LE CARPENTER QUARTERLY REPORT

Summary of Groundwater Elevations and Product Thickness Observations

The piezometric water level contours for August, September, and October 1990, Figures 1, 2, and 3 respectively, all show a consistent groundwater flow direction to the east-northeast in the shallow zone. This flow is away from the Washington Forge Pond Dam and towards the Air Products Drainage Ditch. From August through October, water levels decreased about 0.5 feet, near Building 16, to 1.5 feet, near the drainage ditch. Similarly, the gradient across the site decreased between August and October.

In completing these maps, the following data was not used:

- Water levels from monitoring wells with product in them.
- Water levels from monitoring well MW-06.

Monitoring wells containing product are indicated by a "P" on the figures and the product thickness is included on the monthly table. These water levels were not used because product depresses the water level in the monitoring well thereby not accurately reflecting the true water table elevation in the vicinity.

Water level observations from monitoring well MW-06 were not used in the September or October maps because the data is inconsistent with surrounding data. The data is shown on these contour maps with a question mark. In addition, product was observed in monitoring well MW-06 in August 1990. One possibility is that product was present in the monitoring well in September and October but that its presence was not detected and that, therefore, the water levels measured are artificially low. On the other hand, if the September and October observations are correct, they suggest the possibility of a groundwater divide in the shallow zone between the Air Products drainage ditch and the Rockaway River. To resolve this issue, monitoring well MW-06 will be double checked for product with measuring paste and an oil/water interface probe, the water level will be double checked and the elevation of the measuring point will be checked. The results of this effort will be documented in the next Quarterly Report.

Product thickness maps are not included in this Quarterly Report. The methodology for preparing such maps and estimating product volume is being reviewed as part of the "Enhanced Immiscible Product Recovery System" program which is designed to increase product recovery from the subsurface.

rd/LECARP/QUARTREP.NOV

346374

AUGUST 1990

WATER LEVEL AND PRODUCT THICKNESS DATA
AND
WATER LEVEL ELEVATION CONTOUR MAP

L.E. CARPENTER AND COMPANY, WHARTON, NEW JERSEY
WATER LEVEL MEASUREMENTS, DEPTH TO WATER AND OIL THICKNESS DATA
27 AUGUST 1990

LOCATION	MEASURING POINT ELEV. (Ft. MSL)	DEPTH TO WATER (Ft.)	WATER LEVEL ELEV. (Ft. MSL)	DEPTH TO WATER IN GEOMON (Ft.)	WATER LEVEL ELEV. (Ft. MSL) IN GEOMON	THICKNESS OF PRODUCT (Ft.)
MW-01	639.18	13.50	625.68	12.79	626.39	1.02
MW-02	633.57	7.69	625.88	8.02	625.55	NO
MW-03	632.56	7.50	625.06	7.00	625.56	0.94
MW-04	632.50	6.13	626.37	9.42	623.08	NO
MW-05	632.42	6.06	626.36	6.27	626.15	NO
MW-06	632.00	6.85	625.15	NA	NA	1.27
MW-07	630.68	5.19	625.49	NA	NA	NO
MW-08	628.79	2.86	625.93	NA	NA	NO
MW-09	630.18	4.10	626.08	NA	NA	NO
MW-10	629.96	6.65	623.31	NA	NA	1.23
MW-11S	632.96	13.83	619.13	NA	NA	7.19
MW-11I	632.82	6.90	625.92	NA	NA	NO
MW-11D	632.42	3.71	628.71	NA	NA	NO
MW-12S	633.18	8.15	625.03	NA	NA	1.72
MW-12I	633.06	7.10	625.96	NA	NA	NO
MW-13S	631.23	5.54	625.69	NA	NA	NO
MW-13I	630.66	5.02	625.64	NA	NA	NO
MW-14S	628.41	3.08	625.33	NA	NA	NO
MW-14I	628.23	2.75	625.48	NA	NA	NO
MW-14D	628.53	ARTESIAN	NA	NA	NA	NO
MW-15S	636.77	10.54	626.23	NA	NA	NO
MW-15I	636.66	10.42	626.24	NA	NA	NO
MW-16S	634.47	7.50	626.97	NA	NA	NO
MW-16I	634.96	8.17	626.79	NA	NA	NO
MW-17S	634.79	8.18	626.61	NA	NA	NO
MW-17D	634.86	8.25	626.61	NA	NA	NO
MW-18S	631.26	5.64	625.62	NA	NA	NO
MW-18I	631.04	5.10	625.94	NA	NA	NO

19 NOV. 90

WESTON

L.E. CARPENTER AND COMPANY, WHARTON, NEW JERSEY
WATER LEVEL MEASUREMENTS, DEPTH TO WATER AND OIL THICKNESS DATA
27 AUGUST 1990

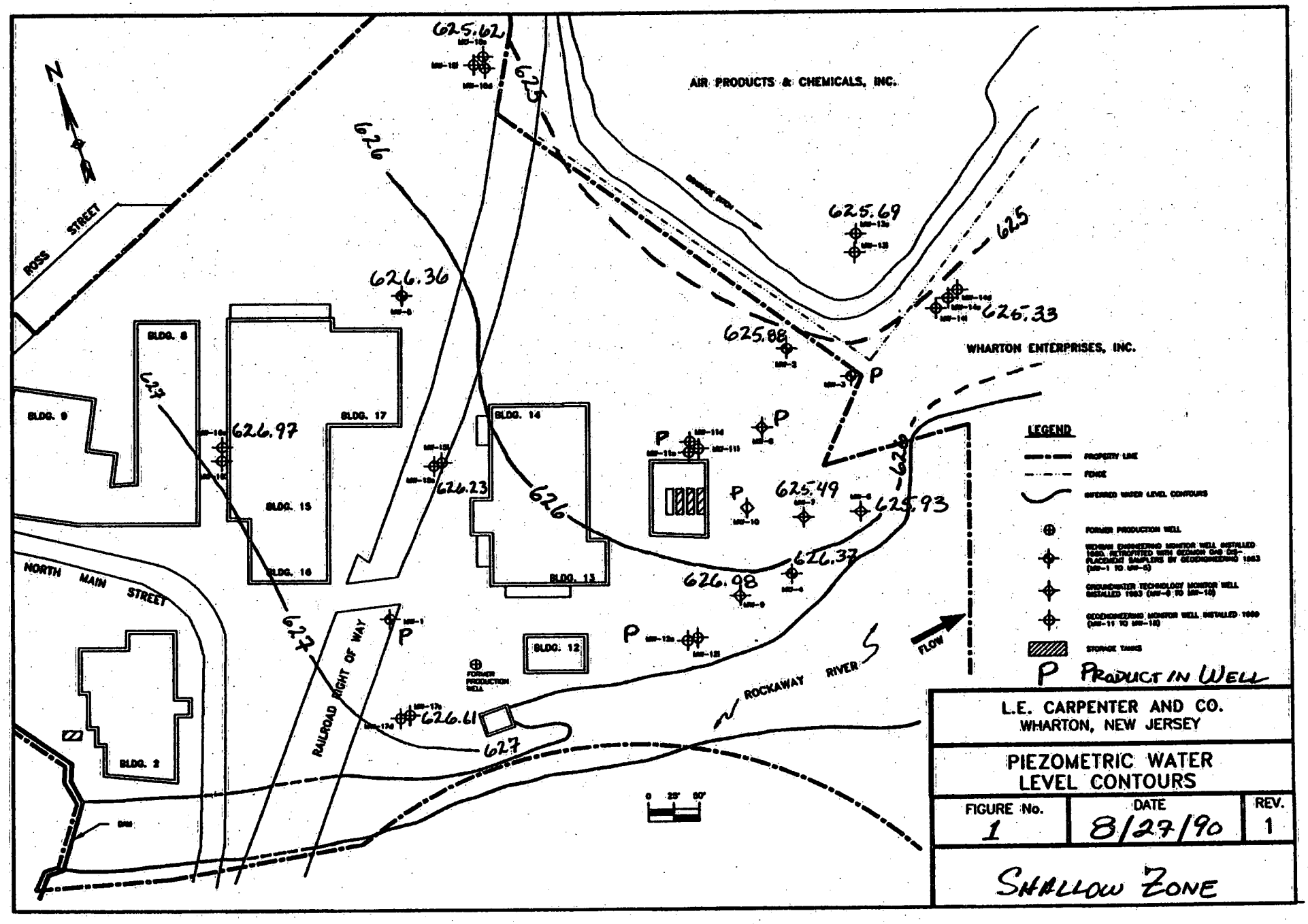
LOCATION	MEASURING POINT ELEV. (Ft. MSL)	DEPTH TO WATER (Ft.)	WATER LEVEL ELEV. (Ft. MSL)	DEPTH TO WATER IN GEOMON (Ft.)	WATER LEVEL ELEV. (Ft. MSL) IN GEOMON	THICKNESS OF PRODUCT (Ft.)
MW-18D	630.77	2.78	627.99	NA	NA	NO
PRODUCTION WELL	635.41	9.13	626.28	NA	NA	NO
GEI-01I	630.78	4.78	626.00	NA	NA	NO
GEI-02S	637.67	10.76	626.91	NA	NA	NO
GEI-02I	638.20	10.71	627.49	NA	NA	NO
GEI-03I	639.85	12.71	627.14	NA	NA	NO

LOCATION	*SURVEY INFORMATION (Ft.)*
BACK SITE MW-02	2.44
ROD DRAINAGE CHANNEL	12.45
ROD INFILTRATION GALLERY	+ 7.55
ROD RIVER POINT #2	9.95
BACK SITE NAIL DOWN RIVER	3.88
ROD RIVER POINT #3	5.83
BACK SITE NAIL UP RIVER	5.15
ROD RIVER POINT #1	8.35

NR = NOT REPORTED
NA = NOT APPLICABLE, GEOMON IN MONITORING WELLS MW-01 THROUGH MW-05 ONLY
NO = NOT OBSERVED DURING WATER LEVEL MEASUREMENT

WESTON

19 NOV. 90


N
ROSS STREET
NORTH MAIN STREET
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
BLDG. 8
BLDG. 9
BLDG. 17
BLDG. 15
BLDG. 16
BLDG. 14
BLDG. 13
BLDG. 12
BLDG. 2
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
FLOW
FORMER PRODUCTION WELL
625.62
625
626
626.36
627
626.97
626.23
625.69
625.88
626.33
625.49
625.93
626.37
626.98
626.61
P
LEGEND
PROPERTY LINE
FENCE
INFERRED WATER LEVEL CONTOURS
FORMER PRODUCTION WELL
STORAGE TANKS
P PRODUCT IN WELL
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
PIEZOMETRIC WATER LEVEL CONTOURS
FIGURE No. 1
DATE 8/27/90
REV. 1
SHALLOW ZONE

SEPTEMBER 1990

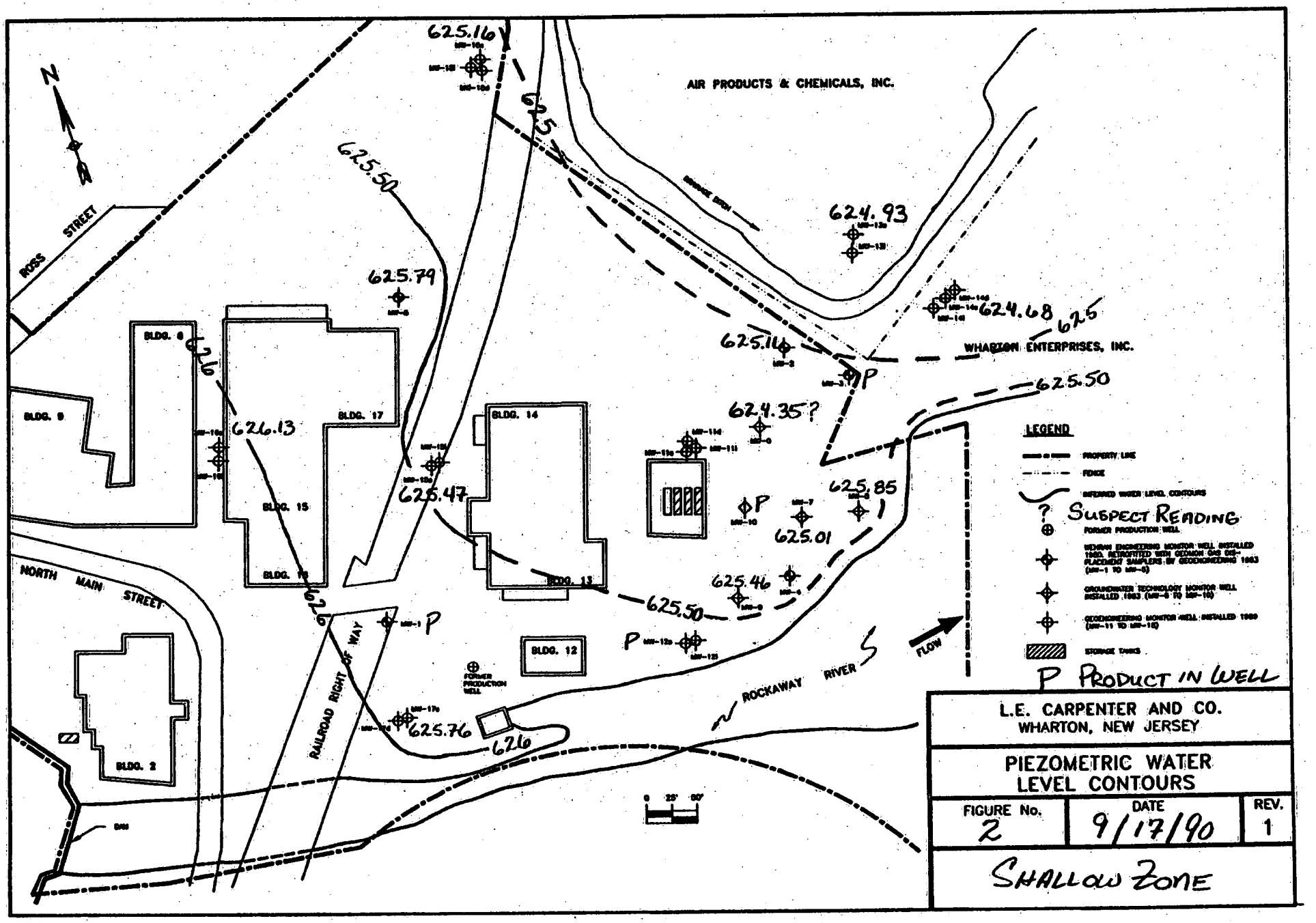
WATER LEVEL AND PRODUCT THICKNESS DATA
AND
WATER LEVEL ELEVATION CONTOUR MAP

L.E. CARPENTER AND COMPANY, WHARTON, NEW JERSEY
WATER LEVEL MEASUREMENTS, DEPTH TO WATER AND OIL THICKNESS DATA
17 SEPTEMBER 1990

LOCATION	MEASURING POINT ELEV. (Ft. MSL)	DEPTH TO WATER (Ft.)	WATER LEVEL ELEV. (Ft. MSL)	DEPTH TO WATER IN GEOMON (Ft.)	WATER LEVEL ELEV. (Ft. MSL) IN GEOMON	THICKNESS OF PRODUCT (Ft.)
MW-01	639.18	14.10	625.08	13.69	625.49	0.77
MW-02	633.57	8.46	625.11	8.67	624.90	NO
MW-03	632.56	7.60	624.96	7.46	625.10	0.56
MW-04	632.50	6.83	625.67	7.15	625.35	0.01
MW-05	632.42	6.63	625.79	7.01	625.41	NO
MW-06	632.00	7.65	624.35	NA	NA	NO
MW-07	630.68	5.67	625.01	NA	NA	NO
MW-08	628.79	2.94	625.85	NA	NA	NO
MW-09	630.18	4.72	625.46	NA	NA	NO
MW-10	629.96	6.73	623.23	NA	NA	0.42
MW-11S	632.96	7.98	624.98	NA	NA	1.01
MW-11I	632.82	7.64	625.18	NA	NA	NO
MW-11D	632.42	4.69	627.73	NA	NA	NO
MW-12S	633.18	7.92	625.26	NA	NA	0.19
MW-12I	633.06	7.89	625.17	NA	NA	NO
MW-13S	631.23	6.30	624.93	NA	NA	NO
MW-13I	630.66	5.71	624.95	NA	NA	NO
MW-14S	628.41	3.73	624.68	NA	NA	NO
MW-14I	628.23	3.42	624.81	NA	NA	NO
MW-14D	628.53	1.00	627.53	NA	NA	NO
MW-15S	636.77	11.30	625.47	NA	NA	NO
MW-15I	636.66	11.19	625.47	NA	NA	NO
MW-16S	634.47	8.34	626.13	NA	NA	NO
MW-16I	634.96	8.96	626.00	NA	NA	NO
MW-17S	634.79	9.03	625.76	NA	NA	NO
MW-17D	634.86	9.09	625.77	NA	NA	NO
MW-18S	631.26	6.10	625.16	NA	NA	NO
MW-18I	631.04	5.68	625.36	NA	NA	NO

19 NOV. 90

WESTON


N
ROSS STREET
NORTH MAIN STREET
AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
ROCKAWAY RIVER
FLOW
RAILROAD RIGHT OF WAY
BLDG. 2
BLDG. 8
BLDG. 9
BLDG. 10
BLDG. 12
BLDG. 13
BLDG. 14
BLDG. 15
BLDG. 17
FORMER PRODUCTION WELL
625.16
625.50
625.79
626
626.13
625.47
625.76
624.93
624.68
625
625.14
624.35?
625.50
625.85
625.01
625.46
625.50
625.50
626
LEGEND
PROPERTY LINE
FENCE
INFERRED WATER LEVEL CONTOURS
? SUSPECT READING
FORMER PRODUCTION WELL
WEHRAN ENGINEERING MONITOR WELL INSTALLED 1983. RETROFITTED WITH GEONON GAS DISPLACEMENT SAMPLERS BY GEOENGINEERING 1983 (MW-1 TO MW-6)
GROUNDWATER TECHNOLOGY MONITOR WELL INSTALLED 1983 (MW-8 TO MW-10)
GEOENGINEERING MONITOR WELL INSTALLED 1989 (MW-11 TO MW-16)
STORAGE TANKS
P PRODUCT IN WELL
0 25' 50'
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
PIEZOMETRIC WATER LEVEL CONTOURS
FIGURE No.
2
DATE
9/17/90
REV.
1
SHALLOW ZONE

OCTOBER 1990

WATER LEVEL AND PRODUCT THICKNESS DATA
AND
WATER LEVEL ELEVATION CONTOUR MAP

L.E. CARPENTER AND COMPANY, WHARTON, NEW JERSEY
WATER LEVEL MEASUREMENTS, DEPTH TO WATER AND OIL THICKNESS DATA
10 OCTOBER 1990

LOCATION	MEASURING POINT ELEV. (Ft. MSL)	DEPTH TO WATER (Ft.)	WATER LEVEL ELEV. (Ft. MSL)	DEPTH TO WATER IN GEOMON (Ft.)	WATER LEVEL ELEV. (Ft. MSL) IN GEOMON	THICKNESS OF PRODUCT (Ft.)
MW-01	639.18	NR	NR	13.75	625.43	NR
MW-02	633.57	8.53	625.04	8.71	624.86	NO
MW-03	632.56	7.93	624.63	7.76	624.80	0.79
MW-04	632.50	7.24	625.26	7.44	625.06	0.01
MW-05	632.42	7.12	625.30	7.00	625.42	NO
MW-06	632.00	7.59	624.41	NA	NA	NO
MW-07	630.68	5.44	625.24	NA	NA	NO
MW-08	628.79	2.69	626.10	NA	NA	NO
MW-09	630.18	4.38	625.80	NA	NA	NO
MW-10	629.96	7.58	622.38	NA	NA	1.12
MW-11S	632.96	13.53	619.43	NA	NA	6.08
MW-11I	632.82	7.66	625.16	NA	NA	NO
MW-11D	632.42	4.90	627.52	NA	NA	NO
MW-12S	633.18	8.28	624.90	NA	NA	0.55
MW-12I	633.06	7.98	625.08	NA	NA	NO
MW-13S	631.23	6.14	625.09	NA	NA	NO
MW-13I	630.66	5.77	624.89	NA	NA	NO
MW-14S	628.41	3.73	624.68	NA	NA	NO
MW-14I	628.23	3.44	624.79	NA	NA	NO
MW-14D	628.53	1.12	627.41	NA	NA	NO
MW-15S	636.77	11.38	625.39	NA	NA	NO
MW-15I	636.66	11.30	625.36	NA	NA	NO
MW-16S	634.47	9.20	625.27	NA	NA	NO
MW-16I	634.96	9.07	625.89	NA	NA	NO
MW-17S	634.79	9.10	625.69	NA	NA	NO
MW-17D	634.86	9.23	625.63	NA	NA	NO
MW-18S	631.26	6.10	625.16	NA	NA	NO
MW-18I	631.04	6.70	624.34	NA	NA	NO

19 NOV. 90

WESTON

L.E. CARPENTER AND COMPANY, WHARTON, NEW JERSEY
WATER LEVEL MEASUREMENTS, DEPTH TO WATER AND OIL THICKNESS DATA
10 OCTOBER 1990

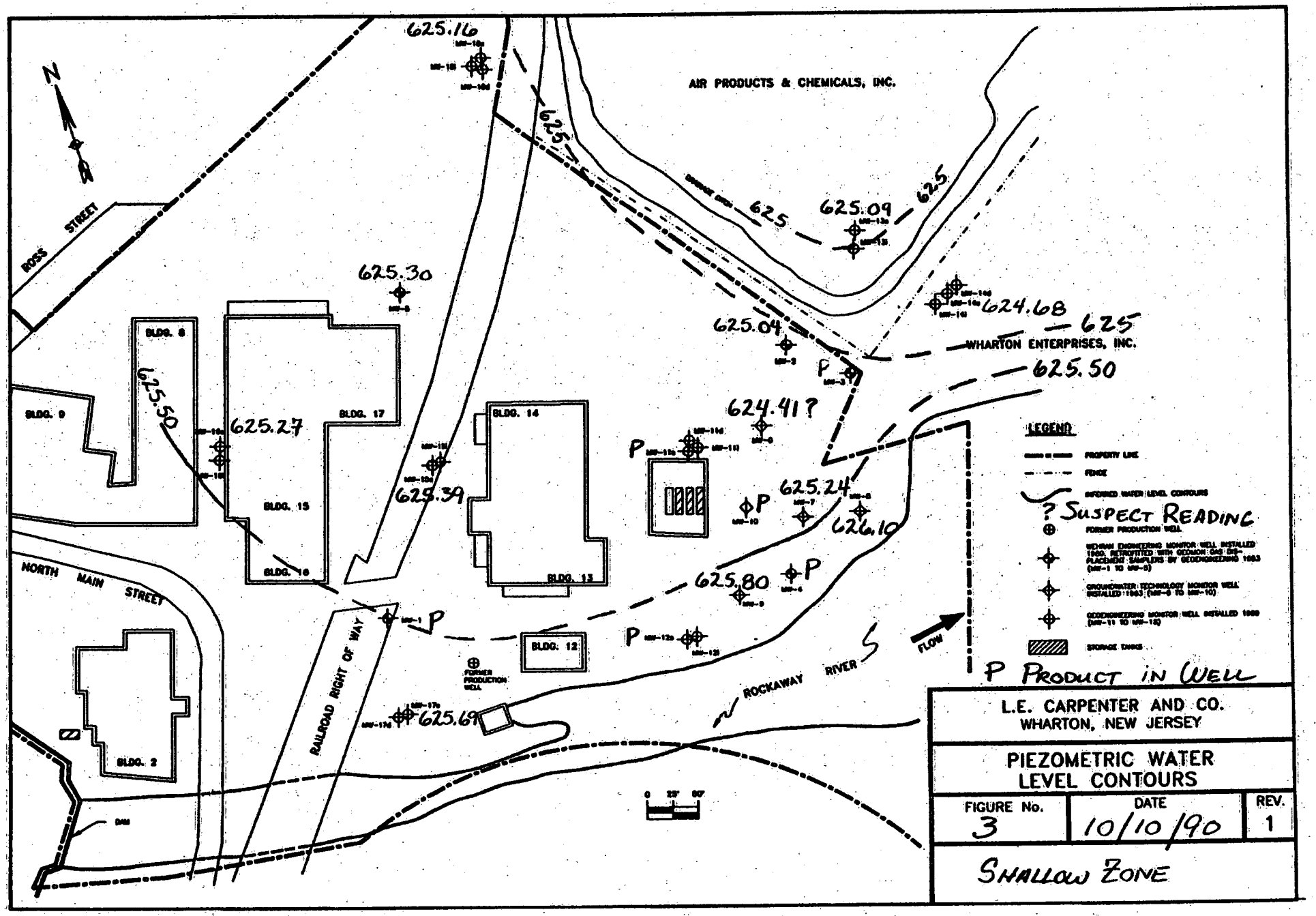
LOCATION	MEASURING POINT ELEV. (Ft. MSL)	DEPTH TO WATER (Ft.)	WATER LEVEL ELEV. (Ft. MSL)	DEPTH TO WATER IN GEOMON (Ft.)	WATER LEVEL ELEV. (Ft. MSL) IN GEOMON	THICKNESS OF PRODUCT (Ft.)
MW-18D	630.77	3.94	626.83	NA	NA	NO
PRODUCTION WELL	635.41	10.07	625.34	NA	NA	NO
GEI-01I	630.78	5.37	625.41	NA	NA	NO
GEI-02S	637.67	11.60	626.07	NA	NA	NO
GEI-02I	638.20	11.64	626.56	NA	NA	NO
GEI-03I	639.85	13.74	626.11	NA	NA	NO

LOCATION	*SURVEY INFORMATION (Ft.)*
BACK SITE MW-02	1.82
ROD DRAINAGE CHANNEL	11.88
ROD INFILTRATION GALLERY	+ 7.35
ROD RIVER POINT #2	8.78
BACK SITE NAIL DOWN RIVER	3.59
ROD RIVER POINT #3	5.46
BACK SITE NAIL UP RIVER	4.51
ROD RIVER POINT #1	7.48

NR = NOT REPORTED
NA = NOT APPLICABLE, GEOMON IN MONITORING WELLS MW-01 THROUGH MW-05 ONLY
NO = NOT OBSERVED DURING WATER LEVEL MEASUREMENT

19 NOV. 90

WESTON


AIR PRODUCTS & CHEMICALS, INC.
WHARTON ENTERPRISES, INC.
ROSS STREET
NORTH MAIN STREET
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
FLOW
BLDG. 2
BLDG. 8
BLDG. 9
BLDG. 12
BLDG. 13
BLDG. 14
BLDG. 15
BLDG. 16
BLDG. 17
DAM
FORMER PRODUCTION WELL
625.16
625.30
625.27
625.50
625.39
625.69
625.80
624.41?
625.24
626.10
625.04
625.09
624.68
625
625.50
P
LEGEND
PROPERTY LINE
FENCE
INFERRED WATER LEVEL CONTOURS
? SUSPECT READING
FORMER PRODUCTION WELL
WEHRAN ENGINEERING MONITOR WELL INSTALLED 1980, RETROFITTED WITH GEONON GAS DIS-PLACEMENT SAMPLERS BY GEOENGINEERING 1983 (MW-1 TO MW-5)
GROUNDWATER TECHNOLOGY MONITOR WELL INSTALLED 1983 (MW-6 TO MW-10)
GEOENGINEERING MONITOR WELL INSTALLED 1989 (MW-11 TO MW-15)
STORAGE TANKS
P PRODUCT IN WELL
L.E. CARPENTER AND CO.
WHARTON, NEW JERSEY
PIEZOMETRIC WATER LEVEL CONTOURS
FIGURE No.
3
DATE
10/10/90
REV.
1
SHALLOW ZONE

L. E. CARPENTER AND COMPANY

WHARTON, NEW JERSEY FACILITY

GROUNDWATER SAMPLING RESULTS AND LABORATORY ANALYTICAL DATA REPORT

AUGUST 1990 SAMPLING

rd/LECARP/QUARTREP.NOV

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

DATE RECEIVED: 08/15/90 RFW LOT # :9008L387

CLIENT ID	RFW #		MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
MW-1	001		W	90LVK129	08/14/90	N/A	08/16/90
MW-1	001	D1	W	90LVK129	08/14/90	N/A	08/17/90
MW-2	002		W	90LVK128	08/14/90	N/A	08/16/90
MW-3	003		W	90LVK129	08/14/90	N/A	08/16/90
MW-3	003	D1	W	90LVK129	08/14/90	N/A	08/17/90
MW-4	004		W	90LVK128	08/14/90	N/A	08/16/90
MW-5	005		W	90LVK128	08/14/90	N/A	08/16/90
MW-5 DUPE	006		W	90LVK128	08/14/90	N/A	08/16/90
MW-5 DUPE	006	MS	W	90LVK128	08/14/90	N/A	08/16/90
MW-5 DUPE	006	MSD	W	90LVK128	08/14/90	N/A	08/16/90
FIELD BLANK	007		W	90LVK128	08/14/90	N/A	08/16/90
TRIP BLANK	008		W	90LVK128	08/14/90	N/A	08/17/90

LAB QC:

VBLK	MB1		W	90LVK129	N/A	N/A	08/17/90
VBLK	MB1		W	90LVK128	N/A	N/A	08/16/90

INTRO: PAGE

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Data Summary..... 003

I. Case Narrative..... 010

II. QC summary..... 013
A. Surrogate % Recovery Summary (Form II)
B. Matrix Spike (Form III)
C. Reagent Blank Summary (Form IV)
D. GC/MS Tuning and Calibration Standard (Form V)

III. Sample Data Package..... 021
A. Sample Data in order of analysis
1. Tabulated Results (Form I)
2. Tentatively identified compound (form 1B)
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

IV. Standards Data Package..... 132
A. Initial Calibration Data:
1. Form VI
2. Reconstructed Ion Chromatogram(s) and Quantitation Report(s)

B. Continuing Calibration Data
1. Form VII
2. Reconstructed Ion Chromatogram(s) and Quantitation Report(s)

C. Internal Standard Summary (Form VIII)

V. Raw QC Data Package..... 166
A. GC/MS Tuning and Calibration Standard: DFTPP
1. Bar Graph
2. Mass Listing

B. Blank Data
1. Tabulated Results (Form I)
2. TIC Results (Form IB)
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 I)
2. Raw Data
a. Reconstructed Ion Chromatogram(s)
b. Quantitation Report(s)

TRAFFIC REPORTS

Custody Transfer Record/Lab Work Request

WESTON

WESTON Analytics Use Only
9008' 387

WSI - L.E. Carpenter

Client: WESTON SERVICES
Work Order: 3600-01-51-0200
Date Rec'd.: 8.15.90 Date Due: 9.14.90
RFW Contact: MIKE YOUNG
Client Contact/Phone: DAVE HENDERSON (201) 225-2930

WA Use Only Lab ID	Client ID/Description	Matrix	Date Collected	Refrigerator# 1	#/Type Container 1 GL	Volume 40ml	Preservative —	ANALYSES REQUESTED: P.P VOA +15
001	L.E. Carpenter MW-1	WATER	8/14/90	✓				
002	MW-2			✓				
003	MW-3			✓				
004	MW-4			✓				
005	MW-5			✓				
006	MW-5 DUPE			✓				
007	Field Blank			✓				
008	Trip Blank			✓				
	~~RECEIVED 8-15-90~~							
								VOA = 06W 4P + Xlene

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:
QC = CLP
DEL = TIER I

Item/Reason	Relinquished by	Received by	Date	Time	Item/Reason	Relinquished by	Received by	Date	Time
	[signature]	FED EX	8/14/90	16:00					
	(SM D. Tonno)								
ALL	FED-EX	Dolly Mack	8.15.90	9:30					

WESTON Analytics Use Only

Samples Were: 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:

7-115

RFW 21-21-001/A-12/88

DATA SUMMARY

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

RFW Batch Number: 9008L387 | Client: WSI-LE CARPENTER | Work Order: 3600-04-51-0000 | Report Date: 08/22/90 14:25 | Page: 1a

004

	Cust ID:	MW-1	MW-1	MW-2	MW-3	MW-3	MW-4
Sample Information	RFW#:	001	001 DL	002	003	003 DL	004
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	100	1.00	10.0	100	1.00
	Units:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Surrogate Recovery	Toluene-d8	107 %	96 %	105 %	105 %	99 %	99 %
	Bromofluorobenzene	93 %	95 %	100 %	100 %	97 %	97 %
	1,2-Dichloroethane-d4	90 %	100 %	91 %	95 %	102 %	92 %
		fl	fl	fl	fl	fl	fl
Chloromethane		10 U	NA	10 U	100 U	NA	10 U
Bromomethane		10 U	NA	10 U	100 U	NA	10 U
Vinyl Chloride		10 U	NA	10 U	100 U	NA	10 U
Chloroethane		10 U	NA	10 U	100 U	NA	10 U
Methylene Chloride		5 B	NA	6 B	90 B	NA	5 B
1,1-Dichloroethene		5 U	NA	5 U	50 U	NA	5 U
1,1-Dichloroethane		5 U	NA	5 U	50 U	NA	5 U
1,2-Dichloroethene (total)		5 U	NA	5 U	50 U	NA	5 U
Chloroform		5 U	NA	5 U	50 U	NA	5 U
1,2-Dichloroethane		5 U	NA	5 U	50 U	NA	5 U
1,1,1-Trichloroethane		5 U	NA	5 U	50 U	NA	5 U
Carbon Tetrachloride		5 U	NA	5 U	50 U	NA	5 U
Bromodichloromethane		5 U	NA	5 U	50 U	NA	5 U
1,2-Dichloropropane		5 U	NA	5 U	50 U	NA	5 U
cis-1,3-Dichloropropene		5 U	NA	5 U	50 U	NA	5 U
Trichloroethene		5 U	NA	5 U	50 U	NA	5 U
Dibromochloromethane		5 U	NA	5 U	50 U	NA	5 U
1,1,2-Trichloroethane		5 U	NA	5 U	50 U	NA	5 U
Benzene		5 U	NA	5 U	50 U	NA	5 U
Trans-1,3-Dichloropropene		5 U	NA	5 U	50 U	NA	5 U
2-chloroethylvinylether		10 U	NA	10 U	100 U	NA	10 U
Bromoform		5 U	NA	5 U	50 U	NA	5 U
Tetrachloroethene		5 U	NA	5 U	50 U	NA	5 U
1,1,2,2-Tetrachloroethane		5 U	NA	5 U	50 U	NA	5 U
Toluene		18	NA	5 U	50 U	NA	5 U
Chlorobenzene		5 U	NA	5 U	50 U	NA	5 U
Ethylbenzene		E	3900	12	E	2400	5 U
1,2-Dichlorobenzene		5 U	NA	5 U	50 U	NA	5 U
1,3-Dichlorobenzene		5 U	NA	5 U	50 U	NA	5 U

*= Outside of EPA CLP QC limits.

005

Cust ID:	MW-1		MW-1	MW-2		MW-3		MW-3	MW-4	
RFW#:	001		001 DL	002		003		003 DL	004	
1,4-Dichlorobenzene	5	U	NA	5	U	50	U	NA	5	U
Acrolein	10	U	NA	10	U	100	U	NA	10	U
Acrylonitrile	10	U	NA	10	U	100	U	NA	10	U
Trichlorofluoromethane	5	U	NA	5	U	50	U	NA	5	U
Xylene (total)		E	22000	110			E	14000	5	J

*= Outside of EPA CLP QC limits.

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

RFW Batch Number: 9008L387 | Client: WSI-LE CARPENTER | Work Order: 3600-04-51-0000 | Report Date: 08/22/90 14:25 | Page: 2a

Cust ID:	MW-5	MW-5 DUPE	MW-5 DUPE	MW-5 DUPE	FIELD BLANK	TRIP BLANK
Sample Information RFW#:	005	006	006 MS	006 MSD	007	008
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	108 %	105 %	97 %	103 %	101 %	106 %
Bromofluorobenzene	102 %	102 %	89 %	98 %	99 %	100 %
1,2-Dichloroethane-d4	97 %	96 %	93 %	94 %	95 %	95 %
Chloromethane	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	7 B	6 B	9 B	9 B	4 JB	7 B
1,1-Dichloroethene	5 U	5 U	101 %	99 %	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	5 U	101 %	99 %	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	5 U	92 %	96 %	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	5 U	97 %	97 %	5 U	5 U
Chlorobenzene	5 U	5 U	97 %	100 %	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.

007

Cust ID:	MW-5	MW-5 DUPE	MW-5 DUPE	MW-5 DUPE	FIELD BLANK	TRIP BLANK
RFW#:	005	006	006 MS	006 MSD	007	008
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.

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

RFW Batch Number: 9008L387 Client: WSI-LE CARPENTER Work Order: 3600-04-51-0000 Report Date: 08/22/90 14:25 Page: 3a

	Cust ID:	VBLK	VBLK
Sample Information	RFW#:	90LVK129-MB1	90LVK128-MB1
	Matrix:	WATER	WATER
	D.F.:	1.00	1.00
	Units:	UG/L	UG/L

Surrogate Recovery	Toluene-d8	100	%	106	%
	Bromofluorobenzene	95	%	100	%
	1,2-Dichloroethane-d4	92	%	92	%

Chloromethane	10	U	10	U
Bromomethane	10	U	10	U
Vinyl Chloride	10	U	10	U
Chloroethane	10	U	10	U
Methylene Chloride	8		13	
1,1-Dichloroethene	5	U	5	U
1,1-Dichloroethane	5	U	5	U
1,2-Dichloroethene (total)	5	U	5	U
Chloroform	5	U	5	U
1,2-Dichloroethane	5	U	5	U
1,1,1-Trichloroethane	5	U	5	U
Carbon Tetrachloride	5	U	5	U
Bromodichloromethane	5	U	5	U
1,2-Dichloropropane	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U
Trichloroethene	5	U	5	U
Dibromochloromethane	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U
Benzene	5	U	5	U
Trans-1,3-Dichloropropene	5	U	5	U
2-chloroethylvinylether	10	U	10	U
Bromoform	5	U	5	U
Tetrachloroethene	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U
Toluene	5	U	5	U
Chlorobenzene	5	U	5	U
Ethylbenzene	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U
1,3-Dichlorobenzene	5	U	5	U

*= Outside of EPA CLP QC limits.

600

Cust ID:	VBLK		VBLK	
RFW#:	90LVK129-MB1		90LVK128-MB1	
1,4-Dichlorobenzene	5	U	5	U
Acrolein	10	U	10	U
Acrylonitrile	10	U	10	U
Trichlorofluoromethane	5	U	5	U
Xylene (total)	5	U	5	U

*= Outside of EPA CLP QC limits.

CASE NARRATIVE

ROY F. WESTON, INC.
Lionville Laboratory

CLIENT: WSI-LE CARPENTER **SAMPLES RECEIVED:** 08-15-90
RFW #: 9008L387, GC/MS VOLATILE
W.O. #: 3600-04-51

NARRATIVE

The set of samples consisted of eight (8) water samples collected on 08-14-90.

The samples were analyzed according to criteria set forth in CLP SOW 02/88 (Rev. 05/89) for Priority Pollutant Volatile target compounds on 08-16,17-90.

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. Samples MW-1 and MW-3 required 100-fold dilutions and sample MW-3 required a 10-fold dilution because they contained high levels of target compounds.

3. All surrogate recoveries were within EPA QC limits.

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

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

Sample ID	Dilution Factor
MW-1	100
MW-3	10,100

6. The laboratory blanks contained the common contaminant methylene chloride at levels less than 3x the CRQL.

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

Jack R. Tuschall, Ph.D. 8-23-90
Date
Laboratory Manager
Lionville Analytical Laboratory

/sma

WESTON

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.

II. QC SUMMARY

A. SURROGATE % RECOVERY SUMMARY
(FORM II)

B. MATRIX SPIKE
(FORM III)

C. REAGENT BLANK SUMMARY
(FORM IV)

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

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-51-0000

Case No.: WSI-LE CARPENTER

RFW Lot No.: 9008L387

	CLIENT SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	MW-1	107	93	90		0
02	MW-1DL	96	95	100		0
03	MW-2	105	100	91		0
04	MW-3	105	100	95		0
05	MW-3DL	99	97	102		0
06	MW-4	99	97	92		0
07	MW-5	108	102	97		0
08	MW-5 DUPE	105	102	96		0
09	MW-5 DUPEMS	97	89	93		0
10	MW-5 DUPEMSD	103	98	94		0
11	FIELD BLANK	101	99	95		0
12	TRIP BLANK	106	100	95		0
13	VBLKLVK129-MB1	100	95	92		0
14	VBLKLVK128-MB1	106	100	92		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: 3600-04-51-0000

Case No.: WSI-LE CARPENTER RFW Lot No.: 9008L387-006

MATRIX Spike - Sample No.: MW-5 DUPE

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC
1,1-Dichloroethene	50.0	0	50.3	101	61-145
Trichloroethene	50.0	0	50.3	101	71-120
Benzene	50.0	0	45.8	92	76-127
Toluene	50.0	0	48.4	97	76-125
Chlorobenzene	50.0	0	48.5	97	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	49.4	99	2	14	61-145
Trichloroethene	50.0	49.6	99	2	14	71-120
Benzene	50.0	47.8	96	4	11	76-127
Toluene	50.0	48.7	97	0	13	76-125
Chlorobenzene	50.0	50.1	100	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: 3600-04-51-0000

Case No.: WSI-LE CARPENTER

Lab File ID: AK8H04 Lab Sample ID: 90LVK129-MB1

Date Analyzed: 08/17/90 Time Analyzed: 1051

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-1	9008L387-001	AK8G09	1910
02	MW-3	9008L387-003	AK8G11	2015
03	MW-1DL	9008L387-001	AK8H05	1134
04	MW-3DL	9008L387-003	AK8H06	1207

COMMENTS:

FORM IV VOA

5/88 Rev.

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-51-0000

Case No.: WSI-LR CARPENTER

Lab File ID: AK8G04 Lab Sample ID: 90LVK128-MB1

Date Analyzed: 08/16/90 Time Analyzed: 1612

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	9008L387-002	AK8G10	1943
02	MW-4	9008L387-004	AK8G12	2048
03	MW-5	9008L387-005	AK8G13	2121
04	MW-5 DUPE	9008L387-006	AK8G14	2154
05	MW-5 DUPEMS	9008L387-006S	AK8G15	2227
06	MW-5 DUPEMSD	9008L387-006T	AK8G16	2300
07	FIELD BLANK	9008L387-007	AK8G17	2333
08	TRIP BLANK	9008L387-008	AK8G18	0006

COMMENTS:

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-51-0000

Case No.: WSI-LE CARPENTER

Lab File ID: AK7R01 BFB Injection Date: 7/27/90

Instrument ID: HP-MSD K BFB Injection Time: 845

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	20.3
75	30.0 - 60.0% of mass 95	55.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	84.3
175	5.0 - 9.0% of mass 174	7.2(8.5)1
176	Greater than 95.0% but less than 101.0% of mass 174	83.9(99.5)1
177	5.0 - 9.0% of mass 176	5.7(6.8)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	AK7R03	07/27/90	1001
02	VSTD20	VSTD20	AK7R04	07/27/90	1113
03	VSTD100	VSTD100	AK7R05	07/27/90	1145
04	VSTD150	VSTD150	AK7R06	07/27/90	1218
05	VSTD200	VSTD200	AK7R07	07/27/90	1250
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

5A

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

019

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-51-0000

Case No.: WSI-LE CARPENTER

Lab File ID: AK8G01 BFB Injection Date: 8/16/90

Instrument ID: HP-MSD K BFB Injection Time: 1427

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	21.0
75	30.0 - 60.0% of mass 95	56.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	82.2
175	5.0 - 9.0% of mass 174	5.0(6.0)1
176	Greater than 95.0% but less than 101.0% of mass 174	78.5(95.5)1
177	5.0 - 9.0% of mass 176	4.7(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	AK8G03	08/16/90	1519
02	VBLKLVK128-MB1	90LVK128-MB1	AK8G04.	08/16/90	1612
03	MW-1	9008L387-001	AK8G09.	08/16/90	1910
04	MW-2	9008L387-002	AK8G10.	08/16/90	1943
05	MW-3	9008L387-003	AK8G11.	08/16/90	2015
06	MW-4	9008L387-004	AK8G12.	08/16/90	2048
07	MW-5	9008L387-005	AK8G13.	08/16/90	2121
08	MW-5 DUPE	9008L387-006	AK8G14.	08/16/90	2154
09	MW-5 DUPEMS	9008L387-006S	AK8G15.	08/16/90	2227
10	MW-5 DUPEMSD	9008L387-006T	AK8G16.	08/16/90	2300
11	FIELD BLANK	9008L387-007	AK8G17.	08/16/90	2333
12	TRIP BLANK	9008L387-008	AK8G18.	08/17/90	0006
13					
14					
15					
16					
17					
18					
19					
20					

5A

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

020

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-51-0000

Case No.: WSI-LE CARPENTER

Lab File ID: AK8H01 BFB Injection Date: 8/17/90

Instrument ID: HP-MSD K BFB Injection Time: 907

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.1
75	30.0 - 60.0% of mass 95	57.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	78.9
175	5.0 - 9.0% of mass 174	7.1(9.0)1
176	Greater than 95.0% but less than 101.0% of mass 174	75.8(96.0)1
177	5.0 - 9.0% of mass 176	5.7(7.5)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	AK8H03	08/17/90	0958
02	VBLKLVK129-MB1	90LVK129-MB1	AK8H04.	08/17/90	1051
03	MW-1DL	9008L387-001	AK8H05.	08/17/90	1134
04	MW-3DL	9008L387-003	AK8H06.	08/17/90	1207
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

III. SAMPLE DATA PACKAGE

A. SAMPLE DATA IN ORDER OF ANALYSIS

1. TABULATED RESULTS
   (FORM I)

2. TENTATIVELY IDENTIFIED COMPOUND
   (FORM 1B)

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

CLIENT SAMPLE NO.
022
MW-1

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-001

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

Lab File ID: AK8G09

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. _____

Date Analyzed: 08/16/90

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	18	
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene		E
95-50-1	1,2-Dichlorobenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
107-02-8	Acrolein	10	U
107-13-1	Acrylonitrile	10	U
75-69-4	Trichlorofluoromethane	5	U
1330-20-7	Xylene (total)		E

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 023

MW-1

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-001

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

Lab File ID: AK8G09

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. _____

Date Analyzed: 08/16/90

Column: (pack/cap) CAP

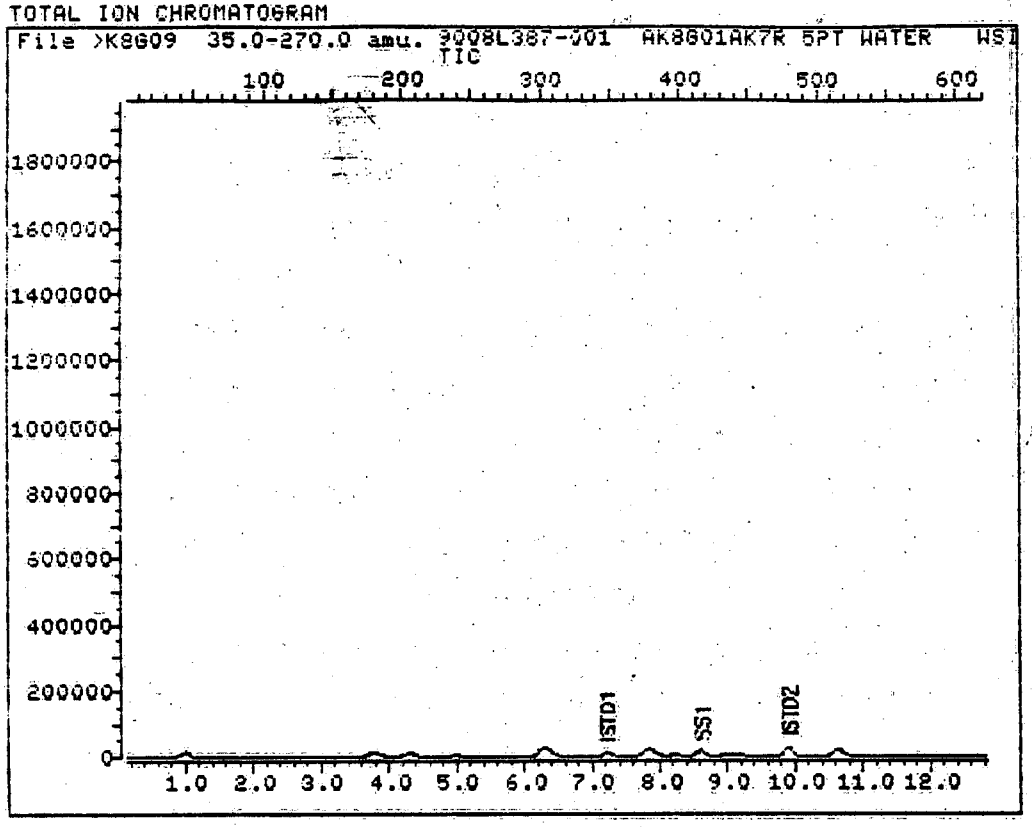
Dilution Factor: 1.00

Number TICs found: 10

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.30	100	J
2.	UNKNOWN	7.84	90	J
3.	METHYL CYCLOHEXANE	10.63	40	J
4.	C3 BENZENE	19.49	200	J
5.	UNKNOWN BENZENE	20.53	100	J
6.	C3 BENZENE	20.84	400	J
7.	C3 BENZENE	21.07	200	J
8.	C3 BENZENE	21.48	50	J
9.	C3 BENZENE	21.97	200	J
10.	C3 BENZENE	22.98	70	J

TOTAL ION CHROMATOGRAM



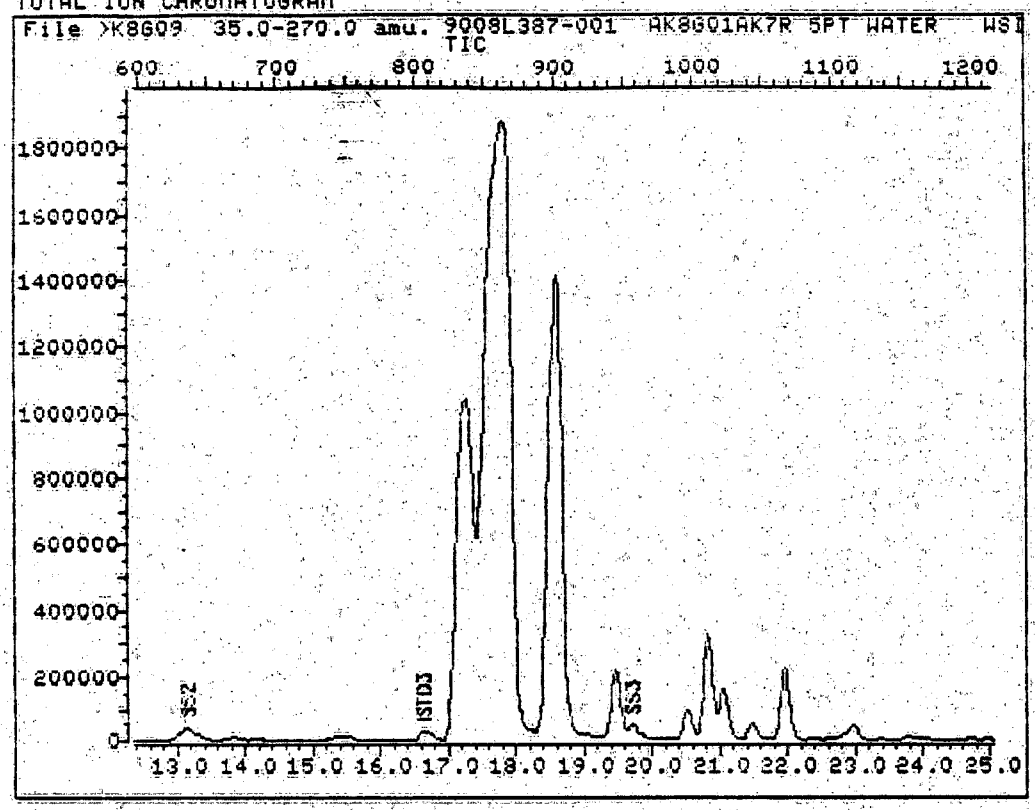
Data File: >K8G09::D2 Quant Output File: ^K8G09::QQ
Name: 9008L387-001 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 19:35
Injected at: 900816 19:10

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8G09::D2 Quant Output File: ^K8G09::QQ
Name: 9008L387-001 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 19:35
Injected at: 900816 19:10

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4 Quant Rev: 6 Quant Time: 900816 19:35
Output File: ^K8G09::QQ Injected at: 900816 19:10
Data File: >K8G09::D2 Dilution Factor: 1.00000
Name: 9008L387-001 -AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B

ID File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.23	128.0	19735	50.00	ug/L	69
10)	ACETONE	2.76	43.0	62	.54	ug/L	1
11)	METHYLENE CHLORIDE	3.74	84.0	2734	5.02	ug/L	75
13)	ACRYLONITRILE	3.93	53.0	84	2.91	ug/L	88
16)	1,2-DICHLOROETHENE (CIS)	6.84	96.0	83	.18	ug/L	100
18)	CHLOROFORM	8.01	83.0	215	.16	ug/L	79
21)	*1,4-DIFLUOROBENZENE	9.91	114.0	100515	50.00	ug/L	67
23)	1,2-DICHLOROETHANE D4	8.62	65.0	52234	44.99	ug/L	84
25)	TRICHLOROETHYLENE	10.28	130.0	361	.35	ug/L	69
29)	*CHLOROBENZENE-D5	16.63	117.0	85494	50.00	ug/L	97
31)	TOLUENE D8	13.15	98.0	98700M	53.49	ug/L	99
32)	TOLUENE	13.31	92.0	20624	18.16	ug/L	89
40)	ETHYLBENZENE	17.25	106.0	2224044	2731.05	ug/L	49
42)	XYLENE	17.84	106.0	6982092M	7347.54	ug/L	85
43)	XYLENES (TOTAL)	18.58	106.0	2981959	3345.44	ug/L	50
45)	4-BROMOFLUOROBENZENE	19.71	95.0	70202	46.69	ug/L	99

* Compound is ISTD

Total Xylenes
7347.54
3345.44
10692.98

MS data file header from : >K8G09

Sample: 9008L387-001 AK8G01 Operator: USER4 SUPER GRP. 8/16/90 19:1027
Misc : AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: LOWV2 Tuning file: MT8102 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

Chromatographic temperatures :	6.	106.	0.	0.	0.
Chromatographic times, min. :	5.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	2.5	0.0

IK8G09 9008L387-001 AK8G01AK7R 5PT WATER WSI-CARPENTER DF=1
35.0| 270.0 CLP ADC TIC
Upslope: .20 Area Reject: 15130. Max Peaks: 20 Bunching: 1
Dnslope: 0.00 Results File IK8G09 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	4.30	193	204	216	11188	172536	144579	4.71	1.169
2	4.99	228	238	253	5570	77473	72895	2.37	.589
3	6.30	287	302	326	28438	427281	-421384	13.72	3.407
4	7.84	364	377	384	23387	301736	-277633	9.04	2.245
5	10.63	501	513	528	21590	271078	-260353	8.48	2.105
6	13.00	620	629	630	17439	118800	95882	3.12	.775
7	13.85	661	670	679	10538	182622	104137	3.39	.842
8	14.17	680	686	697	7497	103583	83639	2.72	.676
9	15.34	725	743	747	14782	198466	177997	5.80	1.439
10	15.51	747	751	767	16641	183417	174612	5.69	1.412
11	18.11	877	878	887	46963	422566	411581	13.40	3.328
12	19.49	935	945	948	219852	1777423	-1656870	53.96	13.398
13	20.53	987	996	1003	91292	912092	-815607	26.56	6.595
14	20.84	1003	1011	1017	321905	3153333	-3070817	100.00	24.831
15	21.07	1017	1022	1034	158501	1519936	-1422239	46.31	11.501
16	21.48	1034	1042	1052	48478	526333	-425830	13.87	3.443
17	21.97	1057	1066	1080	222702	2110917	-1990127	64.81	16.093
18	22.98	1101	1115	1127	45782	628802	-544155	17.72	4.400
19	23.78	1146	1154	1162	11674	163654	132516	4.32	1.072
20	24.02	1162	1166	1176	9259	114837	83770	2.73	.677

Sum of corrected areas: 12366626.

