SELECTED REFERENCE
10 VOL 3

VOLATILES ANALYSIS DATA PACKAGE
ARDL REPORT NO. 9883
CORPS OF ENGINEERS - PORTLAND DISTRICT
ANNETTE ISLAND SITE

VOLUME 3

ARDL inc.

applied research & development laboratory

CHEMISTRY • BIOLOGY • PHYSIOLOGY
ENGINEERING • ENVIRONMENTAL ANALYSIS

P.O. Box 1566 • Mt. Vernon Airport, Route 15 East • Mt. Vernon, Illinois 62864 • (618) 244-3235 • FAX (618) 244-1149
"Test Everything - Keep The Good" 1 Thes. 5:21

VOLATILES ANALYSIS DATA PACKAGE
ARDL REPORT NO. 9883
CORPS OF ENGINEERS - PORTLAND DISTRICT
ANNETTE ISLAND SITE

VOLUME 3

30000

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: ARDL, INC. Contract: ANNETTE ISLAND

Lab Code: --- Case No.: 9883 SAS No.: --- SDG No.: ---

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	ANN94TR00101	104	102	106		0
02	ANN94TR00101MS	115 *	120 *	111		2
03	ANN94TR00101MSD	100	101	100		0
04	ANN94TR00301	93	93	89		0
05	ANN94TR00201	109	108	99		0
06	BK3 9/20/94	105	107	108		0
07	BK3 9/21/94	107	108	100		0
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		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 contract required QC limits

D Surrogates diluted out

30001

FORM II VOA-1 1/87 Rev.

3A TCLP
TCLP VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Name: ARDL, INC. Contract: ANNETTE ISLAND

Code: ------- Case No.:9883 SAS No.: ----- SDG No.: -----

rix Spike - EPA Sample NO.: ANN94TR00101

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONC (ug/L)	MS CONC (ug/L)	MSD CONC (ug/L)	AVERAGE % SPIKE RECOVERY
Vinyl chloride	50.00	0.00	27.00	42.00	68
1,1-Dichloroethene	50.00	0.00	52.00	47.00	99
Chloroform	50.00	0.00	47.00	46.00	93
1,2-Dichloroethane	50.00	0.00	47.00	46.00	93
2-Butanone	200.00	0.00	272.00	255.00	130
Carbon Tetrachloride	50.00	0.00	40.00	37.00	77
Trichloroethene	50.00	0.00	42.00	41.00	83
Benzene	50.00	0.00	48.00	47.00	95
Tetrachloroethane	50.00	0.00	51.00	43.00	94
Chlorobenzene	50.00	0.00	48.00	44.00	92

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ANN94TR00101

Lab Name: ARDL, INC. Contract: ANNETTE ISLAND

Lab Code: --- Case No.: 9883 SAS No.: --- SDG No.: ---

Matrix: (soil/water) TCLP Lab Sample ID: 9883-1

Sample wt/vol: 5.0 (g/ml) mL Lab File ID: >J7791

Level: (low/med) LOW Date Received: 9/16/94

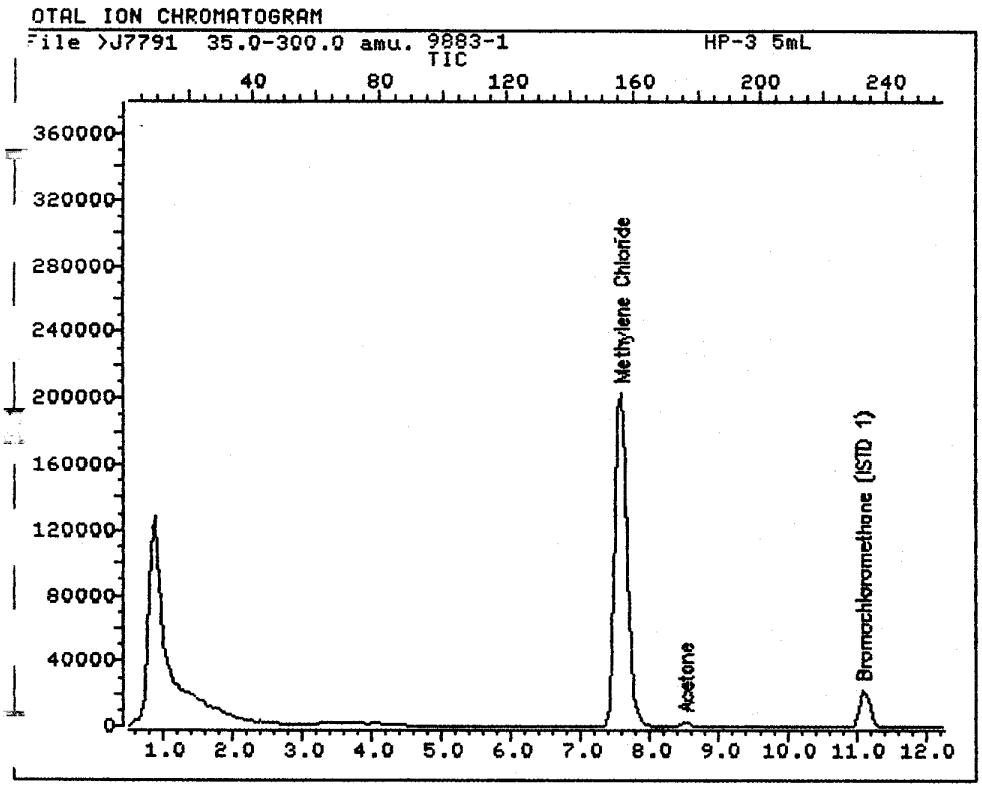
% Moisture: not dec. --- Date Analyzed: 9/20/94

Column: (pack/cap) PACK Dilution Factor: 1.0

CLP Preparation Date: 9/15/94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
56-23-5	Carbon Tetrachloride	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	5	U

