CARPENTER DIL 100 #HP-MSD K RSL

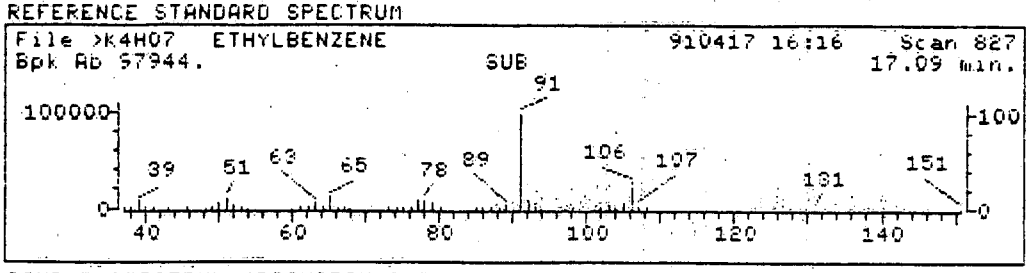
ID File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.45	128.0	27093✓	50.00	ug/L	79
11)	ACETONE	3.15	43.0	664	6.07	ug/L✓	100
12)	METHYLENE CHLORIDE	3.91	84.0	3518M	5.18	ug/L✓	
24)	*1,4-DIFLUOROBENZENE	10.07	114.0	95402✓	50.00	ug/L	68
26)	1,2-DICHLOROETHANE D4	8.82	65.0	45035	49.65	ug/L✓	90
32)	*CHLOROBENZENE-D5	16.72	117.0	92687✓	50.00	ug/L	92
34)	TOLUENE D8	13.31	98.0	84766	50.57	ug/L✓	99
43)	ETHYLBENZENE	17.22	106.0	27590	35.05	ug/L✓	95
45)	XYLENE	17.54	106.0	194775	210.18	ug/L✓	86
46)	XYLENES (TOTAL)	18.49	106.0	46550	49.92	ug/L✓	85
48)	4-BROMOFLUOROBENZENE	19.80	95.0	78812	51.35	ug/L✓	99

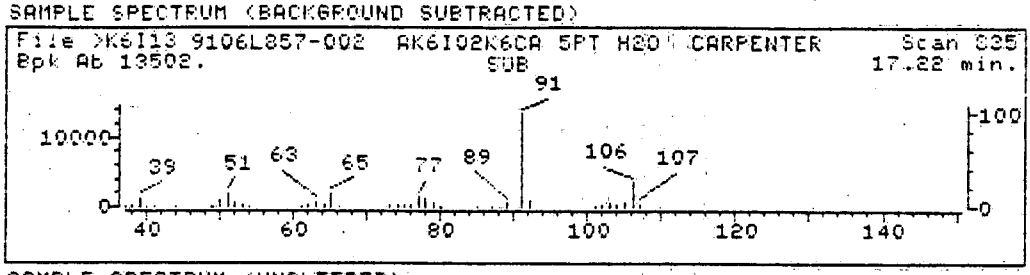
* Compound is ISTD

RERUN DF 200

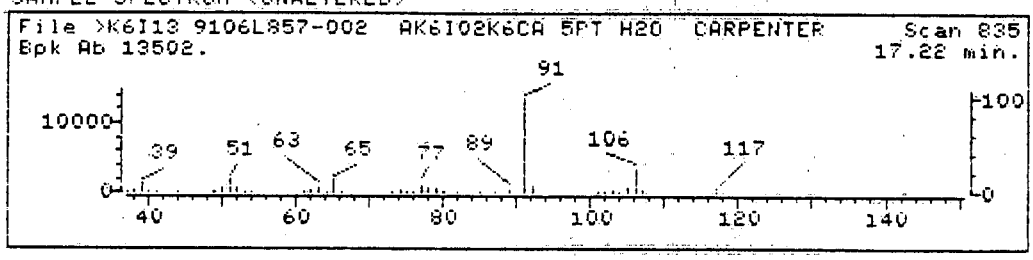
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



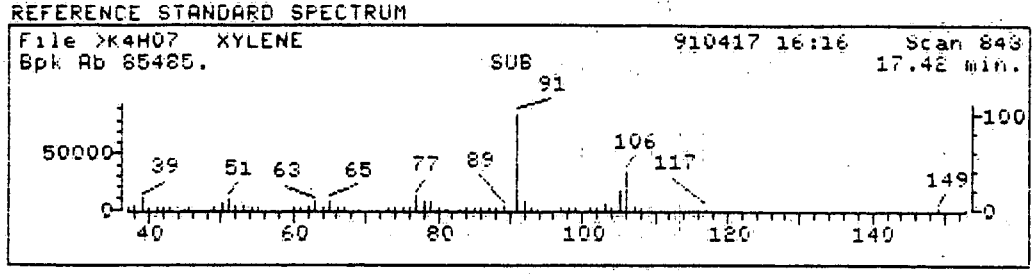
SAMPLE SPECTRUM (UNALTERED)



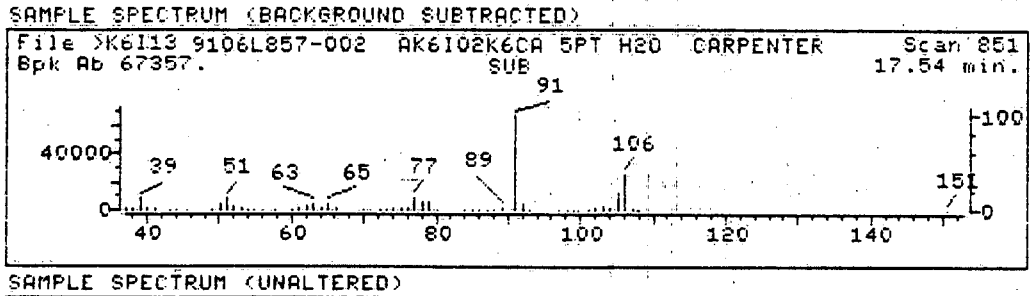
Data File: >K6I13::D2 Quant Output File: ^K6I13::QQ
Name: 9106L857-002 AK6I02
Misc: K6CA 5PT H2O CARPENTER DIL 100 #HP-MSD K RSL
Quant Time: 910618 20:27 Quant ID File: I_K6IA::QQ
Injected at: 910618 19:57 Last Calibration: 910618 13:22

Compound No: 43
Compound Name: ETHYLBENZENE
Scan Number: 835
Retention Time: 17.22 min.
Quant Ion: 106.0
Area: 27590
Concentration: 35.05 ug/L
q-value: 95

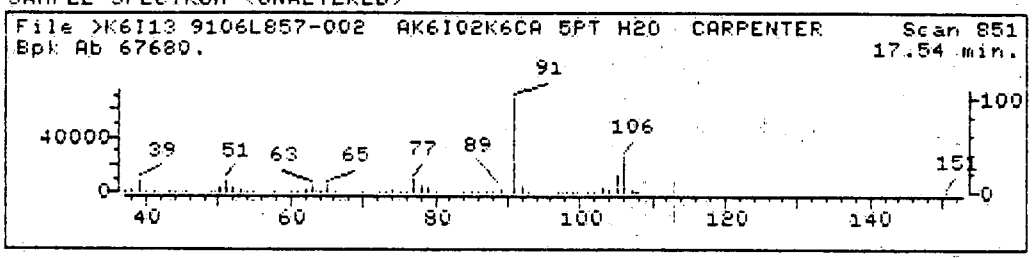
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



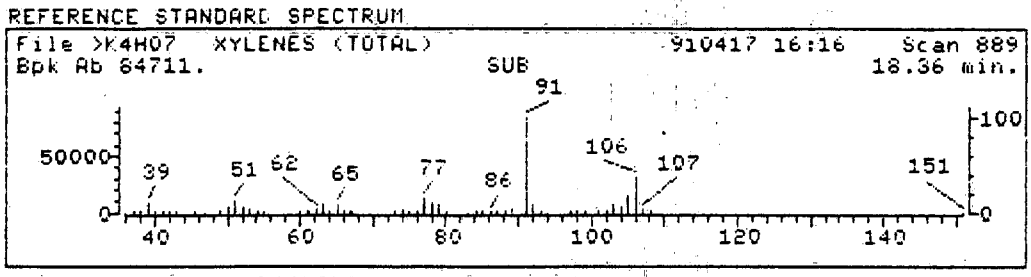
SAMPLE SPECTRUM (UNALTERED)



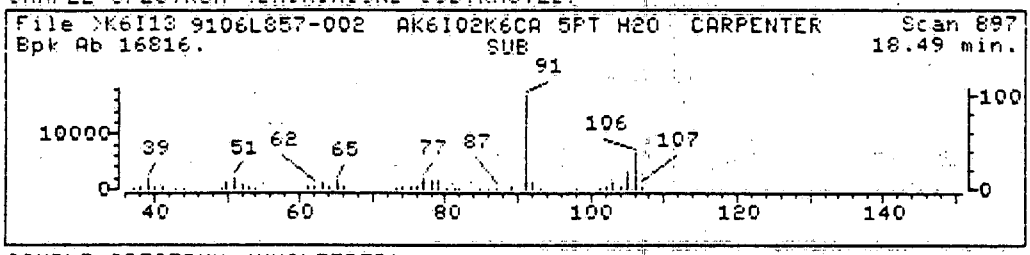
Data File: >K6I13::D2 Quant Output File: ^K6I13::QQ
Name: 9106L857-002 AK6I02
Misc: K6CA 5PT H2O CARPENTER DIL 100 #HP-MSD K RSL
Quant Time: 910618 20:27 Quant ID File: I_K6IA::QQ
Injected at: 910618 19:57 Last Calibration: 910618 13:22

Compound No: 45
Compound Name: XYLENE
Scan Number: 851
Retention Time: 17.54 min.
Quant Ion: 106.0
Area: 194775
Concentration: 210.18 ug/L
q-value: 86

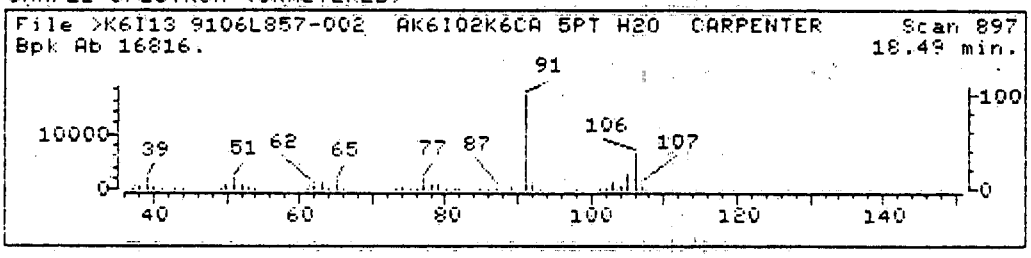
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6I13::D2 Quant Output File: ^K6I13::QQ
Name: 9106L857-002 AK6I02
Misc: K6CA 5PT H2O CARPENTER DIL 100 #HP-MSD K RSL
Quant Time: 910618 20:27 Quant ID File: I_K6IA::QQ
Injected at: 910618 19:57 Last Calibration: 910618 13:22

Compound No: 46
Compound Name: XYLENES (TOTAL)
Scan Number: 897
Retention Time: 18.49 min.
Quant Ion: 106.0
Area: 46550
Concentration: 49.92 ug/L
q-value: 85

1A
VOLATILE ORGANICS ANALYSIS SHEET

000003 CLIENT SAMPLE NO.

MW-1DL

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

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9106L857-002 DL

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

Lab File ID: AK6J07

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/19/91

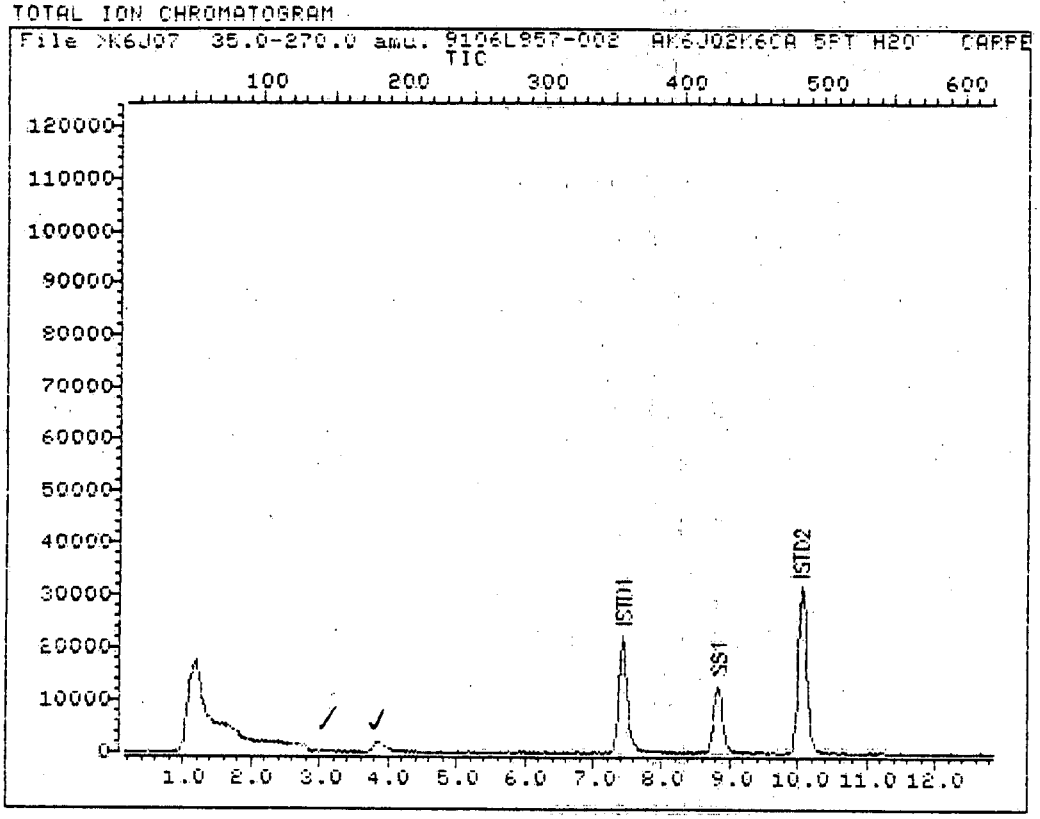
Column: (pack/cap) CAP

Dilution Factor: 200

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	NA	
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)	26000	

TOTAL ION CHROMATOGRAM



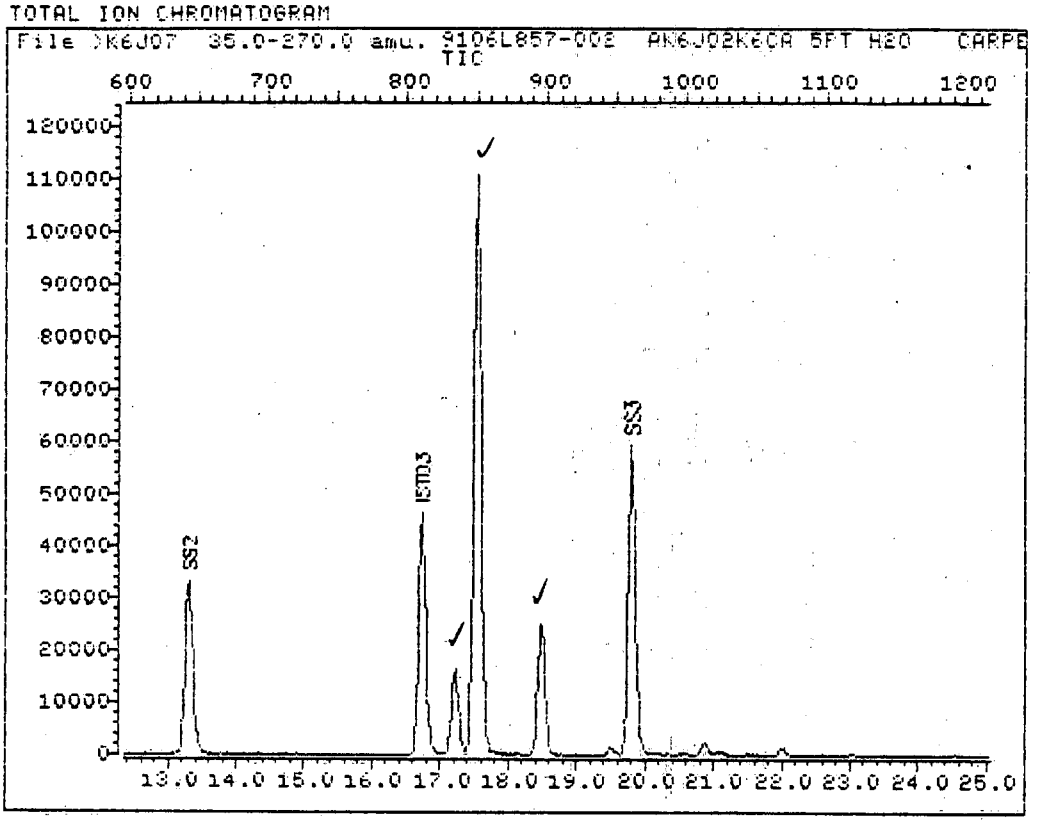
Data File: >K6J07::D2 Quant Output File: ^K6J07::QQ
Name: 9106L857-002 AK6J02
Misc: K6CA 5PT H2O CARPENTER DIL 200 #HP-MSD K RSL

Id File: I_K6JA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910619 13:47

Operator ID: RSL
Quant Time: 910619 17:21
Injected at: 910619 16:50

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6J07::D2 Quant Output File: ^K6J07::QQ
Name: 9106L857-002 AK6J02
Misc: K6CA 5PT H2O CARPENTER DIL 200 #HP-MSD K RSL

Id File: I_K6JA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910619 13:47

Operator ID: RSL
Quant Time: 910619 17:21
Injected at: 910619 16:50

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910619 17:21
Output File: ^K6J07::QQ Injected at: 910619 16:50
Data File: >K6J07::D2 Dilution Factor: 1.00000
Name: 9106L857-002 AK6J02
Misc: K6CA 5PT H2O CARPENTER DIL 200 #HP-MSD K RSL

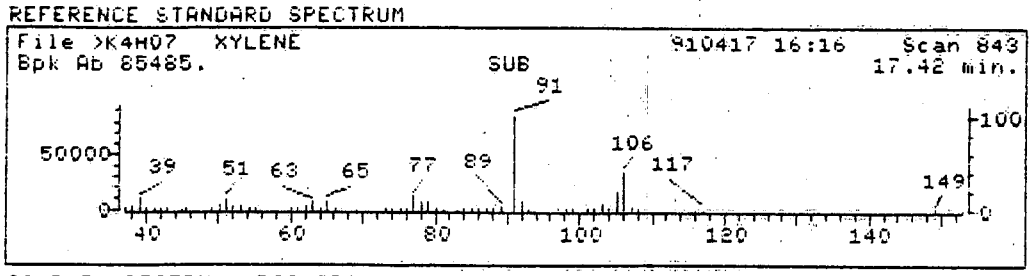
ID File: I_K6JA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910619 13:47

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.44	128.0	28178 ✓	50.00	ug/L	68
11)	ACETONE	3.18	43.0	1593	12.43	ug/L ✓	100
12)	METHYLENE CHLORIDE	3.87	84.0	5150	6.53	ug/L ✓	91
24)	*1,4-DIFLUOROBENZENE	10.04	114.0	108612 ✓	50.00	ug/L	69
26)	1,2-DICHLOROETHANE D4	8.83	65.0	47304	49.00	ug/L ✓	87
32)	*CHLOROBENZENE-D5	16.73	117.0	102881 ✓	50.00	ug/L	94
34)	TOLUENE D8	13.31	98.0	94255	49.06	ug/L ✓	99
43)	ETHYLBENZENE	17.23	106.0	14003	15.49	ug/L ✓	99
45)	XYLENE	17.53	106.0	115366	106.08	ug/L ✓	86
46)	XYLENES (TOTAL)	18.48	106.0	25822	23.95	ug/L ✓	90
48)	4-BROMOFLUOROBENZENE	19.81	95.0	84872	48.35	ug/L ✓	94

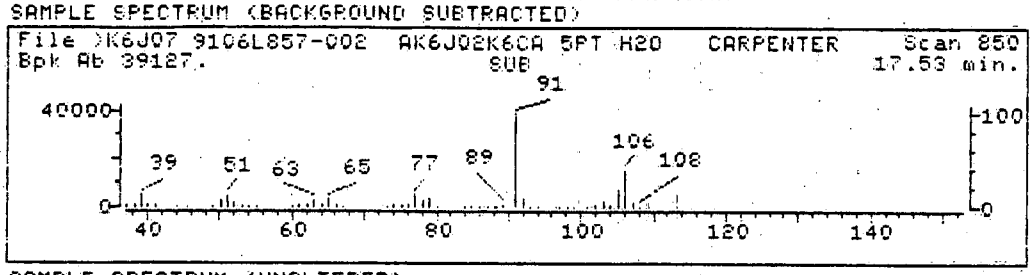
* Compound is ISTD

NO TIC
RSI
6/20/91

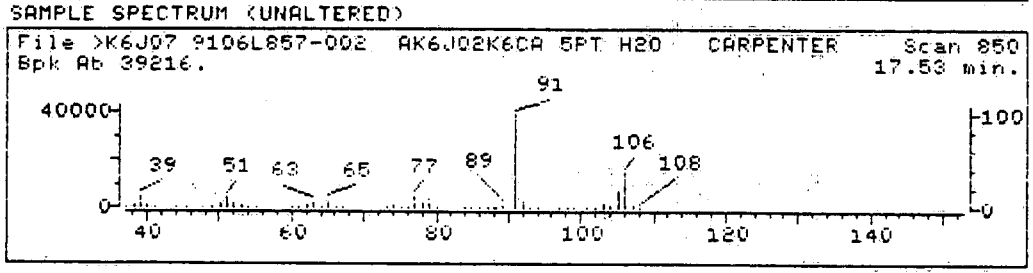
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



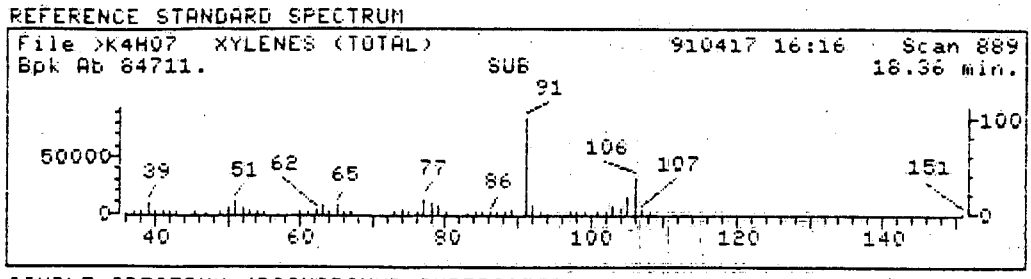
SAMPLE SPECTRUM (UNALTERED)



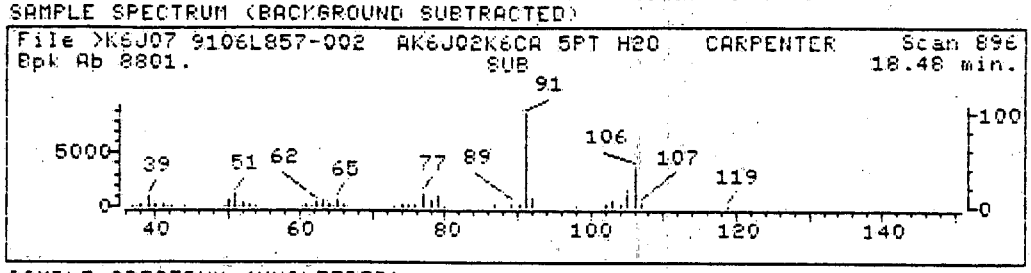
Data File: >K6J07::D2 Quant Output File: ^K6J07::QQ
Name: 9106L857-002 AK6J02
Misc: K6CA 5PT H2O CARPENTER DIL 200 #HP-MSD K RSL
Quant Time: 910619 17:21 Quant ID File: I_K6JA::QQ
Injected at: 910619 16:50 Last Calibration: 910619 13:47

Compound No: 45
Compound Name: XYLENE
Scan Number: 850
Retention Time: 17.53 min.
Quant Ion: 106.0
Area: 115366
Concentration: 106.08 ug/L
q-value: 86

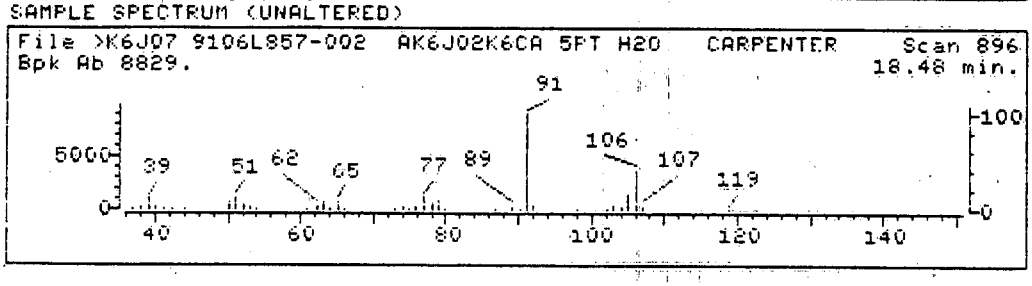
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6J07::D2 Quant Output File: ^K6J07::QQ
Name: 9106L857-002 AK6J02
Misc: K6CA 5PT H2O CARPENTER DIL 200 #HP-MSD K RSL
Quant Time: 910619 17:21 Quant ID File: I_K6JA::QQ
Injected at: 910619 16:50 Last Calibration: 910619 13:47

Compound No: 46
Compound Name: XYLENES (TOTAL)
Scan Number: 896
Retention Time: 18.48 min.
Quant Ion: 106.0
Area: 25822
Concentration: 23.95 ug/L
q-value: 90

1A
VOLATILE ORGANICS ANALYSIS SHEET

000004 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: 9106L857-003

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: AK6J05

Level: (low/med) LOW Date Received: 06/14/91

% Moisture: not dec. _____ Date Analyzed: 06/19/91

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	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)	7	

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

000004 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: 9106L857-003

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

Lab File ID: AK6J05

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/19/91

Column: (pack/cap) CAP

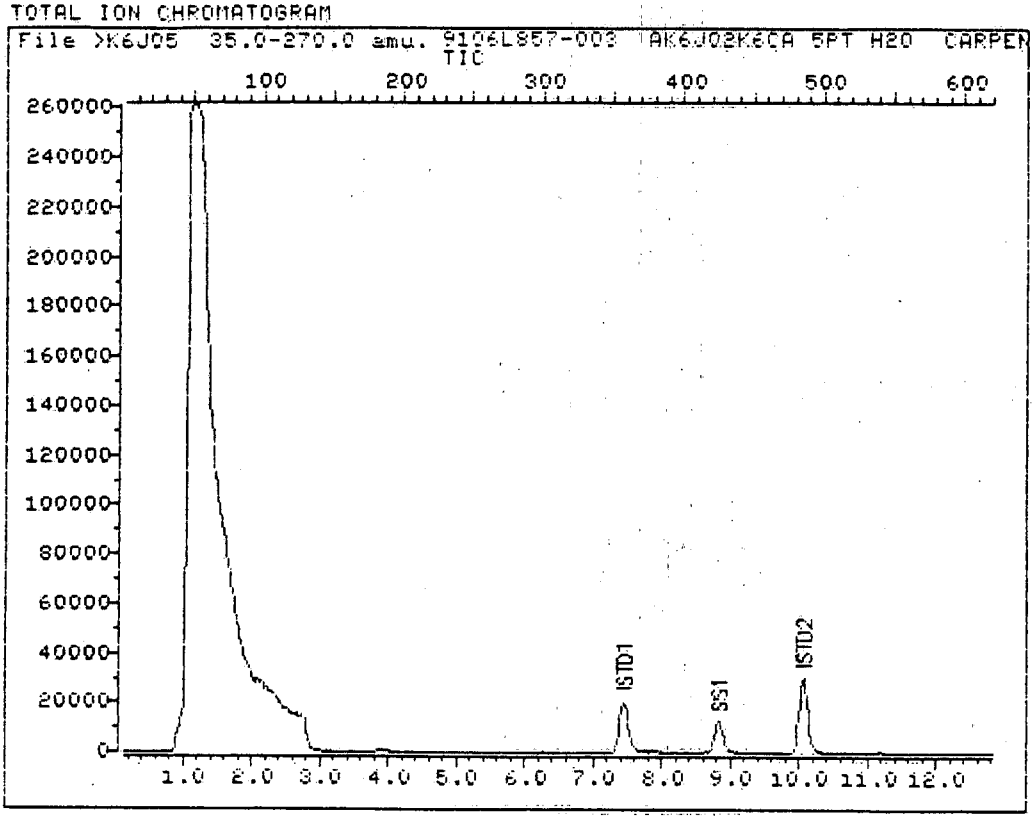
Dilution Factor: 1.00

Number TICs found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	18.64	100	J
2.	C10 ALKANE	18.91	100	J
3.	UNKNOWN	19.09	100	J
4.	ALKANE	19.23	200	J
5.	C10 ALKANE	19.46	200	J
6.	ALKANE	19.99	200	J
7.	C10 ALKANE	20.20	300	J
8.	ALKANE	20.55	200	J
9.	HYDROCARBON	20.69	100	J
10.	C10 CYCLOALKANE	21.06	200	J
11.	HYDROCARBON	21.43	200	J
12.	ALKANE	22.01	300	J
13.	C11 ALKANE	22.28	200	J
14.	DIMETHYL NONANE	22.44	100	J
15.	UNKNOWN	22.67	200	J

TOTAL ION CHROMATOGRAM



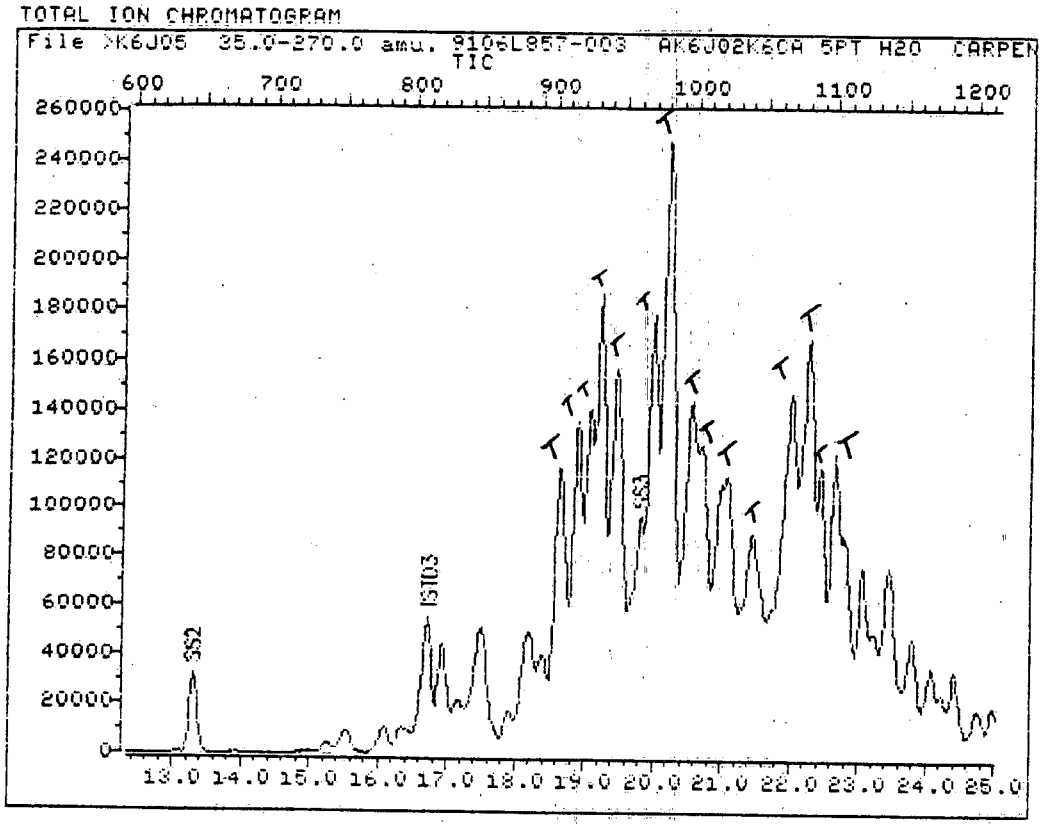
Data File: >K6J05::D2 Quant Output File: ^K6J05::QQ
Name: 9106L857-003 AK6J02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6JA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910619 13:47

Operator ID: RSL
Quant Time: 910619 15:16
Injected at: 910619 14:45

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6J05::D2 Quant Output File: ^K6J05::QQ
Name: 9106L857-003 AK6J02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6JA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910619 13:47

Operator ID: RSL
Quant Time: 910619 15:16
Injected at: 910619 14:45

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910619 15:16
Output File: ^K6J05::QQ Injected at: 910619 14:45
Data File: >K6J05::D2 Dilution Factor: 1.00000
Name: 9106L857-003 AK6J02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

ID File: I_K6JA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910619 13:47

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.45	128.0	27711	50.00	ug/L	79
11)	ACETONE	3.17	43.0	1629	12.92	ug/L	100
12)	METHYLENE CHLORIDE	3.89	84.0	2106	2.72	ug/L	84
24)	*1,4-DIFLUOROBENZENE	10.07	114.0	102201	50.00	ug/L	71
26)	1,2-DICHLOROETHANE D4	8.84	65.0	46018	50.66	ug/L	92
32)	*CHLOROBENZENE-D5	16.73	117.0	98722	50.00	ug/L	95
34)	TOLUENE D8	13.29	98.0	91354	49.56	ug/L	95
43)	ETHYLBENZENE	17.20	106.0	685	.79	ug/L	95
45)	XYLENE	17.55	106.0	7415	7.11	ug/L	94
46)	XYLENES (TOTAL)	18.45	106.0	428	.41	ug/L	61
48)	4-BROMOFLUOROBENZENE	19.81	95.0	93174	55.32	ug/L	99

* Compound is ISTD

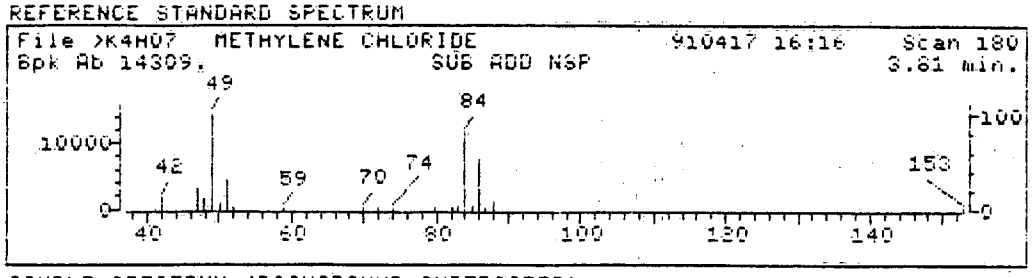
0000045

>K6J05 9106L857-003 AK6J02K6CA 5PT H2O CARPENTER 5ML
35.0| 270.0 SMT TIC
Upslope: .01 Area Reject: 1.00 % Max Peaks: 35 Bunching: 1
Dnslope: 0.00 Results File VDIR72 Sorted by Time/Area INT

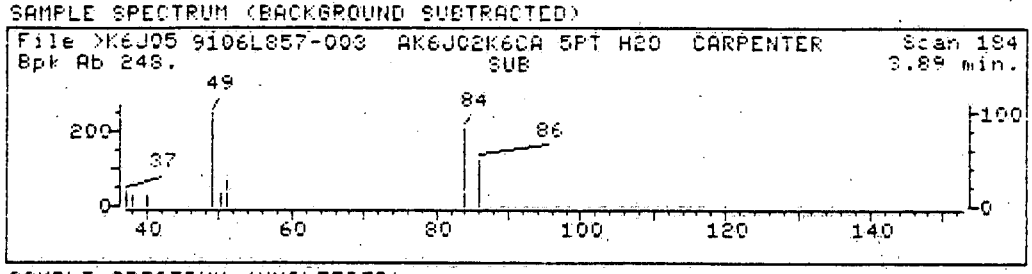
Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area		corr. % max.	% of total
1	15.25	731	739	745	3487	48585	32684	10	1.16	.106
2	15.54	745	753	767	9007	115549	98611		3.50	.319
3	16.09	767	780	786	10366	126069	111442		3.96	.361
4	16.36	786	793	799	7276	142302	79894		2.84	.259
5	16.73	799	811	816	44464	624466	436476	15	15.51	1.413
6	16.94	816	821	828	33917	451115	298341		10.60	.966
7	17.18	828	833	837	12121	226041	109319		3.88	.354
8	17.51	837	849	862	45069	841541	643244		22.85	2.082
9	17.92	862	869	873	10482	191900	96775		3.44	.313
10	18.21	873	883	888	39745	683810	490194		17.42	1.587
11	18.39	888	892	896	30054	365781	260128		9.24	.842
12	18.64	896	904	911	103814	1450175	1255360	1	44.60	4.064
13	18.91	911	917	921	121959	1317637	1185856	2	42.13	3.839
14	19.09	921	926	928	127153	1086589	993600	3	35.30	3.216
15	19.23	928	933	938	170582	1781220	1649158	4	58.59	5.338
16	19.46	938	944	953	143300	2037516	1841178	5	65.42	5.960
17	19.83	953	962	964	84696	1081708	936203	55	33.26	3.031
18	19.99	964	970	974	162322	1744106	1611553	6	57.26	5.217
19	20.20	974	980	989	233215	3011784	2814578	7	100.00	9.111
20	20.55	989	997	1001	131306	1736654	1577826	8	56.06	5.108
21	20.69	1001	1004	1012	114925	1373823	1227865	9	43.63	3.975
22	21.06	1012	1022	1031	102211	2146941	1897605	10	67.42	6.143
23	21.43	1031	1040	1051	78608	1738389	1475995	11	52.44	4.778
24	22.01	1051	1068	1073	134009	2617989	2329077	12	82.75	7.539
25	22.28	1073	1081	1086	156716	2177047	2004257	13	71.21	6.488
26	22.44	1086	1089	1095	103947	1038797	918555	14	32.64	2.973
27	22.67	1095	1100	1114	107718	1951793	1700716	15	60.43	5.505
28	23.08	1114	1120	1125	63170	798960	652123		23.17	2.111
29	23.22	1125	1127	1132	39210	405581	311791		11.08	1.009
30	23.47	1132	1139	1148	64792	1019578	807125		28.68	2.613
31	23.80	1148	1155	1162	35754	581387	394817		14.03	1.278
32	24.08	1162	1169	1174	24325	409333	249069		8.85	.806
33	24.23	1174	1176	1180	14063	168005	87416		3.11	.283
34	24.41	1180	1185	1195	24646	372270	218911		7.78	.709
35	24.76	1195	1202	1208	10440	229279	94379		3.35	.306

Sum of corrected areas: 30892124.