Summary of Unknowns PBM Library Search and Quantitation

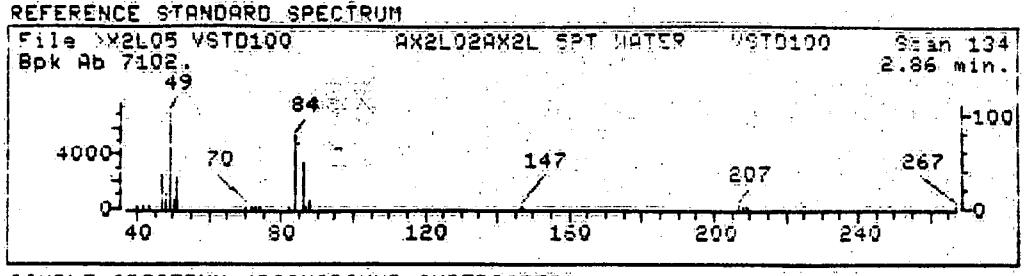
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	151304.	7.23	.14 - 8.57
2	50.0	288432.	9.91	8.57 - 13.27
3	50.0	396907.	16.63	13.27 - 25.05

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

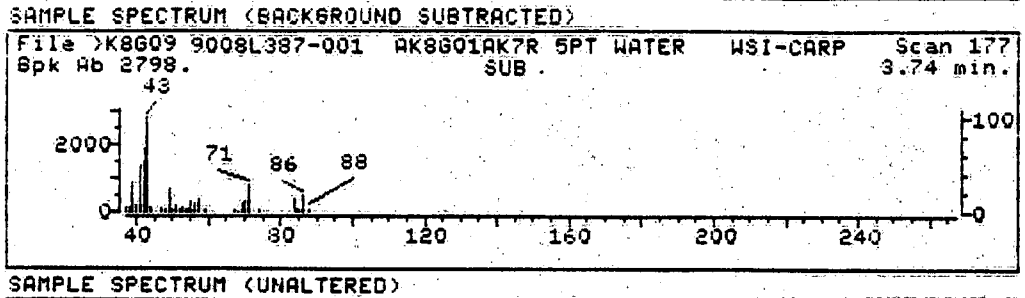
Correction Factor = 1.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

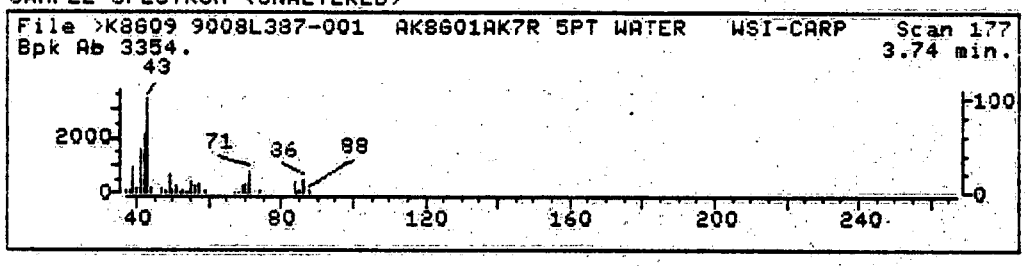
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



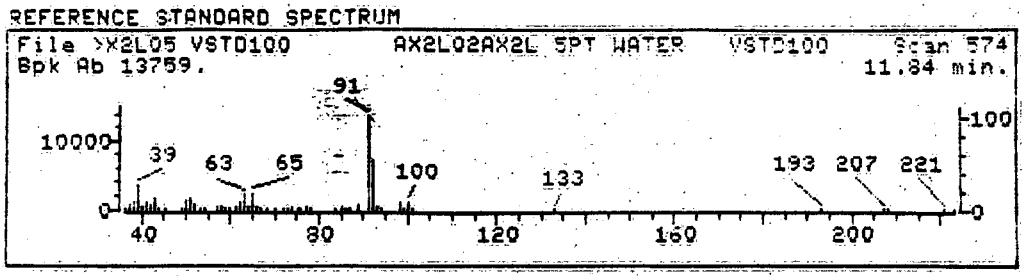
SAMPLE SPECTRUM (UNALTERED)



Data File: >K8G09::D2 Quant Output File: ^K8G09::QQ
Name: 9008L387-001 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Quant Time: 900816 19:35 Quant ID File: I_K8GA::QQ
Injected at: 900816 19:10 Last Calibration: 900816 16:04

Compound No: 11
Compound Name: METHYLENE CHLORIDE
Scan Number: 177
Retention Time: 3.74 min.
Quant Ion: 84.0
Area: 2734
Concentration: 5.02 ug/L
q-value: 75

REFERENCE STANDARD SPECTRUM



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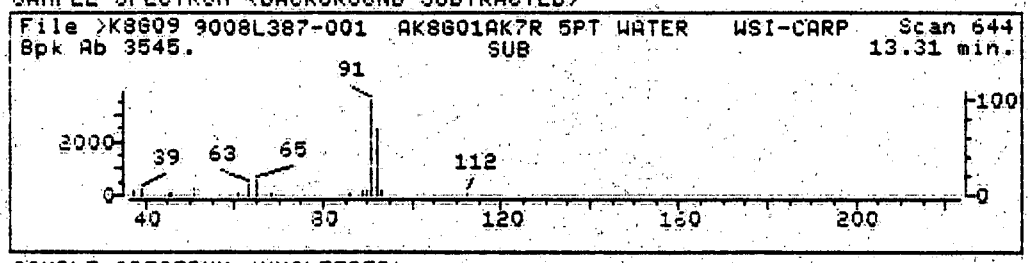
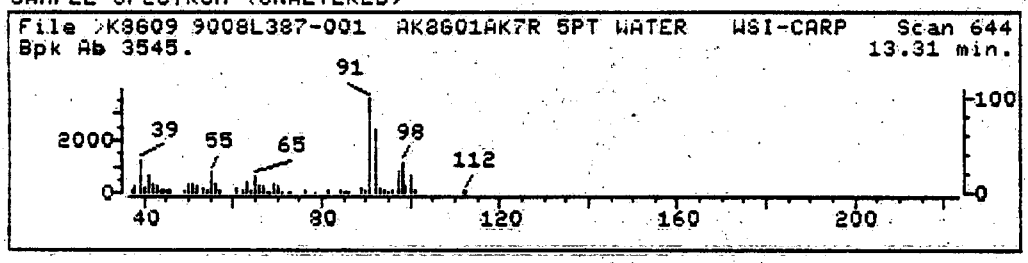


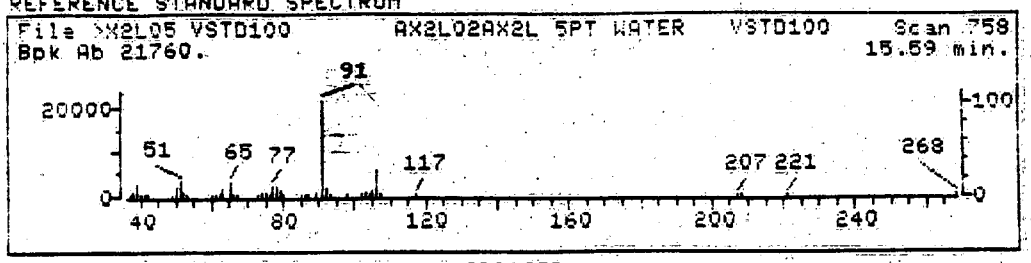
SAMPLE SPECTRUM (UNALTERED)



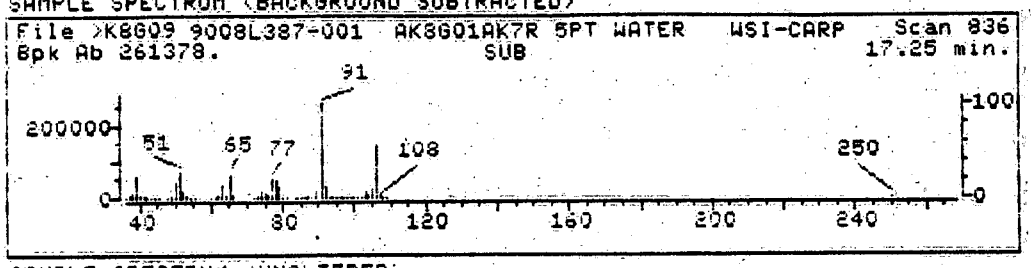
Data File: >K8G09::D2 Quant Output File: ^K8G09::QQ
Name: 9008L387-001 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Quant Time: 900816 19:35 Quant ID File: I_K8GA::QQ
Injected at: 900816 19:10 Last Calibration: 900816 16:04

Compound No: 32
Compound Name: TOLUENE
Scan Number: 644
Retention Time: 13.31 min.
Quant Ion: 92.0
Area: 20624
Concentration: 18.16 ug/L
q-value: 89

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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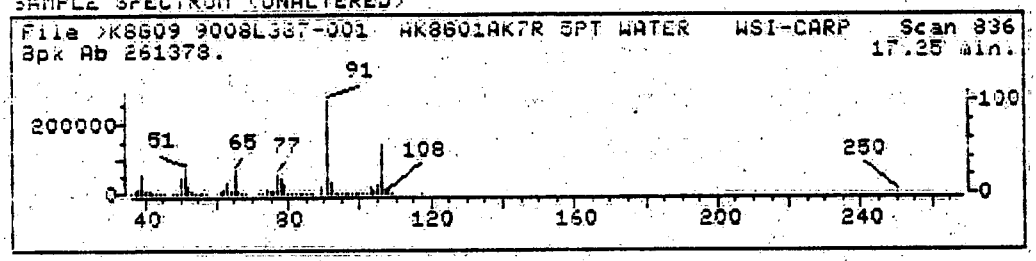
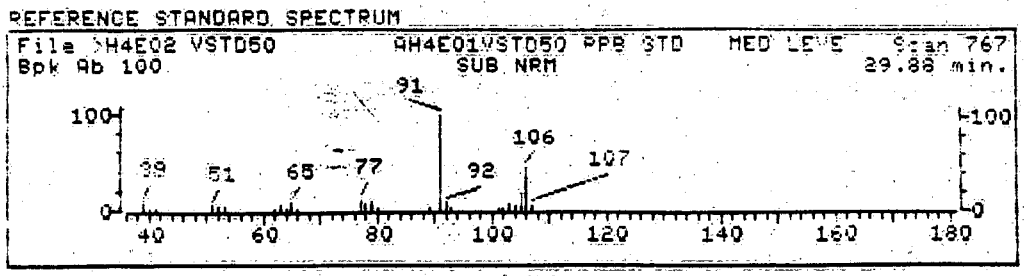


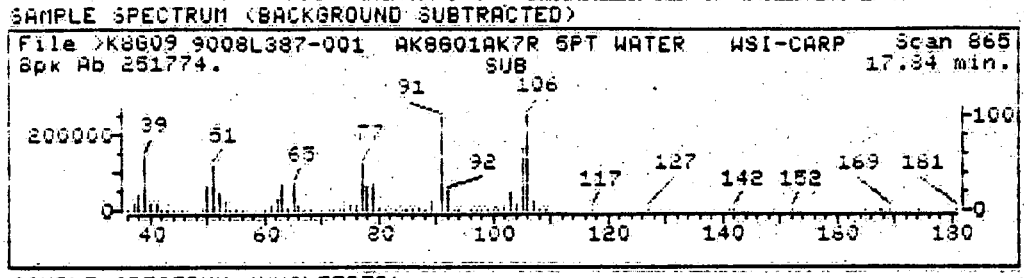
Data File: >K8G09::D2 Quant Output File: ^K8G09::QQ
Name: 9008L387-001 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Quant Time: 900816 19:35 Quant ID File: I_K8GA::QQ
Injected at: 900816 19:10 Last Calibration: 900816 16:04

Compound No: 40
Compound Name: ETHYLBENZENE
Scan Number: 836
Retention Time: 17.25 min.
Quant Ion: 106.0
Area: 2224044
Concentration: 2731.05 ug/L
q-value: 49

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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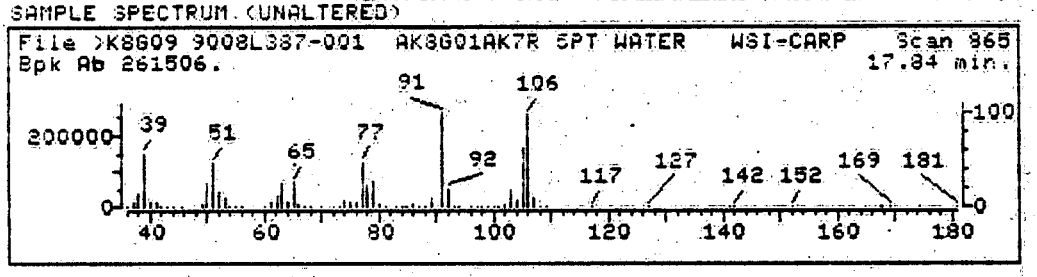
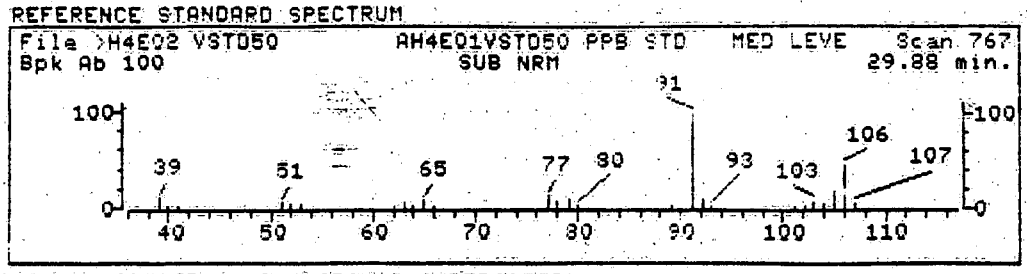


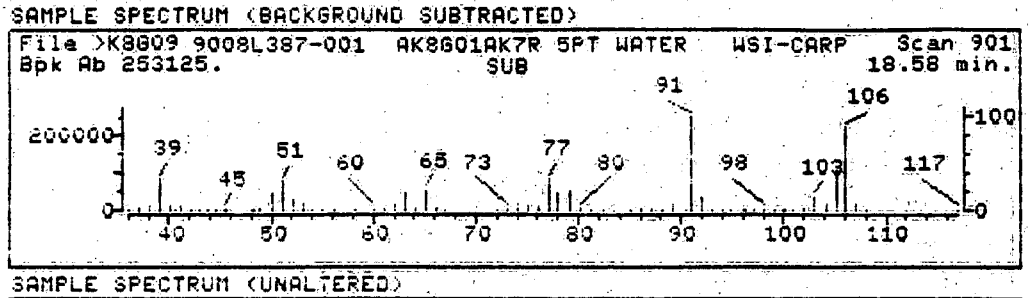
Data File: >K8G09::D2 Quant Output File: ^K8G09::QQ
Name: 9008L387-001 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Quant Time: 900816 19:35 Quant ID File: I_K8GA::QQ
Injected at: 900816 19:10 Last Calibration: 900816 16:04

Compound No: 42
Compound Name: XYLENE
Scan Number: 865
Retention Time: 17.84 min.
Quant Ion: 106.0
Area: 6982092M
Concentration: 7347.54 ug/L
q-value: 85

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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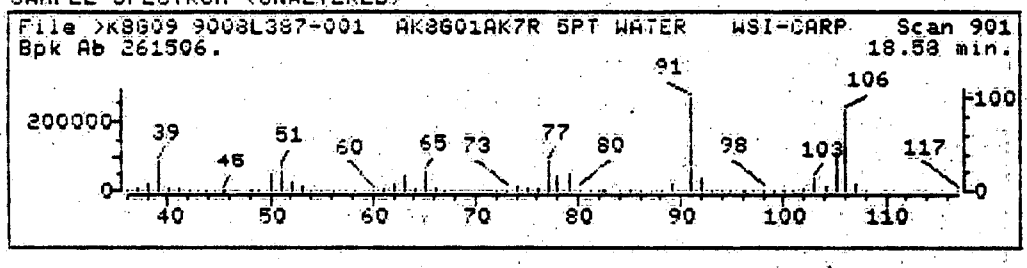
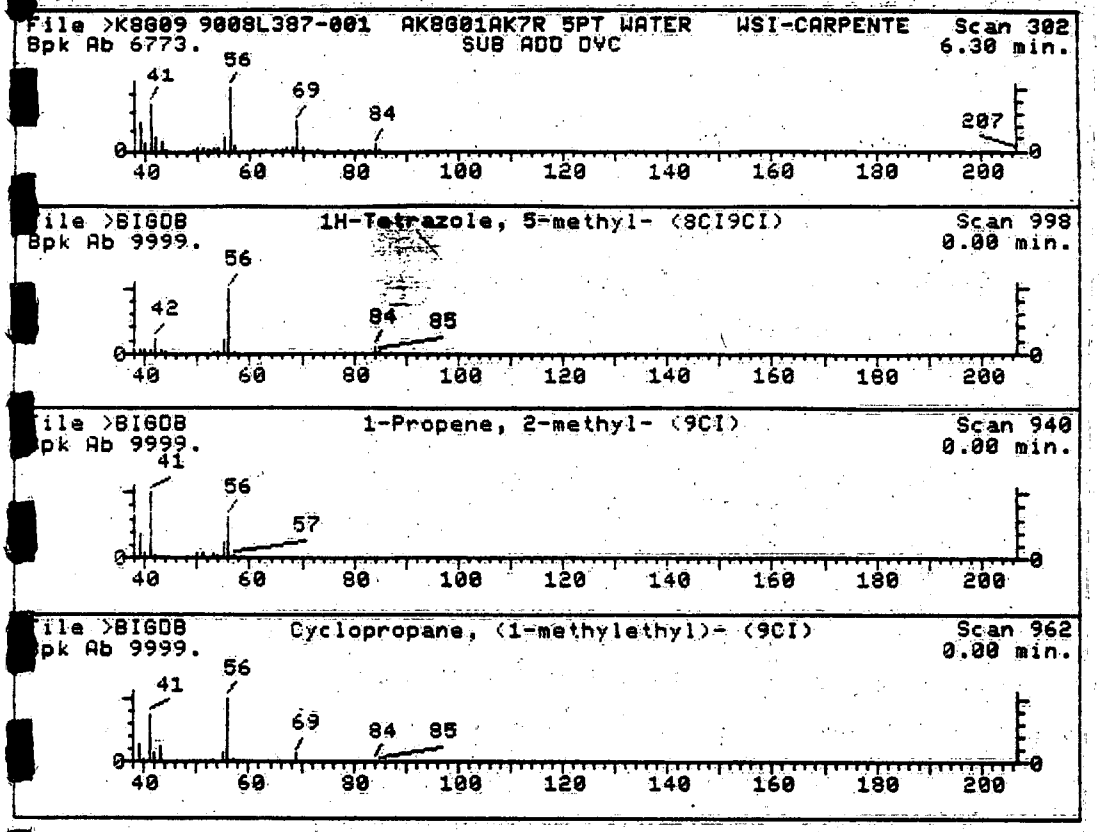


Data File: >K8G09::D2 Quant Output File: ^K8G09::QQ
Name: 9008L387-001 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Quant Time: 900816 19:35 Quant ID File: I_K8GA::QQ
Injected at: 900816 19:10 Last Calibration: 900816 16:04

Compound No: 43
Compound Name: XYLENES (TOTAL)
Scan Number: 901
Retention Time: 18.58 min.
Quant Ion: 106.0
Area: 2981959
Concentration: 3345.44 ug/L
q-value: 50



UNKNOWN #,3

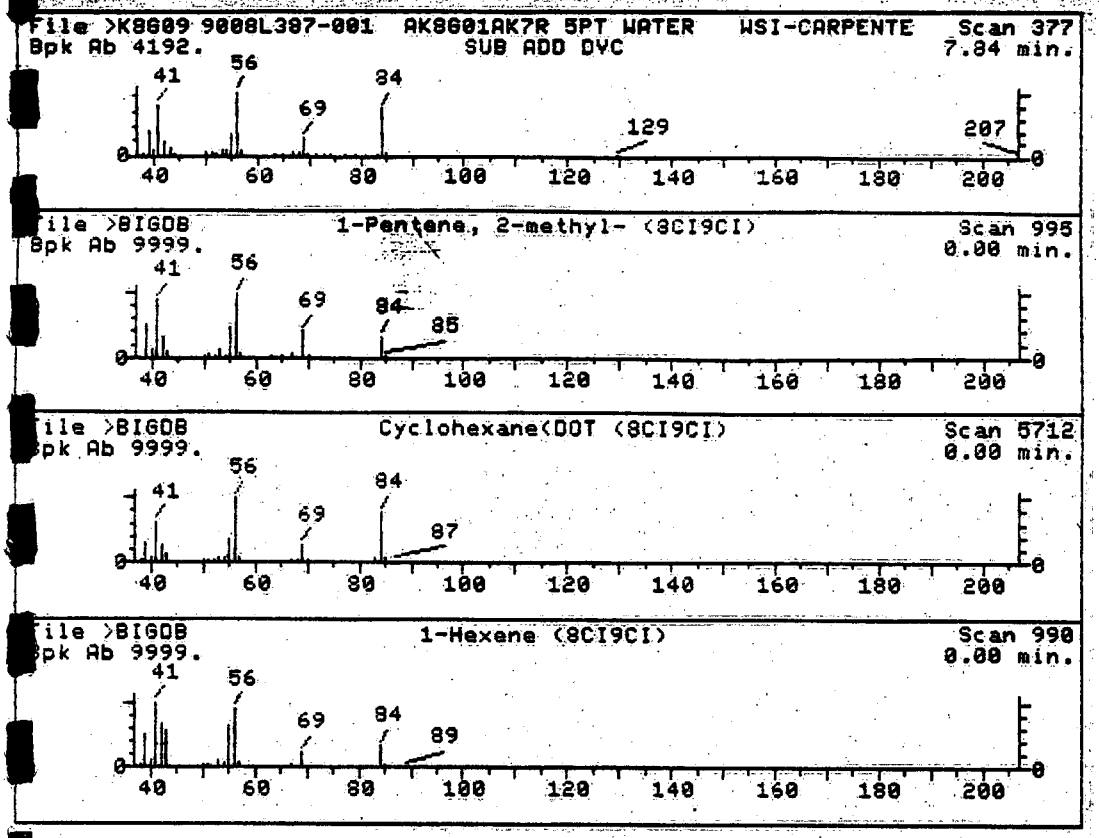
AREA = 421384.0 TENTATIVE CONCENTRATION IS 140.00

1.	1H-Tetrazole, 5-methyl- (8CI9CI)	84	C2H4N4
2.	1-Propene, 2-methyl- (9CI)	56	C4H8
3.	Cyclopropane, (1-methylethyl)- (9CI)	84	C6H12
4.	Cyclobutane, ethyl- (8CI9CI)	84	C6H12
5.	Cyclopropane, propyl- (9CI)	84	C6H12
6.	1-Butene (8CI9CI)	56	C4H8
7.	2-Propenal	56	C3H4O

Sample file: >K8G09 Spectrum #: 302

Search speed: 2 Tilting option: N No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	68*	4076362	998	"BIGDB	57	27	0	0	97	38	28	72
2.	52*	115117	940	"BIGDB	40	33	3	0	122	16	20	16
3.	40*	3638355	962	"BIGDB	37	46	0	0	100	46	12	42
4.	35*	4806615	963	"BIGDB	34	49	0	0	87	46	11	33
5.	29*	2415727	997	"BIGDB	24	64	3	0	85	32	12	12
6.	25*	106989	938	"BIGDB	27	52	1	0	108	47	7	15



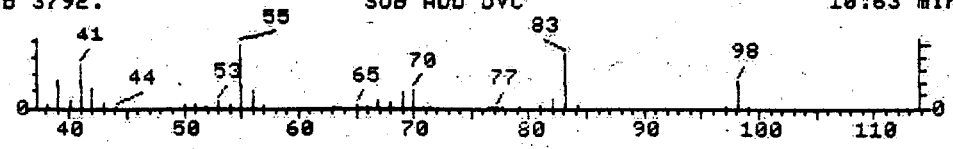
UNKNOWN #,4
AREA = 277633.0 TENTATIVE CONCENTRATION IS 92.00

1.	1-Pentene, 2-methyl- (8CI9CI)	84 C6H12
2.	Cyclohexane(DOT (8CI9CI)	84 C6H12
3.	1-Hexene (8CI9CI)	84 C6H12
4.	2-Butene, (Z)- (8CI9CI)	56 C4H8
5.	2-Butene, (E)- (8CI9CI)	56 C4H8
6.	Furan, 2,3-dihydro-3-methyl- (8CI9CI)	84 C5H8O
7.	Furan, 2,3-dihydro-4-methyl- (9CI)	84 C5H8O

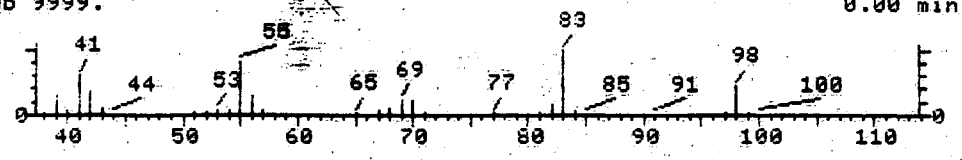
Sample file: >K8G09 Spectrum #: 377
Search speed: 2 Fitting option: N No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	69*	763291	995	"BIGDB	60	41	0	0	70	38	28	73
2.	64*	110827	5712	"BIGDB	63	30	2	0	86	25	28	49
3.	34*	592416	990	"BIGDB	53	47	3	0	80	31	12	17
4.	29*	590181	942	"BIGDB	34	45	2	0	128	41	8	17
5.	29*	624646	943	"BIGDB	34	45	2	0	123	41	8	17
6.	28*	1708276	5731	"BIGDB	31	62	2	0	105	40	10	14

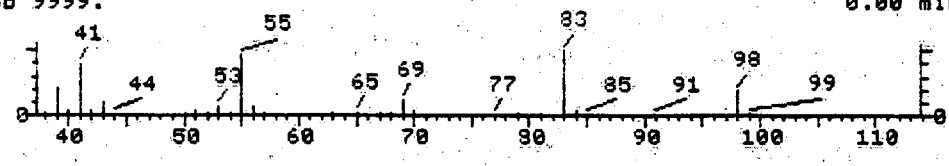
File >K8609 9008L387-001 AK8601AK7R 5PT WATER WSI-CARPENTE Scan 513
Bpk Ab 3792. SUB ADD DVC 10.63 min.



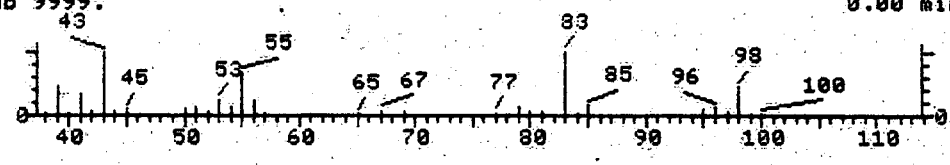
File >BIGDB Cyclohexane, methyl- (8CI9CI) Scan 8482
Bpk Ab 9999. 0.00 min.



File >BIGDB 2-Pentene, 2,3-dimethyl- (8CI9CI) Scan 8516
Bpk Ab 9999. 0.00 min.



File >BIGDB Furan, 2,5-dihydro-2,5-dimethyl- (9CI) Scan 8591
Bpk Ab 9999. 0.00 min.



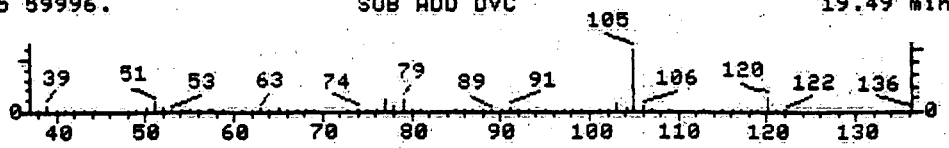
UNKNOWN #,5
AREA = 260353.0 TENTATIVE CONCENTRATION IS 45.00

1. Cyclohexane, methyl- (8CI9CI) 98 C7H14
2. 2-Pentene, 2,3-dimethyl- (8CI9CI) 98 C7H14
3. Furan, 2,5-dihydro-2,5-dimethyl- (9CI) 98 C6H10O
4. 7-Oxabicyclo[4.1.0]heptane (8CI9CI) 98 C6H10O
5. 4-Penten-2-one, 4-methyl- (8CI9CI) 98 C6H10O
6. 2-Pentene, 3,4-dimethyl-, (E)- (8CI9CI) 98 C7H14
7. 2-Pentene, 3,4-dimethyl-, (Z)- (8CI9CI) 98 C7H14

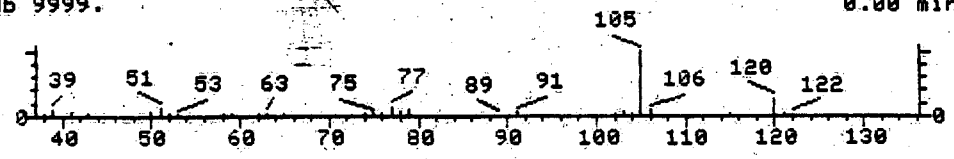
Sample file: >K8G09 Spectrum #: 513
Search speed: 2 Fitting option: N No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	91*	108872	8482	"BIGDB	73	30	0	0	72	25	53	92
2.	76*	10574375	8516	"BIGDB	64	37	0	0	72	33	32	77
3.	42*	59242272	8591	"BIGDB	45	60	3	0	85	21	17	13
4.	42*	286204	5586	"BIGDB	35	80	3	0	85	22	17	13
5.	41*	3744023	8502	"BIGDB	23	56	3	0	257	24	17	12
6.	41*	4914925	5596	"BIGDB	52	44	0	0	72	51	11	63

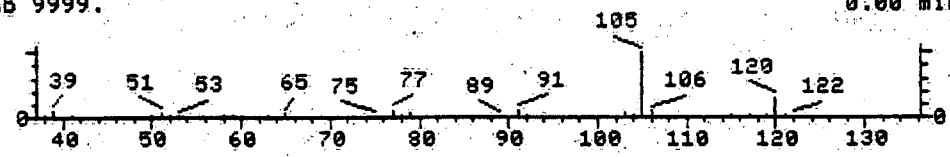
File >K8G09 9008L387-001 AK8G01AK7R 5PT WATER WSI-CARPENTE Scan 945
Bpk Ab 59996. SUB ADD DVC 19.49 min.



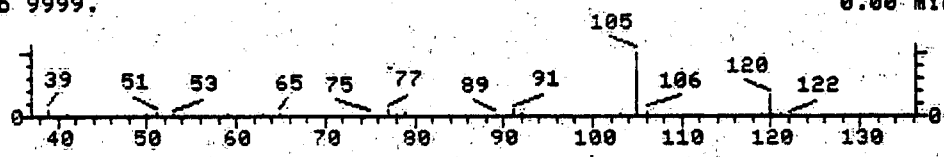
File >BIGDB Benzene, (1-methylethyl)- (9CI) Scan 12259
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-2-methyl- (9CI) Scan 12266
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-3-methyl- (9CI) Scan 12267
Bpk Ab 9999. 0.00 min.



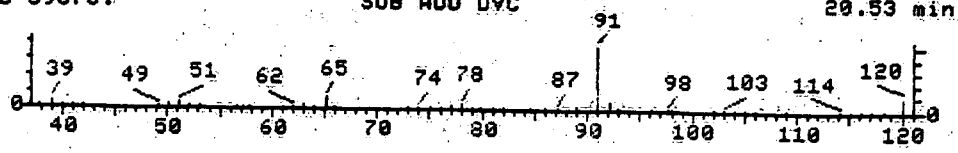
UNKNOWN #, 12
AREA = 1656870. TENTATIVE CONCENTRATION IS 210.00

1.	Benzene, (1-methylethyl)- (9CI)	120	C9H12
2.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
3.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
4.	Benzene, (1-nitroethyl)- (8CI9CI)	151	C8H9NO2
5.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
6.	1,3,5-Cycloheptatriene, 7-ethyl- (8CI9CI)	120	C9H12
7.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12

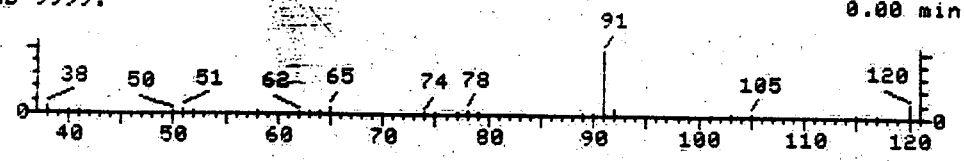
Sample file: >K8G09 Spectrum #: 945
Search speed: 2 Tilting option: N No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	84*	98828	12259	"BIGDB	62	25	1	0	86	10	55	63
2.	60*	611143	12266	"BIGDB	30	55	2	0	73	12	30	15
3.	60*	620144	12267	"BIGDB	30	57	2	0	68	14	30	15
4.	40	7214611	9912	"BIGDB	66	26	0	0	53	46	12	44
5.	30*	622968	12268	"BIGDB	33	52	1	0	65	42	8	18
6.	28*	17634514	12269	"BIGDB	30	71	2	0	76	37	10	14

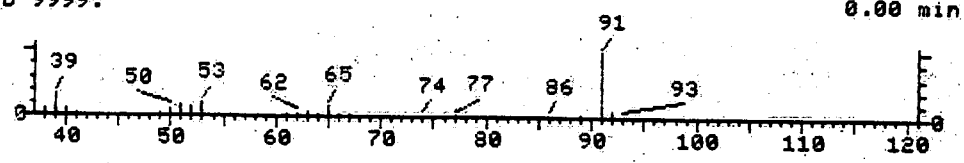
File >K8G09 9008L387-001 AK8G01AK7R 5PT WATER WSI-CARPENTE Scan 996
Bpk Ab 39070. SUB ADD DVC 20.53 min.



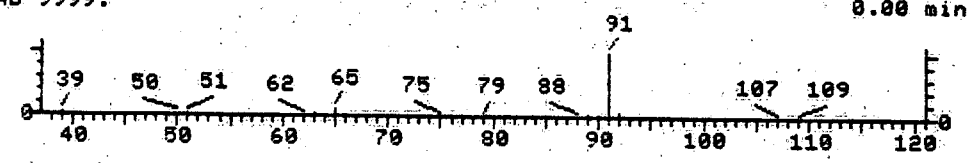
File >BIGDB Benzene, propyl- (8CI9CI) Scan 12261
Bpk Ab 9999. 0.00 min.



File >BIGDB 1,6-Heptadiyne (8CI9CI) Scan 7653
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, (iodomethyl)- (9CI) Scan 7623
Bpk Ab 9999. 0.00 min.



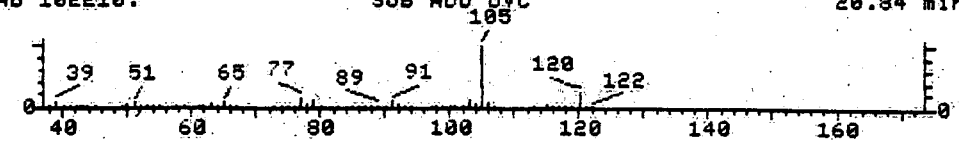
UNKNOWN #, 13
AREA = 815607.0 TENTATIVE CONCENTRATION IS 100.00

1.	Benzene, propyl- (8CI9CI)	120	C9H12
2.	1,6-Heptadiyne (8CI9CI)	92	C7H8
3.	Benzene, (iodomethyl)- (9CI)	218	C7H7I
4.	Tricyclo[4.2.0.02,4]oct-7-en-5-one (9CI)	120	C8H8O
5.	Benzeneacetaldehyde (9CI)	120	C8H8O

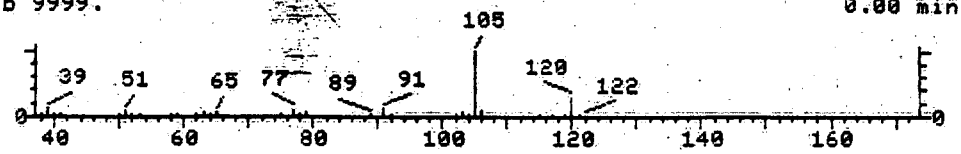
Sample file: >K8G09 Spectrum #: 996
Search speed: 2 Tilting option: N No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	83*	103651	12261	"BIGDB	42	43	2	0	100	5	57	22
2.	52*	2396636	7653	"BIGDB	25	71	2	0	100	19	20	14
3.	43	620053	7623	"BIGDB	41	43	2	0	100	21	17	14
4.	31*	56666785	12270	"BIGDB	34	55	2	0	93	36	10	17
5.	24*	122781	12263	"BIGDB	44	35	2	0	36	54	7	23

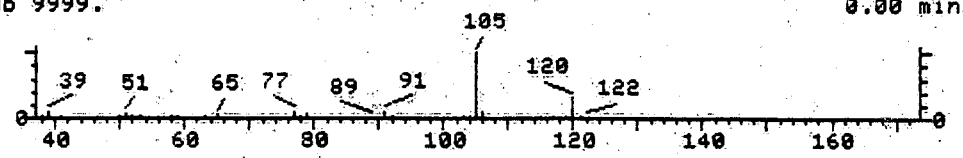
File >K8609 9008L387-001 AK8601AK7R 5PT WATER WSI-CARPENTE Scan 1011
Bpk Ab 102210. SUB ADD DVC 20.84 min.



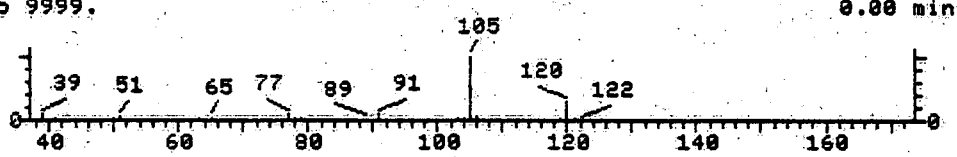
File >BIGDB Benzene, 1-ethyl-2-methyl- (9CI) Scan 12266
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-3-methyl- (9CI) Scan 12267
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-4-methyl- (9CI) Scan 12268
Bpk Ab 9999. 0.00 min.



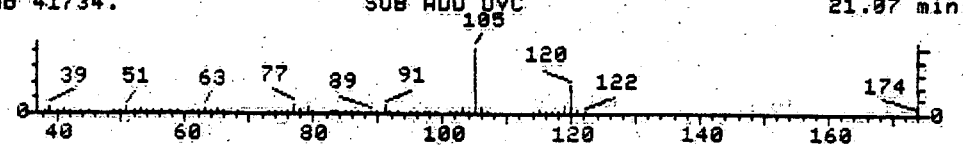
UNKNOWN #, 14
AREA = 3070817. TENTATIVE CONCENTRATION IS 390.00

1.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
2.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
3.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
4.	Benzene, (1-methylethyl)- (9CI)	120	C9H12
5.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12
6.	Benzene, 1,1'-(1-methyl-1,2-ethanediyl)bis- (9CI)	196	C15H16
7.	Benzene, 1,2,4-trimethyl- (8CI9CI)	120	C9H12

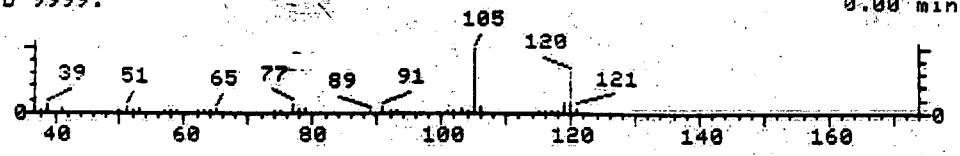
Sample file: >K8GDB Spectrum #: 1011
Search speed: 2 Tilting option: N No. of ion ranges searched: 54

	Prob	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	95*	611143	12266	"BIGDB	72	13	0	0	84	7	68	95
2.	86*	620144	12267	"BIGDB	68	19	1	0	78	7	59	76
3.	86*	622968	12268	"BIGDB	62	23	0	0	77	8	59	78
4.	84*	98828	12259	"BIGDB	64	23	1	0	91	8	55	67
5.	59*	526738	12280	"BIGDB	60	40	1	0	53	36	21	56
6.	58	5814857	9857	"BIGDB	62	37	2	0	91	19	25	21

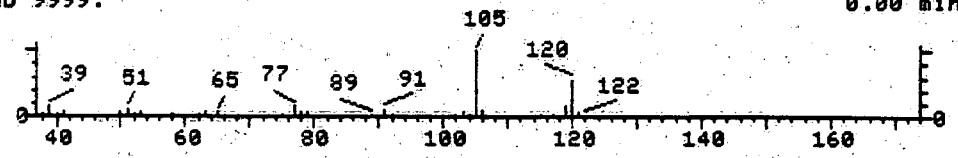
File >K9609 9008L387-001 AK8601AK7R 5PT WATER WSI-CARPENTE Scan 1022
Bpk Ab 41734. SUB ADD DVC 21.07 min.



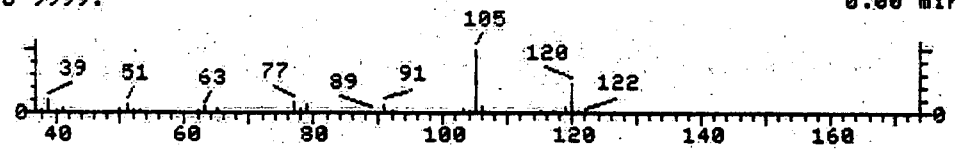
File >BIGDB Benzene, 1,3,5-trimethyl- (9CI) Scan 12275
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1,2,4-trimethyl- (8CI9CI) Scan 12273
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1,2,3-trimethyl- (8CI9CI) Scan 12280
Bpk Ab 9999. 0.00 min.



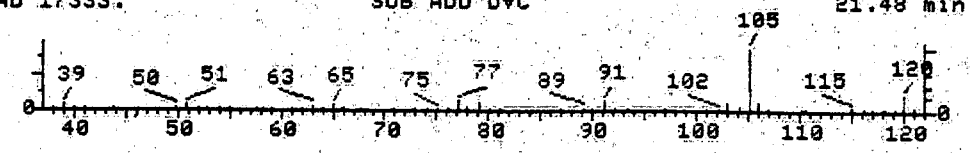
UNKNOWN #,15
AREA = 1422239. TENTATIVE CONCENTRATION IS 180.00

1.	Benzene, 1,3,5-trimethyl- (9CI)	120	C9H12
2.	Benzene, 1,2,4-trimethyl- (8CI9CI)	120	C9H12
3.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12
4.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
5.	Benzene, (1-methylethyl)- (9CI)	120	C9H12
6.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
7.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12

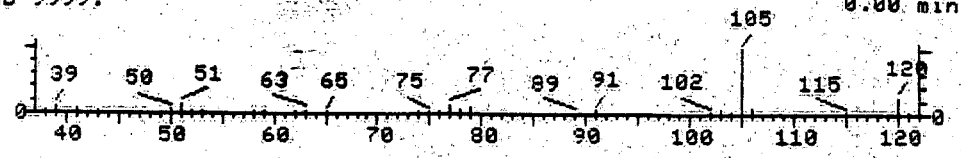
Sample file: >K8G09 Spectrum #: 1022
Search speed: 2 Splitting option: N No. of ion ranges searched: 46

	Prob.	C.	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	108678	12275	"BIGDB	77	11	1	0	68	4	72	94
2.	94*	95636	12273	"BIGDB	81	14	1	0	66	4	72	92
3.	82*	526738	12280	"BIGDB	69	31	0	0	51	39	37	86
4.	81*	620144	12267	"BIGDB	66	21	1	0	90	19	45	72
5.	80*	98828	12259	"BIGDB	70	17	1	0	89	21	47	80
6.	80*	611143	12266	"BIGDB	66	19	1	0	90	21	41	76

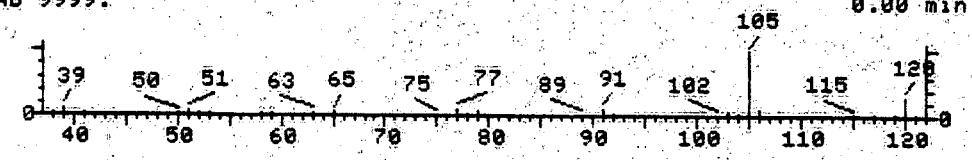
File >K8809 9008L387-001 AK8601AK7R 5PT WATER WSI-CARPENTE Scan 1042
Bpk Ab 17333. SUB ADD DVC 21.48 min.



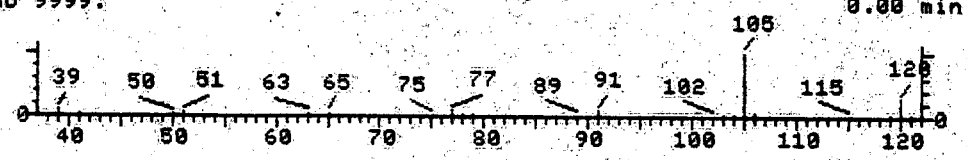
File >BIGDB Benzene, (1-methylethyl)- (9CI) Scan 12259
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-2-methyl- (9CI) Scan 12266
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-4-methyl- (9CI) Scan 12268
Bpk Ab 9999. 0.00 min.



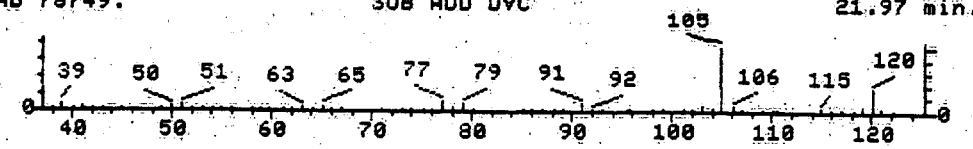
UNKNOWN #, 16
AREA = 425830.0 TENTATIVE CONCENTRATION IS 54.00

1.	Benzene, (1-methylethyl)- (9CI)	120	C9H12
2.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
3.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
4.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
5.	Benzene, 1,1'-(1-methyl-1,2-ethanediyl)bis- (9CI)	196	C15H16
6.	Benzene, 1,3,5-trimethyl- (9CI)	120	C9H12
7.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12

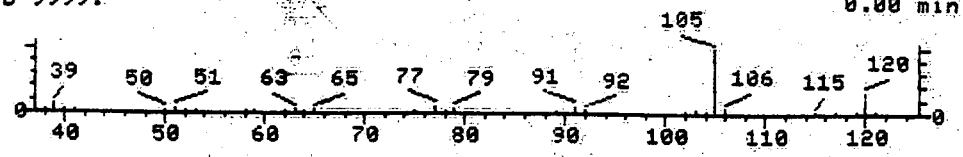
Sample file: >K8G08 Spectrum #: 1042
Search speed: 2 Filting option: N No. of ion ranges searched: 53

	Prob.	CAS #	COT	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	94*	98828	12259	"BIGDB	75	12	1	0	100	8	68	93
2.	86*	611143	12266	"BIGDB	67	18	1	0	86	8	59	77
3.	84*	622968	12268	"BIGDB	62	23	1	0	89	8	55	67
4.	81*	620144	12267	"BIGDB	57	30	2	0	81	8	53	43
5.	58	5814857	9857	"BIGDB	72	27	2	0	100	20	25	26
6.	52	108678	12275	"BIGDB	44	44	2	0	100	18	20	14

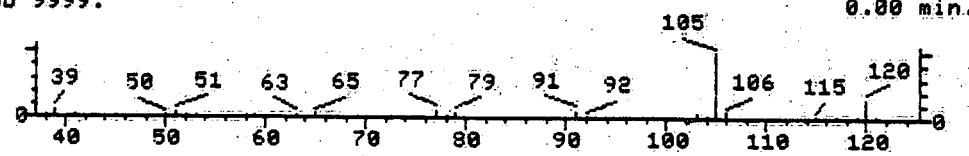
File >K8609 9009L387-001 AK8601AK7R 5PT WATER WSI-CARPENTE Scan 1066
Bpk Ab 78749. SUB ADD DVC 21.97 min.



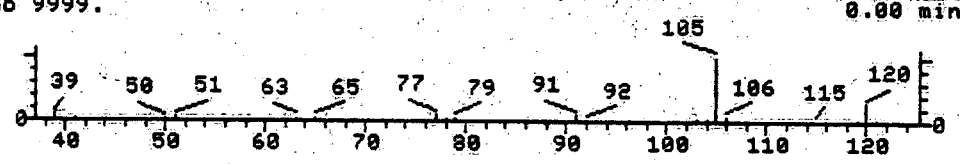
File >BIGDB Benzene, 1-ethyl-3-methyl- (9CI) Scan 12267
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-2-methyl- (9CI) Scan 12266
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-4-methyl- (9CI) Scan 12268
Bpk Ab 9999. 0.00 min.



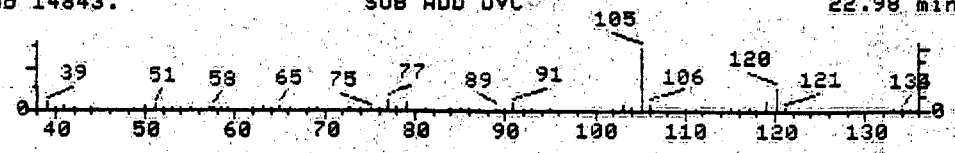
UNKNOWN #, 17
AREA = 1990127. TENTATIVE CONCENTRATION IS 250.00

1.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
2.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
3.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
4.	Benzene, 1,2,4-trimethyl- (8CI9CI)	120	C9H12
5.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12
6.	Benzene, (1-methylethyl)- (9CI)	120	C9H12
7.	Benzene, 1,3,5-trimethyl- (9CI)	120	C9H12

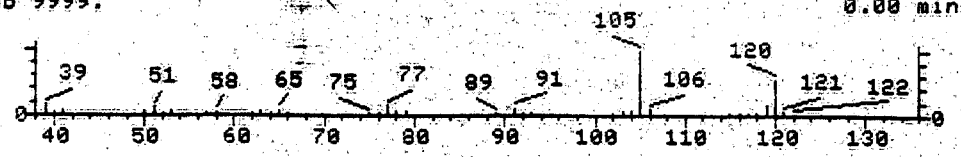
Sample file: >K8609 Spectrum #: 1066
Search speed: 2 Tilting option: N No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	94*	620144	12267	"BIGDB	75	12	1	0	95	10	68	93
2.	93*	611143	12266	"BIGDB	75	10	1	0	95	12	64	93
3.	92*	622968	12268	"BIGDB	74	11	1	0	95	12	64	92
4.	85*	95636	12273	"BIGDB	71	24	0	0	53	36	37	89
5.	84*	526738	12280	"BIGDB	69	31	0	0	50	34	40	86
6.	76*	98828	12259	"BIGDB	56	31	1	0	95	12	40	53

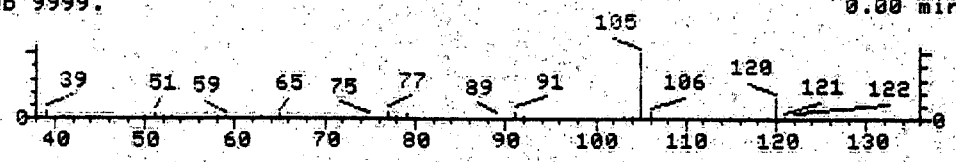
File >K8G09 9008L387-001 AK8G01AK7R 5PT WATER WSI-CARPENTE Scan 1115
Bpk Ab 14843. SUB ADD DVC 22.98 min.



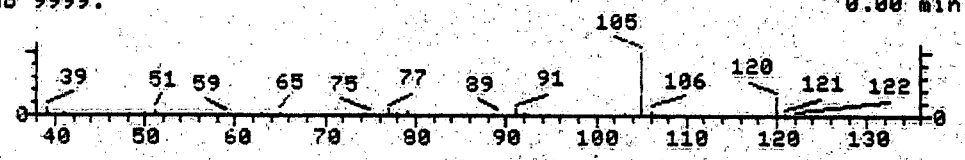
File >BIGDB Benzene, 1,2,4-trimethyl- (8CI9CI) Scan 12273
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-3-methyl- (9CI) Scan 12267
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-2-methyl- (9CI) Scan 12266
Bpk Ab 9999. 0.00 min.