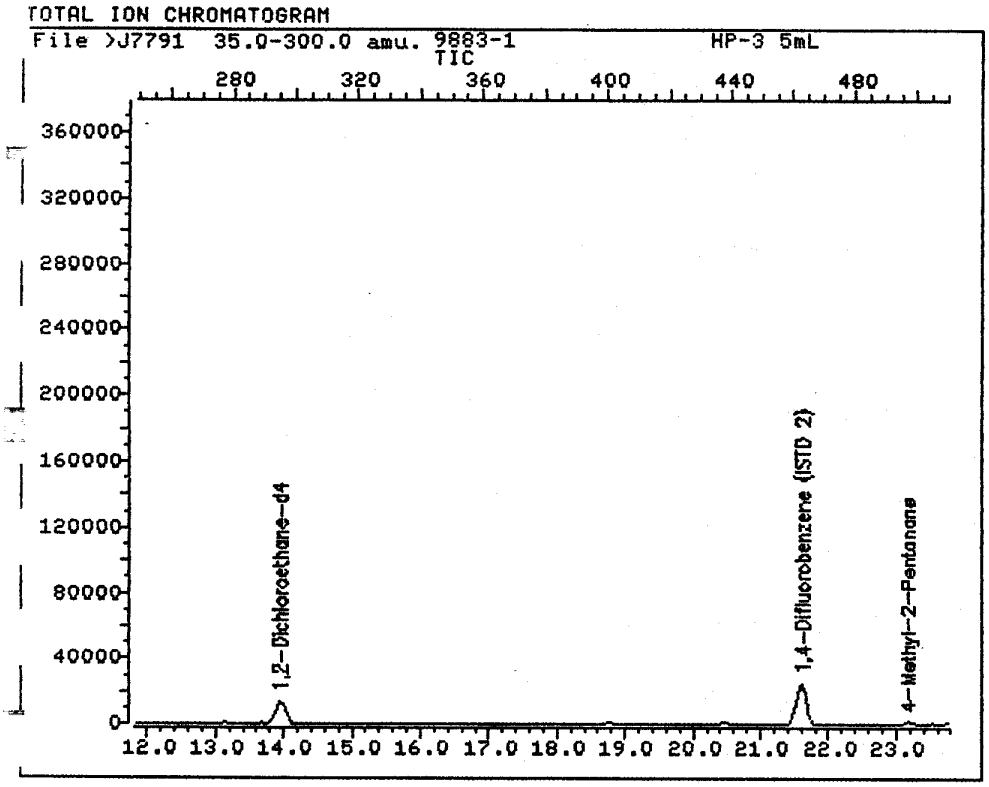
30003



Data File: >J7791::D7 Quant Output File: ^J7791::D1
Name: 9883-1 Instrument ID: HP-3
Misc: HP-3 5mL

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940920 13:09

Operator ID: RICH
Quant Time : 940920 19:16
Injected at: 940920 18:40



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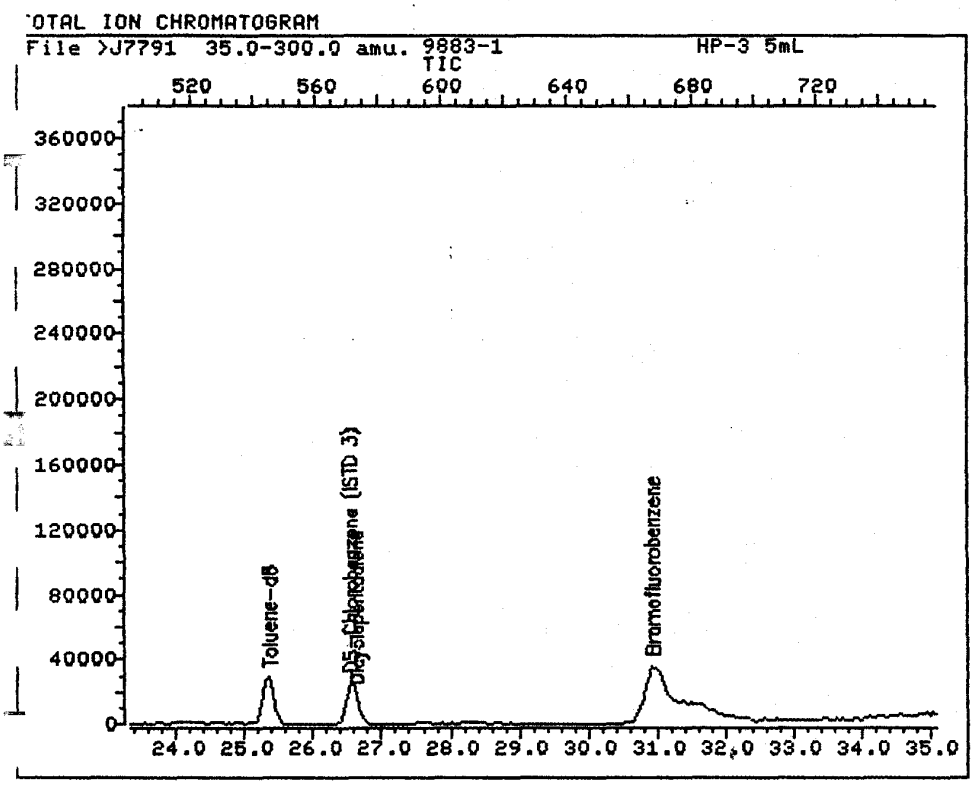
Name: 9883-1
Misc: HP-3 5mL

Quant Output File: ^J7791::D1
Instrument ID: HP-3

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56
Last Qcal Time: 940920 13:09

Operator ID: RICH
Quant Time : 940920 19:16
Injected at: 940920 18:40



Data File: >J7791::D7 Quant Output File: ^J7791::D1
Name: 9883-1 Instrument ID: HP-3
Misc: HP-3 5mL