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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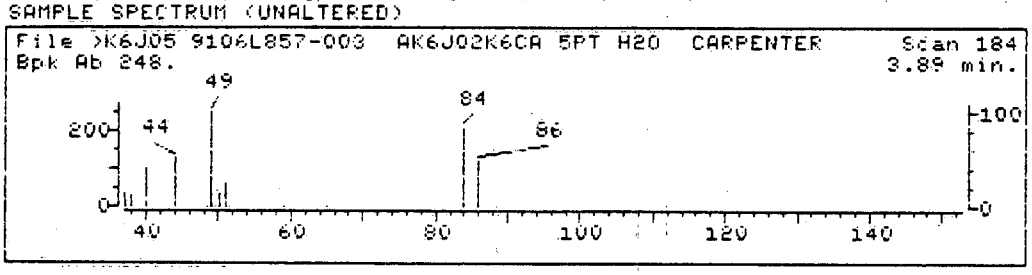
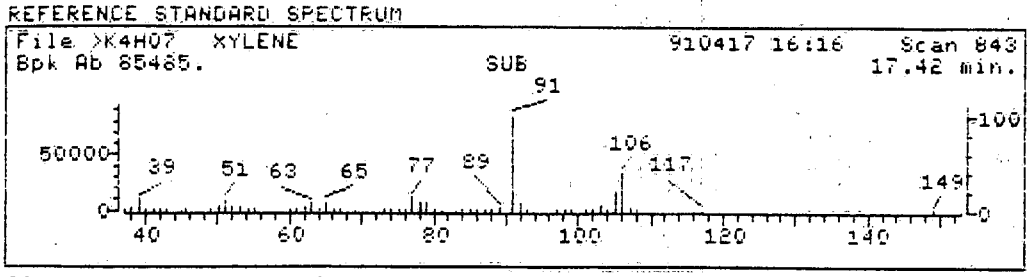


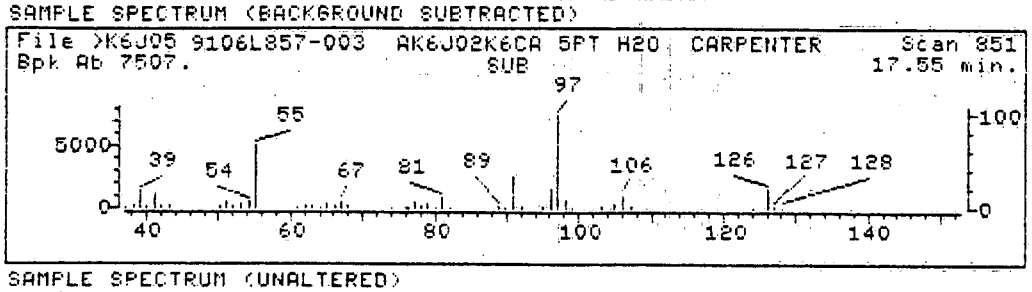
Data File: >K6J05::D2 Quant Output File: ^K6J05::QQ
Name: 9106L857-003 AK6J02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL
Quant Time: 910619 15:16 Quant ID File: I_K6JA::QQ
Injected at: 910619 14:45 Last Calibration: 910619 13:47

Compound No: 12
Compound Name: METHYLENE CHLORIDE
Scan Number: 184
Retention Time: 3.89 min.
Quant Ion: 84.0
Area: 2106
Concentration: 2.72 ug/L
q-value: 84

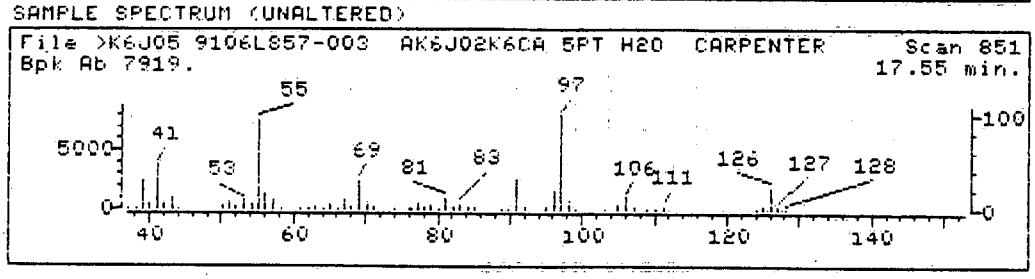
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



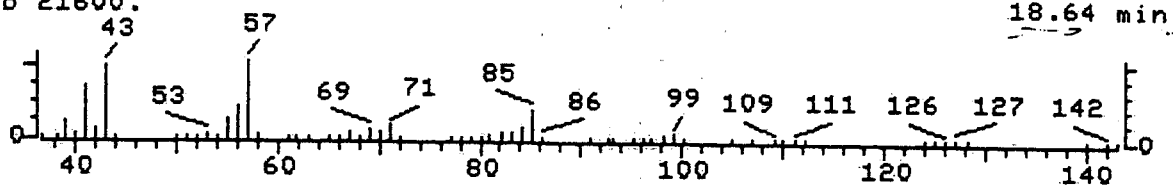
Data File: >K6J05::D2 Quant Output File: ^K6J05::QQ
Name: 9106L857-003 AK6J02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL
Quant Time: 910619 15:16 Quant ID File: I_K6JA::QQ
Injected at: 910619 14:45 Last Calibration: 910619 13:47

Compound No: 45
Compound Name: XYLENE
Scan Number: 851
Retention Time: 17.55 min.
Quant Ion: 106.0
Area: 7415
Concentration: 7.11 ug/L
q-value: 94

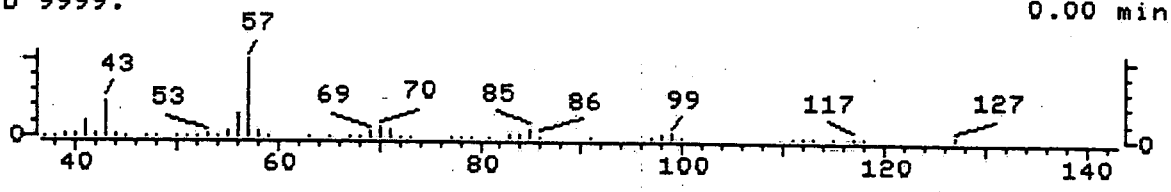
ok

0000048

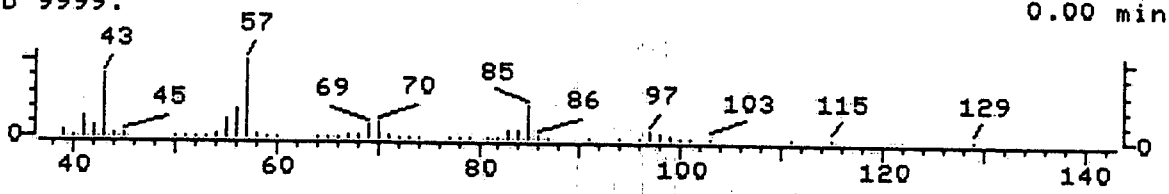
File >K6J05 9106L857-003 AK6J02K6CA 5PT H20 CARPENTER 5ML Scan 904
Bpk Ab 21600. 18.64 min.



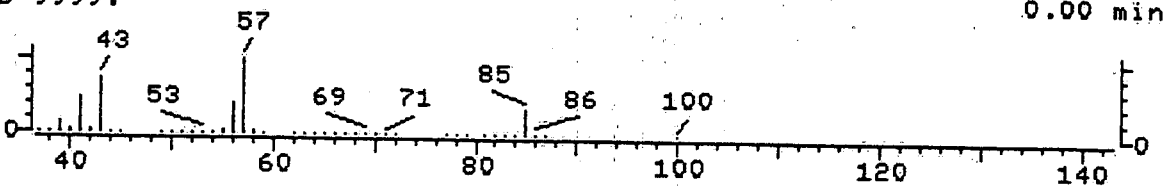
File >BIGDB Octane, 2,5,6-trimethyl- (9CI) Scan 6003
Bpk Ab 9999. 0.00 min.



File >BIGDB Ether, heptyl hexyl (8CI) Scan 5987
Bpk Ab 9999. 0.00 min.



File >BIGDB Pentane, 2,2-dimethyl- (8CI9CI) Scan 5912
Bpk Ab 9999. 0.00 min.



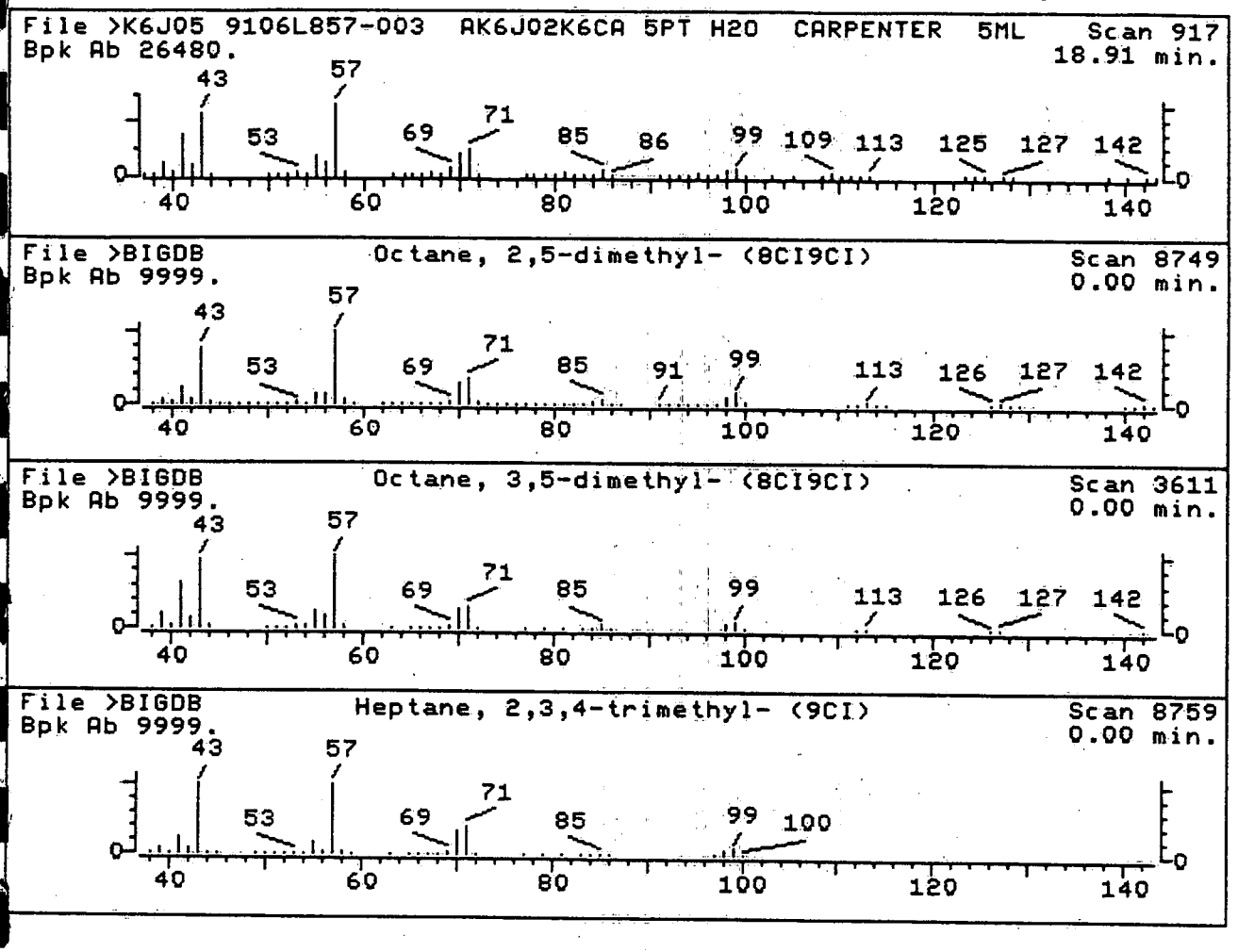
1.	Octane, 2,5,6-trimethyl- (9CI)	156	C11H24
2.	Ether, heptyl hexyl (8CI)	200	C13H28O
3.	Pentane, 2,2-dimethyl- (8CI9CI)	100	C7H16
4.	Heptane, 2,2,3,4,6,6-hexamethyl- (9CI)	184	C13H28
5.	Heptane, 2,2,4-trimethyl- (8CI9CI)	142	C10H22

Sample file: >K6J05 Spectrum #: 904
Search speed: 1 Tilting option: N No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60	62016142	6003	"BIGDB	40	47	1	0	93	15	30	14
2.	60	7289409	5987	"BIGDB	66	45	2	0	82	11	30	14
3.	58	590352	5912	"BIGDB	49	35	0	0	100	18	25	28
4.	52	62108321	1029	"BIGDB	47	40	1	0	93	20	20	17
5.	46	14720742	1022	"BIGDB	31	50	0	0	87	23	17	17

Unknown Conc = $\frac{50 \text{ ppb}}{436476} \times 1255360 \times 1 = 143.81$ ppb

0000049



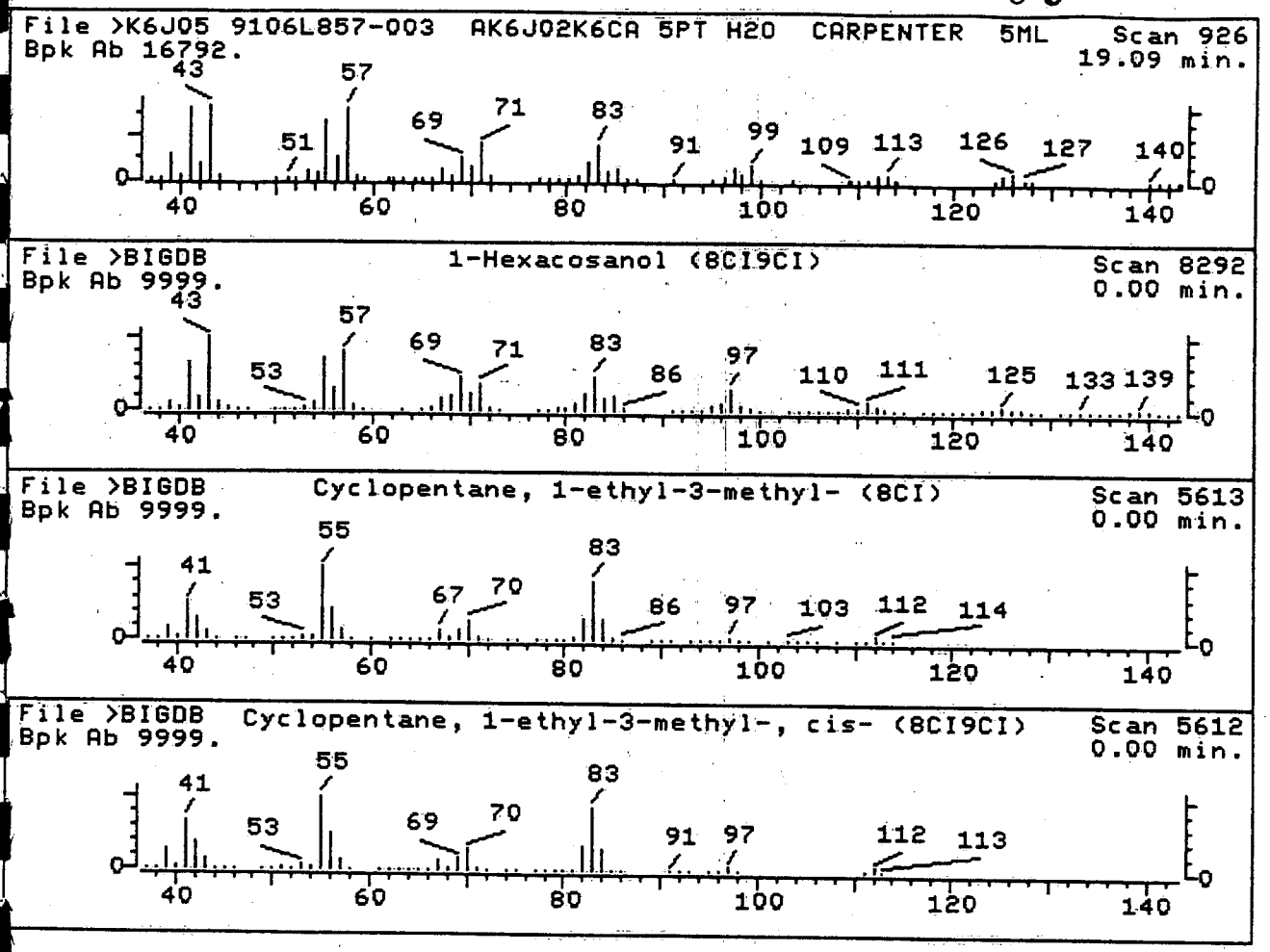
1. Octane, 2,5-dimethyl- (8CI9CI)	142	C10H22
2. Octane, 3,5-dimethyl- (8CI9CI)	142	C10H22
3. Heptane, 2,3,4-trimethyl- (9CI)	142	C10H22
4. Pentane, 2,2,3,3-tetramethyl- (8CI9CI)	128	C9H20
5. Nonane, 4-methyl- (8CI9CI)	142	C10H22

Sample file: >K6J05 Spectrum #: 917
Search speed: 1 Tilting option: N No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	95*	15869893	8749	"BIGDB	79	13	0	0	79	6	68	95
2.	89*	15869939	3611	"BIGDB	70	23	0	0	90	8	62	89
3.	79	52896954	8759	"BIGDB	61	29	0	0	88	10	48	38
4.	79	7154792	8746	"BIGDB	54	35	0	0	88	8	48	32
5.	78	17301949	3768	"BIGDB	55	45	2	0	72	3	55	14

Unknown Conc = $\frac{50 \text{ ppb}}{436476} \times 1185856 \times 1 = 135.84$ ppb

0000050



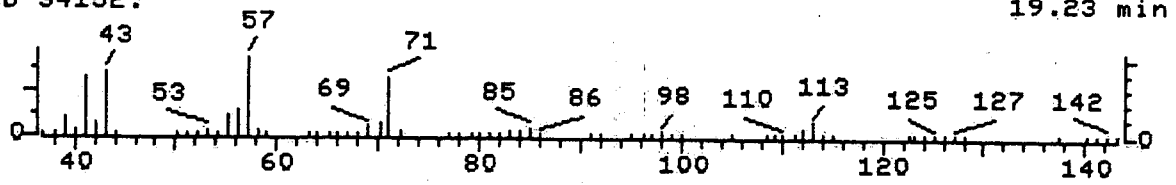
1. 1-Hexacosanol (8CI9CI)	382	C26H540
2. Cyclopentane, 1-ethyl-3-methyl- (8CI)	112	C8H16
3. Cyclopentane, 1-ethyl-3-methyl-, cis- (8CI9CI)	112	C8H16
4. Cyclopentane, 1-ethyl-3-methyl-, trans- (8CI9CI)	112	C8H16
5. Cyclopentane, 1-hexyl-3-methyl- (9CI)	168	C12H24

Sample file: >K6J05 Spectrum #: 926
Search speed: 1 Tilting option: N No. of ion ranges searched: 55

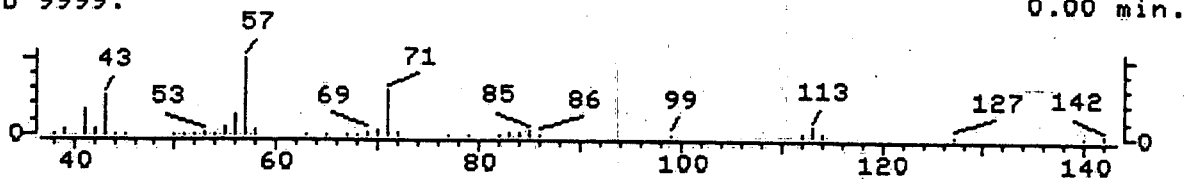
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	43	506525	8292	"BIGDB	77	86	3	0	100	25	17	14
2.	40*	3726474	5613	"BIGDB	54	53	1	0	58	48	12	40
3.	40*	2613663	5612	"BIGDB	54	54	1	0	54	48	12	40
4.	35*	2613652	5611	"BIGDB	52	56	1	0	52	50	11	35
5.	30	61142685	5639	"BIGDB	76	30	2	0	58	47	10	27

Unknown Conc = $\frac{50 \text{ ppb}}{436476} \times 993600 \times 1 = 113.82$ ppb

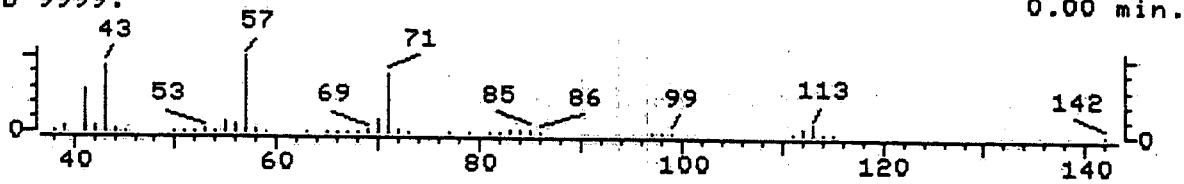
File >K6J05 9106L857-003 AK6J02K6CA 5PT H20 CARPENTER 5ML Scan 933
Bpk Ab 34152. 19.23 min.



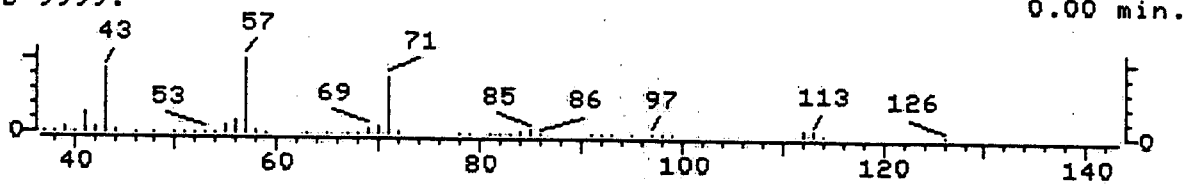
File >BIGDB Octane, 3,6-dimethyl- (8CI9CI) Scan 11043
Bpk Ab 9999. 0.00 min.



File >BIGDB Heptane, 3-ethyl-5-methyl- (9CI) Scan 3958
Bpk Ab 9999. 0.00 min.



File >BIGDB Octane, 2,3,7-trimethyl- (9CI) Scan 3962
Bpk Ab 9999. 0.00 min.



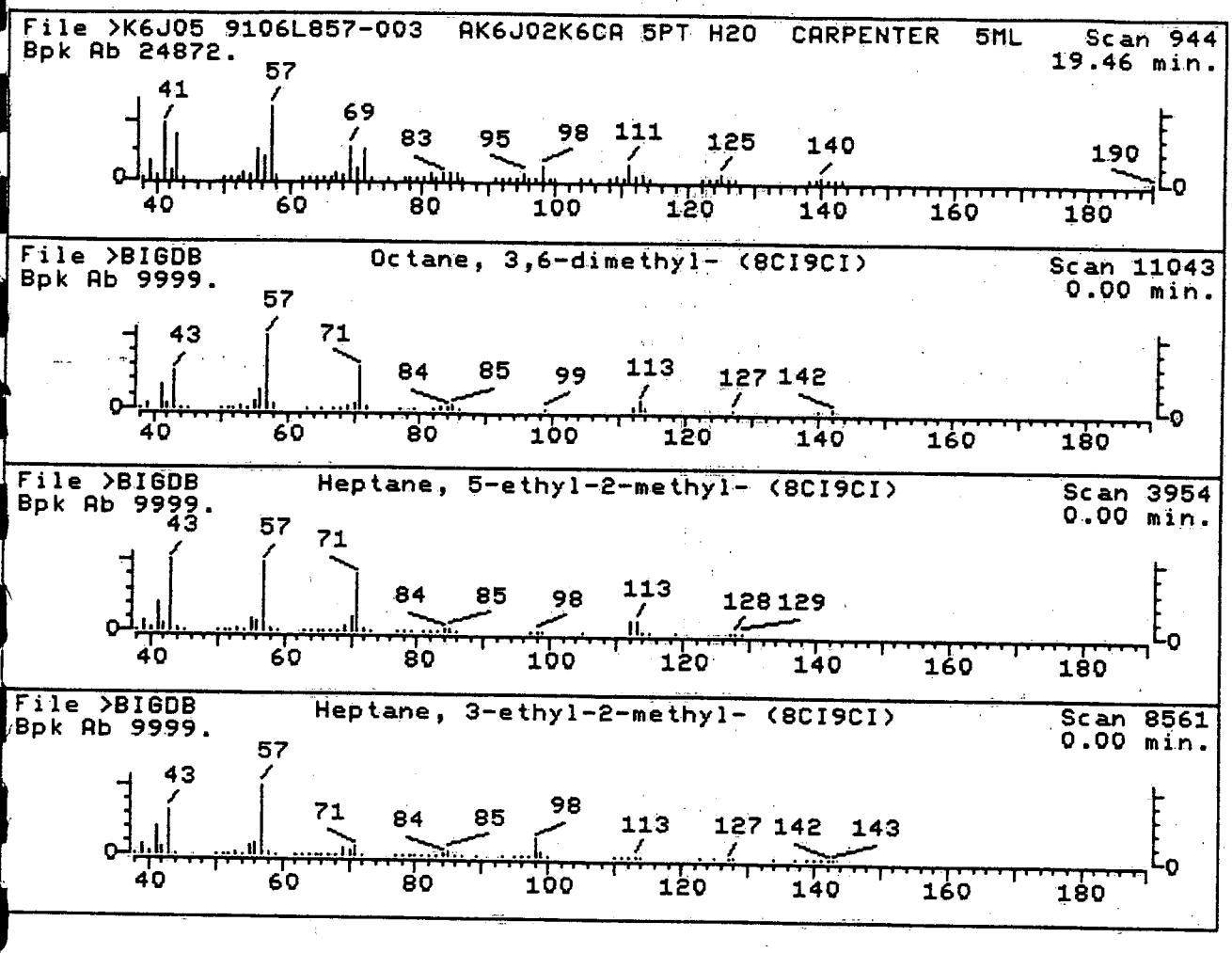
1. Octane, 3,6-dimethyl- (8CI9CI) 142 C10H22
2. Heptane, 3-ethyl-5-methyl- (9CI) 142 C10H22
3. Octane, 2,3,7-trimethyl- (9CI) 156 C11H24
4. Octane, 2,3,6-trimethyl- (9CI) 156 C11H24
5. Octane, 3-ethyl- (8CI9CI) 142 C10H22

Sample file: >K6J05 Spectrum #: 933
Search speed: 1 Tilting option: N No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	87*	15869940	11043	"BIGDB	44	45	0	0	100	3	63	49
2.	84*	52896909	3958	"BIGDB	57	37	0	0	90	7	55	69
3.	79	62016346	3962	"BIGDB	61	32	0	0	94	7	48	38
4.	76	62016335	3961	"BIGDB	59	33	1	0	74	10	45	26
5.	71*	5881174	3951	"BIGDB	47	46	1	0	75	14	38	32

Unknown Conc = $\frac{50ppb}{436476} \times 1649158 \times 1 = 188.92$ ppb

0000052

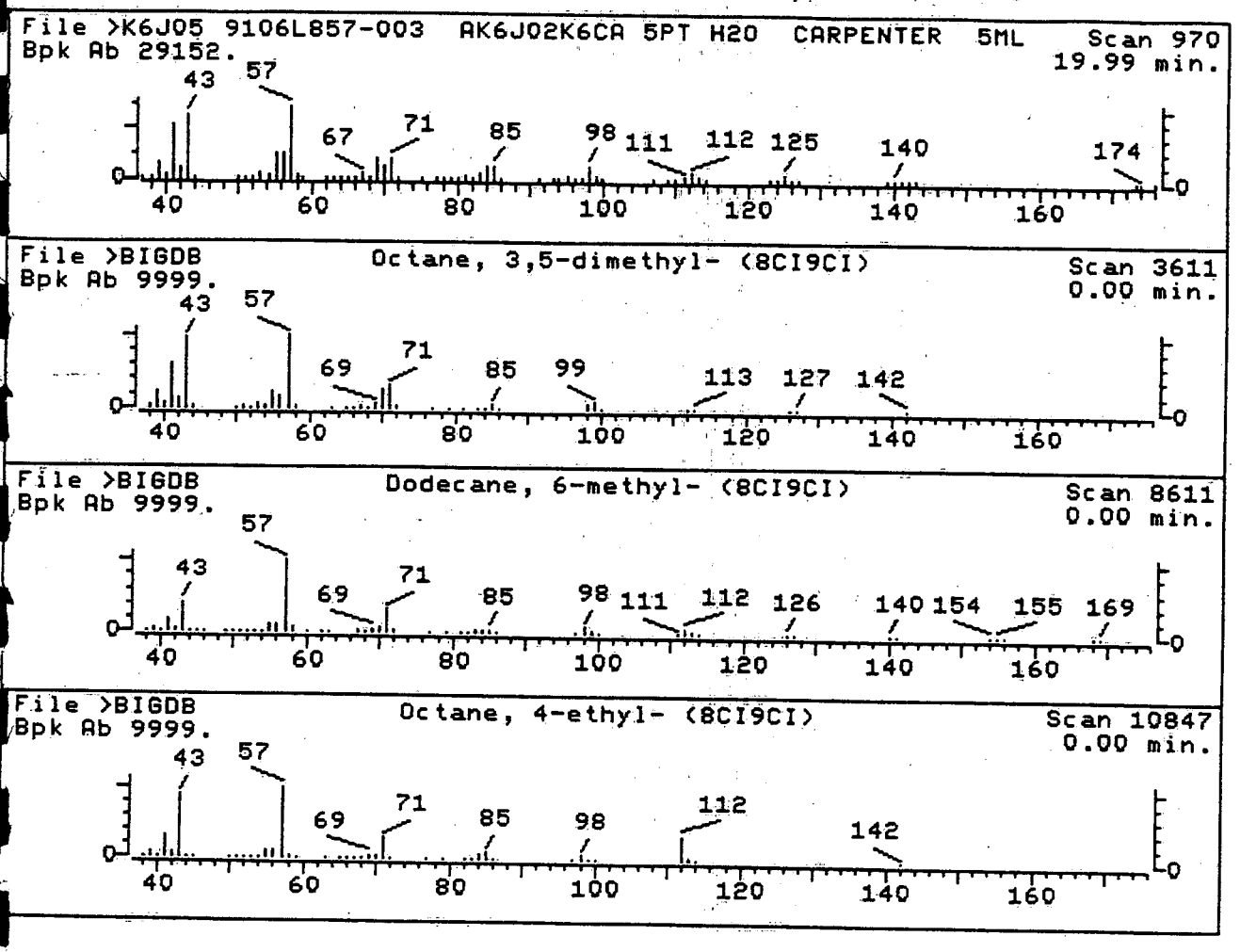


1. Octane, 3,6-dimethyl- (8CI9CI) 142 C10H22
2. Heptane, 5-ethyl-2-methyl- (8CI9CI) 142 C10H22
3. Heptane, 3-ethyl-2-methyl- (8CI9CI) 142 C10H22
4. Heptane, 3-ethyl-5-methyl- (9CI) 142 C10H22
5. Octane, 2,3,6-trimethyl- (9CI) 156 C11H24

Sample file: >K6J05 Spectrum #: 944
Search speed: 1 Tilting option: N No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	41*	15869940	11043	"BIGDB	49	40	2	0	84	41	14	30
2.	31	13475780	3954	"BIGDB	40	46	0	0	41	45	12	22
3.	31*	14676290	8561	"BIGDB	37	54	1	0	73	42	8	19
4.	30*	52896909	3958	"BIGDB	32	47	0	0	48	48	10	27
5.	30	62016335	3961	"BIGDB	53	39	2	0	76	43	8	18

Unknown conc = $\frac{50 ppb}{436476} \times 1841178 \times 1 = 210.91$ ppb



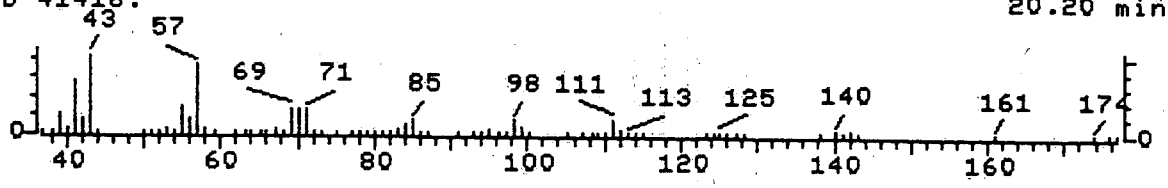
1. Octane, 3,5-dimethyl- (8CI9CI)	142	C10H22
2. Dodecane, 6-methyl- (8CI9CI)	184	C13H28
3. Octane, 4-ethyl- (8CI9CI)	142	C10H22
4. Decane, 2,5,9-trimethyl- (9CI)	184	C13H28
5. Undecane, 5,6-dimethyl- (8CI)	184	C13H28

Sample file: >K6J05 Spectrum #: 970
Search speed: 1 Tilting option: N No. of ion ranges searched: 56

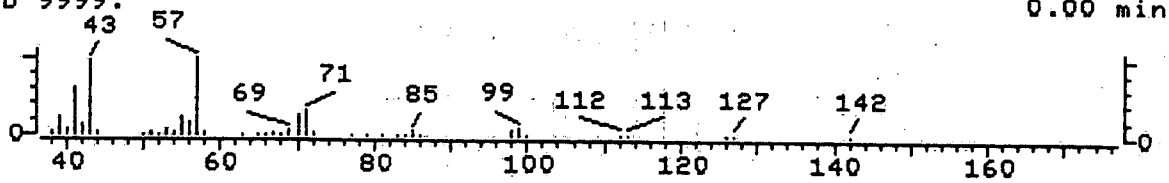
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	49*	15869939	3611	"BIGDB	45	48	1	0	74	27	19	27
2.	48	6044719	8611	"BIGDB	41	56	0	0	83	25	17	19
3.	48*	15869860	10847	"BIGDB	37	56	1	0	96	23	17	19
4.	42	62108229	3927	"BIGDB	38	53	0	0	85	30	14	19
5.	42	17615917	5776	"BIGDB	59	47	2	0	100	23	17	13

$$\text{Unknown Conc.} = \frac{50 \text{ ppb}}{436476} \times 1611553 \times 1 = 184.61 \text{ ppb}$$

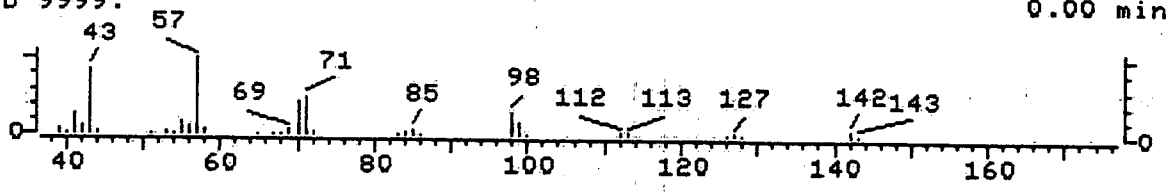
File >K6J05 9106L857-003 AK6J02K6CA 5PT H2O CARPENTER 5ML Scan 980
Bpk Ab 41416. 20.20 min.



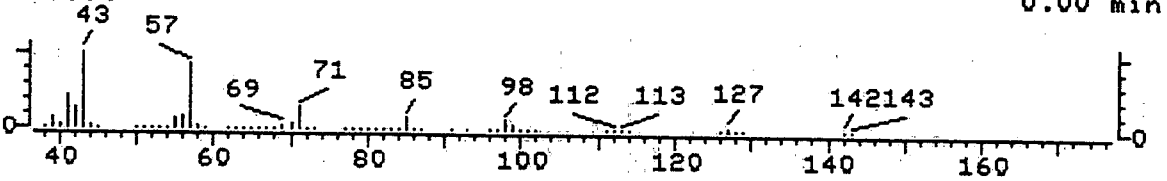
File >BIGDB Octane, 3,5-dimethyl- (8CI9CI) Scan 3611
Bpk Ab 9999. 0.00 min.



File >BIGDB Nonane, 4-methyl- (8CI9CI) Scan 3768
Bpk Ab 9999. 0.00 min.



File >BIGDB Nonane, 2-methyl- (8CI9CI) Scan 8635
Bpk Ab 9999. 0.00 min.