UNKNOWN #, 18
AREA = 544155.0 TENTATIVE CONCENTRATION IS 69.00

1.	Benzene, 1,2,4-trimethyl- (8CI9CI)	120	C9H12
2.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
3.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
4.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12
5.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
6.	Benzene, 1,3,5-trimethyl- (9CI)	120	C9H12
7.	1,3-Cyclopentadiene, 5-(1-methylpropylidene)- (9CI)	120	C9H12

Sample file: >K8G09 Spectrum #: 1115
Search speed: 2 Tilting option: N No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	OK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	95636	12273	"BIGDB	86	9	0	0	67	6	68	96
2.	94*	620144	12267	"BIGDB	75	12	1	0	100	10	68	93
3.	93*	611143	12266	"BIGDB	75	10	1	0	100	12	64	93
4.	89*	526738	12280	"BIGDB	83	17	1	0	72	6	62	80
5.	87*	622968	12268	"BIGDB	68	17	1	0	100	12	55	80
6.	36*	108678	12275	"BIGDB	40	48	2	0	59	32	12	19

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 044

MW-1DL

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-001 DL

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

Lab File ID: AK8H05

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. _____

Date Analyzed: 08/17/90

Column: (pack/cap) CAP

Dilution Factor: 100

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	3900	
95-50-1	1,2-Dichlorobenzene		
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)	22000	

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MW-1DL

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-001 DL

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

Lab File ID: AK8H05

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. _____

Date Analyzed: 08/17/90

Column: (pack/cap) CAP

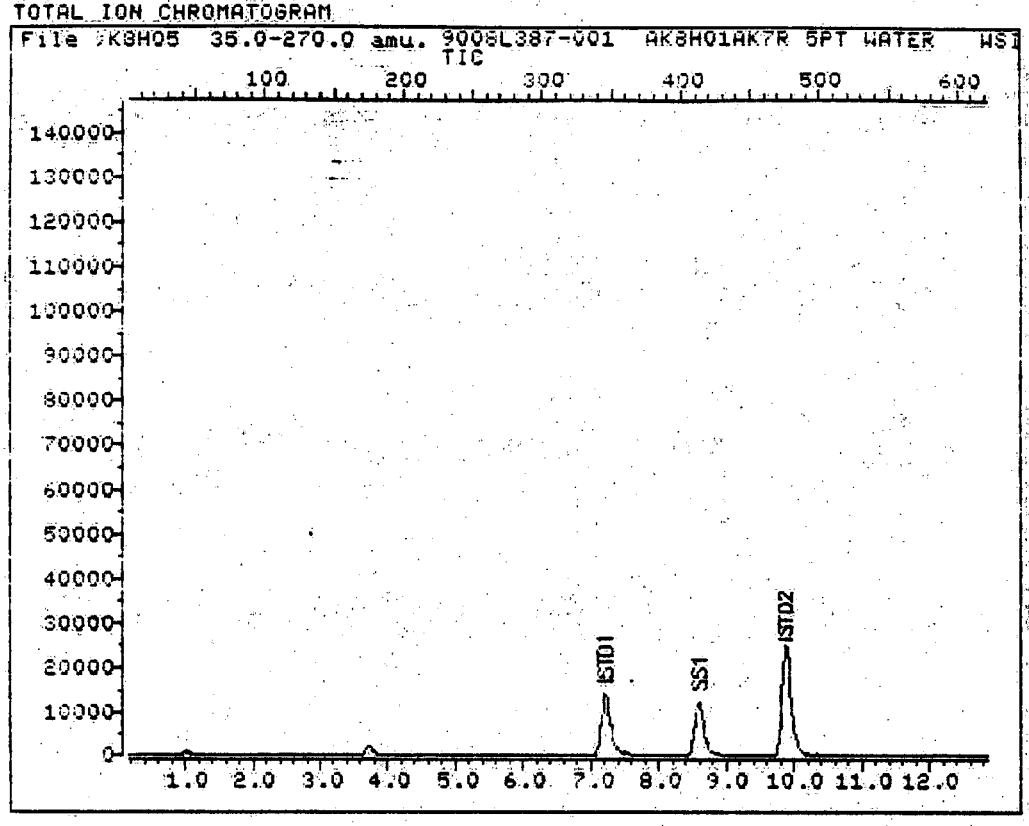
Dilution Factor: 100

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



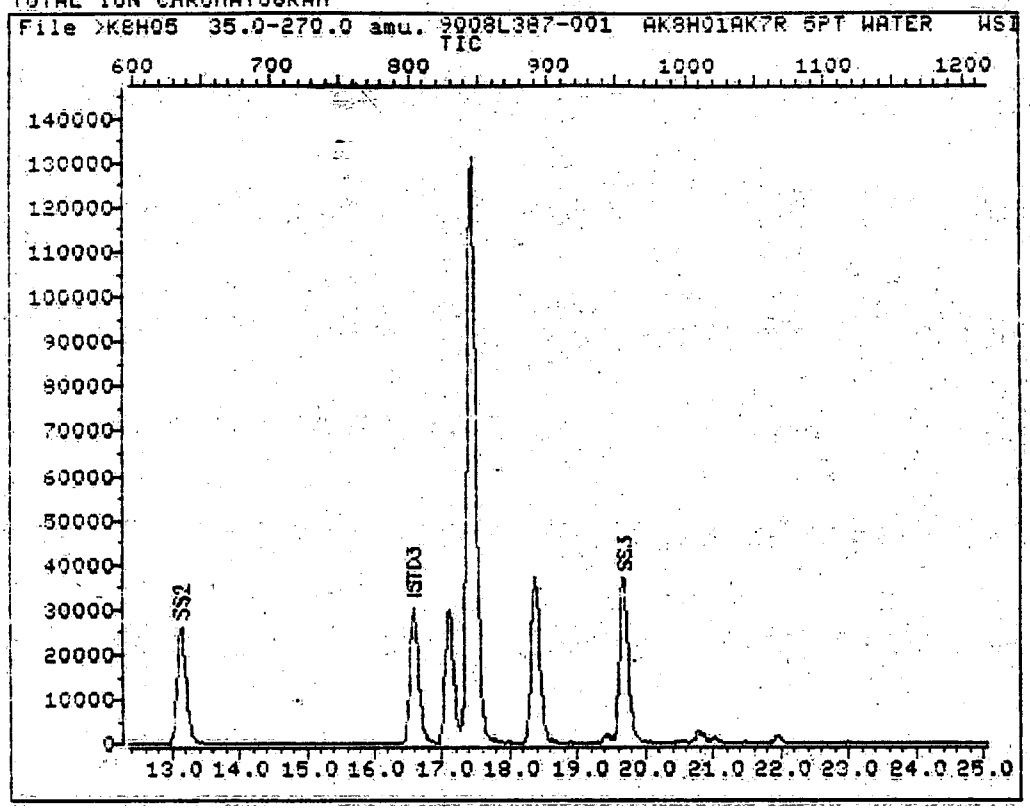
Data File: >K8H05::D2 Quant Output File: ^K8H05::QQ
Name: 9008L387-001 AK8H01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=100 D1 #HP-MSD K

Id File: I_K8HA::QQ
Title: IFB
Last Calibration: 900817 10:45

Operator ID: USER4
Quant Time: 900817 12:00
Injected at: 900817 11:34

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8H05::D2 Quant Output File: ^K8H05::QQ
Name: 9008L387-001 AK8H01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=100 D1 #HP-MSD K

Id File: I_K8HA::QQ
Title: IFB
Last Calibration: 900817 10:45

Operator ID: USER4
Quant Time: 900817 12:00
Injected at: 900817 11:34

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4 Quant Rev: 6 Quant Time: 900817 12:00
Output File: ^K8H05::QQ Injected at: 900817 11:34
Data File: >K8H05::D2 Dilution Factor: 1.00000
Name: 9008L387-001 AK8H01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=100 D1 #HP-MSD K

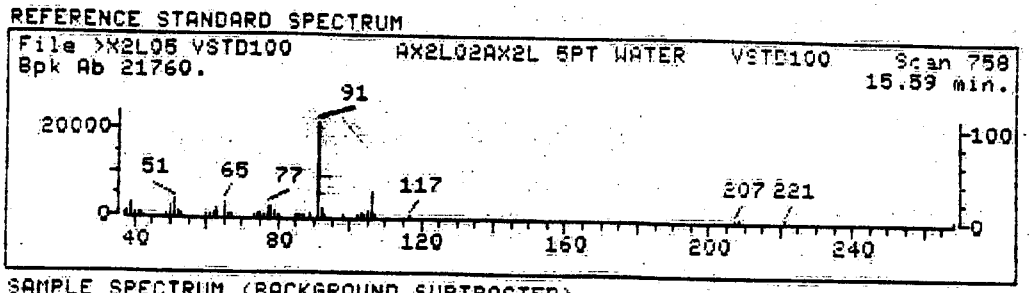
ID File: I_K8HA::QQ
Title: IFB
Last Calibration: 900817 10:45

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.20	128.0	19594	50.00	ug/L	58
10)	ACETONE	2.98	43.0	T 293	2.07	ug/L	81
11)	METHYLENE CHLORIDE	3.72	84.0	3935M	7.56	ug/L	95
21)	*1,4-DIFLUOROBENZENE	9.86	114.0	91261	50.00	ug/L	69
23)	1,2-DICHLOROETHANE D4	8.59	65.0	51977	49.95	ug/L	84
29)	*CHLOROBENZENE-D5	16.58	117.0	77602	50.00	ug/L	95
31)	TOLUENE D8	13.14	98.0	83131	48.14	ug/L	90
32)	TOLUENE	13.30	92.0	152	.14	ug/L	1
40)	ETHYLBENZENE	17.11	106.0	29484	*39.10	ug/L	95
42)	XYLENE	17.44	106.0	160694	*169.50	ug/L	86
43)	XYLENES (TOTAL)	18.36	106.0	43580	*52.03	ug/L	87
45)	4-BROMOFLUOROBENZENE	19.69	95.0	68943	47.51	ug/L	94

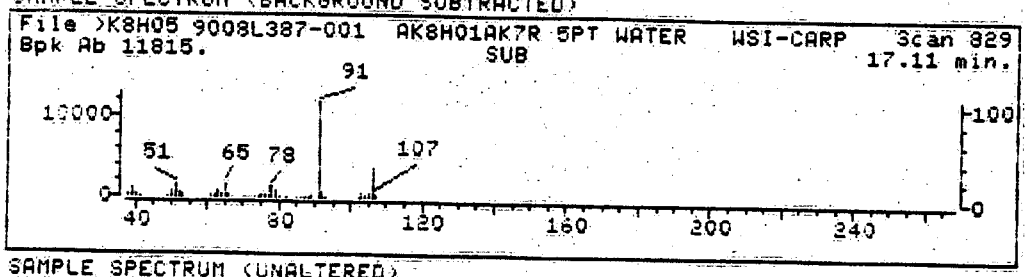
* Compound is ISTD

Total Xylenes
169.50
52.03
221.53
SAC 8/22/90

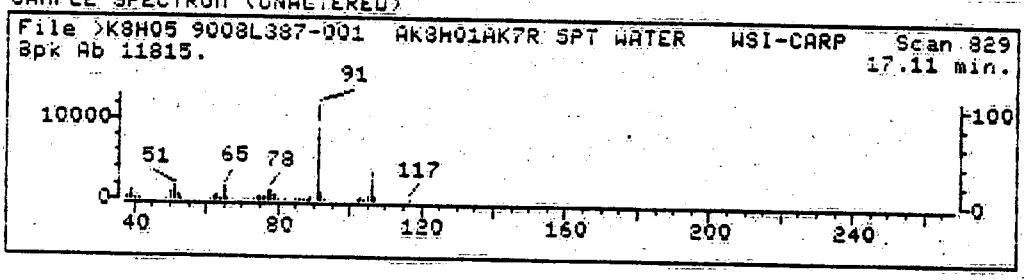
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



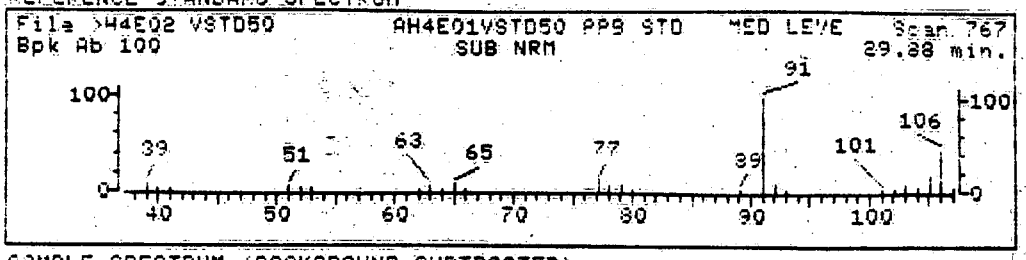
SAMPLE SPECTRUM (UNALTERED)



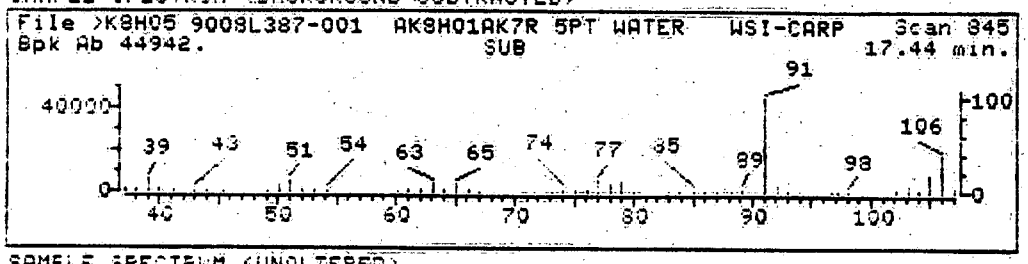
Data File: >K8H05::D2 Quant Output File: ^K8H05::QQ
Name: 9008L387-001 AK8H01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=100 D1 #HP-MSD K
Quant Time: 900817 12:00 Quant ID File: I_K8HA::QQ
Injected at: 900817 11:34 Last Calibration: 900817 10:45

Compound No: 40
Compound Name: ETHYLBENZENE
Scan Number: 829
Retention Time: 17.11 min.
Quant Ion: 106.0
Area: 29484
Concentration: 39.10 ug/L
q-value: 95

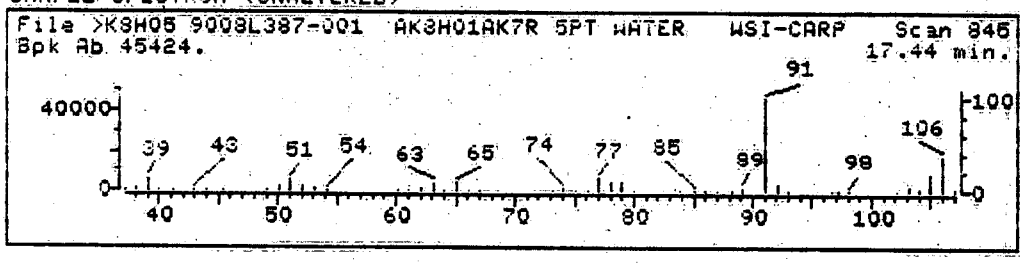
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



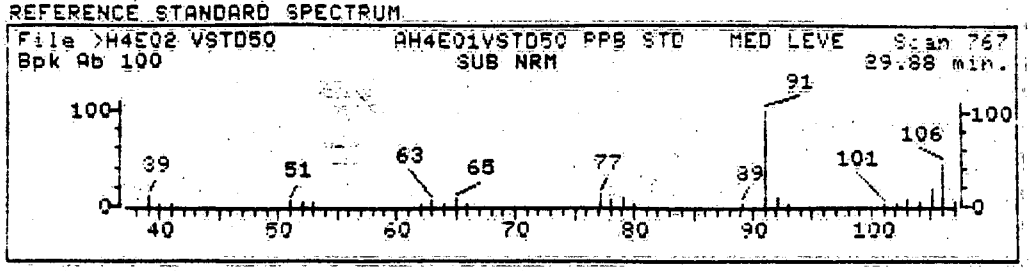
SAMPLE SPECTRUM (UNALTERED)



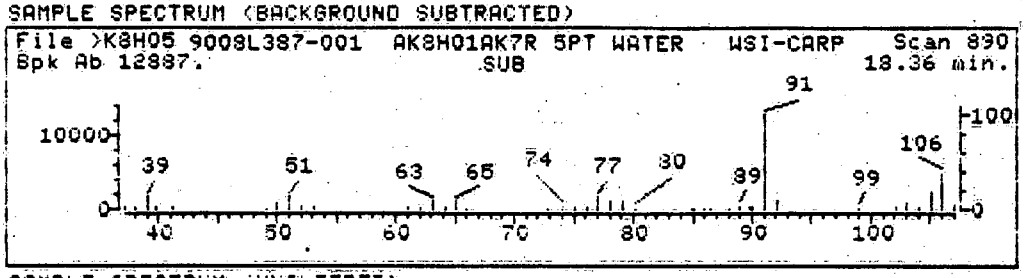
Data File: >K8H05::D2 Quant Output File: ^K8H05::QQ
Name: 9008L387-001 AK8H01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=100 D1 #HP-MSD K
Quant Time: 900817 12:00 Quant ID File: I_K8HA::QQ
Injected at: 900817 11:34 Last Calibration: 900817 10:45

Compound No: 42
Compound Name: XYLENE
Scan Number: 845
Retention Time: 17.44 min.
Quant Ion: 106.0
Area: 160694
Concentration: 169.50 ug/L
q-value: 86

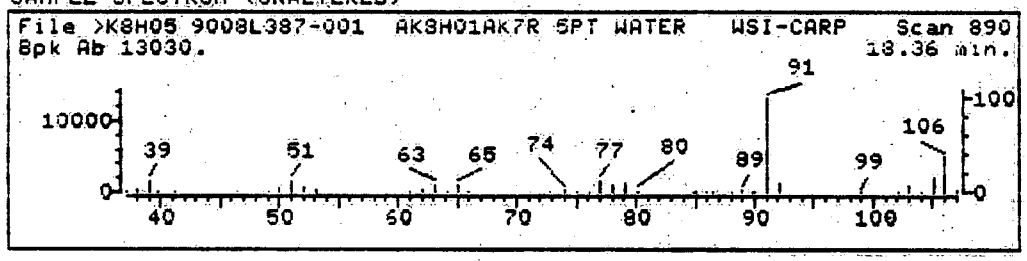
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K8H05::D2 Quant Output File: ^K8H05::QQ
Name: 9008L387-001 AK8H01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=100 D1 #HP-MSD K
Quant Time: 900817 12:00 Quant ID File: I_K8HA::QQ
Injected at: 900817 11:34 Last Calibration: 900817 10:45

Compound No: 43
Compound Name: XYLENES (TOTAL)
Scan Number: 890
Retention Time: 18.36 min.
Quant Ion: 106.0
Area: 43580
Concentration: 52.03 ug/L
q-value: 87

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 052

MW-2

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-002

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

Lab File ID: AK8G10

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. ____

Date Analyzed: 08/16/90

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	6	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	12	
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-	Trichlorofluoromethane	5	U
1330-2	Xylene (total)	110	

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 053

MW-2

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-002

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

Lab File ID: AK8G10

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. _____

Date Analyzed: 08/16/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

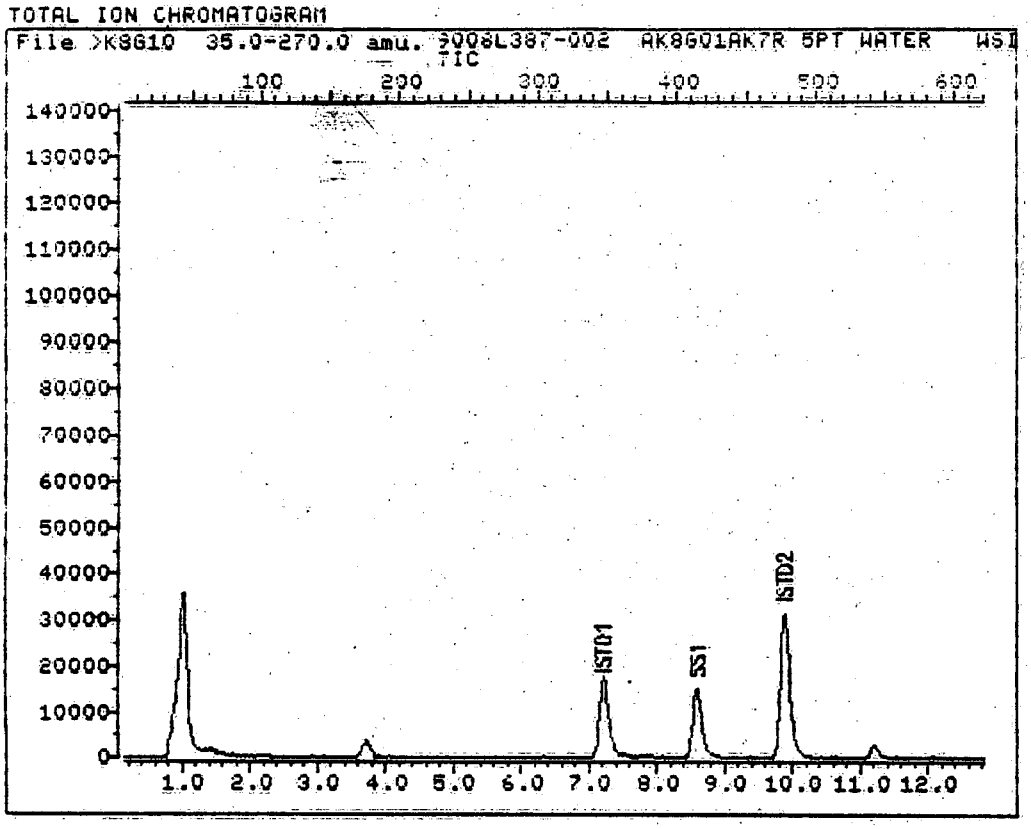
Number TICs found: 10

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ACETONE	3.05	5.6	C
2.	UNKNOWN	18.97	200	J
3.	UNKNOWN BENZENE	20.51	10	J
4.	C3 BENZENE	21.04	30	J
5.	C3 BENZENE	21.96	200	J
6.	UNKNOWN BENZENE	22.37	8	J
7.	C3 BENZENE	22.97	80	J
8.	C4 BENZENE	23.75	10	J
9.	UNKNOWN BENZENE	24.36	8	J
10.	C4 BENZENE	24.69	10	J

C: Response Factor from daily standard.

TOTAL ION CHROMATOGRAM



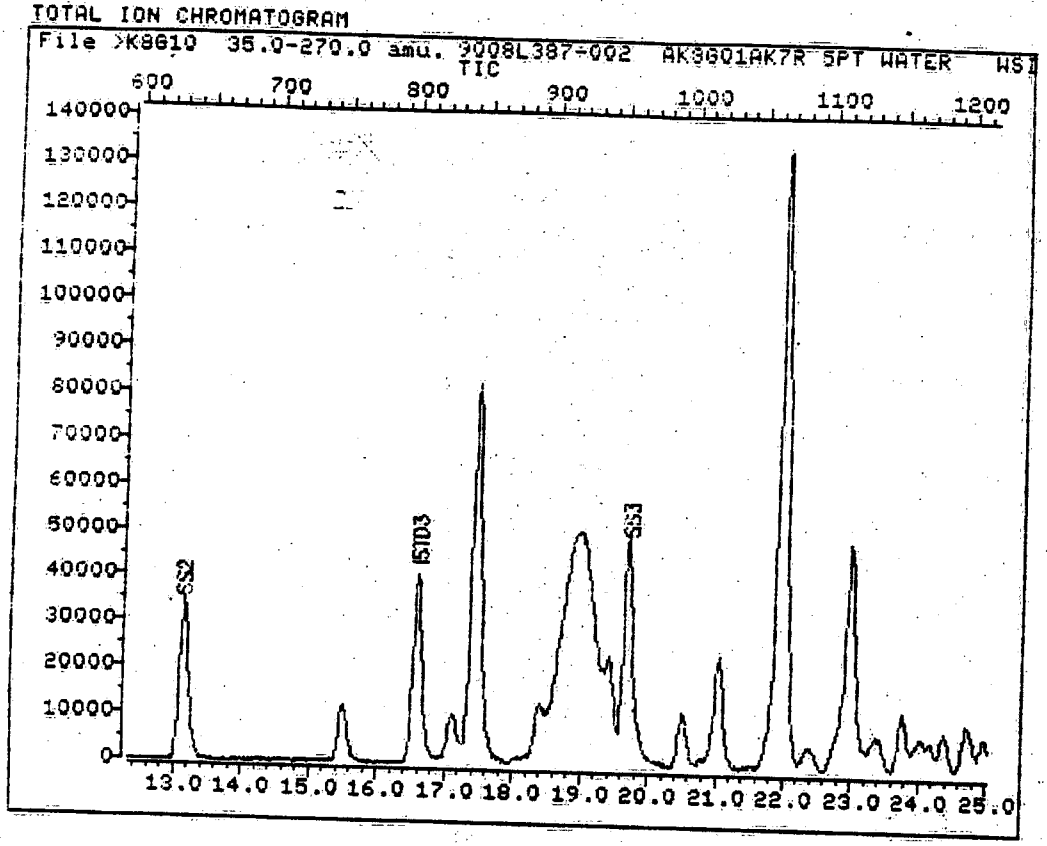
Data File: >K8G10::D2 Quant Output File: ^K8G10::QQ
Name: 9008L387-002 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 20:08
Injected at: 900816 19:43

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8G10::D2 Quant Output File: ^K8G10::QQ
Name: 9008L387-002 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 20:08
Injected at: 900816 19:43

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4 Quant Rev: 6 Quant Time: 900816 20:08
Output File: ^K8G10::QQ Injected at: 900816 19:43
Data File: >K8G10::D2 Dilution Factor: 1.00000
Name: 9008L387-002 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B

ID File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.21	128.0	23560	50.00	ug/L	53
10)	ACETONE	3.05	43.0	T 779	5.65	ug/L	64
11)	METHYLENE CHLORIDE	3.73	84.0	3955	6.08	ug/L	78
21)	*1,4-DIFLUOROBENZENE	9.89	114.0	115853	50.00	ug/L	68
23)	1,2-DICHLOROETHANE D4	8.60	65.0	60755	45.40	ug/L	84
29)	*CHLOROBENZENE-D5	16.59	117.0	96910	50.00	ug/L	99
31)	TOLUENE D8	13.13	98.0	110143	52.66	ug/L	97
32)	TOLUENE	13.31	92.0	55	.04	ug/L	78
33)	4-METHYL-2-PENTANONE	15.52	43.0	11615	27.38	ug/L	64
40)	ETHYLBENZENE	17.10	106.0	11132M	12.06	ug/L	70
42)	XYLENE	17.43	106.0	109535	101.69	ug/L	90
43)	XYLENES (TOTAL)	18.39	106.0	12684	12.55	ug/L	84
45)	4-BROMOFLUOROBENZENE	19.71	95.0	85030	49.89	ug/L	99

* Compound is ISTD

Total Xylenes
101.69
12.55
114.24

MS data file header from : >K8G10

Sample: 9008L387-002 AK8G01 Operator: USER4 SUPER GRP. 8/16/90 19:43
Misc : AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: LOWV2 Tuning file: MT8102 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

Chromatographic temperatures :	6.	106.	0.	0.	0.
Chromatographic times, min. :	5.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	2.5	0.0

>K8G10 9008L387-002 AK8G01AK7R 5PT WATER WSI-CARPENTER DF=1
35.0| 270.0 CLP ADC TIC
Upslope: .20 Area Reject: 16710. Max Peaks: 10 Bunching: 1
Dnslope: 0.00 Results File IK8G10 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	11.22	535	542	551	2502	24975	22006	1.46	.544
2	18.97	901	920	936	48914	1614843	1510737	100.00	37.375
3	20.51	987	995	1006	11477	124954	102654	6.79	2.540
4	21.04	1013	1021	1033	23561	250109	223634	14.80	5.533
5	21.96	1048	1066	1079	133312	1351340	1304466	86.35	32.272
6	22.37	1079	1086	1095	4749	72908	55801	3.69	1.380
7	22.97	1097	1115	1128	48968	604052	565102	37.41	13.980
8	23.75	1146	1153	1159	11934	121351	102165	6.76	2.528
9	24.36	1179	1183	1191	7798	81521	61806	4.09	1.529
10	24.69	1192	1199	1207	9518	121362	93726	6.20	2.319

Sum of corrected areas: 4042097.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	167101.	7.21	.14 - 8.55
2	50.0	306960.	9.89	8.55 - 13.24
3	50.0	369738.	16.59	13.24 - 25.02

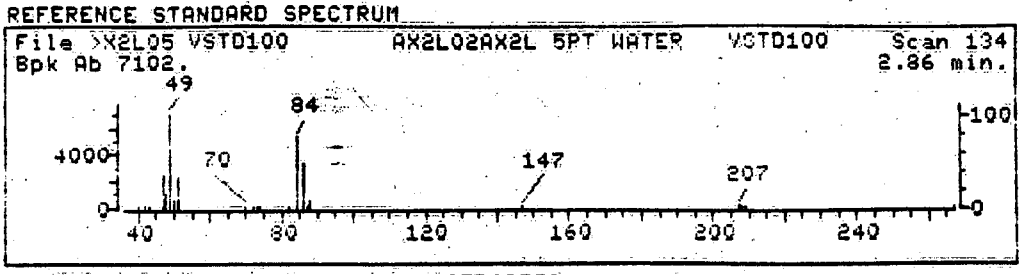
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

Correction Factor = 1.00 = (AM / AU) / (DF * FS)

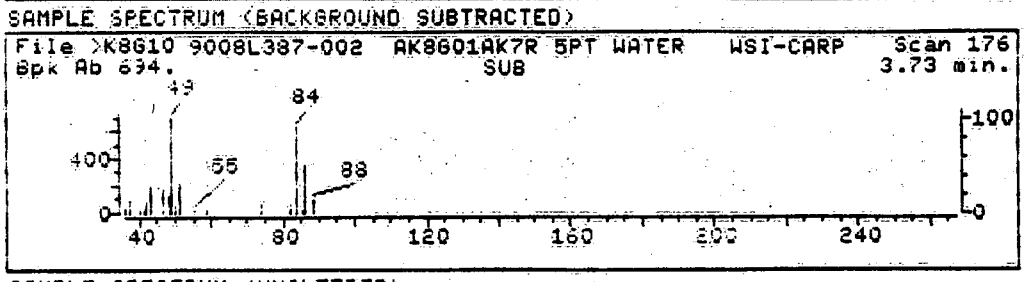
$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

3:41 PM FRI., 17 AUG., 1990

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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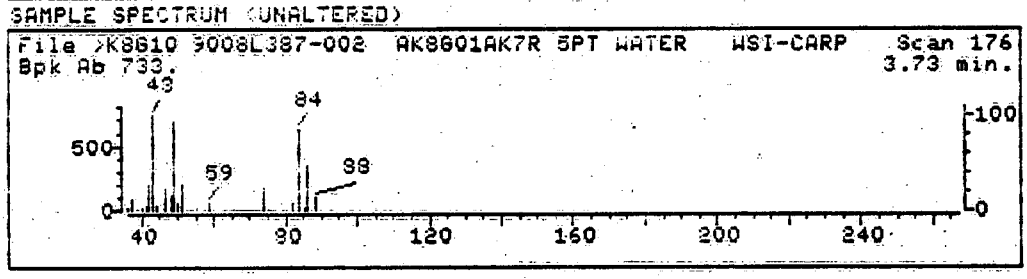
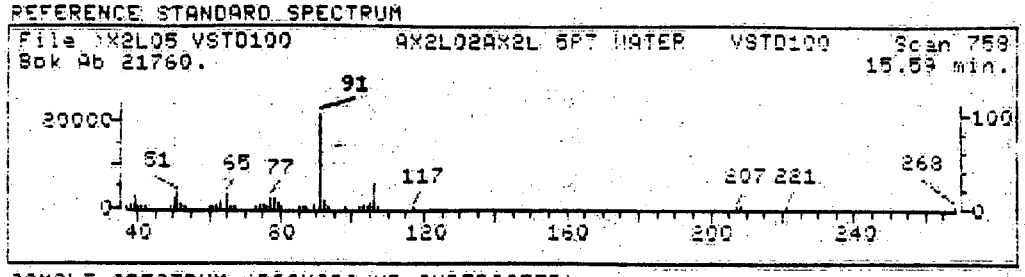


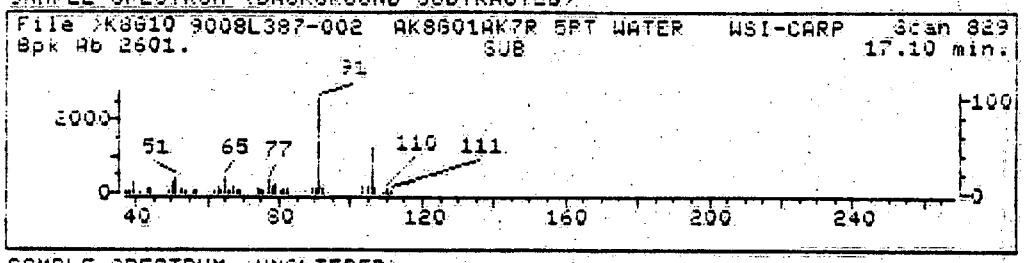
Data File: >K8G10::D2 Quant Output File: ^K8G10::QQ
Name: 9008L387-002 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Quant Time: 900816 20:08 Quant ID File: I_K8GA::QQ
Injected at: 900816 19:43 Last Calibration: 900816 16:04

Compound No: 11
Compound Name: METHYLENE CHLORIDE
Scan Number: 176
Retention Time: 3.73 min.
Quant Ion: 84.0
Area: 3955
Concentration: 6.08 ug/L
q-value: 78

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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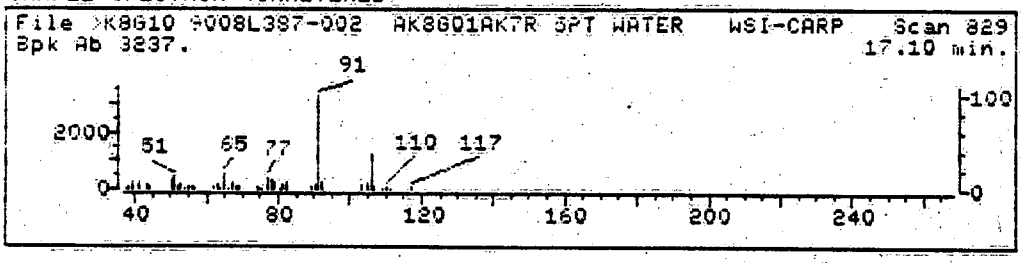
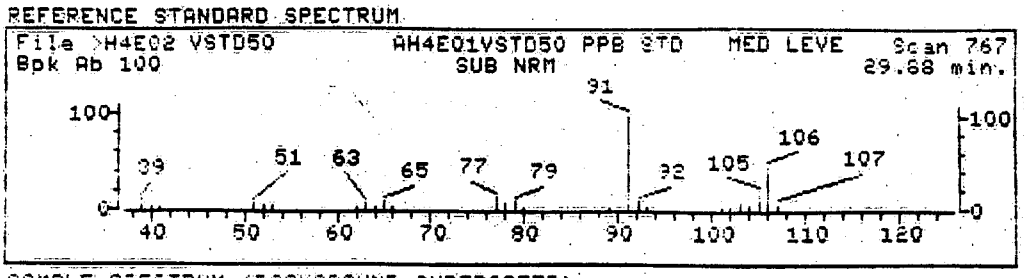


Data File: >K8G10::D2 Quant Output File: ^K8G10::QQ
Name: 9008L387-002 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Quant Time: 900816 20:08 Quant ID File: I_K8GA::QQ
Injected at: 900816 19:43 Last Calibration: 900816 16:04

Compound No: 40
Compound Name: ETHYLBENZENE
Scan Number: 829
Retention Time: 17.10 min.
Quant Ion: 106.0
Area: 11132M
Concentration: 12.06 ug/L
q-value: 70

REFERENCE STANDARD SPECTRUM



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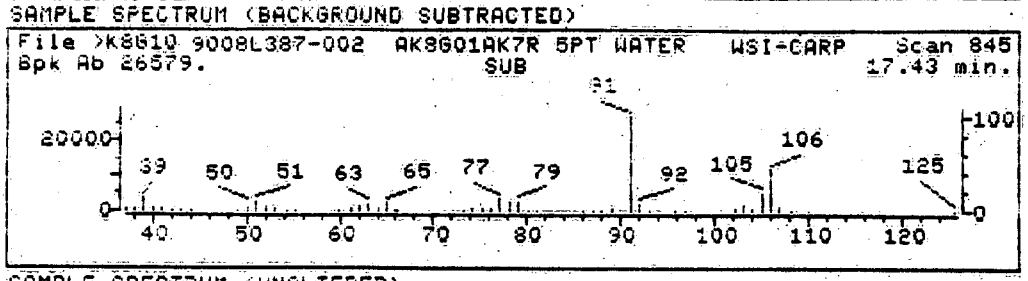

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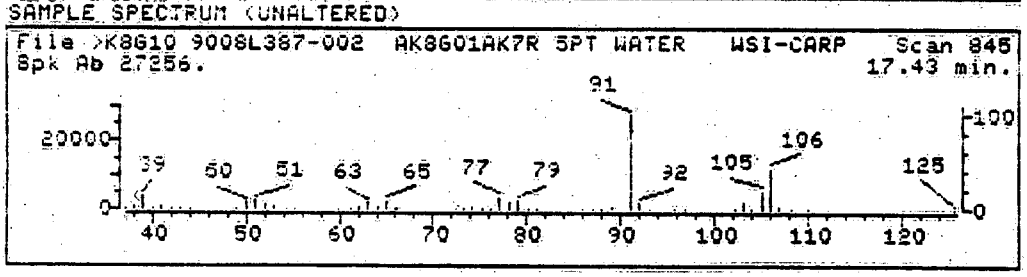
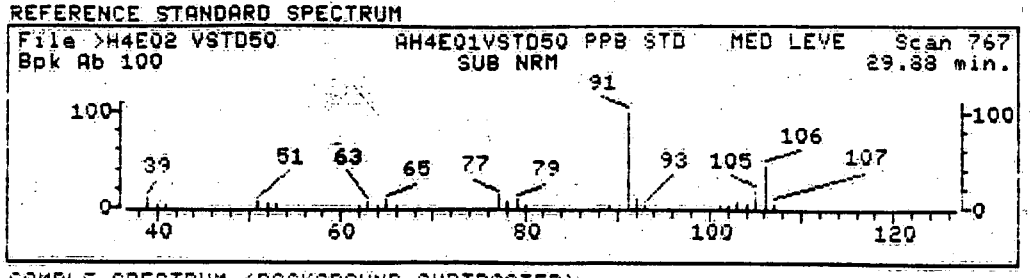


Data File: >K8G10::D2 Quant Output File: ^K8G10::QQ
Name: 9008L387-002 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Quant Time: 900816 20:08 Quant ID File: I_K8GA::QQ
Injected at: 900816 19:43 Last Calibration: 900816 16:04

Compound No: 42
Compound Name: XYLENE
Scan Number: 845
Retention Time: 17.43 min.
Quant Ion: 106.0
Area: 109535
Concentration: 101.69 ug/L
q-value: 90

REFERENCE STANDARD SPECTRUM



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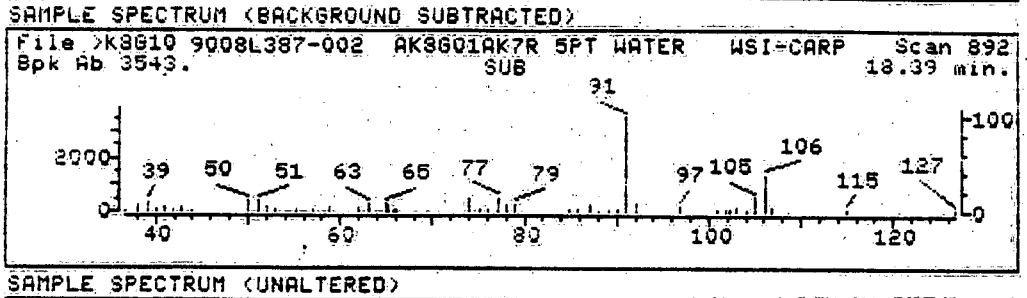

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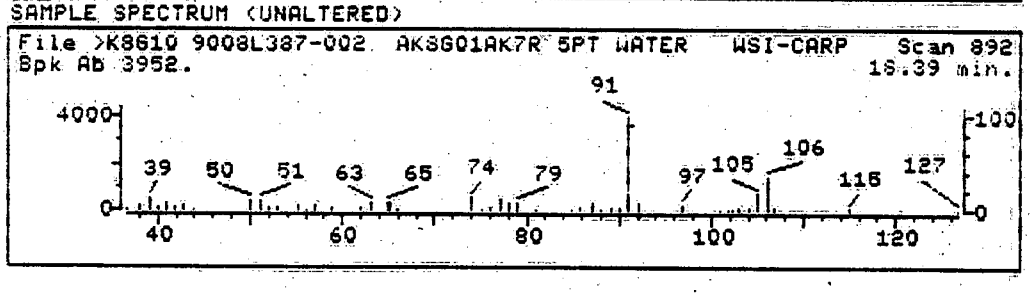
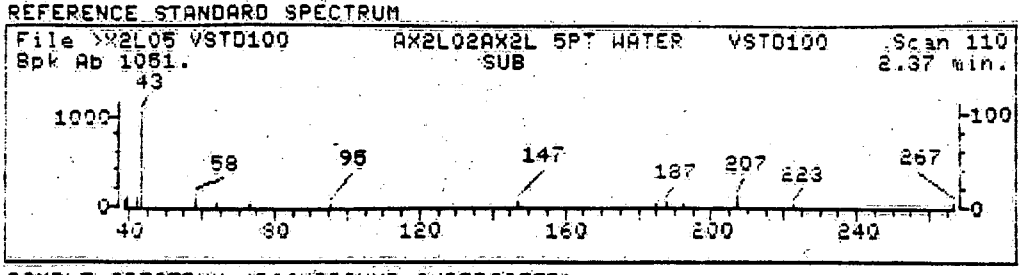


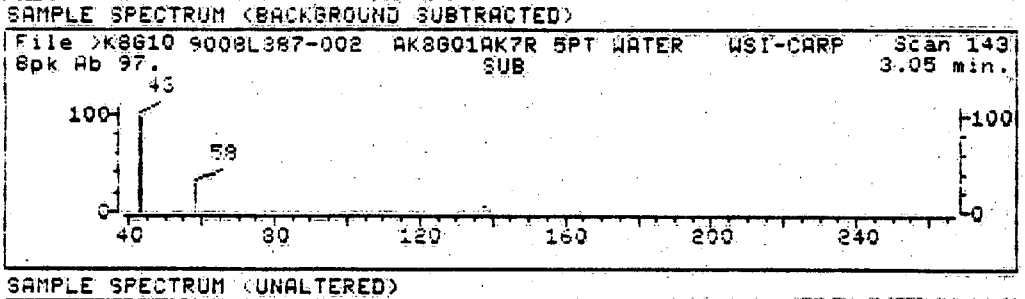
Data File: >K8G10::D2 Quant Output File: ^K8G10::QQ
Name: 9008L387-002 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Quant Time: 900816 20:08 Quant ID File: I_K8GA::QQ
Injected at: 900816 19:43 Last Calibration: 900816 16:04

Compound No: 43
Compound Name: XYLENES (TOTAL)
Scan Number: 892
Retention Time: 18.39 min.
Quant Ion: 106.0
Area: 12684
Concentration: 12.55 ug/L
q-value: 84

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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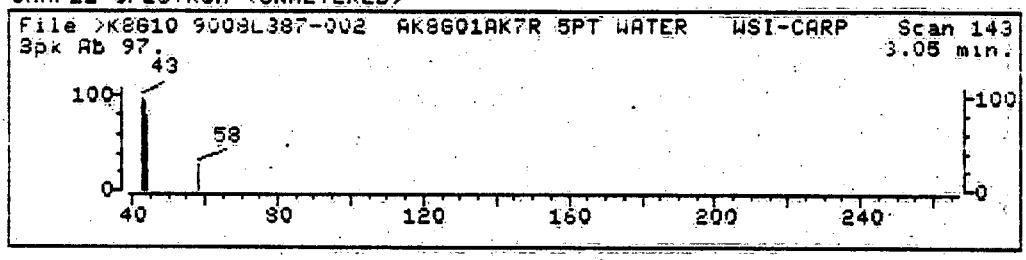
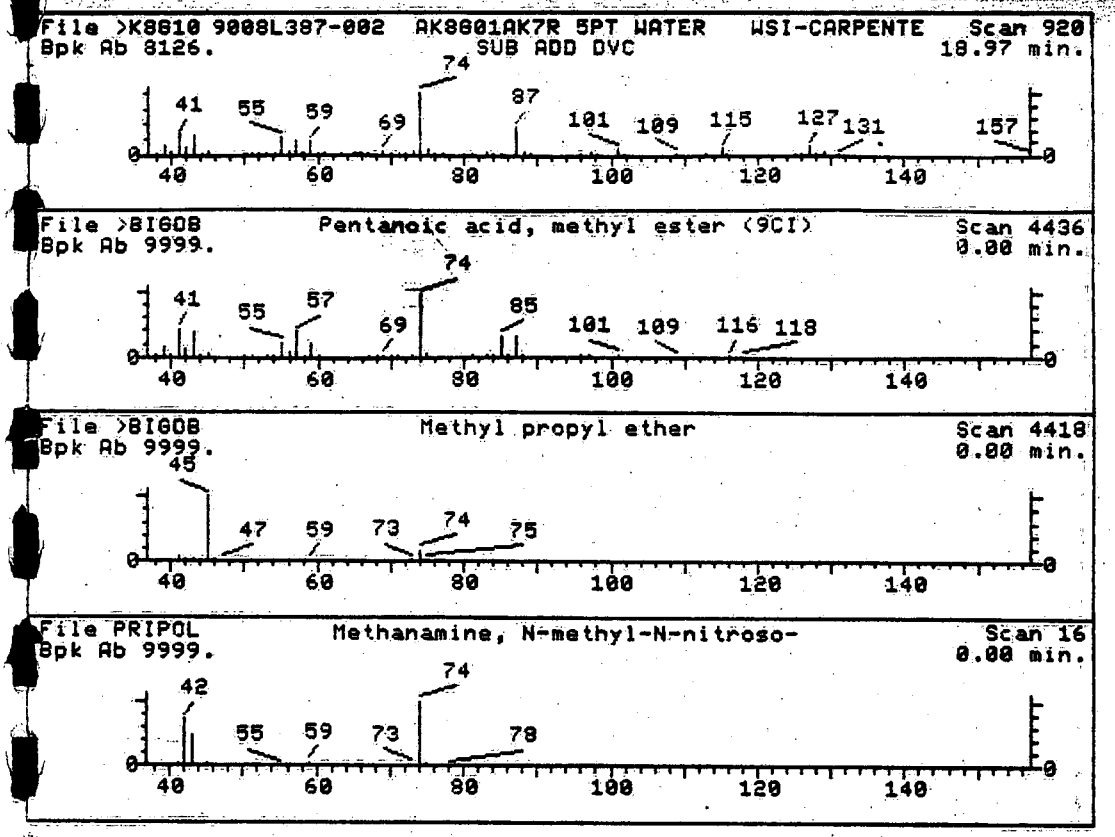


Data File: >K8G10::D2 Quant Output File: ^K8G10::QQ
Name: 9008L387-002 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Quant Time: 900816 20:08 Quant ID File: I_K8GA::QQ
Injected at: 900816 19:43 Last Calibration: 900816 16:04

Compound No: 10
Compound Name: ACETONE
Scan Number: 143
Retention Time: 3.05 min.
Quant Ion: 43.0
Area: 779
Concentration: 5.65 ug/L
q-value: 64



UNKNOWN #,2

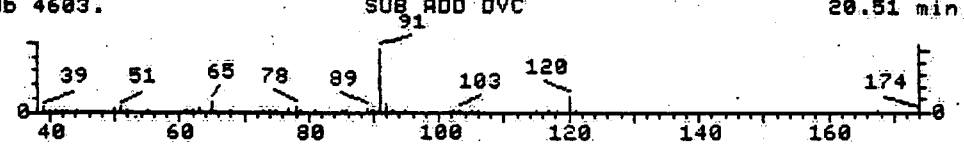
AREA = 1510737. TENTATIVE CONCENTRATION IS 200.00

1. Pentanoic acid, methyl ester (9CI) 116 C6H12O2
2. Methyl propyl ether 74 C4H10O
3. Methanamine, N-methyl-N-nitroso- 74 C2H6N2O

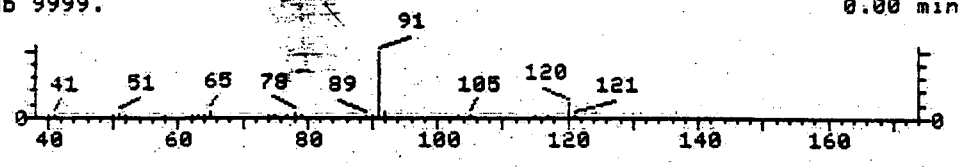
Sample file: >K8G10 Spectrum #: 920
Search speed: 2 Tilting option: N No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	52*	624[illegible]	4436	"BIGDB	34	66	3	0	100	18	20	13
2.	15*	557-[illegible]	4418	"BIGDB	20	49	2	0	505	56	3	13
3.	15*	16	79	PRIPOL	22	55	1	0	68	56	3	14

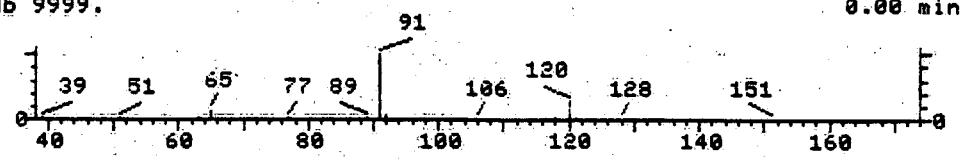
File >K8610 9008L387-002 AK9G01AK7R 5PT WATER WSI-CARPENTE Scan 995
Bpk Ab 4603. SUB ADD DVC 20.51 min.



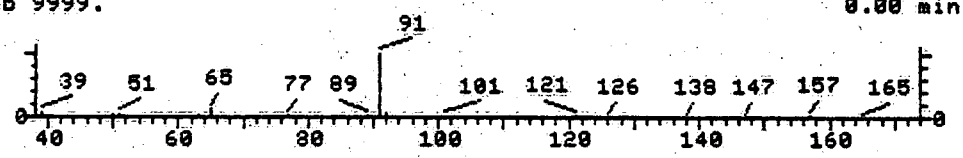
File >BIGDB Benzene, propyl- (8CI9CI) Scan 12261
Bpk Ab 9999. 0.00 min.



File >BIGDB Ethanol, 2-[(phenylmethyl)amino]- (9CI) Scan 12262
Bpk Ab 9999. 0.00 min.



File >BIGDB Phosphonous dichloride, (phenylmethyl)- (9CI) Scan 7624
Bpk Ab 9999. 0.00 min.



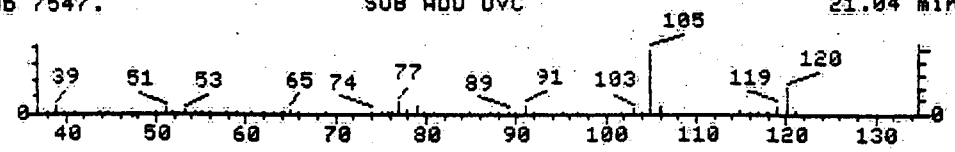
UNKNOWN #,3
AREA = 102654.0 TENTATIVE CONCENTRATION IS 14.00

1.	Benzene, propyl- (8CI9CI)	120	C9H12
2.	Ethanol, 2-[(phenylmethyl)amino]- (9CI)	151	C9H13NO
3.	Phosphonous dichloride, (phenylmethyl)- (9CI)	192	C7H7Cl2P
4.	Benzene, (iodomethyl)- (9CI)	218	C7H7I
5.	Thiocyanic acid, phenylmethyl ester (9CI)	149	C8H7NS
6.	Benzeneacetaldehyde (9CI)	120	C8H8O

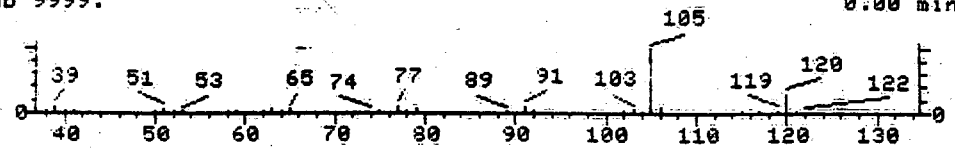
Sample file: >K8G10 Spectrum #: 995
Search speed: 2 Tilting option: N No. of ion ranges searched: 49

	Prob.	[illegible]	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	87*	103651	12261	"BIGDB	57	28	2	0	100	3	63	43
2.	76	104632	12262	"BIGDB	55	24	1	0	87	10	45	22
3.	52	4545851	7624	"BIGDB	43	47	2	0	100	20	20	13
4.	43	620053	7623	"BIGDB	40	44	2	0	100	22	17	14
5.	42	3012371	7633	"BIGDB	39	39	2	0	97	22	17	13
6.	15*	122781	12263	"BIGDB	27	52	2	0	35	58	3	14

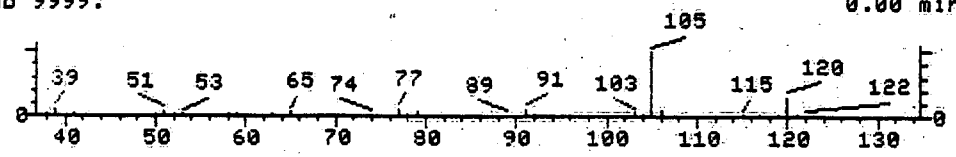
File >K8G10 9008L387-002 AK8G01AK7R 5PT WATER WSI-CARPENTE Scan 1021
Bpk Ab 7547. SUB ADD DVC 21.04 min.



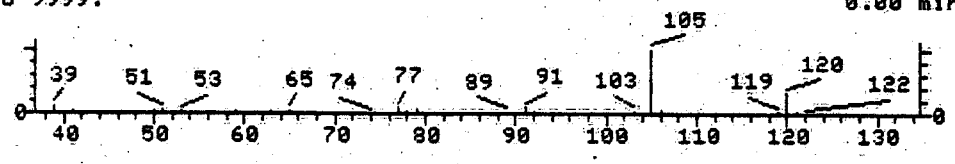
File >BIGDB Benzene, 1-ethyl-4-methyl- (9CI) Scan 12268
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-2-methyl- (9CI) Scan 12266
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-3-methyl- (9CI) Scan 12267
Bpk Ab 9999. 0.00 min.

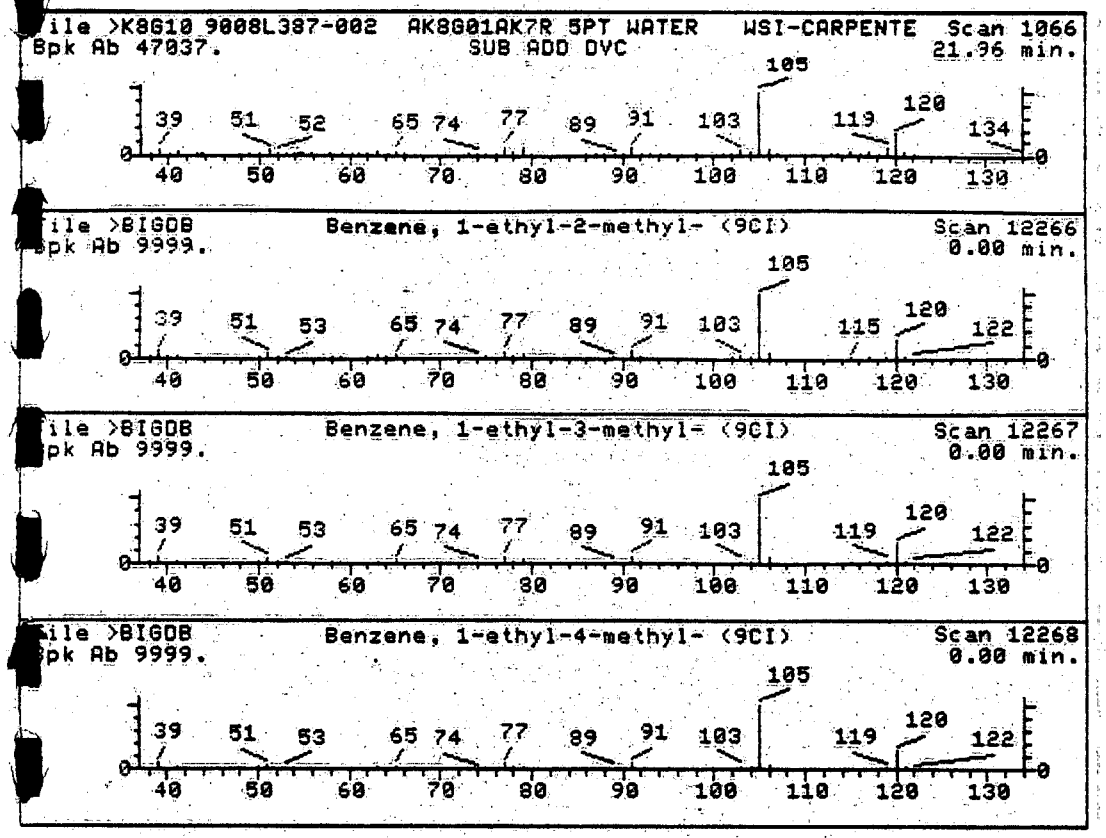


UNKNOWN #,4
AREA = 223634.0 TENTATIVE CONCENTRATION IS 30.00

1.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
2.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
3.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
4.	Benzene, 1,2,4-trimethyl- (8CI9CI)	120	C9H12
5.	Benzene, 1,3,5-trimethyl- (9CI)	120	C9H12
6.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12
7.	Benzene, 1,1'-(1-methyl-1,2-ethanediyl)bis- (9CI)	196	C15H16

Sample file: >K8G10 Spectrum #: 1021
Search speed: 2 Tilting option: N No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	95*	622968	12268	"BIGDB	73	12	0	0	100	8	68	95
2.	94*	611143	12266	"BIGDB	69	16	0	0	84	20	60	94
3.	86*	620144	12267	"BIGDB	68	19	1	0	100	7	59	76
4.	71*	95636	12273	"BIGDB	66	29	1	0	62	27	29	66
5.	67*	108678	12275	"BIGDB	58	30	1	0	59	30	27	55
6.	62*	526738	12280	"BIGDB	56	44	0	0	53	41	18	67



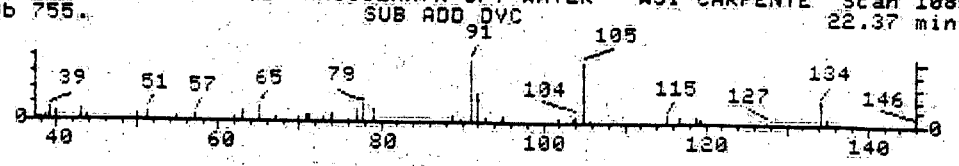
UNKNOWN #,5
AREA = 1304466. TENTATIVE CONCENTRATION IS 180.00

1.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
2.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
3.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
4.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12
5.	Benzene, (1-methylethyl)- (9CI)	120	C9H12
6.	Benzene, 1,2,4-trimethyl- (8CI9CI)	120	C9H12
7.	Benzene, 1,3,5-trimethyl- (9CI)	120	C9H12

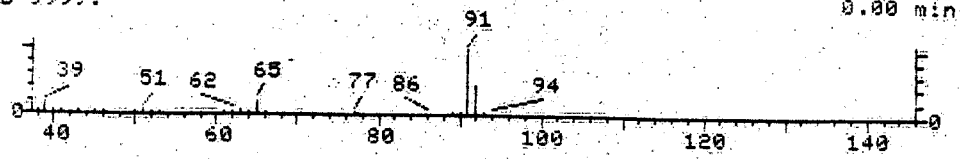
Sample file: >K8G10 Spectrum #: 1066
Search speed: 2 Tilting option: N No. of ion ranges searched: 53

	Prob.	CAS #	CON	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	94*	611143	12266	"BIGDB	75	10	1	0	95	10	68	93
2.	94*	620144	12267	"BIGDB	75	12	1	0	95	8	68	93
3.	93*	622968	12268	"BIGDB	74	11	1	0	95	10	68	92
4.	91*	526738	12280	"BIGDB	80	20	0	0	57	32	50	94
5.	79*	98828	12259	"BIGDB	65	22	1	0	95	14	43	69
6.	74*	95636	12273	"BIGDB	66	29	0	0	53	37	28	78

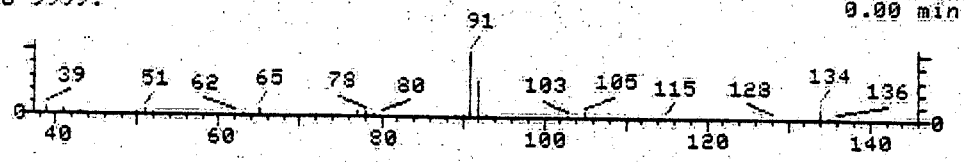
File >K8G10 9008L387-002 AK8G01AK7R 5PT WATER WSI-CARPENTE Scan 1086
Bpk Ab 755. SUB ADD DVC 22.37 min.



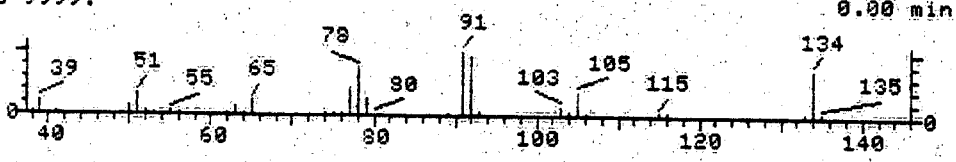
File >BIGDB 1,3,5-Cycloheptatriene (8CI9CI) Scan 7652
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, butyl- (8CI9CI) Scan 14458
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzenepropanal (9CI) Scan 4846
Bpk Ab 9999. 0.00 min.



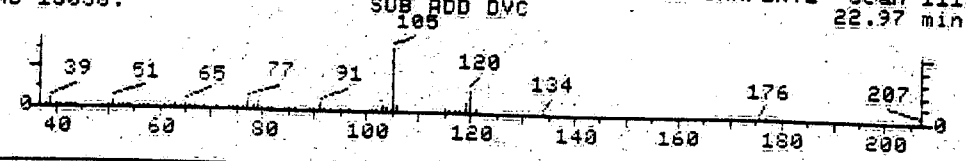
UNKNOWN #,6
AREA = 55801.00 TENTATIVE CONCENTRATION IS 8.00

1.	1,3,5-Cycloheptatriene (8CI9CI)	92	C7H8
2.	Benzene, butyl- (8CI9CI)	134	C10H14
3.	Benzenepropanal (9CI)	134	C9H10O
4.	Oxirane, 2-methyl-2-phenyl- (9CI)	134	C9H10O
5.	Benzene, methyl-	92	C7H8
6.	Cyclobutene, 2-propenylidene- (9CI)	92	C7H8
7.	Benzene, (2-methylpropyl)- (9CI)	134	C10H14

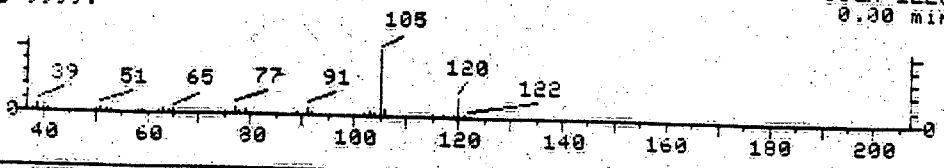
Sample file: >K8G10 Spectrum #: 1086
Search speed: 2 Tilting option: N No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	28*	544252	7652	"BIGDB	49	36	2	0	100	53	8	30
2.	25*	104518	14458	"BIGDB	25	63	1	0	85	49	7	14
3.	25*	104530	4846	"BIGDB	27	91	3	0	50	46	7	13
4.	25*	2085883	14468	"BIGDB	22	89	3	0	96	49	7	12
5.	24*	40	136	PRIPOL	29	17	0	0	78	55	7	21
6.	20*	52097855	7657	"BIGDB	31	48	2	0	100	55	5	15

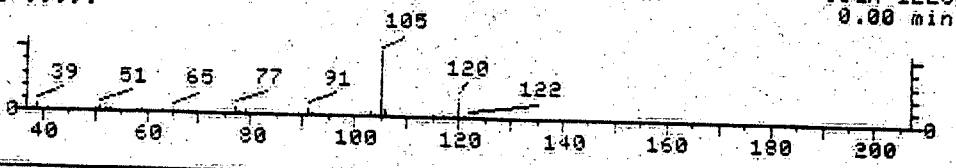
File >K8G10 9008L397-002 AK8G01AK7R 5PT WATER WSI-CARPENTE Scan 1115
Bpk Ab 16038. SUB ADD DVC 22.97 min.



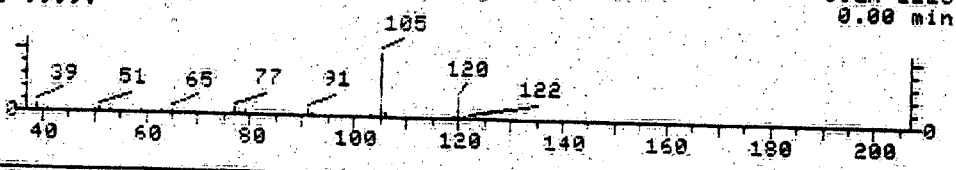
File >BIGDB Benzene, 1-ethyl-4-methyl- (9CI) Scan 12268
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-2-methyl- (9CI) Scan 12266
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-3-methyl- (9CI) Scan 12267
Bpk Ab 9999. 0.00 min.