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940920 13:09

Operator ID: RICH
Quant Time : 940920 19:16
Injected at: 940920 18:40

Page 3 of 3

QUANT REPORT

Operator ID: RICH
Output File: ^J7791::D1
Data File: >J7791::D7
Name: 9883-1
Misc: HP-3 5mL

Quant Rev: 7
Quant Time: 940920 19:16
Injected at: 940920 18:40
Dilution Factor: 1.00000
Instrument ID: HP-3

ID File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56
Last Qcal Date: 940920 13:09

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.11	233	35753	50.00	ug/l	88
17)	1,2-Dichloroethane-d4	13.94	295	52918	52.97	ug/l	98
19)	*1,4-Difluorobenzene (ISTD 2)	21.61	463	121334	50.00	ug/l	97
38)	*D5-Chlorobenzene (ISTD 3)	26.55	571	106265	50.00	ug/l	90
44)	Toluene-d8	25.36	545	119124	51.82	ug/l	100
53)	Bromofluorobenzene	30.93	667	98957	51.07	ug/l	63

* Compound is ISTD

QUANT REPORT

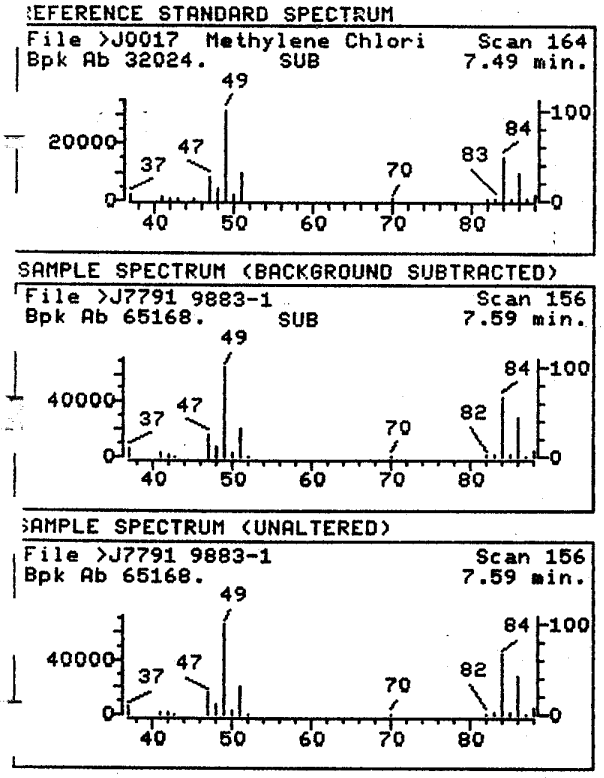
erator ID: RICH
put File: ^J7791::D1
a File: >J7791::D7
me: 9883-1
sc: HP-3 5mL

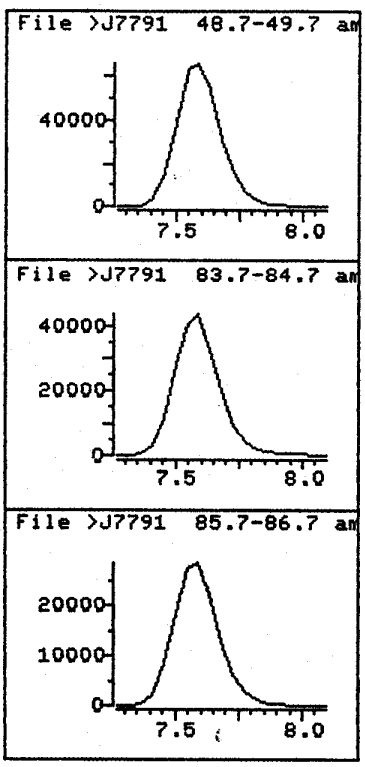
Quant Rev: 7
Quant Time: 940920 19:16
Injected at: 940920 18:40
Dilution Factor: 1.00000
Instrument ID: HP-3

File: IDW340::SC
tle: VOLATILE TARGET COMPOUNDS W/RMA
st Calibration: 940816 16:56
Last Qcal Time: 940920 13:09

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.11	233	35753	50.00	ug/l	88
7)	Methylene Chloride	7.59	156	541718	640.06	ug/l	91
3)	Acetone	8.51	176	24831	320.76	ug/l	89
7)	1,2-Dichloroethane-d4	13.94	295	52918	52.97	ug/l	98
9)	*1,4-Difluorobenzene (ISTD 2)	21.61	463	121334	50.00	ug/l	97
3)	*D5-Chlorobenzene (ISTD 3)	26.55	571	106265	50.00	ug/l	90
9)	4-Methyl-2-Pentanone	23.17	497	6827	10.40	ug/l	100
4)	Toluene-d8	25.36	545	119124	51.82	ug/l	100
5)	Dicyclopentadiene	26.64	573	1006	.339	ug/l	100
3)	Bromofluorobenzene	30.93	667	98957	51.07	ug/l	63