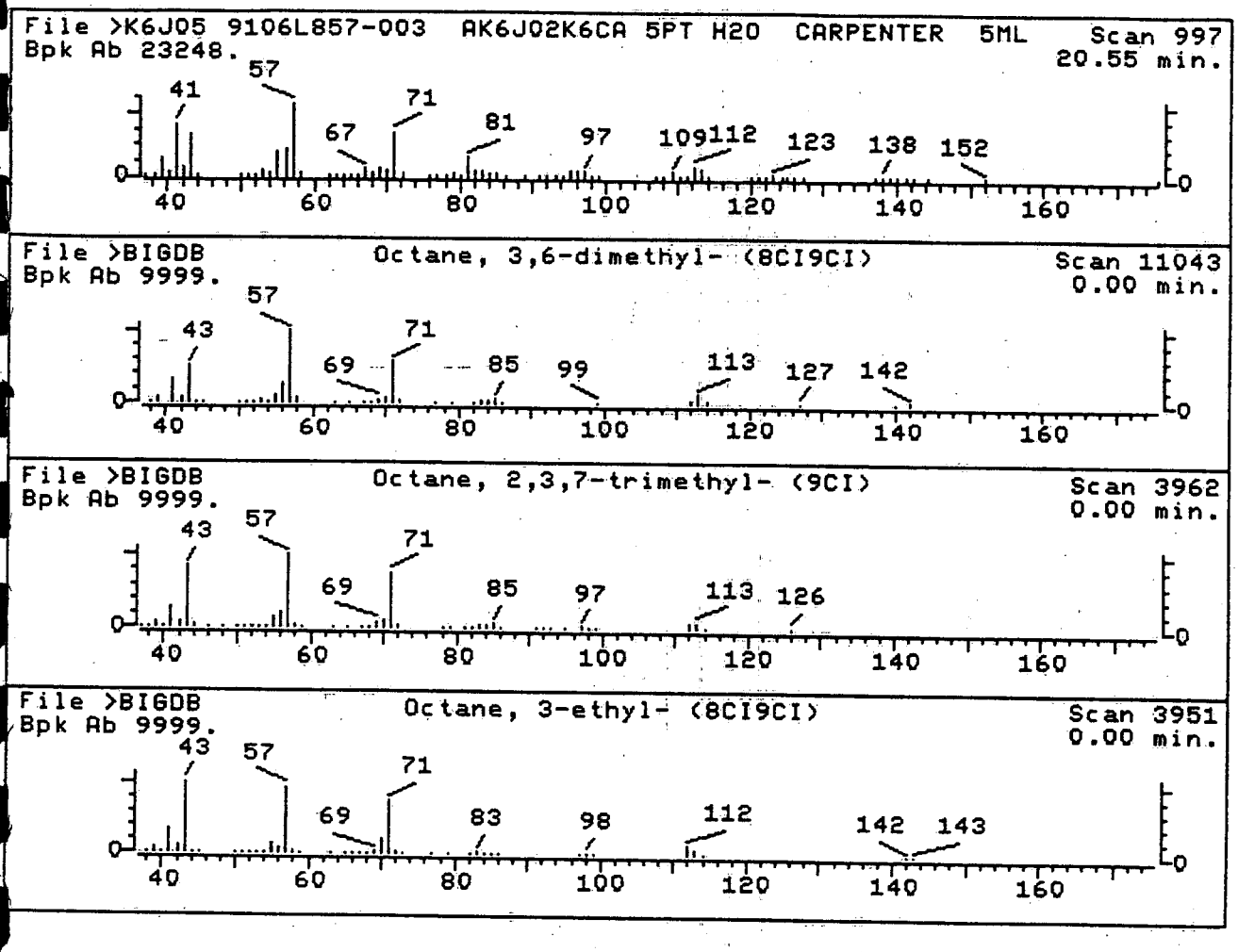
1. Octane, 3,5-dimethyl- (8CI9CI)	142	C10H22
2. Nonane, 4-methyl- (8CI9CI)	142	C10H22
3. Nonane, 2-methyl- (8CI9CI)	142	C10H22
4. 1-Decanol, 2-ethyl- (8CI9CI)	186	C12H26O
5. Pentane, 2,3,3-trimethyl- (8CI9CI)	114	C8H18

Sample file: >K6J05 Spectrum #: 980
Search speed: 1 Tilting option: N No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	56*	15869939	3611	"BIGDB	51	42	0	0	88	42	18	61
2.	43*	17301949	3768	"BIGDB	47	53	1	0	51	32	16	26
3.	35*	871830	8635	"BIGDB	53	43	2	0	100	47	11	31
4.	35	21078659	6052	"BIGDB	60	57	2	0	79	27	14	12
5.	35	560214	5990	"BIGDB	45	43	0	0	67	45	12	26

Unknown Conc = $\frac{50 \text{ ppb}}{\cancel{2814578}\ 436476} \times 2814578 \times 1 = 322.27$ ppb

RS Lodge 6/24/91



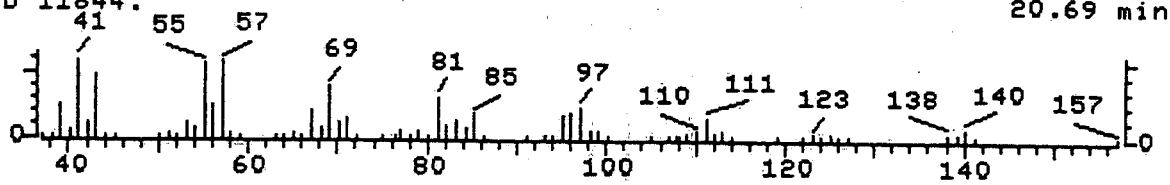
1. Octane, 3,6-dimethyl- (8CI9CI)	142	C10H22
2. Octane, 2,3,7-trimethyl- (9CI)	156	C11H24
3. Octane, 3-ethyl- (8CI9CI)	142	C10H22
4. Octane, 2,3,6-trimethyl- (9CI)	156	C11H24
5. Nonane, 3,7-dimethyl- (8CI9CI)	156	C11H24

Sample file: >K6J05 Spectrum #: 997
Search speed: 1 Tilting option: N No. of ion ranges searched: 56

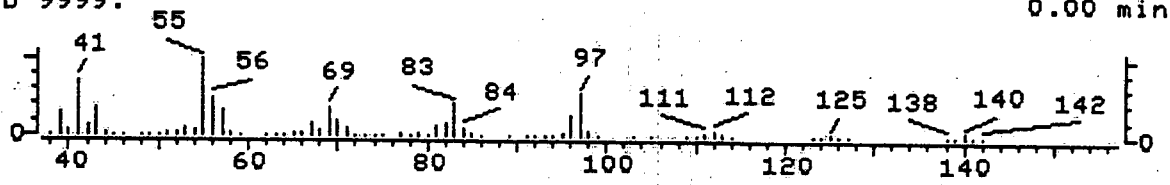
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	75*	15869940	11043	"BIGDB	55	34	0	0	99	16	35	66
2.	59	62016346	3962	"BIGDB	56	37	0	0	68	23	27	34
3.	59*	5881174	3951	"BIGDB	51	42	2	0	82	25	27	32
4.	45	62016335	3961	"BIGDB	56	36	1	0	71	28	19	23
5.	42	17302328	6100	"BIGDB	40	46	2	0	89	25	17	13

Unknown Conc = $\frac{50 \text{ ppb}}{436476} \times 1577826 \times 1 = 180.75$ ppb.

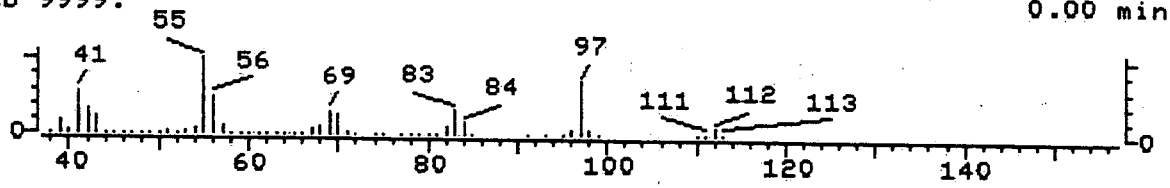
File >K6J05 9106L857-003 AK6J02K6CA 5PT H2O CARPENTER 5ML Scan 1004
Bpk Ab 11844. 20.69 min.



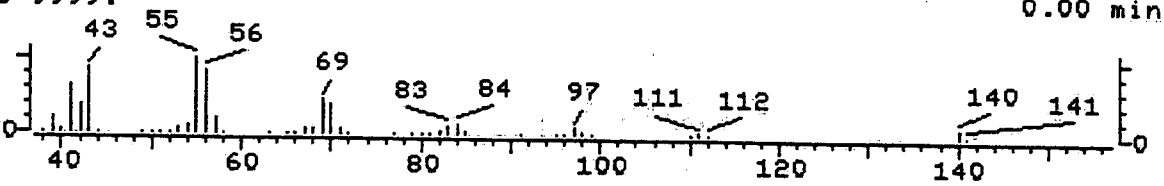
File >BIGDB Cyclopentane, 1-methyl-3-(2-methylpropyl)- (9CI) Scan 8350
Bpk Ab 9999. 0.00 min.



File >BIGDB Cycloheptane, methyl- (8CI9CI) Scan 8269
Bpk Ab 9999. 0.00 min.



File >BIGDB 2-Decene, (E)- (8CI9CI) Scan 3748
Bpk Ab 9999. 0.00 min.



1. Cyclopentane, 1-methyl-3-(2-methylpropyl)- (9CI)	140	C10H20
2. Cycloheptane, methyl- (8CI9CI)	112	C8H16
3. 2-Decene, (E)- (8CI9CI)	140	C10H20
4. Hexane, 1-(hexyloxy)-5-methyl- (9CI)	200	C13H28O
5. Cyclononanone (8CI9CI)	140	C9H16O

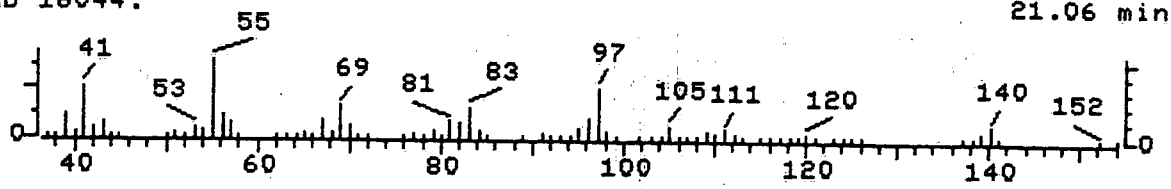
Sample file: >K6J05 Spectrum #: 1004
Search speed: 1 Tilting option: N No. of ion ranges searched: 60

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	41*	29053041	8350	"BIGDB	52	60	1	0	70	42	14	35
2.	31*	4126787	8269	"BIGDB	50	56	0	0	53	60	8	60
3.	28*	20063972	3748	"BIGDB	33	62	0	0	48	51	8	30
4.	28	74421195	6008	"BIGDB	70	46	2	0	82	45	8	16
5.	27*	3350309	8649	"BIGDB	27	97	3	0	88	39	10	13

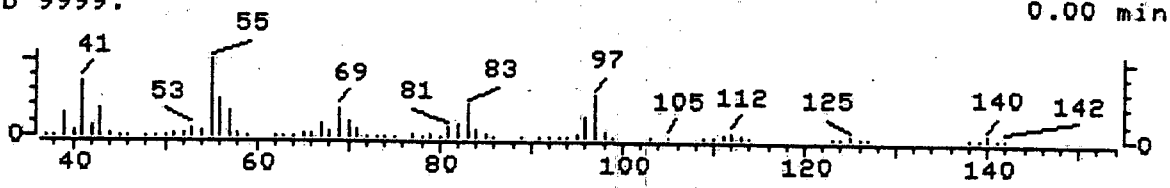
Unknown conc = $\frac{50 ppb}{436476} \times 1227865 \times 1 = 140.66$ ppb

0000057

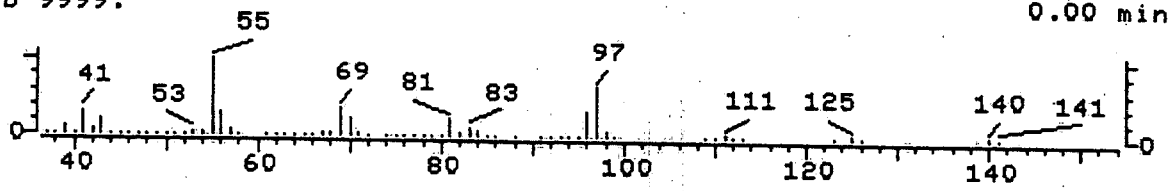
File >K6J05 9106L857-003 AK6J02K6CA 5PT H2O CARPENTER 5ML Scan 1022
Bpk Ab 16044. 21.06 min.



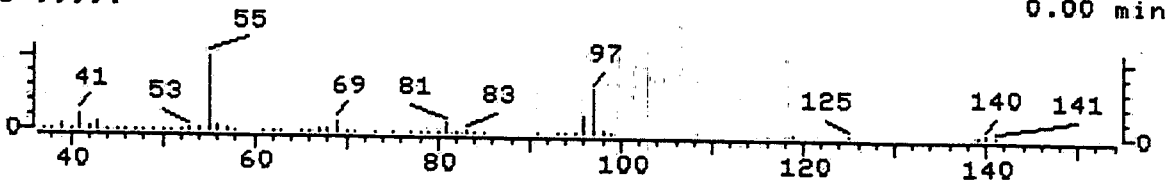
File >BIGDB Cyclopentane, 1-methyl-3-(2-methylpropyl)- (9CI) Scan 8350
Bpk Ab 9999. 0.00 min.



File >BIGDB Cyclopentane, 1,2-dimethyl-3-(1-methylethyl)- (9C Scan 8206
Bpk Ab 9999. 0.00 min.



File >BIGDB Cyclohexane, 1-methyl-3-(1-methylethyl)- (9CI) Scan 8346
Bpk Ab 9999. 0.00 min.



1. Cyclopentane, 1-methyl-3-(2-methylpropyl)- (9CI) 140 C10H20
2. Cyclopentane, 1,2-dimethyl-3-(1-methylethyl)- (9CI) 140 C10H20
3. Cyclohexane, 1-methyl-3-(1-methylethyl)- (9CI) 140 C10H20
4. m-Menthane, (1S,3R)-(+)- (8CI) 140 C10H20
5. Cyclopentane, 2-isopropyl-1,3-dimethyl- (8CI) 140 C10H20

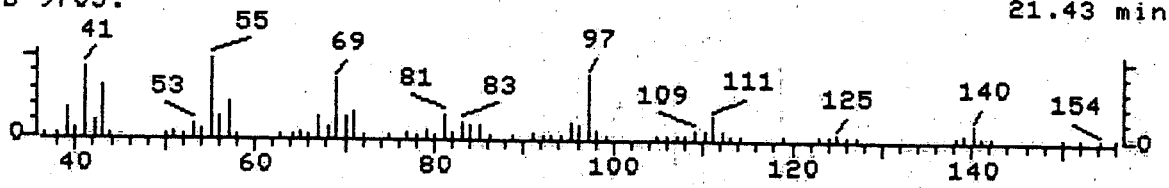
Sample file: >K6J05 Spectrum #: 1022
Search speed: 1 Tilting option: N No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	51*	29053041	8350	"BIGDB	50	62	2	0	79	23	22	23
2.	43*	489203	8206	"BIGDB	45	52	0	0	65	46	13	53
3.	35*	16580248	8346	"BIGDB	34	53	0	0	96	46	11	33
4.	30*	13837666	8345	"BIGDB	50	47	2	0	51	50	10	26
5.	28*	32281859	8299	"BIGDB	34	61	0	0	45	55	8	32

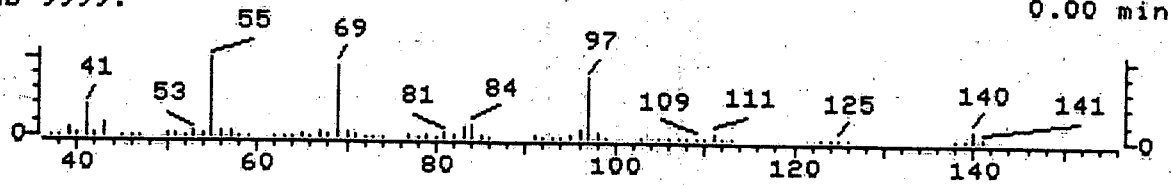
Unknown Conc = $\frac{50 \text{ ppb}}{436476} \times 1897605 \times 1 = 217.38$ ppb

0000058

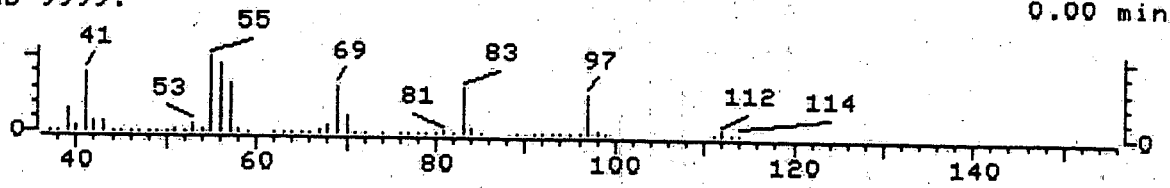
File >K6J05 9106L857-003 AK6J02K6CA 5PT H20 CARPENTER 5ML Scan 1040
Bpk Ab 9705. 21.43 min.



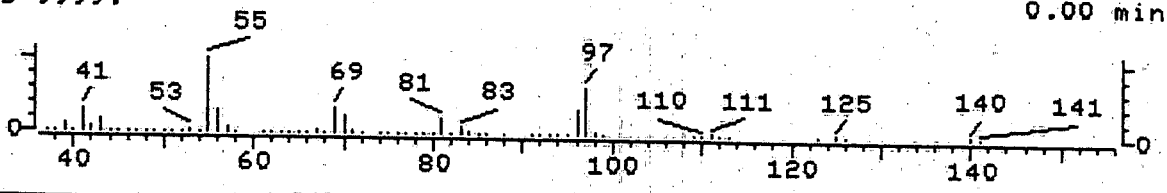
File >BIGDB 3-Hexene, 3-ethyl-2,5-dimethyl- (9CI) Scan 8356
Bpk Ab 9999. 0.00 min.



File >BIGDB Cyclopentane, 1,1,3-trimethyl- (8CI9CI) Scan 8270
Bpk Ab 9999. 0.00 min.



File >BIGDB Cyclopentane, 1,2-dimethyl-3-(1-methylethyl)- (9C Scan 8206
Bpk Ab 9999. 0.00 min.



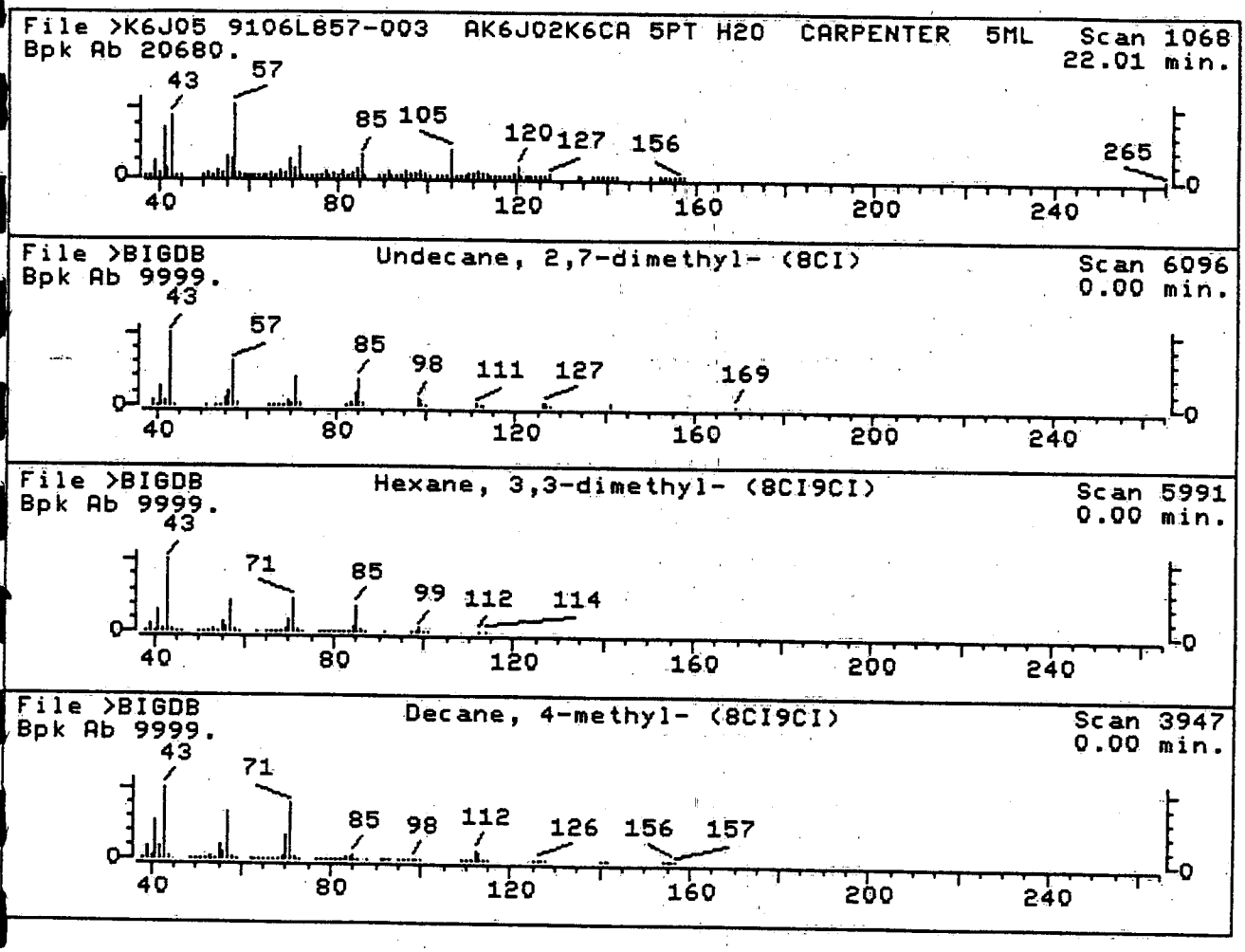
1. 3-Hexene, 3-ethyl-2,5-dimethyl- (9CI)	140	C10H20
2. Cyclopentane, 1,1,3-trimethyl- (8CI9CI)	112	C8H16
3. Cyclopentane, 1,2-dimethyl-3-(1-methylethyl)- (9CI)	140	C10H20
4. Cyclohexane, 1-methyl-3-propyl- (8CI9CI)	140	C10H20
5. 2-Pyrazoline, 1-butyl-5-methyl- (8CI)	140	C8H16N2

Sample file: >K6J05 Spectrum #: 1040
Search speed: 1 Tilting option: N No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	69*	62338083	8356	"BIGDB	51	48	0	0	79	35	26	61
2.	50*	4516692	8270	"BIGDB	76	34	3	0	100	40	19	41
3.	46*	489203	8206	"BIGDB	48	49	1	0	89	35	20	30
4.	41*	4291809	8342	"BIGDB	35	57	0	0	85	45	14	35
5.	31*	22581506	8347	"BIGDB	27	53	0	0	79	44	8	19

Unknown Conc = $\frac{50 ppb}{436476} \times 1475995 \times 1 = 169.08$ ppb

0000059



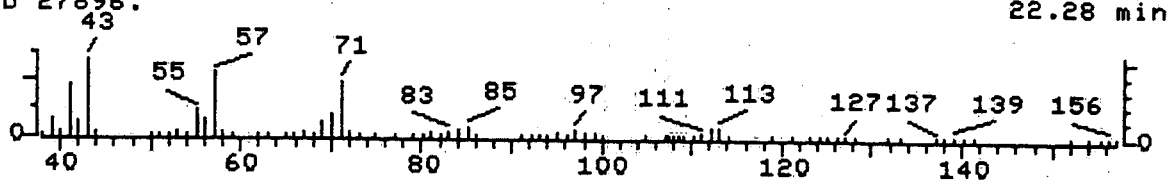
1. Undecane, 2,7-dimethyl- (8CI)	184	C13H28
2. Hexane, 3,3-dimethyl- (8CI9CI)	114	C8H18
3. Decane, 4-methyl- (8CI9CI)	156	C11H24
4. Heptadecane (8CI9CI)	240	C17H36
5. Undecane, 3,9-dimethyl- (8CI)	184	C13H28

Sample file: >K6J05 Spectrum #: 1068
Search speed: 1 Tilting option: N No. of ion ranges searched: 56

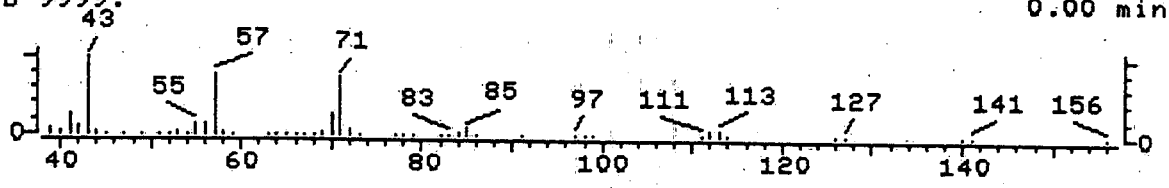
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	62	17301245	6096	"BIGDB	68	32	0	0	82	26	25	44
2.	59	563166	5991	"BIGDB	51	39	0	0	75	24	27	30
3.	58*	2847725	3947	"BIGDB	40	46	0	0	39	37	19	49
4.	52	629787	6090	"BIGDB	60	61	2	0	73	20	20	12
5.	52	17301314	8939	"BIGDB	59	46	2	0	96	20	20	13

$$\text{Unknown Conc} = \frac{50\text{ppb}}{436476} \times 2329077 \times 1 = 266.68\text{ ppb}$$

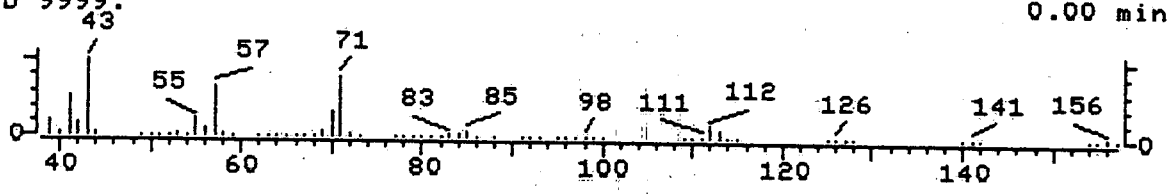
File >K6J05 9106L857-003 AK6J02K6CA 5PT H2O CARPENTER 5ML Scan 1081
Bpk Ab 27896. 22.28 min.



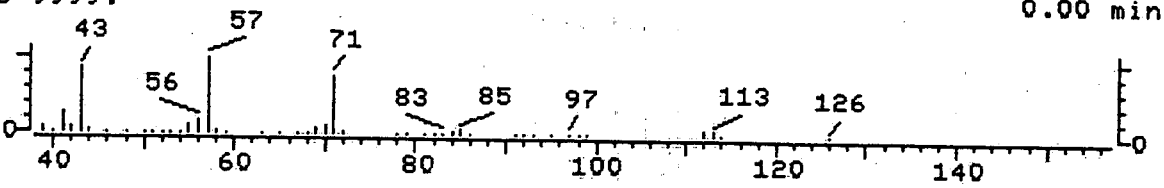
File >BIGDB Nonane, 2,6-dimethyl- (8CI9CI) Scan 3956
Bpk Ab 9999. 0.00 min.



File >BIGDB Decane, 4-methyl- (8CI9CI) Scan 3947
Bpk Ab 9999. 0.00 min.



File >BIGDB Octane, 2,3,7-trimethyl- (9CI) Scan 3962
Bpk Ab 9999. 0.00 min.



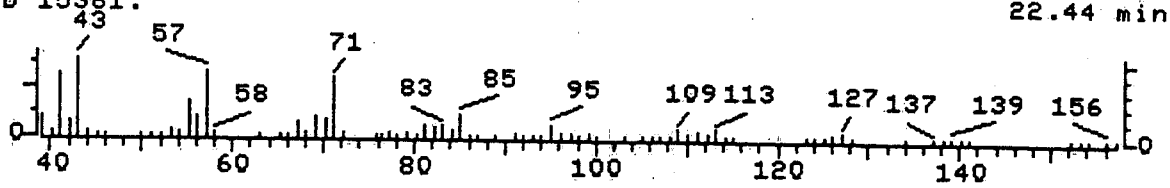
1. Nonane, 2,6-dimethyl- (8CI9CI)	156	C11H24
2. Decane, 4-methyl- (8CI9CI)	156	C11H24
3. Octane, 2,3,7-trimethyl- (9CI)	156	C11H24
4. Decane, 2,6,7-trimethyl- (9CI)	184	C13H28
5. Heptane, 5-ethyl-2-methyl- (8CI9CI)	142	C10H22

Sample file: >K6J05 Spectrum #: 1081
Search speed: 1 Tilting option: N No. of ion ranges searched: 57

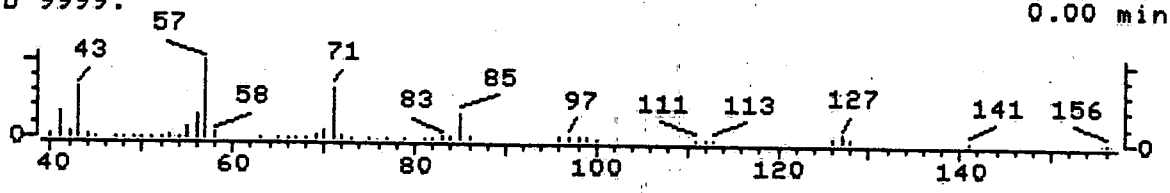
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	84*	17302282	3956	"BIGDB	53	38	0	0	86	9	55	65
2.	80*	2847725	3947	"BIGDB	66	35	0	0	71	30	37	78
3.	71	62016346	3962	"BIGDB	52	41	0	0	81	15	38	31
4.	70	62108252	3963	"BIGDB	54	44	1	0	81	9	42	17
5.	67	13475780	3954	"BIGDB	50	51	0	0	72	15	34	27

Unknown Conc. = $\frac{50 \text{ ppb}}{436476} \times 2004257 \times 1 = 229.49$ ppb

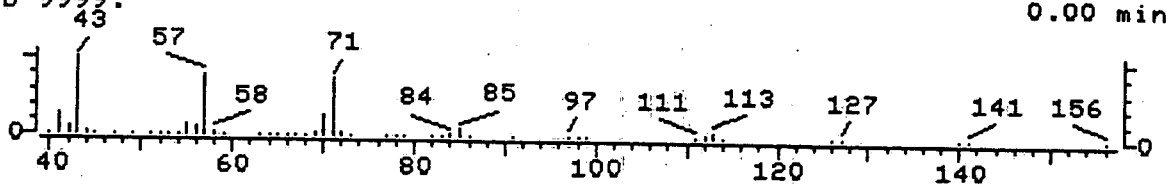
File >K6J05 9106L857-003 AK6J02K6CA 5PT H20 CARPENTER 5ML Scan 1089
Bpk Ab 15381. 22.44 min.



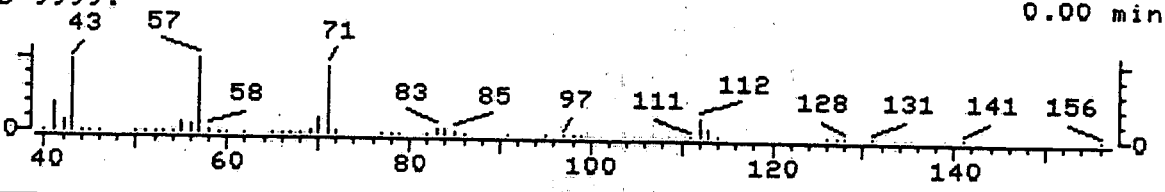
File >BIGDB Nonane, 3,7-dimethyl- (8CI9CI) Scan 6100
Bpk Ab 9999. 0.00 min.



File >BIGDB Nonane, 2,6-dimethyl- (8CI9CI) Scan 3956
Bpk Ab 9999. 0.00 min.



File >BIGDB Nonane, 2,3-dimethyl- (8CI9CI) Scan 10835
Bpk Ab 9999. 0.00 min.



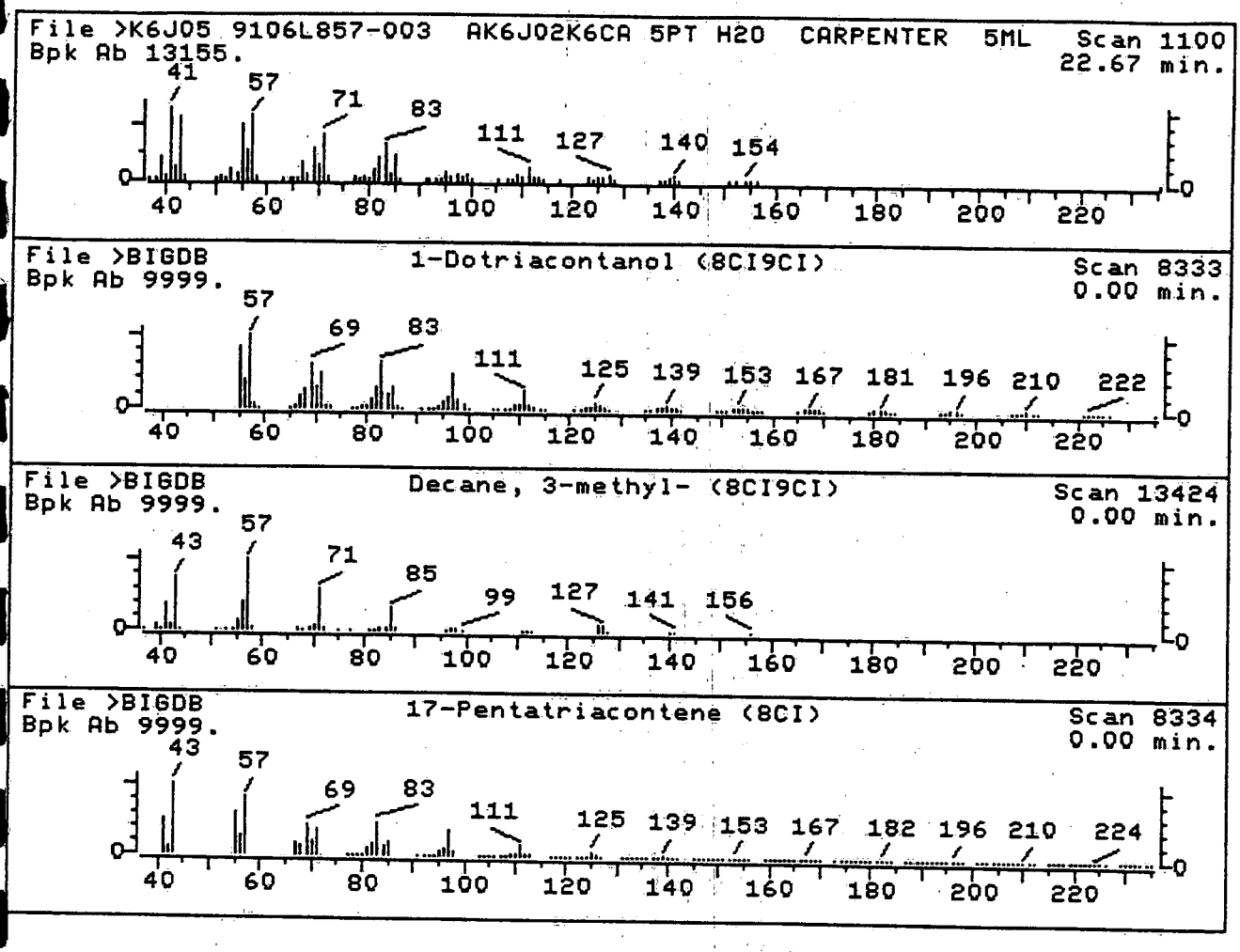
1. Nonane, 3,7-dimethyl- (8CI9CI)	156	C11H24
2. Nonane, 2,6-dimethyl- (8CI9CI)	156	C11H24
3. Nonane, 2,3-dimethyl- (8CI9CI)	156	C11H24
4. Octane, 6-ethyl-2-methyl- (9CI)	156	C11H24
5. Dodecane, 4,6-dimethyl- (9CI)	198	C14H30

Sample file: >K6J05 Spectrum #: 1089
Search speed: 1 Tilting option: N No. of ion ranges searched: 58

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	79*	17302328	6100	"BIGDB	62	24	0	0	84	26	37	77
2.	73*	17302282	3956	"BIGDB	53	38	0	0	83	23	32	65
3.	62*	2884062	10835	"BIGDB	54	47	1	0	83	26	25	40
4.	59	62016197	6106	"BIGDB	54	36	0	0	72	25	27	32
5.	58	61141728	3960	"BIGDB	64	46	1	0	84	17	25	22

Unknown Conc = $\frac{50 \text{ ppb}}{436476} \times 918555 \times 1 = 105.22 \text{ ppb}$

0000062



1. 1-Dotriacontanol (8CI9CI)	466	C32H66O
2. Decane, 3-methyl- (8CI9CI)	156	C11H24
3. 17-Pentatriacontene (8CI)	490	C35H70
4. Cyclopentane, 2-isopropyl-1,3-dimethyl- (8CI)	140	C10H20
5. Nonane, 3,7-dimethyl- (8CI9CI)	156	C11H24

Sample file: >K6J05 Spectrum #: 1100
Search speed: 1 Tilting option: N No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60	6624799	8333	"BIGDB	88	93	3	0	78	15	30	17
2.	53*	13151343	13424	"BIGDB	60	34	1	0	88	45	17	56
3.	36	6971400	8334	"BIGDB	76	95	2	0	86	35	12	19
4.	35*	32281859	8299	"BIGDB	55	55	2	0	75	46	11	32
5.	34*	17302328	6100	"BIGDB	44	42	0	0	87	55	10	53

Unknown Conc = $\frac{50 ppb}{436476} \times 1700716 \times 1 = 194.82 ppb$

1A
VOLATILE ORGANICS ANALYSIS SHEET

0000063 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: 9106L857-004

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

Lab File ID: AK6I17

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

Column: (pack/cap) CAP

Dilution Factor: 100

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	1000	U
74-83-9	Bromomethane	1000	U
75-01-4	Vinyl Chloride	1000	U
75-00-3	Chloroethane	1000	U
75-09-2	Methylene Chloride	580	B
75-35-4	1,1-Dichloroethene	500	U
75-34-3	1,1-Dichloroethane	500	U
540-59-0	1,2-Dichloroethene (total)	500	U
67-66-3	Chloroform	500	U
107-06-2	1,2-Dichloroethane	500	U
71-55-6	1,1,1-Trichloroethane	500	U
56-23-5	Carbon Tetrachloride	500	U
75-27-4	Bromodichloromethane	500	U
78-87-5	1,2-Dichloropropane	500	U
10061-01-5	cis-1,3-Dichloropropene	500	U
79-01-6	Trichloroethene	500	U
124-48-1	Dibromochloromethane	500	U
79-00-5	1,1,2-Trichloroethane	500	U
71-43-2	Benzene	500	U
10061-02-6	Trans-1,3-Dichloropropene	500	U
110-75-8	2-chloroethylvinylether	1000	U
75-25-2	Bromoform	500	U
127-18-4	Tetrachloroethene	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
108-88-3	Toluene	500	U
108-90-7	Chlorobenzene	500	U
100-41-4	Ethylbenzene	2900	
95-50-1	1,2-Dichlorobenzene	500	U
541-73-1	1,3-Dichlorobenzene	500	U
106-46-7	1,4-Dichlorobenzene	500	U
107-02-8	Acrolein	1000	U
107-13-1	Acrylonitrile	1000	U
75-69-4	Trichlorofluoromethane	500	U
1330-20-7	Xylene (total)	21000	