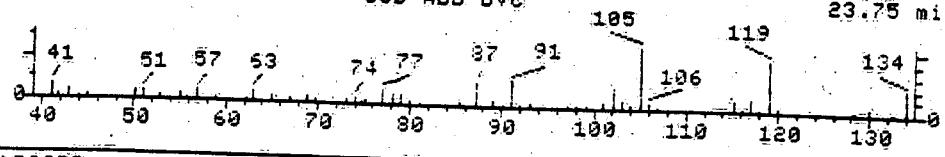
UNKNOWN #,7
AREA = 565102.0 TENTATIVE CONCENTRATION IS 76.00

1. Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
2. Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
3. Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
4. Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12
5. Benzene, 1,2,4-trimethyl- (8CI9CI)	120	C9H12
6. Benzene, (1-methylethyl)- (9CI)	120	C9H12
7. Benzene, 1,3,5-trimethyl- (9CI)	120	C9H12

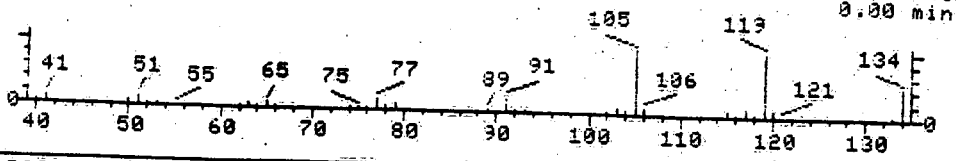
Sample file: >K8G10 Spectrum #: 1115
Search speed: 2 Tilting option: N No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	93*	622968	12268	"BIGDB	75	10	1	0	100	14	64	93
2.	93*	611143	12266	"BIGDB	75	10	1	0	96	14	64	93
3.	93*	620144	12267	"BIGDB	75	12	1	0	97	12	64	93
4.	91*	526738	12280	"BIGDB	82	18	0	0	65	35	50	94
5.	87*	95636	12273	"BIGDB	71	24	0	0	50	35	40	89
6.	79*	98828	12259	"BIGDB	70	17	2	0	100	14	43	61

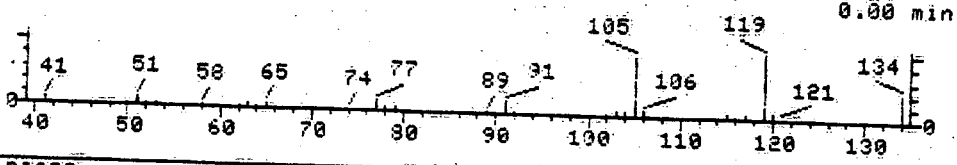
File >K8G10 9008L387-002 AK8G01AK7R 5PT WATER WSI-CARPENTE Scan 1153
Bpk Ab 1475. SUB ADD DVC 23.75 min.



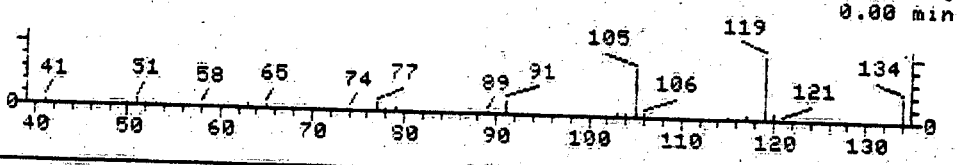
File >BIGDB
Bpk Ab 9999. Benzene, 1,2-diethyl- (9CI) Scan 14481
0.00 min.



File >BIGDB
Bpk Ab 9999. Benzene, 1,3-diethyl- (9CI) Scan 14482
0.00 min.



File >BIGDB
Bpk Ab 9999. Benzene, 1,4-diethyl- (9CI) Scan 14480
0.00 min.

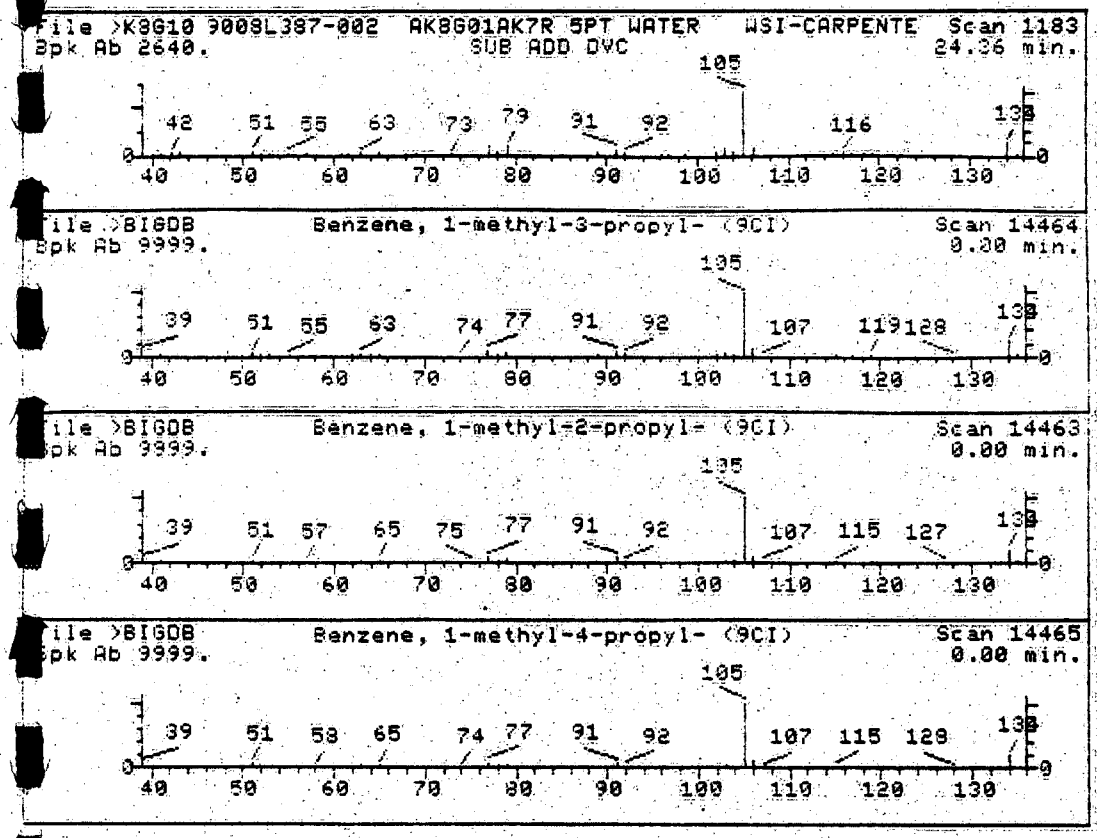


UNKNOWN #,8
AREA = 102165.0 TENTATIVE CONCENTRATION IS 14.00

1. Benzene, 1,2-diethyl- (9CI)	134	C10H14
2. Benzene, 1,3-diethyl- (9CI)	134	C10H14
3. Benzene, 1,4-diethyl- (9CI)	134	C10H14
4. 1,4-Cyclohexadiene, 3-ethenyl-1,2-dimethyl- (9CI)	134	C10H14
5. Benzene, 1,2,3,5-tetramethyl- (8CI9CI)	134	C10H14
6. Benzene, 1,2,3,4-tetramethyl- (8CI9CI)	134	C10H14
7. Benzene, diethyl- (8CI9CI)	134	C10H14

Sample file: >K8G10 Spectrum #: 1153
Search speed: 2 Tilting option: N No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	76*	135013	14481	"BIGDB	67	39	0	0	64	40	37	80
2.	74*	141935	14482	"BIGDB	73	29	1	0	80	28	37	72
3.	49*	105055	14480	"BIGDB	49	51	0	0	63	50	13	59
4.	25*	62338572	12184	"BIGDB	50	59	3	0	83	50	7	14
5.	24*	527537	14485	"BIGDB	41	52	1	0	63	55	7	23
6.	20*	488233	14484	"BIGDB	28	66	2	0	83	54	5	14



UNKNOWN #,9

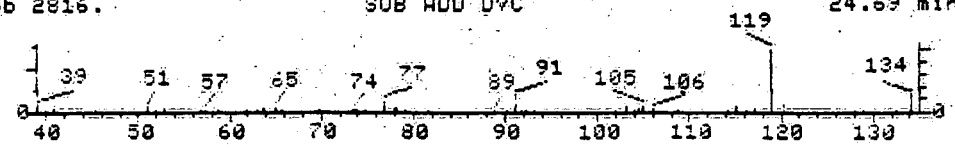
AREA = 61806.00 TENTATIVE CONCENTRATION IS 8.00

1. Benzene, 1-methyl-3-propyl- (9CI) 134 C10H14
2. Benzene, 1-methyl-2-propyl- (9CI) 134 C10H14
3. Benzene, 1-methyl-4-propyl- (9CI) 134 C10H14
4. Benzeneacetaldehyde, .alpha.-methyl- (9CI) 134 C9H10O
5. Benzene, (1-methylpropyl)- (9CI) 134 C10H14
6. Benzene, 1,1'-(1,2-dimethyl-1,2-ethanediyl)bis-, (R*,R*)-(.+-.)- (9CI) 210 C16H18
7. Benzene, 1,1'-(1,2-dimethyl-1,2-ethanediyl)bis-, (R*,S*)- (9CI) 210 C16H18

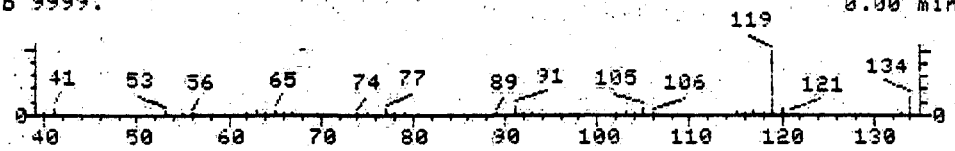
Sample file: >K8G10 Spectrum #: 1183
Search speed: 2 Tilting option: N No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	79*	1074437	14464	"BIGDB	60	27	1	0	73	15	43	60
2.	74*	1074175	14463	"BIGDB	52	33	1	0	92	13	39	44
3.	71*	1074551	14465	"BIGDB	47	36	1	0	100	15	38	32
4.	60*	93538	14455	"BIGDB	35	59	3	0	100	13	30	13
5.	58*	135988	14459	"BIGDB	46	40	2	0	100	17	25	26
6.	38	2726218	9756	"BIGDB	45	40	2	0	100	29	14	15

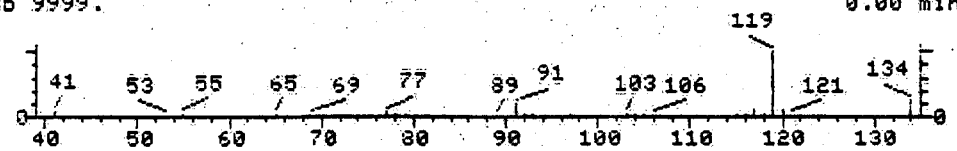
File >K8G10 9008L387-002 AK9G01AK7R 5PT WATER WSI-CARPENTE Scan 1199
Bpk Ab 2816. SUB ADD DVC 24.69 min.



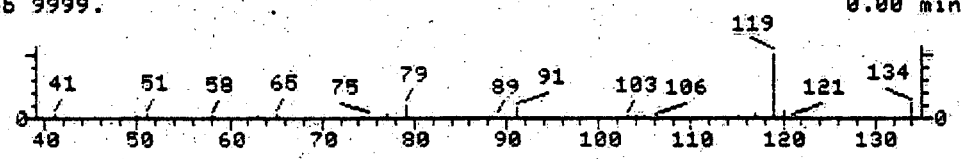
File >BIGDB Benzene, 4-ethyl-1,2-dimethyl- (9CI) Scan 12173
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, methyl(1-methylethyl)- (9CI) Scan 12177
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-methyl-2-(1-methylethyl)- (9CI) Scan 12169
Bpk Ab 9999. 0.00 min.



UNKNOWN #, 10
AREA = 93726.00 TENTATIVE CONCENTRATION IS 13.00

1. Benzene, 4-ethyl-1,2-dimethyl- (9CI) 134 C10H14
2. Benzene, methyl(1-methylethyl)- (9CI) 134 C10H14
3. Benzene, 1-methyl-2-(1-methylethyl)- (9CI) 134 C10H14
4. Benzene, 2-ethyl-1,3-dimethyl- (9CI) 134 C10H14
5. Benzene, 1-methyl-3-(1-methylethyl)- (9CI) 134 C10H14
6. Benzene, 1-ethyl-2,3-dimethyl- (9CI) 134 C10H14
7. Benzene, 2-ethyl-1,4-dimethyl- (9CI) 134 C10H14

Sample file: >K8G10 Spectrum #: 1199
Search speed: 2 Tilting option: N No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	81*	934805	12173	"BIGDB	57	36	2	0	92	10	53	41
2.	79*	25155151	12177	"BIGDB	52	38	2	0	100	10	48	35
3.	79*	527844	12169	"BIGDB	51	41	2	0	100	10	48	33
4.	76*	2870044	12174	"BIGDB	46	43	1	0	96	10	45	29
5.	76*	535773	12170	"BIGDB	45	44	2	0	100	10	45	24
6.	71*	933982	12172	"BIGDB	47	44	1	0	84	14	38	32

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 072

MW-3

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER Lab Sample ID: 9008L387-003

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: AK8G11

Level: (low/med) LOW Date Received: 08/15/90

% Moisture: not dec. _____ Date Analyzed: 08/16/90

Column: (pack/cap) CAP Dilution Factor: 10.0

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

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

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 073

MW-3

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-003

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

Lab File ID: AK8G11

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. ____

Date Analyzed: 08/16/90

Column: (pack/cap) CAP

Dilution Factor: 10.0

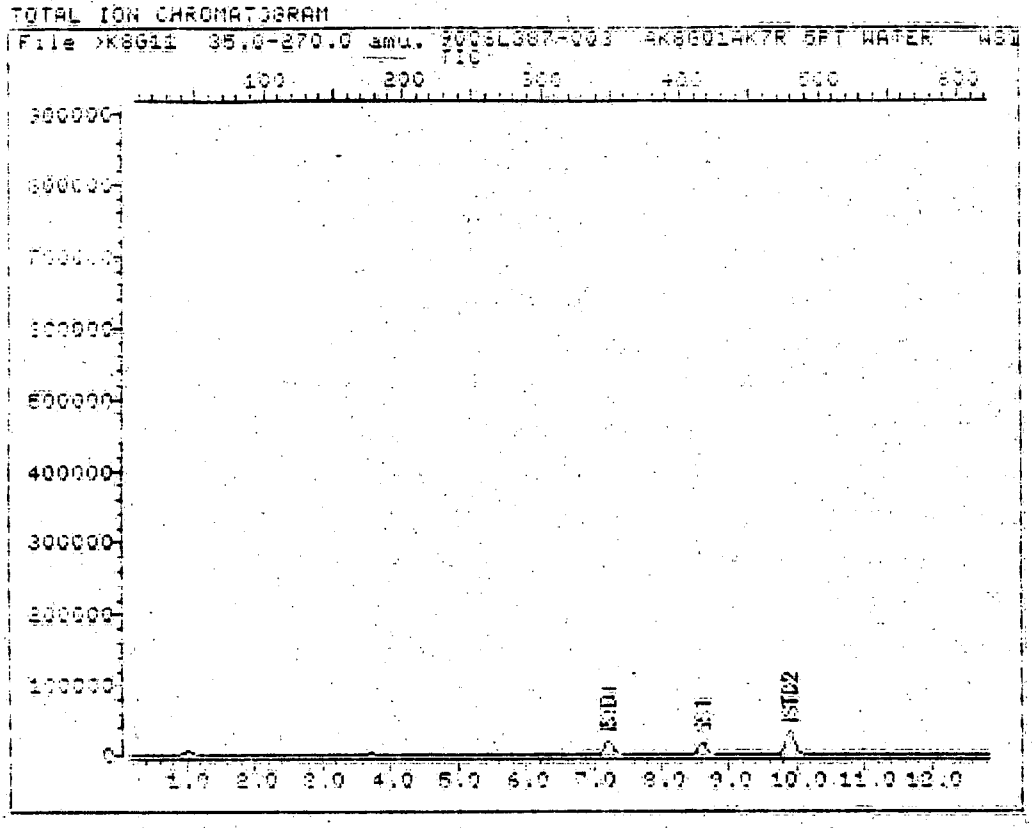
Number TICs found: 10

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ACETONE	3.01	150	C
2.	UNKNOWN	19.09	2000	J
3.	UNKNOWN	20.24	40	J
4.	UNKNOWN BENZENE	20.52	50	J
5.	C3 BENZENE	20.79	100	J
6.	C3 BENZENE	21.04	100	J
7.	ALKANE	21.55	60	J
8.	C3 BENZENE	21.96	300	J
9.	C3 BENZENE	22.94	80	J
10.	UNKNOWN	23.33	80	J

C: Response Factor from daily standard.

TOTAL ION CHROMATOGRAM

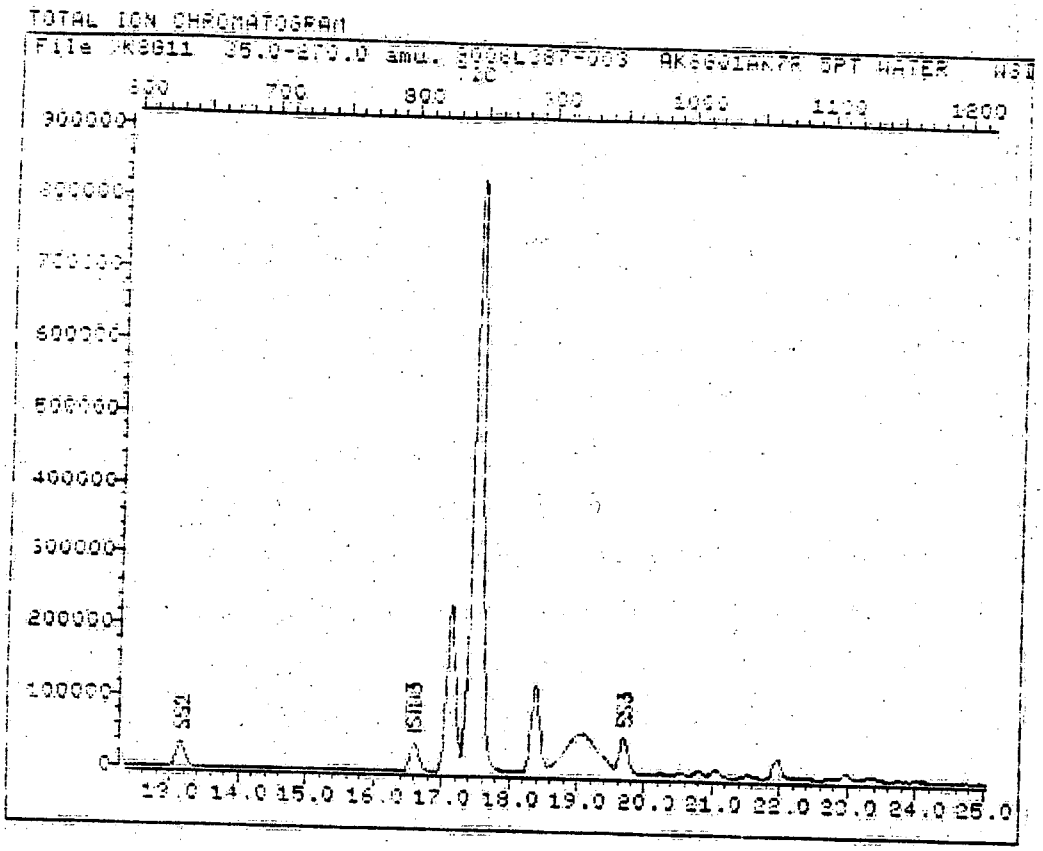


Data File: >K8G11::D2 Quant Output File: ^K8G11::QQ
Name: 9008L387-003 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=10 #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 20:41
Injected at: 900816 20:15

TIC page 1 of 2



Data File: >K8G11::D2 Quant Output File: ^K8G11::QQ
Name: 9008L387-003 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=10 #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 20:41
Injected at: 900816 20:15

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4 Quant Rev: 6 Quant Time: 900816 20:41
Output File: ^K8G11::QQ Injected at: 900816 20:15
Data File: >K8G11::D2 Dilution Factor: 1.00000
Name: 9008L387-003 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=10 #HP-MSD K B

ID File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.20	128.0	24002	50.00	ug/L	49
10)	ACETONE	3.01	43.0	2051	14.60	ug/L	78
11)	METHYLENE CHLORIDE	3.72	84.0	5957	8.99	ug/L	88
21)	*1,4-DIFLUOROBENZENE	9.89	114.0	117869	50.00	ug/L	66
23)	1,2-DICHLOROETHANE D4	8.60	65.0	64400	47.30	ug/L	85
29)	*CHLOROBENZENE-D5	16.58	117.0	101154	50.00	ug/L	97
31)	TOLUENE D8	13.16	98.0	114376	52.39	ug/L	95
40)	ETHYLBENZENE	17.12	106.0	239838	248.92	ug/L	97
42)	XYLENE	17.51	106.0	1142672	1016.32	ug/L	94
43)	XYLENES (TOTAL)	18.39	106.0	148494	140.80	ug/L	85
45)	4-BROMOFLUOROBENZENE	19.68	95.0	88797	49.91	ug/L	96

* Compound is ISTD

total Xylenes
1016.32
140.80
1157.12

MS data file header from : >K8G11

ample: 9008L387-003 AK8G01 Operator: USER4 SUPER GRP. 8/16/90 20:15
isc : AK7R 5PT WATER WSI-CARPENTER DF=10 #HP-MSD K B 077
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: LOWV2 Tuning file: MT8102 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

Chromatographic temperatures :	6.	106.	0.	0.	0.
Chromatographic times, min. :	5.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	2.5	0.0

K8G11 9008L387-003 AK8G01AK7R 5PT WATER WSI-CARPENTER DF=10
35.0| 270.0 CLP ADC TIC
Upslope: .20 Area Reject: 17369. Max Peaks: 10 Bunching: 1
Dnslope: 0.00 Results File IK8G11 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	19.09	904	926	947	54780	1959495	1748133	100.00	72.183
2	20.24	975	982	989	2742	77524	28485	1.63	1.176
3	20.52	989	996	1003	4421	84212	39096	2.24	1.614
4	20.79	1003	1009	1015	8509	109694	73089	4.18	3.018
5	21.04	1015	1021	1033	10230	133873	101407	5.80	4.187
6	21.55	1037	1046	1053	4584	79537	45042	2.58	1.860
7	21.96	1056	1066	1078	26866	293595	246308	14.09	10.170
8	22.33	1082	1084	1096	2584	47505	21102	1.21	.871
9	22.94	1109	1114	1122	7461	97208	59843	3.42	2.471
10	23.33	1126	1133	1147	3955	104798	59315	3.39	2.449

Sum of corrected areas: 2421820.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	173690.	7.20	.14 - 8.55
2	50.0	316499.	9.89	8.55 - 13.23
3	50.0	360542.	16.58	13.23 - 25.04

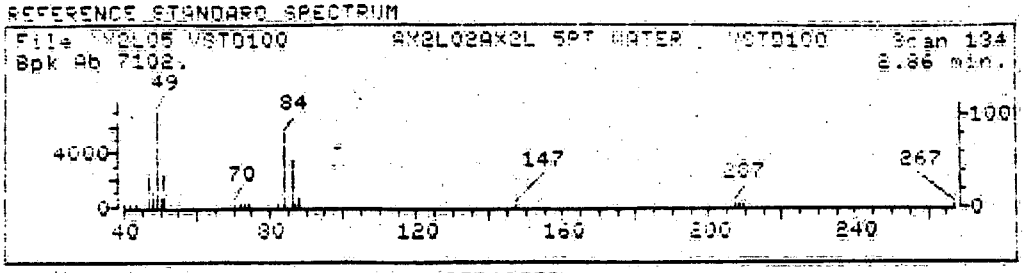
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

Correction Factor = 1.00 = (AM / AU) / (DF * FS)

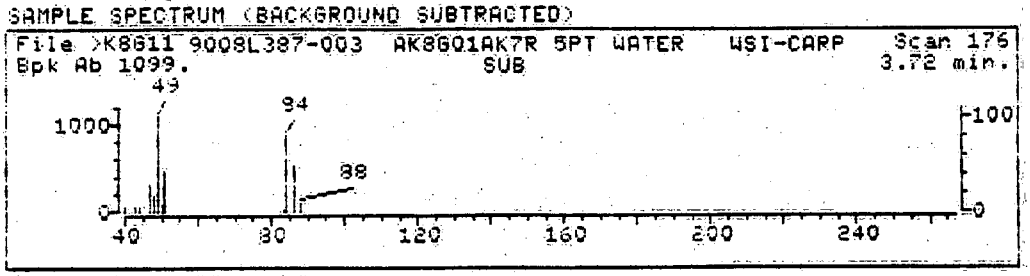
$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

4:34 PM FRI., 17 AUG., 1990

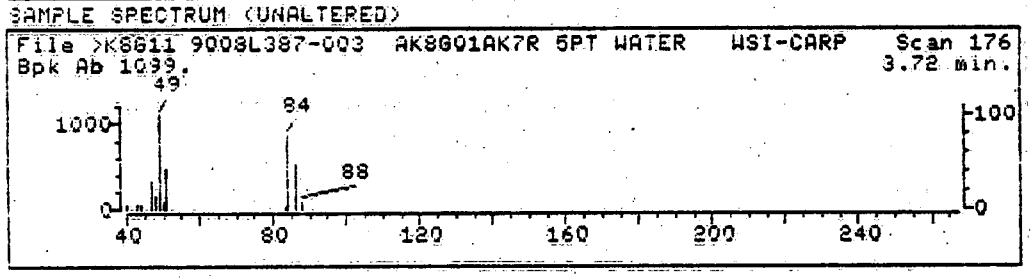
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



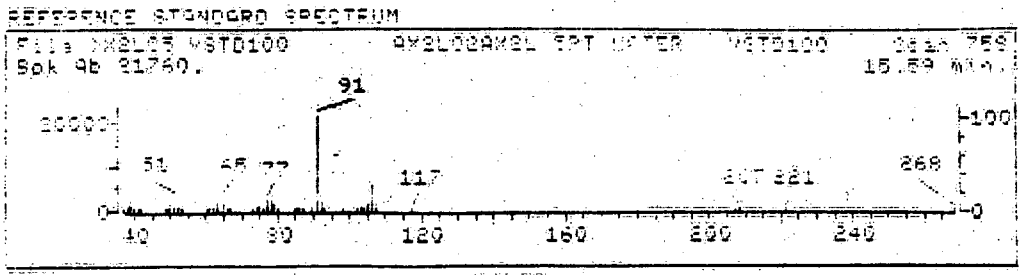
SAMPLE SPECTRUM (UNALTERED)



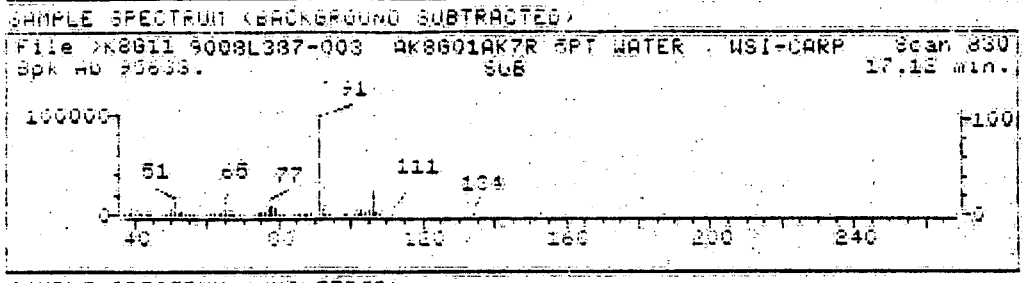
Data File: >K8G11::D2 Quant Output File: ^K8G11::QQ
Name: 9008L387-003 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=10 #HP-MSD K B
Quant Time: 900816 20:41 Quant ID File: I_K8GA::QQ
Injected at: 900816 20:15 Last Calibration: 900816 16:04

Compound No: 11
Compound Name: METHYLENE CHLORIDE
Scan Number: 176
Retention Time: 3.72 min.
Quant Ion: 84.0
Area: 5957
Concentration: 8.99 ug/L
q-value: 88

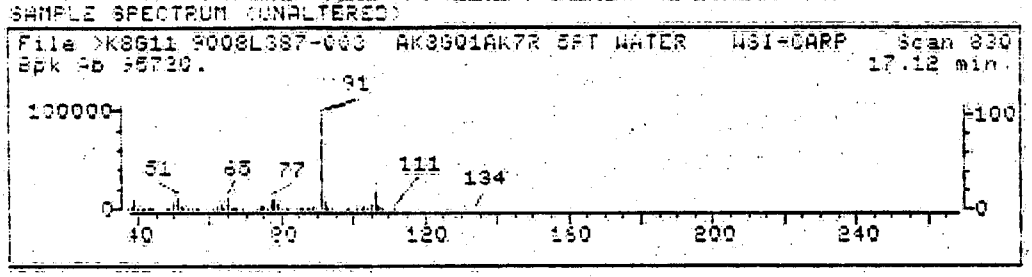
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



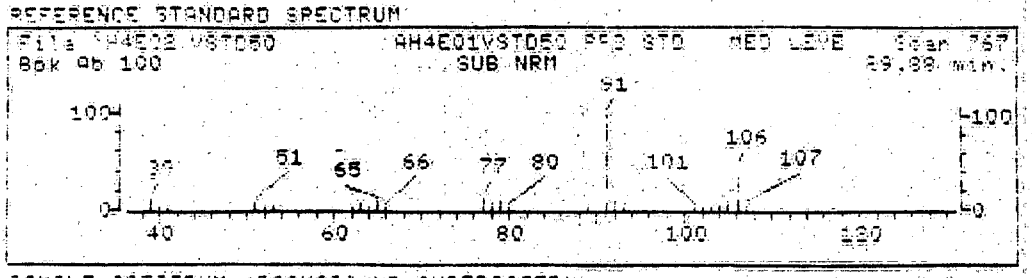
SAMPLE SPECTRUM (UNALTERED)



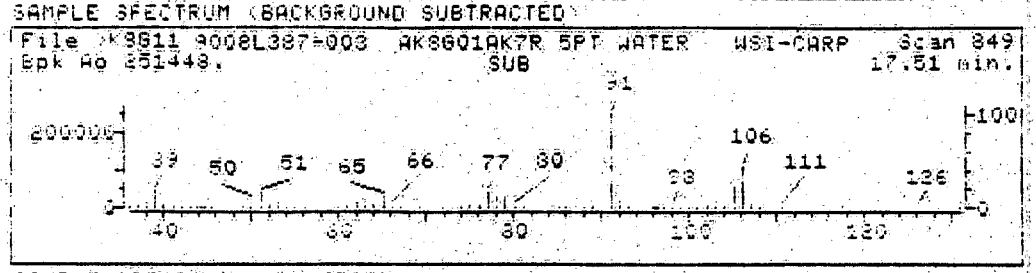
Data File: >K8G11::D2 Quant Output File: ^K8G11::QQ
Name: 9008L387-003 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=10 #HP-MSD K B
Quant Time: 900816 20:41 Quant ID File: I_K8GA::QQ
Injected at: 900816 20:15 Last Calibration: 900816 16:04

Compound No: 40
Compound Name: ETHYLBENZENE
Scan Number: 830
Retention Time: 17.12 min.
Quant Ion: 106.0
Area: 239838
Concentration: 248.92 ug/L
q-value: 97

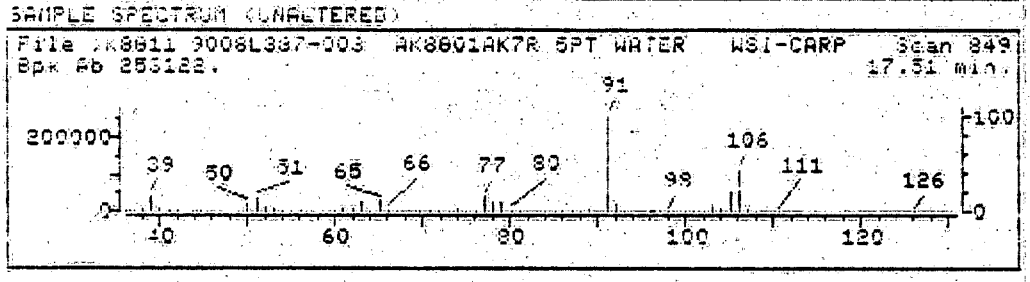
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



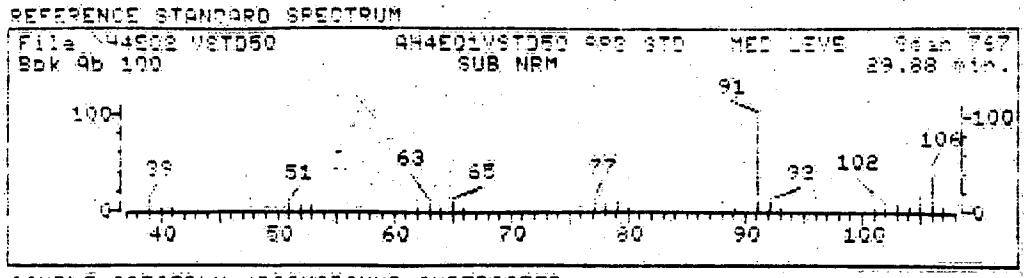
SAMPLE SPECTRUM (UNALTERED)



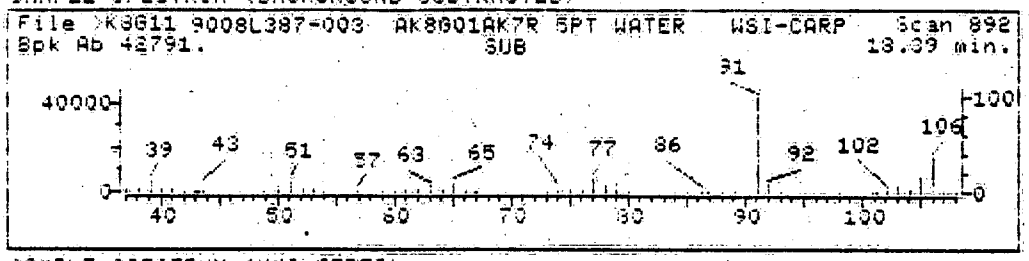
Data File: >K8G11::D2 Quant Output File: ^K8G11::QQ
Name: 9008L387-003 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=10 #HP-MSD K B
Quant Time: 900816 20:41 Quant ID File: I_K8GA::QQ
Injected at: 900816 20:15 Last Calibration: 900816 16:04

Compound No: 42
Compound Name: XYLENE
Scan Number: 849
Retention Time: 17.51 min.
Quant Ion: 106.0
Area: 1142672
Concentration: 1016.32 ug/L
q-value: 94

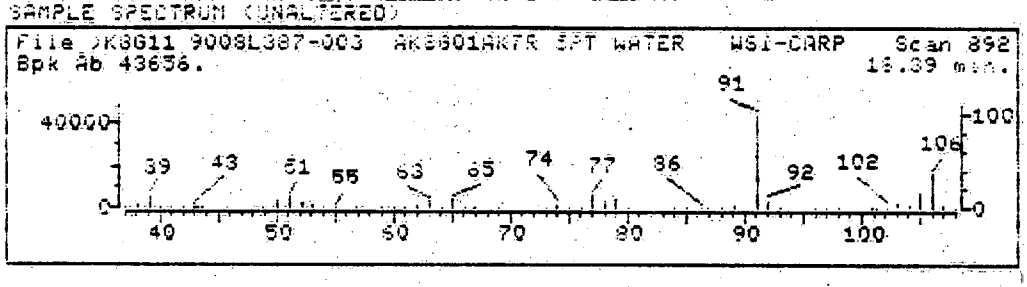
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



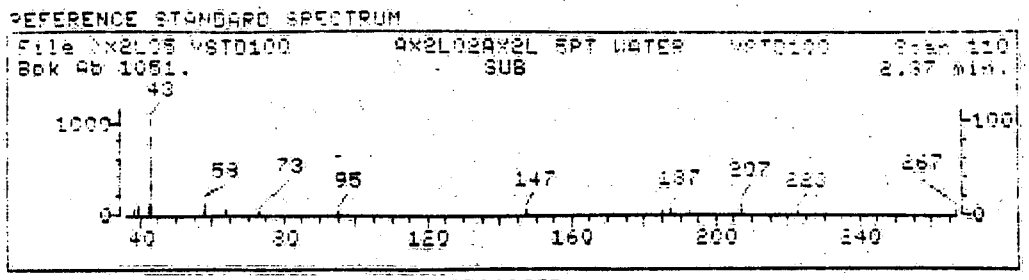
SAMPLE SPECTRUM (UNALTERED)



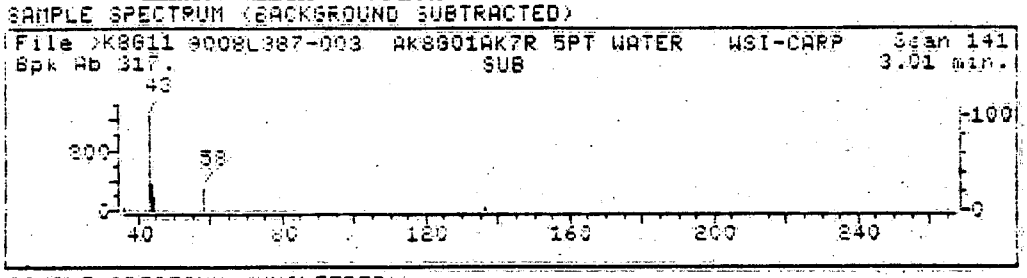
Data File: >K8G11::D2 Quant Output File: ^K8G11::QQ
Name: 9008L387-003 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=10 #HP-MSD K B
Quant Time: 900816 20:41 Quant ID File: I_K8GA::QQ
Injected at: 900816 20:15 Last Calibration: 900816 16:04

Compound No: 43
Compound Name: XYLENES (TOTAL)
Scan Number: 892
Retention Time: 18.39 min.
Quant Ion: 106.0
Area: 148494
Concentration: 140.80 ug/L
q-value: 85

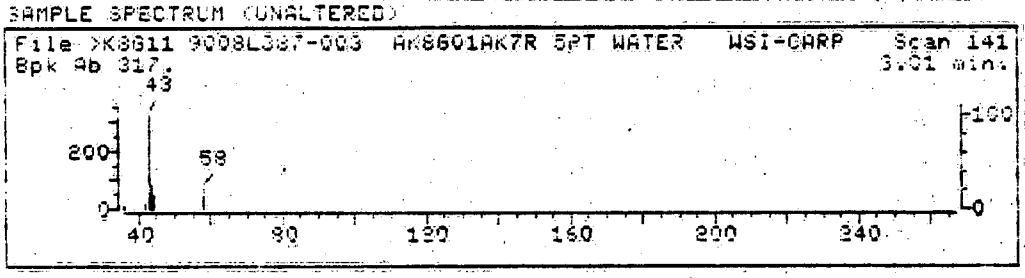
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

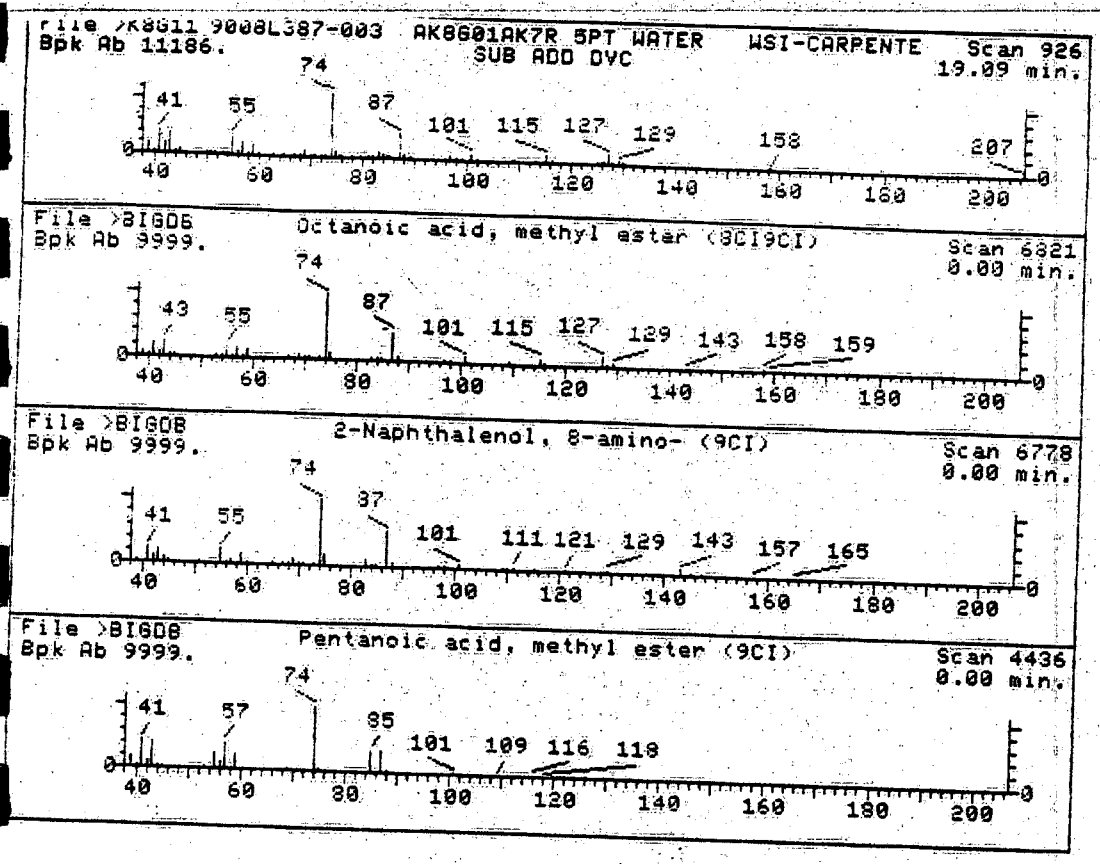


SAMPLE SPECTRUM (UNALTERED)



Data File: >K8G11::D2 Quant Output File: ^K8G11::QQ
Name: 9008L387-003 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=10 #HP-MSD K B
Quant Time: 900816 20:41 Quant ID File: I_K8GA::QQ
Injected at: 900816 20:15 Last Calibration: 900816 16:04

Compound No: 10
Compound Name: ACETONE
Scan Number: 141
Retention Time: 3.01 min.
Quant Ion: 43.0
Area: 2051
Concentration: 14.60 ug/L
q-value: 78

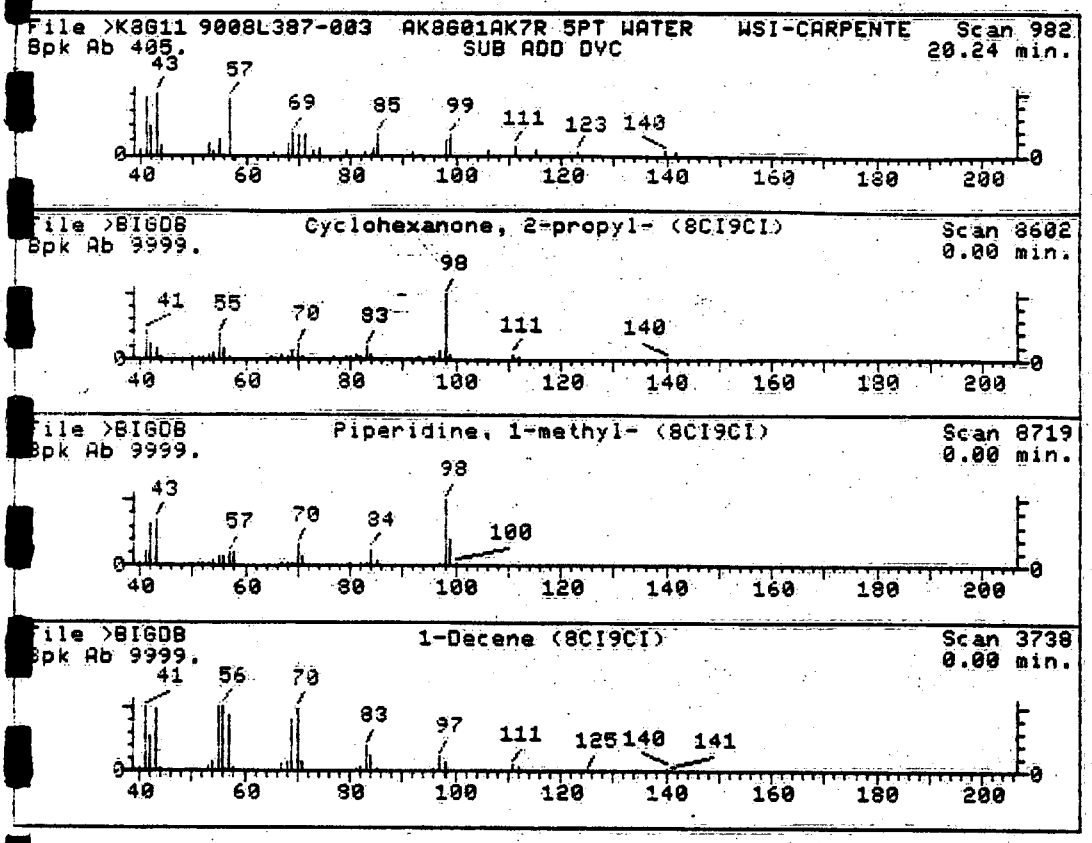


. UNKNOWN #, 1
AREA = 1748133. TENTATIVE CONCENTRATION IS 240.00

1. Octanoic acid, methyl ester (8CI9CI)	158	C9H18O2
2. 2-Naphthalenol, 8-amino- (9CI)	159	C10H9NO
3. Pentanoic acid, methyl ester (9CI)	116	C6H12O2
4. Methanamine, N-methyl-N-nitroso-	74	C2H6N2O
5. Methyl propyl ether	74	C4H10O

Sample file: >K8G11 Spectrum #: 926
Search speed: 2 Tilting option: N No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	83	111115	6821	"BIGDB	79	18	2	0	87	1	57	29
2.	60	118467	6778	"BIGDB	55	46	2	0	74	14	30	12
3.	52*	624248	4436	"BIGDB	34	66	3	0	100	19	20	13
4.	20*	16	79	PRIPOL	29	48	1	0	67	51	5	16
5.	20*	557175	4418	"BIGDB	20	49	2	0	511	51	5	13



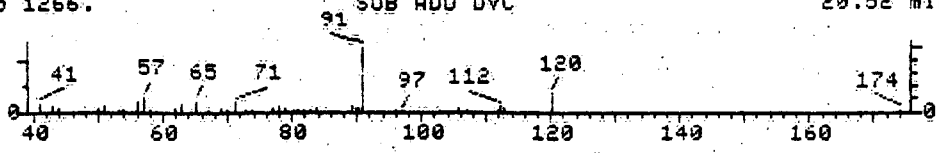
UNKNOWN #,2
AREA = 28485.00 TENTATIVE CONCENTRATION IS 4.00

1.	Cyclohexanone, 2-propyl- (8CI9CI)	140	C9H16O
2.	Piperidine, 1-methyl- (8CI9CI)	99	C6H13N
3.	1-Decene (8CI9CI)	140	C10H20
4.	Cyclopropane, 1-ethyl-2-pentyl- (9CI)	140	C10H20
5.	Cyclopropane, 1-hexyl-2-methyl- (9CI)	140	C10H20
6.	1-Heptene (8CI9CI)	98	C7H14

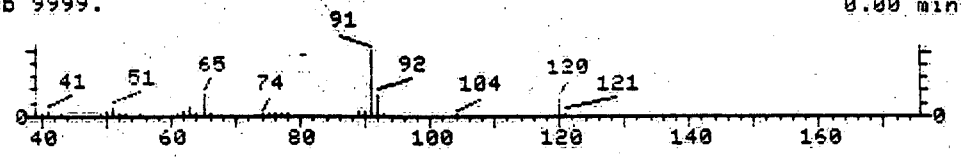
Sample file: >K8G11 Spectrum #: 982
Search speed: 2 Tilting option: N No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	94655	8602	"BIGDB	31	66	3	0	218	44	8	13
2.	24*	626675	8719	"BIGDB	24	82	3	0	77	44	8	12
3.	20*	872059	3738	"BIGDB	27	94	3	0	90	55	5	13
4.	15*	62238088	3757	"BIGDB	25	83	3	0	106	59	3	13
5.	15*	62238099	3758	"BIGDB	25	84	3	0	121	59	3	13
6.	11*	592767	3578	"BIGDB	33	65	3	0	89	61	2	13

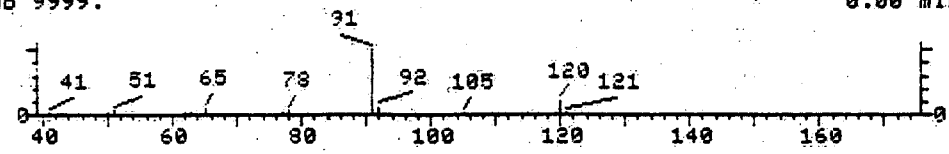
File >K8G11 9008L387-003 AK8G01AK7R 5PT WATER WSI-CARPENTE Scan 996
Bpk Ab 1266. SUB ADD DVC 20.52 min.



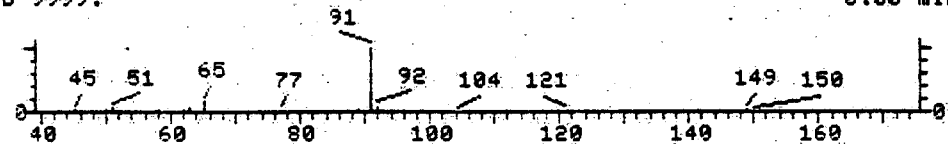
File >BIGDB Benzeneacetaldehyde (9CI) Scan 12263
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, propyl- (8CI9CI) Scan 12261
Bpk Ab 9999. 0.00 min.



File >BIGDB Thiocyanic acid, phenylmethyl ester (9CI) Scan 7633
Bpk Ab 9999. 0.00 min.

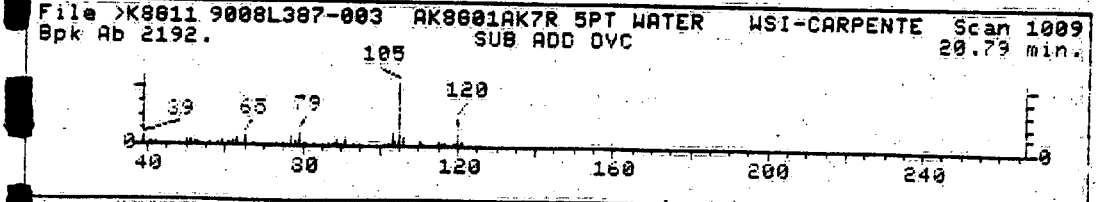


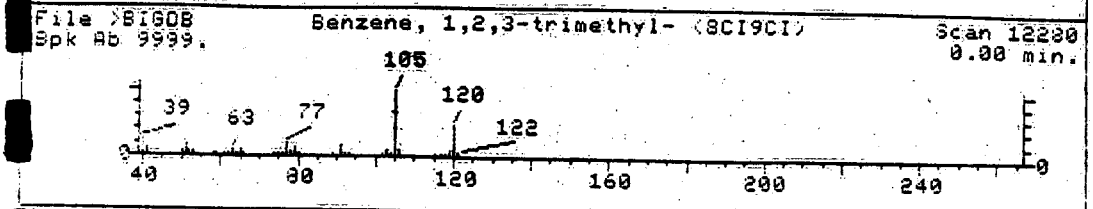
UNKNOWN #,3
AREA = 39096.00 TENTATIVE CONCENTRATION IS 5.00

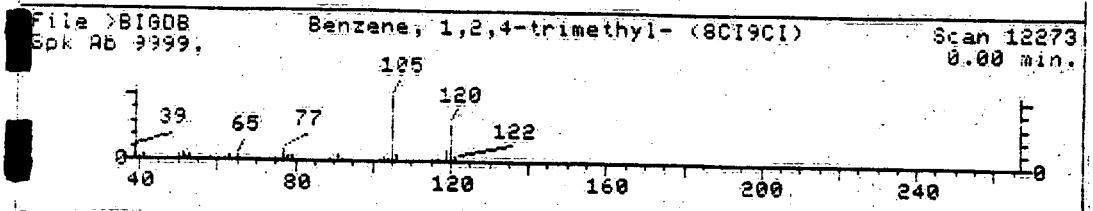
1. Benzeneacetaldehyde (9CI) 120 C8H8O
2. Benzene, propyl- (8CI9CI) 120 C9H12
3. Thiocyanic acid, phenylmethyl ester (9CI) 149 C8H7NS

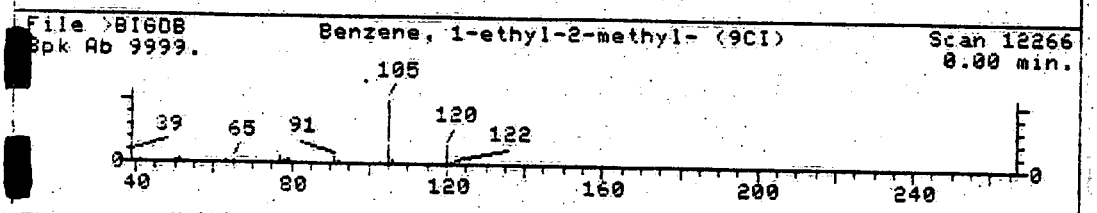
Sample file: >K8G11 Spectrum #: 996
Search speed: 2 Tilting option: N No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	70*	122781	12263	"BIGDB	27	67	3	0	100	10	42	13
2.	52*	103651	12261	"BIGDB	29	56	3	0	100	17	20	13
3.	43	301237[illegible]	7633	"BIGDB	43	35	2	0	100	25	17	14









UNKNOWN #,4

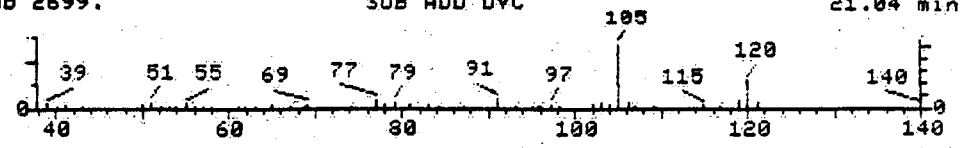
AREA = 73089.00 TENTATIVE CONCENTRATION IS 10.00

1.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120 C9H12
2.	Benzene, 1,2,4-trimethyl- (8CI9CI)	120 C9H12
3.	Benzene, 1-ethyl-2-methyl- (9CI)	120 C9H12
4.	Benzene, 1-ethyl-3-methyl- (9CI)	120 C9H12
5.	1,3-Cyclopentadiene, 5-(1-methylpropylidene)- (9CI)	120 C9H12
6.	Benzene, 1,3,5-trimethyl- (9CI)	120 C9H12
7.	1,3,5-Cycloheptatriene, 7-ethyl- (8CI9CI)	120 C9H12

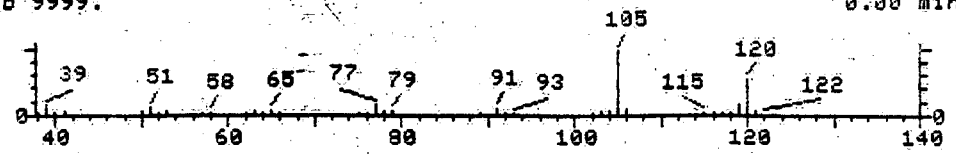
Sample file: >K8G11 Spectrum #: 1009
Search speed: 2 Tilting option: N No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	71*	526738	12280	"BIGDB	59	41	2	0	78	12	38	36
2.	71*	95636	12273	"BIGDB	56	39	2	0	79	15	38	36
3.	71*	611143	12266	"BIGDB	49	36	2	0	100	13	38	30
4.	67*	620144	12267	"BIGDB	44	43	2	0	100	13	34	23
5.	60*	3141024	12286	"BIGDB	48	56	3	0	72	12	30	13
6.	60*	108678	12275	"BIGDB	37	51	2	0	69	13	30	18

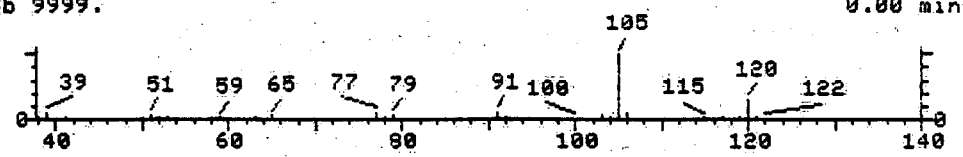
File >K8811 9008L387-003 AK8801AK7R 5PT WATER WSI-CARPENTE Scan 1021
Bpk Ab 2699. SUB ADD DVC 21.04 min.



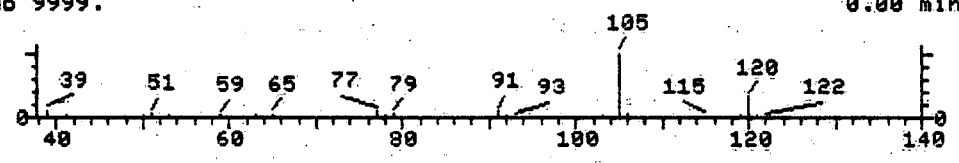
File >BIGDB Benzene, 1,2,4-trimethyl- (8CI9CI) Scan 12273
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-2-methyl- (9CI) Scan 12266
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-3-methyl- (9CI) Scan 12267
Bpk Ab 9999. 0.00 min.