Compound is ISTD



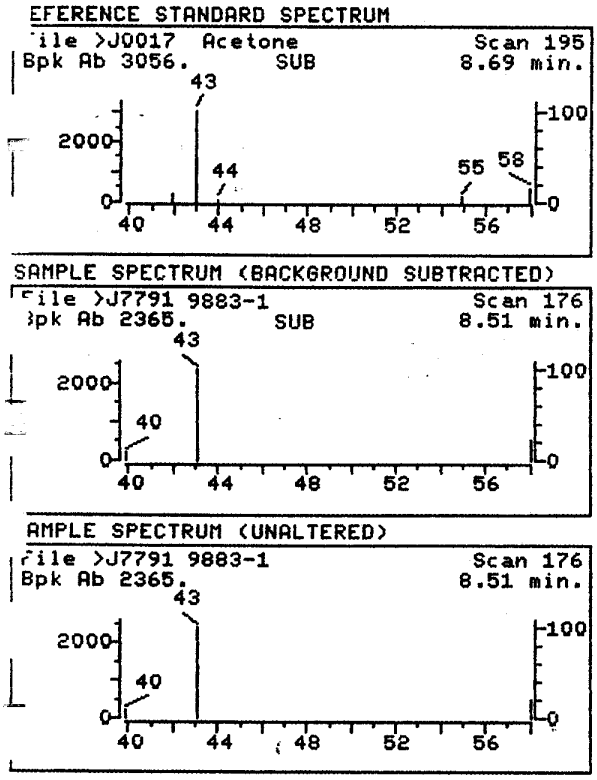


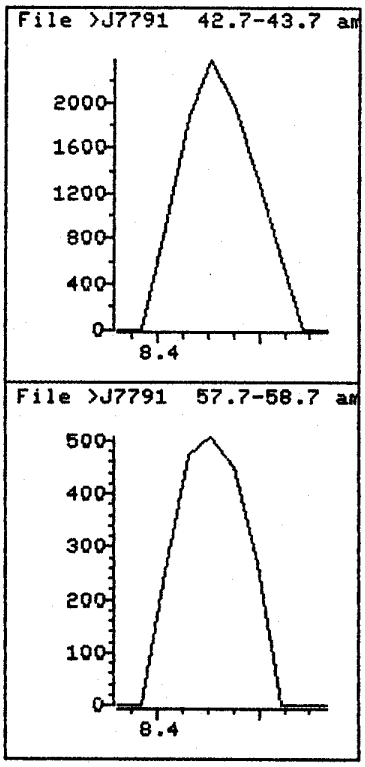
Data File: >J7791::D7
Name: 9883-1
Misc: HP-3 5mL
Quant Time: 940920 19:16
Injected at: 940920 18:40
Last Qcal Time: 940920 13:09

Quant Output File: ^J7791::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 7
Compound Name : Methylene Chloride
Scan Number : 156
Retention Time: 7.59 min.
Quant Ion : 84.0
Area : 541718
Concentration : 640.06 ug/l
q-value : 91





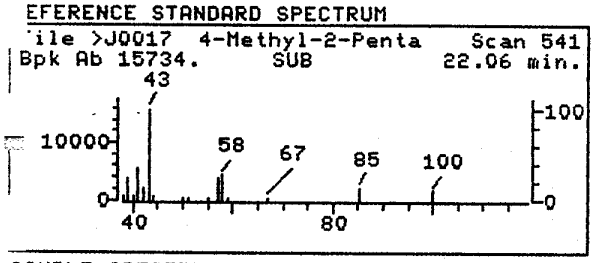
Data File: >J7791::D7
Name: 9883-1
Misc: HP-3 5mL
Quant Time: 940920 19:16
Injected at: 940920 18:40
Last Qcal Time: 940920 13:09

Quant Output File: ^J7791::D1
Instrument ID: HP-3

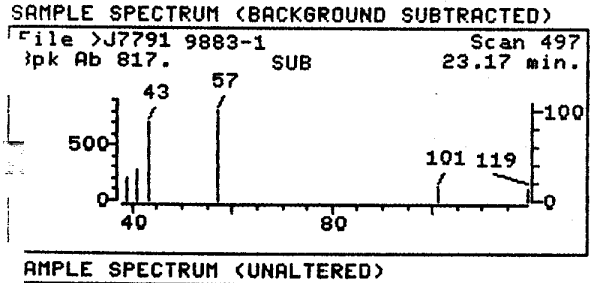
Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 8
Compound Name : Acetone
Scan Number : 176
Retention Time: 8.51 min.
Quant Ion : 43.0
Area : 24831
Concentration : 320.76 ug/l
q-value : 89

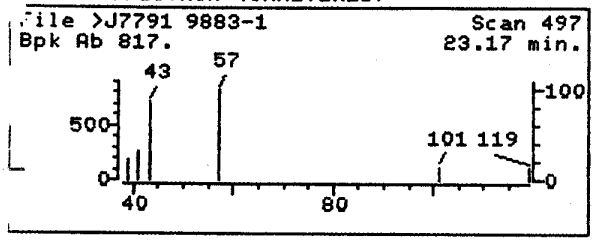
EFERENCE STANDARD SPECTRUM

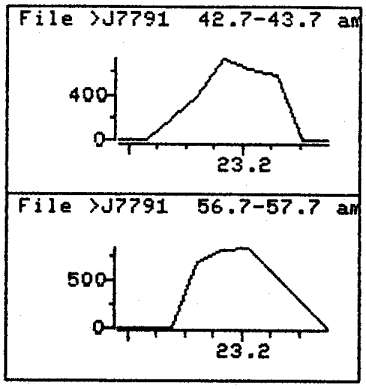


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



AMPLE SPECTRUM (UNALTERED)





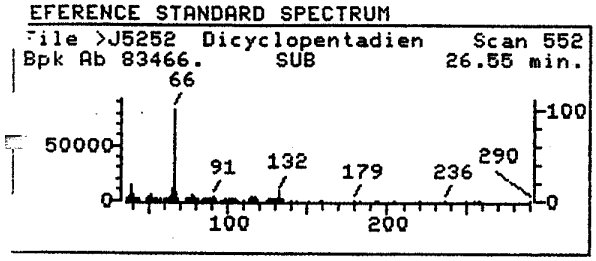
Data File: >J7791::D7
Name: 9883-1
Misc: HP-3 5mL
Quant Time: 940920 19:16
Injected at: 940920 18:40
Last Qcal Time: 940920 13:09

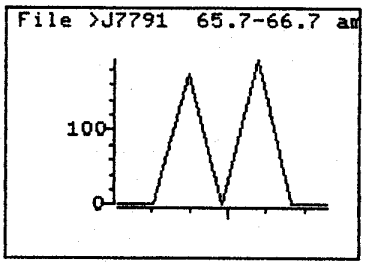
Quant Output File: ^J7791::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 39
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 497
Retention Time: 23.17 min.
Quant Ion : 43.0
Area : 6827
Concentration : 10.40 ug/l
q-value : 100