1E

000006 /CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-3

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

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9106L857-004

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

Lab File ID: AK6I17

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

Column: (pack/cap) CAP

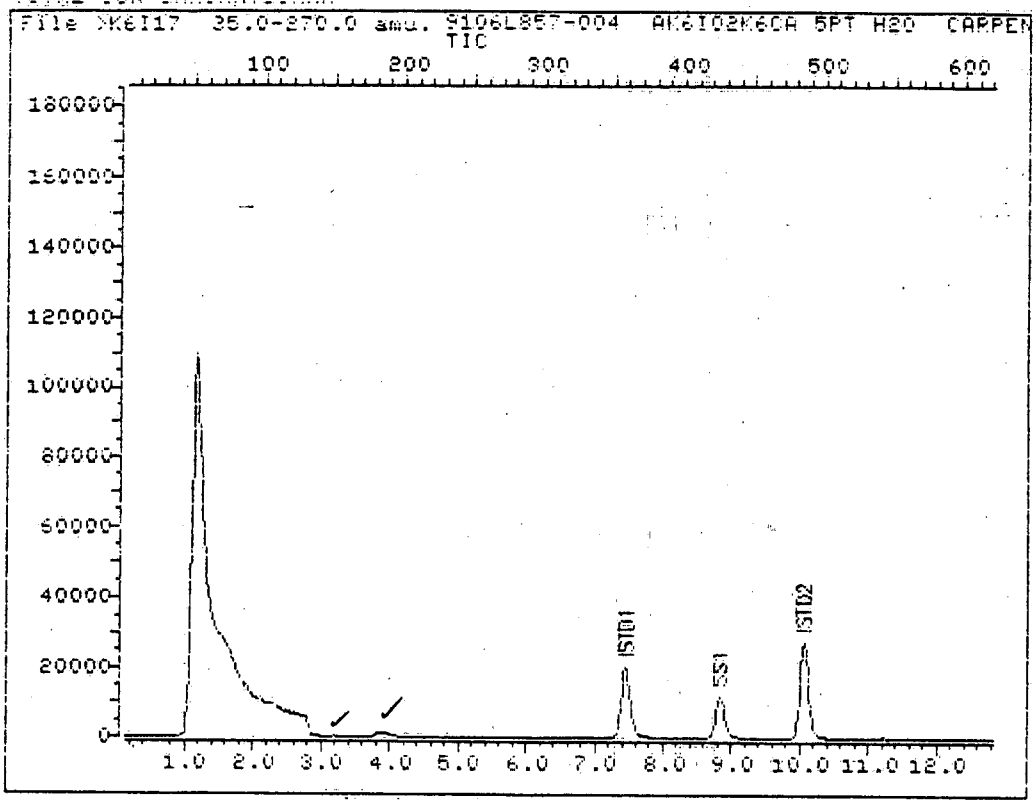
Dilution Factor: 100

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



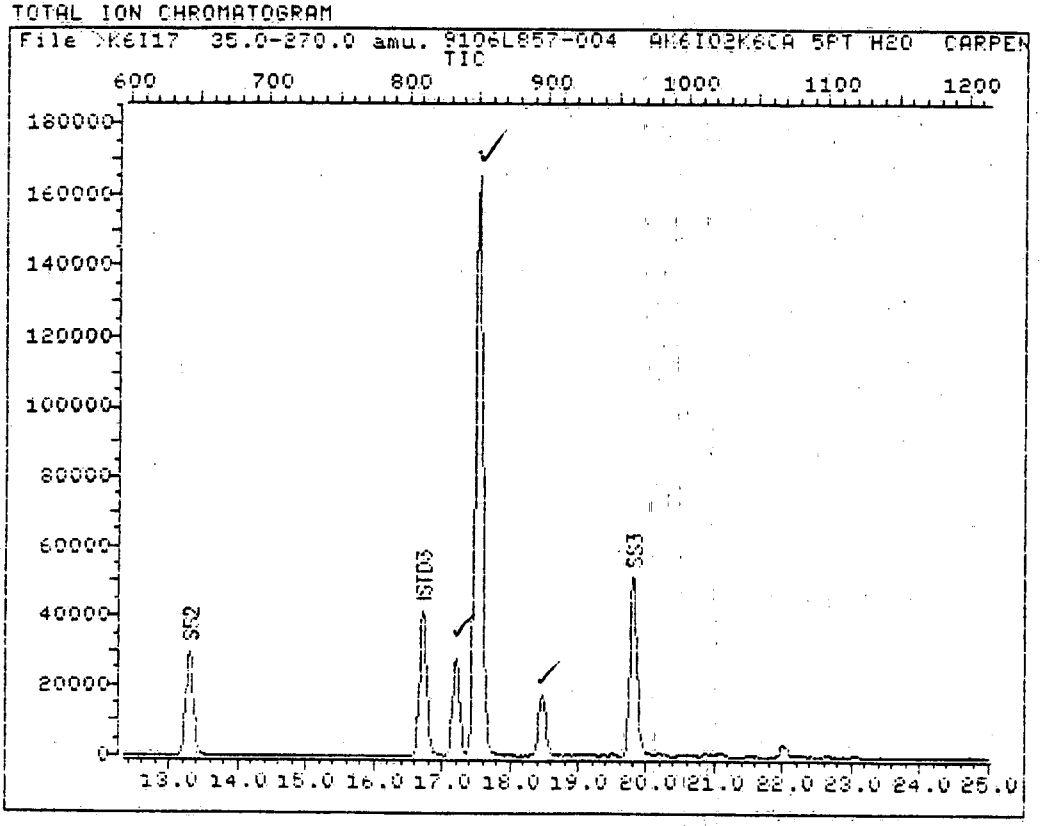
Data File: >K6I17::D2 Quant Output File: ^K6I17::QQ
Name: 9106L857-004 AK6I02
Misc: K6CA 5PT H2O CARPENTER DIL 100 #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 23:04
Injected at: 910618 22:33

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6I17::D2 Quant Output File: ^K6I17::QQ
Name: 9106L857-004 AK6I02
Misc: K6CA 5PT H2O CARPENTER DIL 100 #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 23:04
Injected at: 910618 22:33

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910618 23:04
Output File: ^K6I17::QQ Injected at: 910618 22:33
Data File: >K6I17::D2 Dilution Factor: 1.00000
Name: 9106L857-004 AK6I02
Misc: K6CA 5PT H2O CARPENTER DIL 100 #HP-MSD K RSL

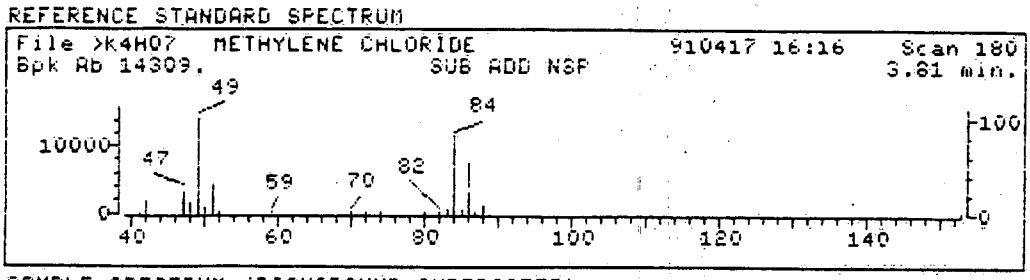
ID File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.45	128.0	26007✓	50.00	ug/L	71
11)	ACETONE	3.19	43.0	416M	3.96	ug/L ✓	
12)	METHYLENE CHLORIDE	3.91	84.0	3749M	5.75	ug/L✓	
24)	*1,4-DIFLUOROBENZENE	10.05	114.0	89421✓	50.00	ug/L	69
26)	1,2-DICHLOROETHANE D4	8.82	65.0	42798	50.34	ug/L✓	90
32)	*CHLOROBENZENE-D5	16.72	117.0	90564✓	50.00	ug/L	91
34)	TOLUENE D8	13.31	98.0	81149	49.55	ug/L✓	97
43)	ETHYLBENZENE	17.22	106.0	22475	29.23	ug/L✓	99
45)	XYLENE	17.54	106.0	169040	186.68	ug/L✓	85
46)	XYLENES (TOTAL)	18.49	106.0	17770	19.50	ug/L✓	85
48)	4-BROMOFLUOROBENZENE	19.82	95.0	74924	49.96	ug/L✓	92

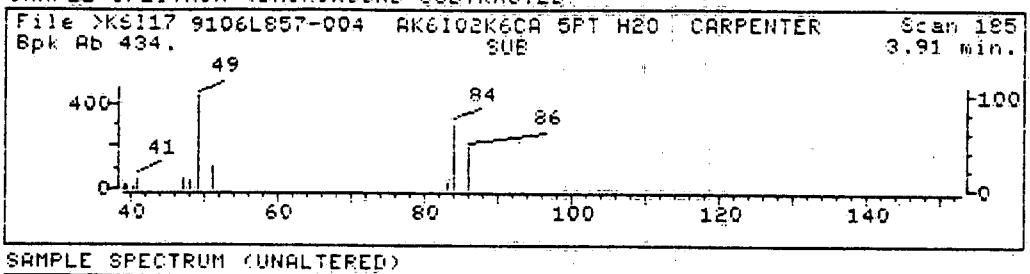
* Compound is ISTD

No TIC
RSL
6/18/91

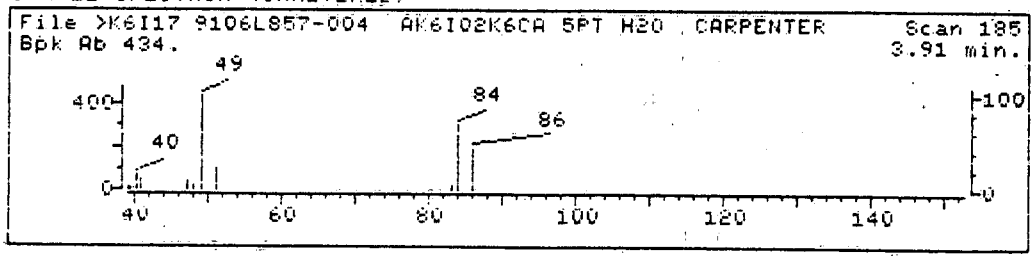
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



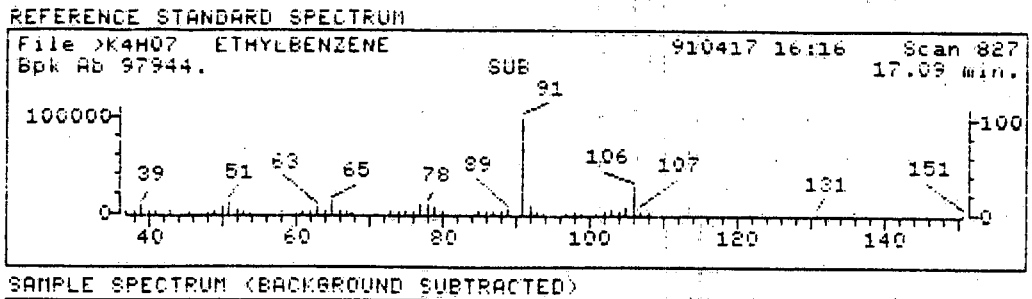
SAMPLE SPECTRUM (UNALTERED)



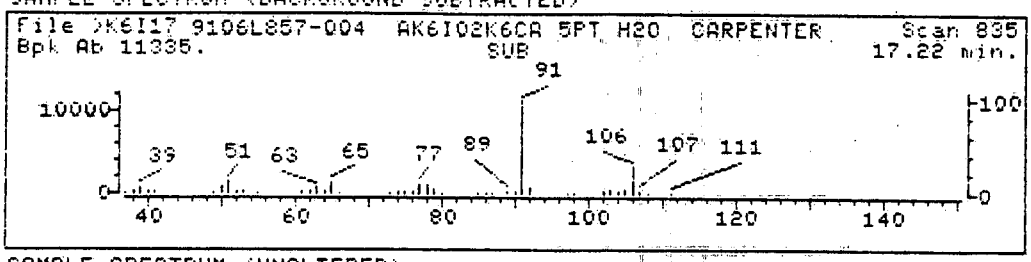
Data File: >K6I17::D2 Quant Output File: ^K6I17::QQ
Name: 9106L857-004 AK6I02
Misc: K6CA 5PT H2O CARPENTER DIL 100 #HP-MSD K RSL
Quant Time: 910618 23:04 Quant ID File: I_K6IA::QQ
Injected at: 910618 22:33 Last Calibration: 910618 13:22

Compound No: 12
Compound Name: METHYLENE CHLORIDE
Scan Number: 185
Retention Time: 3.91 min.
Quant Ion: 84.0
Area: 3749M
Concentration: 5.75 ug/L

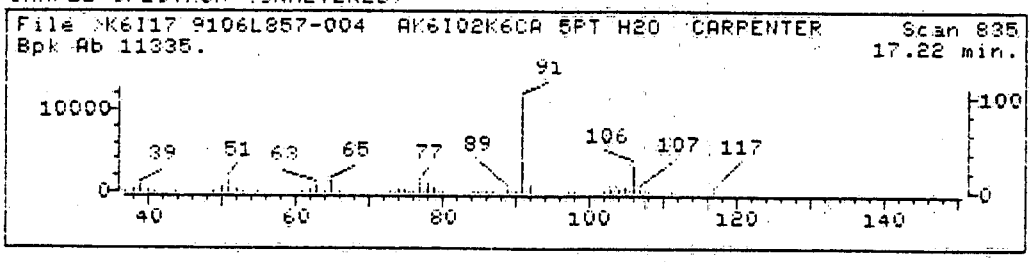
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



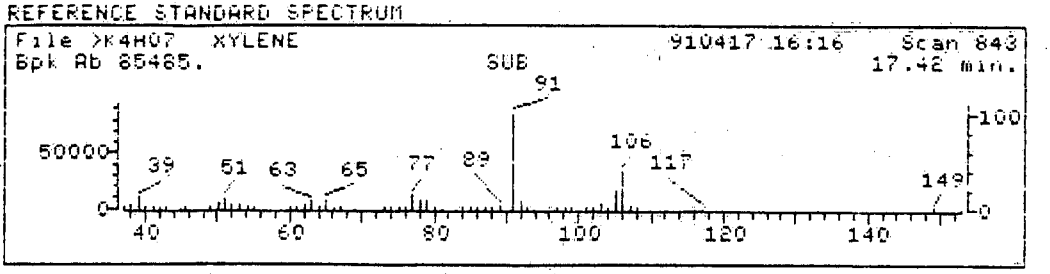
SAMPLE SPECTRUM (UNALTERED)



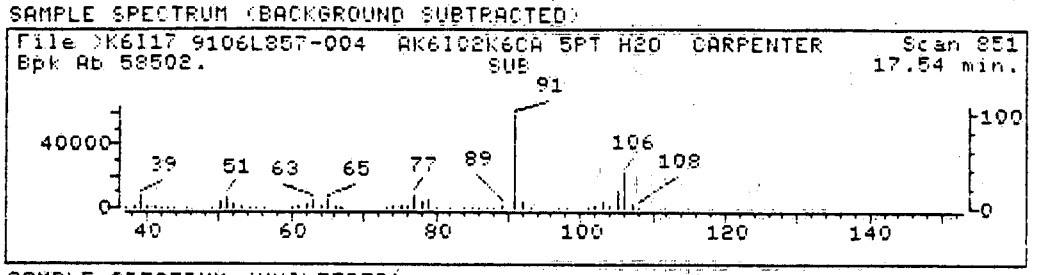
Data File: >K6I17::D2
Quant Output File: ^K6I17::QQ
Name: 9106L857-004 AK6I02
Misc: K6CA 5PT H2O CARPENTER DIL 100 #HP-MSD K RSL
Quant Time: 910618 23:04
Quant ID File: I_K6IA::QQ
Injected at: 910618 22:33
Last Calibration: 910618 13:22

Compound No: 43
Compound Name: ETHYLBENZENE
Scan Number: 835
Retention Time: 17.22 min.
Quant Ion: 106.0
Area: 22475
Concentration: 29.23 ug/L
q-value: 99

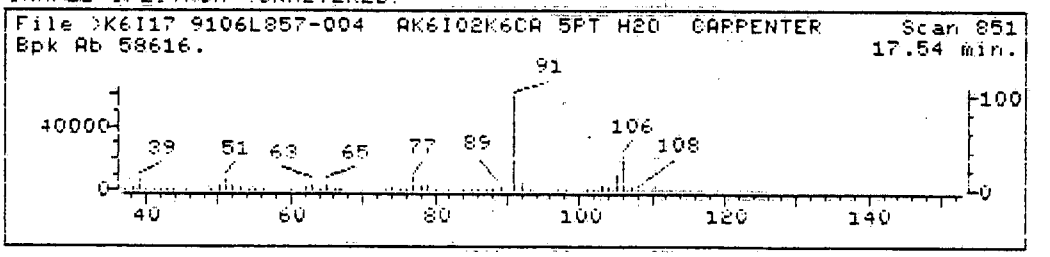
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6I17::D2 Quant Output File: ^K6I17::QQ
Name: 9106L857-004 AK6I02
Misc: K6CA 5PT H2O CARPENTER DIL 100 #HP-MSD K RSL
Quant Time: 910618 23:04 Quant ID File: I_K6IA::QQ
Injected at: 910618 22:33 Last Calibration: 910618 13:22

Compound No: 45
Compound Name: XYLENE
Scan Number: 851
Retention Time: 17.54 min.
Quant Ion: 106.0
Area: 169040
Concentration: 186.68 ug/L
q-value: 85

1A
VOLATILE ORGANICS ANALYSIS SHEET

0000072 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: 9106L857-005

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

Lab File ID: AK6I12

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

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	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

000007

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: 9106L857-005

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

Lab File ID: AK6I12

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

Column: (pack/cap) CAP

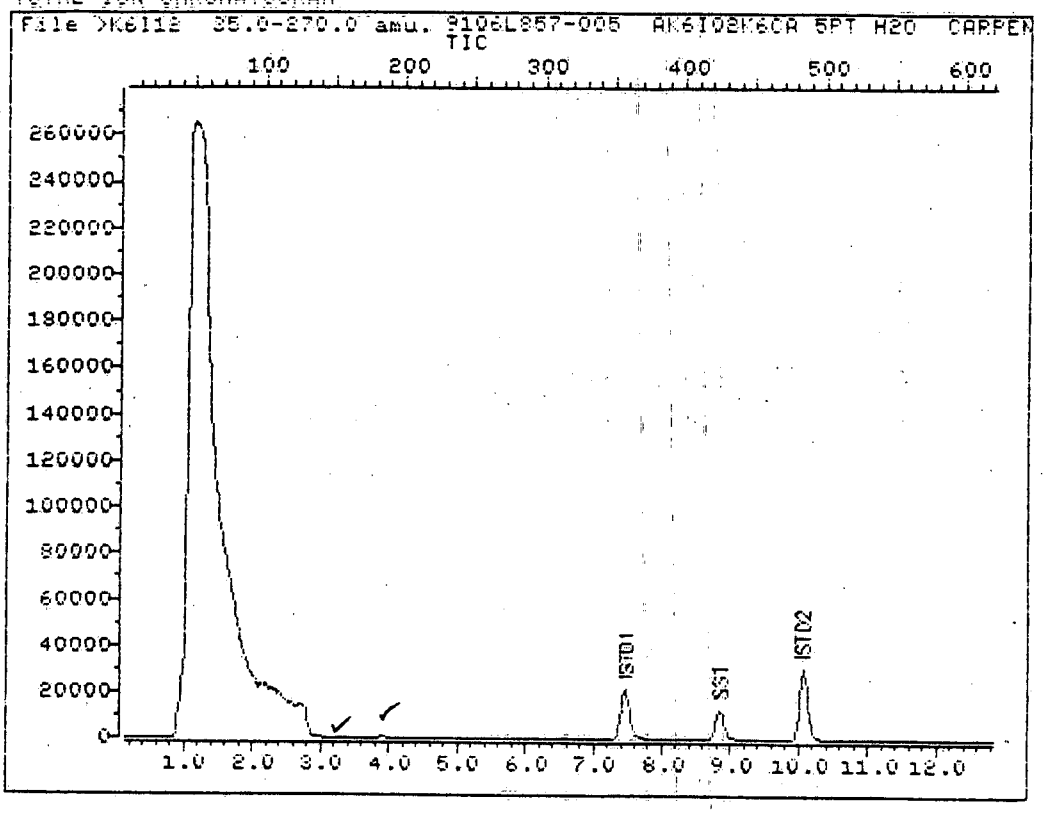
Dilution Factor: 1.00

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



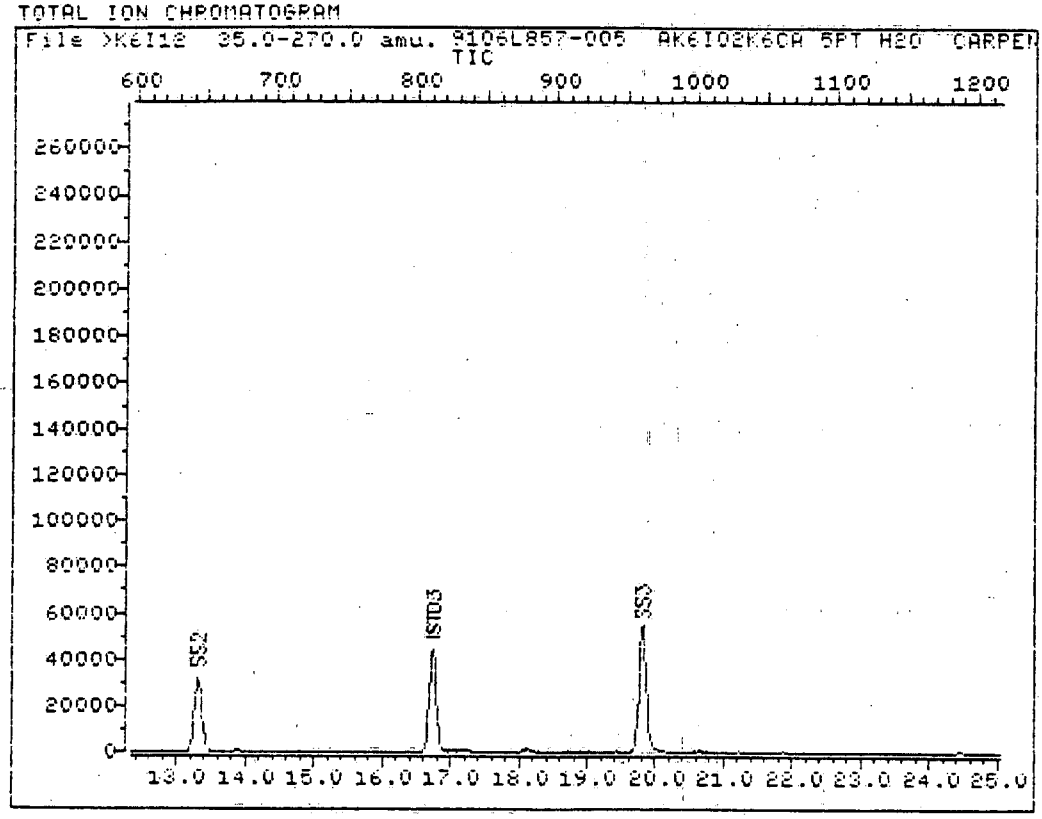
Data File: >K6I12::D2 Quant Output File: ^K6I12::QQ
Name: 9106L857-005 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 19:49
Injected at: 910618 19:18

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6I12::D2 Quant Output File: ^K6I12::QQ
Name: 9106L857-005 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB=624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 19:49
Injected at: 910618 19:18

TIC page 2 of 2

QUANT REPORT

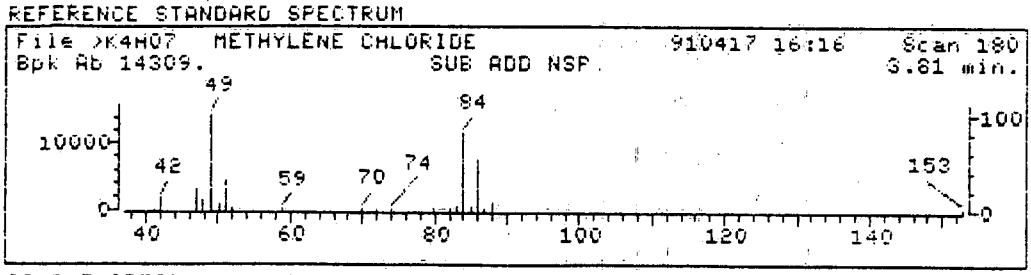
Operator ID: RSL Quant Rev: 6 Quant Time: 910618 19:49
Output File: ^K6I12::QQ Injected at: 910618 19:18
Data File: >K6I12::D2 Dilution Factor: 1.00000
Name: 9106L857-005 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

ID File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

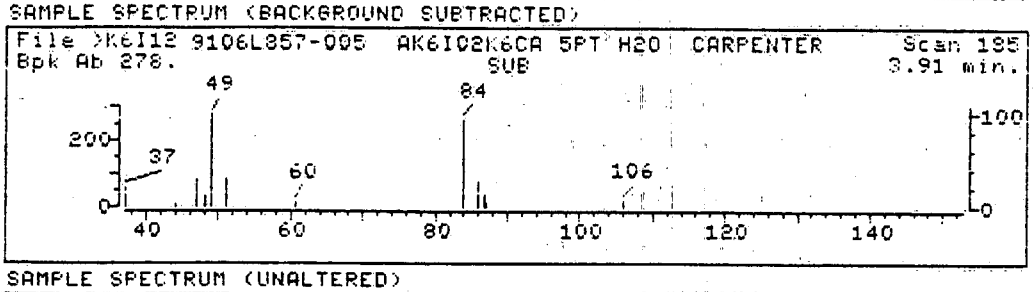
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.47	128.0	27191 ✓	50.00	ug/L	79
11)	ACETONE	3.11	43.0	332M	3.02	ug/L ✓	
12)	METHYLENE CHLORIDE	3.91	84.0	2222	3.26	ug/L ✓	72
24)	*1,4-DIFLUOROBENZENE	10.05	114.0	96276 ✓	50.00	ug/L	68
26)	1,2-DICHLOROETHANE D4	8.84	65.0	46329	50.61	ug/L ✓	90
32)	*CHLOROBENZENE-D5	16.75	117.0	97640 ✓	50.00	ug/L	90
34)	TOLUENE D8	13.31	98.0	87150	49.36	ug/L ✓	95
48)	4-BROMOFLUOROBENZENE	19.80	95.0	81014	50.11	ug/L ✓	97

* Compound is ISTD

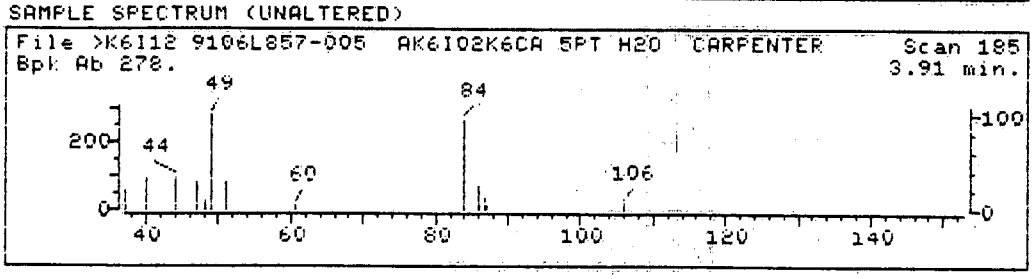
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6I12::D2 Quant Output File: ^K6I12::QQ
Name: 9106L857-005 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL
Quant Time: 910618 19:49 Quant ID File: I_K6IA::QQ
Injected at: 910618 19:18 Last Calibration: 910618 13:22

Compound No: 12
Compound Name: METHYLENE CHLORIDE
Scan Number: 185
Retention Time: 3.91 min.
Quant Ion: 84.0
Area: 2222
Concentration: 3.26 ug/L
q-value: 72

1A
VOLATILE ORGANICS ANALYSIS SHEET

0000078

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: 9106L857-006

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

Lab File ID: AK6I09

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

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	4	J
75-09-2	Methylene Chloride	2	JB
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

000007

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-5

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

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9106L857-006

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

Lab File ID: AK6I09

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

Column: (pack/cap) CAP

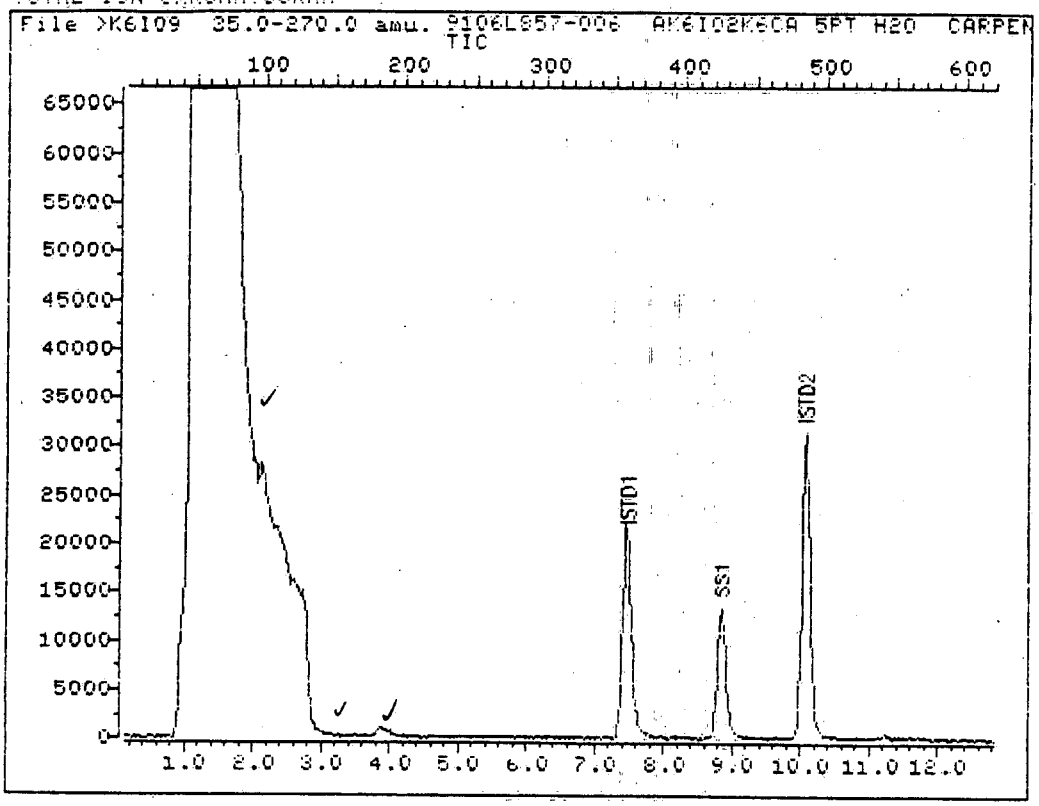
Dilution Factor: 1.00

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



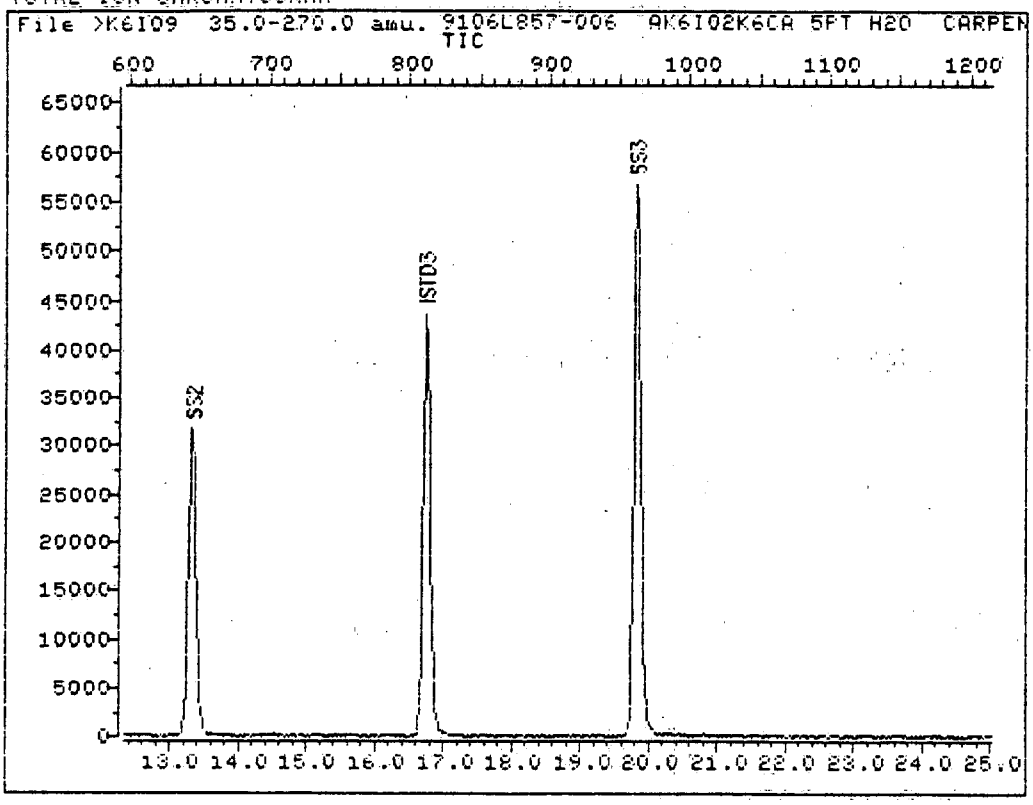
Data File: >K6I09::D2 Quant Output File: ^K6I09::QQ
Name: 9106L857-006 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 17:55
Injected at: 910618 17:24

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6I09::D2 Quant Output File: ^K6I09::QQ
Name: 9106L857-006 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 17:55
Injected at: 910618 17:24

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910618 17:55
Output File: ^K6I09::QQ Injected at: 910618 17:24
Data File: >K6I09::D2 Dilution Factor: 1.00000
Name: 9106L857-006 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

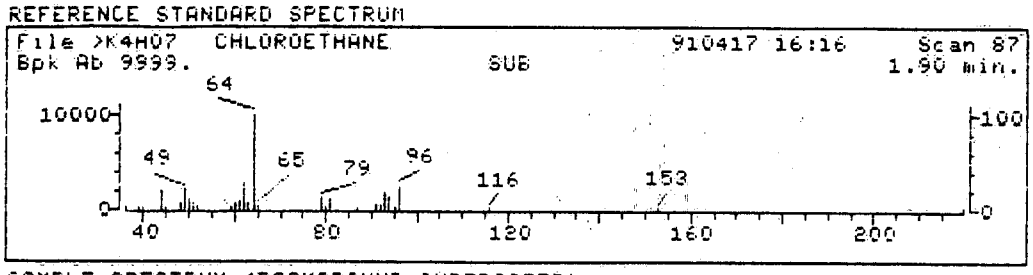
ID File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.47	128.0	27684 ✓	50.00	ug/L	72
5)	CHLOROETHANE	1.99	64.0	1053M	4.12	ug/L	80
11)	ACETONE	3.15	43.0	243M	2.17	ug/L	
12)	METHYLENE CHLORIDE	3.87	84.0	1233	1.78	ug/L	79
24)	*1,4-DIFLUOROBENZENE	10.08	114.0	97593✓	50.00	ug/L	69
26)	1,2-DICHLOROETHANE D4	8.85	65.0	46296	49.89	ug/L ✓	90
32)	*CHLOROBENZENE-D5	16.75	117.0	95732✓	50.00	ug/L	93
34)	TOLUENE D8	13.33	98.0	88554	51.15	ug/L ✓	96
48)	4-BROMOFLUOROBENZENE	19.82	95.0	81184	51.21	ug/L ✓	89

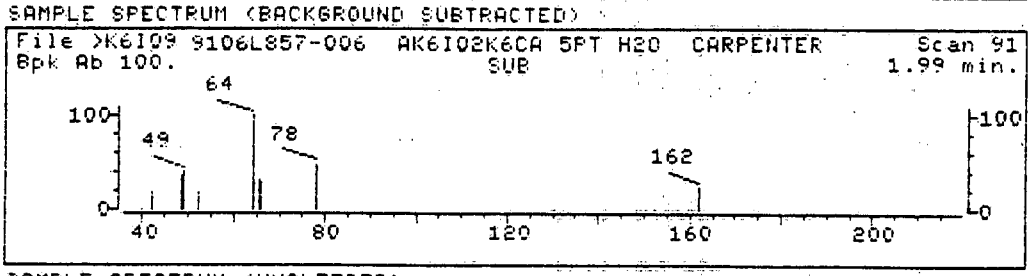
* Compound is ISTD

No TIC
RSL
6/19/91

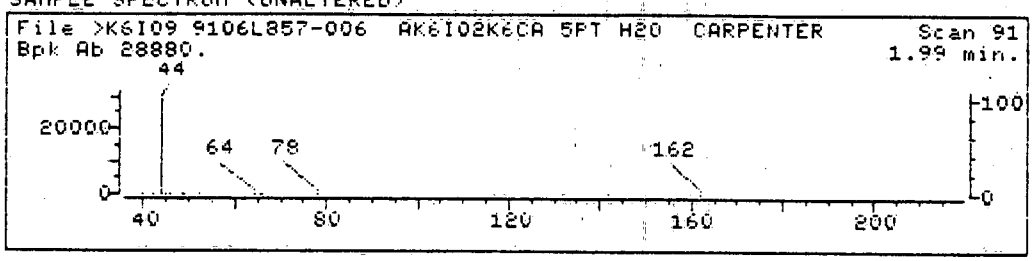
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

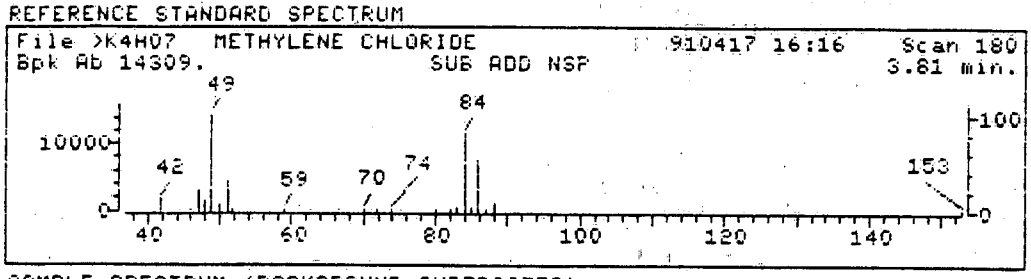


Data File: >K6I09::D2
Name: 9106L857-006 AK6I02
Misc: K6CA 5PT H2O CARPENTER
Quant Time: 910618 17:55
Injected at: 910618 17:24

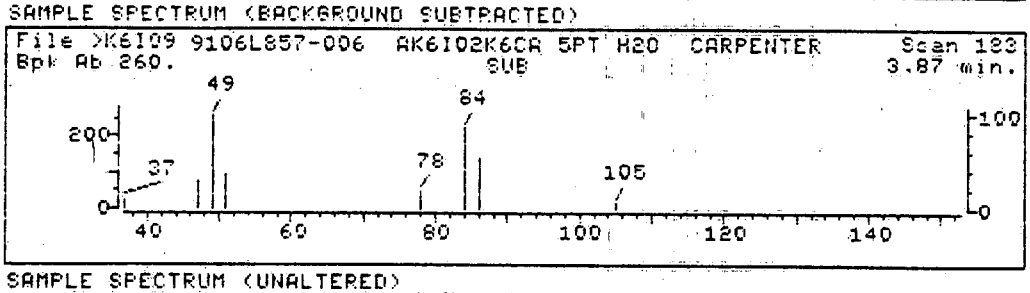
Quant Output File: ^K6I09::QQ
5ML #HP-MSD K RSL
Quant ID File: I_K6IA::QQ
Last Calibration: 910618 13:22

Compound No: 5
Compound Name: CHLOROETHANE
Scan Number: 91
Retention Time: 1.99 min.
Quant Ion: 64.0
Area: 1053M
Concentration: 4.12 ug/L
q-value: 80