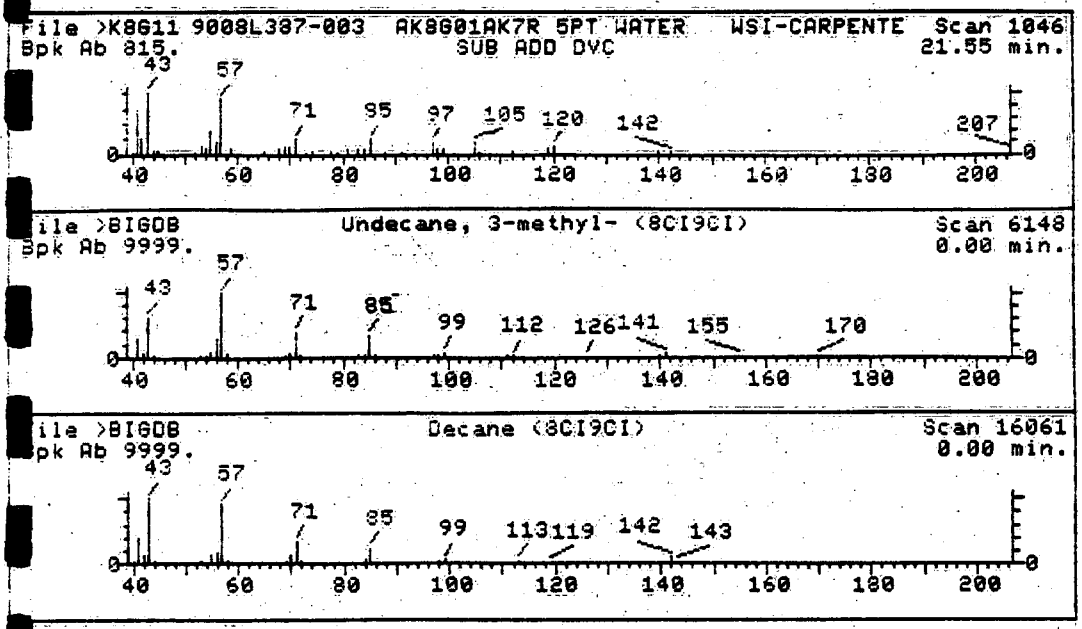


UNKNOWN #,5
AREA = 101407.0 TENTATIVE CONCENTRATION IS 14.00

1.	Benzene, 1,2,4-trimethyl- (8CI9CI)	120	C9H12
2.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
3.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
4.	Benzene, 1,3,5-trimethyl- (9CI)	120	C9H12
5.	1,3-Cyclopentadiene, 5-(1-methylpropylidene)- (9CI)	120	C9H12
6.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
7.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12

Sample file: >K8G11 Spectrum #: 1021
Search speed: 2 Tilting option: N No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C	R	IV
1.	88*	95636	12273	"BIGDB	71	24	2	0	69	4	65		57
2.	81*	611143	12266	"BIGDB	60	25	2	0	100	10	53		46
3.	81*	620144	12267	"BIGDB	60	27	2	0	100	9	53		46
4.	79*	108678	12275	"BIGDB	52	36	2	0	68	6	48		35
5.	78*	3141024	12286	"BIGDB	52	52	3	0	70	3	55		15
6.	76*	622968	12268	"BIGDB	48	37	2	0	100	10	45		28



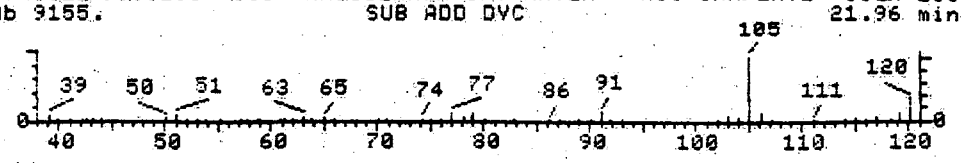
UNKNOWN #,6
AREA = 45042.00 TENTATIVE CONCENTRATION IS 6.00

1. Undecane, 3-methyl- (8CI9CI) 170 C12H26
2. Decane (8CI9CI) 142 C10H22

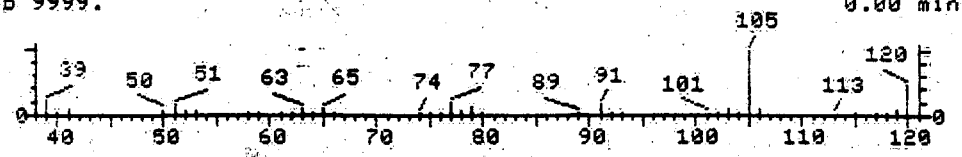
Sample file: >K8G11 Spectrum #: 1046
Search speed: 2 Tilting option: N No. of ion ranges searched: 62

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	20	1002433	6148	"BIGDB	43	45	2	0	61	55	5	14
2.	11	124185	16061	"BIGDB	55	45	2	0	74	61	2	14

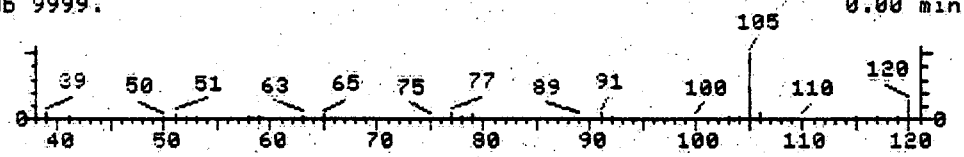
File >K8G11 9008L387-003 AK8601AK7R 5PT WATER WSI-CARPENTE Scan 1066
Bpk Ab 9155. SUB ADD DYC 21.96 min.



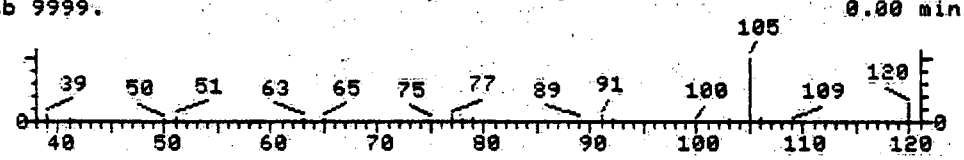
File >BIGDB Benzene, 1,2,3-trimethyl- (8CI9CI) Scan 12280
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-4-methyl- (9CI) Scan 12268
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-2-methyl- (9CI) Scan 12266
Bpk Ab 9999. 0.00 min.



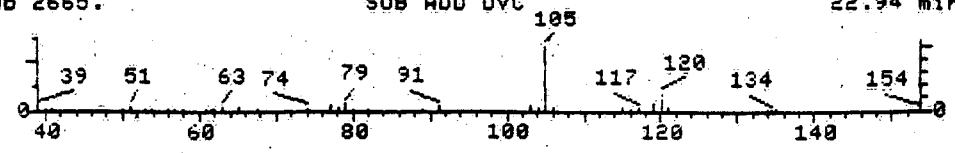
UNKNOWN #,7
AREA = 246308.0 TENTATIVE CONCENTRATION IS 34.00

1.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12
2.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
3.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
4.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
5.	Benzene, (1-methylethyl)- (9CI)	120	C9H12
6.	Benzene, 1,2,4-trimethyl- (8CI9CI)	120	C9H12
7.	Benzene, 1,3,5-trimethyl- (9CI)	120	C9H12

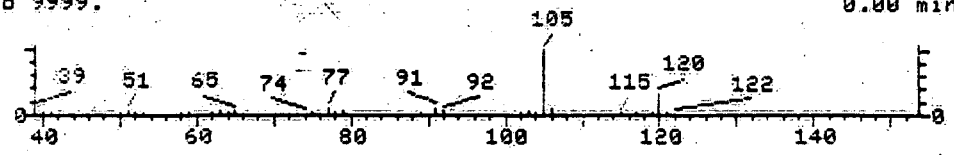
Sample file: >K8G11 Spectrum #: 1066
Search speed: 2 Fitting option: N No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	[redacted]		ILT	%	CON	C_I	R_IV
1.	90*	526738	12280	"BIGDB	75	25	0	0	65	31	50	93
2.	89*	622968	12268	"BIGDB	68	17	1	0	92	10	62	80
3.	84*	611143	12266	"BIGDB	70	15	2	0	100	10	55	61
4.	84*	620144	12267	"BIGDB	70	17	2	0	100	8	55	61
5.	75*	98828	12259	"BIGDB	52	35	0	0	74	20	35	63
6.	69*	95636	12273	"BIGDB	62	33	1	0	61	32	26	60

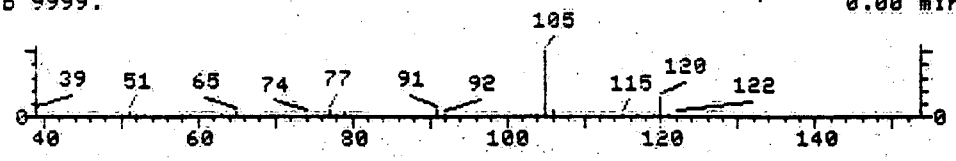
File >K8811 9008L387-003 AK8601AK7R 5PT WATER WSI-CARPENTE Scan 1114
Bpk Ab 2665. SUB ADD DVC 22.94 min.



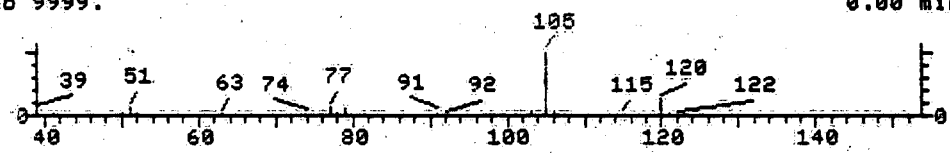
File >BIGDB Benzene, 1-ethyl-3-methyl- (9CI) Scan 12267
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, 1-ethyl-4-methyl- (9CI) Scan 12268
Bpk Ab 9999. 0.00 min.



File >BIGDB Benzene, (1-methylethyl)- (9CI) Scan 12259
Bpk Ab 9999. 0.00 min.

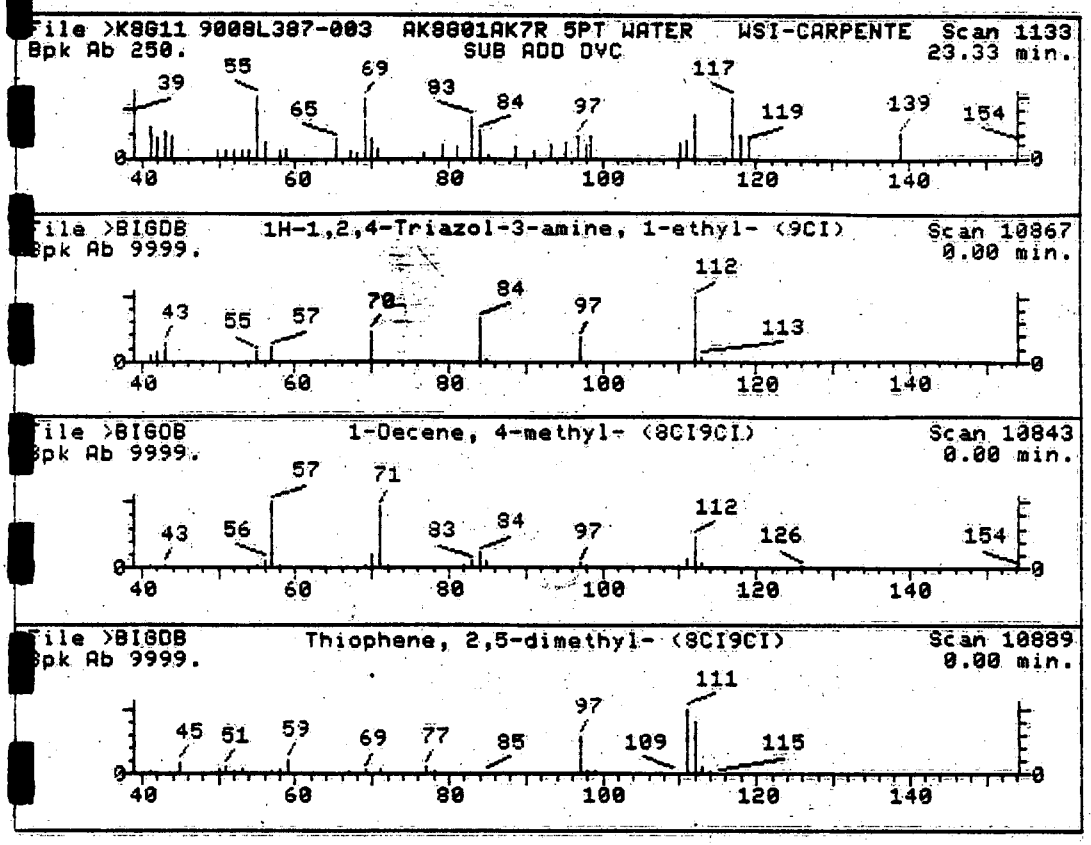


UNKNOWN #,9
AREA = 59843.00 TENTATIVE CONCENTRATION IS 8.00

1.	Benzene, 1-ethyl-3-methyl- (9CI)	120	C9H12
2.	Benzene, 1-ethyl-4-methyl- (9CI)	120	C9H12
3.	Benzene, (1-methylethyl)- (9CI)	120	C9H12
4.	Benzene, 1-ethyl-2-methyl- (9CI)	120	C9H12
5.	Benzene, 1,2,3-trimethyl- (8CI9CI)	120	C9H12
6.	Benzene, 1-methyl-3-propyl- (9CI)	134	C10H14
7.	Benzene, 1,2,4-trimethyl- (8CI9CI)	120	C9H12

Sample file: >K8[redacted] Spectrum #: 1114
Search speed: 2 [redacted] Tilting option: N No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG [redacted]		CON	C_I	R_IV
1.	79*	620144	12267	"BIGDB	50	37	2	0	91	10	48	31
2.	71*	622968	12268	"BIGDB	50	35	2	0	100	12	38	31
3.	67*	98828	12259	"BIGDB	42	45	2	0	100	14	34	22
4.	67*	611143	12266	"BIGDB	45	40	2	0	97	12	34	24
5.	39*	526738	12280	"BIGDB	49	51	2	0	61	32	16	22
6.	36	1074437	14464	"BIGDB	41	46	2	0	100	28	14	13



UNKNOWN #, 10
AREA = 59315.00 TENTATIVE CONCENTRATION IS 8.00

1.	1H-1,2,4-Triazol-3-amine, 1-ethyl- (9CI)	112	C4H8N4
2.	1-Decene, 4-methyl- (8CI9CI)	154	C11H22
3.	Thiophene, 2,5-dimethyl- (8CI9CI)	112	C6H8S
4.	Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2S-cis) - (9CI)	154	C10H18O
5.	Cyclohexanone, 5-methyl-2-(1-methylethyl)-, trans- (9CI)	154	C10H18O
6.	Cyclohexanone, 5-methyl-2-(1-methylethyl)-, (2R-cis) - (9CI)	154	C10H18O
7.	2-Cyclopentene-1-thione, 3-methyl- (8CI9CI)	112	C6H8S

Sample file: >K8G[redacted] Spectrum #: 1133
[redacted]d: 2 [redacted]illing option: N[redacted] No. of ion ranges [redacted] 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	11*	42786049	10867	"BIGDB	27	65	2	0	67	65	2	14
2.	11*	13151296	10843	"BIGDB	31	71	3	0	160	61	2	13
3.	11*	638028	10889	"BIGDB	24	86	3	0	66	65	2	12
4.	11*	18309289	10956	"BIGDB	25	91	3	0	101	61	2	13
5.	11*	89805	10947	"BIGDB	24	93	2	0	74	65	2	14
6.	11*	1196312	10951	"BIGDB	24	98	2	0	74	65	2	14

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 092

MW-3DL

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-003 DL

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

Lab File ID: AK8H06

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. _____

Date Analyzed: 08/17/90

Column: (pack/cap) CAP

Dilution Factor: 100

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	2400	
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)	14000	

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 093

MW-3DL

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-003 DL

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

Lab File ID: AK8H06

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. ____

Date Analyzed: 08/17/90

Column: (pack/cap) CAP

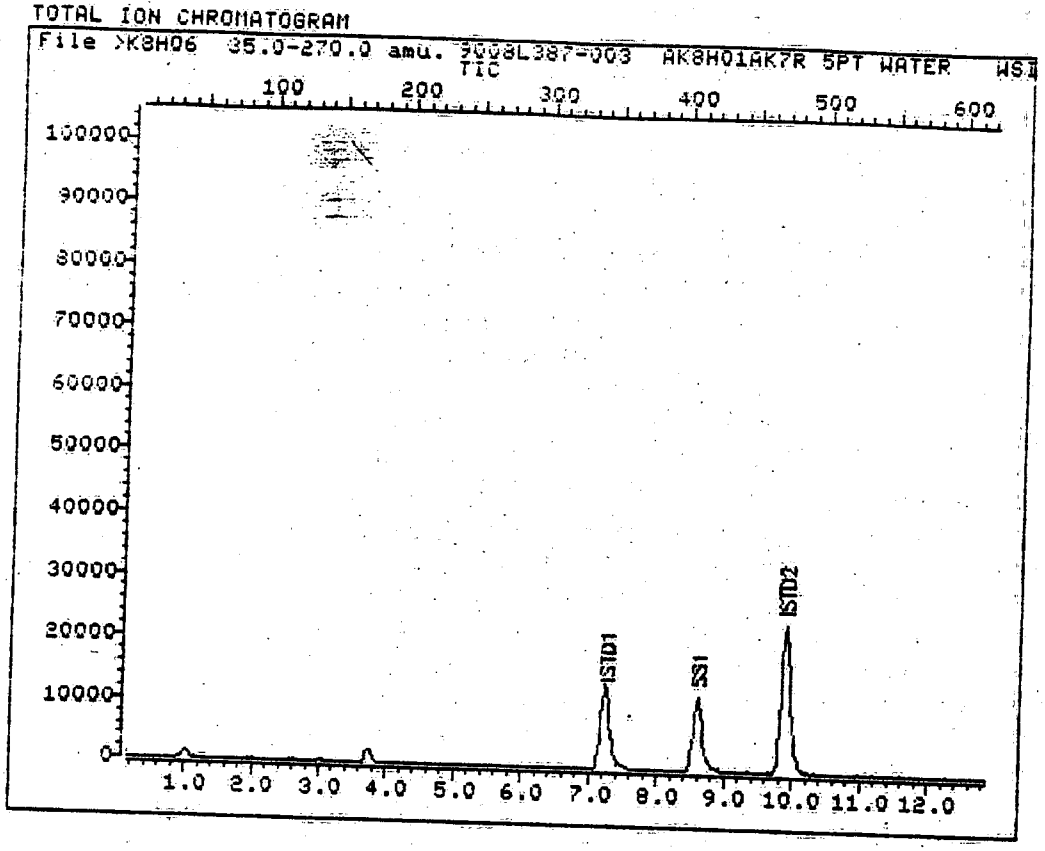
Dilution Factor: 100

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



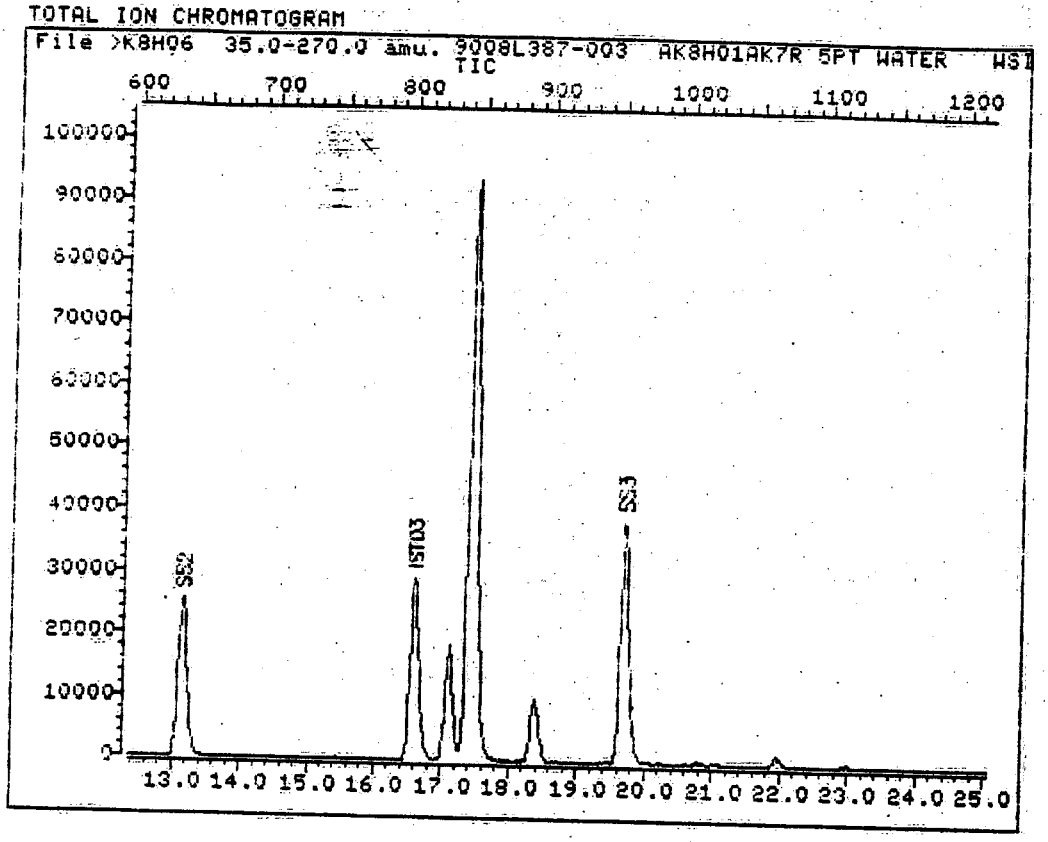
Data File: >K8H06::D2 Quant Output File: ^K8H06::QQ
Name: 9008L387-003 AK8H01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=100 D1 #HP-MSD K

Id File: I_K8HA::QQ
Title: IFB
Last Calibration: 900817 10:45

Operator ID: USER4
Quant Time: 900817 12:33
Injected at: 900817 12:07

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8H06::D2 Quant Output File: ^K8H06::QQ
Name: 9008L387-003 AK8H01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=100 D1 #HP-MSD K

Id File: I_K8HA::QQ
Title: IFB
Last Calibration: 900817 10:45

Operator ID: USER4
Quant Time: 900817 12:33
Injected at: 900817 12:07

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4 Quant Rev: 6 Quant Time: 900817 12:33
Output File: ^K8H06::QQ Injected at: 900817 12:07
Data File: >K8H06::D2 Dilution Factor: 1.00000
Name: 9008L387-003 _AK8H01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=100 D1 #HP-MSD K

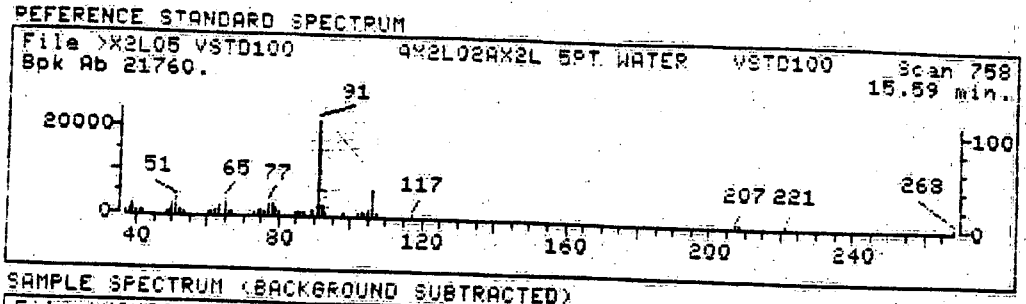
ID File: I_K8HA::QQ
Title: IFB
Last Calibration: 900817 10:45

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.25	128.0	18414	50.00	ug/L	53
10)	ACETONE	3.01	43.0	1063	7.99	ug/L	97
11)	METHYLENE CHLORIDE	3.73	84.0	3964	8.11	ug/L	53
21)	*1,4-DIFLUOROBENZENE	9.89	114.0	86252	50.00	ug/L	66
23)	1,2-DICHLOROETHANE D4	8.60	65.0	50259	51.10	ug/L	90
29)	*CHLOROBENZENE-D5	16.58	117.0	73988	50.00	ug/L	97
31)	TOLUENE D8	13.14	98.0	81257	49.35	ug/L	96
40)	ETHYLBENZENE	17.09	106.0	17505	*24.35	ug/L	99
42)	XYLENE	17.44	106.0	115342	*127.60	ug/L	89
43)	XYLENES (TOTAL)	18.36	106.0	11341	* 14.20	ug/L	82
45)	4-BROMOFLUOROBENZENE	19.68	95.0	66825	48.30	ug/L	97

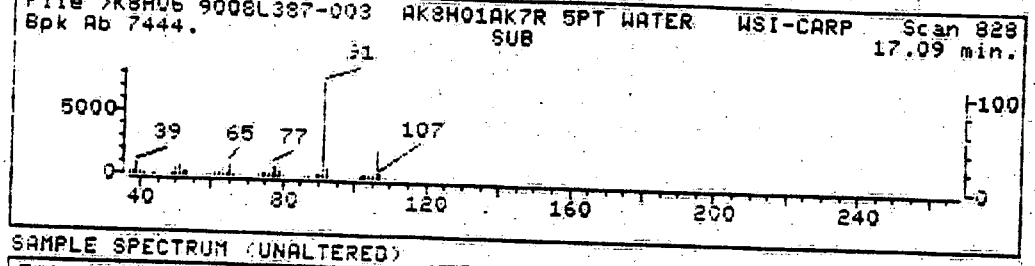
* Compound is ISTD

Total Xylenes
127.60
14.20
141.80

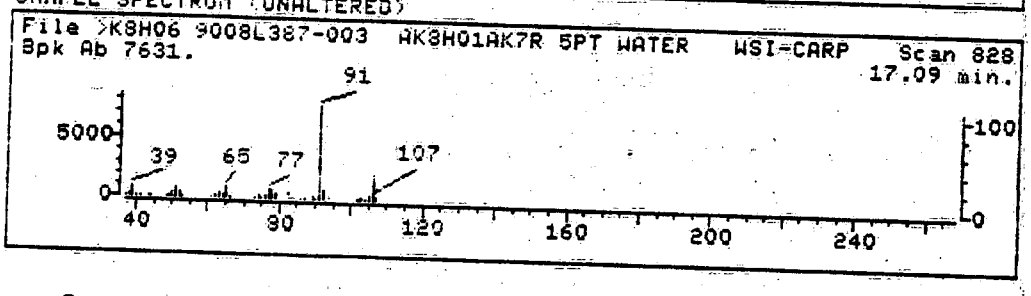
PEFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



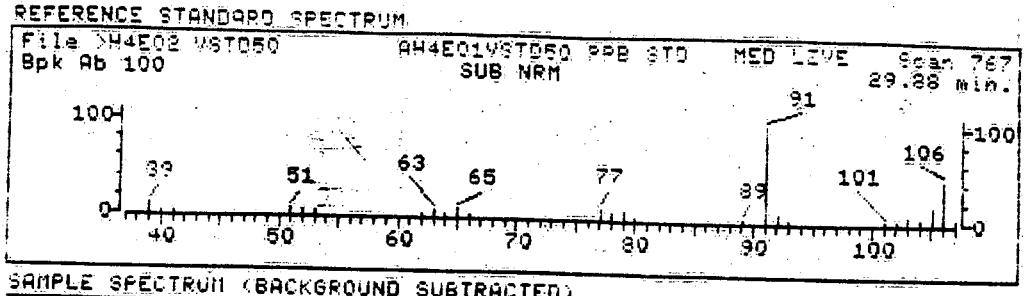
SAMPLE SPECTRUM (UNALTERED)



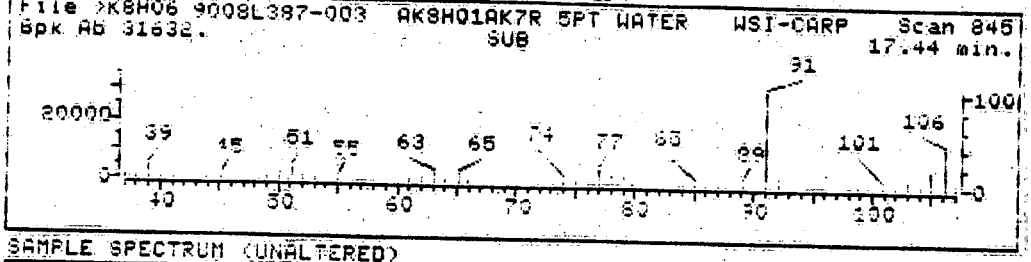
Data File: >K8H06::D2 Quant Output File: ^K8H06::QQ
Name: 9008L387-003 AK8H01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=100 D1 #HP-MSD K
Quant Time: 900817 12:33 Quant ID File: I_K8HA::QQ
Injected at: 900817 12:07 Last Calibration: 900817 10:45

Compound No: 40
Compound Name: ETHYLBENZENE
Scan Number: 828
Retention Time: 17.09 min.
Quant Ion: 106.0
Area: 17505
Concentration: 24.35 ug/L
q-value: 99

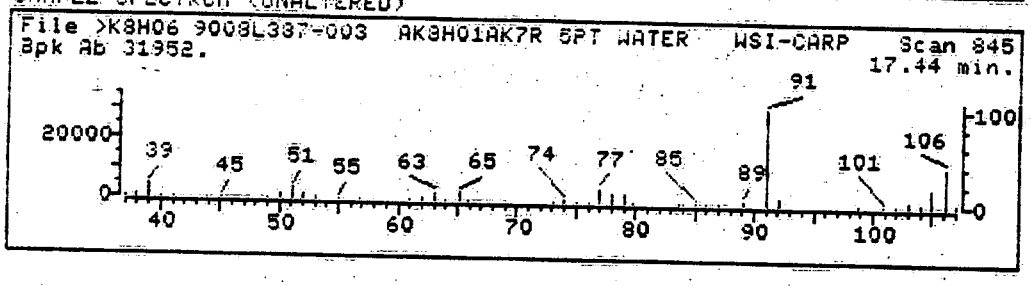
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



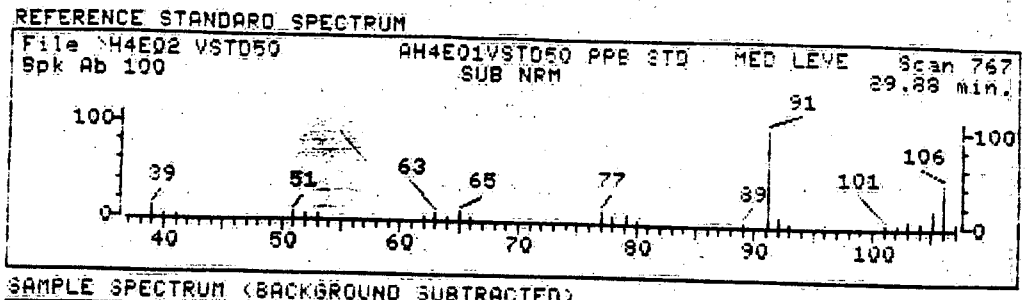
SAMPLE SPECTRUM (UNALTERED)



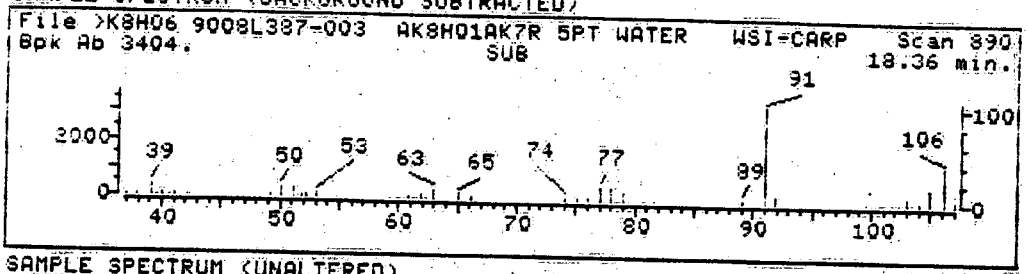
Data File: >K8H06::D2 Quant Output File: ^K8H06::QQ
Name: 9008L387-003 AK8H01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=100 D1 #HP-MSD K
Quant Time: 900817 12:33 Quant ID File: I_K8HA::QQ
Injected at: 900817 12:07 Last Calibration: 900817 10:45

Compound No: 42
Compound Name: XYLENE
Scan Number: 845
Retention Time: 17.44 min.
Quant Ion: 106.0
Area: 115342
Concentration: 127.60 ug/L
q-value: 89

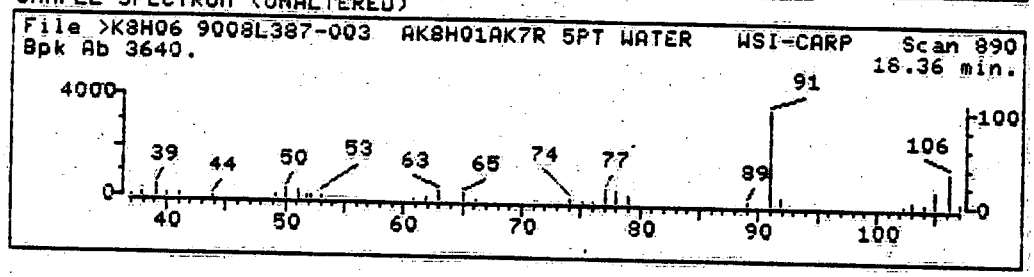
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K8H06::D2 Quant Output File: ^K8H06::QQ
Name: 9008L387-003 AK8H01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=100 D1 #HP-MSD K
Quant Time: 900817 12:33 Quant ID File: I_K8HA::QQ
Injected at: 900817 12:07 Last Calibration: 900817 10:45

Compound No: 43
Compound Name: XYLENES (TOTAL)
Scan Number: 890
Retention Time: 18.36 min.
Quant Ion: 106.0
Area: 11341
Concentration: 14.20 ug/L
q-value: 82

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 100

MW-4

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-004

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

Lab File ID: AK8G12

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. _____

Date Analyzed: 08/16/90

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-D[illegible]robenzene	5	U
541-73-1	1,3-D[illegible]robenzene	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	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO. 101

MW-4

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-004

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

Lab File ID: AK8G12

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. ____

Date Analyzed: 08/16/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

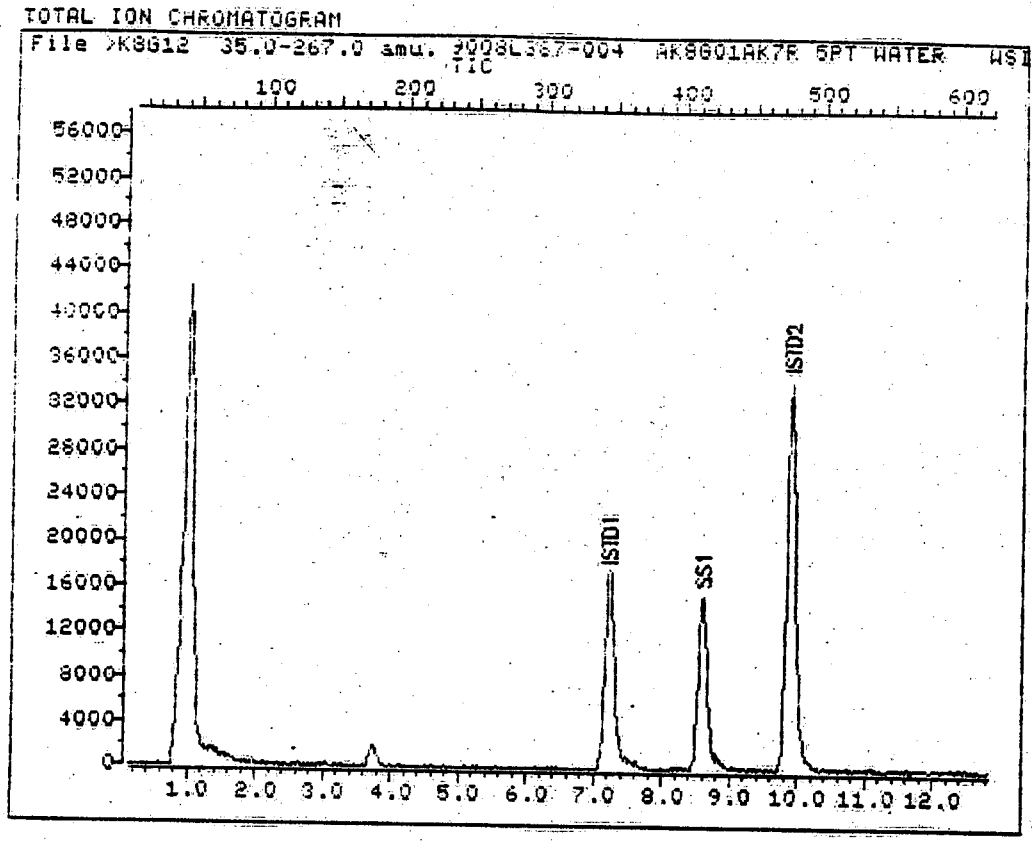
Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ACETONE	3.05	5.8	C

C: Response Factor from daily standard.

TOTAL ION CHROMATOGRAM



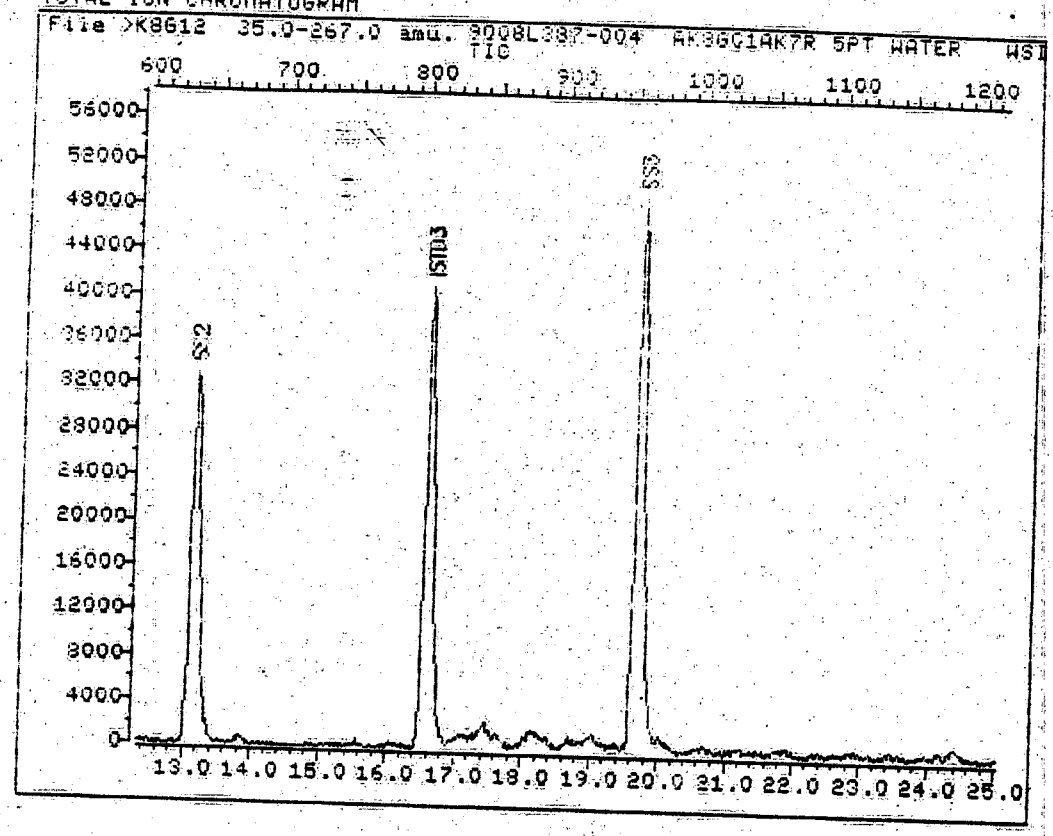
Data File: >K8G12::D1 Quant Output File: ^K8G12::QQ
Name: 9008L387-004 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K BB

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900817 08:00
Injected at: 900816 20:48

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8G12::D1 Quant Output File: ^K8G12::QQ
Name: 9008L387-004 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K BB

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900817 08:00
Injected at: 900816 20:48

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4
Output File: ^K8G12::QQ
Data File: >K8G12::D1
Name: 9008L387-004_ AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1

Quant Rev: 6

Quant Time: 900817 08:00
Injected at: 900816 20:48
Dilution Factor: 1.00000

#HP-MSD K BB

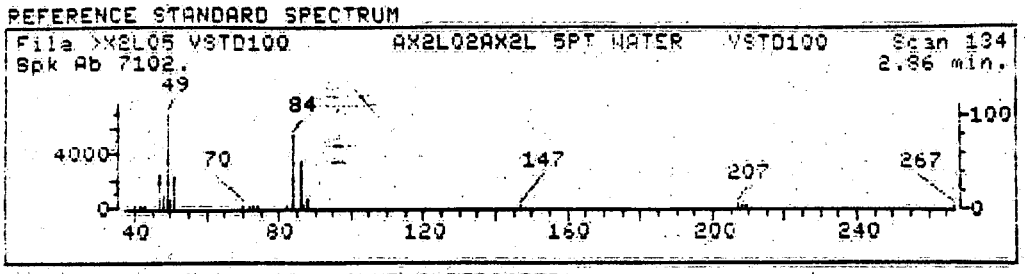
ID File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.20	128.0	25153	50.00	ug/L	48
10)	ACETONE	3.05	43.0	856M	5.82	ug/L	
11)	METHYLENE CHLORIDE	3.72	84.0	3507	5.05	ug/L	81
21)	*1,4-DIFLUOROBENZENE	9.89	114.0	117876	50.00	ug/L	68
23)	1,2-DICHLOROETHANE D4	8.60	65.0	62850	46.16	ug/L	87
29)	*CHLOROBENZENE-D5	16.58	117.0	103347	50.00	ug/L	97
31)	TOLUENE D8	13.14	98.0	110723	49.64	ug/L	93
40)	ETHYLBENZENE	16.95	106.0	108	.11	ug/L	94
42)	XYLENE	17.36	106.0	3986M	3.47	ug/L	88
43)	XYLENES (TOTAL)	18.30	106.0	1590M	1.48	ug/L	66
45)	4-BROMOFLUOROBENZENE	19.70	95.0	88035	48.43	ug/L	92

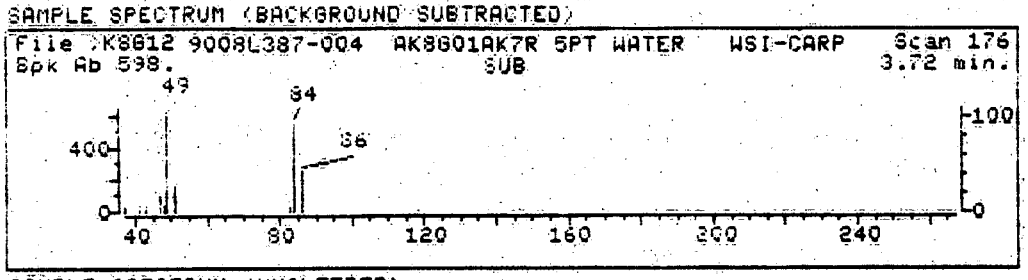
* Compound is ISTD

Total Xylenes
3.47
1.48
4.95

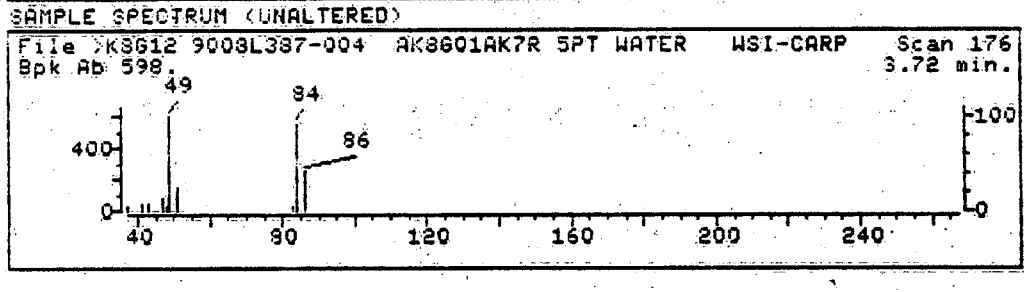
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



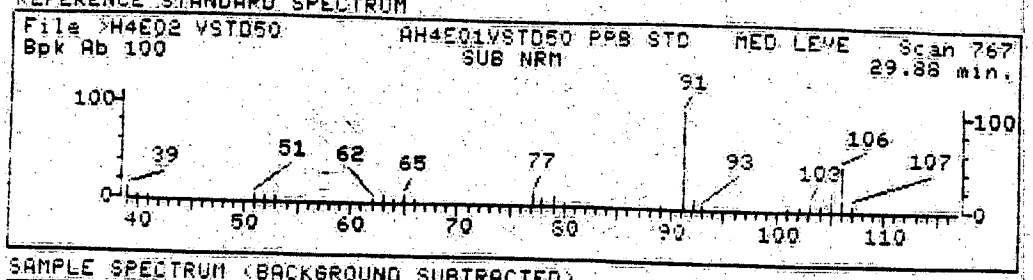
SAMPLE SPECTRUM (UNALTERED)



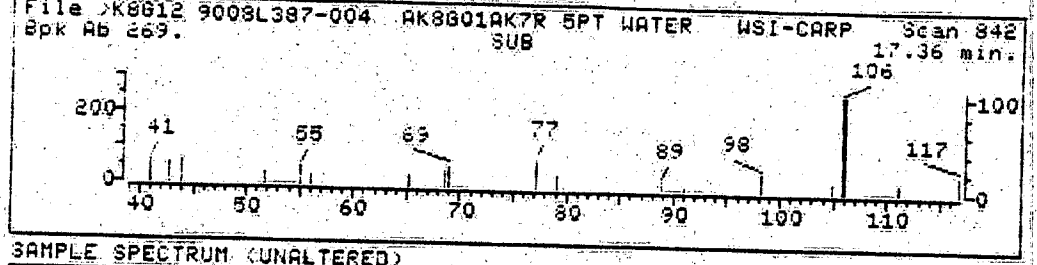
Data File: >K8G12::D1 Quant Output File: ^K8G12::QQ
Name: 9008L387-004 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K BB
Quant Time: 900817 08:00 Quant ID File: I_K8GA::QQ
Injected at: 900816 20:48 Last Calibration: 900816 16:04

Compound No: 11
Compound Name: METHYLENE CHLORIDE
Scan Number: 176
Retention Time: 3.72 min.
Quant Ion: 84.0
Area: 3507
Concentration: 5.05 ug/L
q-value: 81

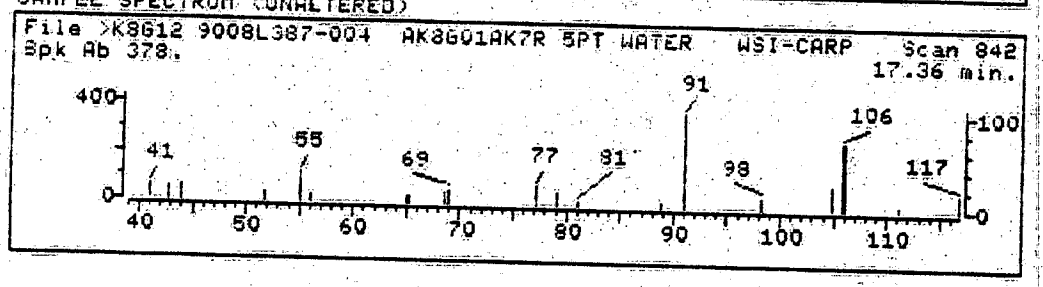
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



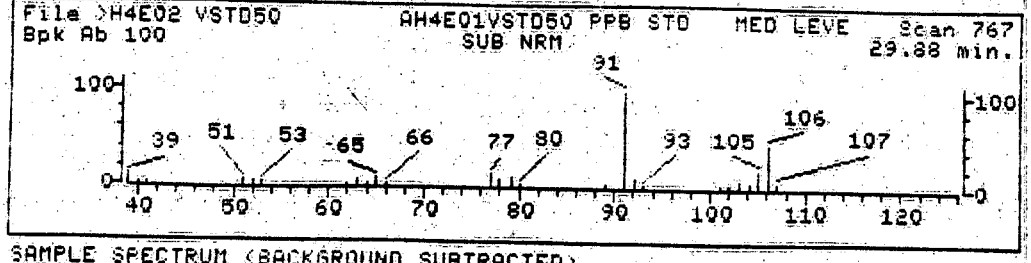
SAMPLE SPECTRUM (UNALTERED)



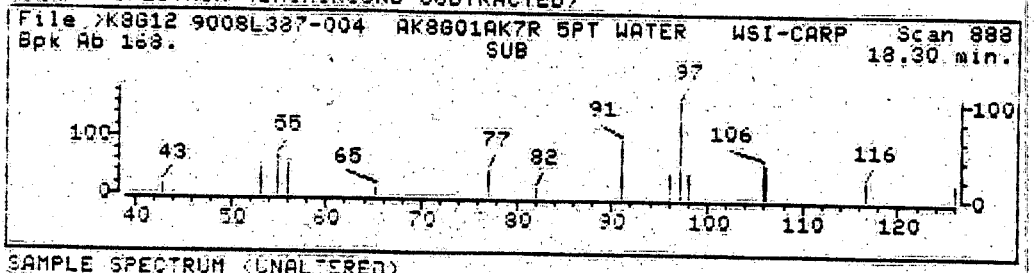
Data File: >K8G12::D1 Quant Output File: ^K8G12::QQ
Name: 9008L387-004 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K BB
Quant Time: 900817 08:00 Quant ID File: I_K8GA::QQ
Injected at: 900816 20:48 Last Calibration: 900816 16:04

Compound No: 42
Compound Name: XYLENE
Scan Number: 842
Retention Time: 17.36 min.
Quant Ion: 106.0
Area: 3986M
Concentration: 3.47 ug/L
q-value: 88

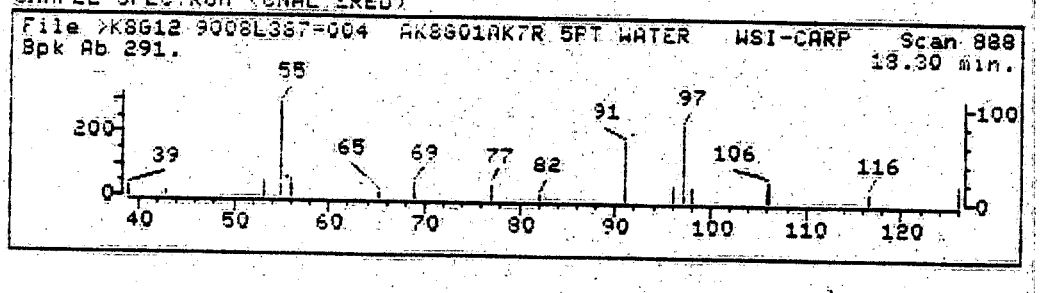
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K8G12::D1 Quant Output File: ^K8G12::QQ
Name: 9008L387-004 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K BB
Quant Time: 900817 08:00 Quant ID File: I_K8GA::QQ
Injected at: 900816 20:48 Last Calibration: 900816 16:04

Compound No: 43
Compound Name: XYLENES (TOTAL)
Scan Number: 888
Retention Time: 18.30 min.
Quant Ion: 106.0
Area: 1590M
Concentration: 1.48 ug/L
q-value: 66

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

MW-5

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-005

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

Lab File ID: AK8G13

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. _____

Date Analyzed: 08/16/90

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

CLIENT SAMPLE NO. 109

MW-5

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-005

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

Lab File ID: AK8G13

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. _____

Date Analyzed: 08/16/90

Column: (pack/cap) CAP

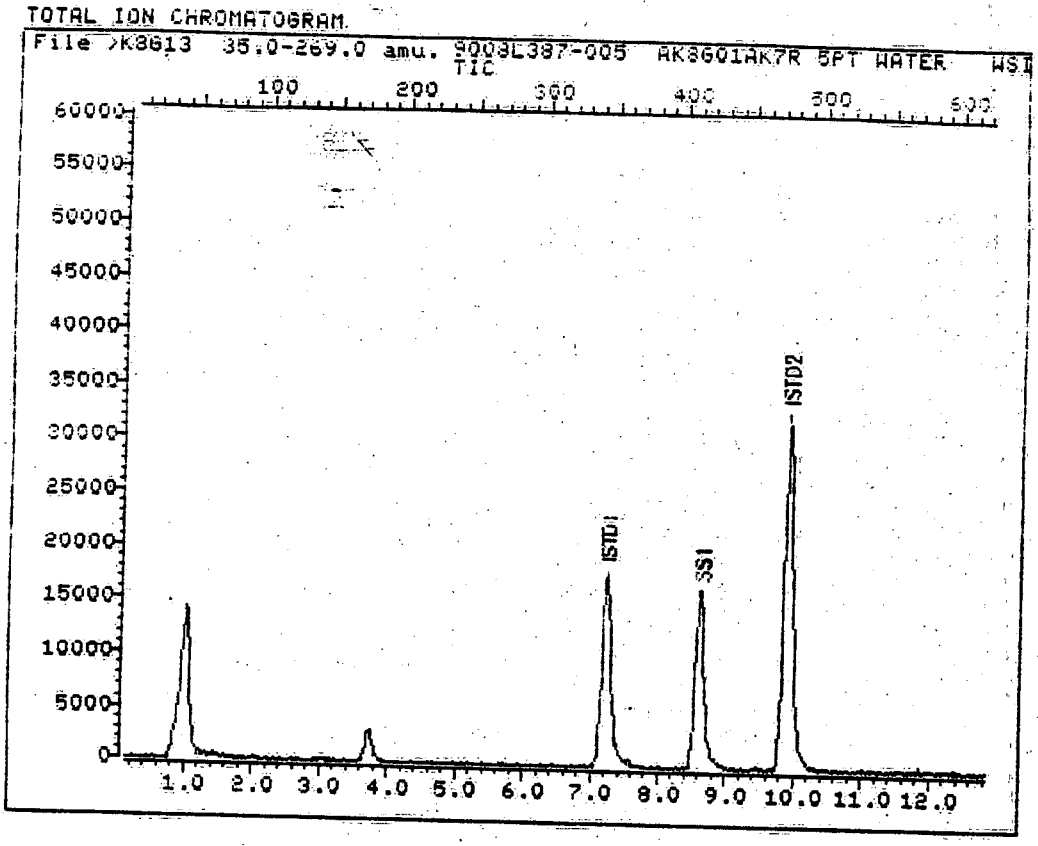
Dilution Factor: 1.00

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



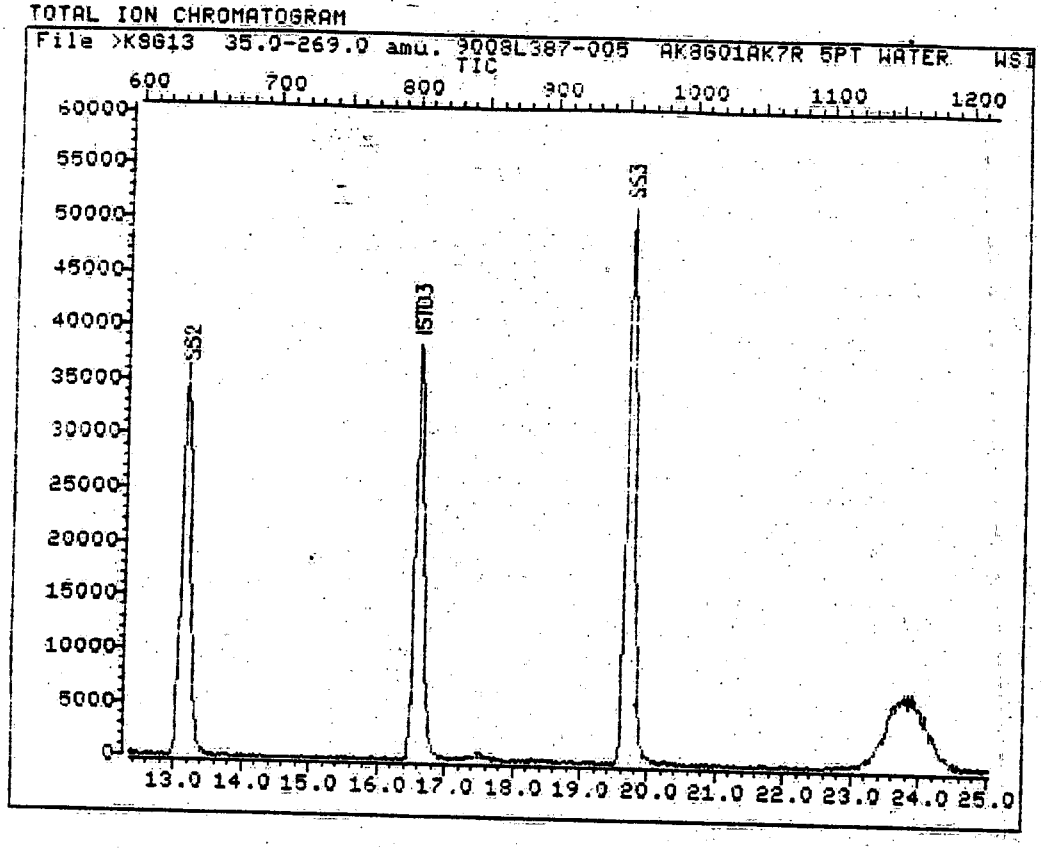
Data File: >K8G13::D1 Quant Output File: ^K8G13::QQ
Name: 9008L387-005 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K BB

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900817 08:02
Injected at: 900816 21:21

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8G13::D1 Quant Output File: ^K8G13::QQ
Name: 9008L387-005 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K BB

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900817 08:02
Injected at: 900816 21:21

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4
Output File: ^K8G13::QQ
Data File: >K8G13::D1
Name: 9008L387-005 AK8G01
Misc: AK7R 5PT WATER WSI=CARPENTER DF=1

Quant Rev: 6
Quant Time: 900817 08:02
Injected at: 900816 21:21
Dilution Factor: 1.00000

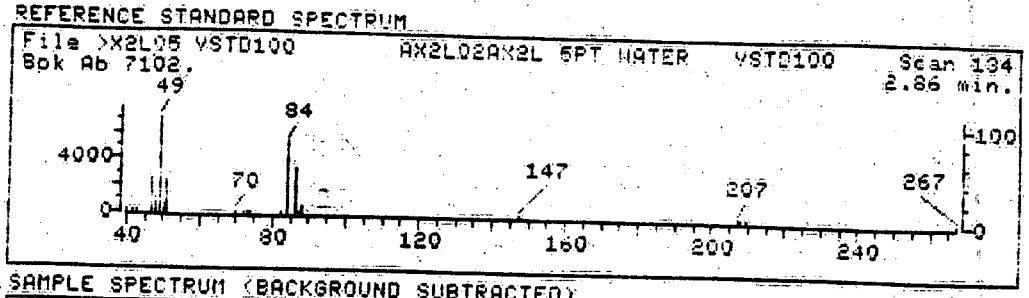
#HP-MSD K BB

ID File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

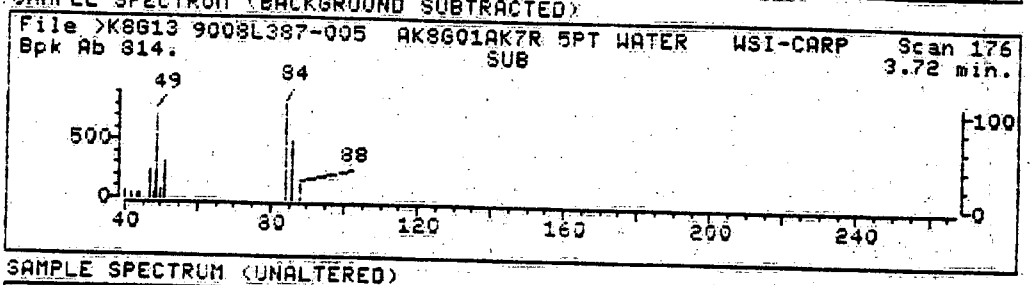
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.22	128.0	24727	50.00	ug/L	53
11)	METHYLENE CHLORIDE	3.72	84.0	4826	7.07	ug/L	53
21)	*1,4-DIFLUOROBENZENE	9.89	114.0	115016	50.00	ug/L	68
23)	1,2-DICHLOROETHANE D4	8.62	65.0	64239	48.36	ug/L	85
29)	*CHLOROBENZENE-D5	16.58	117.0	98398	50.00	ug/L	99
31)	TOLUENE D8	13.16	98.0	115057M	54.18	ug/L	97
32)	TOLUENE	13.22	92.0	72	.06	ug/L	69
40)	ETHYLBENZENE	17.20	106.0	71	.08	ug/L	35
42)	XYLENE	17.63	106.0	427	.39	ug/L	84
43)	XYLENES (TOTAL)	18.30	106.0	65	.06	ug/L	84
45)	4-BROMOFLUOROBENZENE	19.69	95.0	88560	51.17	ug/L	97

* Compound is ISTD

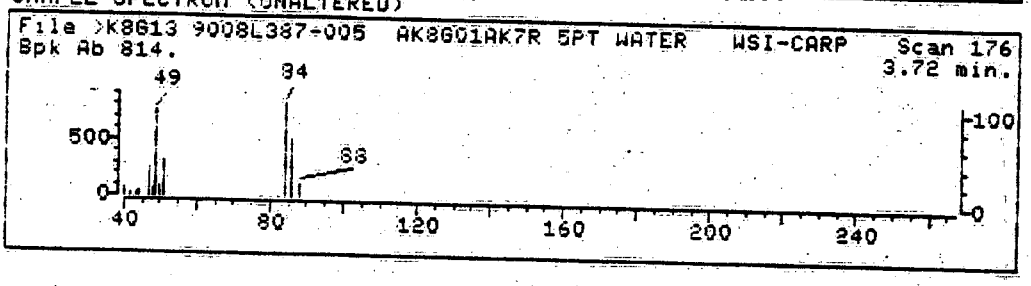
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K8G13::D1 Quant Output File: ^K8G13::QQ
Name: 9008L387-005 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K BB
Quant Time: 900817 08:02 Quant ID File: I_K8GA::QQ
Injected at: 900816 21:21 Last Calibration: 900816 16:04

Compound No: 11
Compound Name: METHYLENE CHLORIDE
Scan Number: 176
Retention Time: 3.72 min.
Quant Ion: 84.0
Area: 4826
Concentration: 7.07 ug/L
q-value: 53

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 114

MW-5 DUPE

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-006

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

Lab File ID: AK8G14

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. _____

Date Analyzed: 08/16/90

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	6	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

CLIENT SAMPLE NO.