EFERENCE STANDARD SPECTRUM





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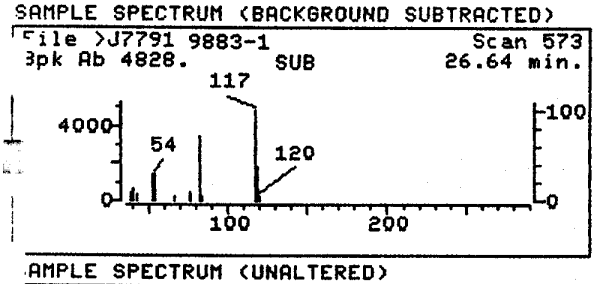

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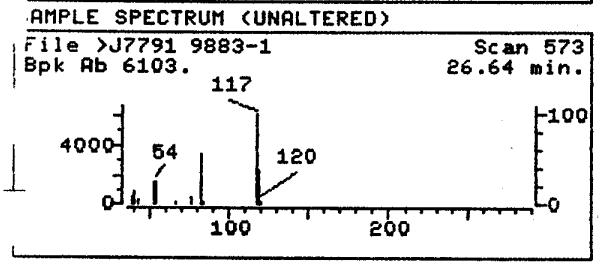
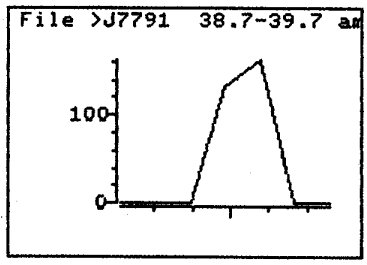




Data File: >J7791::D7
Name: 9883-1
Misc: HP-3 5mL
Quant Time: 940920 19:16
Injected at: 940920 18:40
Last Qcal Time: 940920 13:09

Quant Output File: ^J7791::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 46
Compound Name : Dicyclopentadiene
Scan Number : 573
Retention Time: 26.64 min.
Quant Ion : 66.0
Area : 1006
Concentration : .339 ug/l
q-value : 100

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ANN94TR00201

ab Name: ARDL, INC. Contract: ANNETTE ISLAND

ab Code: --- Case No.: 9883 SAS No.: --- SDG No.: ---

atrix: (soil/water) TCLP Lab Sample ID: 9883-2

ample wt/vol: 5.0 (g/ml) mL Lab File ID: >J7806

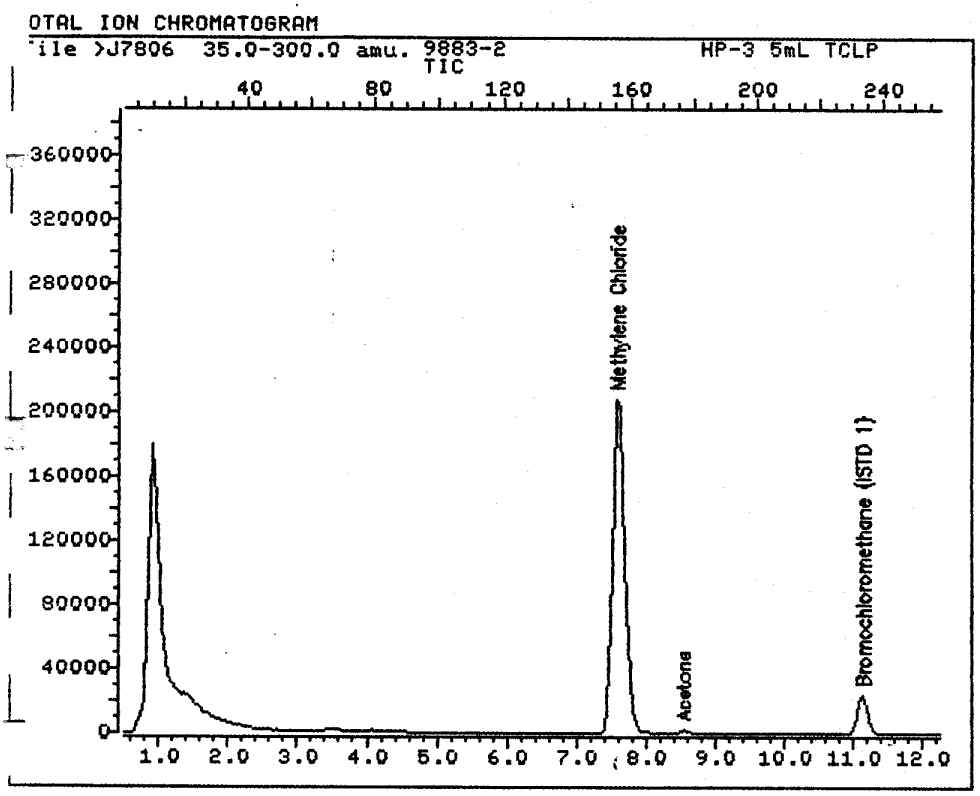
evel: (low/med) LOW Date Received: 9/16/94

Moisture: not dec. --- Date Analyzed: 9/21/94

olumn: (pack/cap) PACK Dilution Factor: 1.0

CLP Preparation Date: 9/15/94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
56-23-5	Carbon Tetrachloride	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	5	U