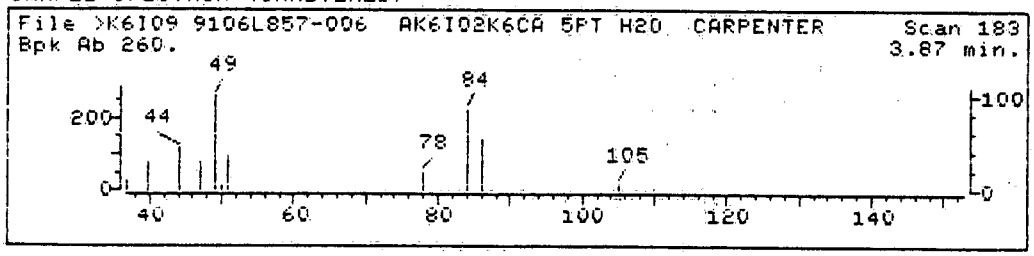
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6I09::D2 Quant Output File: ^K6I09::QQ
Name: 9106L857-006 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL
Quant Time: 910618 17:55 Quant ID File: I_K6IA::QQ
Injected at: 910618 17:24 Last Calibration: 910618 13:22

Compound No: 12
Compound Name: METHYLENE CHLORIDE
Scan Number: 183
Retention Time: 3.87 min.
Quant Ion: 84.0
Area: 1233
Concentration: 1.78 ug/L
q-value: 79

1A
VOLATILE ORGANICS ANALYSIS SHEET

000008 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: 9106L857-007

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

Lab File ID: AK6I08

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

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	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	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

000008

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: 9106L857-007

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

Lab File ID: AK6I08

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

Column: (pack/cap) CAP

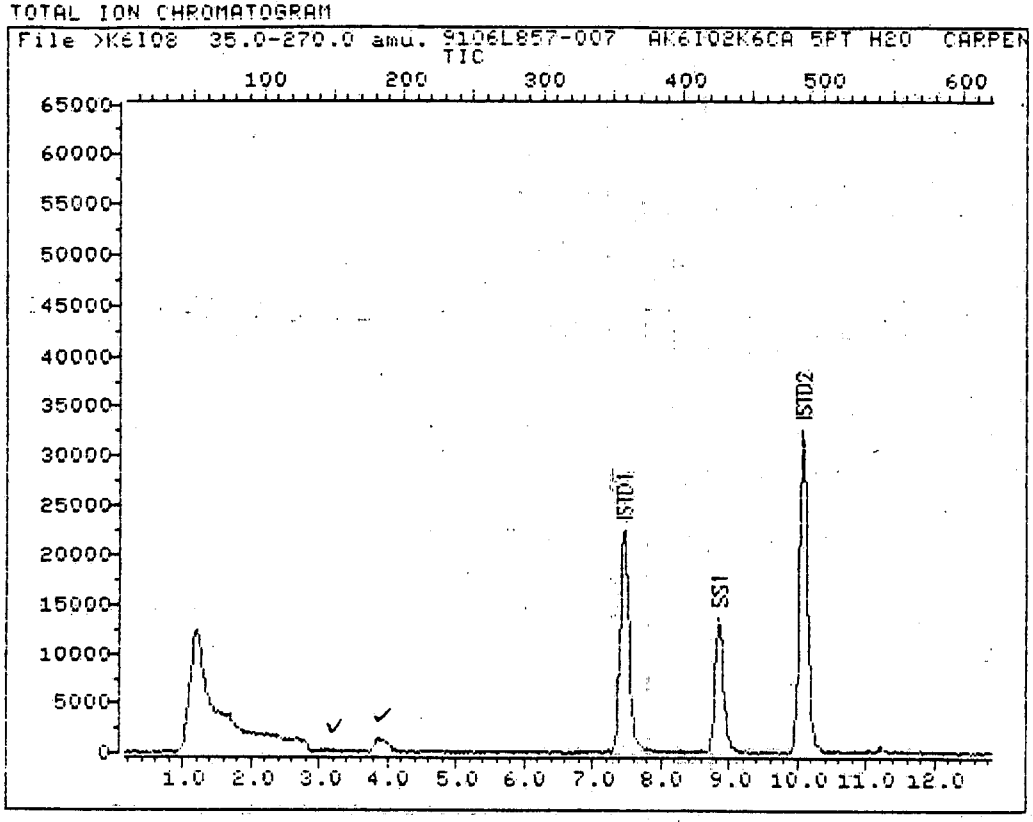
Dilution Factor: 1.00

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



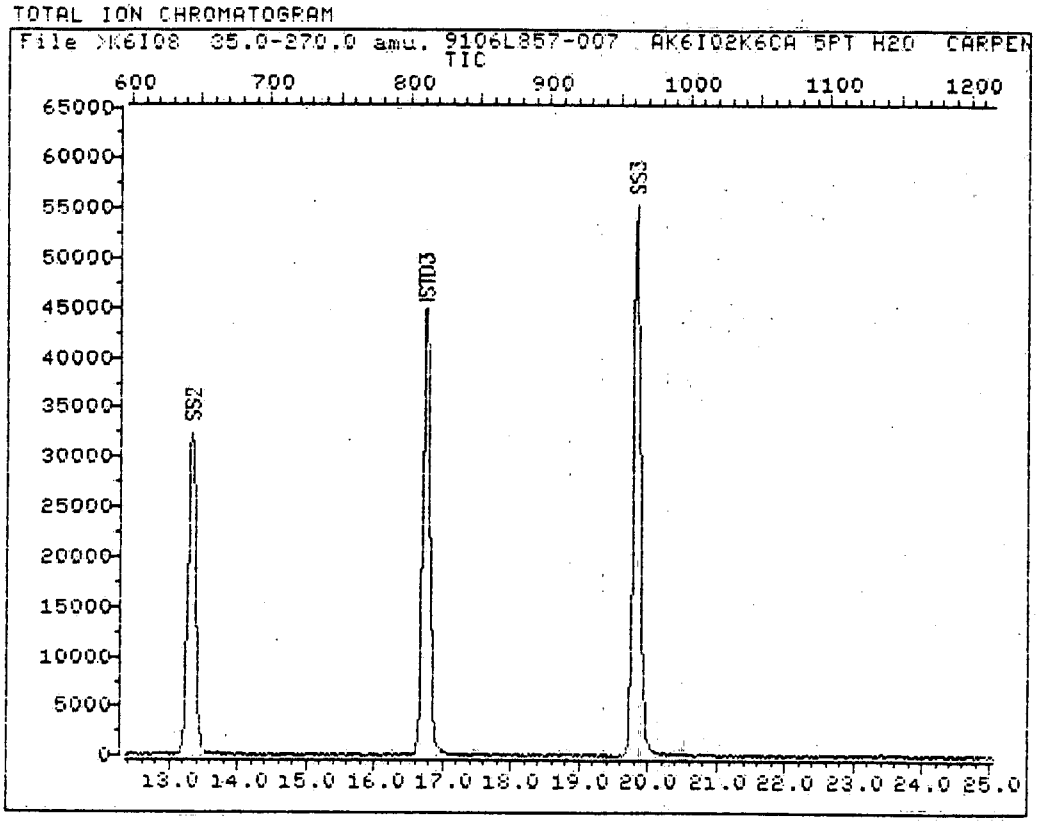
Data File: >K6I08::D2 Quant Output File: ^K6I08::QQ
Name: 9106L857-007 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 17:04
Injected at: 910618 16:33

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6I08::D2 Quant Output File: ^K6I08::QQ
Name: 9106L857-007 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 17:04
Injected at: 910618 16:33

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL
Output File: ^K6I08::QQ
Data File: >K6I08::D2
Name: 9106L857-007 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML

Quant Rev: 6
Quant Time: 910618 17:04
Injected at: 910618 16:33
Dilution Factor: 1.00000

#HP-MSD K RSL

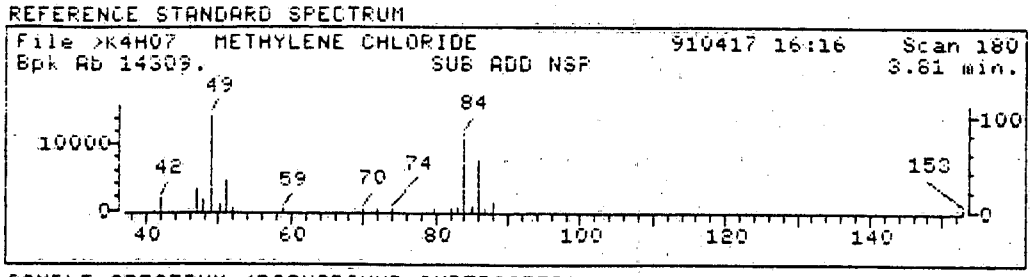
ID File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.46	128.0	28934 ✓	50.00	ug/L	78
11)	ACETONE	3.16	43.0	576	4.93	ug/L ✓	100
12)	METHYLENE CHLORIDE	3.88	84.0	3883	5.35	ug/L ✓	91
24)	*1,4-DIFLUOROBENZENE	10.08	114.0	101779 ✓	50.00	ug/L	68
26)	1,2-DICHLOROETHANE D4	8.85	65.0	47455	49.04	ug/L ✓	85
32)	*CHLOROBENZENE-D5	16.74	117.0	102195 ✓	50.00	ug/L	96
34)	TOLUENE D8	13.32	98.0	89620	48.49	ug/L ✓	93
48)	4-BROMOFLUOROBENZENE	19.83	95.0	80077	47.32	ug/L ✓	95

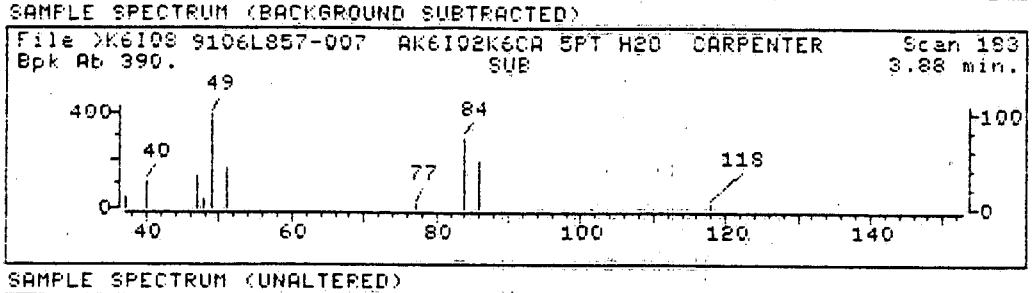
* Compound is ISTD

NO TIC
RSL
6/18/91

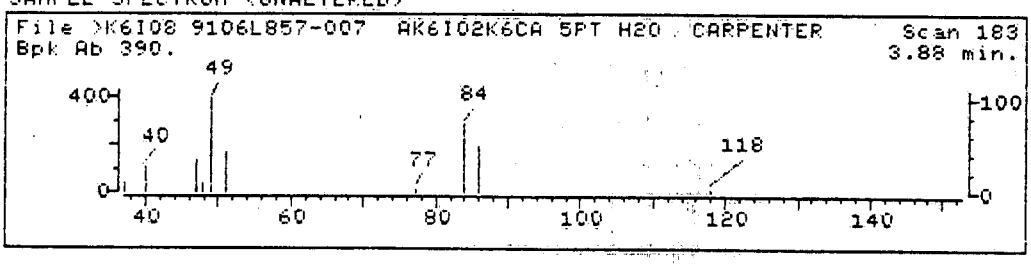
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6I08::D2 Quant Output File: ^K6I08::QQ
Name: 9106L857-007 AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL
Quant Time: 910618 17:04 Quant ID File: I_K6IA::QQ
Injected at: 910618 16:33 Last Calibration: 910618 13:22

Compound No: 12
Compound Name: METHYLENE CHLORIDE
Scan Number: 183
Retention Time: 3.88 min.
Quant Ion: 84.0
Area: 3883
Concentration: 5.35 ug/L
q-value: 91

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: 9106L857

Instrument ID: HP-MSD K Calibration Date(s): 06/12/91 06/12/91

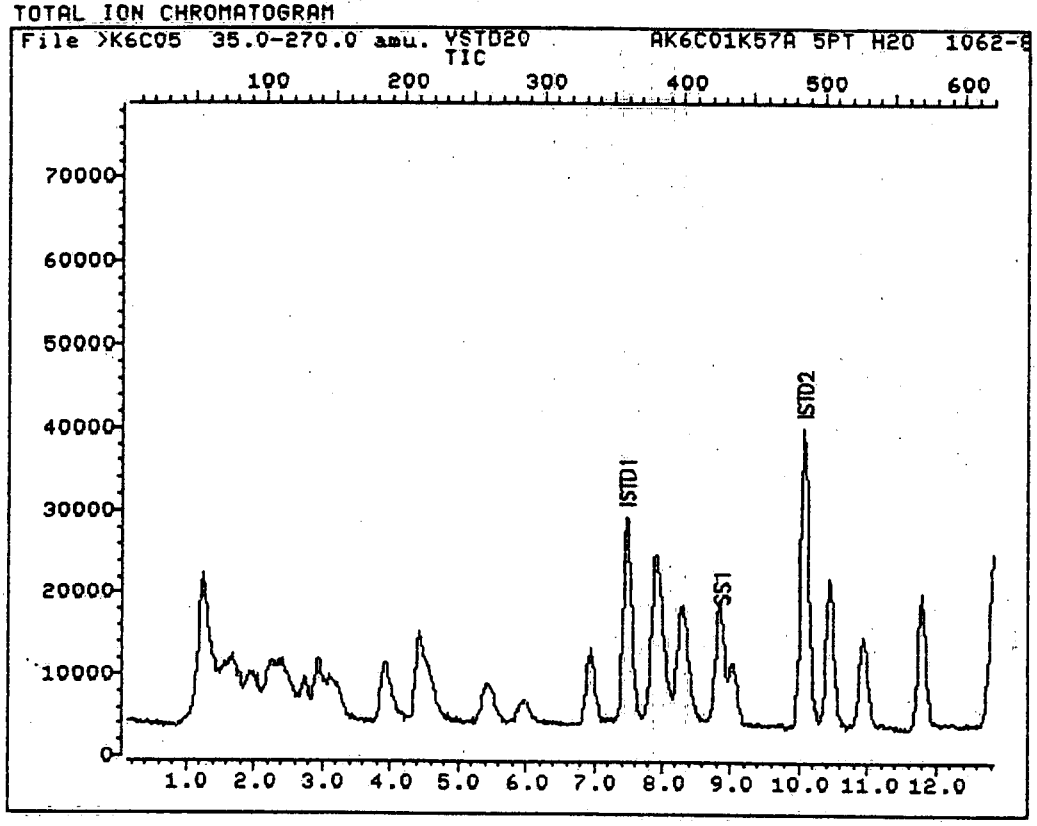
Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min RRF for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = AK6C05 RRF50 = AK6C03
RRF100= AK6C04 RRF150= AK6C06 RRF200= AK6C07

COMPOUND		RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane	#	0.703	0.685	0.697	0.651	0.690	0.685	2.9#
Bromomethane		1.119	1.109	1.112	0.976	0.982	1.059	7.0
Vinyl Chloride	*	0.871	0.872	0.882	0.812	0.816	0.851	4.0*
Chloroethane		0.446	0.450	0.435	0.402	0.379	0.422	7.3
Methylene Chloride		1.463	1.243	1.288	1.213	1.157	1.273	9.2
1,1-Dichloroethene	*	1.139	1.160	1.194	0.990	0.830	1.063	14.3*
1,1-Dichloroethane	#	2.249	2.271	2.378	2.261	2.300	2.292	2.3#
1,2-Dichloroethene (total)		1.290	1.240	1.398	1.286	1.299	1.302	4.5
Chloroform	*	3.407	3.197	3.197	3.184	3.079	3.213	3.7*
1,2-Dichloroethane		0.623	0.574	0.589	0.617	0.580	0.597	3.7
1,1,1-Trichloroethane		3.647	3.365	3.348	3.363	3.293	3.403	4.1
Carbon Tetrachloride		4.299	3.964	4.193	4.149	4.058	4.132	3.1
Bromodichloromethane		0.896	1.048	1.075	0.948	0.912	0.976	8.3
1,2-Dichloropropane	*	0.326	0.337	0.378	0.327	0.307	0.335	7.9*
cis-1,3-Dichloropropene		0.627	0.620	0.666	0.656	0.633	0.640	3.1
Trichloroethene		0.560	0.572	0.591	0.542	0.535	0.560	4.1
Dibromochloromethane		1.116	1.125	1.189	1.174	1.153	1.151	2.7
1,1,2-Trichloroethane		0.438	0.407	0.423	0.407	0.373	0.410	5.9
Benzene		0.780	0.722	0.722	0.754	0.703	0.736	4.2
Trans-1,3-Dichloropropene		0.582	0.603	0.678	0.688	0.706	0.651	8.5
2-chloroethylvinylether		0.202	0.206	0.214	0.204	0.190	0.203	4.2
Bromoform	#	0.895	0.941	0.999	0.995	0.924	0.951	4.8#
Tetrachloroethene		0.673	0.663	0.670	0.642	0.634	0.657	2.7
1,1,2,2-Tetrachloroethane	#	0.623	0.618	0.652	0.665	0.623	0.636	3.3#
Toluene	*	0.632	0.609	0.640	0.636	0.620	0.627	2.1*
Chlorobenzene	#	0.985	0.991	1.044	1.050	1.009	1.016	2.9#
Ethylbenzene	*	0.412	0.412	0.440	0.436	0.427	0.426	3.1*
1,2-Dichlorobenzene		1.195	1.123	1.192	1.175	1.125	1.162	3.1
1,3-Dichlorobenzene		1.196	1.226	1.247	1.227	1.227	1.225	1.5
1,4-Dichlorobenzene		1.241	1.264	1.305	1.236	1.238	1.257	2.3
Acrolein		0.060	0.073	0.066	0.057	0.053	0.062	12.7
Acrylonitrile		0.150	0.175	0.196	0.184	0.187	0.178	9.8
Trichlorofluoromethane		4.469	4.035	3.969	3.516	3.508	3.899	10.3
Xylene (total)		0.501	0.504	0.520	0.513	0.495	0.507	1.9
Toluene-d8		0.925	0.906	0.965	0.954	0.969	0.944	2.9
Bromofluorobenzene		0.811	0.845	0.898	0.878	0.849	0.856	3.9
1,2-Dichloroethane-d4		0.486	0.448	0.438	0.455	0.443	0.454	4.2

TOTAL ION CHROMATOGRAM



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Name: VSTD20 AK6C01
Misc: K57A 5PT H2O 1062-85-5 #HP-MSD K RSL

Id File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

Operator ID: RSL
Quant Time: 910612 15:03
Injected at: 910612 14:32

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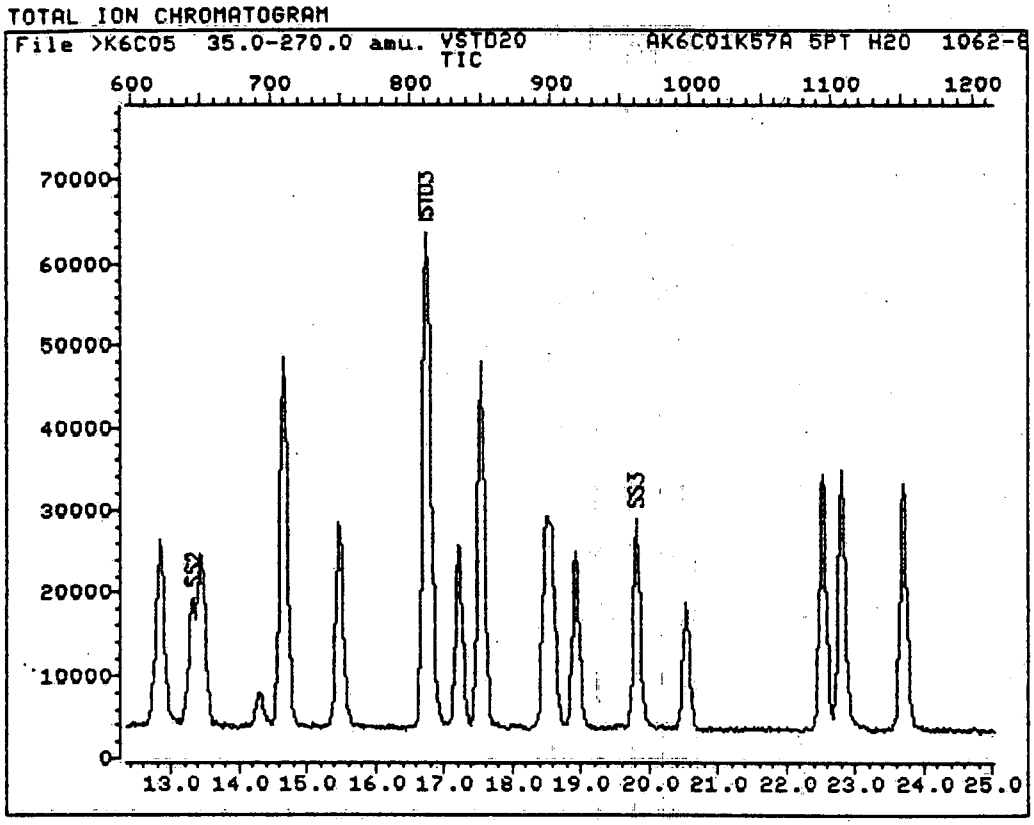
TOTAL ION CHROMATOGRAM



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Name: VSTD20 AK6C01
Misc: K57A 5PT H2O 1062-85-5 #HP-MSD K RSL

Id File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

Operator ID: RSL
Quant Time: 910612 15:03
Injected at: 910612 14:32

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QUANT REPORT

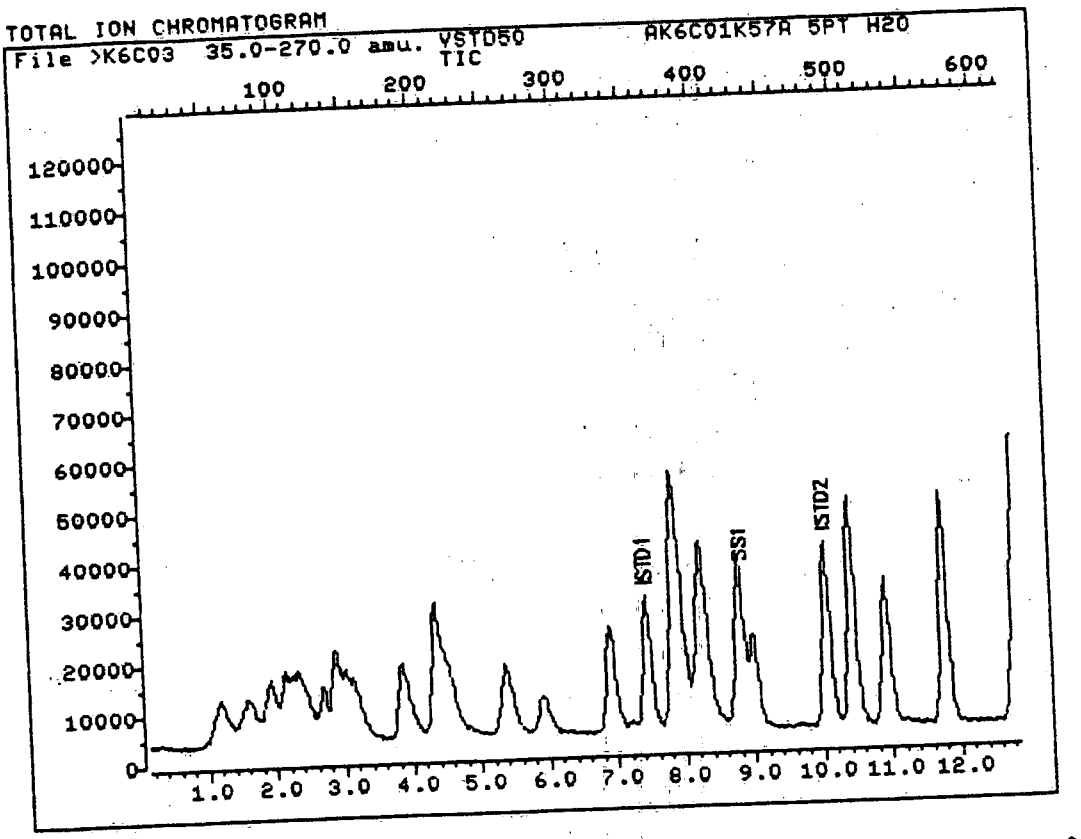
Operator ID: RSL Quant Rev: 6 Quant Time: 910612 15:03
Output File: ^K6C05::QQ Injected at: 910612 14:32
Data File: >K6C05::D2 Dilution Factor: 1.00000
Name: VSTD20 AK6C01
Misc: K57A 5PT H2O 1062-85-5 #HP-MSD K RSL

ID File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.48	128.0	33526	50.00	ug/L	69
2)	CHLOROMETHANE	1.64	50.0	9423	20.82	ug/L	94
3)	VINYL CHLORIDE	1.70	62.0	11682	22.65	ug/L	90
4)	BROMOMETHANE	2.01	94.0	15001	23.25	ug/L	91
5)	CHLOROETHANE	2.03	64.0	5983	22.88	ug/L	83
6)	TRICHLOROFLUOROMETHANE	2.39	101.0	59930M	26.95	ug/L	94
7)	DIETHYLETHER	2.74	59.0	7398M	21.38	ug/L	95
8)	1,1-DICHLOROETHYLENE	2.95	96.0	15280	24.47	ug/L	95
9)	ACROLEIN	2.91	56.0	806M	18.86	ug/L	98
10)	CARBON DISULFIDE	3.17	76.0	39431	23.24	ug/L	94
11)	ACETONE	3.23	43.0	3481	25.58	ug/L	100
12)	METHYLENE CHLORIDE	3.91	84.0	19625	20.24	ug/L	87
13)	1,2-DICHLOROETHENE (TOTAL)	4.42	96.0	17295	22.53	ug/L	91
14)	ACRYLONITRILE	4.55	53.0	2011M	19.79	ug/L	
15)	T-BUTYL ALCOHOL	4.87	59.0	694M	16.59	ug/L	
16)	METHYL T-BUTYLETHER	4.57	73.0	30744	20.87	ug/L	85
17)	1,1-DICHLOROETHANE	5.45	63.0	30160	22.37	ug/L	98
18)	VINYL ACETATE	5.98	43.0	26211	20.89	ug/L	69
19)	1,2-DICHLOROETHENE (CIS)	6.96	96.0	18478	24.24	ug/L	97
20)	2-BUTANONE	7.27	72.0	746M	24.29	ug/L	78
21)	CHLOROFORM	7.89	83.0	45695	25.55	ug/L	97
22)	1,1,1-TRICHLOROETHANE	7.95	97.0	48904	26.16	ug/L	81
23)	CARBON TETRACHLORIDE	8.30	117.0	57648	26.33	ug/L	84
24)	*1,4-DIFLUOROBENZENE	10.08	114.0	119509	50.00	ug/L	67
25)	BENZENE	8.83	78.0	37295	26.06	ug/L	83
26)	1,2-DICHLOROETHANE D4	8.87	65.0	23236	21.56	ug/L	89
27)	1,2-DICHLOROETHANE	9.03	62.0	29797	26.57	ug/L	99
28)	TRICHLOROETHYLENE	10.45	130.0	26777	25.96	ug/L	89
29)	2-CHLOROETHYLVINYLETHER	12.76	63.0	9682	24.91	ug/L	81
30)	1,2-DICHLOROPROPANE	10.94	63.0	15601	24.72	ug/L	97
31)	BROMODICHLOROMETHANE	11.80	83.0	42837	23.76	ug/L	97
32)	*CHLOROBENZENE-D5	16.74	117.0	112235	50.00	ug/L	95
33)	TRANS-1,3-DICHLOROPROPENE	14.30	75.0	9935	10.42	ug/L	93
34)	TOLUENE D8	13.32	98.0	41507	17.81	ug/L	97
35)	TOLUENE	13.46	92.0	28382	23.28	ug/L	92
36)	4-METHYL-2-PENTANONE	13.44	43.0	14079^	25.11	ug/L	80
37)	CIS-1,3-DICHLOROPROPENE	12.84	75.0	45574	35.07	ug/L	93
38)	TETRACHLOROETHYLENE	14.67	164.0	30217	24.99	ug/L	95
39)	1,1,2-TRICHLOROETHANE	14.67	97.0	19671	24.83	ug/L	94
40)	DIBROMOCHLOROMETHANE	15.47	129.0	50111	23.19	ug/L	97
41)	2-HEXANONE	15.49	43.0	8892	24.12	ug/L	73
42)	CHLOROBENZENE	16.80	112.0	44230	22.42	ug/L	86
43)	ETHYLBENZENE	17.21	106.0	18510	22.74	ug/L	97

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.58	104.0	38283	22.37	ug/L	78
45)	XYLENE	17.56	106.0	45993	48.32	ug/L	89
46)	XYLENES (TOTAL)	18.48	106.0	22502^	23.16	ug/L	88
47)	BROMOFORM	18.93	173.0	40193	23.54	ug/L	98
48)	4-BROMOFLUOROBENZENE	19.81	95.0	36408	17.49	ug/L	89
49)	1,1,2,2-TETRACHLOROETHANE	20.55	83.0	27949	20.96	ug/L	97
50)	1,3-DICHLOROBENZENE	22.53	146.0	53705	22.99	ug/L	91
51)	1,4-DICHLOROBENZENE	22.80	146.0	55708	23.48	ug/L	92
52)	1,2-DICHLOROBENZENE	23.70	146.0	53647	24.26	ug/L	89

* Compound is ISTD



Data File: >K6C03::D2
Name: VSTD50 AK6C01
Misc: K57A 5PT H2O

Quant Output File: ^K6C03::QQ

#HP-MSD K RSL

Id File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

Operator ID: RSL
Quant Time: 910612 13:00
Injected at: 910612 12:30

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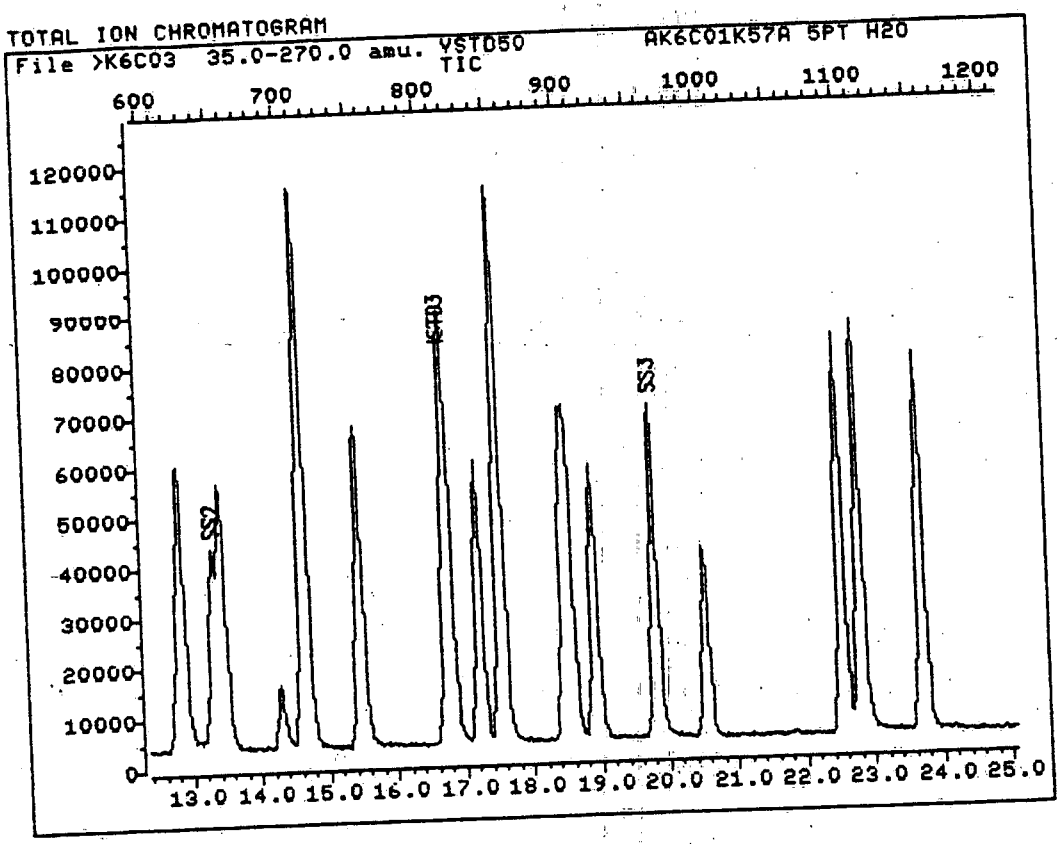

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Name: VSTD50 AK6C01
Misc: K57A 5PT H2O

Quant Output File: ^K6C03::QQ

#HP-MSD K RSL

Id File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

Operator ID: RSL
Quant Time: 910612 13:00
Injected at: 910612 12:30

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QUANT REPORT

Operator ID: RSL
Output File: ^K6C03::QQ
Data File: >K6C03::D2
Name: VSTD50 AK6C01
Misc: K57A 5PT H2O

Quant Rev: 6
Quant Time: 910612 13:00
Injected at: 910612 12:30
Dilution Factor: 1.00000

#HP-MSD K RSL

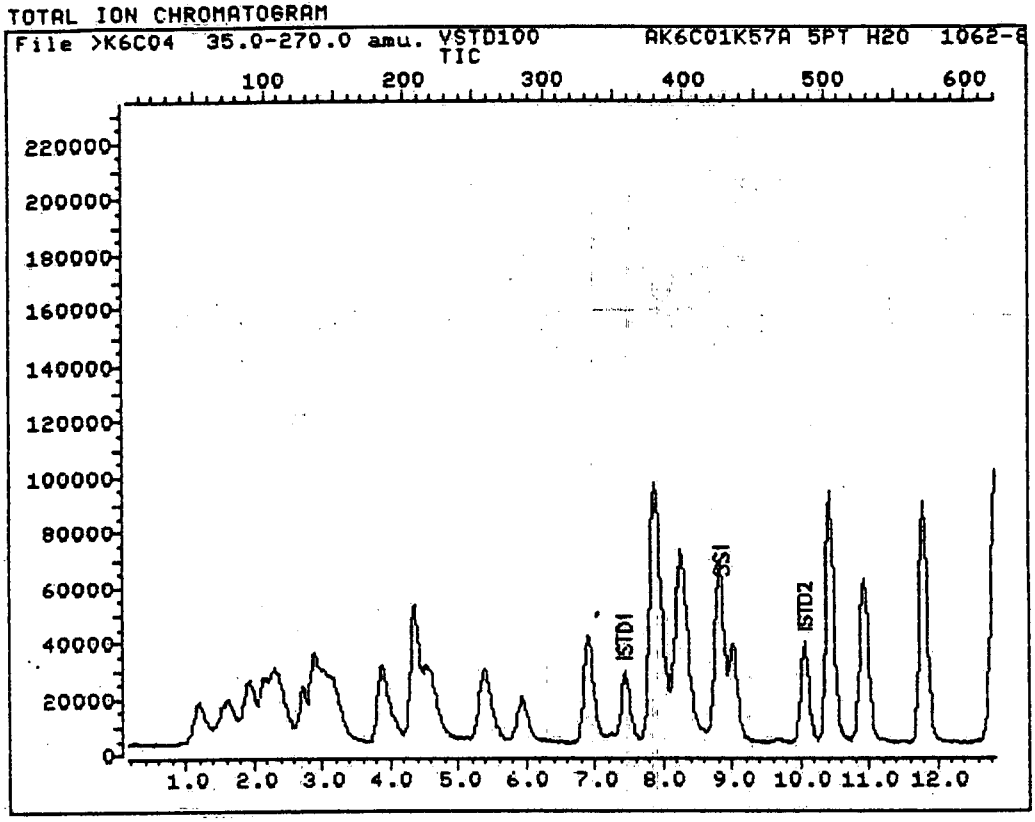
ID File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.44	128.0	35816	50.00	ug/L	71
2)	CHLOROMETHANE	1.58	50.0	24536	50.75	ug/L	97
3)	VINYL CHLORIDE	1.64	62.0	31241	56.69	ug/L	92
4)	BROMOMETHANE	1.92	94.0	39727	57.64	ug/L	88
5)	CHLOROETHANE	1.94	64.0	16136	57.76	ug/L	96
6)	TRICHLOROFLUOROMETHANE	2.29	101.0	144516M	60.83	ug/L	98
7)	DIETHYLETHER	2.70	59.0	22527	60.94	ug/L	97
8)	1,1-DICHLOROETHYLENE	2.91	96.0	41560	62.31	ug/L	89
9)	ACROLEIN	2.87	56.0	2616	57.31	ug/L	70
10)	CARBON DISULFIDE	3.13	76.0	104353	57.57	ug/L	95
11)	ACETONE	3.19	43.0	6274	43.15	ug/L	100
12)	METHYLENE CHLORIDE	3.85	84.0	44526	42.98	ug/L	90
13)	1,2-DICHLOROETHENE (TOTAL)	4.34	96.0	44397	54.14	ug/L	88
14)	ACRYLONITRILE	4.55	53.0	6277	57.84	ug/L	85
15)	T-BUTYL ALCOHOL	4.92	59.0	2791M	62.46	ug/L	
16)	METHYL T-BUTYLETHER	4.51	73.0	77973	49.55	ug/L	93
17)	1,1-DICHLOROETHANE	5.37	63.0	81324	56.47	ug/L	96
18)	VINYL ACETATE	5.92	43.0	70729	52.77	ug/L	77
19)	1,2-DICHLOROETHENE (CIS)	6.90	96.0	46845	57.53	ug/L	90
20)	2-BUTANONE	7.23	72.0	1729	52.69	ug/L	95
21)	CHLOROFORM	7.85	83.0	114516	59.94	ug/L	92
22)	1,1,1-TRICHLOROETHANE	7.93	97.0	120514	60.35	ug/L	86
23)	CARBON TETRACHLORIDE	8.26	117.0	141958	60.68	ug/L	85
24)	*1,4-DIFLUOROBENZENE	10.06	114.0	122693	50.00	ug/L	68
25)	BENZENE	8.77	78.0	88526	60.25	ug/L	83
26)	1,2-DICHLOROETHANE D4	8.83	65.0	54951	49.66	ug/L	94
27)	1,2-DICHLOROETHANE	9.00	62.0	70423	61.17	ug/L	91
28)	TRICHLOROETHYLENE	10.41	130.0	70226	66.32	ug/L	99
29)	2-CHLOROETHYLVINYLETHER	12.77	63.0	25223	63.21	ug/L	83
30)	1,2-DICHLOROPROPANE	10.92	63.0	41327	63.78	ug/L	94
31)	BROMODICHLOROMETHANE	11.78	83.0	128575	69.47	ug/L	91
32)	*CHLOROBENZENE-D5	16.74	117.0	117036	50.00	ug/L	98
33)	TRANS-1,3-DICHLOROPROPENE	14.30	75.0	26803	26.95	ug/L	99
34)	TOLUENE D8	13.32	98.0	106077	43.65	ug/L	96
35)	TOLUENE	13.44	92.0	71289	56.09	ug/L	94
36)	4-METHYL-2-PENTANONE	13.42	43.0	34599^	59.17	ug/L	73
37)	CIS-1,3-DICHLOROPROPENE	12.85	75.0	117461	86.68	ug/L	91
38)	TETRACHLOROETHYLENE	14.67	164.0	77606	61.55	ug/L	95
39)	1,1,2-TRICHLOROETHANE	14.65	97.0	47596	57.63	ug/L	97
40)	DIBROMOCHLOROMETHANE	15.47	129.0	131639	58.42	ug/L	93
41)	2-HEXANONE	15.49	43.0	22233	57.83	ug/L	79
42)	CHLOROBENZENE	16.80	112.0	116005	56.38	ug/L	88
43)	ETHYLBENZENE	17.21	106.0	48226	56.80	ug/L	99