115

MW-5 DUPE

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-006

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

Lab File ID: AK8G14

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. _____

Date Analyzed: 08/16/90

Column: (pack/cap) CAP

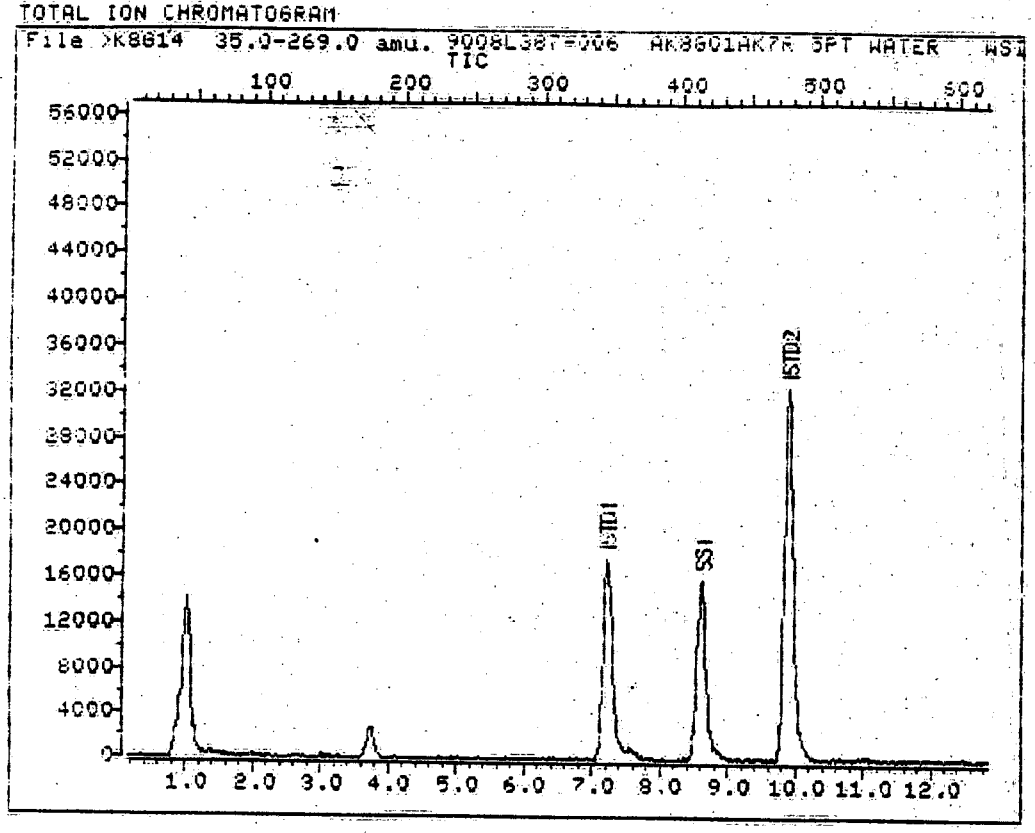
Dilution Factor: 1.00

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



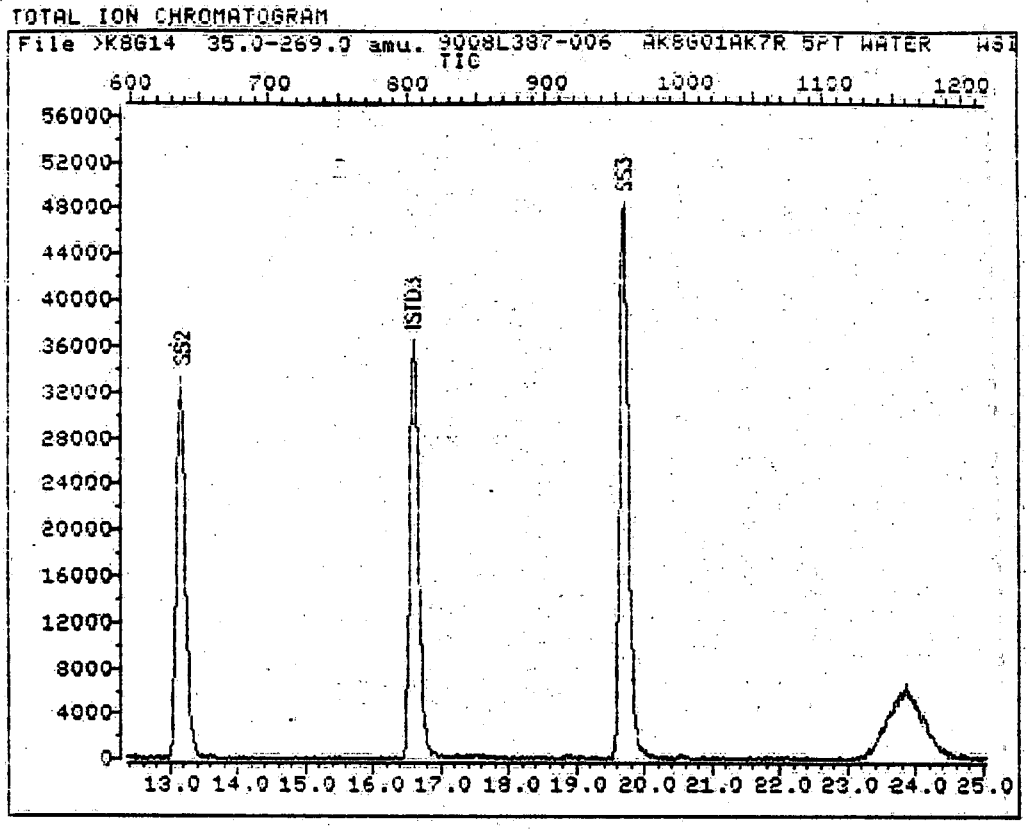
Data File: >K8G14::D1 Quant Output File: ^K8G14::QQ
Name: 9008L387-006 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K BB

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900817 08:03
Injected at: 900816 21:54

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8G14::D1 Quant Output File: ^K8G14::QQ
Name: 9008L387-006 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K BB

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900817 08:03
Injected at: 900816 21:54

TIC page 2 of 2

QUANT REPORT

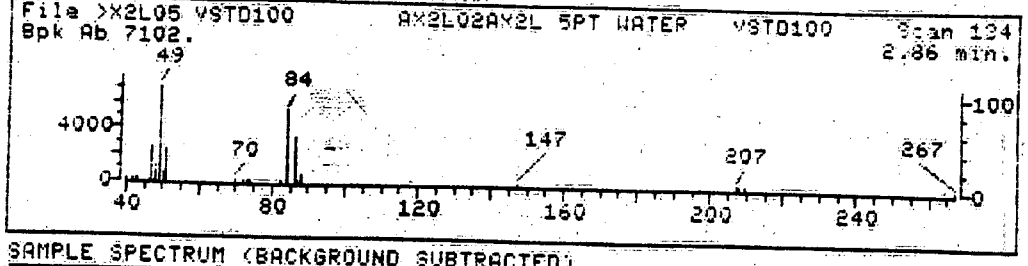
Operator ID: USER4 Quant Rev: 6 Quant Time: 900817 08:03
Output File: ^K8G14::QQ Injected at: 900816 21:54
Data File: >K8G14::D1 Dilution Factor: 1.00000
Name: 9008L387-006 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K BB

ID File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

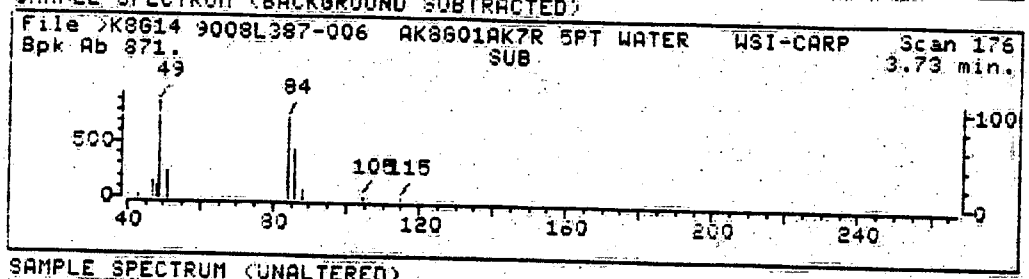
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.21	128.0	24818	50.00	ug/L	54
11)	METHYLENE CHLORIDE	3.73	84.0	4240	6.19	ug/L	96
21)	*1,4-DIFLUOROBENZENE	9.89	114.0	110030	50.00	ug/L	69
23)	1,2-DICHLOROETHANE D4	8.62	65.0	60731	47.79	ug/L	81
29)	*CHLOROBENZENE-D5	16.59	117.0	96078	50.00	ug/L	97
31)	TOLUENE D8	13.17	98.0	108999	52.57	ug/L	96
40)	ETHYLBENZENE	17.31	106.0	67	.07	ug/L	89
45)	4-BROMOFLUOROBENZENE	19.70	95.0	86252	51.04	ug/L	95

* Compound is ISTD

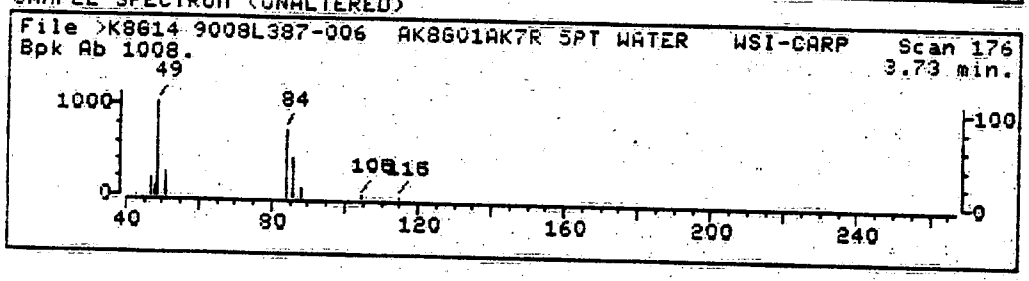
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K8G14::D1 Quant Output File: ^K8G14::QQ
Name: 9008L387-006 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K BB
Quant Time: 900817 08:03 Quant ID File: I_K8GA::QQ
Injected at: 900816 21:54 Last Calibration: 900816 16:04

Compound No: 11
Compound Name: METHYLENE CHLORIDE
Scan Number: 176
Retention Time: 3.73 min.
Quant Ion: 84.0
Area: 4240
Concentration: 6.19 ug/L
q-value: 96

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 120

FIELD BLANK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-007

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

Lab File ID: AK8G17

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. _____

Date Analyzed: 08/16/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	JB
75-35-4	1,1-Dichloroethene	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. 121

FIELD BLANK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER Lab Sample ID: 9008L387-007

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: AK8G17

Level: (low/med) LOW Date Received: 08/15/90

% Moisture: not dec. ____ Date Analyzed: 08/16/90

Column: (pack/cap) CAP Dilution Factor: 1.00

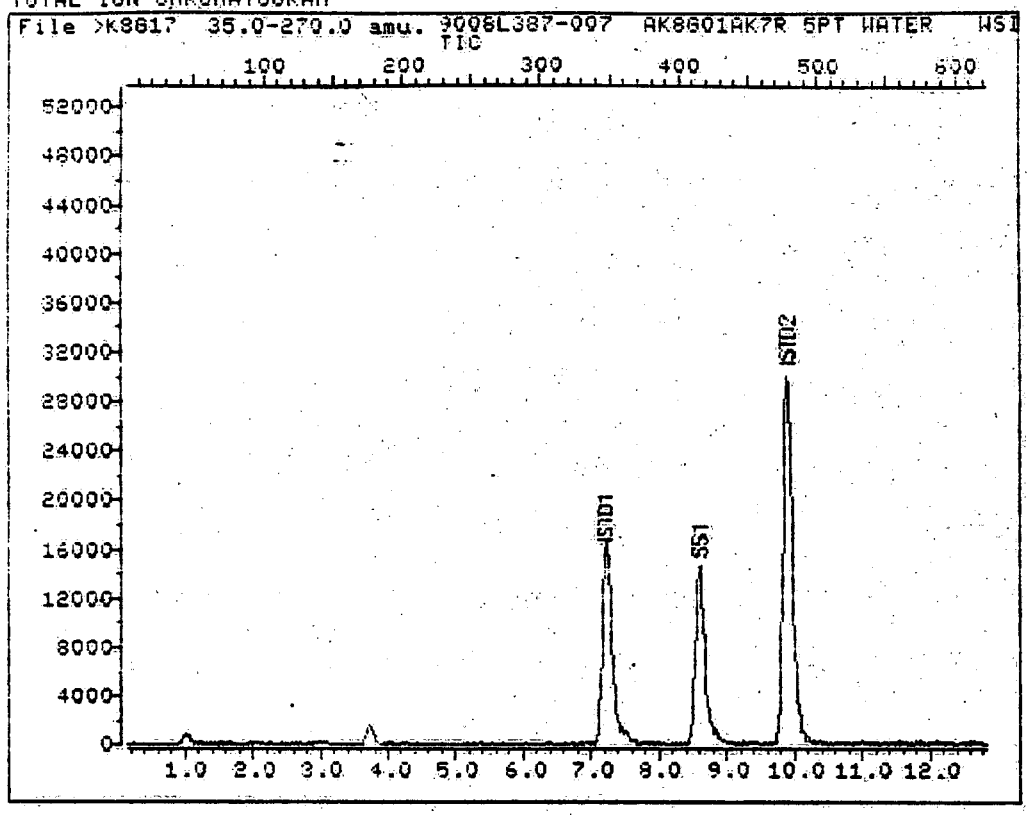
Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ACETONE	3.05	2.5	C

C: Response Factor from daily standard.

TOTAL ION CHROMATOGRAM



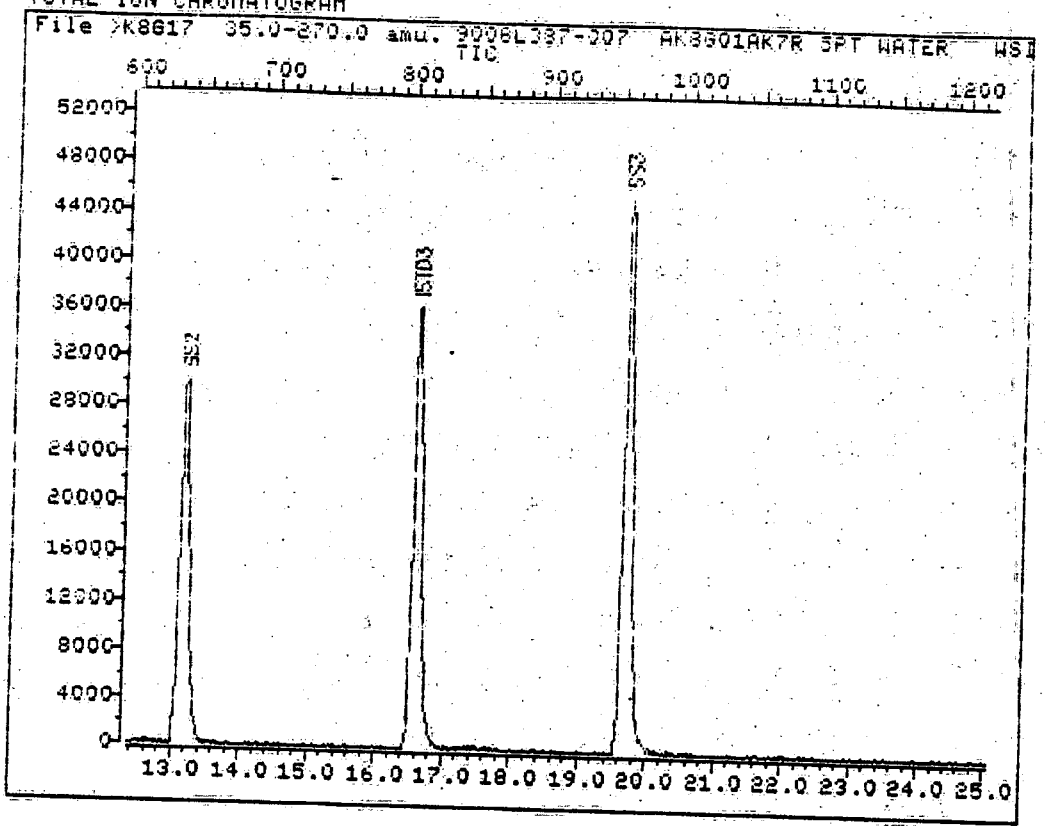
Data File: >K8G17::D2 Quant Output File: ^K8G17::QQ
Name: 9008L387-007 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 23:59
Injected at: 900816 23:33

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8G17::D2 Quant Output File: ^K8G17::QQ
Name: 9008L387-007 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 23:59
Injected at: 900816 23:33

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4
Output File: ^K8G17::QQ
Data File: >K8G17::D2
Name: 9008L387-007_ AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B

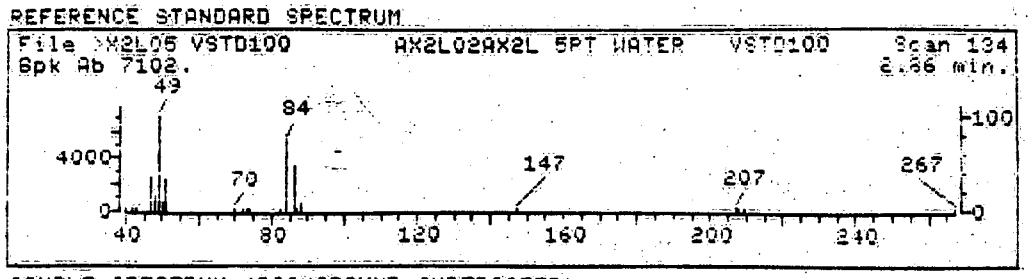
Quant Rev: 6
Quant Time: 900816 23:59
Injected at: 900816 23:33
Dilution Factor: 1.00000

ID File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

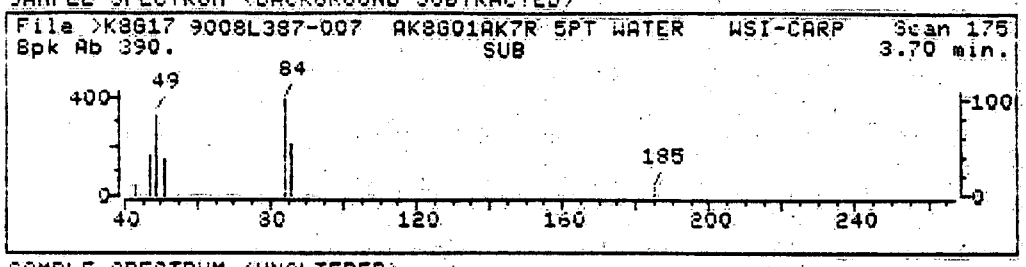
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.20	128.0	21810	50.00	ug/L	70
10)	ACETONE	3.05	43.0	324	2.54	ug/L	79
11)	METHYLENE CHLORIDE	3.70	84.0	2223M	3.69	ug/L	51
21)	*1,4-DIFLUOROBENZENE	9.89	114.0	107528	50.00	ug/L	68
23)	1,2-DICHLOROETHANE D4	8.60	65.0	58915	47.44	ug/L	85
29)	*CHLOROBENZENE-D5	16.58	117.0	93346	50.00	ug/L	91
31)	TOLUENE D8	13.18	98.0	101399	50.33	ug/L	96
40)	ETHYLBENZENE	17.46	106.0	62	.07	ug/L	87
45)	4-BROMOFLUOROBENZENE	19.69	95.0	81264	49.50	ug/L	94

* Compound is ISTD

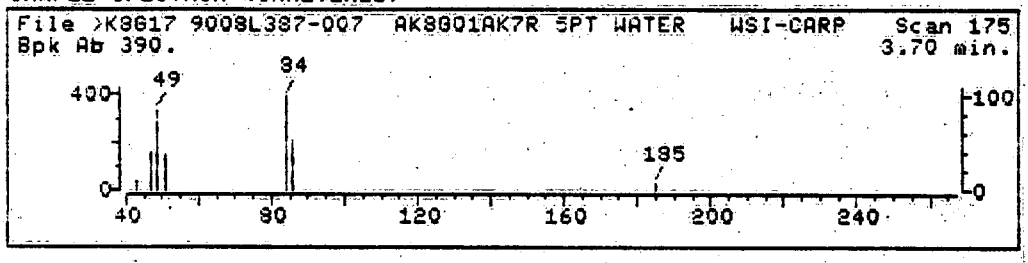
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K8G17::D2 Quant Output File: ^K8G17::QQ
Name: 9008L387-007 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Quant Time: 900816 23:59 Quant ID File: I_K8GA::QQ
Injected at: 900816 23:33 Last Calibration: 900816 16:04

Compound No: 11
Compound Name: METHYLENE CHLORIDE
Scan Number: 175
Retention Time: 3.70 min.
Quant Ion: 84.0
Area: 2223M
Concentration: 3.69 ug/L
q-value: 51

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 126

TRIP BLANK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER Lab Sample ID: 9008L387-008

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: AK8G18

Level: (low/med) LOW Date Received: 08/15/90

% Moisture: not dec. ____ Date Analyzed: 08/17/90

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

CLIENT SAMPLE NO. 127

TRIP BLANK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-008

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

Lab File ID: AK8G18

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. ____

Date Analyzed: 08/17/90

Column: (pack/cap) CAP

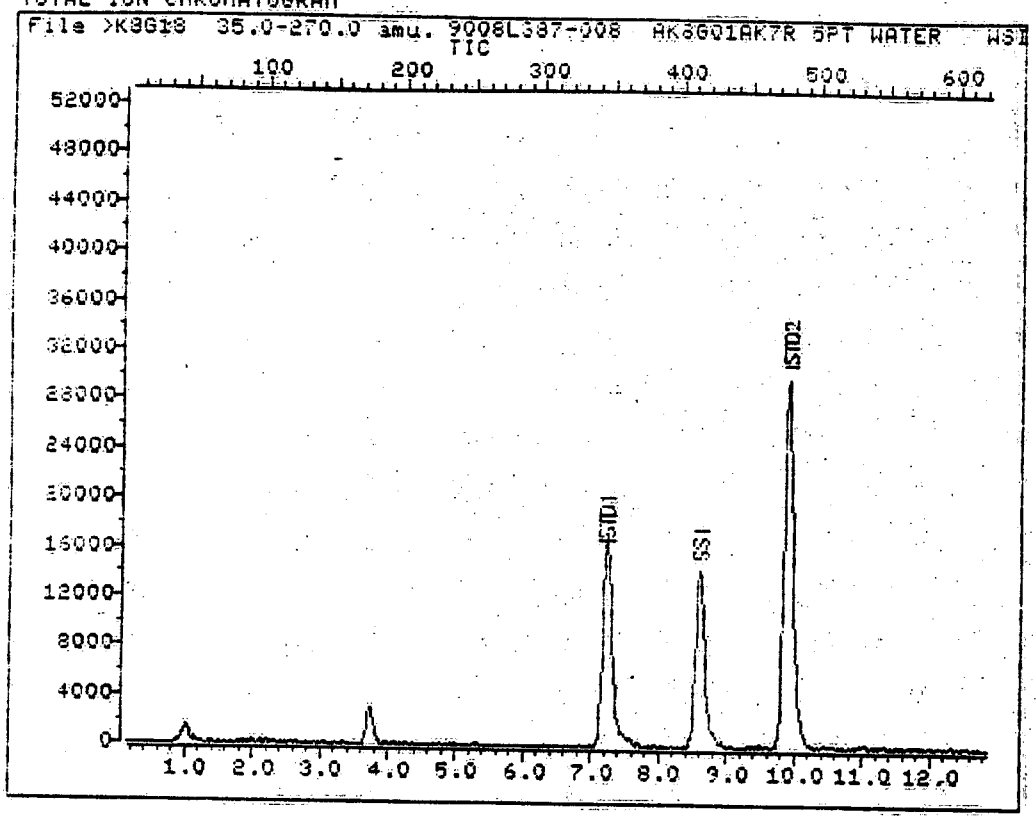
Dilution Factor: 1.00

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



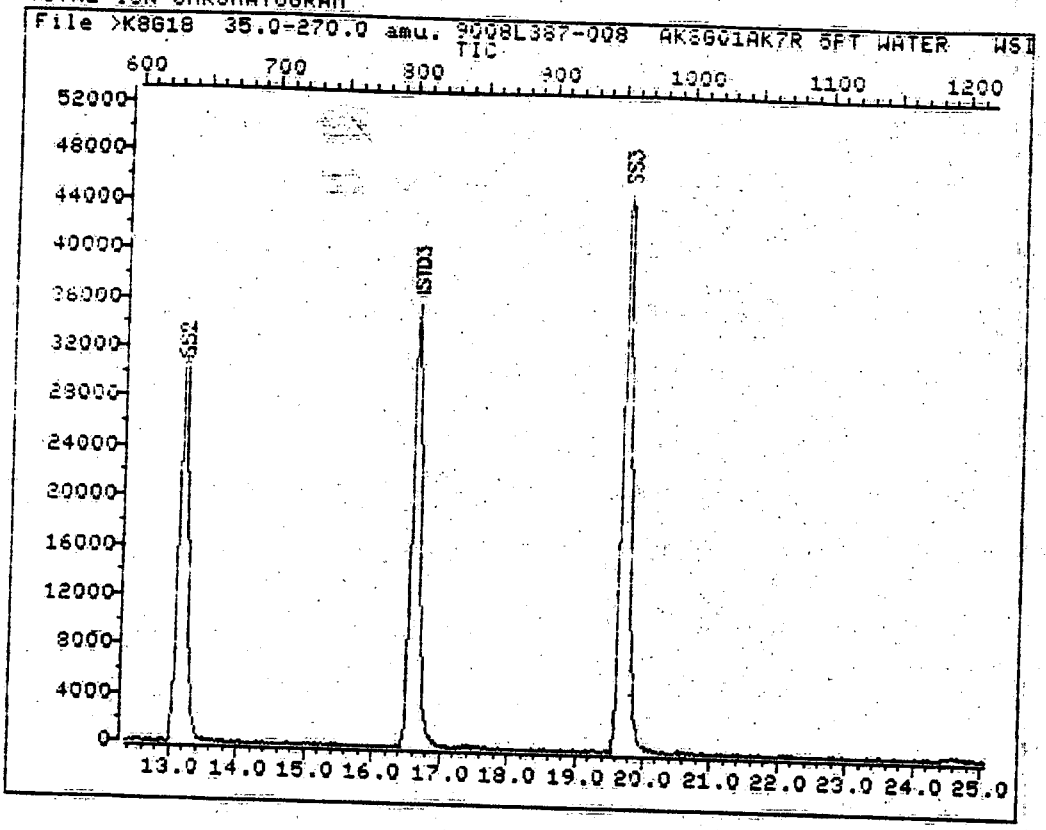
Data File: >K8G18::D2 Quant Output File: ^K8G18::QQ
Name: 9008L387-008 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900817 00:31
Injected at: 900817 00:06

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8G18::D2 Quant Output File: ^K8G18::QQ
Name: 9008L387-008 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900817 00:31
Injected at: 900817 00:06

TIC page 2 of 2

QUANT REPORT

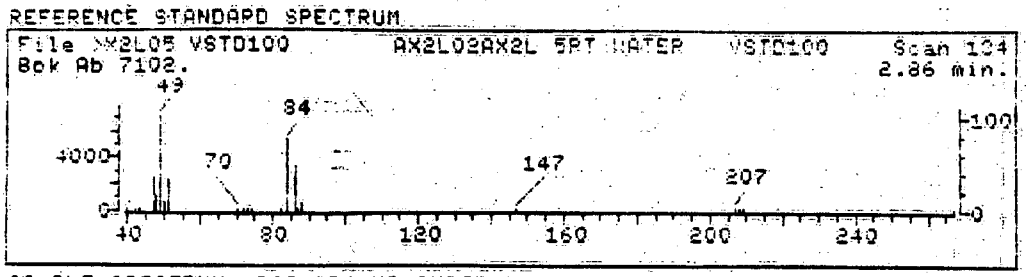
Operator ID: USER4 Quant Rev: 6 Quant Time: 900817 00:31
Output File: ^K8G18::QQ Injected at: 900817 00:06
Data File: >K8G18::D2 Dilution Factor: 1.00000
Name: 9008L387-008 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B

ID File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

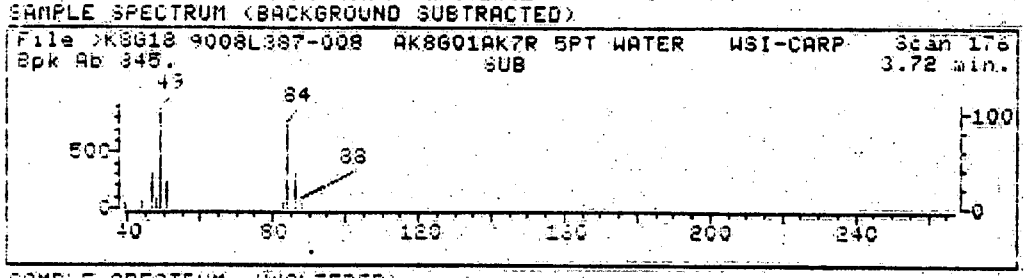
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.20	128.0	22940	50.00	ug/L	43
11)	METHYLENE CHLORIDE	3.72	84.0	4548	7.18	ug/L	80
21)	*1,4-DIFLUOROBENZENE	9.91	114.0	103456	50.00	ug/L	65
23)	1,2-DICHLOROETHANE D4	8.60	65.0	57039	47.73	ug/L	93
29)	*CHLOROBENZENE-D5	16.60	117.0	90720	50.00	ug/L	95
31)	TOLUENE D8	13.14	98.0	103658	52.94	ug/L	97
32)	TOLUENE	13.29	92.0	142	.12	ug/L	69
45)	4-BROMOFLUOROBENZENE	19.69	95.0	79935	50.10	ug/L	95

* Compound is ISTD

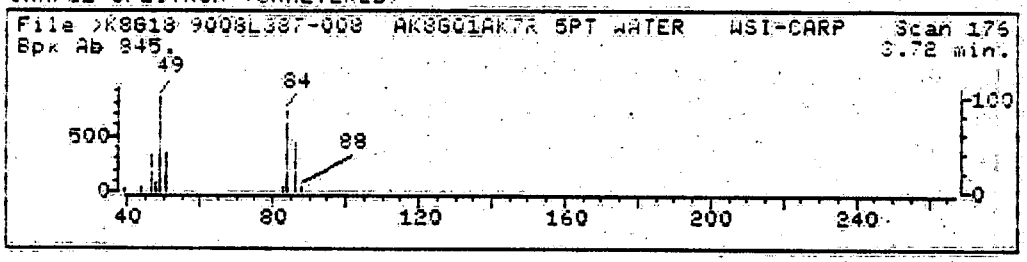
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K8G18::D2 Quant Output File: ^K8G18::QQ
Name: 9008L387-008 AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 #HP-MSD K B
Quant Time: 900817 00:31 Quant ID File: I_K8GA::QQ
Injected at: 900817 00:06 Last Calibration: 900816 16:04

Compound No: 11
Compound Name: METHYLENE CHLORIDE
Scan Number: 176
Retention Time: 3.72 min.
Quant Ion: 84.0
Area: 4548
Concentration: 7.18 ug/L
q-value: 80

IV. Standards Data Package

A. Initial Calibration Data:

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

B. Continuing Calibration Data

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

C. Internal Standard Summary (Form VIII)

6A

VOLATILE ORGANICS INTITIAL CALIBRATION DATA

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-51-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9008L387

Instrument ID: HP-MSD K Calibration Date(s): 07/27/90 07/27/90

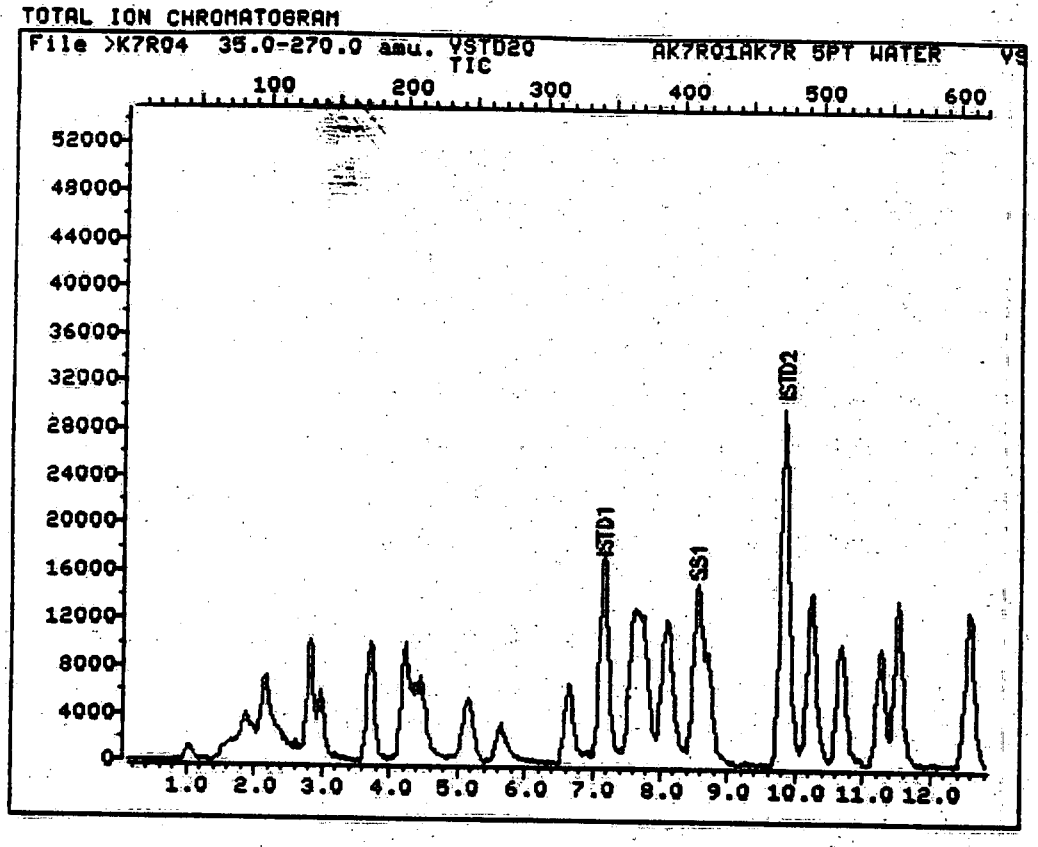
Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

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

LAB FILE ID: RRF20 = AK7R04 RRF50 = AK7R03
RRF100= AK7R05 RRF150= AK7R06 RRF200= AK7R07

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane #	0.787	0.726	0.647	0.670	0.602	0.687	10.4#
Bromomethane	1.202	0.892	0.960	0.895	0.868	0.964	14.3
Vinyl Chloride *	0.910	0.801	0.741	0.714	0.648	0.762	13.0*
Chloroethane	0.906	0.750	0.720	0.718	0.631	0.745	13.5
Methylene Chloride	1.825	1.306	1.228	1.116	1.040	1.303	23.7
1,1-Dichloroethene *	1.250	1.092	1.084	0.938	0.862	1.045	14.4*
1,1-Dichloroethane #	2.722	2.282	2.324	2.350	2.174	2.371	8.8#
1,2-Dichloroethene (total)	1.313	1.182	1.160	1.165	1.105	1.185	6.5
Chloroform *	3.882	3.328	3.414	3.423	3.181	3.446	7.6*
1,2-Dichloroethane	0.772	0.598	0.570	0.572	0.520	0.606	16.0
1,1,1-Trichloroethane	4.294	3.885	3.785	3.690	3.402	3.811	8.5
Carbon Tetrachloride	4.618	4.170	4.125	4.028	3.668	4.121	8.3
Bromodichloromethane	0.930	0.766	0.764	0.727	0.661	0.770	12.9
1,2-Dichloropropane *	0.344	0.285	0.290	0.279	0.255	0.290	11.2*
cis-1,3-Dichloropropene	0.357	0.325	0.314	0.324	0.305	0.325	6.0
Trichloroethene	0.587	0.466	0.476	0.466	0.418	0.483	12.9
Dibromochloromethane	0.959	0.854	0.835	0.840	0.769	0.851	8.0
1,1,2-Trichloroethane	0.445	0.384	0.376	0.369	0.348	0.384	9.4
Benzene	0.901	0.704	0.698	0.705	0.644	0.730	13.5
Trans-1,3-Dichloropropene	1.117	0.961	0.955	0.938	0.863	0.966	9.6
2-chloroethylvinylether	0.148	0.124	0.128	0.124	0.112	0.127	10.3
Bromoform #	0.800	0.729	0.709	0.720	0.671	0.726	6.5#
Tetrachloroethene	0.715	0.612	0.579	0.567	0.523	0.599	12.1
1,1,2,2-Tetrachloroethane #	0.644	0.573	0.558	0.572	0.536	0.577	7.0#
Toluene *	0.809	0.660	0.664	0.659	0.597	0.678	11.5*
Chlorobenzene #	1.127	0.973	0.955	0.971	0.882	0.981	9.1#
Ethylbenzene *	0.531	0.472	0.463	0.446	0.414	0.465	9.3*
1,2-Dichlorobenzene	1.305	1.111	1.065	1.072	0.997	1.110	10.5
1,3-Dichlorobenzene	1.287	1.141	1.104	1.097	1.012	1.128	8.9
1,4-Dichlorobenzene	1.315	1.116	1.116	1.152	1.044	1.149	8.8
Toluene-d8	1.222	1.169	1.036	1.045	1.049	1.104	7.8
Bromofluorobenzene	0.974	0.915	0.813	0.812	0.824	0.868	8.5
1,2-Dichloroethane-d4	0.623	0.530	0.463	0.470	0.459	0.509	13.8

TOTAL ION CHROMATOGRAM



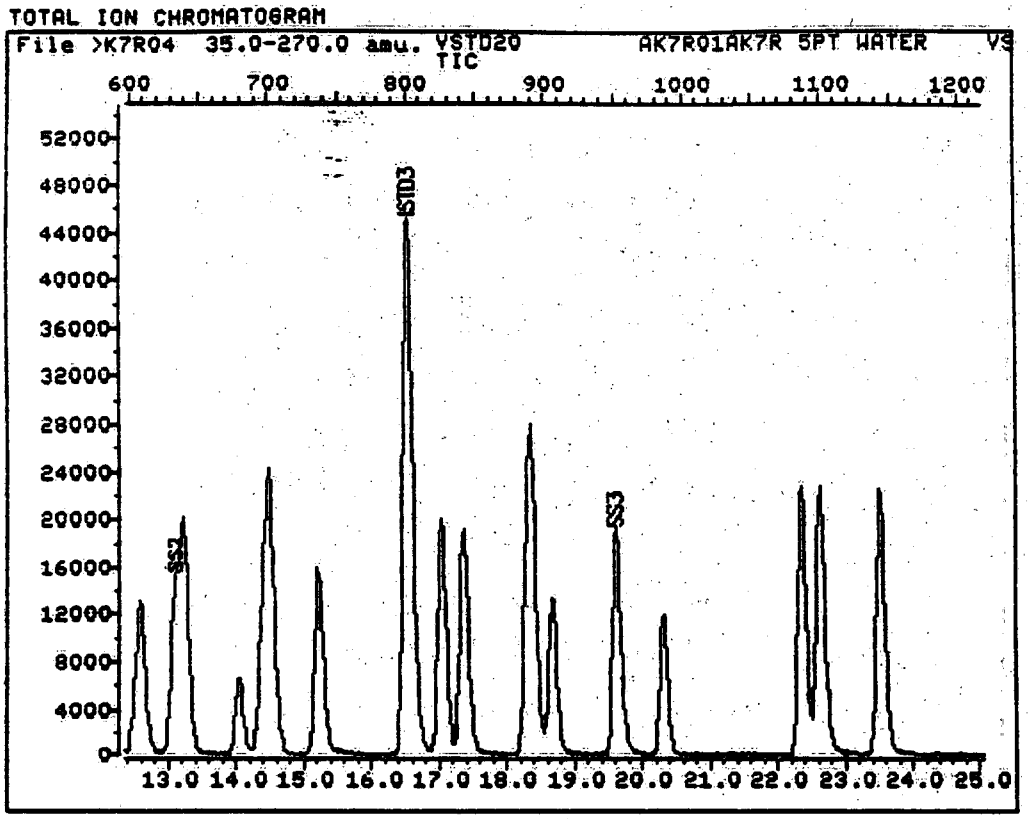
Data File: >K7R04::D2 Quant Output File: ^K7R04::QQ
Name: VSTD20 AK7R01
Misc: AK7R 5PT WATER VSTD20 #HP-MSD K BB

Id File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

Operator ID: USER4
Quant Time: 900727 11:39
Injected at: 900727 11:13

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K7R04::D2 Quant Output File: ^K7R04::QQ
Name: VSTD20 AK7R01
Misc: AK7R 5PT WATER VSTD20 #HP-MSD K BB

Id File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

Operator ID: USER4
Quant Time: 900727 11:39
Injected at: 900727 11:13

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4
Output File: ^K7R04::QQ
Data File: >K7R04::D2
Name: VSTD20 AK7R01
Misc: AK7R 5PT WATER VSTD20

Quant Rev: 6
Quant Time: 900727 11:39
Injected at: 900727 11:13
Dilution Factor: 1.00000

#HP-MSD K BB

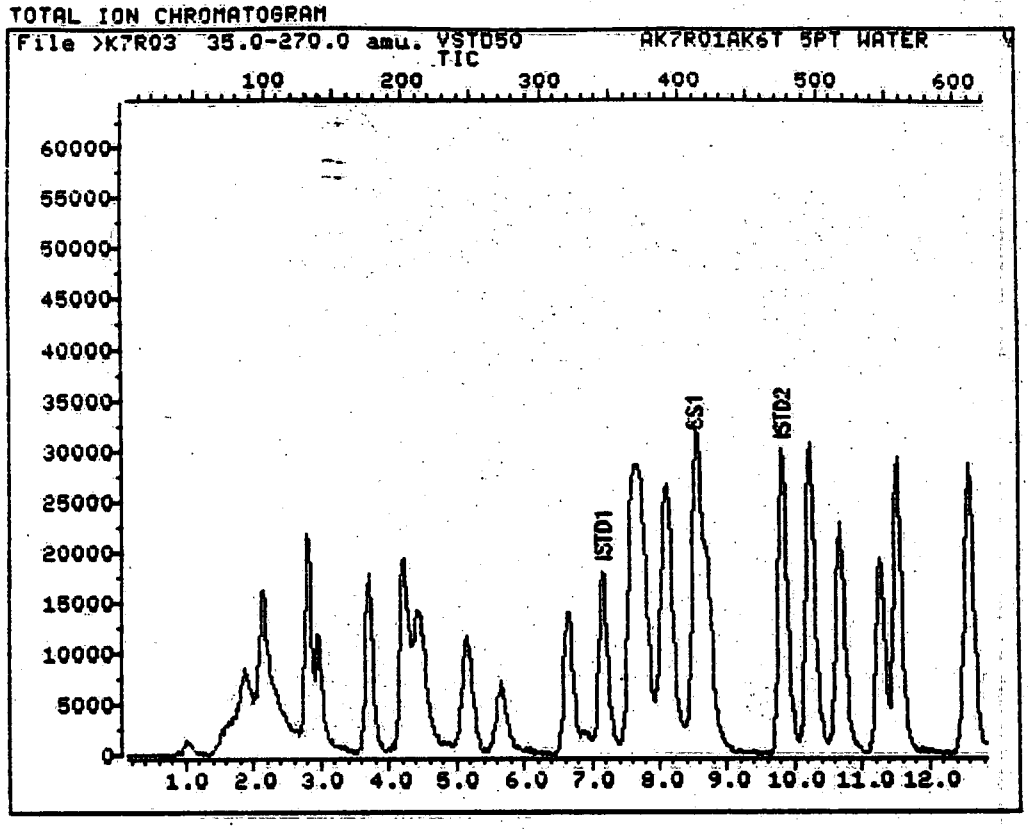
ID File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.15	128.0	25067	50.00	ug/L	30
2)	CHLOROMETHANE	1.55	50.0	7887M	29.17	ug/L	99
3)	VINYL CHLORIDE	1.70	62.0	9123M	28.11	ug/L	73
4)	BROMOMETHANE	1.86	94.0	12048M	29.36	ug/L	100
5)	CHLOROETHANE	1.86	64.0	9089M	29.11	ug/L	71
6)	TRICHLOROFLUOROMETHANE	2.15	101.0	44739	35.60	ug/L	88
7)	1,1-DICHLOROETHYLENE	2.80	96.0	12530	28.82	ug/L	90
8)	ACROLEIN	2.78	56.0	839M	23.68	ug/L	76
9)	CARBON DISULFIDE	2.97	76.0	22730	22.34	ug/L	100
10)	ACETONE	3.05	43.0	5144M	34.41	ug/L	96
11)	METHYLENE CHLORIDE	3.75	84.0	18302	34.44	ug/L	71
12)	1,2-DICHLOROETHENE (TOTAL)	4.24	96.0	13166	23.00	ug/L	93
13)	ACRYLONITRILE	4.26	53.0	1540	24.82	ug/L	59
14)	1,1-DICHLOROETHANE	5.16	63.0	27298	24.84	ug/L	87
15)	VINYL ACETATE	5.65	43.0	22694	27.26	ug/L	77
16)	1,2-DICHLOROETHENE (CIS)	6.65	96.0	13557	21.95	ug/L	100
17)	2-BUTANONE	6.92	72.0	352M	6.98	ug/L	98
18)	CHLOROFORM	7.58	83.0	38927	24.05	ug/L	86
19)	1,1,1-TRICHLOROETHANE	7.74	97.0	43052M	27.90	ug/L	96
20)	CARBON TETRACHLORIDE	8.11	117.0	46299	26.03	ug/L	84
21)	*1,4-DIFLUOROBENZENE	9.83	114.0	104172	50.00	ug/L	70
22)	BENZENE	8.56	78.0	37532	24.17	ug/L	75
23)	1,2-DICHLOROETHANE D4	8.54	65.0	25967	28.82	ug/L	82
24)	1,2-DICHLOROETHANE	8.70	62.0	32180	28.03	ug/L	88
25)	TRICHLOROETHYLENE	10.24	130.0	24442	22.45	ug/L	96
26)	2-CHLOROETHYLVINYLETHER	12.51	63.0	6187M	16.85	ug/L	
27)	1,2-DICHLOROPROPANE	10.69	63.0	14329	23.70	ug/L	91
28)	BROMODICHLOROMETHANE	11.51	83.0	38766	25.85	ug/L	90
29)	*CHLOROBENZENE-D5	16.53	117.0	91243	50.00	ug/L	97
30)	CIS-1,3-DICHLOROPROPENE	14.03	75.0	16670	28.74	ug/L	94
31)	TOLUENE D8	13.09	98.0	44611	24.10	ug/L	87
32)	TOLUENE	13.23	92.0	29513	23.61	ug/L	95
33)	4-METHYL-2-PENTANONE	15.28	43.0	9162	18.72	ug/L	96
34)	TRANS-1,3-DICHLOROPROPENE	12.60	75.0	29343	16.70	ug/L	91
35)	TETRACHLOROETHYLENE	14.50	164.0	26110	25.81	ug/L	99
36)	1,1,2-TRICHLOROETHANE	14.38	97.0	16228	23.45	ug/L	95
37)	DIBROMOCHLOROMETHANE	15.20	129.0	34987	24.44	ug/L	98
38)	2-HEXANONE	12.51	43.0	5803M	16.11	ug/L	
39)	CHLOROBENZENE	16.59	112.0	41127	23.44	ug/L	77
40)	ETHYLBENZENE	17.04	106.0	19389	22.86	ug/L	96
41)	STYRENE	18.39	104.0	36964	22.56	ug/L	72
42)	XYLENE	17.39	106.0	24643	23.44	ug/L	88
43)	XYLENES (TOTAL)	18.31	106.0	23350	25.02	ug/L	90

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	BROMOFORM	18.66	173.0	29191	23.35	ug/L	91
45)	4-BROMOFLUOROBENZENE	19.60	95.0	35566	25.62	ug/L	91
46)	1,1,2,2-TETRACHLOROETHANE	20.30	83.0	23516	26.73	ug/L	25
47)	1,3-DICHLOROBENZENE	22.37	146.0	46969	23.65	ug/L	99
48)	1,4-DICHLOROBENZENE	22.65	146.0	47995	24.23	ug/L	99
49)	1,2-DICHLOROBENZENE	23.53	146.0	47625	25.07	ug/L	86

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: VSTD50 AK7R01
Misc: AK6T 5PT WATER VSTD50 DF=1 #HP-MSD K BB

Id File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

Operator ID: USER4
Quant Time: 900727 10:27
Injected at: 900727 10:01

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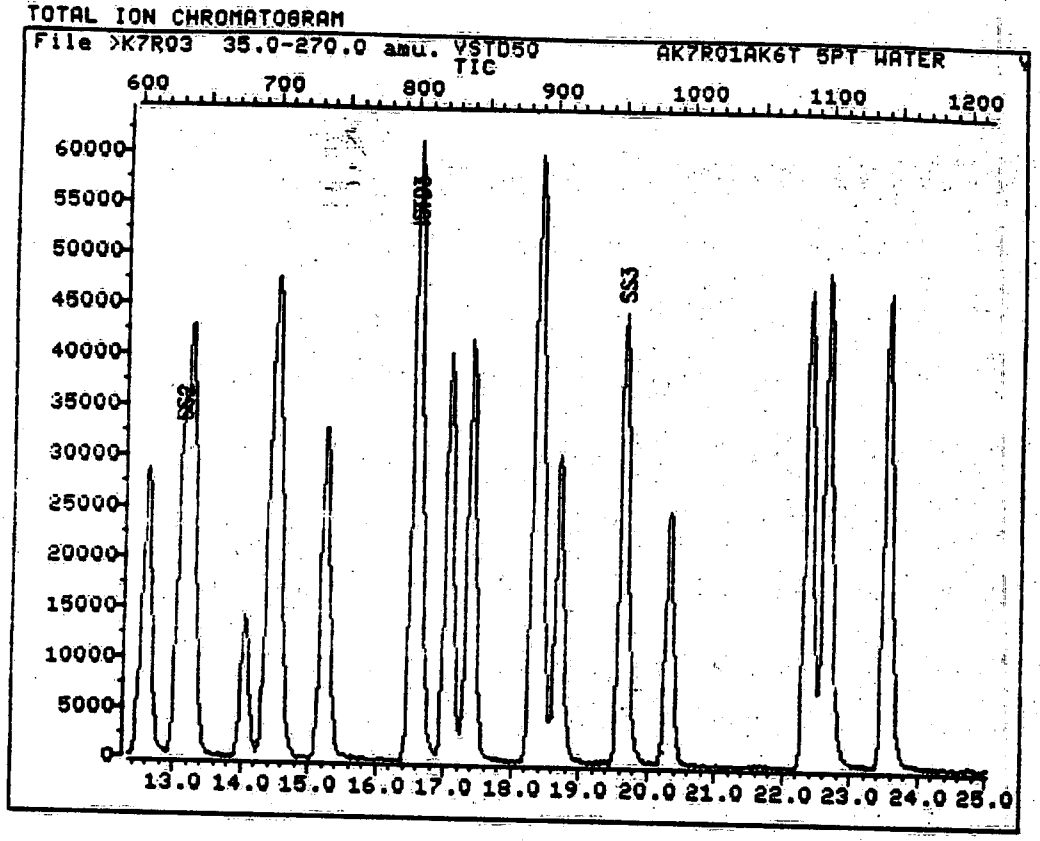
TOTAL ION CHROMATOGRAM



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Name: VSTD50 AK7R01
Misc: AK6T 5PT WATER VSTD50 DF=1 #HP-MSD K BB

Id File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

Operator ID: USER4
Quant Time: 900727 10:27
Injected at: 900727 10:01

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QUANT REPORT

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Operator ID: USER4
Output File: ^K7R03::QQ
Data File: >K7R03::D2
Name: VSTD50 AK7R01
Misc: AK6T 5PT WATER VSTD50 DF=1 #HP-MSD K BB

Quant Rev: 6 Quant Time: 900727 10:27
Injected at: 900727 10:01
Dilution Factor: 1.00000