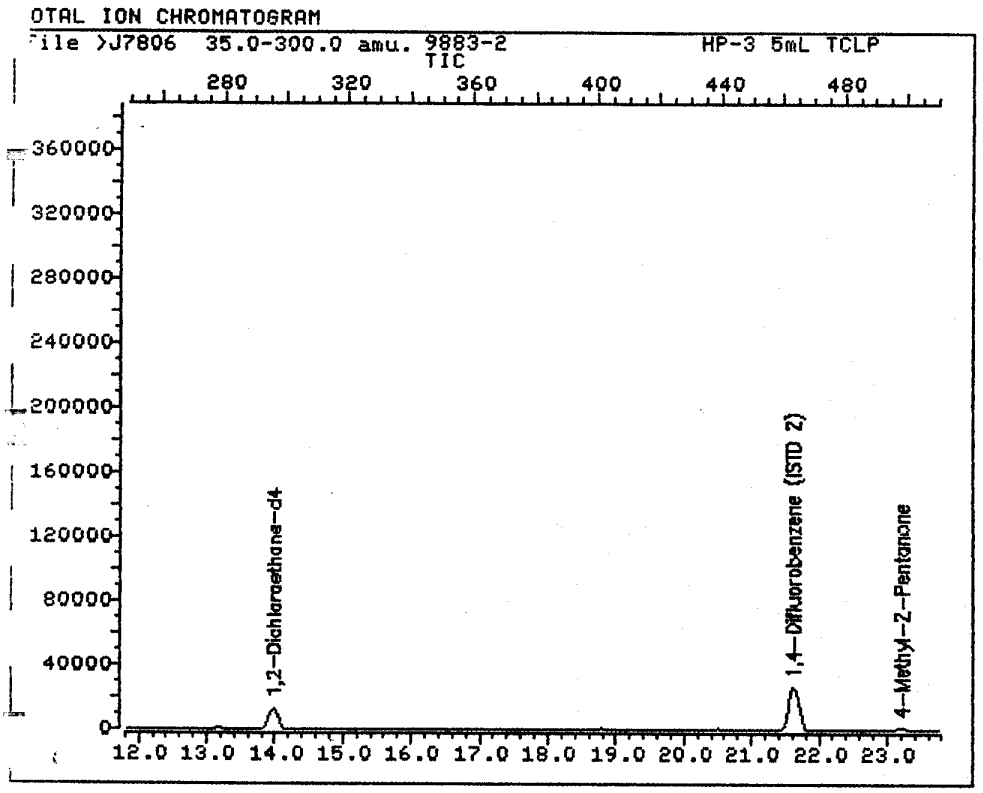


Data File: >J7806::D7
Name: 9883-2
Misc: HP-3 5mL TCLP

Quant Output File: ^J7806::D1
Instrument ID: HP-3

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56
Last Qcal Time: 940921 11:20

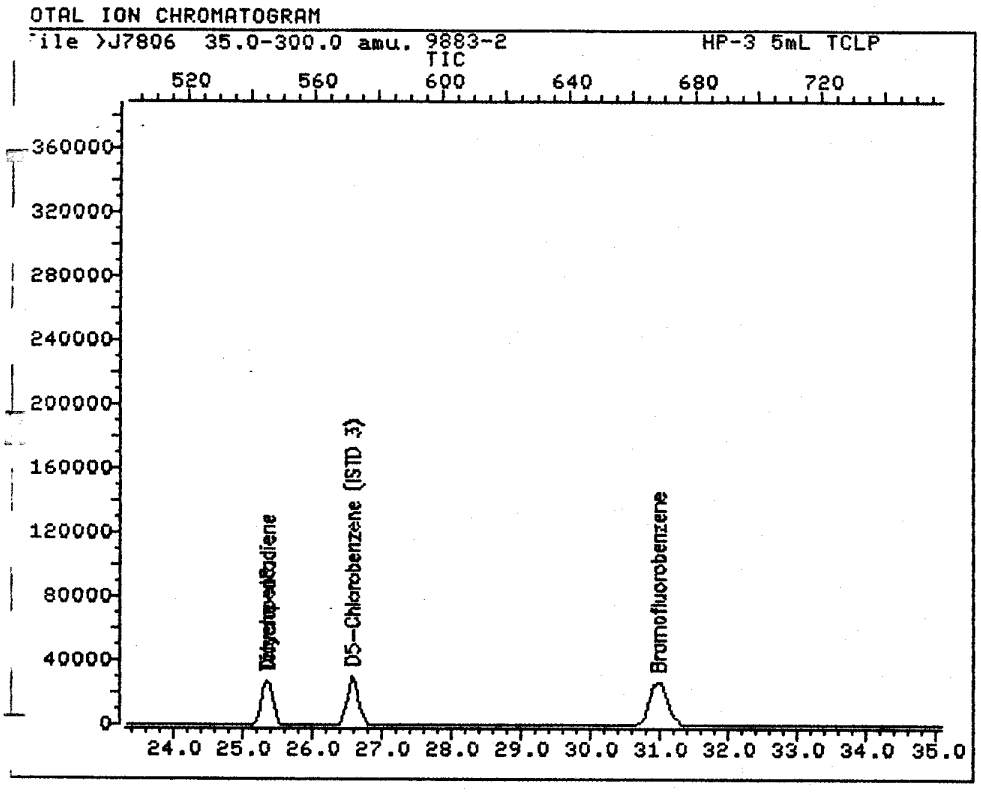
Operator ID: RICH
Quant Time : 940921 14:21
Injected at: 940921 13:45



Data File: >J7806::D7 Quant Output File: ^J7806::D1
Name: 9883-2 Instrument ID: HP-3
Misc: HP-3 5mL TCLP

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940921 11:20

Operator ID: RICH
Quant Time : 940921 14:21
Injected at: 940921 13:45



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Name: 9883-2 Instrument ID: HP-3
Misc: HP-3 5mL TCLP

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940921 11:20

Operator ID: RICH
Quant Time : 940921 14:21
Injected at: 940921 13:45

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QUANT REPORT

Operator ID: RICH Quant Rev: 7 Quant Time: 940921 14:21
Output File: ^J7806::D1 Injected at: 940921 13:45
Data File: >J7806::D7 Dilution Factor: 1.00000
Name: 9883-2 Instrument ID: HP-3
Misc: HP-3 5mL TCLP