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.57	104.0	101345	56.78	ug/L	85
45)	XYLENE	17.56	106.0	119444	120.35	ug/L	89
46)	XYLENES (TOTAL)	18.48	106.0	59043	58.26	ug/L	89
47)	BROMOFORM	18.94	173.0	110133	61.85	ug/L	95
48)	4-BROMOFLUOROBENZENE	19.82	95.0	98926	45.58	ug/L	94
49)	1,1,2,2-TETRACHLOROETHANE	20.53	83.0	72354	52.05	ug/L	93
50)	1,3-DICHLOROBENZENE	22.52	146.0	143459	58.88	ug/L	92
51)	1,4-DICHLOROBENZENE	22.81	146.0	147955	59.80	ug/L	95
52)	1,2-DICHLOROBENZENE	23.71	146.0	131422	56.98	ug/L	90

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: VSTD100 AK6C01
Misc: K57A 5PT H2O 1062-85-5 #HP-MSD K RSL

Id File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

Operator ID: RSL
Quant Time: 910612 14:15
Injected at: 910612 13:45

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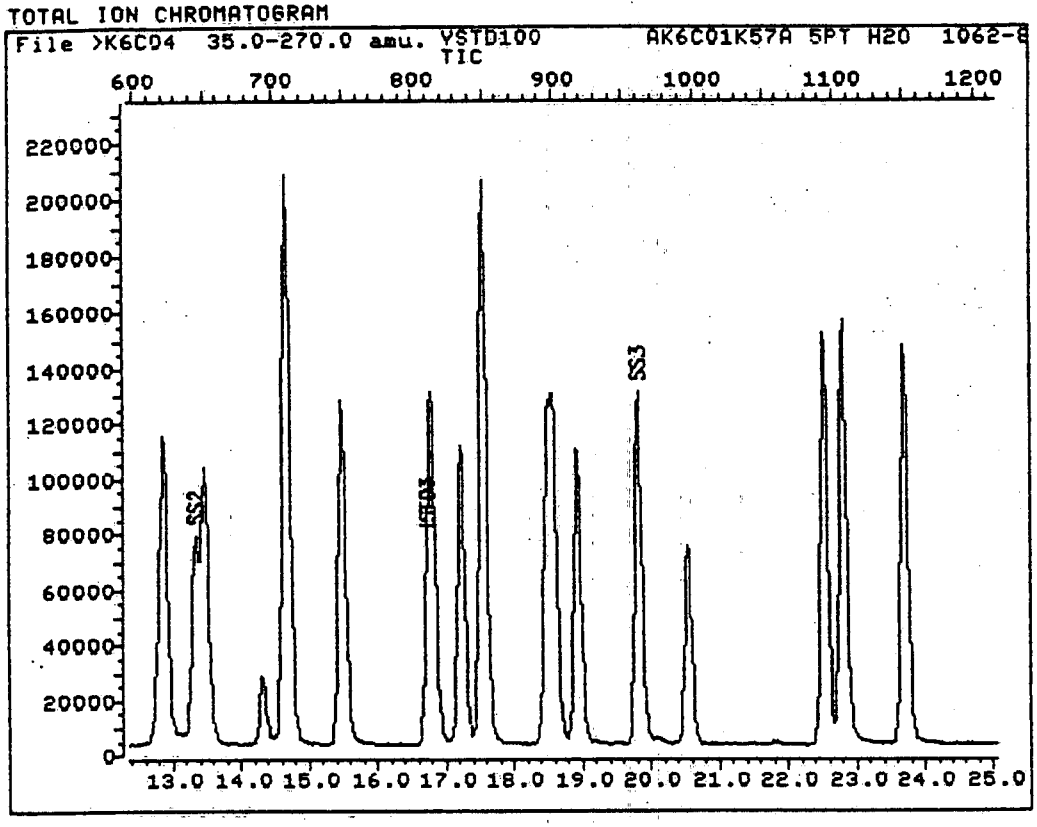
TOTAL ION CHROMATOGRAM



Data File: >K6C04::D2 Quant Output File: ^K6C04::QQ
Name: VSTD100 AK6C01
Misc: K57A 5PT H2O 1062-85-5 #HP-MSD K RSL

Id File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

Operator ID: RSL
Quant Time: 910612 14:15
Injected at: 910612 13:45

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910612 14:15
Output File: ^K6C04::QQ Injected at: 910612 13:45
Data File: >K6C04::D2 Dilution Factor: 1.00000
Name: VSTD100 AK6C01
Misc: K57A 5PT H2O 1062-85-5 #HP-MSD K RSL

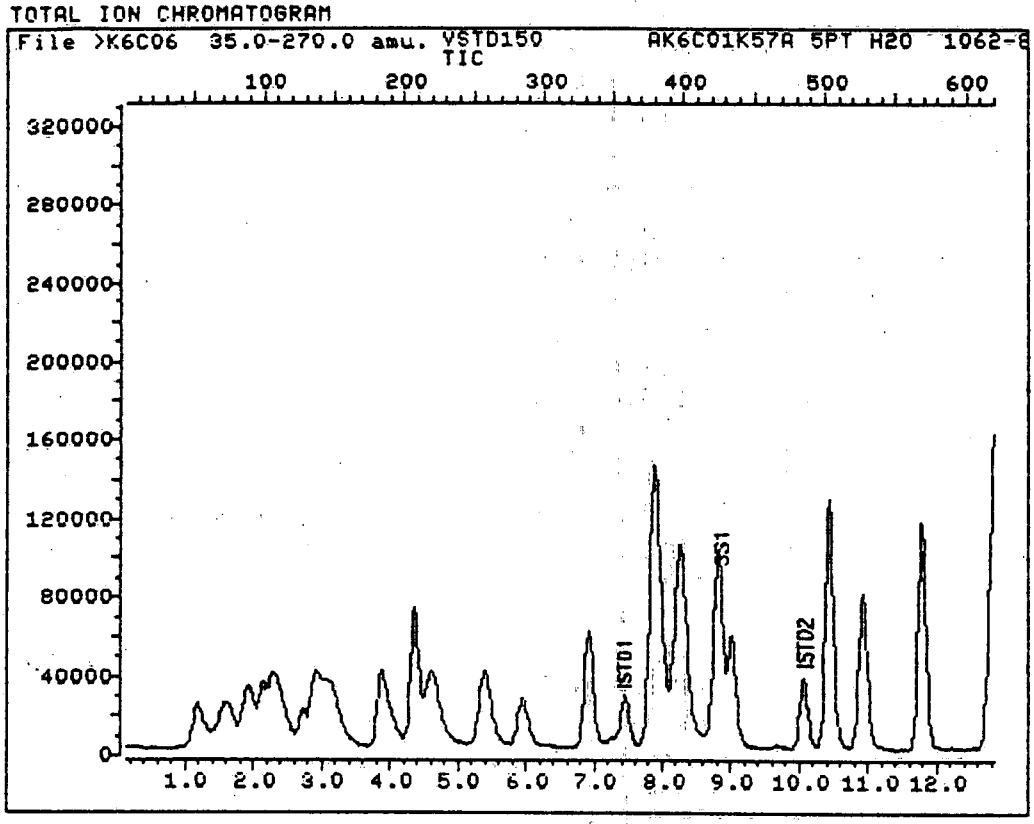
ID File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.44	128.0	33001	50.00	ug/L	63
2)	CHLOROMETHANE	1.54	50.0	46033	103.34	ug/L	99
3)	VINYL CHLORIDE	1.64	62.0	58208	114.64	ug/L	96
4)	BROMOMETHANE	1.93	94.0	73370	115.53	ug/L	92
5)	CHLOROETHANE	1.93	64.0	28714	111.55	ug/L	97
6)	TRICHLOROFLUOROMETHANE	2.32	101.0	261945	119.66	ug/L	98
7)	DIETHYLETHER	2.71	59.0	41872	122.93	ug/L	91
8)	1,1-DICHLOROETHYLENE	2.87	96.0	78820	128.25	ug/L	86
9)	ACROLEIN	2.89	56.0	4359	103.64	ug/L	82
10)	CARBON DISULFIDE	3.14	76.0	199704	119.58	ug/L	94
11)	ACETONE	3.26	43.0	12722	94.97	ug/L	100
12)	METHYLENE CHLORIDE	3.86	84.0	84976	89.01	ug/L	90
13)	1,2-DICHLOROETHENE (TOTAL)	4.35	96.0	92236	122.08	ug/L	93
14)	ACRYLONITRILE	4.58	53.0	12938	129.38	ug/L	80
15)	T-BUTYL ALCOHOL	5.15	59.0	4485M	108.93	ug/L	1
16)	METHYL T-BUTYLETHER	4.53	73.0	158143	109.07	ug/L	86
17)	1,1-DICHLOROETHANE	5.40	63.0	156925	118.26	ug/L	92
18)	VINYL ACETATE	5.95	43.0	142483	115.38	ug/L	74
19)	1,2-DICHLOROETHENE (CIS)	6.89	96.0	85743	114.28	ug/L	96
20)	2-BUTANONE	7.30	72.0	3388M	112.06	ug/L	98
21)	CHLOROFORM	7.87	83.0	211021	119.87	ug/L	96
22)	1,1,1-TRICHLOROETHANE	7.92	97.0	220977	120.10	ug/L	81
23)	CARBON TETRACHLORIDE	8.26	117.0	276773	128.40	ug/L	89
24)	*1,4-DIFLUOROBENZENE	10.07	114.0	116397	50.00	ug/L	66
25)	BENZENE	8.80	78.0	168008	120.53	ug/L	78
26)	1,2-DICHLOROETHANE D4	8.86	65.0	101895	97.06	ug/L	91
27)	1,2-DICHLOROETHANE	9.02	62.0	137137	125.56	ug/L	96
28)	TRICHLOROETHYLENE	10.44	130.0	137662	137.03	ug/L	97
29)	2-CHLOROETHYLVINYLETHER	12.77	63.0	49881	131.76	ug/L	78
30)	1,2-DICHLOROPROPANE	10.93	63.0	88117	143.34	ug/L	97
31)	BROMODICHLOROMETHANE	11.79	83.0	250159	142.48	ug/L	87
32)	*CHLOROBENZENE-D5	16.73	117.0	106425	50.00	ug/L	95
33)	TRANS-1,3-DICHLOROPROPENE	14.31	75.0	54812	60.61	ug/L	95
34)	TOLUENE D8	13.33	98.0	205462	92.98	ug/L	94
35)	TOLUENE	13.47	92.0	136263	117.89	ug/L	93
36)	4-METHYL-2-PENTANONE	13.43	43.0	66468^	125.00	ug/L	74
37)	CIS-1,3-DICHLOROPROPENE	12.86	75.0	229637	186.36	ug/L	91
38)	TETRACHLOROETHYLENE	14.68	164.0	142722	124.49	ug/L	96
39)	1,1,2-TRICHLOROETHANE	14.66	97.0	90102	119.96	ug/L	96
40)	DIBROMOCHLOROMETHANE	15.48	129.0	252995	123.48	ug/L	99
41)	2-HEXANONE	15.50	43.0	43872	125.49	ug/L	88
42)	CHLOROBENZENE	16.79	112.0	222296	118.81	ug/L	86
43)	ETHYLBENZENE	17.22	106.0	93615	121.26	ug/L	97

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.60	104.0	195313	120.34	ug/L	77
45)	XYLENE	17.55	106.0	215227	238.48	ug/L	86
46)	XYLENES (TOTAL)	18.52	106.0	110618^	120.04	ug/L	93
47)	BROMOFORM	18.93	173.0	212644	131.32	ug/L	99
48)	4-BROMOFLUOROBENZENE	19.83	95.0	191058	96.80	ug/L	98
49)	1,1,2,2-TETRACHLOROETHANE	20.55	83.0	138858	109.84	ug/L	98
50)	1,3-DICHLOROBENZENE	22.53	146.0	265345	119.77	ug/L	93
51)	1,4-DICHLOROBENZENE	22.82	146.0	277790	123.46	ug/L	92
52)	1,2-DICHLOROBENZENE	23.70	146.0	253746	120.99	ug/L	85

* Compound is ISTD

TOTAL ION CHROMATOGRAM



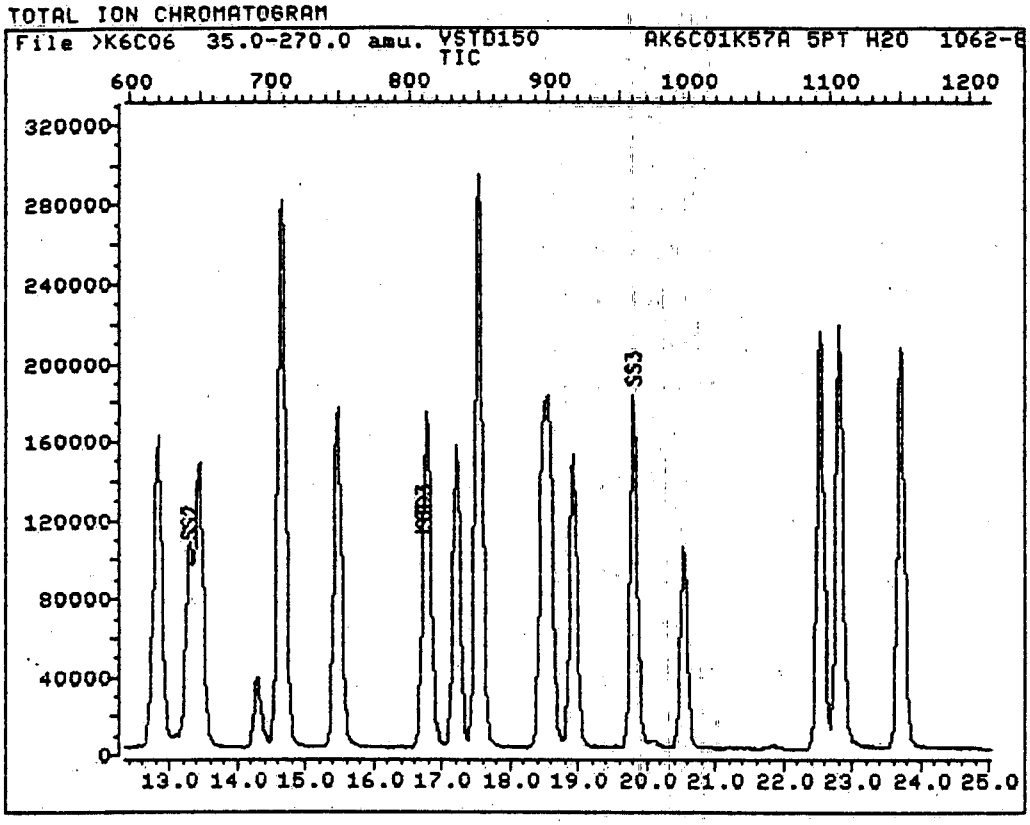
Data File: >K6C06::D2 Quant Output File: ^K6C06::QQ
Name: VSTD150 AK6C01
Misc: K57A 5PT H2O 1062-85-5 #HP-MSD K RSL

Id File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

Operator ID: RSL
Quant Time: 910612 15:47
Injected at: 910612 15:17

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



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Name: VSTD150 AK6C01
Misc: K57A 5PT H2O 1062-85-5 #HP-MSD K RSL

Id File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

Operator ID: RSL
Quant Time: 910612 15:47
Injected at: 910612 15:17

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL
Output File: ^K6C06::QQ
Data File: >K6C06::D2
Name: VSTD150 AK6C01
Misc: K57A 5PT H2O 1062-85-5

Quant Rev: 6
Quant Time: 910612 15:47
Injected at: 910612 15:17
Dilution Factor: 1.00000

#HP-MSD K RSL

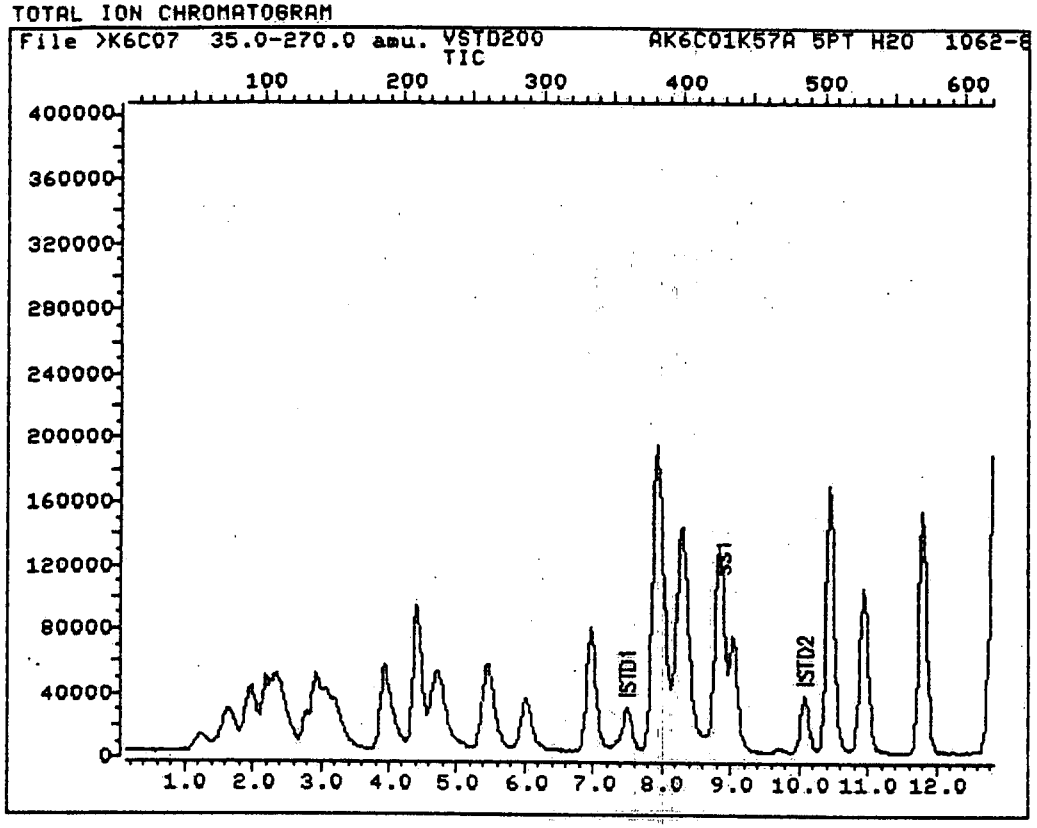
ID File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910608 10:40

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.44	128.0	34104	50.00	ug/L	66
2)	CHLOROMETHANE	1.55	50.0	66632	144.75	ug/L	97
3)	VINYL CHLORIDE	1.64	62.0	83060	158.29	ug/L	94
4)	BROMOMETHANE	1.94	94.0	99833	152.11	ug/L	97
5)	CHLOROETHANE	1.94	64.0	41078	154.42	ug/L	96
6)	TRICHLOROFLUOROMETHANE	2.29	101.0	359757M	159.03	ug/L	97
7)	DIETHYLETHER	2.72	59.0	45421M	129.03	ug/L	91
8)	1,1-DICHLOROETHYLENE	2.91	96.0	101258	159.43	ug/L	91
9)	ACROLEIN	2.91	56.0	5828	134.08	ug/L	87
10)	CARBON DISULFIDE	3.14	76.0	280702	162.64	ug/L	96
11)	ACETONE	3.30	43.0	17258	124.66	ug/L	100
12)	METHYLENE CHLORIDE	3.89	84.0	124137	125.83	ug/L	84
13)	1,2-DICHLOROETHENE (TOTAL)	4.37	96.0	131520	168.44	ug/L	91
14)	ACRYLONITRILE	4.59	53.0	18837	182.27	ug/L	84
15)	T-BUTYL ALCOHOL	5.31	59.0	8419M	197.86	ug/L	65
16)	METHYL T-BUTYLETHER	4.65	73.0	231876	154.75	ug/L	93
17)	1,1-DICHLOROETHANE	5.41	63.0	231330	168.70	ug/L	91
18)	VINYL ACETATE	5.94	43.0	225430	176.64	ug/L	75
19)	1,2-DICHLOROETHENE (CIS)	6.93	96.0	130303	168.05	ug/L	94
20)	2-BUTANONE	7.30	72.0	6302	201.70	ug/L	98
21)	CHLOROFORM	7.87	83.0	325764	179.06	ug/L	90
22)	1,1,1-TRICHLOROETHANE	7.93	97.0	344051	180.94	ug/L	79
23)	CARBON TETRACHLORIDE	8.28	117.0	424447	190.54	ug/L	84
24)	*1,4-DIFLUOROBENZENE	10.07	114.0	115888	50.00	ug/L	68
25)	BENZENE	8.81	78.0	262149	188.89	ug/L	77
26)	1,2-DICHLOROETHANE D4	8.86	65.0	158190	151.35	ug/L	86
27)	1,2-DICHLOROETHANE	9.02	62.0	214368	197.14	ug/L	96
28)	TRICHLOROETHYLENE	10.43	130.0	188435	188.39	ug/L	96
29)	2-CHLOROETHYLVINYLETHER	12.77	63.0	70736	187.67	ug/L	80
30)	1,2-DICHLOROPROPANE	10.93	63.0	113802	185.93	ug/L	95
31)	BROMODICHLOROMETHANE	11.79	83.0	329395	188.44	ug/L	92
32)	*CHLOROBENZENE-D5	16.73	117.0	103268	50.00	ug/L	91
33)	TRANS-1,3-DICHLOROPROPENE	14.29	75.0	80952	92.25	ug/L	94
34)	TOLUENE D8	13.28	98.0	295482	137.81	ug/L	99
35)	TOLUENE	13.45	92.0	197160	175.80	ug/L	97
36)	4-METHYL-2-PENTANONE	13.45	43.0	100755^	195.28	ug/L	89
37)	CIS-1,3-DICHLOROPROPENE	12.83	75.0	329452	275.53	ug/L	92
38)	TETRACHLOROETHYLENE	14.64	164.0	198965	178.85	ug/L	98
39)	1,1,2-TRICHLOROETHANE	14.66	97.0	125960	172.83	ug/L	98
40)	DIBROMOCHLOROMETHANE	15.48	129.0	363562	182.87	ug/L	99
41)	2-HEXANONE	15.50	43.0	62300	183.65	ug/L	80
42)	CHLOROBENZENE	16.79	112.0	325348	179.20	ug/L	83
43)	ETHYLBENZENE	17.20	106.0	135216	180.50	ug/L	97

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.58	104.0	272788	173.21	ug/L	75
45)	XYLENE	17.55	106.0	299881	342.44	ug/L	84
46)	XYLENES (TOTAL)	18.49	106.0	158983^	177.80	ug/L	87
47)	BROMOFORM	18.92	173.0	308325	196.23	ug/L	92
48)	4-BROMOFLUOROBENZENE	19.81	95.0	272043	142.05	ug/L	99
49)	1,1,2,2-TETRACHLOROETHANE	20.54	83.0	205990	167.93	ug/L	96
50)	1,3-DICHLOROBENZENE	22.53	146.0	380033	176.78	ug/L	91
51)	1,4-DICHLOROBENZENE	22.82	146.0	382983	175.42	ug/L	88
52)	1,2-DICHLOROBENZENE	23.70	146.0	364024	178.89	ug/L	90

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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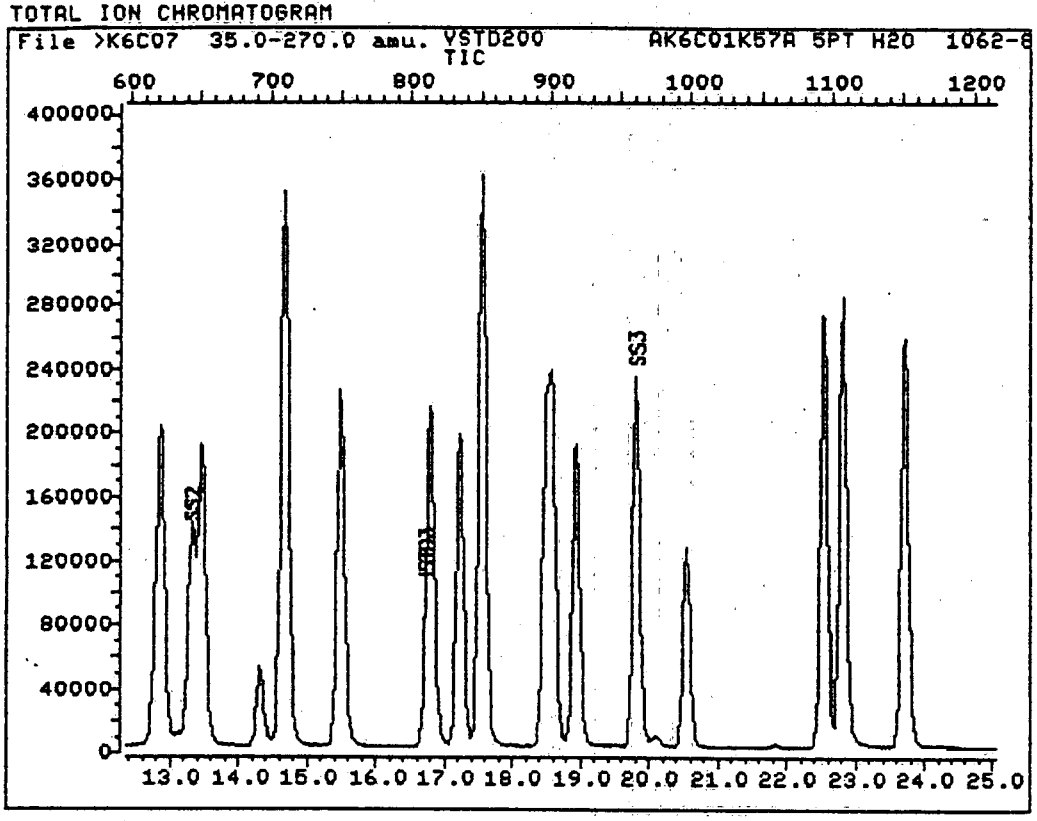
Name: VSTD200 AK6C01
Misc: K57A 5PT H2O 1062-85-5 #HP-MSD K RSL

Id File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

Operator ID: RSL
Quant Time: 910612 16:34
Injected at: 910612 16:04

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6C07::D2 Quant Output File: ^K6C07::QQ
Name: VSTD200 AK6C01
Misc: K57A 5PT H2O 1062-85-5 #HP-MSD K RSL

Id File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

Operator ID: RSL
Quant Time: 910612 16:34
Injected at: 910612 16:04

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL
Output File: ^K6C07::QQ
Data File: >K6C07::D2
Name: VSTD200 AK6C01
Misc: K57A 5PT H2O 1062-85-5

Quant Rev: 6
Quant Time: 910612 16:34
Injected at: 910612 16:04
Dilution Factor: 1.00000
#HP-MSD K RSL

ID File: I_K57A::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910508 10:40

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.50	128.0	33918	50.00	ug/L	67
2)	CHLOROMETHANE	1.62	50.0	93679	204.62	ug/L	92
3)	VINYL CHLORIDE	1.70	62.0	110764	212.25	ug/L	91
4)	BROMOMETHANE	1.96	94.0	133200	204.06	ug/L	93
5)	CHLOROETHANE	1.98	64.0	51394	194.26	ug/L	99
6)	TRICHLOROFLUOROMETHANE	2.33	101.0	475899	211.53	ug/L	97
7)	DIETHYLETHER	2.79	59.0	58997	168.52	ug/L	89
8)	1,1-DICHLOROETHYLENE	2.93	96.0	112638	178.33	ug/L	91
9)	ACROLEIN	2.97	56.0	7196M	166.47	ug/L	86
10)	CARBON DISULFIDE	3.20	76.0	313012	182.36	ug/L	98
11)	ACETONE	3.38	43.0	23107M	167.82	ug/L	100
12)	METHYLENE CHLORIDE	3.93	84.0	156951	159.96	ug/L	90
13)	1,2-DICHLOROETHENE (TOTAL)	4.41	96.0	176298	227.03	ug/L	90
14)	ACRYLONITRILE	4.71	53.0	25321	246.36	ug/L	77
15)	T-BUTYL ALCOHOL	5.49	59.0	11585M	273.76	ug/L	
16)	METHYL T-BUTYLETHER	4.73	73.0	310231	208.18	ug/L	90
17)	1,1-DICHLOROETHANE	5.47	63.0	312012	228.79	ug/L	92
18)	VINYL ACETATE	6.00	43.0	300051	236.40	ug/L	75
19)	1,2-DICHLOROETHENE (CIS)	6.97	96.0	168228	218.15	ug/L	94
20)	2-BUTANONE	7.36	72.0	7483	240.81	ug/L	94
21)	CHLOROFORM	7.93	83.0	417752	230.88	ug/L	92
22)	1,1,1-TRICHLOROETHANE	7.95	97.0	446720	236.23	ug/L	76
23)	CARBON TETRACHLORIDE	8.30	117.0	550542	248.51	ug/L	85
24)	*1,4-DIFLUOROBENZENE	10.08	114.0	118285	50.00	ug/L	68
25)	BENZENE	8.83	78.0	332445	234.68	ug/L	77
26)	1,2-DICHLOROETHANE D4	8.90	65.0	209421	196.30	ug/L	86
27)	1,2-DICHLOROETHANE	9.04	62.0	274673	247.47	ug/L	93
28)	TRICHLOROETHYLENE	10.45	130.0	253235	248.05	ug/L	93
29)	2-CHLOROETHYLVINYLETHER	12.79	63.0	90048	234.07	ug/L	81
30)	1,2-DICHLOROPROPANE	10.95	63.0	145229	232.47	ug/L	99
31)	BROMODICHLOROMETHANE	11.81	83.0	431676	241.94	ug/L	87
32)	*CHLOROBENZENE-D5	16.73	117.0	101884	50.00	ug/L	98
33)	TRANS-1,3-DICHLOROPROPENE	14.31	75.0	109378	126.33	ug/L	94
34)	TOLUENE D8	13.30	98.0	395005	186.73	ug/L	94
35)	TOLUENE	13.45	92.0	252542	228.24	ug/L	92
36)	4-METHYL-2-PENTANONE	13.47	43.0	126726^	248.95	ug/L	91
37)	CIS-1,3-DICHLOROPROPENE	12.87	75.0	417699	354.08	ug/L	93
38)	TETRACHLOROETHYLENE	14.68	164.0	258485	235.51	ug/L	96
39)	1,1,2-TRICHLOROETHANE	14.68	97.0	152041	211.45	ug/L	98
40)	DIBROMOCHLOROMETHANE	15.48	129.0	469975	239.61	ug/L	96
41)	2-HEXANONE	15.52	43.0	77821	232.52	ug/L	84
42)	CHLOROBENZENE	16.81	112.0	411272	229.61	ug/L	87
43)	ETHYLBENZENE	17.22	106.0	174074	235.53	ug/L	99

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.59	104.0	351907	226.48	ug/L	72
45)	XYLENE	17.55	106.0	388896	450.12	ug/L	88
46)	XYLENES (TOTAL)	18.49	106.0	201837	228.80	ug/L	88
47)	BROMOFORM	18.94	173.0	376571	242.93	ug/L	97
48)	4-BROMOFLUOROBENZENE	19.83	95.0	345949	183.10	ug/L	97
49)	1,1,2,2-TETRACHLOROETHANE	20.54	83.0	253766	209.69	ug/L	95
50)	1,3-DICHLOROBENZENE	22.53	146.0	500141	235.81	ug/L	94
51)	1,4-DICHLOROBENZENE	22.82	146.0	504688	234.30	ug/L	89
52)	1,2-DICHLOROBENZENE	23.72	146.0	458361	228.30	ug/L	90

* 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: 9106L857

Instrument ID: HP-MSD K Calibration Date: 06/18/91 Time: 1239

Lab File ID: AK6I03 Init. Calib. Date(s): 06/12/91 06/12/91

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%

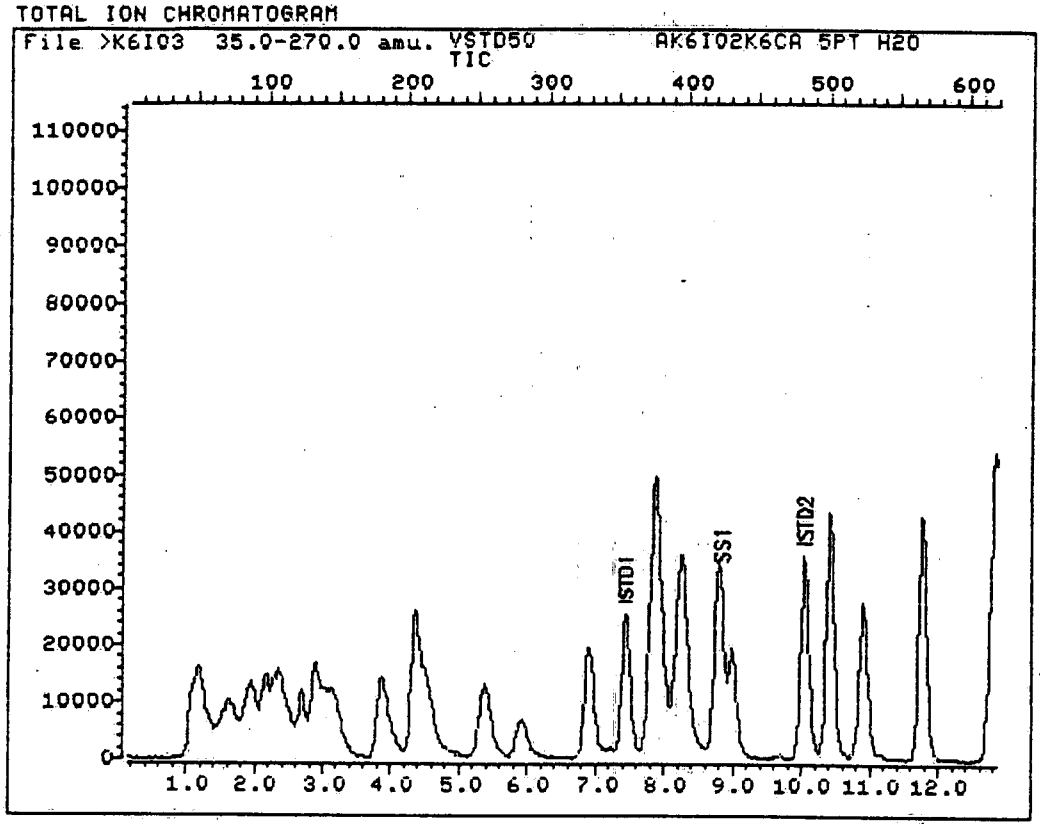
COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.685	0.680	0.8	#
Bromomethane		1.059	1.094	-3.3	
Vinyl Chloride	*	0.851	0.851	0.0	*
Chloroethane		0.422	0.462	-9.4	
Methylene Chloride		1.273	1.254	1.5	
1,1-Dichloroethene	*	1.063	1.158	-8.9	*
1,1-Dichloroethane	#	2.292	2.268	1.0	#
1,2-Dichloroethene (total)		1.302	1.317	-1.2	
Chloroform	*	3.213	3.367	-4.8	*
1,2-Dichloroethane		0.597	0.634	-6.2	
1,1,1-Trichloroethane		3.403	3.460	-1.7	
Carbon Tetrachloride		4.132	4.065	1.6	
Bromodichloromethane		0.976	1.048	-7.3	
1,2-Dichloropropane	*	0.335	0.348	-3.8	*
cis-1,3-Dichloropropene		0.640	0.616	3.8	
Trichloroethene		0.560	0.553	1.3	
Dibromochloromethane		1.151	1.154	-0.3	
1,1,2-Trichloroethane		0.410	0.406	1.0	
Benzene		0.736	0.800	-8.7	
Trans-1,3-Dichloropropene		0.651	0.592	9.0	
2-chloroethylvinylether		0.203	0.208	-2.5	
Bromoform	#	0.951	0.943	0.9	#
Tetrachloroethene		0.657	0.686	-4.4	
1,1,2,2-Tetrachloroethane	#	0.636	0.640	-0.7	#
Toluene	*	0.627	0.630	-0.4	*
Chlorobenzene	#	1.016	1.002	1.4	#
Ethylbenzene	*	0.426	0.425	0.3	*
1,2-Dichlorobenzene		1.162	1.178	-1.4	
1,3-Dichlorobenzene		1.225	1.211	1.1	
1,4-Dichlorobenzene		1.257	1.335	-6.2	
Acrolein		0.062	0.080	-28.7	
Acrylonitrile		0.178	0.175	1.6	
Trichlorofluoromethane		3.899	4.145	-6.3	
Xylene (total)		0.507	0.503	0.8	
Toluene-d8		0.944	0.904	4.2	
Bromofluorobenzene		0.856	0.828	3.3	
1,2-Dichloroethane-d4		0.454	0.475	-4.7	

7/9/91

FORM VII VOA

5/88 Rev.