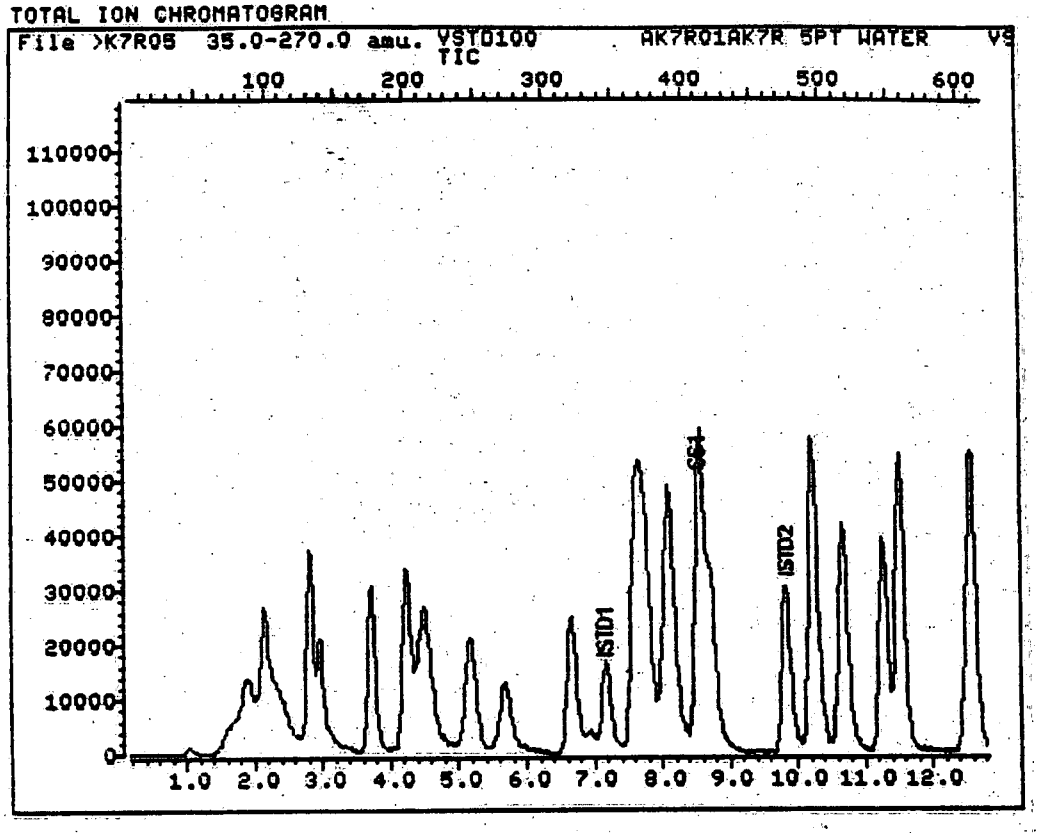
ID File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.17	128.0	24757	50.00	ug/L	45
2)	CHLOROMETHANE	1.53	50.0	17980M	67.33	ug/L	89
3)	VINYL CHLORIDE	1.70	62.0	19823M	61.84	ug/L	93
4)	BROMOMETHANE	1.90	94.0	22090	54.51	ug/L	100
5)	CHLOROETHANE	1.86	64.0	18566M	60.22	ug/L	80
6)	TRICHLOROFLUOROMETHANE	2.17	101.0	90623	73.01	ug/L	88
7)	1,1-DICHLOROETHYLENE	2.80	96.0	27045M	62.99	ug/L	95
8)	ACROLEIN	2.72	56.0	2057	58.78	ug/L	70
9)	CARBON DISULFIDE	2.97	76.0	46674	46.46	ug/L	100
10)	ACETONE	3.05	43.0	7314M	49.54	ug/L	80
11)	METHYLENE CHLORIDE	3.71	84.0	32323	61.59	ug/L	79
12)	1,2-DICHLOROETHENE (TOTAL)	4.22	96.0	29276	51.78	ug/L	90
13)	ACRYLONITRILE	4.28	53.0	5021M	81.92	ug/L	71
14)	1,1-DICHLOROETHANE	5.16	63.0	56509	52.06	ug/L	90
15)	VINYL ACETATE	5.67	43.0	54133	65.84	ug/L	78
16)	1,2-DICHLOROETHENE (CIS)	6.68	96.0	28026	45.95	ug/L	100
17)	2-BUTANONE	6.94	72.0	2010M	40.36	ug/L	88
18)	CHLOROFORM	7.60	83.0	82402	51.54	ug/L	94
19)	1,1,1-TRICHLOROETHANE	7.72	97.0	96191	63.12	ug/L	82
20)	CARBON TETRACHLORIDE	8.11	117.0	103238	58.77	ug/L	90
21)	*1,4-DIFLUOROBENZENE	9.83	114.0	112141	50.00	ug/L	68
22)	BENZENE	8.58	78.0	78937	47.23	ug/L	75
23)	1,2-DICHLOROETHANE D4	8.54	65.0	59481	61.34	ug/L	82
24)	1,2-DICHLOROETHANE	8.70	62.0	67001	54.20	ug/L	98
25)	TRICHLOROETHYLENE	10.24	130.0	52265	44.60	ug/L	87
26)	2-CHLOROETHYLVINYLETHER	12.49	63.0	13912M	35.19	ug/L	
27)	1,2-DICHLOROPROPANE	10.67	63.0	31911	49.04	ug/L	98
28)	BROMODICHLOROMETHANE	11.53	83.0	85924	53.22	ug/L	98
29)	*CHLOROBENZENE-D5	16.53	117.0	91045	50.00	ug/L	98
30)	CIS-1,3-DICHLOROPROPENE	14.05	75.0	37888	65.46	ug/L	91
31)	TOLUENE D8	13.09	98.0	106414	57.62	ug/L	96
32)	TOLUENE	13.23	92.0	60053	48.14	ug/L	94
33)	4-METHYL-2-PENTANONE	15.28	43.0	[illegible]	36.47	ug/L	92
34)	TRANS-1,3-DICHLOROPROPENE	12.80	75.0	[illegible]	35.91	ug/L	93
35)	TETRACHLOROETHYLENE	14.50	164.0	55718	55.20	ug/L	92
36)	1,1,2-TRICHLOROETHANE	14.40	97.0	34928	50.59	ug/L	96
37)	DIBROMOCHLOROMETHANE	15.22	129.0	77745	54.42	ug/L	95
38)	2-HEXANONE	12.52	43.0	12770M	35.54	ug/L	
39)	CHLOROBENZENE	16.59	112.0	88583	50.60	ug/L	86
40)	ETHYLBENZENE	17.06	106.0	42937	50.72	ug/L	98
41)	STYRENE	18.40	104.0	79903	48.86	ug/L	69
42)	XYLENE	17.37	106.0	54561	52.02	ug/L	88
43)	XYLENES (TOTAL)	18.31	106.0	49947	53.64	ug/L	88

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	BROMOFORM	18.68	173.0	66402	53.24	ug/L	98
45)	4-BROMOFLUOROBENZENE	19.63	95.0	83276	60.11	ug/L	91
46)	1,1,2,2-TETRACHLOROETHANE	20.32	83.0	52189	59.46	ug/L	29
47)	1,3-DICHLOROBENZENE	22.37	146.0	103858	52.42	ug/L	85
48)	1,4-DICHLOROBENZENE	22.64	146.0	101622	51.41	ug/L	92
49)	1,2-DICHLOROBENZENE	23.54	146.0	101151	53.36	ug/L	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: VSTD100 AK7R01
Misc: AK7R 5PT WATER VSTD100 #HP-MSD K BB

Id File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

Operator ID: USER4
Quant Time: 900727 12:11
Injected at: 900727 11:45

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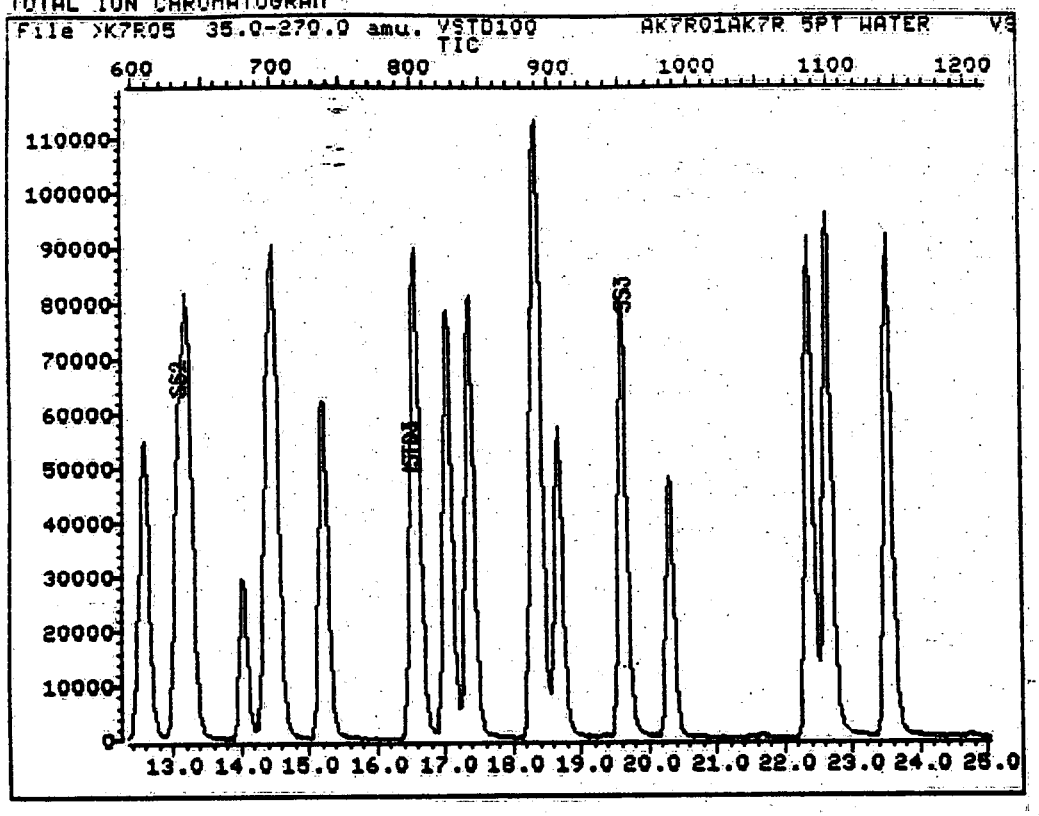
TOTAL ION CHROMATOGRAM



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Name: VSTD100 AK7R01
Misc: AK7R 5PT WATER VSTD100 #HP-MSD K BB

Id File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

Operator ID: USER4
Quant Time: 900727 12:11
Injected at: 900727 11:45

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QUANT REPORT

Operator ID: USER4 Quant Rev: 6 Quant Time: 900727 12:11
Output File: ^K7R05::QQ Injected at: 900727 11:45
Data File: >K7R05::D2 Dilution Factor: 1.00000
Name: VSTD100 ~AK7R01
Misc: AK7R 5PT WATER VSTD100 #HP-MSD K BB

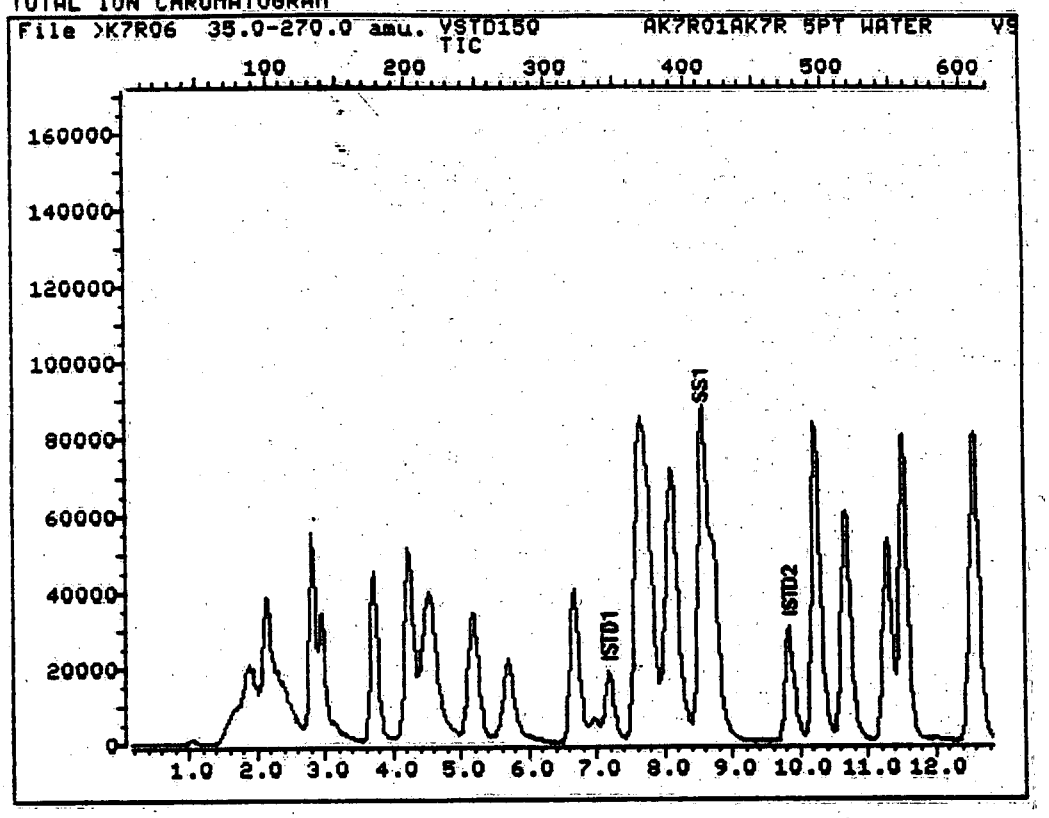
ID File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.15	128.0	22656	50.00	ug/L	49
2)	CHLOROMETHANE	1.64	50.0	29328M	120.00	ug/L	87
3)	VINYL CHLORIDE	1.68	62.0	33566M	114.43	ug/L	82
4)	BROMOMETHANE	1.91	94.0	43522M	117.35	ug/L	100
5)	CHLOROETHANE	1.87	64.0	32605M	115.56	ug/L	79
6)	TRICHLOROFLUOROMETHANE	2.13	101.0	116415	102.48	ug/L	95
7)	1,1-DICHLOROETHYLENE	2.81	96.0	49130	125.04	ug/L	95
8)	ACROLEIN	2.77	56.0	3366M	105.11	ug/L	88
9)	CARBON DISULFIDE	2.97	76.0	89147	96.96	ug/L	100
10)	ACETONE	3.08	43.0	12720M	94.15	ug/L	77
11)	METHYLENE CHLORIDE	3.69	84.0	55661	115.90	ug/L	83
12)	1,2-DICHLOROETHENE (TOTAL)	4.22	96.0	52549	101.55	ug/L	88
13)	ACRYLONITRILE	4.28	53.0	7734	137.89	ug/L	94
14)	1,1-DICHLOROETHANE	5.17	63.0	105313	106.01	ug/L	91
15)	VINYL ACETATE	5.68	43.0	107720	143.17	ug/L	76
16)	1,2-DICHLOROETHENE (CIS)	6.64	96.0	55032	98.60	ug/L	100
17)	2-BUTANONE	6.91	72.0	3451M	75.72	ug/L	76
18)	CHLOROFORM	7.60	83.0	154704	105.73	ug/L	98
19)	1,1,1-TRICHLOROETHANE	7.75	97.0	171515	122.99	ug/L	77
20)	CARBON TETRACHLORIDE	8.12	117.0	186894	116.27	ug/L	94
21)	*1,4-DIFLUOROBENZENE	9.84	114.0	106899	50.00	ug/L	70
22)	BENZENE	8.57	78.0	149341	93.74	ug/L	75
23)	1,2-DICHLOROETHANE D4	8.53	65.0	98922	107.01	ug/L	86
24)	1,2-DICHLOROETHANE	8.71	62.0	121978	103.52	ug/L	95
25)	TRICHLOROETHYLENE	10.23	130.0	101724	91.06	ug/L	97
26)	2-CHLOROETHYLVINYLETHER	12.50	63.0	27349M	72.57	ug/L	
27)	1,2-DICHLOROPROPANE	10.66	63.0	61978	99.91	ug/L	96
28)	BROMODICHLOROMETHANE	11.52	83.0	163328	106.11	ug/L	87
29)	*CHLOROBENZENE-D5	16.50	117.0	90841	50.00	ug/L	95
30)	CIS-1,3-DICHLOROPROPENE	14.02	75.0	73093	126.58	ug/L	91
31)	TOLUENE D8	13.10	98.0	188249	102.16	ug/L	96
32)	TOLUENE	13.22	92.0	120635	96.91	ug/L	99
33)	4-METHYL-2-PENTANONE	15.29	43.0	37710	77.40	ug/L	99
34)	TRANS-1,3-DICHLOROPROPENE	12.61	75.0	124919	71.40	ug/L	97
35)	TETRACHLOROETHYLENE	14.51	164.0	105256	104.52	ug/L	95
36)	1,1,2-TRICHLOROETHANE	14.39	97.0	68333	99.19	ug/L	96
37)	DIBROMOCHLOROMETHANE	15.21	129.0	151682	106.41	ug/L	93
38)	2-HEXANONE	12.50	43.0	26561M	74.09	ug/L	
39)	CHLOROBENZENE	16.58	112.0	173521	99.34	ug/L	80
40)	ETHYLBENZENE	17.03	106.0	84076	99.54	ug/L	95
41)	STYRENE	18.39	104.0	154411M	94.64	ug/L	98
42)	XYLENE	17.38	106.0	105793	101.09	ug/L	86
43)	XYLENES (TOTAL)	18.30	106.0	93182M	100.30	ug/L	33

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	BROMOFORM	18.67	173.0	128824	103.52	ug/L	95
45)	4-BROMOFLUOROBENZENE	19.64	95.0	147765	106.90	ug/L	89
46)	1,1,2,2-TETRACHLOROETHANE	20.33	83.0	101288	115.65	ug/L	27
47)	1,3-DICHLOROBENZENE	22.36	146.0	200534	101.44	ug/L	96
48)	1,4-DICHLOROBENZENE	22.65	146.0	202762	102.80	ug/L	94
49)	1,2-DICHLOROBENZENE	23.53	146.0	193424	102.27	ug/L	88

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: VSTD150 AK7R01
Misc: AK7R 5PT WATER VSTD150 #HP-MSD K BB

Id File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

Operator ID: USER4
Quant Time: 900727 12:44
Injected at: 900727 12:18

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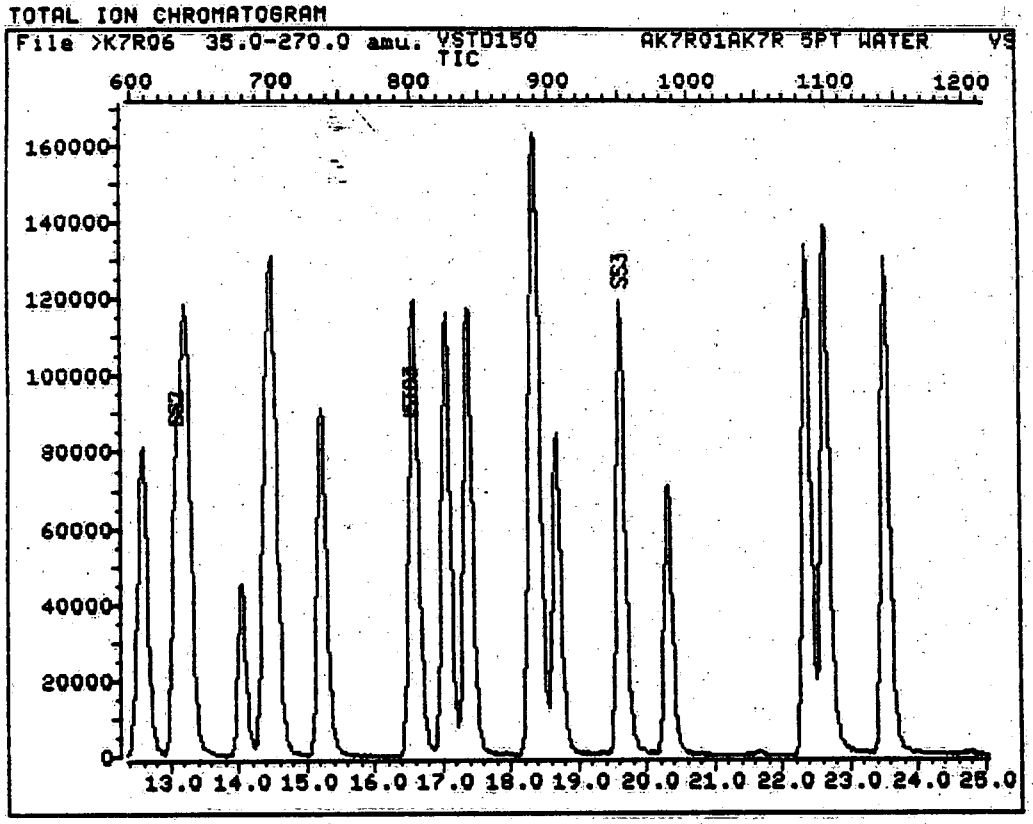
TOTAL ION CHROMATOGRAM



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Name: VSTD150 AK7R01
Misc: AK7R 5PT WATER VSTD150 #HP-MSD K BB

Id File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

Operator ID: USER4
Quant Time: 900727 12:44
Injected at: 900727 12:18

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QUANT REPORT

Operator ID: USER4 Quant Rev: 6 Quant Time: 900727 12:44
Output File: ^K7R06::QQ Injected at: 900727 12:18
Data File: >K7R06::D2 Dilution Factor: 1.00000
Name: VSTD150 AK7R01
Misc: AK7R 5PT WATER VSTD150 #HP-MSD K BB

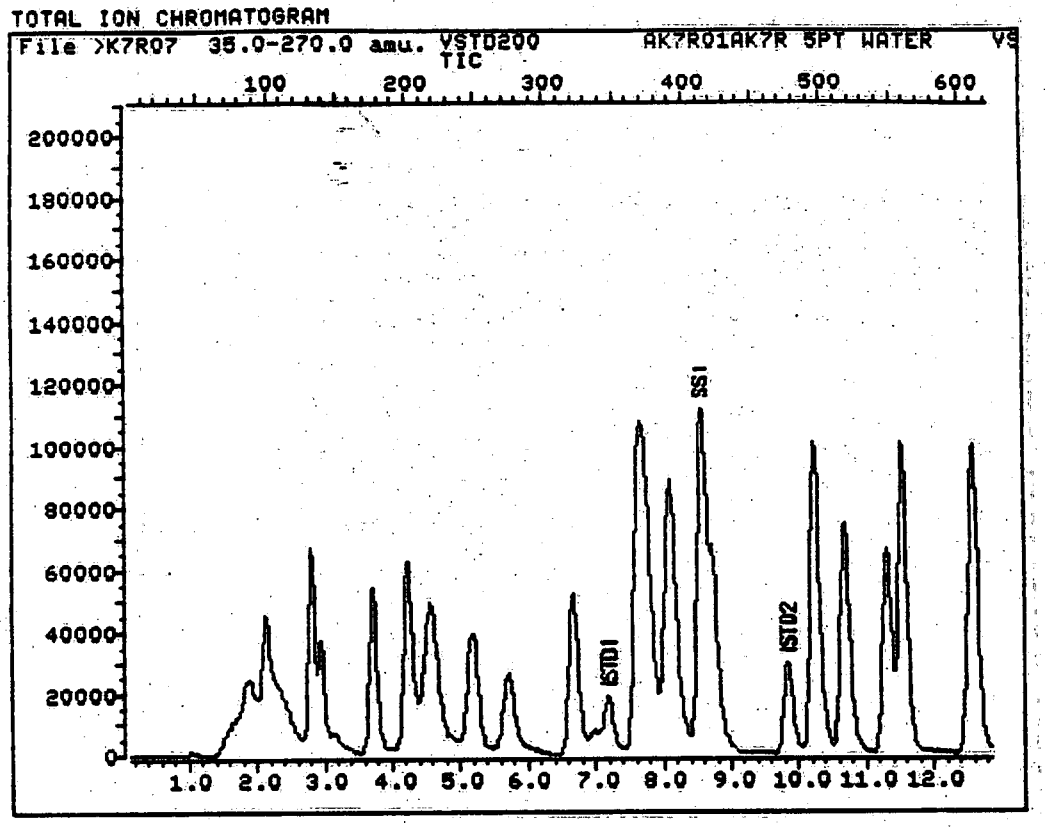
ID File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.18	128.0	24045	50.00	ug/L	59
2)	CHLOROMETHANE	1.60	50.0	48341	186.38	ug/L	96
3)	VINYL CHLORIDE	1.75	62.0	51475	165.34	ug/L	97
4)	BROMOMETHANE	1.91	94.0	64565M	164.03	ug/L	100
5)	CHLOROETHANE	1.89	64.0	51800M	172.98	ug/L	90
6)	TRICHLOROFLUOROMETHANE	2.16	101.0	257139M	213.29	ug/L	86
7)	1,1-DICHLOROETHYLENE	2.81	96.0	67676	162.29	ug/L	94
8)	ACROLEIN	2.79	56.0	5264	154.88	ug/L	75
9)	CARBON DISULFIDE	2.96	76.0	136788	140.18	ug/L	100
10)	ACETONE	3.10	43.0	17064	119.01	ug/L	78
11)	METHYLENE CHLORIDE	3.70	84.0	80510	157.95	ug/L	84
12)	1,2-DICHLOROETHENE (TOTAL)	4.23	96.0	84008	152.97	ug/L	88
13)	ACRYLONITRILE	4.31	53.0	12986	218.15	ug/L	91
14)	1,1-DICHLOROETHANE	5.17	63.0	169527	160.80	ug/L	92
15)	VINYL ACETATE	5.70	43.0	173607	217.42	ug/L	76
16)	1,2-DICHLOROETHENE (CIS)	6.65	96.0	85555	144.44	ug/L	100
17)	2-BUTANONE	6.93	72.0	5749M	118.86	ug/L	85
18)	CHLOROFORM	7.61	83.0	246891	158.99	ug/L	92
19)	1,1,1-TRICHLOROETHANE	7.73	97.0	266181	179.85	ug/L	77
20)	CARBON TETRACHLORIDE	8.10	117.0	290529	170.30	ug/L	90
21)	*1,4-DIFLUOROBENZENE	9.85	114.0	107685	50.00	ug/L	69
22)	BENZENE	8.57	78.0	227793	141.93	ug/L	76
23)	1,2-DICHLOROETHANE D4	8.55	65.0	151774	162.98	ug/L	83
24)	1,2-DICHLOROETHANE	8.72	62.0	184892	155.77	ug/L	90
25)	TRICHLOROETHYLENE	10.24	130.0	150605	133.84	ug/L	97
26)	2-CHLOROETHYLVINYLETHER	12.51	63.0	40127M	105.70	ug/L	
27)	1,2-DICHLOROPROPANE	10.69	63.0	90099	144.18	ug/L	96
28)	BROMODICHLOROMETHANE	11.55	83.0	234782	151.42	ug/L	92
29)	*CHLOROBENZENE-D5	16.53	117.0	88588	50.00	ug/L	95
30)	CIS-1,3-DICHLOROPROPENE	14.03	75.0	110189	195.67	ug/L	98
31)	TOLUENE D8	13.09	98.0	277792	154.59	ug/L	95
32)	TOLUENE	13.25	92.0	175067	144.22	ug/L	93
33)	4-METHYL-2-PENTANONE	15.28	43.0	57851	121.76	ug/L	93
34)	TRANS-1,3-DICHLOROPROPENE	12.59	75.0	179399	105.14	ug/L	94
35)	TETRACHLOROETHYLENE	14.50	164.0	150659	153.41	ug/L	97
36)	1,1,2-TRICHLOROETHANE	14.38	97.0	97961	145.82	ug/L	93
37)	DIBROMOCHLOROMETHANE	15.20	129.0	223217	160.57	ug/L	99
38)	2-HEXANONE	12.51	43.0	39110M	111.86	ug/L	
39)	CHLOROBENZENE	16.59	112.0	257982	151.44	ug/L	82
40)	ETHYLBENZENE	17.06	106.0	118404	143.75	ug/L	99
41)	STYRENE	18.40	104.0	226800M	142.55	ug/L	89
42)	XYLENE	17.35	106.0	149885	146.87	ug/L	91
43)	XYLENES (TOTAL)	18.31	106.0	135569	149.63	ug/L	93

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	BROMOFORM	18.68	173.0	191204	157.55	ug/L	98
45)	4-BROMOFLUOROBENZENE	19.63	95.0	215818	160.11	ug/L	99
46)	1,1,2,2-TETRACHLOROETHANE	20.32	83.0	152041	178.01	ug/L	26
47)	1,3-DICHLOROBENZENE	22.35	146.0	291466	151.19	ug/L	95
48)	1,4-DICHLOROBENZENE	22.64	146.0	306095	159.14	ug/L	92
49)	1,2-DICHLOROBENZENE	23.54	146.0	284885	154.46	ug/L	90

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: VSTD200 AK7R01
Misc: AK7R 5PT WATER VSTD200 #HP-MSD K BB

Id File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

Operator ID: USER4
Quant Time: 900727 13:16
Injected at: 900727 12:50

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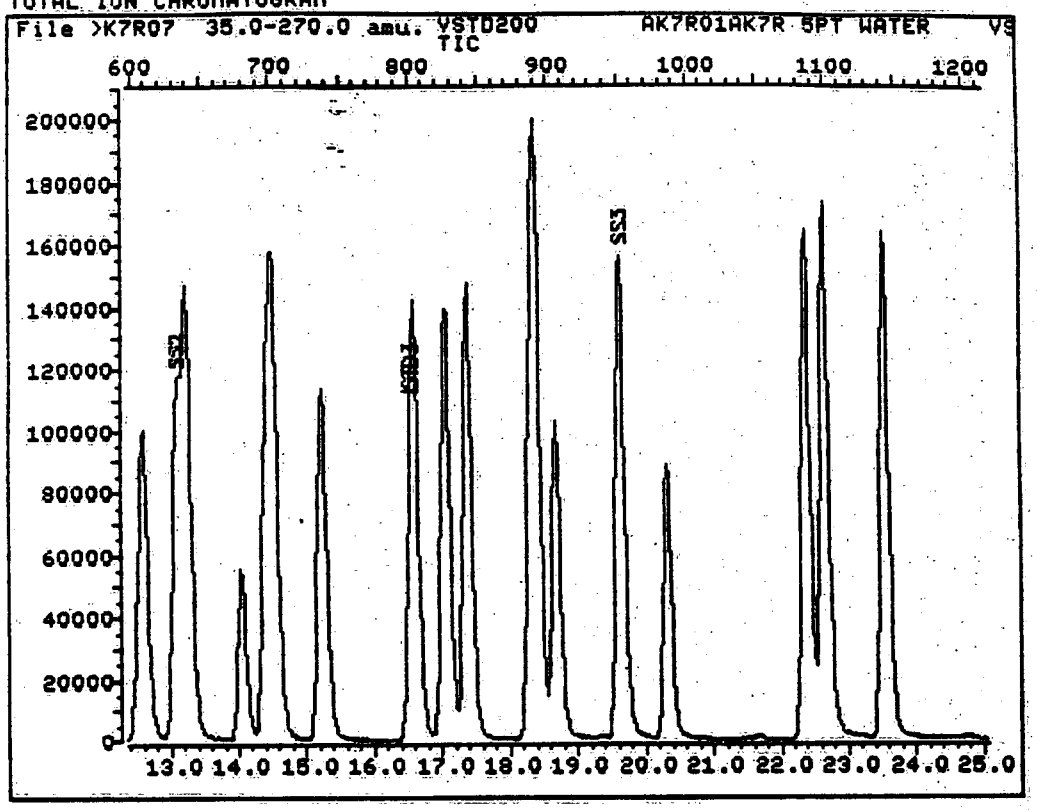
TOTAL ION CHROMATOGRAM



Data File: >K7R07::D2 Quant Output File: ^K7R07::QQ
Name: VSTD200 AK7R01
Misc: AK7R 5PT WATER VSTD200 #HP-MSD K BB

Id File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

Operator ID: USER4
Quant Time: 900727 13:16
Injected at: 900727 12:50

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4 Quant Rev: 6 Quant Time: 900727 13:16
Output File: ^K7R07::QQ Injected at: 900727 12:50
Data File: >K7R07::D2 Dilution Factor: 1.00000
Name: VSTD200 _AK7R01
Misc: AK7R 5PT WATER VSTD200 #HP-MSD K BB

ID File: I_K7RA::QQ
Title: IFB
Last Calibration: 900629 16:12

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.19	128.0	23974	50.00	ug/L	61
2)	CHLOROMETHANE	1.62	50.0	57751	223.32	ug/L	99
3)	VINYL CHLORIDE	1.76	62.0	62103M	200.07	ug/L	94
4)	BROMOMETHANE	1.92	94.0	83248	212.12	ug/L	100
5)	CHLOROETHANE	1.90	64.0	60550M	202.80	ug/L	95
6)	TRICHLOROFLUOROMETHANE	2.15	101.0	310472M	258.29	ug/L	91
7)	1,1-DICHLOROETHYLENE	2.81	96.0	82651	198.79	ug/L	93
8)	ACROLEIN	2.78	56.0	5757	169.88	ug/L	94
9)	CARBON DISULFIDE	2.95	76.0	155299	159.62	ug/L	100
10)	ACETONE	3.15	43.0	20685	144.69	ug/L	75
11)	METHYLENE CHLORIDE	3.71	84.0	99725	196.23	ug/L	87
12)	1,2-DICHLOROETHENE (TOTAL)	4.24	96.0	105991	193.57	ug/L	95
13)	ACRYLONITRILE	4.36	53.0	15969	269.06	ug/L	91
14)	1,1-DICHLOROETHANE	5.16	63.0	208478	198.33	ug/L	96
15)	VINYL ACETATE	5.72	43.0	220918	277.49	ug/L	74
16)	1,2-DICHLOROETHENE (CIS)	6.66	96.0	119760	202.78	ug/L	100
17)	2-BUTANONE	7.01	72.0	7226M	149.83	ug/L	99
18)	CHLOROFORM	7.62	83.0	305018	197.00	ug/L	92
19)	1,1,1-TRICHLOROETHANE	7.77	97.0	326242	221.08	ug/L	81
20)	CARBON TETRACHLORIDE	8.09	117.0	351709	206.77	ug/L	90
21)	*1,4-DIFLUOROBENZENE	9.84	114.0	110148M	50.00	ug/L	71
22)	BENZENE	8.59	78.0	283812	172.88	ug/L	78
23)	1,2-DICHLOROETHANE D4	8.56	65.0	202381	212.47	ug/L	87
24)	1,2-DICHLOROETHANE	8.73	62.0	229090	188.69	ug/L	92
25)	TRICHLOROETHYLENE	10.23	130.0	184386	160.19	ug/L	99
26)	2-CHLOROETHYLVINYLETHER	12.52	63.0	49481M	127.37	ug/L	
27)	1,2-DICHLOROPROPANE	10.70	63.0	112530	176.05	ug/L	98
28)	BROMODICHLOROMETHANE	11.56	83.0	291224	183.63	ug/L	93
29)	*CHLOROBENZENE-D5	16.54	117.0	88425	50.00	ug/L	92
30)	CIS-1,3-DICHLOROPROPENE	14.04	75.0	138114	245.71	ug/L	96
31)	TOLUENE D8	13.10	98.0	370974	206.83	ug/L	96
32)	TOLUENE	13.24	92.0	211281	174.37	ug/L	94
33)	4-METHYL-2-PENTANONE	15.29	43.0	7485[illegible]	157.84	ug/L	90
34)	TRANS-1,3-DICHLOROPROPENE	12.60	75.0	219728	129.02	ug/L	94
35)	TETRACHLOROETHYLENE	14.51	164.0	184933	188.65	ug/L	96
36)	1,1,2-TRICHLOROETHANE	14.39	97.0	123189	183.71	ug/L	98
37)	DIBROMOCHLOROMETHANE	15.23	129.0	271843	195.91	ug/L	99
38)	2-HEXANONE	12.52	43.0	47402M	135.83	ug/L	
39)	CHLOROBENZENE	16.60	112.0	311891	183.43	ug/L	80
40)	ETHYLBENZENE	17.08	106.0	146376	178.04	ug/L	99
41)	STYRENE	18.41	104.0	275741	173.63	ug/L	65
42)	XYLENE	17.38	106.0	179422	176.14	ug/L	85
43)	XYLENES (TOTAL)	18.31	106.0	161638	178.73	ug/L	90

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	BROMOFORM	18.70	173.0	237191	195.80	ug/L	89
45)	4-BROMOFLUOROBENZENE	19.64	95.0	291554	216.69	ug/L	97
46)	1,1,2,2-TETRACHLOROETHANE	20.32	83.0	189736	222.56	ug/L	27
47)	1,3-DICHLOROBENZENE	22.39	146.0	357852	185.97	ug/L	95
48)	1,4-DICHLOROBENZENE	22.65	146.0	369417	192.41	ug/L	95
49)	1,2-DICHLOROBENZENE	23.53	146.0	352486	191.47	ug/L	86

* Compound is ISTD

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-51-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9008L387

Instrument ID: HP-MSD K Calibration Date: 08/16/90 Time: 1519

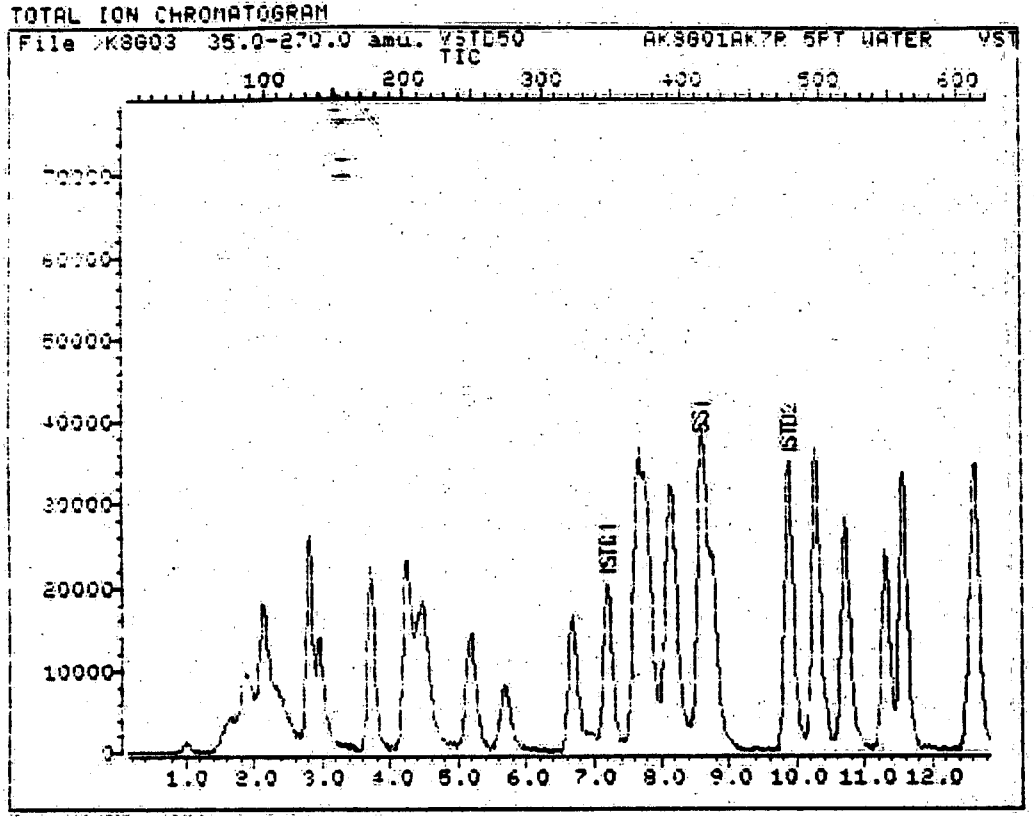
Lab File ID: AK8G03 Init. Calib. Date(s): 07/27/90 07/27/90

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	#	0.687	0.669	2.6	#
Bromomethane		0.964	1.015	-5.3	
Vinyl Chloride	*	0.762	0.842	-10.5	*
Chloroethane		0.745	0.856	-14.8	
Methylene Chloride		1.303	1.380	-5.9	
1,1-Dichloroethene	*	1.045	1.119	-7.1	*
1,1-Dichloroethane	#	2.371	2.458	-3.7	#
1,2-Dichloroethene (total)		1.185	1.256	-6.0	
Chloroform	*	3.446	3.496	-1.4	*
1,2-Dichloroethane		0.606	0.643	-6.1	
1,1,1-Trichloroethane		3.811	4.046	-6.2	
Carbon Tetrachloride		4.121	4.302	-4.4	
Bromodichloromethane		0.770	0.787	-2.2	
1,2-Dichloropropane	*	0.290	0.296	-1.9	*
cis-1,3-Dichloropropene		0.325	0.290	10.8	
Trichloroethene		0.483	0.508	-5.2	
Dibromochloromethane		0.851	0.822	3.3	
1,1,2-Trichloroethane		0.384	0.389	-1.4	
Benzene		0.730	0.793	-8.7	
Trans-1,3-Dichloropropene		0.966	0.947	2.0	
2-chloroethylvinylether		0.127	0.178	-40.3	
Bromoform	#	0.726	0.685	5.6	#
Tetrachloroethene		0.599	0.611	-2.0	
1,1,2,2-Tetrachloroethane	#	0.577	0.580	-0.5	#
Toluene	*	0.678	0.664	2.0	*
Chlorobenzene	#	0.981	0.977	0.4	#
Ethylbenzene	*	0.465	0.476	-2.4	*
1,2-Dichlorobenzene		1.110	1.105	0.4	
1,3-Dichlorobenzene		1.128	1.172	-3.9	
1,4-Dichlorobenzene		1.149	1.093	4.9	
Toluene-d8		1.104	1.079	2.3	
Bromofluorobenzene		0.868	0.879	-1.3	
1,2-Dichloroethane-d4		0.509	0.578	-13.5	

TOTAL ION CHROMATOGRAM



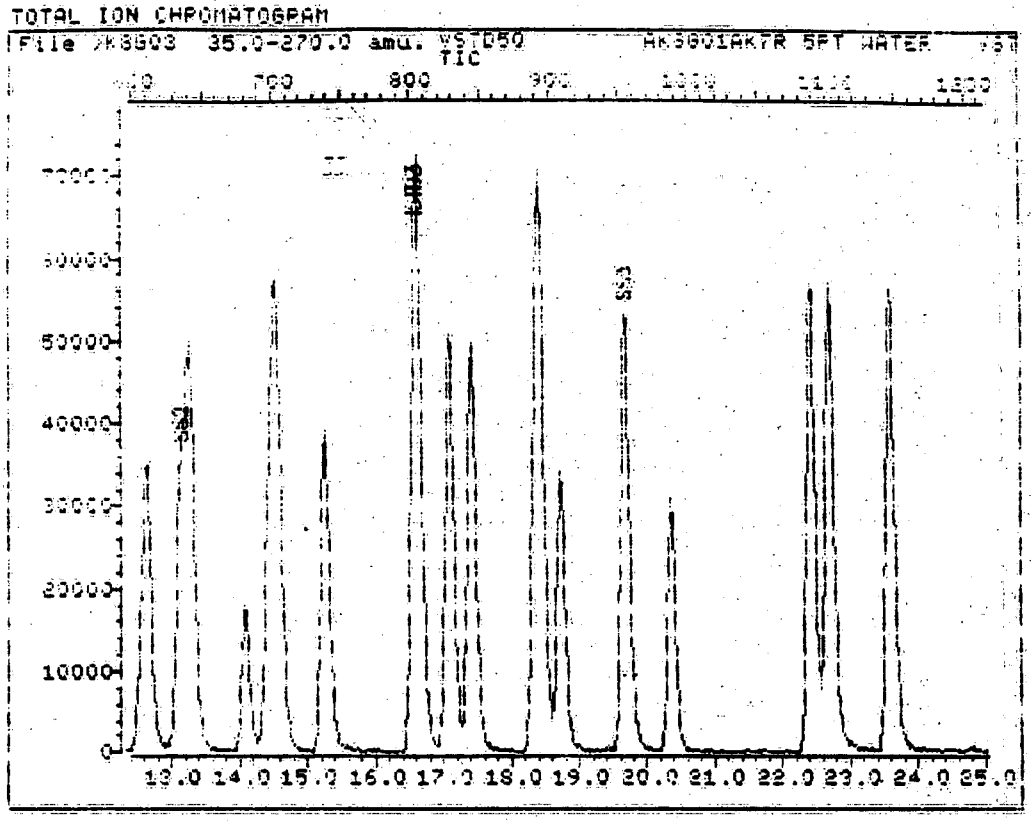
Data File: >K8G03::D2 Quant Output File: ^K8G03::QQ
Name: VSTD50 AK8G01
Misc: AK7R 5PT WATER VSTD50 DF=1 #HP-MSD K BB

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900815 11:09

Operator ID: USER4
Quant Time: 900816 15:45
Injected at: 900816 15:19

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8G03::D2 Quant Output File: ^K8G03::QQ
Name: VSTD50 AK8G01
Misc: AK7R 5PT WATER VSTD50 DF=1 #HP-MSD K BB

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900815 11:09

Operator ID: USER4
Quant Time: 900816 15:45
Injected at: 900816 15:19

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4
Output File: ^K8G03::QQ
Data File: >K8G03::D2
Name: VSTD50 -AK8G01
Misc: AK7R 5PT WATER VSTD50

Quant Rev: 6 Quant Time: 900816 15:45
Injected at: 900816 15:19
Dilution Factor: 1.00000

DF=1 #HP-MSD K BB

ID File: I_K8GA::QQ
Title: IFB
Last Calibration: 900815 11:09

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.21	128.0	28319	50.00	ug/L	47
2)	CHLOROMETHANE	1.60	50.0	18957M	50.88	ug/L	94
3)	VINYL CHLORIDE	1.70	62.0	23854M	52.15	ug/L	75
4)	BROMOMETHANE	1.94	94.0	28746M	48.04	ug/L	100
5)	CHLOROETHANE	1.88	64.0	24227M	52.22	ug/L	82
6)	TRICHLOROFLUOROMETHANE	2.13	101.0	112277M	47.79	ug/L	98
7)	1,1-DICHLOROETHYLENE	2.81	96.0	31691	50.54	ug/L	95
8)	ACROLEIN	2.76	56.0	2716M	102.79	ug/L	
9)	CARBON DISULFIDE	2.97	76.0	57547	48.55	ug/L	100
10)	ACETONE	3.05	43.0	8285	54.41	ug/L	75
11)	METHYLENE CHLORIDE	3.71	84.0	39074	53.96	ug/L	82
12)	1,2-DICHLOROETHENE (TOTAL)	4.24	96.0	35579	50.84	ug/L	95
13)	ACRYLONITRILE	4.28	53.0	4147	101.90	ug/L	74
14)	1,1-DICHLOROETHANE	5.18	63.0	69623	52.39	ug/L	87
15)	VINYL ACETATE	5.69	43.0	64566	54.19	ug/L	72
16)	1,2-DICHLOROETHENE (CIS)	6.68	96.0	33941	51.20	ug/L	100
17)	2-BUTANONE	6.96	72.0	2573M	50.78	ug/L	86
18)	CHLOROFORM	7.64	83.0	99001	49.38	ug/L	93
19)	1,1,1-TRICHLOROETHANE	7.76	97.0	114573	51.24	ug/L	89
20)	CARBON TETRACHLORIDE	8.15	117.0	121820	50.29	ug/L	87
21)	*1,4-DIFLUOROBENZENE	9.90	114.0	120870	50.00	ug/L	68
22)	BENZENE	8.63	78.0	95870	50.33	ug/L	72
23)	1,2-DICHLOROETHANE D4	8.58	65.0	69803	51.46	ug/L	86
24)	1,2-DICHLOROETHANE	8.77	62.0	77680	50.85	ug/L	91
25)	TRICHLOROETHYLENE	10.29	130.0	61408	49.81	ug/L	93
26)	2-CHLOROETHYLVINYLETHER	12.54	63.0	21542M	52.61	ug/L	79
27)	1,2-DICHLOROPROPANE	10.72	63.0	35721	50.32	ug/L	99
28)	BROMODICHLOROMETHANE	11.58	83.0	95163	47.94	ug/L	91
29)	*CHLOROBENZENE-D5	16.58	117.0	105708	50.00	ug/L	98
30)	CIS-1,3-DICHLOROPROPENE	14.10	75.0	39232	57.88	ug/L	88
31)	TOLUENE D8	13.13	98.0	114072	50.14	ug/L	98
32)	TOLUENE	13.30	92.0	70227	49.14	ug/L	94
33)	4-METHYL-2-PENTANONE	15.33	43.0	23134	51.84	ug/L	84
34)	TRANS-1,3-DICHLOROPROPENE	12.64	75.0	72053	34.70	ug/L	94
35)	TETRACHLOROETHYLENE	14.53	164.0	64608	49.25	ug/L	95
36)	1,1,2-TRICHLOROETHANE	14.43	97.0	41140	50.97	ug/L	87
37)	DIBROMOCHLOROMETHANE	15.27	129.0	86945	47.60	ug/L	90
38)	2-HEXANONE	12.56	43.0	21024M	49.76	ug/L	
39)	CHLOROBENZENE	16.64	112.0	103259	49.19	ug/L	86
40)	ETHYLBENZENE	17.11	106.0	50345	51.08	ug/L	97
41)	STYRENE	18.46	104.0	90751	48.44	ug/L	67
42)	XYLENE	17.40	106.0	58747	48.27	ug/L	89
43)	XYLENES (TOTAL)	18.36	106.0	55105M	49.75	ug/L	46

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	BROMOFORM	18.71	173.0	72413	47.13	ug/L	98
45)	4-BROMOFLUOROBENZENE	19.67	95.0	92956	52.16	ug/L	92
46)	1,1,2,2-TETRACHLOROETHANE	20.37	83.0	61319	50.45	ug/L	28
47)	1,3-DICHLOROBENZENE	22.42	146.0	123910	50.91	ug/L	91
48)	1,4-DICHLOROBENZENE	22.71	146.0	115519	46.90	ug/L	91
49)	1,2-DICHLOROBENZENE	23.59	146.0	116834	49.21	ug/L	88

* Compound is ISTD

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-51-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9008L387

Instrument ID: HP-MSD K Calibration Date: 08/17/90 Time: 0958

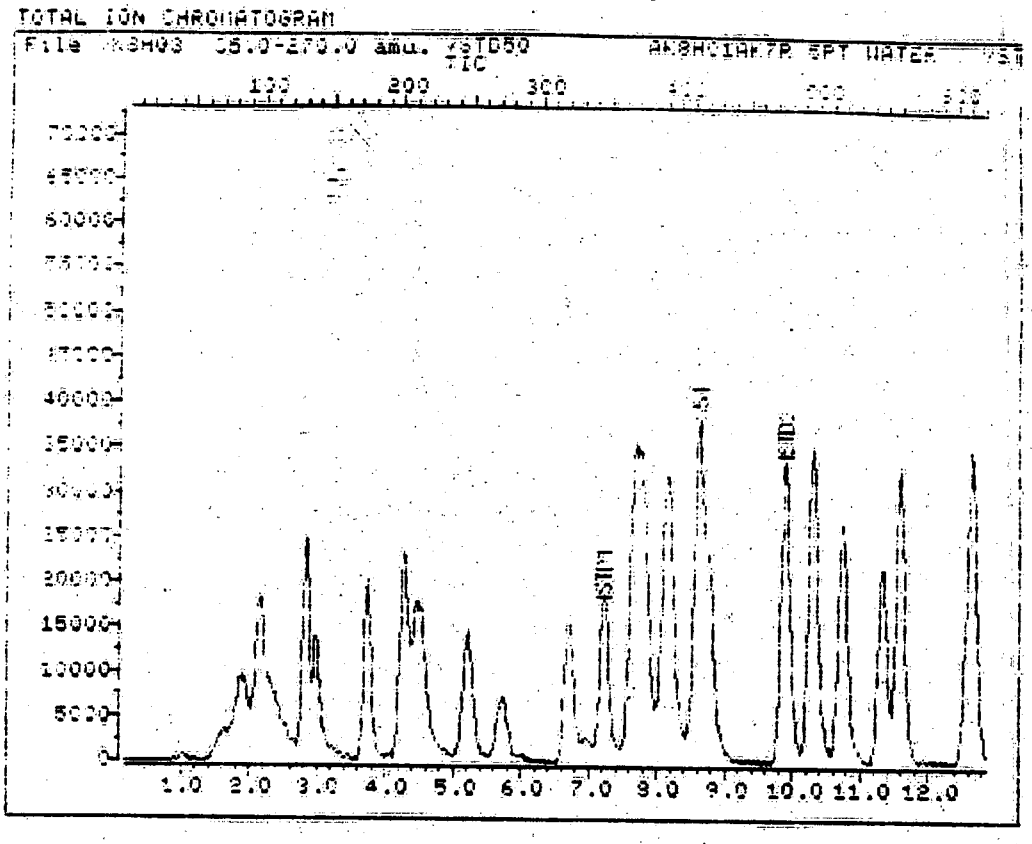
Lab File ID: AK8H03 Init. Calib. Date(s): 07/27/90 07/27/90

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	#	0.687	0.667	2.9	#
Bromomethane		0.964	1.059	-9.8	
Vinyl Chloride	*	0.762	0.861	-13.0	*
Chloroethane		0.745	0.849	-14.0	
Methylene Chloride		1.303	1.327	-1.9	
1,1-Dichloroethene	*	1.045	1.224	-17.1	*
1,1-Dichloroethane	#	2.371	2.605	-9.9	#
1,2-Dichloroethene (total)		1.185	1.311	-10.6	
Chloroform	*	3.446	3.961	-14.9	*
1,2-Dichloroethane		0.606	0.682	-12.5	
1,1,1-Trichloroethane		3.811	4.322	-13.4	
Carbon Tetrachloride		4.121	4.721	-14.6	
Bromodichloromethane		0.770	0.797	-3.5	
1,2-Dichloropropane	*	0.290	0.296	-2.2	*
cis-1,3-Dichloropropene		0.325	0.337	-3.6	
Trichloroethene		0.483	0.508	-5.1	
Dibromochloromethane		0.851	0.884	-3.9	
1,1,2-Trichloroethane		0.384	0.382	0.6	
Benzene		0.730	0.798	-9.4	
Trans-1,3-Dichloropropene		0.966	0.997	-3.2	
2-chloroethylvinylether		0.127	0.185	-45.6	
Bromoform	#	0.726	0.742	-2.2	#
Tetrachloroethene		0.599	0.666	-11.2	
1,1,2,2-Tetrachloroethane	#	0.577	0.564	2.3	#
Toluene	*	0.678	0.719	-6.0	*
Chlorobenzene	#	0.981	1.021	-4.1	#
Ethylbenzene	*	0.465	0.486	-4.5	*
1,2-Dichlorobenzene		1.110	1.162	-4.7	
1,3-Dichlorobenzene		1.128	1.240	-9.9	
1,4-Dichlorobenzene		1.149	1.208	-5.2	
Toluene-d8		1.104	1.113	-0.8	
Bromofluorobenzene		0.868	0.935	-7.7	
1,2-Dichloroethane-d4		0.509	0.570	-12.0	

TOTAL ION CHROMATOGRAM



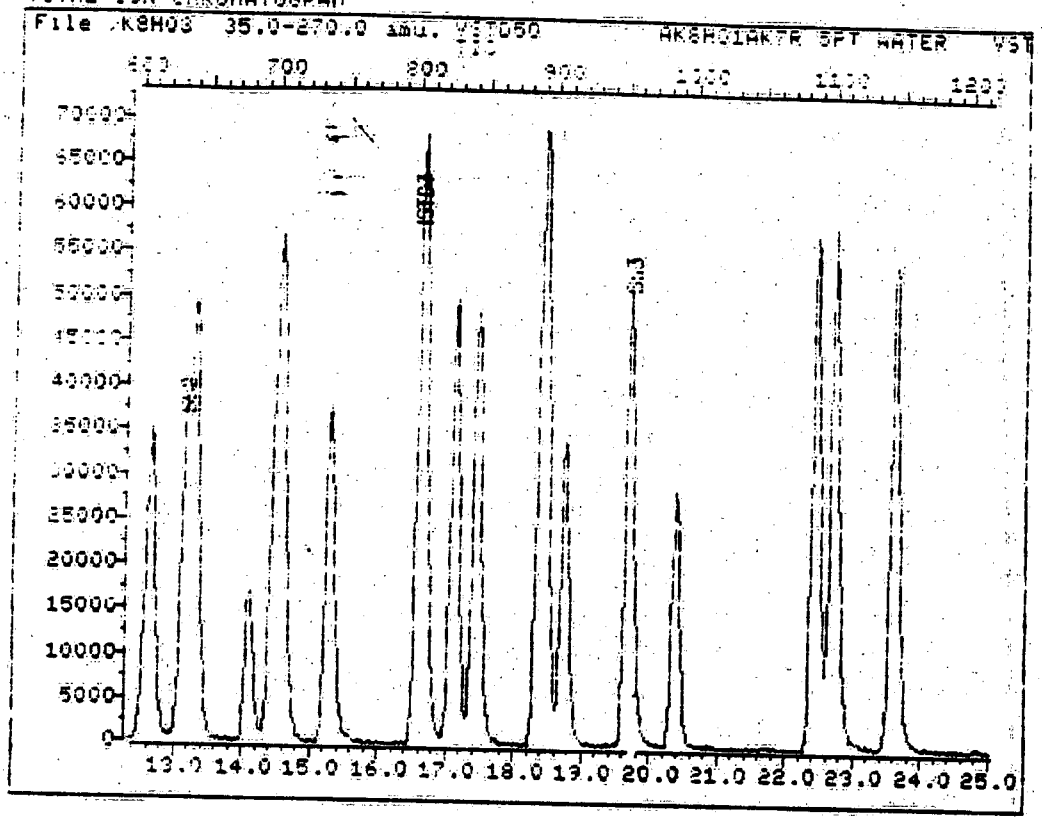
Data File: >K8H03::D2 Quant Output File: ^K8H03::QQ
Name: VSTD50 AK8H01
Misc: AK7R 5PT WATER VSTD50 DF=1 #HP-MSD K BB

Id File: I_K8HA::QQ
Title: IFB
Last Calibration: 900727 13:46

Operator ID: USER4
Quant Time: 900817 10:24
Injected at: 900817 09:58

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8H03::D2
Name: VSTD50 AK8H01
Misc: AK7R 5PT WATER VSTD50

Quant Output File: ^K8H03::QQ

DF=1 #HP-MSD K BB

Id File: I_K8HA::QQ
Title: IFB
Last Calibration: 900727 13:46

Operator ID: USER4
Quant Time: 900817 10:24
Injected at: 900817 09:58

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4 Quant Rev: 6 Quant Time: 900817 10:24
Output File: ^K8H03::QQ Injected at: 900817 09:58
Data File: >K8H03::D2 Dilution Factor: 1.00000
Name: VSTD50 -AK8H01
Misc: AK7R 5PT WATER VSTD50 DF=1 #HP-MSD K BB