ID File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Date: 940921 11:20

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.15	234	36254	50.00	ug/l	89
7)	1,2-Dichloroethane-d4	13.98	296	50133	44.37	ug/l	97
9)	*1,4-Difluorobenzene (ISTD 2)	21.61	463	122576	50.00	ug/l	99
38)	*D5-Chlorobenzene (ISTD 3)	26.58	572	114025	50.00	ug/l	94
4)	Toluene-d8	25.35	545	115538	46.60	ug/l	100
3)	Bromofluorobenzene	30.97	668	95780	46.61	ug/l	69

* Compound is ISTD

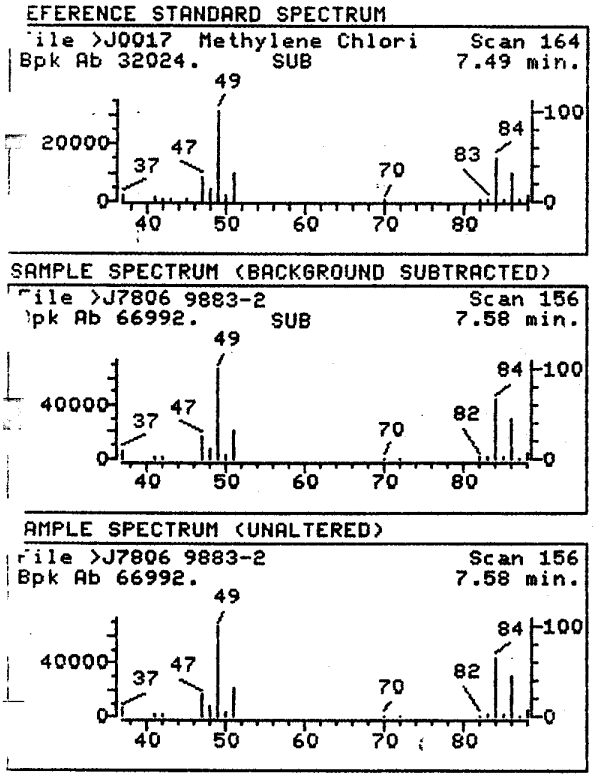
QUANT REPORT

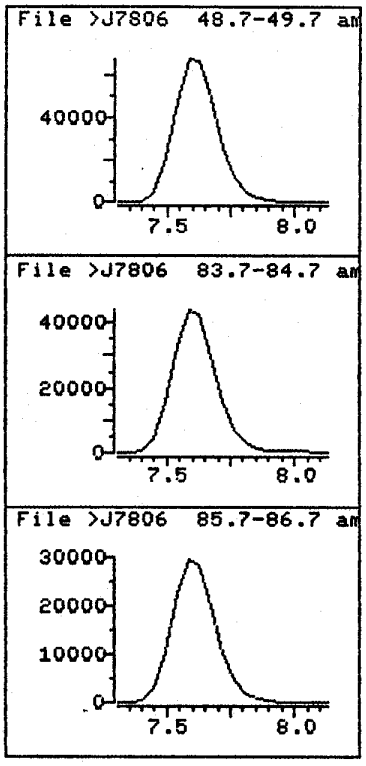
erator ID: RICH Quant Rev: 7 Quant Time: 940921 14:21
put File: ^J7806::D1 Injected at: 940921 13:45
a File: >J7806::D7 Dilution Factor: 1.00000
me: 9883-2 Instrument ID: HP-3
sc: HP-3 5mL TCLP

File: IDW340::SC
tle: VOLATILE TARGET COMPOUNDS W/RMA
t Calibration: 940816 16:56 Last Qcal Time: 940921 11:20

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.15	234	36254	50.00	ug/l	89
	Methylene Chloride	7.58	156	544135	550.33	ug/l	90
	Acetone	8.54	177	15803	192.77	ug/l	90
7)	1,2-Dichloroethane-d4	13.98	296	50133	44.37	ug/l	97
)	*1,4-Difluorobenzene (ISTD 2)	21.61	463	122576	50.00	ug/l	99
)	*D5-Chlorobenzene (ISTD 3)	26.58	572	114025	50.00	ug/l	94
9)	4-Methyl-2-Pentanone	23.20	498	4886	6.67	ug/l	100
4)	Toluene-d8	25.35	545	115538	46.60	ug/l	100
	Dicyclopentadiene	25.35	545	10167	38.24	ug/l	100
3)	Bromofluorobenzene	30.97	668	95780	46.61	ug/l	69