TOTAL ION CHROMATOGRAM



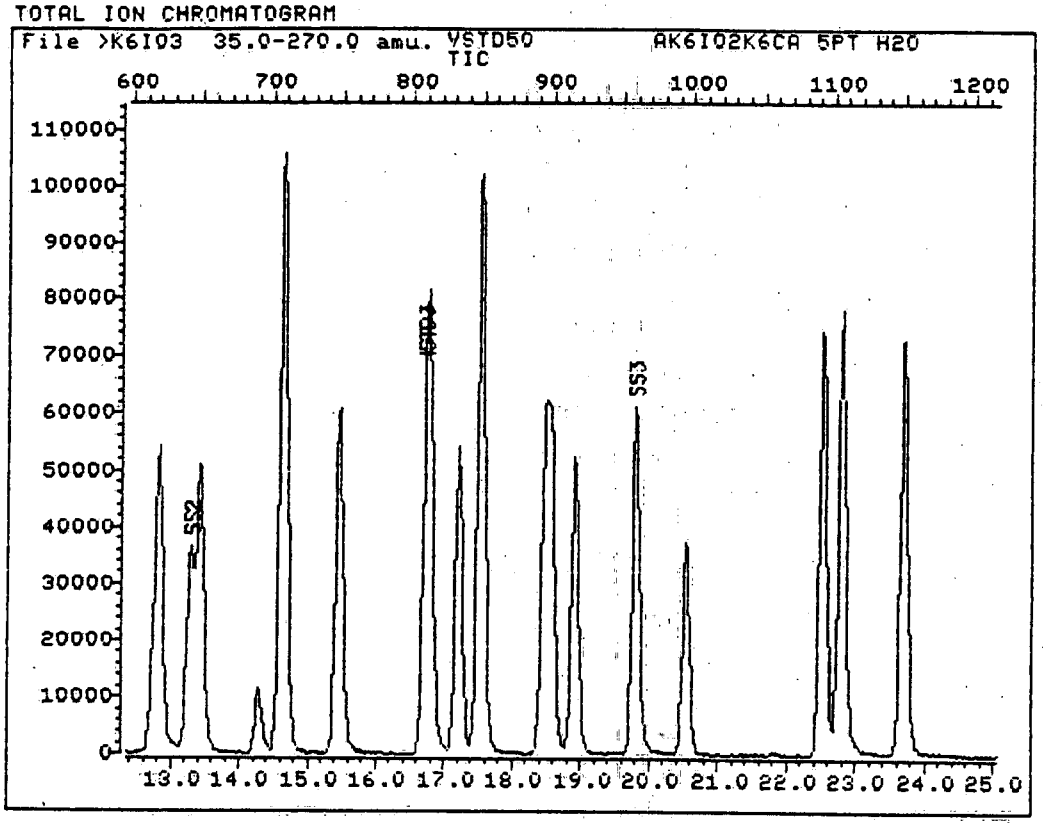
Data File: >K6I03::D2 Quant Output File: ^K6I03::QQ
Name: VSTD50 AK6I02
Misc: K6CA 5PT H2O #HP-MSD K RSL

Id File: I_K6CA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910614 13:32

Operator ID: RSL
Quant Time: 910618 13:09
Injected at: 910618 12:39

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6I03::D2 Quant Output File: ^K6I03::QQ
Name: VSTD50 AK6I02
Misc: K6CA 5PT H2O #HP-MSD K RSL

Id File: I_K6CA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910614 13:32

Operator ID: RSL
Quant Time: 910618 13:09
Injected at: 910618 12:39

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910618 13:09
Output File: ^K6I03::QQ Injected at: 910618 12:39
Data File: >K6I03::D2 Dilution Factor: 1.00000
Name: VSTD50 AK6I02
Misc: K6CA 5PT H2O #HP-MSD K RSL

ID File: I_K6CA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910614 13:32

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.43	128.0	33838	50.00	ug/L	61
2)	CHLOROMETHANE	1.57	50.0	22997	49.58	ug/L	88
3)	VINYL CHLORIDE	1.67	62.0	28795	50.02	ug/L	96
4)	BROMOMETHANE	1.94	94.0	37021	51.64	ug/L	87
5)	CHLOROETHANE	1.94	64.0	15619	54.64	ug/L	95
6)	TRICHLOROFLUOROMETHANE	2.35	101.0	140253M	53.15	ug/L	97
7)	DIETHYLETHER	2.70	59.0	18716M	51.33	ug/L	98
8)	1,1-DICHLOROETHYLENE	2.92	96.0	39169	54.46	ug/L	88
9)	ACROLEIN	2.88	56.0	2700	64.52	ug/L	81
10)	CARBON DISULFIDE	3.15	76.0	92773	49.20	ug/L	97
11)	ACETONE	3.17	43.0	6834	52.24	ug/L	100
12)	METHYLENE CHLORIDE	3.87	84.0	42441	49.27	ug/L	92
13)	1,2-DICHLOROETHENE (TOTAL)	4.36	96.0	44575	50.57	ug/L	92
14)	ACRYLONITRILE	4.50	53.0	5925	49.08	ug/L	89
15)	T-BUTYL ALCOHOL	4.95	59.0	2508M	50.72	ug/L	
16)	METHYL T-BUTYLETHER	4.52	73.0	74940	48.49	ug/L	94
17)	1,1-DICHLOROETHANE	5.38	63.0	76747	49.49	ug/L	91
18)	VINYL ACETATE	5.94	43.0	64820	45.60	ug/L	74
19)	1,2-DICHLOROETHENE (CIS)	6.92	96.0	45000	51.16	ug/L	96
20)	2-BUTANONE	7.21	72.0	1881	51.09	ug/L	93
21)	CHLOROFORM	7.84	83.0	113919	52.39	ug/L	97
22)	1,1,1-TRICHLOROETHANE	7.90	97.0	117070	50.83	ug/L	70
23)	CARBON TETRACHLORIDE	8.27	117.0	137550	49.18	ug/L	86
24)	*1,4-DIFLUOROBENZENE	10.03	114.0	113249	50.00	ug/L	69
25)	BENZENE	8.76	78.0	90583	54.34	ug/L	81
26)	1,2-DICHLOROETHANE D4	8.83	65.0	53839	52.37	ug/L	89
27)	1,2-DICHLOROETHANE	8.99	62.0	71780	53.11	ug/L	97
28)	TRICHLOROETHYLENE	10.40	130.0	62619	49.35	ug/L	97
29)	2-CHLOROETHYLVINYLETHER	12.74	63.0	23566	51.19	ug/L	82
30)	1,2-DICHLOROPROPANE	10.90	63.0	39380	51.87	ug/L	96
31)	BROMODICHLOROMETHANE	11.78	83.0	118645	53.69	ug/L	89
32)	*CHLOROBENZENE-D5	16.72	117.0	109415	50.00	ug/L	96
33)	TRANS-1,3-DICHLOROPROPENE	14.28	75.0	24623	17.28	ug/L	89
34)	TOLUENE-D8	13.29	98.0	98936	47.90	ug/L	90
35)	TOLUENE	13.44	92.0	68885	50.16	ug/L	94
36)	4-METHYL-2-PENTANONE	13.42	43.0	32879^	48.23	ug/L	84
37)	CIS-1,3-DICHLOROPROPENE	12.82	75.0	109152	77.91	ug/L	96
38)	TETRACHLOROETHYLENE	14.63	164.0	75044	52.23	ug/L	98
39)	1,1,2-TRICHLOROETHANE	14.63	97.0	44399	49.54	ug/L	97
40)	DIBROMOCHLOROMETHANE	15.47	129.0	126285	50.13	ug/L	96
41)	2-HEXANONE	15.47	43.0	20121	46.62	ug/L	82
42)	CHLOROBENZENE	16.78	112.0	109598	49.29	ug/L	81
43)	ETHYLBENZENE	17.21	106.0	46455	49.88	ug/L	96

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.56	104.0	96010	50.08	ug/L	84
45)	XYLENE	17.54	106.0	109397	100.42	ug/L	91
46)	XYLENES (TOTAL)	18.46	106.0	55041^	49.63	ug/L	88
47)	BROMOFORM	18.91	173.0	103152	49.57	ug/L	99
48)	4-BROMOFLUOROBENZENE	19.79	95.0	90591	48.35	ug/L	97
49)	1,1,2,2-TETRACHLOROETHANE	20.53	83.0	70064	50.33	ug/L	96
50)	1,3-DICHLOROBENZENE	22.52	146.0	132541	49.46	ug/L	88
51)	1,4-DICHLOROBENZENE	22.80	146.0	146070	53.11	ug/L	97
52)	1,2-DICHLOROBENZENE	23.68	146.0	128927	50.70	ug/L	94

* 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: 9106L857

Instrument ID: HP-MSD K Calibration Date: 06/19/91 Time: 1304

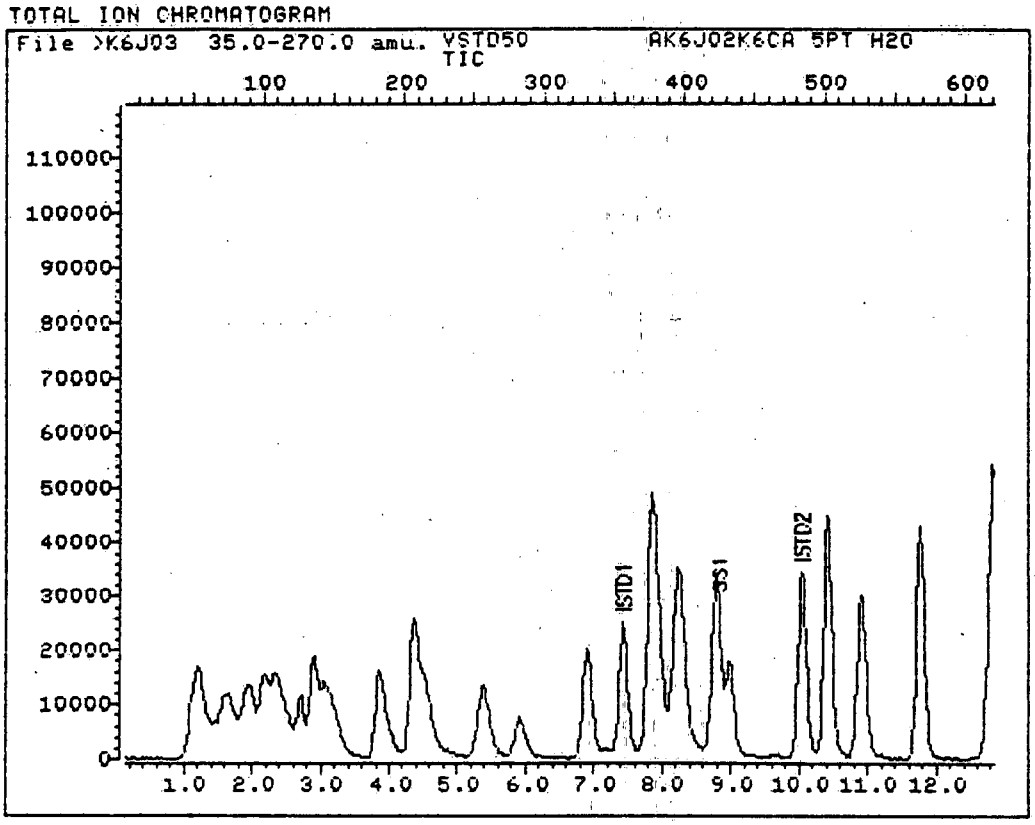
Lab File ID: AK6J03 Init. Calib. Date(s): 06/12/91 06/12/91

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	#	0.685	0.765	-11.6	#
Bromomethane		1.059	1.207	-14.0	
Vinyl Chloride	*	0.851	0.928	-9.1	*
Chloroethane		0.422	0.478	-13.2	
Methylene Chloride		1.273	1.399	-9.9	
1,1-Dichloroethene	*	1.063	1.240	-16.7	*
1,1-Dichloroethane	#	2.292	2.374	-3.6	#
1,2-Dichloroethene (total)		1.302	1.376	-5.7	
Chloroform	*	3.213	3.443	-7.2	*
1,2-Dichloroethane		0.597	0.590	1.1	
1,1,1-Trichloroethane		3.403	3.521	-3.5	
Carbon Tetrachloride		4.132	4.219	-2.1	
Bromodichloromethane		0.976	1.058	-8.4	
1,2-Dichloropropane	*	0.335	0.386	-15.4	*
cis-1,3-Dichloropropene		0.640	0.630	1.5	
Trichloroethene		0.560	0.600	-7.1	
Dibromochloromethane		1.151	1.158	-0.6	
1,1,2-Trichloroethane		0.410	0.403	1.6	
Benzene		0.736	0.751	-2.0	
Trans-1,3-Dichloropropene		0.651	0.599	8.0	
2-chloroethylvinylether		0.203	0.192	5.5	
Bromoform	#	0.951	0.935	1.7	#
Tetrachloroethene		0.657	0.691	-5.2	
1,1,2,2-Tetrachloroethane	#	0.636	0.609	4.2	#
Toluene	*	0.627	0.642	-2.3	*
Chlorobenzene	#	1.016	1.070	-5.3	#
Ethylbenzene	*	0.426	0.439	-3.1	*
1,2-Dichlorobenzene		1.162	1.190	-2.4	
1,3-Dichlorobenzene		1.225	1.278	-4.3	
1,4-Dichlorobenzene		1.257	1.296	-3.1	
Acrolein		0.062	0.071	-14.2	
Acrylonitrile		0.178	0.169	4.9	
Trichlorofluoromethane		3.899	4.368	-12.0	
Xylene (total)		0.507	0.524	-3.3	
Toluene-d8		0.944	0.934	1.1	
Bromofluorobenzene		0.856	0.853	0.3	
1,2-Dichloroethane-d4		0.454	0.444	2.1	

TOTAL ION CHROMATOGRAM



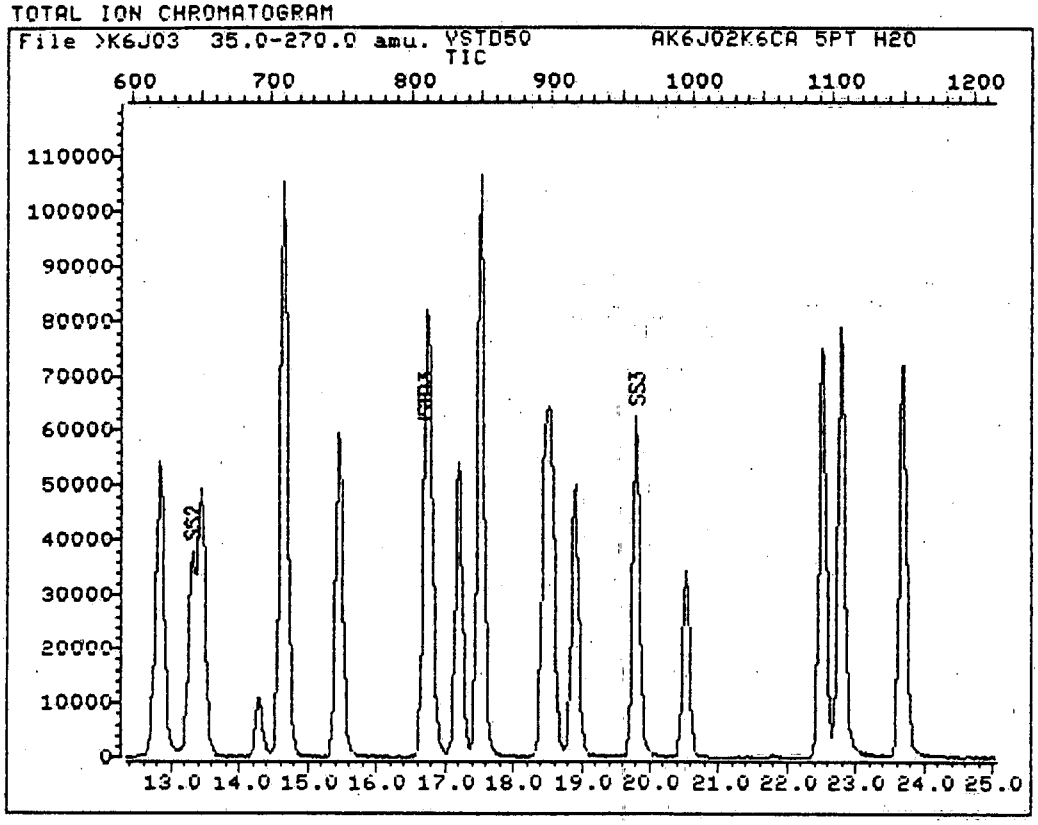
Data File: >K6J03::D2 Quant Output File: ^K6J03::QQ
Name: VSTD50 AK6J02
Misc: K6CA 5PT H2O #HP-MSD K RSL

Id File: I_K6CA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910614 13:32

Operator ID: RSL
Quant Time: 910619 13:34
Injected at: 910619 13:04

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6J03::D2 Quant Output File: ^K6J03::QQ
Name: VSTD50 AK6J02
Misc: K6CA 5PT H2O #HP-MSD K RSL

Id File: I_K6CA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910614 13:32

Operator ID: RSL
Quant Time: 910619 13:34
Injected at: 910619 13:04

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910619 13:34
Output File: ^K6J03::QQ Injected at: 910619 13:04
Data File: >K6J03::D2 Dilution Factor: 1.00000
Name: VSTD50 AK6J02
Misc: K6CA 5PT H2O #HP-MSD K RSL

ID File: I_K6CA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910614 13:32

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.44	128.0	31677	50.00	ug/L	70
2)	CHLOROMETHANE	1.58	50.0	24226	55.79	ug/L	83
3)	VINYL CHLORIDE	1.66	62.0	29403	54.56	ug/L	95
4)	BROMOMETHANE	1.94	94.0	38230	56.96	ug/L	88
5)	CHLOROETHANE	1.96	64.0	15130	56.54	ug/L	93
6)	TRICHLOROFLUOROMETHANE	2.35	101.0	138381M	56.02	ug/L	89
7)	DIETHYLETHER	2.70	59.0	19774	57.93	ug/L	92
8)	1,1-DICHLOROETHYLENE	2.91	96.0	39293	58.36	ug/L	87
9)	ACROLEIN	2.93	56.0	2242	57.23	ug/L	62
10)	CARBON DISULFIDE	3.11	76.0	94880	53.75	ug/L	98
11)	ACETONE	3.19	43.0	7206	58.84	ug/L	100
12)	METHYLENE CHLORIDE	3.87	84.0	44323	54.96	ug/L	82
13)	1,2-DICHLOROETHENE (TOTAL)	4.36	96.0	43581	52.82	ug/L	94
14)	ACRYLONITRILE	4.55	53.0	5364	47.46	ug/L	72
15)	T-BUTYL ALCOHOL	4.96	59.0	2262M	48.87	ug/L	1
16)	METHYL T-BUTYLETHER	4.51	73.0	75760	52.36	ug/L	87
17)	1,1-DICHLOROETHANE	5.39	63.0	75203	51.80	ug/L	99
18)	VINYL ACETATE	5.92	43.0	63336	47.59	ug/L	79
19)	1,2-DICHLOROETHENE (CIS)	6.90	96.0	42182	51.23	ug/L	90
20)	2-BUTANONE	7.15	72.0	1668M	48.40	ug/L	70
21)	CHLOROFORM	7.85	83.0	109070	53.58	ug/L	95
22)	1,1,1-TRICHLOROETHANE	7.93	97.0	111542	51.74	ug/L	79
23)	CARBON TETRACHLORIDE	8.24	117.0	133643	51.05	ug/L	93
24)	*1,4-DIFLUOROBENZENE	10.04	114.0	113311	50.00	ug/L	68
25)	BENZENE	8.77	78.0	85065	51.00	ug/L	77
26)	1,2-DICHLOROETHANE D4	8.83	65.0	50356	48.96	ug/L	88
27)	1,2-DICHLOROETHANE	8.99	62.0	66889	49.46	ug/L	99
28)	TRICHLOROETHYLENE	10.41	130.0	67974	53.54	ug/L	97
29)	2-CHLOROETHYLVINYLETHER	12.74	63.0	21738	47.20	ug/L	79
30)	1,2-DICHLOROPROPANE	10.90	63.0	43792	57.65	ug/L	98
31)	BROMODICHLOROMETHANE	11.76	83.0	119889	54.22	ug/L	97
32)	*CHLOROBENZENE-D5	16.70	117.0	106514	50.00	ug/L	92
33)	TRANS-1,3-DICHLOROPROPENE	14.28	75.0	24233	47.47	ug/L	94
34)	TOLUENE D8	13.30	98.0	99449	49.46	ug/L	95
35)	TOLUENE	13.42	92.0	68333	51.12	ug/L	98
36)	4-METHYL-2-PENTANONE	13.42	43.0	29552^	44.53	ug/L	87
37)	CIS-1,3-DICHLOROPROPENE	12.83	75.0	108781	79.76	ug/L	94
38)	TETRACHLOROETHYLENE	14.63	164.0	73647	52.65	ug/L	99
39)	1,1,2-TRICHLOROETHANE	14.63	97.0	42955	49.23	ug/L	92
40)	DIBROMOCHLOROMETHANE	15.45	129.0	123305	50.28	ug/L	99
41)	2-HEXANONE	15.47	43.0	18373	43.73	ug/L	83
42)	CHLOROBENZENE	16.76	112.0	113916	52.63	ug/L	86
43)	ETHYLBENZENE	17.21	106.0	46801	51.63	ug/L	98

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	STYRENE	18.56	104.0	96506	51.71	ug/L	81
45)	XYLENE	17.52	106.0	112591	106.16	ug/L	89
46)	XYLENES (TOTAL)	18.46	106.0	55802^	51.69	ug/L	87
47)	BROMOFORM	18.89	173.0	99561	49.15	ug/L	91
48)	4-BROMOFLUOROBENZENE	19.79	95.0	90860	49.82	ug/L	99
49)	1,1,2,2-TETRACHLOROETHANE	20.53	83.0	64903	47.89	ug/L	95
50)	1,3-DICHLOROBENZENE	22.50	146.0	136112	52.18	ug/L	98
51)	1,4-DICHLOROBENZENE	22.79	146.0	138037	51.55	ug/L	97
52)	1,2-DICHLOROBENZENE	23.67	146.0	126726	51.20	ug/L	84

* 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: 9106L857

Lab File ID (Standard): AK6I03 Date Analyzed: 06/18/91

Instrument ID: HP-MSD K Time Analyzed: 1239

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	33838	7.43	113249	10.03	109415	16.72
	UPPER LIMIT	67676	7.93	226498	10.53	218830	17.22
	LOWER LIMIT	16919	6.93	56625	9.53	54708	16.22
	CLIENT SAMPLE NO.						
01	TRIP BLANK	27647	7.45	97294	10.07	95441	16.73
02	MW-1	27093	7.45	95402	10.07	92687	16.72
03	MW-3	26007	7.45	89421	10.05	90564	16.72
04	MW-4	27191	7.47	96276	10.05	97640	16.75
05	MW-5	27684	7.47	97593	10.08	95732	16.75
06	MW-5MS	25524	7.45	95631	10.08	91188	16.75
07	MW-5MSD	27236	7.43	96868	10.07	93149	16.73
08	FIELD BLANK	28934	7.46	101779	10.08	102195	16.74
09	VBLKLVK106-MB1	30059	7.45	114604	10.05	108973	16.73

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: 9106L857

Lab File ID (Standard): AK6J03 Date Analyzed: 06/19/91

Instrument ID: HP-MSD K Time Analyzed: 1304

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	31677	7.44	113311	10.04	106514	16.70
	UPPER LIMIT	63354	7.94	226622	10.54	213028	17.20
	LOWER LIMIT	15839	6.94	56656	9.54	53257	16.20
	CLIENT SAMPLE NO.						
01	MW-1DL	28178	7.44	108612	10.04	102881	16.73
02	MW-2	27711	7.45	102201	10.07	98722	16.73
03	VBLKLVK107-MB1	29238	7.45	106967	10.05	102461	16.75

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

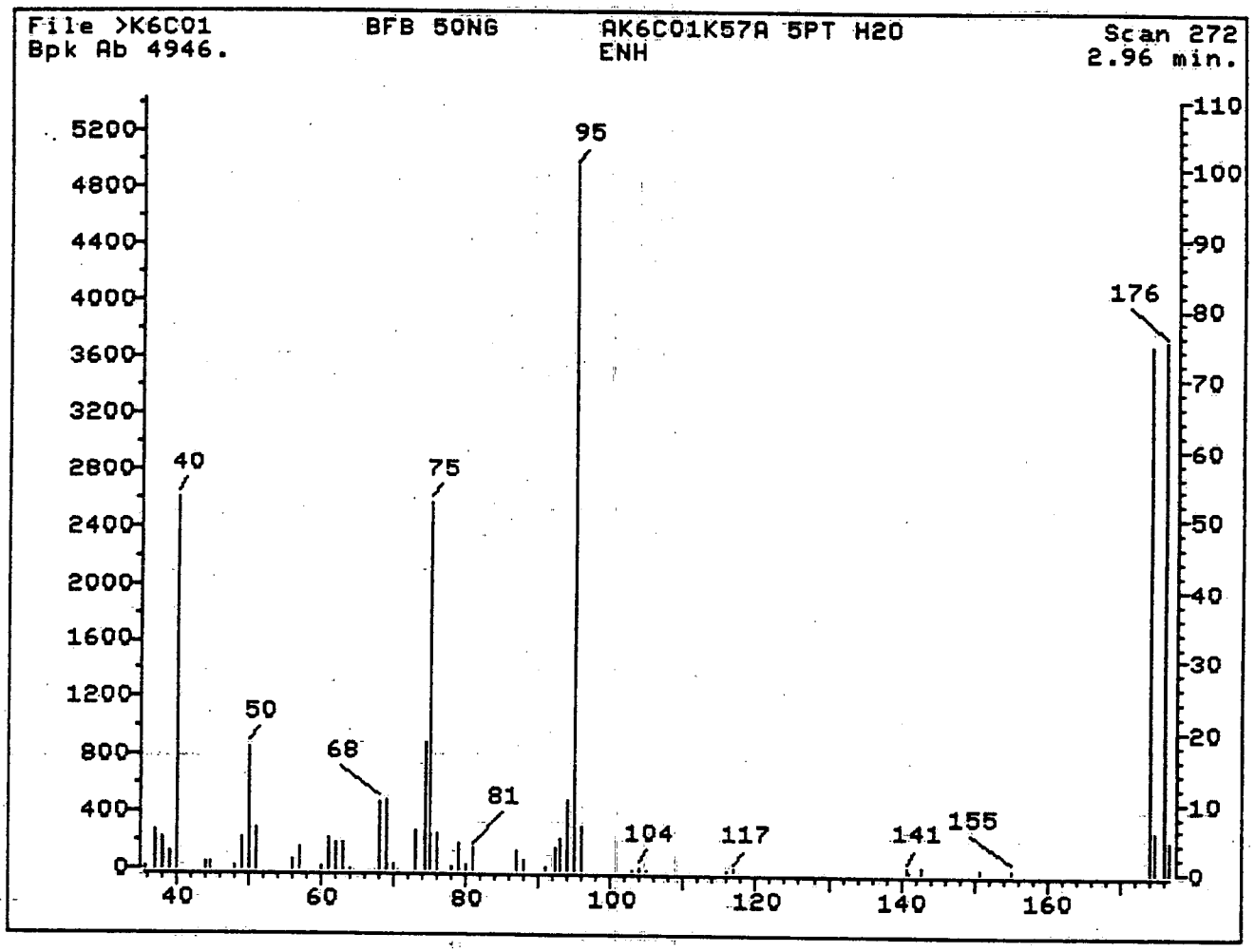
C. Matrix Spike Data

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

MS data file header from : >K6C01

Sample: BFB 50NG AK6C01 Operator: RSL SUPER GRP. 6/12/91 11:03
Misc : K57A 5PT H2O #HP-MSD K RSL
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: BFBK Tuning file: MTK325 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

Chromatographic temperatures :	80.	200.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0



>K6C01 BFB 50NG AK6C01K57A 5PT H2O
272 NRM ENH

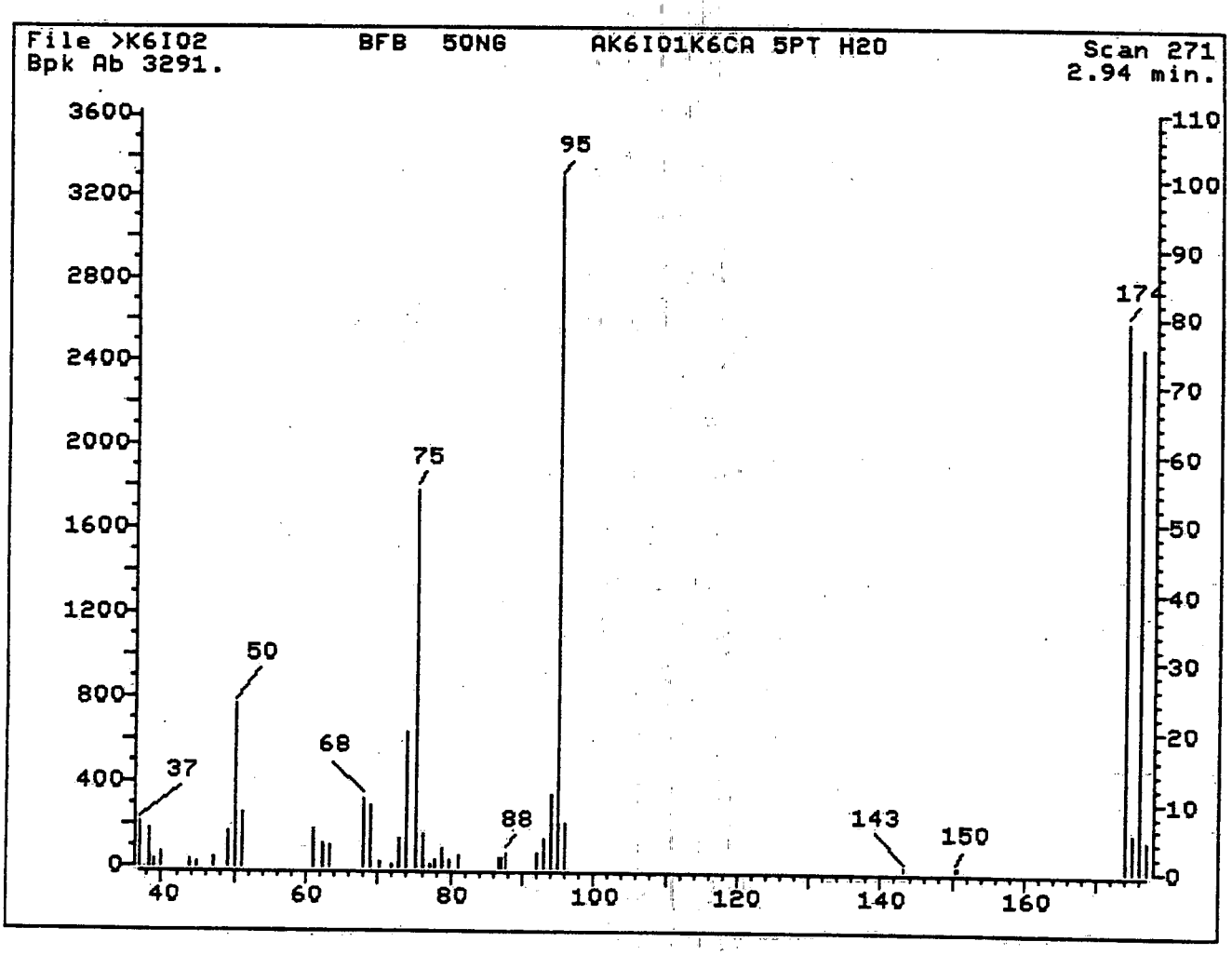
File: >K6C01 Scan #: 272 Retn. time: 2.96

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
35.75	.425	55.95	1.415	73.00	5.527	91.00	.356	117.00	.404
37.05	5.568	57.05	3.117	74.10	17.961	92.10	2.980	140.80	.732
37.95	4.440	60.05	.416	75.00	51.795	93.00	4.597	141.20	.077
39.05	2.353	61.05	4.516	76.00	5.014	94.00	9.947	142.90	.687
39.95	52.551	62.05	3.833	78.05	.299	95.00	100.000	150.75	.328
43.90	1.140	63.05	3.853	78.95	3.655	96.00	6.097	154.95	.433
44.80	1.249	63.85	.154	80.05	.898	102.85	.125	173.95	74.875
48.00	.344	68.00	9.558	80.85	3.081	103.85	.453	174.85	5.859
48.90	4.351	69.10	9.926	86.95	2.867	104.85	.061	175.95	75.307
50.00	17.394	69.90	.611	87.85	1.597	115.90	.218	176.85	4.533
51.00	5.875								

MS data file header from : >K6I02

Sample: BFB 50NG AK6I01 Operator: RSL SUPER GRP. 6/18/91 12:19
Misc : K6CA 5PT H2O #HP-MSD K RSL
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: BFBK Tuning file: MTK325 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

Chromatographic temperatures :	80.	200.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0



>K6I02 BFB 50NG AK6I01K6CA 5PT H2O
271 NRM

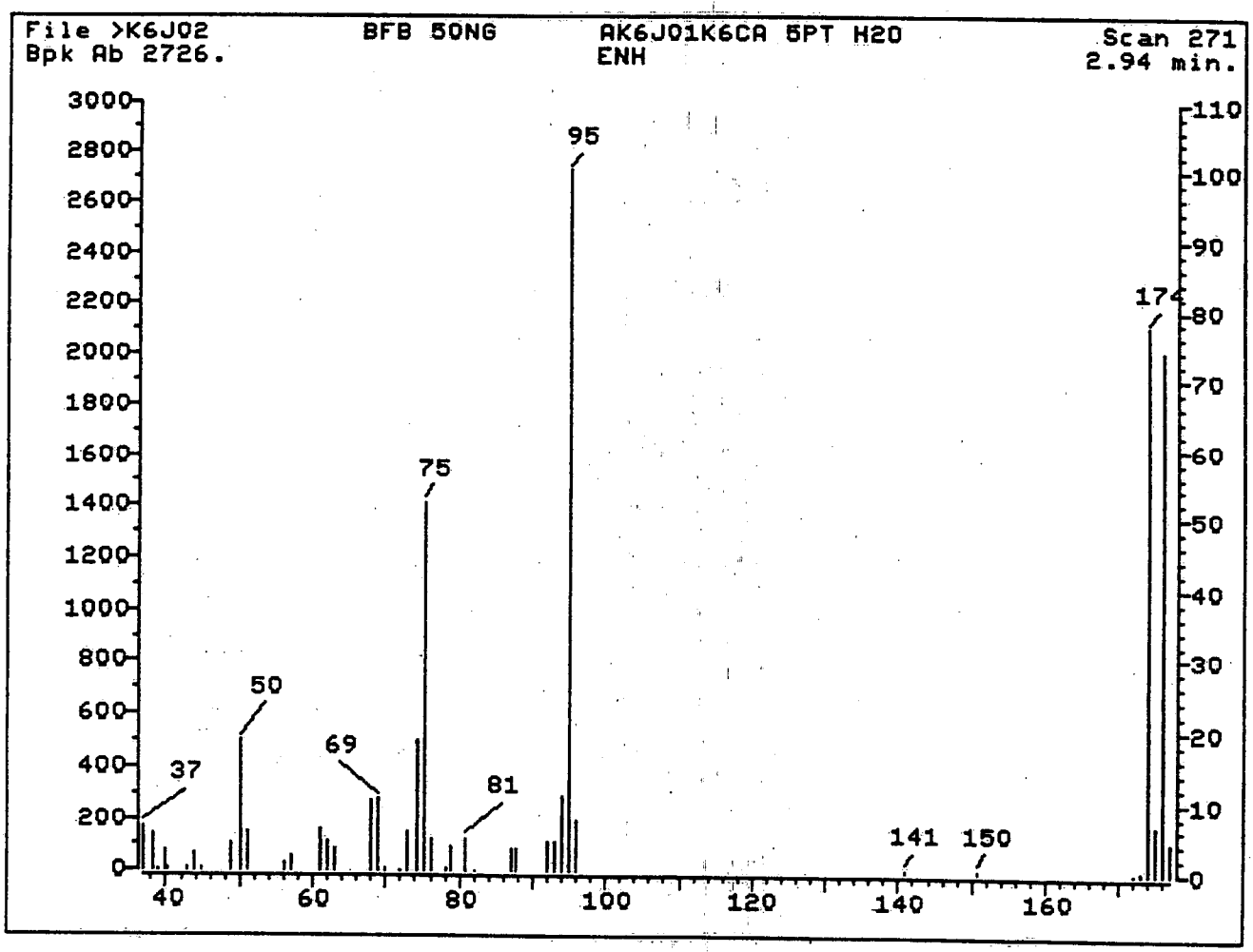
File: >K6I02 Scan #: 271 Retn. time: 2.94

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.95	6.472	51.00	7.870	72.90	4.072	80.95	1.884	96.00	6.533
38.05	5.621	61.05	5.621	74.00	19.356	86.75	1.550	143.30	.334
38.95	1.215	62.15	3.555	75.00	54.208	86.95	1.489	150.45	.334
39.95	2.188	63.15	3.008	76.00	4.801	87.85	2.157	150.75	.304
43.70	1.033	68.00	9.967	77.00	.577	91.90	1.945	173.95	79.277
44.90	.638	69.00	8.721	77.85	.942	93.00	3.981	174.95	5.561
47.00	1.550	70.30	.790	78.85	2.674	94.00	10.726	175.95	75.387
49.00	4.983	72.00	.456	79.95	.942	95.00	100.000	176.95	4.345
50.00	23.306								

MS data file header from : >K6J02

Sample: BFB 50NG AK6J01 Operator: RSL SUPER GRP. 6/19/91 12:42
Misc : K6CA 5PT H2O #HP-MSD K RSL
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: BFBK Tuning file: MTK325 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

Chromatographic temperatures :	80.	200.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0



>K6J02 BFB 50NG AK6J01K6CA 5PT H2O
271 NRM ENH

File: >K6J02 Scan #: 271 Retn. time: 2.94

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.95	6.259	50.00	18.277	69.00	10.125	80.85	4.578	140.70	.426
38.05	5.136	51.00	5.327	69.80	.382	81.95	.220	150.65	.448
38.85	.227	55.95	1.255	72.00	.132	86.95	3.140	171.75	.132
39.85	2.707	56.15	.323	72.90	5.327	87.85	2.979	172.85	.462
40.05	.360	56.85	1.988	74.10	18.233	92.00	4.226	173.95	77.702
42.80	.484	60.85	5.965	75.00	51.926	93.00	3.991	174.95	6.787
43.90	2.553	62.05	4.087	76.10	4.373	94.00	10.478	175.85	73.923
44.80	.565	63.05	3.016	78.25	.396	95.00	100.000	176.95	4.424
48.90	3.661	68.00	9.876	78.95	3.471	95.90	7.301		

1A

0000132

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: 91LVK106-MB1

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

Lab File ID: AK6I04

Level: (low/med) LOW

Date Received: 06/18/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

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	
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: 91LVK106-MB1