ID File: I_K8HA::QQ
Title: IFB
Last Calibration: 900727 13:46

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.19	128.0	26261	50.00	ug/L	43
2)	CHLOROMETHANE	1.58	50.0	17518M	48.59	ug/L	99
3)	VINYL CHLORIDE	1.72	62.0	22613M	56.46	ug/L	95
4)	BROMOMETHANE	1.89	94.0	27806M	54.95	ug/L	100
5)	CHLOROETHANE	1.89	64.0	22299M	56.98	ug/L	95
6)	TRICHLOROFLUOROMETHANE	2.13	101.0	112644M	61.30	ug/L	99
7)	1,1-DICHLOROETHYLENE	2.83	96.0	32135	58.53	ug/L	94
8)	ACROLEIN	2.77	56.0	2138M	54.41	ug/L	
9)	CARBON DISULFIDE	2.97	76.0	58135	57.44	ug/L	100
10)	ACETONE	3.07	43.0	9487M	58.59	ug/L	86
11)	METHYLENE CHLORIDE	3.71	84.0	34858	50.93	ug/L	80
12)	1,2-DICHLOROETHENE (TOTAL)	4.24	96.0	34430	55.32	ug/L	91
13)	ACRYLONITRILE	4.26	53.0	4697M	51.18	ug/L	77
14)	1,1-DICHLOROETHANE	5.20	63.0	68414	54.95	ug/L	95
15)	VINYL ACETATE	5.70	43.0	57746	47.65	ug/L	71
16)	1,2-DICHLOROETHENE (CIS)	6.70	96.0	35310	54.80	ug/L	100
17)	2-BUTANONE	6.95	72.0	2065	56.57	ug/L	93
18)	CHLOROFORM	7.66	83.0	104016	57.48	ug/L	94
19)	1,1,1-TRICHLOROETHANE	7.77	97.0	113486	56.69	ug/L	85
20)	CARBON TETRACHLORIDE	8.16	117.0	123973	57.27	ug/L	88
21)	*1,4-DIFLUOROBENZENE	9.88	114.0	118632	50.00	ug/L	67
22)	BENZENE	8.63	78.0	94704	54.64	ug/L	74
23)	1,2-DICHLOROETHANE D4	8.61	65.0	67633	55.99	ug/L	85
24)	1,2-DICHLOROETHANE	8.77	62.0	80867	56.20	ug/L	94
25)	TRICHLOROETHYLENE	10.31	130.0	60225	52.59	ug/L	95
26)	2-CHLOROETHYLVINYLETHER	12.58	63.0	21939	72.59	ug/L	30
27)	1,2-DICHLOROPROPANE	10.74	63.0	35168	51.02	ug/L	85
28)	BROMODICHLOROMETHANE	11.58	83.0	94540	51.77	ug/L	90
29)	*CHLOROBENZENE-D5	16.58	117.0	99641	50.00	ug/L	92
30)	CIS-1,3-DICHLOROPROPENE	14.10	75.0	42943	66.30	ug/L	89
31)	TOLUENE D8	13.14	98.0	110862	50.38	ug/L	96
32)	TOLUENE	13.28	92.0	71610	53.03	ug/L	99
33)	4-METHYL-2-PENTANONE	15.33	43.0	23859	55.25	ug/L	93
34)	TRANS-1,3-DICHLOROPROPENE	12.66	75.0	71533	37.14	ug/L	93
35)	TETRACHLOROETHYLENE	14.55	164.0	66383	55.58	ug/L	95
36)	1,1,2-TRICHLOROETHANE	14.45	97.0	38045	49.68	ug/L	88
37)	DIBROMOCHLOROMETHANE	15.27	129.0	88085	51.93	ug/L	99
38)	2-HEXANONE	12.58	43.0	20992M	72.48	ug/L	
39)	CHLOROBENZENE	16.66	112.0	101748	52.02	ug/L	82
40)	ETHYLBENZENE	17.09	106.0	48415	52.25	ug/L	99
41)	STYRENE	18.44	104.0	92666	53.16	ug/L	77
42)	XYLENE	17.42	106.0	60866	52.16	ug/L	86
43)	XYLENES (TOTAL)	18.36	106.0	53775	50.56	ug/L	89

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	BROMOFORM	18.73	173.0	73954	51.14	ug/L	95
45)	4-BROMOFLUOROBENZENE	19.69	95.0	93161	53.87	ug/L	91
46)	1,1,2,2-TETRACHLOROETHANE	20.39	83.0	56179	48.88	ug/L	27
47)	1,3-DICHLOROBENZENE	22.42	146.0	123553	54.97	ug/L	93
48)	1,4-DICHLOROBENZENE	22.71	146.0	120414	52.60	ug/L	96
49)	1,2-DICHLOROBENZENE	23.57	146.0	115823	52.37	ug/L	94

* Compound is ISTD

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: Roy F. Weston, Inc. Contract: 3600-04-51-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9008L387

Lab File ID (Standard): AK8G03 Date Analyzed: 08/16/90

Instrument ID: HP-MSD K Time Analyzed: 1519

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	28319	7.21	120870	9.90	105708	16.58
UPPER LIMIT	56638	7.71	241740	10.40	211416	17.08
LOWER LIMIT	14160	6.71	60435	9.40	52854	16.08
CLIENT SAMPLE NO.						
01 MW-1	19735	7.23	100515	9.91	85494	16.63
02 MW-2	23560	7.21	115853	9.89	96910	16.59
03 MW-3	24002	7.20	117869	9.89	101154	16.58
04 MW-4	25153	7.20	117876	9.89	103347	16.58
05 MW-5	24727	7.22	115016	9.89	98398	16.58
06 MW-5 DUPE	24818	7.21	110030	9.89	96078	16.59
07 MW-5 DUPEMS	21738	7.24	106291	9.91	92043	16.58
08 MW-5 DUPEMSD	22331	7.22	105204	9.89	91284	16.60
09 FIELD BLANK	21810	7.20	107528	9.89	93346	16.58
10 TRIP BLANK	22940	7.20	103456	9.91	90720	16.60
11 VBLKLVK128-MB1	25877	7.22	118488	9.88	101737	16.60

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: 3600-04-51-0000

Case No.: WSI-LE CARPENTER RFW Lot: 9008L387

Lab File ID (Standard): AK8H03 Date Analyzed: 08/17/90

Instrument ID: HP-MSD K Time Analyzed: 0958

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	26261	7.19	118632	9.88	99641	16.58
UPPER LIMIT	52522	7.69	237264	10.38	199282	17.08
LOWER LIMIT	13131	6.69	59316	9.38	49821	16.08
CLIENT SAMPLE NO.						
01 MW-1DL	19594	7.20	91261	9.86	77602	16.58
02 MW-3DL	18414	7.25	86252	9.89	73988	16.58
03 VBLKLVK129-MB1	20717	7.23	95459	9.87	79126	16.56

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

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 I)
2. TIC Results (Form IB)
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

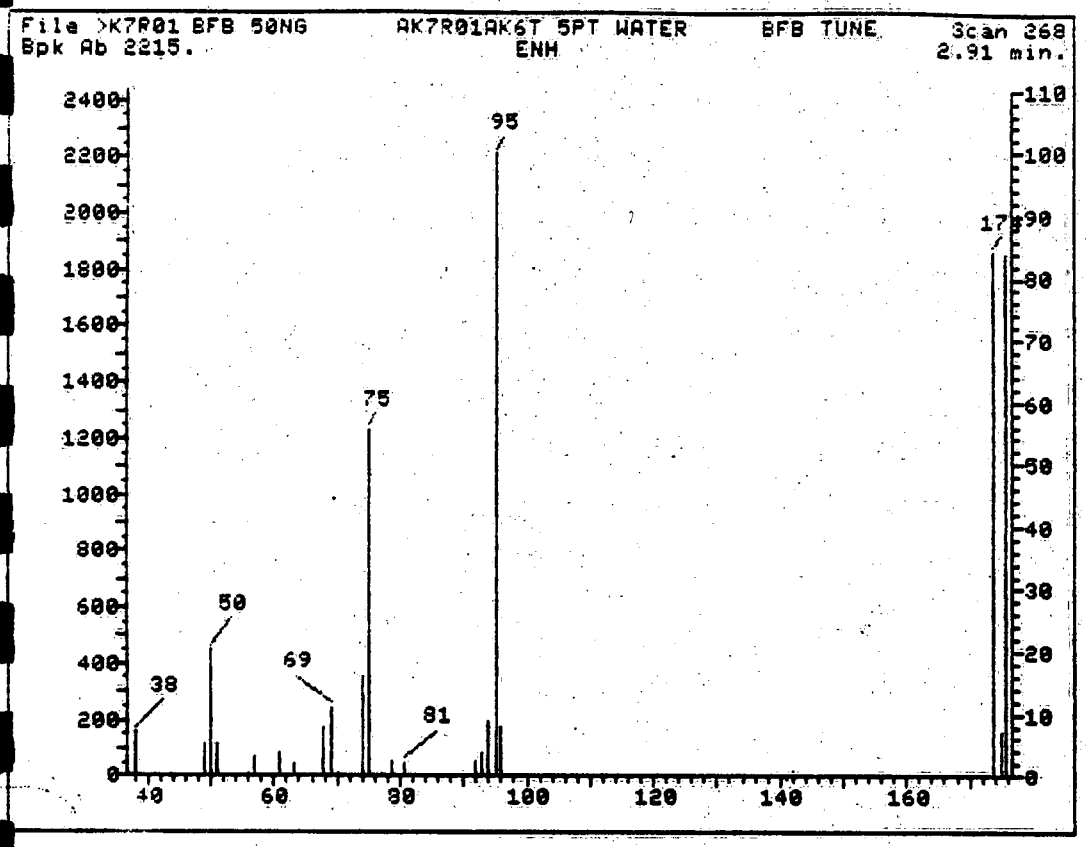
C. Matrix Spike Data

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

MS data file header from : >K7R01

Sample: BFB 50NG AK7R01 Operator: USER4 SUPER GRP. 7/27/90 8:45
Misc : AK6T 5PT WATER BFB TUNE #HP-MSD K BB
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: BFBK Tuning file: MT8102 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



>K7R01 BFB 50NG AK7R01AK6T 5PT WATER BFB TUNE #HP-M

168

268 ENH

File: >K7R01 Scan #: 268 Retn. time: 2.91

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.85	88.00	57.05	69.20	70.00	6.40	80.75	48.20	96.00	175.80
37.95	157.40	60.95	82.80	74.00	353.40	91.80	57.40	173.85	1868.20
48.90	110.40	63.05	45.80	75.00	1231.00	92.80	85.60	174.95	159.00
50.00	450.20	67.80	173.00	76.90	13.00	94.00	197.40	175.85	1858.20
50.90	112.00	69.00	244.80	78.75	52.80	95.10	2215.00	176.85	126.20
55.85	7.60								

MS data file header from : >K8G01

Sample: BFB 50NG AK8G01 Operator: USER4 SUPER GRP. 8/16/90 14:

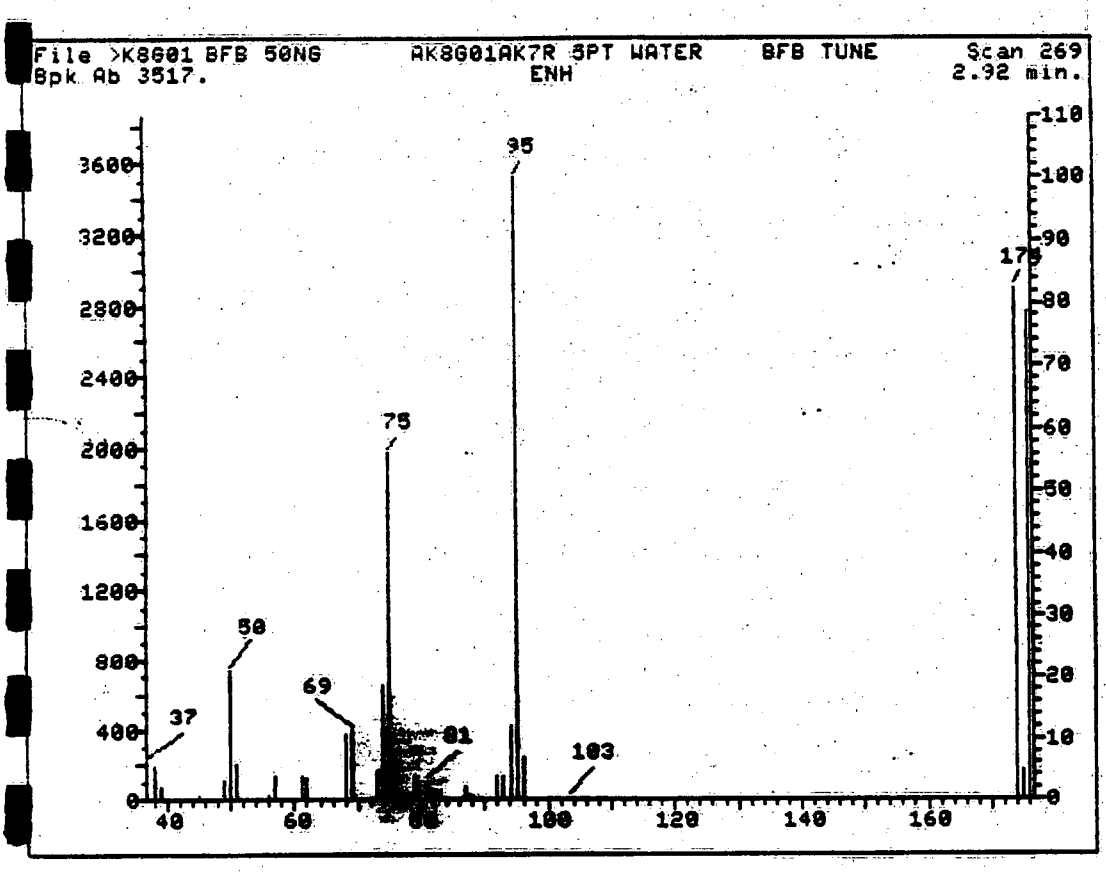
Misc : AK7R 5PT WATER BFB TUNE #HP-MSD K BB

Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0

Method file: BFBK Tuning file: MT8102 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



>K8G01 BFB 50NG AK8G01AK7R 5PT WATER BFB TUNE #HP-MSD K

269 ENH

170

File: >K8G01 Scan #: 269 Retn. time: 2.92

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.85	210.60	56.05	32.00	74.00	658.20	87.65	31.00	96.00	236.00
37.95	190.80	56.85	138.20	75.10	1975.80	87.95	17.80	103.25	9.00
39.15	71.00	61.15	138.00	76.10	199.40	91.90	136.60	173.95	2891.40
44.90	27.00	61.95	125.40	78.95	129.60	92.70	132.20	174.95	174.80
49.00	108.60	68.00	377.00	80.95	99.40	94.10	420.80	175.85	2760.60
50.10	737.20	69.00	392.00	86.55	14.20	95.00	3517.00	176.75	166.80
51.00	199.20	73.10	167.20	87.05	79.40				

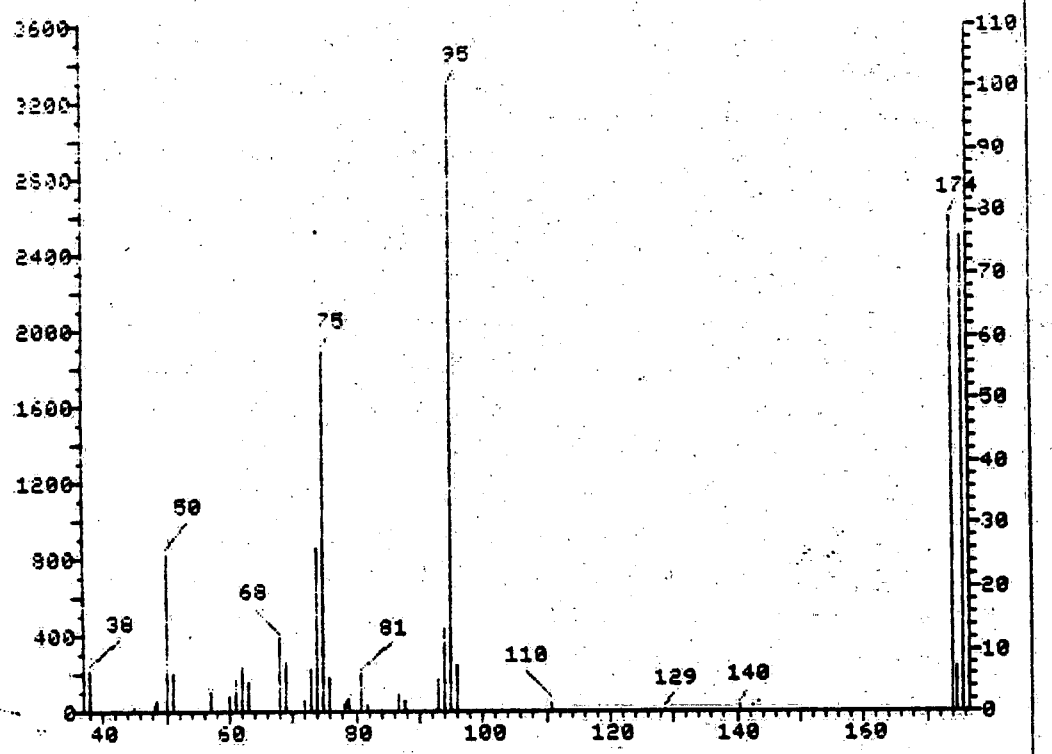
MS data file header from : >K8H01

Sample: BFB 50NG AK8H01 Operator: USER4 SUPER GRP. 8/17/90 9:07
Misc : AK7R 5PT WATER BFB TUNE #HP-MSD K B
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: BFBK Tuning file: MT8102 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

171

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

File >K8H01 BFB 50NG AK8H01AK7R 5PT WATER BFB TUNE Scan 268
Pk Ab 3284. 2.94 min.



>K8H01 BFB 50NG AK8H01AK7R 5PT WATER BFB TUNE
268

172

File: >K8H01 Scan #: 268 Retn. time: 2.94

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.05	132.00	59.95	82.00	74.00	859.00	81.75	41.00	110.65	48.00
38.05	215.00	61.05	170.00	75.00	1893.00	86.65	95.00	128.75	10.00
44.90	25.00	62.05	249.00	76.00	180.00	87.85	63.00	140.50	33.00
48.20	36.00	63.05	154.00	78.05	36.00	93.10	170.00	173.95	2592.00
48.60	59.00	67.90	390.00	78.35	53.00	93.90	441.00	174.85	233.00
50.00	825.00	68.90	263.00	78.95	74.00	95.00	3284.00	175.85	2489.00
51.10	197.00	71.90	53.00	80.95	199.00	96.10	245.00	176.85	186.00
57.05	98.00	73.00	225.00						

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 173

VBLK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 90LVK129-MB1

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

Lab File ID: AK8H04

Level: (low/med) LOW

Date Received: 08/17/90

% Moisture: not dec. _____

Date Analyzed: 08/17/90

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	8	
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. 174

VBLK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 90LVK129-MB1

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

Lab File ID: AK8H04

Level: (low/med) LOW

Date Received: 08/17/90

% Moisture: not dec. _____

Date Analyzed: 08/17/90

Column: (pack/cap) CAP

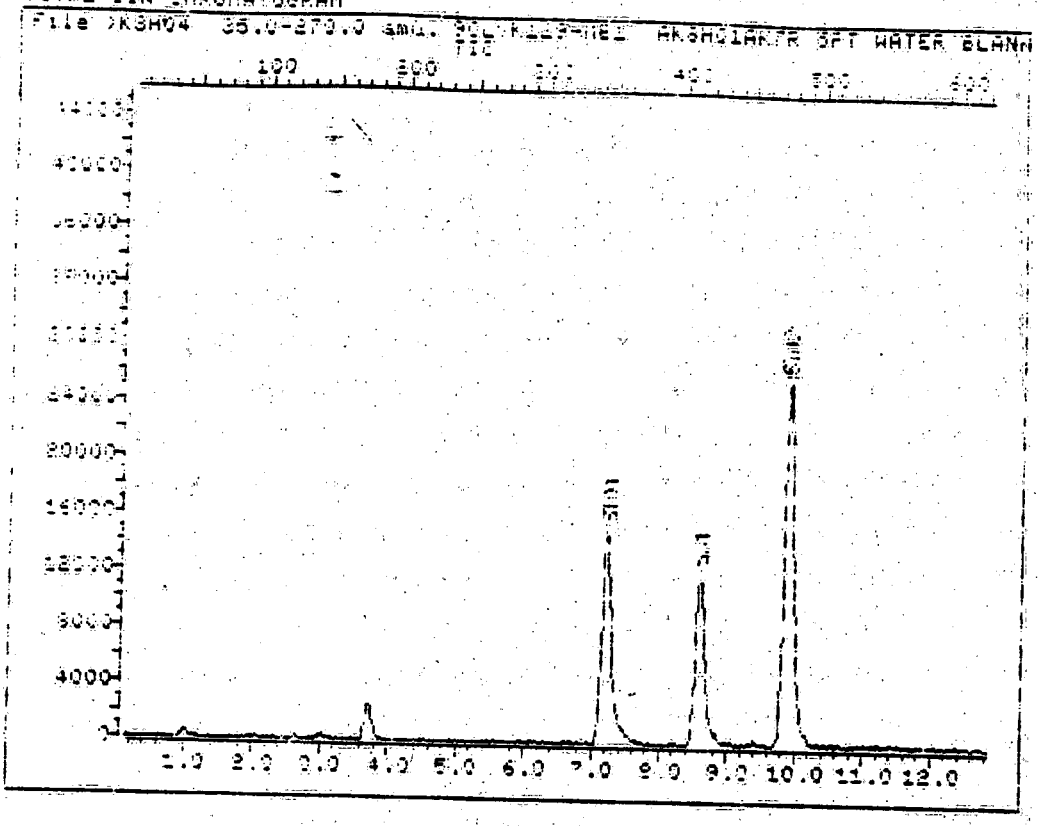
Dilution Factor: 1.00

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: >K8H04::D2
Name: 90LVK129-MB1 AK8H01
Misc: AK7R 5PT WATER BLANK

Quant Output File: ^K8H04::QQ

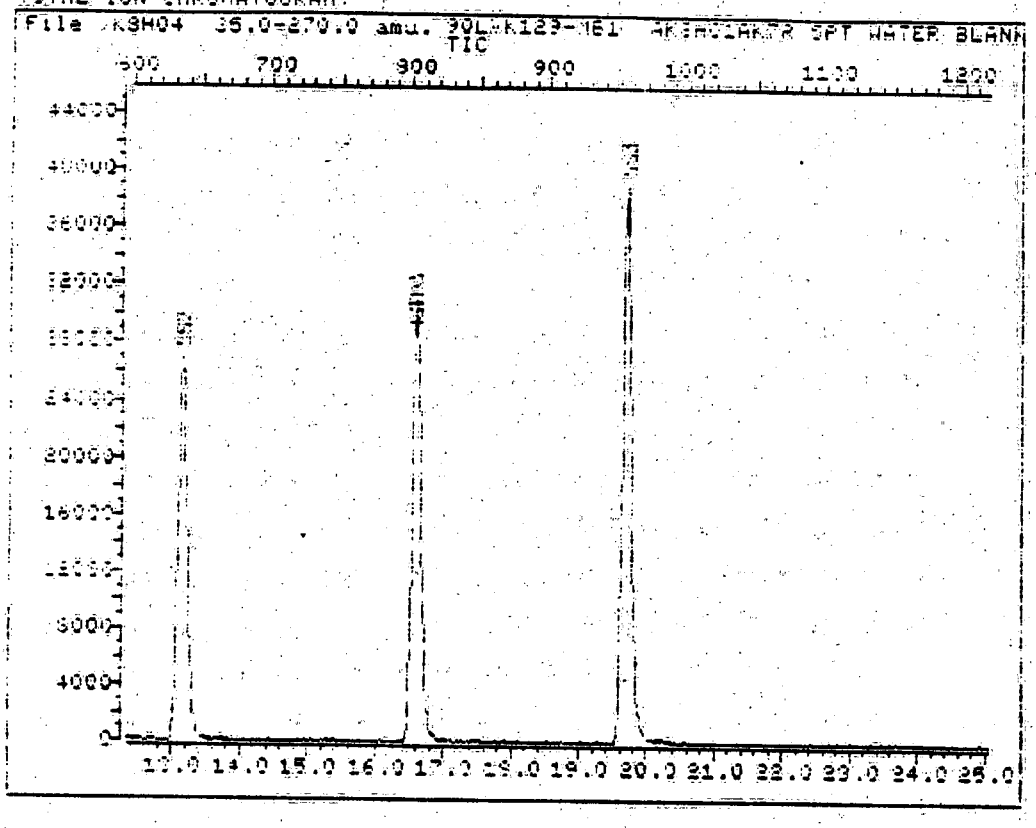
DF=1 #HP-MSD K BB

Id File: I_K8HA::QQ
Title: IFB
Last Calibration: 900817 10:45

Operator ID: USER4
Quant Time: 900817 11:17
Injected at: 900817 10:51

TIC page 1 of 2

TOTAL ION CHROMATOGRAM.



Data File: >K8H04::D2
Name: 90LVK129-MB1 AK8H01
Misc: AK7R 5PT WATER BLANK

Quant Output File: ^K8H04::QQ

DF=1 #HP-MSD K BB

Id File: I_K8HA::QQ
Title: IFB
Last Calibration: 900817 10:45

Operator ID: USER4
Quant Time: 900817 11:17
Injected at: 900817 10:51

TIC page 2 of 2

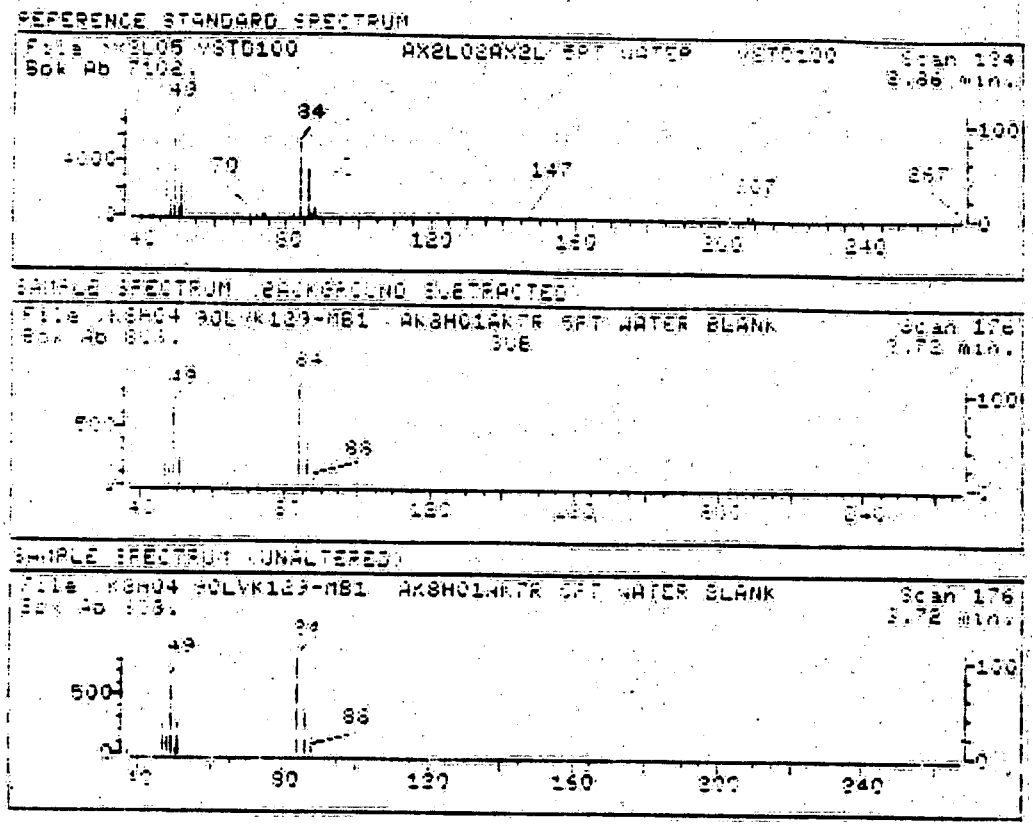
QUANT REPORT

Operator ID: USER4 Quant Rev: 6 Quant Time: 900817 11:17
Output File: ^K8H04::QQ Injected at: 900817 10:51
Data File: >K8H04::D2 Dilution Factor: 1.00000
Name: 90LVK129-MB1 AK8H01
Misc: AK7R 5PT WATER BLANK DF=1 #HP-MSD K BB

ID File: I_K8HA::CQ
Title: IFB
Last Calibration: 900817 10:45

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.23	128.0	20717	50.00	ug/L	56
11)	METHYLENE CHLORIDE	3.72	84.0	4307	7.83	ug/L	50
21)	*1,4-DIFLUOROBENZENE	9.87	114.0	95459	50.00	ug/L	67
23)	1,2-DICHLOROETHANE D4	8.58	65.0	49806	45.76	ug/L	86
29)	*CHLOROBENZENE-D5	16.56	117.0	79126	50.00	ug/L	97
31)	TOLUENE D8	13.14	98.0	87676	49.80	ug/L	95
40)	ETHYLBENZENE	17.46	106.0	87	.11	ug/L	60
45)	4-BROMOFLUOROBENZENE	19.69	95.0	70408	47.59	ug/L	96

* Compound is ISTD



Data File: >K8H04::D2
Name: 90LVK129-MB1 AK8H01
Misc: AK7R 5PT WATER BLANK
Quant Time: 900817 11:17
Injected at: 900817 10:51

Quant Output File: ^K8H04::QQ
DF=1 #HP-MSD K BB
Quant ID File: I_K8HA::QQ
Last Calibration: 900817 10:45

Compound No: 11
Compound Name: METHYLENE CHLORIDE
Scan Number: 176
Retention Time: 3.72 min.
Quant Ion: 84.0
Area: 4307
Concentration: 7.83 ug/L
q-value: 50

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

VBLK 179

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 90LVK128-MB1

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

Lab File ID: AK8G04

Level: (low/med) LOW

Date Received: 08/16/90

% Moisture: not dec. ____

Date Analyzed: 08/16/90

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	13	
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. 180

VBLK

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 90LVK128-MB1

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

Lab File ID: AK8G04

Level: (low/med) LOW

Date Received: 08/16/90

% Moisture: not dec. ____

Date Analyzed: 08/16/90

Column: (pack/cap) CAP

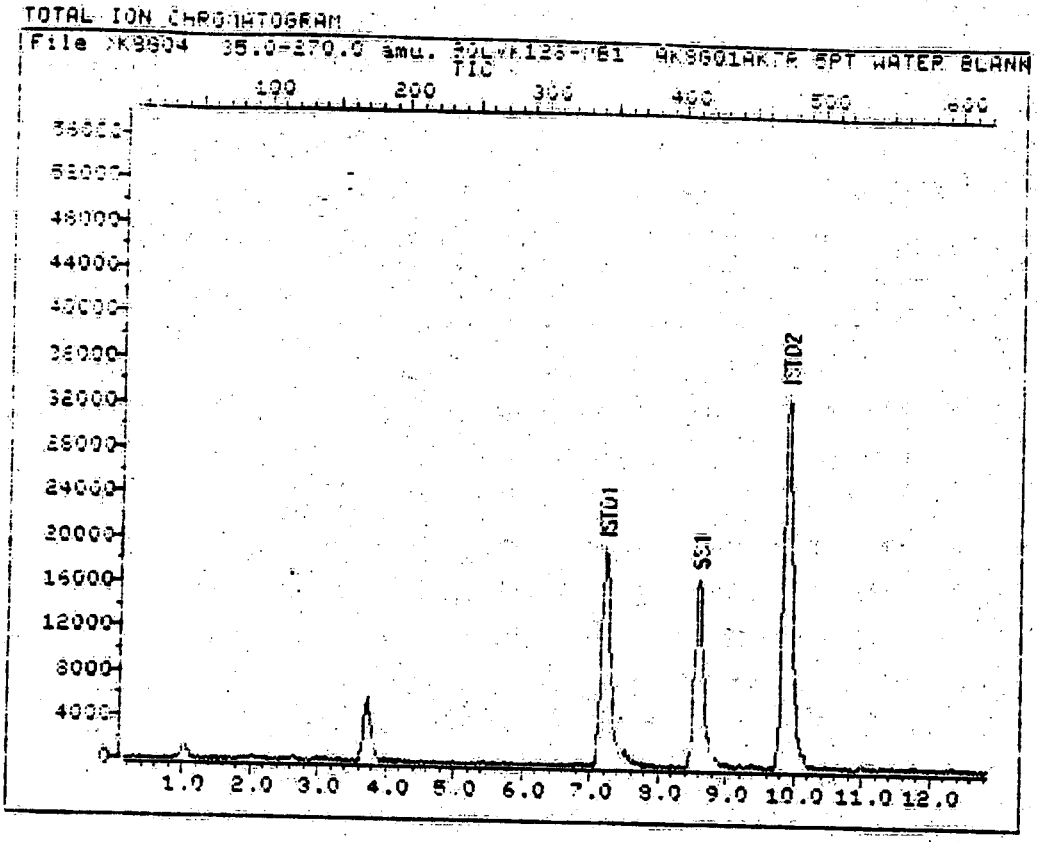
Dilution Factor: 1.00

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: >K8G04::D2
Name: 90LVK128-MB1 AK8G01
Misc: AK7R 5PT WATER BLANK

Quant Output File: ^K8G04::QQ

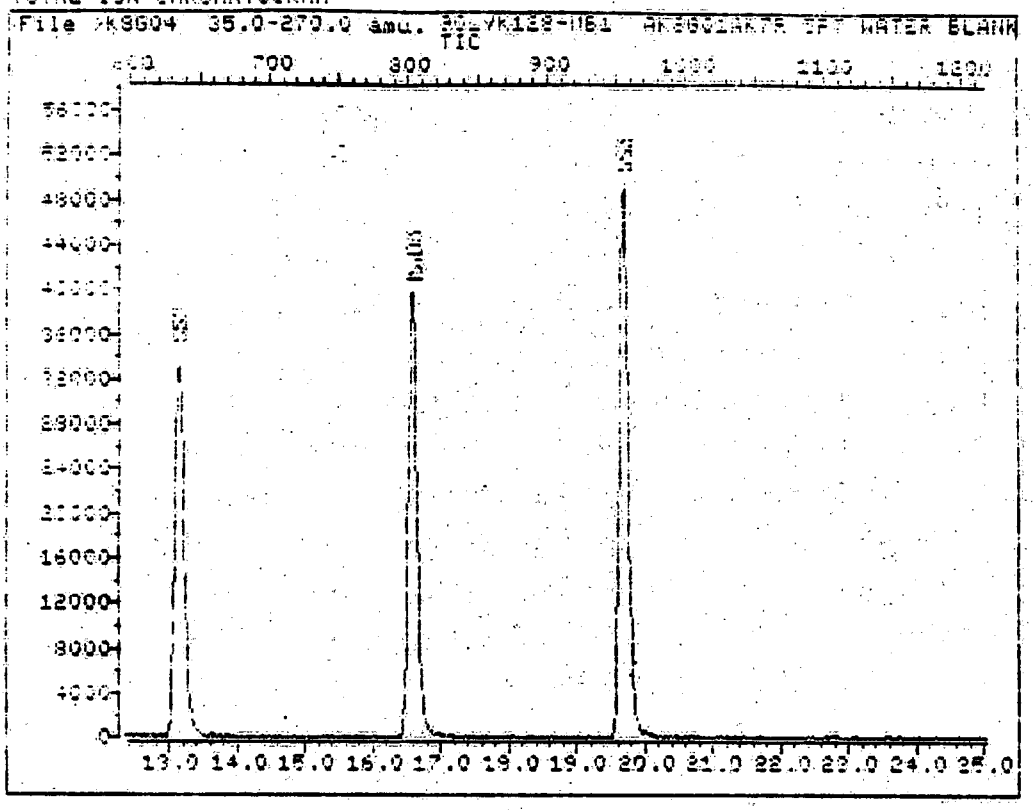
DF=1 #HP-MSD K BB

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 16:38
Injected at: 900816 16:12

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8G04::D2 Quant Output File: ^K8G04::QQ
Name: 90LVK128-MB1 AK8G01
Misc: AK7R 5PT WATER BLANK DF=1 #HP-MSD K BB

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 16:38
Injected at: 900816 16:12

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4
Output File: ^K8G04::QQ
Data File: >K8G04::D2
Name: 90LVK128-MB1 AK8G01
Misc: AK7R 5PT WATER BLANK

Quant Rev: 6 Quant Time: 900816 16:38
Injected at: 900816 16:12
Dilution Factor: 1.00000

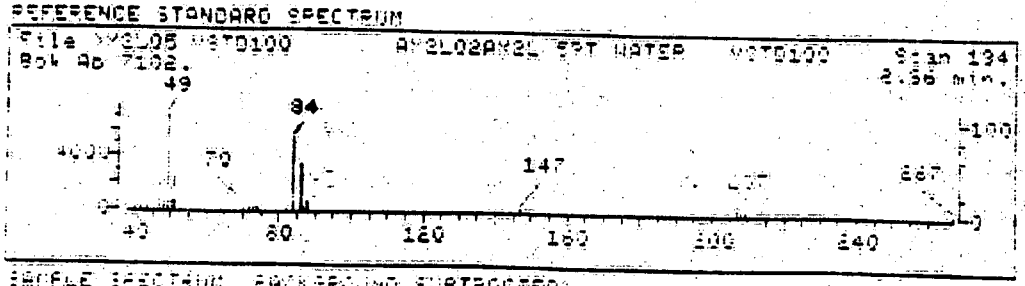
DF=1 #HP-MSD K 83

ID File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

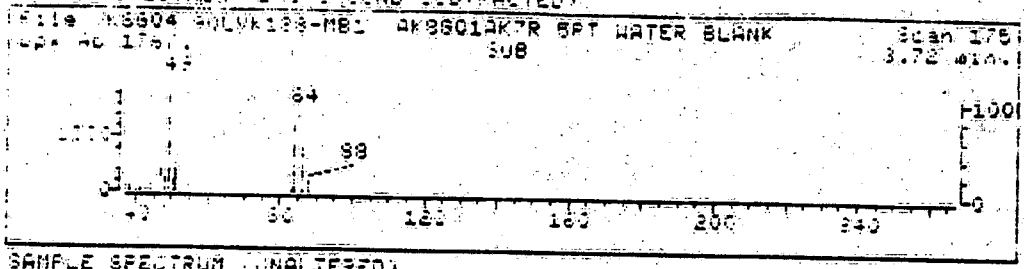
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.22	128.0	25877	50.00	ug/L	62
11)	METHYLENE CHLORIDE	3.72	84.0	8966	12.56	ug/L	95
21)	*1,4-DIFLUOROBENZENE	9.88	114.0	118488	50.00	ug/L	69
23)	1,2-DICHLOROETHANE D4	8.59	65.0	63004	46.04	ug/L	86
29)	*CHLOROBENZENE-D5	16.60	117.0	101737	50.00	ug/L	98
31)	TOLUENE D8	13.14	98.0	115925	52.80	ug/L	96
45)	4-BROMOFLUOROBENZENE	19.69	95.0	89764	50.17	ug/L	92

* Compound is ISTD

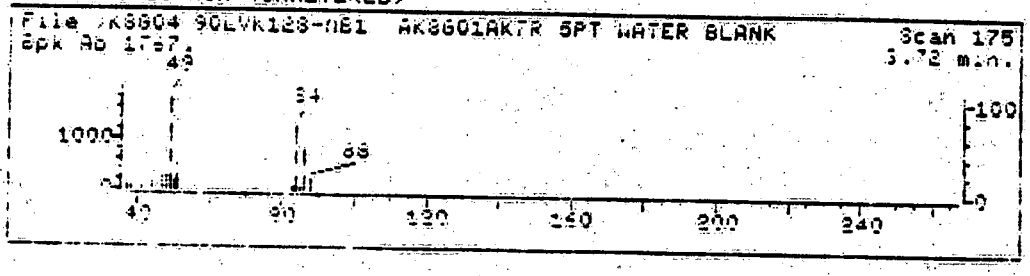
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K8G04::D2
Name: 90LVK128-MB1 AK8G01
Misc: AK7R 5PT WATER BLANK
Quant Time: 900816 16:38
Injected at: 900816 16:12

Quant Output File: ^K8G04::QQ

DF=1 #HP-MSD K BB
Quant ID File: I_K8GA::QQ
Last Calibration: 900816 16:04

Compound No: 11
Compound Name: METHYLENE CHLORIDE
Scan Number: 175
Retention Time: 3.72 min.
Quant Ion: 84.0
Area: 8966
Concentration: 12.56 ug/L
q-value: 95

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO.

MW-5 DUPEMS

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-006 MS

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

Lab File ID: AK8G15

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. ____

Date Analyzed: 08/16/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

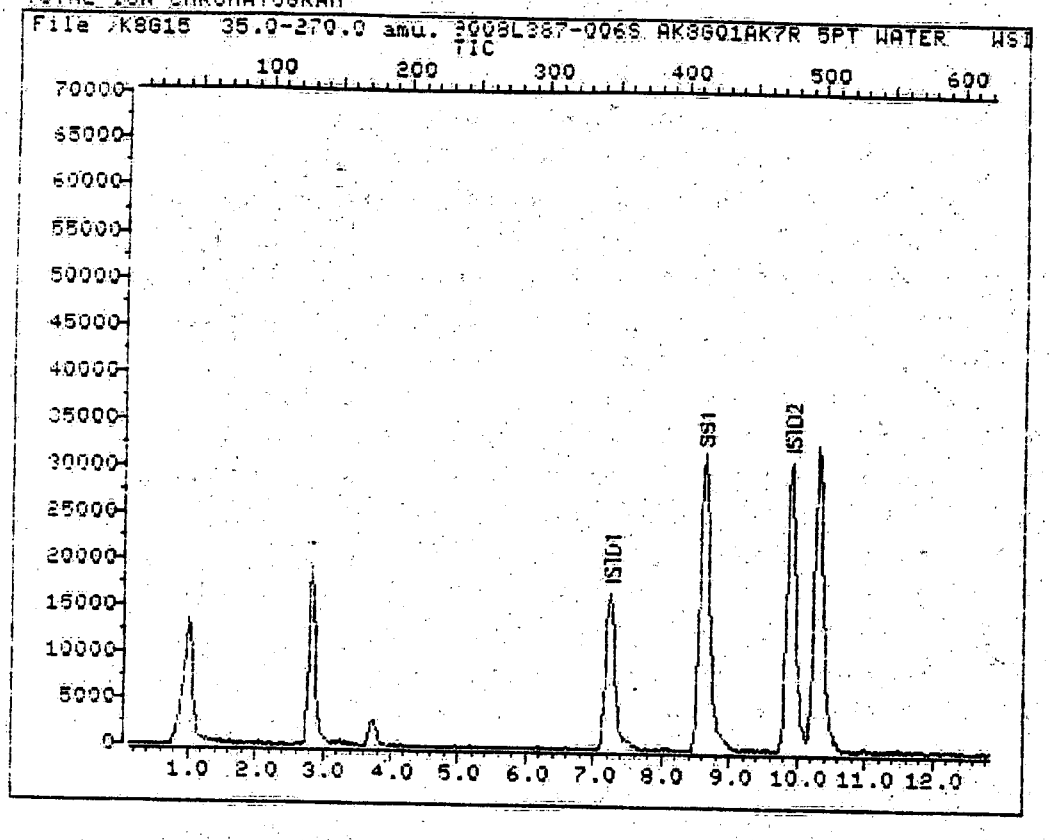
CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	9	B
75-35-4	1,1-Dichloroethene		S
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	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
95-5[illegible]	1,2-Dichlorobenzene	5	U
541-[illegible]	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

FORM 1 V-1

12/88 Rev.

TOTAL ION CHROMATOGRAM



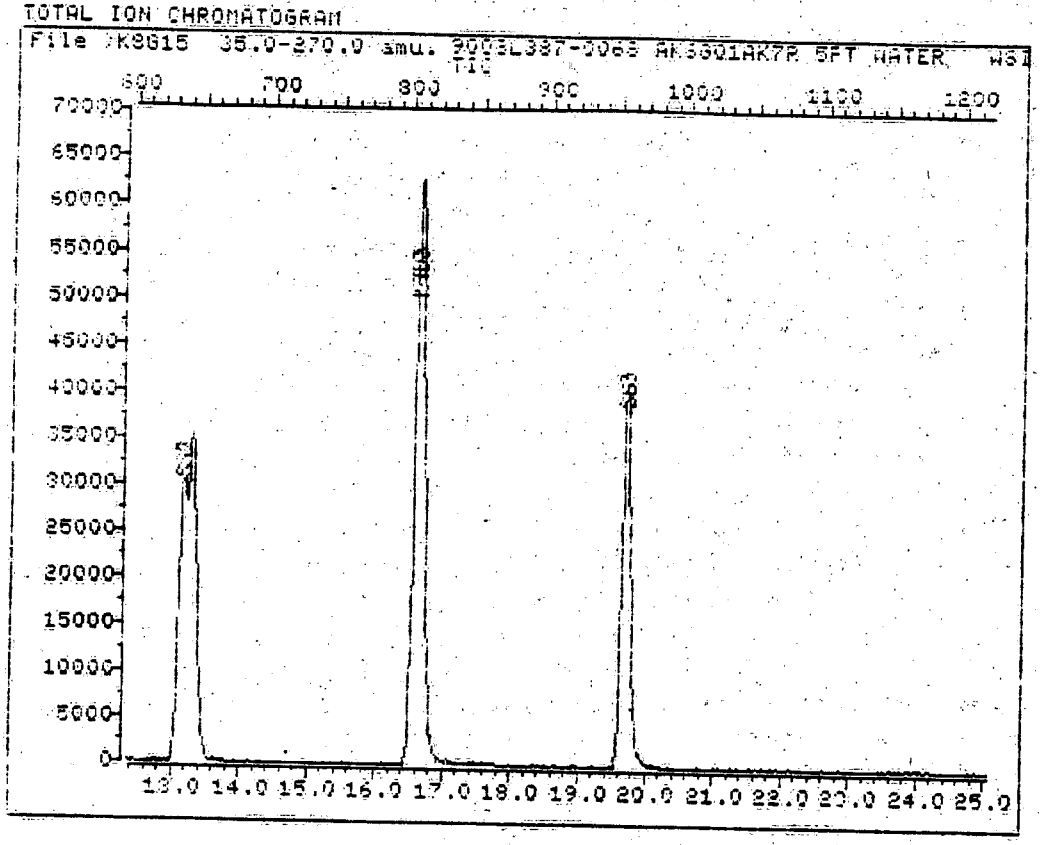
Data File: >K8G15::D2 Quant Output File: ^K8G15::QQ
Name: 9008L387-006S AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 MS #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 22:53
Injected at: 900816 22:27

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8G15::D2 Quant Output File: ^K8G15::QQ
Name: 9008L387-006S AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 MS #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 22:53
Injected at: 900816 22:27

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4 Quant Rev: 6 Quant Time: 900816 22:53
Output File: ^K8G15::QQ Injected at: 900816 22:27
Data File: >K8G15::D2 Dilution Factor: 1.00000
Name: 9008L387-006S AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 MS #HP-MSD K B

ID File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.24	128.0	21738	50.00	ug/L	62
7)	1,1-DICHLOROETHYLENE	2.82	96.0	24465	50.28	ug/L	92
11)	METHYLENE CHLORIDE	3.74	84.0	5163	8.61	ug/L	98
21)	*1,4-DIFLUOROBENZENE	9.91	114.0	106291	50.00	ug/L	67
22)	BENZENE	8.64	78.0	77307	45.85	ug/L	72
23)	1,2-DICHLOROETHANE D4	8.62	65.0	57040	46.46	ug/L	80
24)	1,2-DICHLOROETHANE	8.74	62.0	154	.11	ug/L	65
25)	TRICHLOROETHYLENE	10.32	130.0	54304	50.28	ug/L	96
29)	*CHLOROBENZENE-D5	16.58	117.0	92043	50.00	ug/L	92
31)	TOLUENE D8	13.14	98.0	96084	48.37	ug/L	96
32)	TOLUENE	13.31	92.0	59159	48.37	ug/L	99
39)	CHLOROBENZENE	16.64	112.0	87195	48.49	ug/L	78
40)	ETHYLBENZENE	17.59	106.0	132	.15	ug/L	78
42)	XYLENE	17.59	106.0	132	.13	ug/L	76
45)	4-BROMOFLUOROBENZENE	19.67	95.0	71748	44.32	ug/L	92

* Compound is ISTD

1A
VOLATILE ORGANICS ANALYSIS SHEET

CLIENT SAMPLE NO. 189

MW-5 DUPEMSD

Lab Name: Roy F. Weston, Inc. Work Order: 3600-04-51-0000

Client: WSI-LE CARPENTER

Matrix: WATER

Lab Sample ID: 9008L387-006 MSD

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

Lab File ID: AK8G16

Level: (low/med) LOW

Date Received: 08/15/90

% Moisture: not dec. ____

Date Analyzed: 08/16/90

Column: (pack/cap) CAP

Dilution Factor: 1.00

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

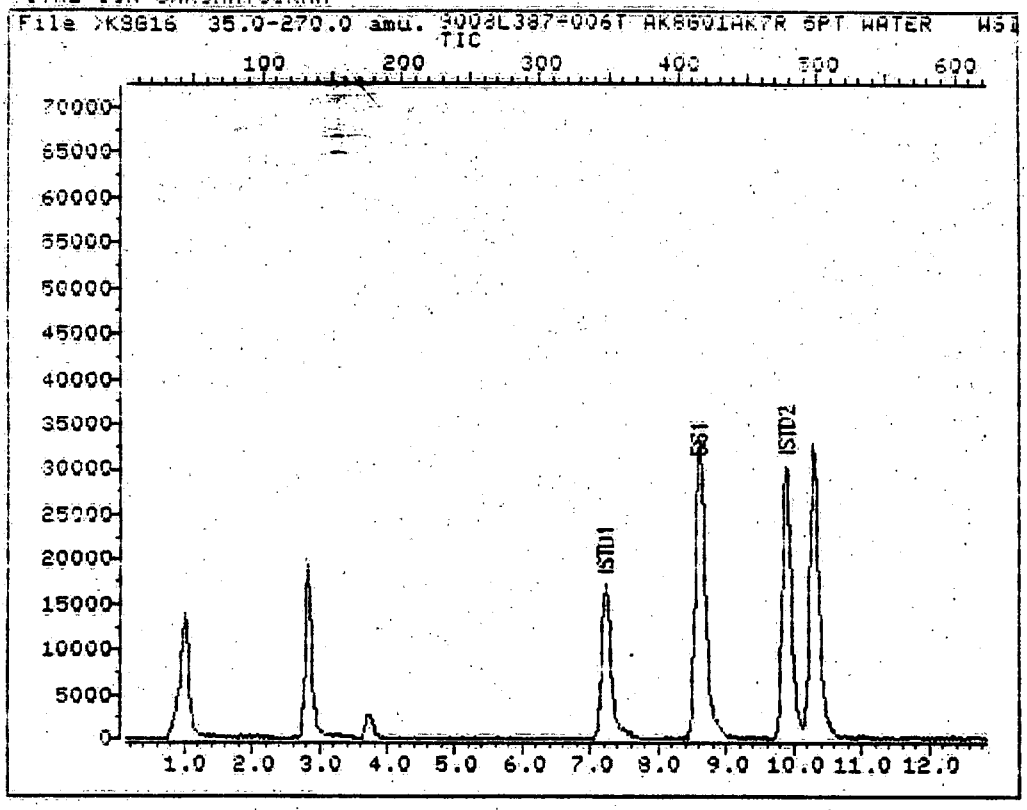
CAS NO.	COMPOUND		
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	9	B
75-35-4	1,1-Dichloroethene		S
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	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
[illegible]1	1,2-Dichlorobenzene	5	U
5[illegible]-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

FORM 1 V-1

12/88 Rev.

TOTAL ION CHROMATOGRAM



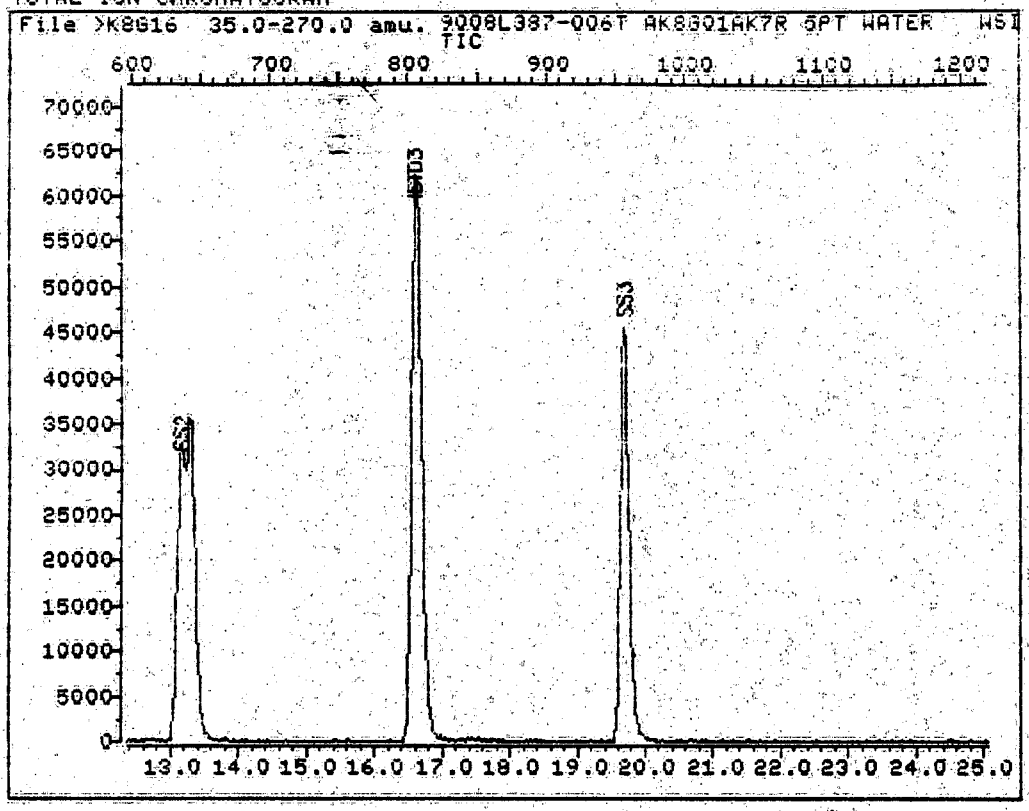
Data File: >K8G16::D2 Quant Output File: ^K8G16::QQ
Name: 9008L387-006T AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 MSD #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 23:26
Injected at: 900816 23:00

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K8G16::D2 Quant Output File: ^K8G16::QQ
Name: 9008L387-006T AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 MSD #HP-MSD K B

Id File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

Operator ID: USER4
Quant Time: 900816 23:26
Injected at: 900816 23:00

TIC page 2 of 2

QUANT REPORT

Operator ID: USER4 Quant Rev: 6 Quant Time: 900816 23:26
Output File: ^K8G16::QQ Injected at: 900816 23:00
Data File: >K8G16::D2 Dilution Factor: 1.00000
Name: 9008L387-006T-AK8G01
Misc: AK7R 5PT WATER WSI-CARPENTER DF=1 MSD #HP-MSD K B

ID File: I_K8GA::QQ
Title: IFB
Last Calibration: 900816 16:04

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	7.22	128.0	22331	50.00	ug/L	63
7)	1,1-DICHLOROETHYLENE	2.82	96.0	24675	49.37	ug/L	93
11)	METHYLENE CHLORIDE	3.76	84.0	5354M	8.69	ug/L	86
21)	*1,4-DIFLUOROBENZENE	9.89	114.0	105204	50.00	ug/L	72
22)	BENZENE	8.66	78.0	79819	47.83	ug/L	83
23)	1,2-DICHLOROETHANE D4	8.60	65.0	57316	47.17	ug/L	81
25)	TRICHLOROETHYLENE	10.30	130.0	53042	49.62	ug/L	91
27)	1,2-DICHLOROPROPANE	10.30	63.0	230	.37	ug/L	88
29)	*CHLOROBENZENE-D5	16.60	117.0	91284	50.00	ug/L	99
31)	TOLUENE D8	13.14	98.0	101665	51.60	ug/L	98
32)	TOLUENE	13.29	92.0	59019	48.66	ug/L	99
39)	CHLOROBENZENE	16.66	112.0	89297	50.07	ug/L	84
40)	ETHYLBENZENE	17.38	106.0	131	.15	ug/L	56
42)	XYLENE	17.38	106.0	131	.13	ug/L	88
45)	4-BROMOFLUOROBENZENE	19.69	95.0	78857	49.12	ug/L	99

* Compound is ISTD

193

SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 08/16/90 | Extraction Batch No: 90LVK128 | Analyst: | Method: ****

Test: O624 | Cleanup Date: | Analyst: | Client: TAT-M&I

LIMS Report Date: 08/22/90 | 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
9008L344-	TAT-M&I										
008 PS	LO8		5	1	1	5		1	N		1.00
008 PT	LO8		5	1	1	5		1	N		1.00
9008L387-	WSI-LE CARPENTER										
002 P	MW-2		5	1		5		1	N		1.00
004 P	MW-4		5	1		5		1	N		1.00
005 P	MW-5		5	1		5		1	N		1.00
006 P	MW-5 DUPE		5	1		5		1	N		1.00
006 PS	MW-5 DUPE		5	1	1	5		1	N		1.00
006 PT	MW-5 DUPE		5	1	1	5		1	N		1.00
007 P	FIELD BLANK		5	1		5		1	N		1.00
008 P	TRIP BLANK		5	1		5		1	N		1.00
90LVK128-MB1 P			5	1		5		1	N		1.00

Comments:
Surrogate:
Spike:

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

194

SAMPLE PREP RECORD

Sheet no.: 1

Extract. Date: 08/17/90 | Extraction Batch No: 90LVK129 | Analyst: | Method: ****

Test: O624 | Cleanup Date: | Analyst: | Client: HUGGLER&SILVERANG

LIMS Report Date: 08/22/90 | 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
9008L382-	HUGGLER&SILVERANG										
009 P	FIELD BLANK		5	1		5		1	N		1.00
010 P	FB-2		5	1		5		1	N		1.00
011 P	TRIP BLANK		5	1		5		1	N		1.00
9008L387-	WSI-LE CARPENTER										
001 P	MW-1		5	1		5		1	N		1.00
001 P D1	MW-1		5	1		5		1	N		1.00
003 P	MW-3		5	1		5		1	N		1.00
003 P D1	MW-3		5	1		5		1	N		1.00
9008L396-	AMERICAN BRANDS										
003 H	TRIP BLANK		5	1		5		1	N		1.00
9008L397-	PROCTER & GAMBLE										
004 H	MW-11 TRIP BLANK		5	1		5		1	N		1.00
9008L403-	TRC/NAVY										
001 H	MP-LS1-815		5	1		5		1	N		1.00
001 HS	MP-LS1-815		5	1	1	5		1	N		1.00
001 HT	MP-LS1-815		5	1	1	5		1	N		1.00
002 H	MP-TB-815		5	1		5		1	N		1.00
90LVK129-MB1 H			5	1		5		1	N		1.00
90LVK129-MB1 P			5	1		5		1	N		1.00

Comments:
Surrogate:
Spike:

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

END OF DATA PACKAGE