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

Lab File ID: AK6I04

Level: (low/med) LOW

Date Received: 06/18/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

Column: (pack/cap) CAP

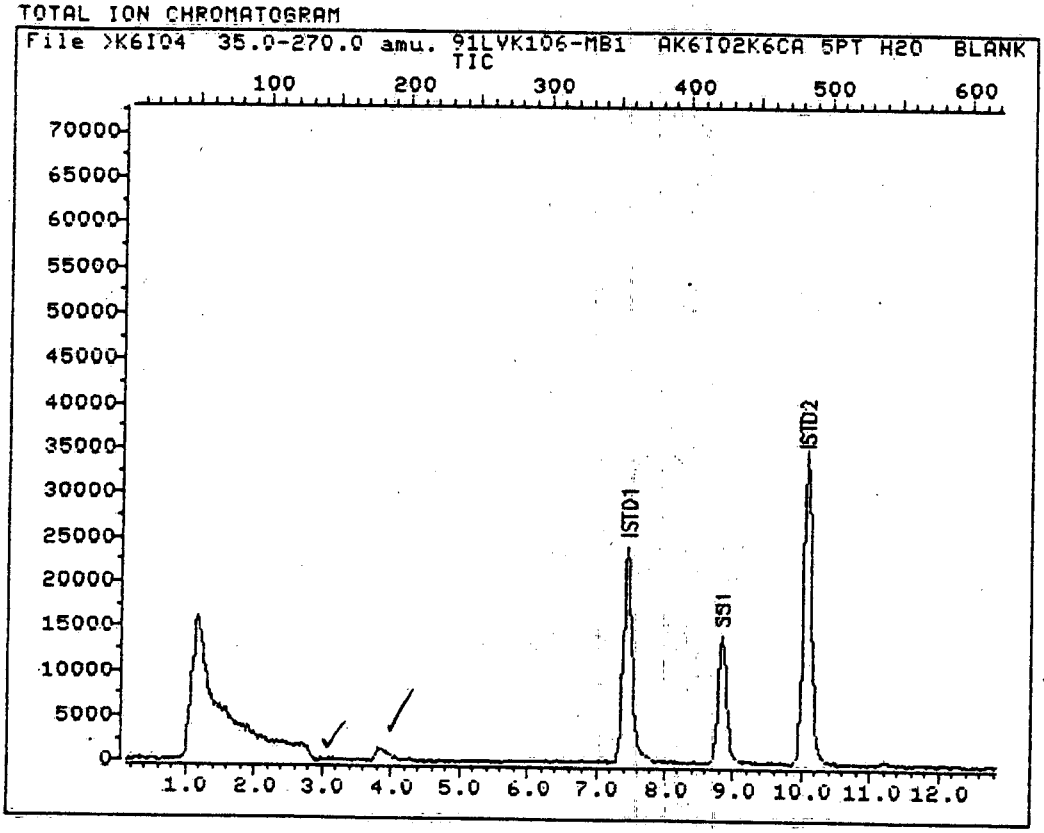
Dilution Factor: 1.00

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: >K6I04::D2
Name: 91LVK106-MB1 AK6I02
Misc: K6CA 5PT H2O BLANK 5ML

Quant Output File: ^K6I04::QQ

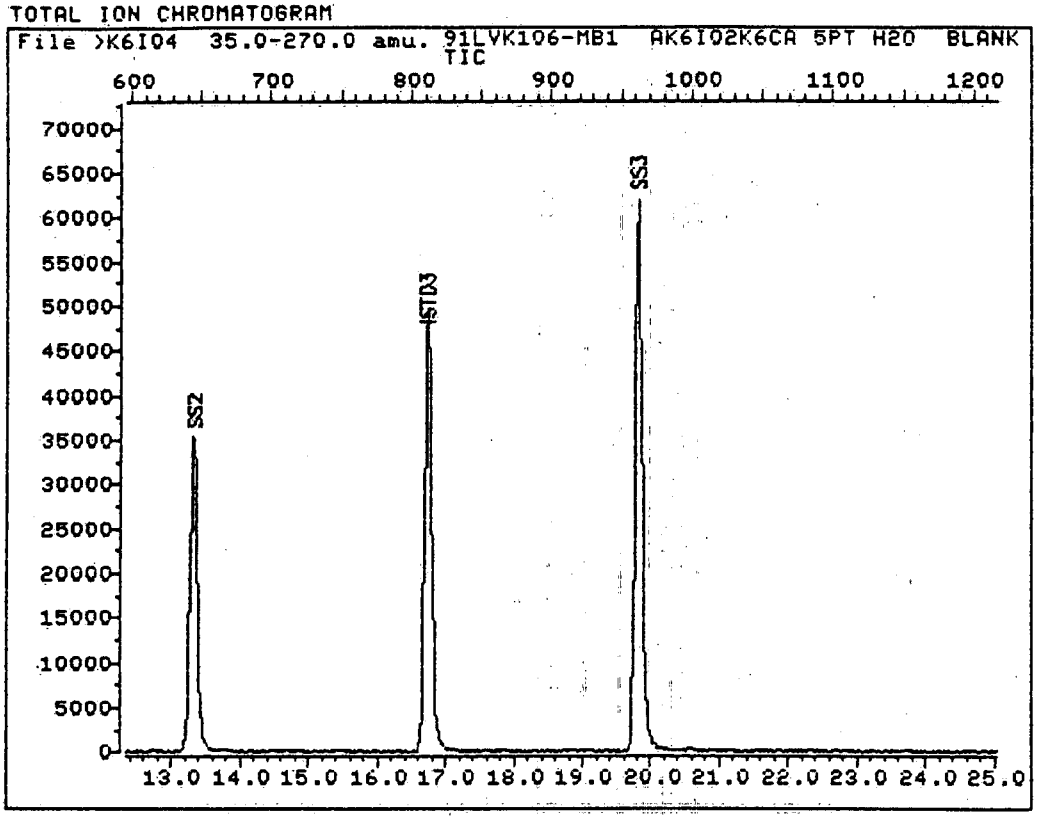
#HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 14:02
Injected at: 910618 13:32

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6I04::D2 Quant Output File: ^K6I04::QQ
Name: 91LVK106-MB1 AK6I02
Misc: K6CA 5PT H2O BLANK 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 14:02
Injected at: 910618 13:32

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910618 14:02
Output File: ^K6I04::QQ Injected at: 910618 13:32
Data File: >K6I04::D2 Dilution Factor: 1.00000
Name: 91LVK106-MB1 AK6I02
Misc: K6CA 5PT H2O BLANK 5ML #HP-MSD K RSL

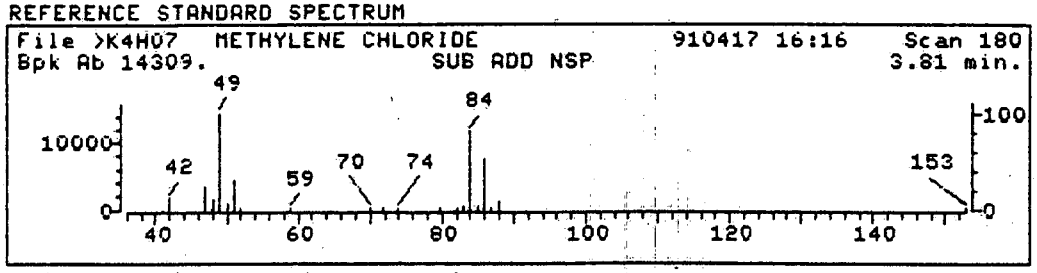
ID File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.45	128.0	30059 ✓	50.00	ug/L	76
11)	ACETONE	3.11	43.0	876	7.21	ug/L ✓	100
12)	METHYLENE CHLORIDE	3.85	84.0	3965	5.26	ug/L ✓	82
24)	*1,4-DIFLUOROBENZENE	10.05	114.0	114604 ✓	50.00	ug/L	69
26)	1,2-DICHLOROETHANE D4	8.82	65.0	50805	46.62	ug/L ✓	91
32)	*CHLOROBENZENE-D5	16.73	117.0	108973 ✓	50.00	ug/L	90
34)	TOLUENE D8	13.33	98.0	99241	50.36	ug/L ✓	94
48)	4-BROMOFLUOROBENZENE	19.82	95.0	90584	50.20	ug/L ✓	97

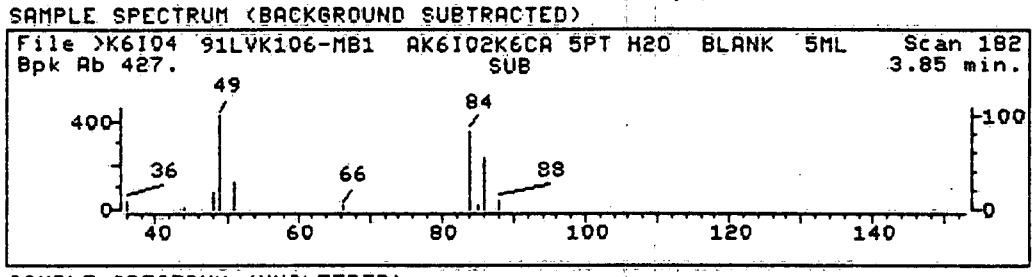
* Compound is ISTD

NO TIC
RSL
6/18/91

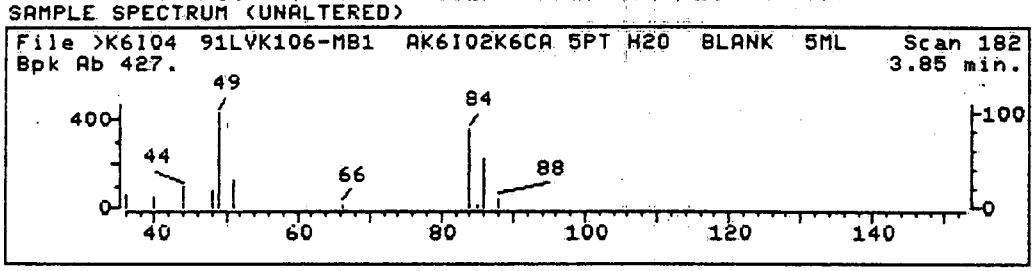
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6I04::D2
Name: 91LVK106-MB1 AK6I02
Misc: K6CA 5PT H2O BLANK 5ML
Quant Time: 910618 14:02
Injected at: 910618 13:32

Quant Output File: ^K6I04::QQ
#HP-MSD K RSL
Quant ID File: I_K6IA::QQ
Last Calibration: 910618 13:22

Compound No: 12
Compound Name: METHYLENE CHLORIDE
Scan Number: 182
Retention Time: 3.85 min.
Quant Ion: 84.0
Area: 3965
Concentration: 5.26 ug/L
q-value: 82

1A

VOLATILE ORGANICS ANALYSIS SHEET

0 0 0 0 1 3 8

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: 91LVK107-MB1

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

Lab File ID: AK6J04

Level: (low/med) LOW

Date Received: 06/19/91

% Moisture: not dec. _____

Date Analyzed: 06/19/91

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	
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

0 0 0 0 1 3 9

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: 91LVK107-MB1

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

Lab File ID: AK6J04

Level: (low/med) LOW

Date Received: 06/19/91

% Moisture: not dec. _____

Date Analyzed: 06/19/91

Column: (pack/cap) CAP

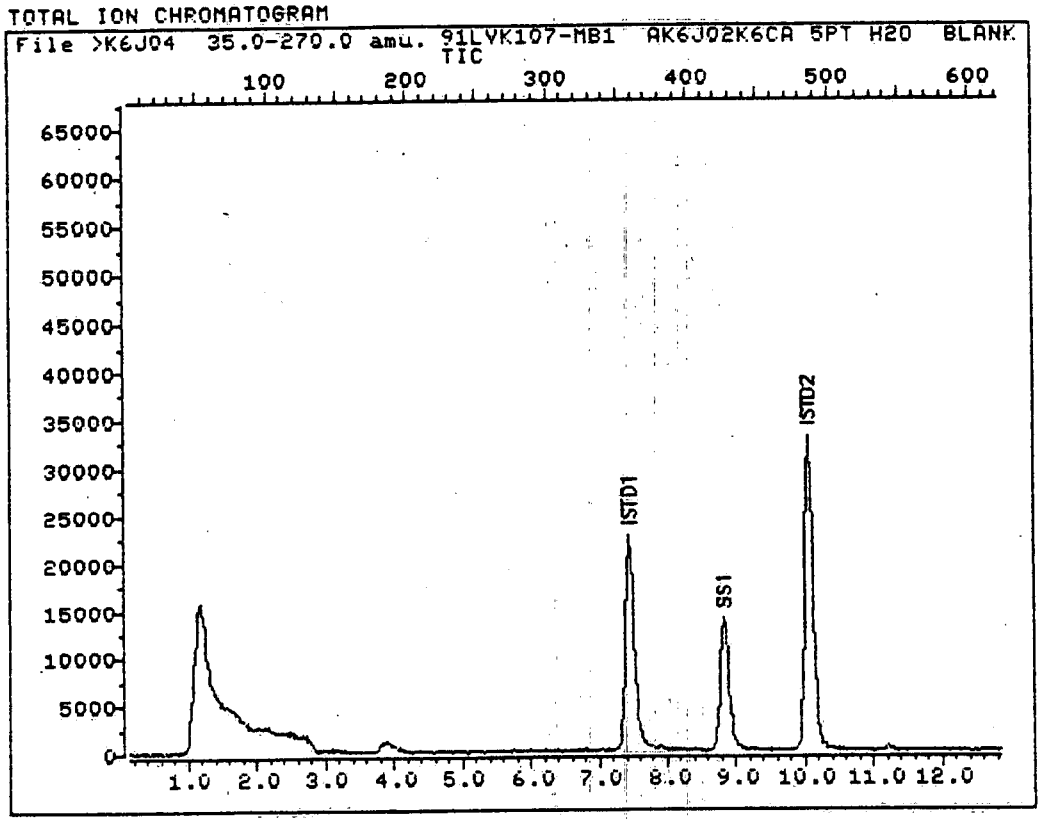
Dilution Factor: 1.00

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



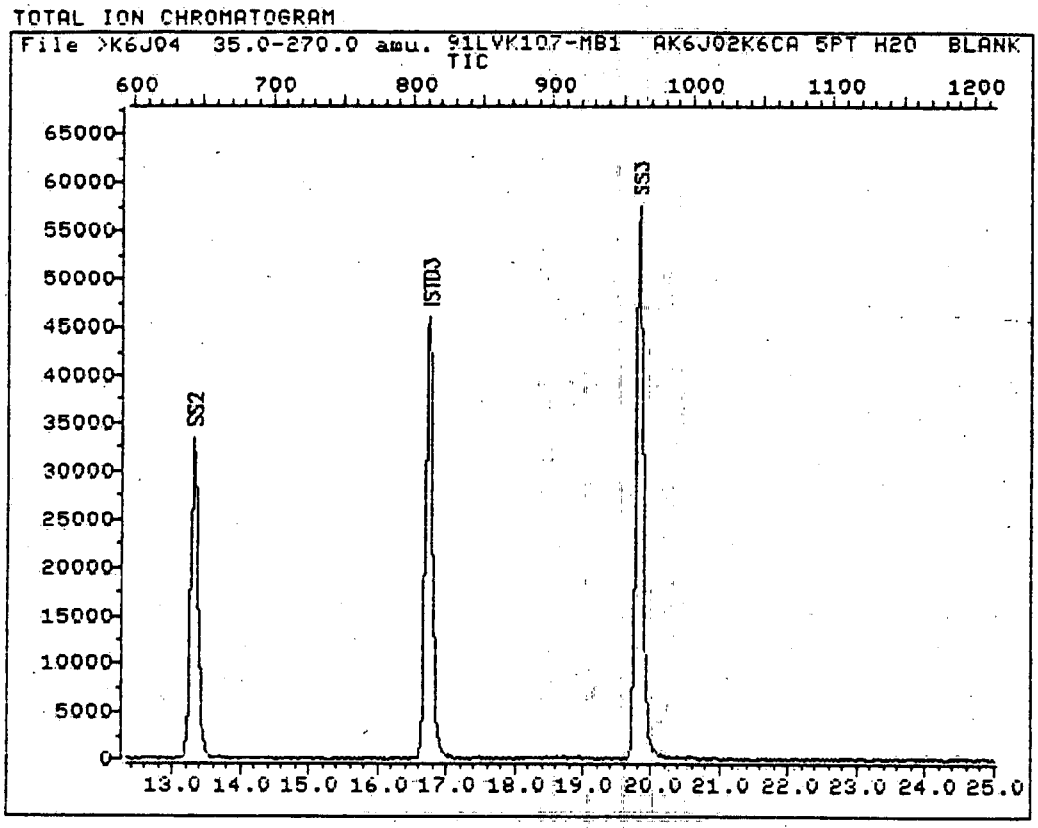
Data File: >K6J04::D2 Quant Output File: ^K6J04::QQ
Name: 91LVK107-MB1 AK6J02
Misc: K6CA 5PT H2O BLANK 5ML #HP-MSD K RSL

Id File: I_K6JA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910619 13:47

Operator ID: RSL
Quant Time: 910619 14:28
Injected at: 910619 13:57

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6J04::D2 Quant Output File: ^K6J04::QQ
Name: 91LVK107-MB1 AK6J02
Misc: K6CA 5PT H2O BLANK 5ML #HP-MSD K RSL

Id File: I_K6JA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910619 13:47

Operator ID: RSL
Quant Time: 910619 14:28
Injected at: 910619 13:57

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910619 14:28
Output File: ^K6J04::QQ Injected at: 910619 13:57
Data File: >K6J04::D2 Dilution Factor: 1.00000
Name: 91LVK107-MB1 AK6J02
Misc: K6CA 5PT H2O BLANK 5ML #HP-MSD K RSL

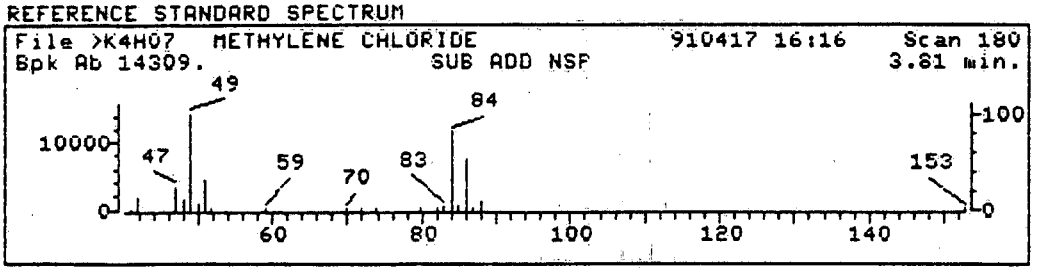
ID File: I_K6JA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910619 13:47

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.45	128.0	29238 ✓	50.00	ug/L	74
11)	ACETONE	3.15	43.0	1697	12.76	ug/L ✓	100
12)	METHYLENE CHLORIDE	3.89	84.0	3694	4.51	ug/L ✓	61
24)	*1,4-DIFLUOROBENZENE	10.05	114.0	106967 ✓	50.00	ug/L	68
26)	1,2-DICHLOROETHANE D4	8.83	65.0	50650	53.27	ug/L ✓	88
32)	*CHLOROBENZENE-D5	16.75	117.0	102461 ✓	50.00	ug/L	95
34)	TOLUENE D8	13.31	98.0	92292	48.24	ug/L ✓	92
48)	4-BROMOFLUOROBENZENE	19.82	95.0	85093	48.68	ug/L ✓	91

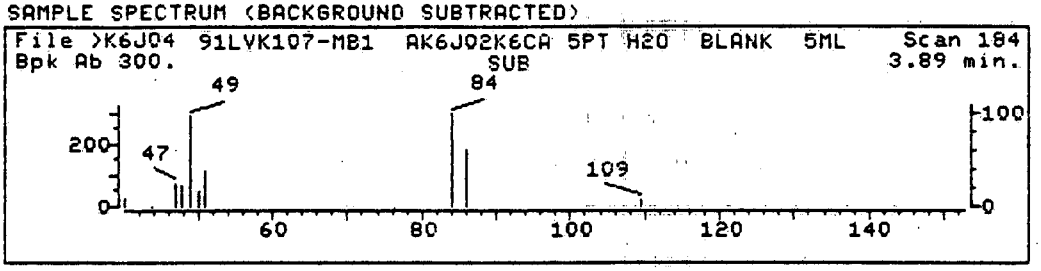
* Compound is ISTD

NO TIC
TCI
6/19/91

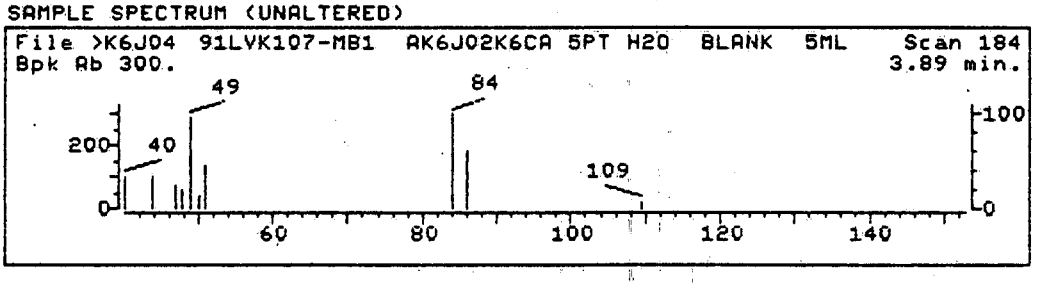
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6J04::D2 Quant Output File: ^K6J04::QQ
Name: 91LVK107-MB1 AK6J02
Misc: K6CA 5PT H2O BLANK 5ML #HP-MSD K RSL
Quant Time: 910619 14:28 Quant ID File: I_K6JA::QQ
Injected at: 910619 13:57 Last Calibration: 910619 13:47

Compound No: 12
Compound Name: METHYLENE CHLORIDE
Scan Number: 184
Retention Time: 3.89 min.
Quant Ion: 84.0
Area: 3694
Concentration: 4.51 ug/L
q-value: 61

1A
VOLATILE ORGANICS ANALYSIS SHEET

0000144 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: 9106L857-006 MS

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

Lab File ID: AK6I10

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

Column: (pack/cap) CAP

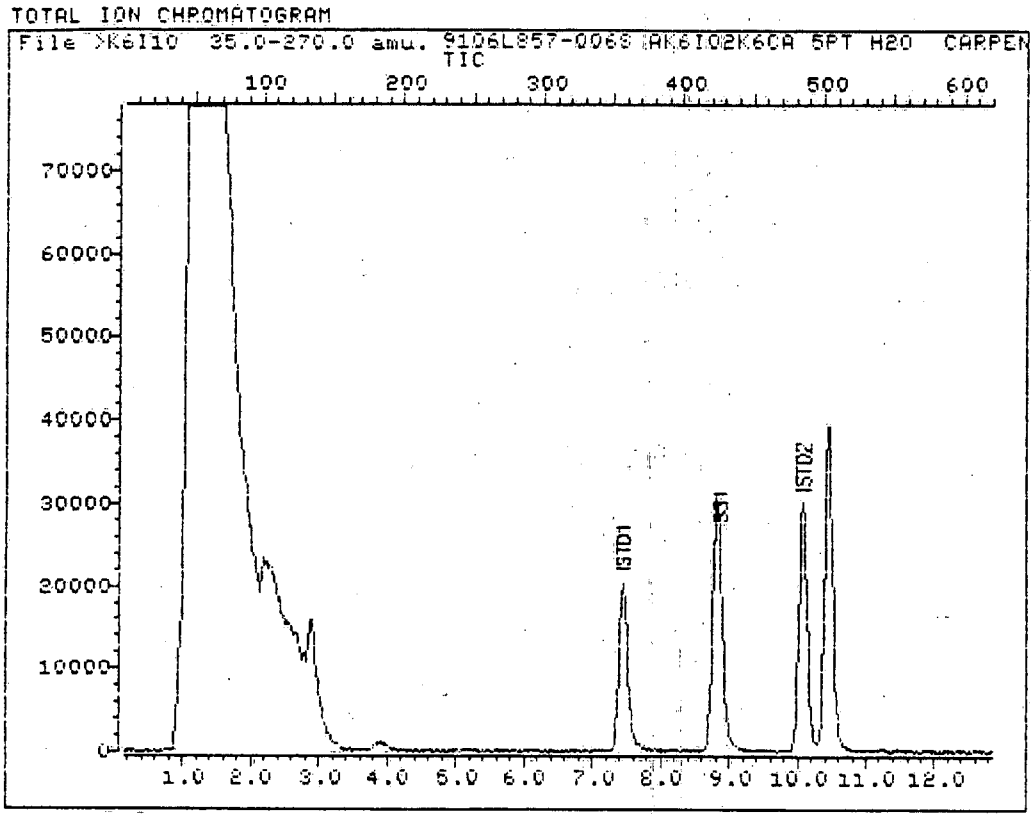
Dilution Factor: 1.00

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	5	J
75-09-2	Methylene Chloride	1	JB
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)	5	U

S: SPIKE COMPOUND

TOTAL ION CHROMATOGRAM



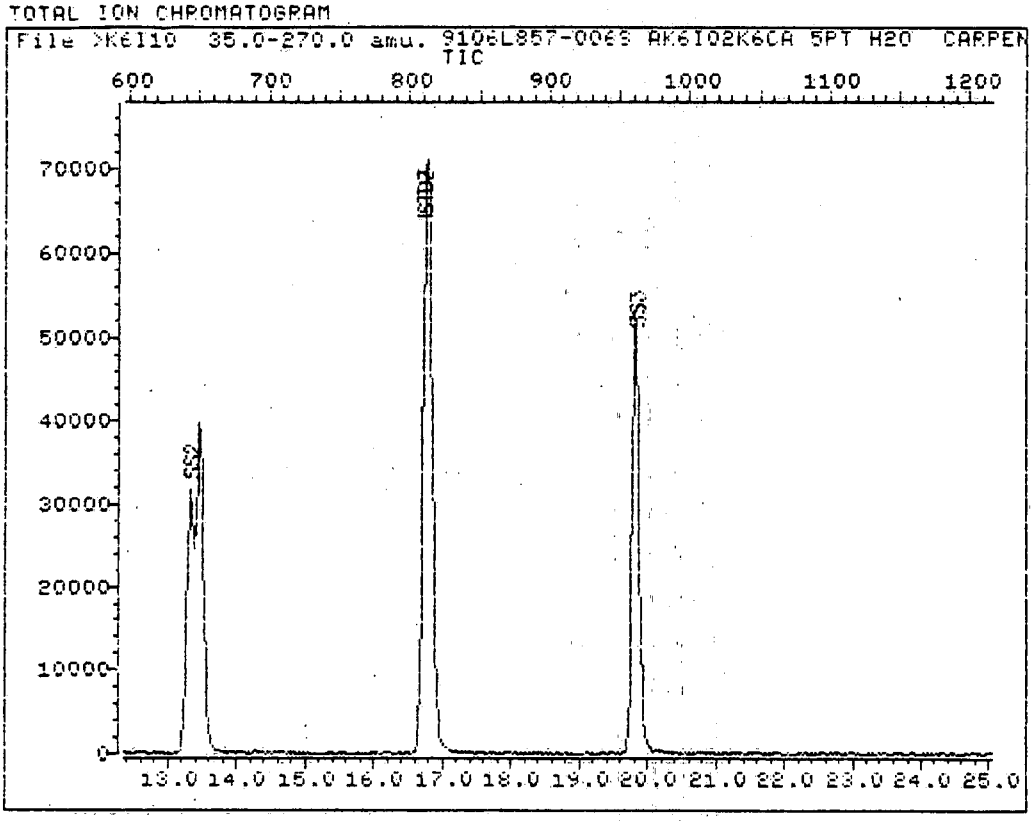
Data File: >K6I10::D2 Quant Output File: ^K6I10::QQ
Name: 9106L857-006S AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 18:32
Injected at: 910618 18:02

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6I10::D2 Quant Output File: ^K6I10::QQ
Name: 9106L857-006S AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 18:32
Injected at: 910618 18:02

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910618 18:32
Output File: ^K6I10::QQ Injected at: 910618 18:02
Data File: >K6I10::D2 Dilution Factor: 1.00000
Name: 9106L857-006S AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

ID File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.45	128.0	25524 ✓	50.00	ug/L	78
5)	CHLOROETHANE	2.03	64.0	1183M	5.02	ug/L	
8)	1,1-DICHLOROETHYLENE	2.89	96.0	31123	52.67	ug/L	93
11)	ACETONE	3.20	43.0	687	6.66	ug/L	100
12)	METHYLENE CHLORIDE	3.85	84.0	920	1.44	ug/L	81
24)	*1,4-DIFLUOROBENZENE	10.08	114.0	95631 ✓	50.00	ug/L	68
25)	BENZENE	8.83	78.0	79522	51.98	ug/L	79
26)	1,2-DICHLOROETHANE D4	8.87	65.0	41236	45.35	ug/L ✓	91
27)	1,2-DICHLOROETHANE	8.81	62.0	859	.71	ug/L	59
28)	TRICHLOROETHYLENE	10.45	130.0	56635	53.55	ug/L	95
32)	*CHLOROBENZENE-D5	16.75	117.0	91188 ✓	50.00	ug/L	95
34)	TOLUENE D8	13.33	98.0	85739	51.99	ug/L ✓	98
35)	TOLUENE	13.48	92.0	62012	54.01	ug/L	96
42)	CHLOROBENZENE	16.82	112.0	97630	53.44	ug/L	83
48)	4-BROMOFLUOROBENZENE	19.85	95.0	75871	50.25	ug/L ✓	91

* Compound is ISTD

1A
VOLATILE ORGANICS ANALYSIS SHEET

0000140

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: 9106L857-006 MSD

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

Lab File ID: AK6I11

Level: (low/med) LOW

Date Received: 06/14/91

% Moisture: not dec. _____

Date Analyzed: 06/18/91

Column: (pack/cap) CAP

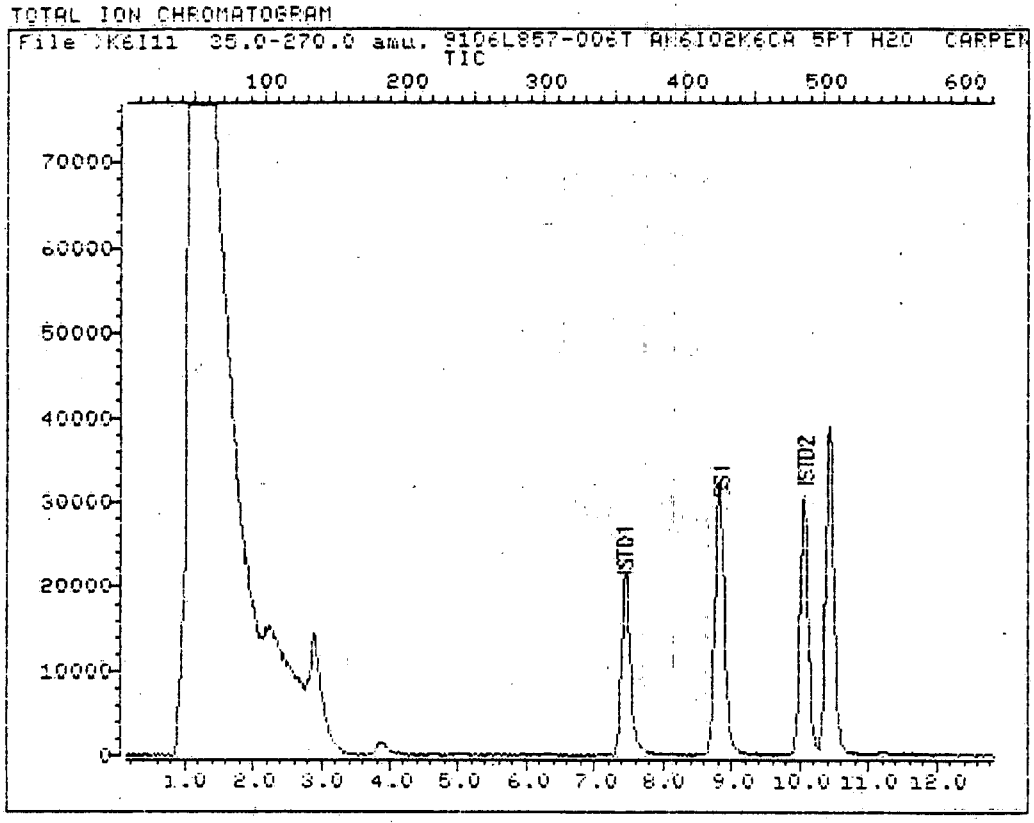
Dilution Factor: 1.00

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	3	J
75-09-2	Methylene Chloride	5	B
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)	5	U

S: SPIKE COMPOUND

TOTAL ION CHROMATOGRAM



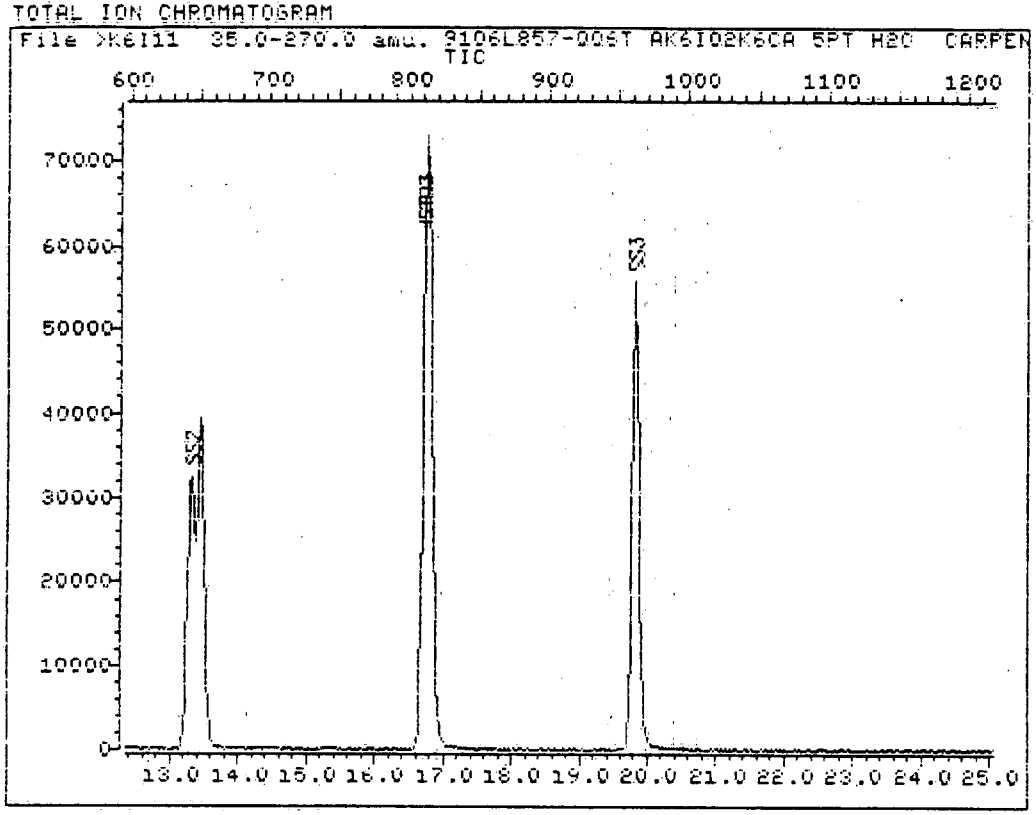
Data File: >K6I11::D2 Quant Output File: ^K6I11::QQ
Name: 9106L857-006T AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 19:11
Injected at: 910618 18:41

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K6I11::D2 Quant Output File: ^K6I11::QQ
Name: 9106L857-006T AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

Id File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

Operator ID: RSL
Quant Time: 910618 19:11
Injected at: 910618 18:41

TIC page 2 of 2

QUANT REPORT

Operator ID: RSL Quant Rev: 6 Quant Time: 910618 19:11
Output File: ^K6I11::QQ Injected at: 910618 18:41
Data File: >K6I11::D2 Dilution Factor: 1.00000
Name: 9106L857-006T AK6I02
Misc: K6CA 5PT H2O CARPENTER 5ML #HP-MSD K RSL

ID File: I_K6IA::QQ
Title: VOLATILES BY CAPILLARY (DB-624)
Last Calibration: 910618 13:22

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.43	128.0	27236 ✓	50.00	ug/L	76
5)	CHLOROETHANE	1.98	64.0	853M	3.39	ug/L	
8)	1,1-DICHLOROETHYLENE	2.89	96.0	30535	48.43	ug/L	93
11)	ACETONE	3.17	43.0	403	3.66	ug/L	100
12)	METHYLENE CHLORIDE	3.89	84.0	3570	5.23	ug/L	95
24)	*1,4-DIFLUOROBENZENE	10.07	114.0	96868 ✓	50.00	ug/L	68
25)	BENZENE	8.80	78.0	79724	51.45	ug/L	73
26)	1,2-DICHLOROETHANE D4	8.84	65.0	43890	47.65	ug/L ✓	84
27)	1,2-DICHLOROETHANE	8.78	62.0	428	.35	ug/L	13
28)	TRICHLOROETHYLENE	10.44	130.0	54346	50.73	ug/L	93
32)	*CHLOROBENZENE-D5	16.73	117.0	93149 ✓	50.00	ug/L	99
34)	TOLUENE D8	13.31	98.0	88803	52.72	ug/L ✓	92
35)	TOLUENE	13.43	92.0	62471	53.26	ug/L	94
42)	CHLOROBENZENE	16.79	112.0	96399	51.66	ug/L	83
48)	4-BROMOFLUOROBENZENE	19.82	95.0	78360	50.80	ug/L ✓	92

* Compound is ISTD

WESTON

VI. Additional Documentation

A. Extraction Record

SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 06/18/91 Extraction Batch No: 91LVK106 Analyst: RL Method: N/A

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

LIMS Report Date: 07/10/91 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
9106L857-	WSI-LE CARPENTER										
001 P	TRIP BLANK	7	5	1.0		5		1.0	N		1.0
002 P	MW-1	7	5	1.0		5		1.0	N		1.0
004 P	MW-3	7	5	1.0		5		1.0	N		1.0
005 P	MW-4	7	5	1.0		5		1.0	N		1.0
006 P	MW-5	7	5	1.0		5		1.0	N		1.0
006 PS	MW-5	7	5	1.0	1.0	5		1.0	N		1.0
006 PT	MW-5	7	5	1.0	1.0	5		1.0	N		1.0
007 P	FIELD BLANK	7	5	1.0		5		1.0	N		1.0
9106L880-	TRC-ALBERT STEEL DRUM										
004 H	ASD-FB-614	7	5	1.0		5		1.0	N		1.0
91LVK106-MB1 H		7	5	1.0		5		1.0	N		1.0
91LVK106-MB1 P		7	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

000015

SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 06/19/91 Extraction Batch No: 91LVK107 Analyst: RL Method: N/A

Test: 0624 Cleanup Date: Analyst: Client: TRC-ALBERT STEEL DRUM

LIMS Report Date: 07/10/91 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
9106L795-	TRC-ALBERT STEEL DRUM										
017 T	ASD-B471-605	7	5	1.0		5		1.0	N		1.0
017 TS	ASD-B471-605	7	5	1.0	1.0	5		1.0	N		1.0
017 TT	ASD-B471-605	7	5	1.0	1.0	5		1.0	N		1.0
9106L823-	TRC-ALBERT STEEL DRUM										
017 T	ASD-B541-610	7	5	1.0		5		1.0	N		1.0
017 TS	ASD-B541-610	7	5	1.0	1.0	5		1.0	N		1.0
017 TT	ASD-B541-610	7	5	1.0	1.0	5		1.0	N		1.0
9106L857-	WSI-LE CARPENTER										
002 P D1	MW-1	7	5	1.0		5		1.0	N		1.0
003 P	MW-2	7	5	1.0		5		1.0	N		1.0
91LTV031-LB1 T		7	5	1.0		5		1.0	N		1.0
91LVK107-MB1 P		7	5	1.0		5		1.0	N		1.0
91LVK107-MB1 T		7	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

000015

WESTON

END OF DATA PACKAGE