Compound is ISTD



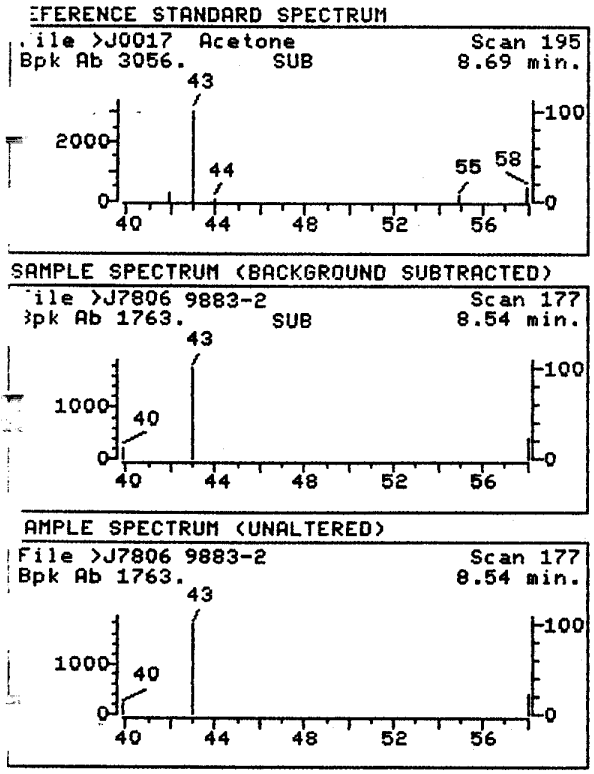


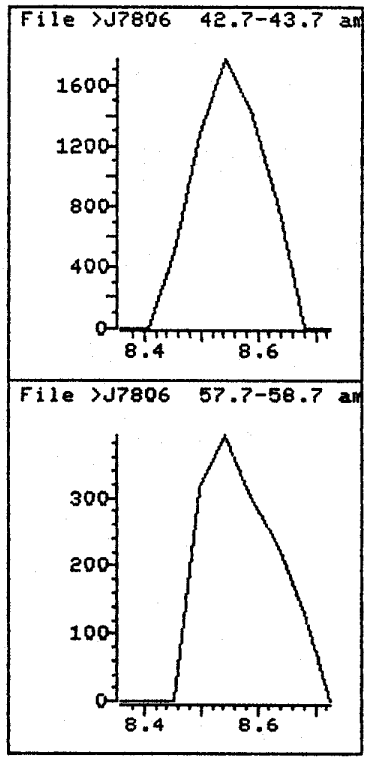
Data File: >J7806::D7
Name: 9883-2
Misc: HP-3 5mL TCLP
Quant Time: 940921 14:21
Injected at: 940921 13:45
Last Qcal Time: 940921 11:20

Quant Output File: ^J7806::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 7
Compound Name : Methylene Chloride
Scan Number : 156
Retention Time: 7.58 min.
Quant Ion : 84.0
Area : 544135
Concentration : 550.33 ug/l
q-value : 90





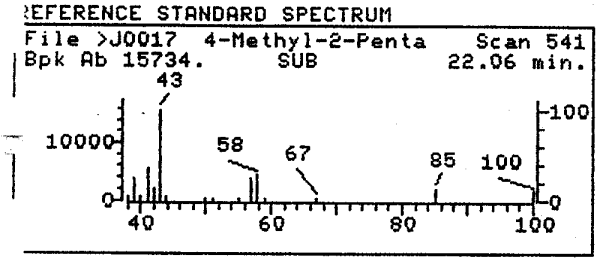
Data File: >J7806::D7
Name: 9883-2
Misc: HP-3 5mL TCLP
Quant Time: 940921 14:21
Injected at: 940921 13:45
Last Qcal Time: 940921 11:20

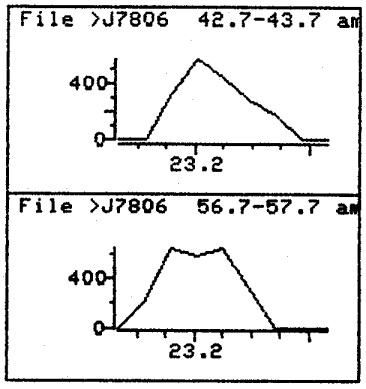
Quant Output File: ^J7806::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

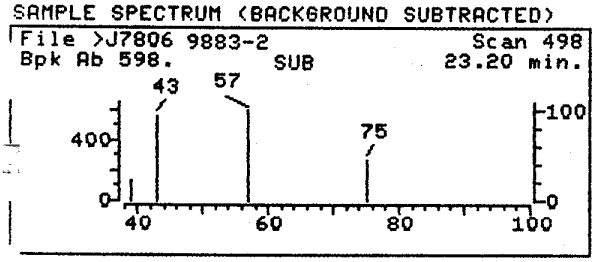
Compound No : 8
Compound Name : Acetone
Scan Number : 177
Retention Time: 8.54 min.
Quant Ion : 43.0
Area : 15803
Concentration : 192.77 ug/l
q-value : 90

REFERENCE STANDARD SPECTRUM

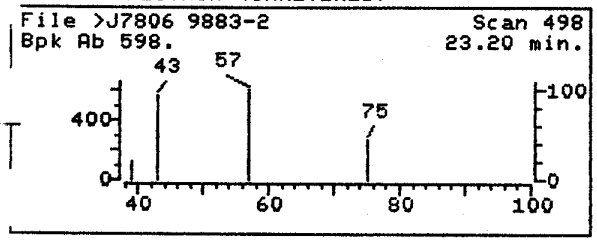




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



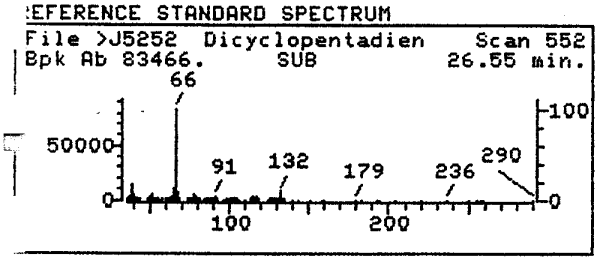
Data File: >J7806::D7
Name: 9883-2
Misc: HP-3 5mL TCLP
Quant Time: 940921 14:21
Injected at: 940921 13:45
Last Qcal Time: 940921 11:20

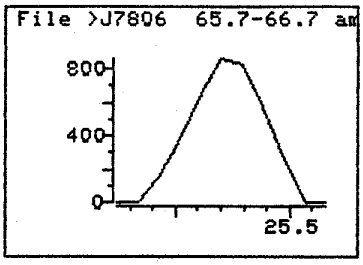
Quant Output File: ^J7806::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

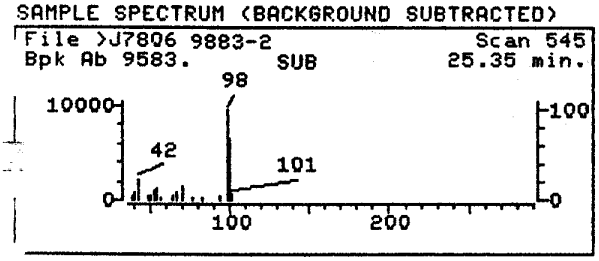
Compound No : 39
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 498
Retention Time: 23.20 min.
Quant Ion : 43.0
Area : 4886
Concentration : 6.67 ug/l
q-value : 100

:EFERENCE STANDARD SPECTRUM

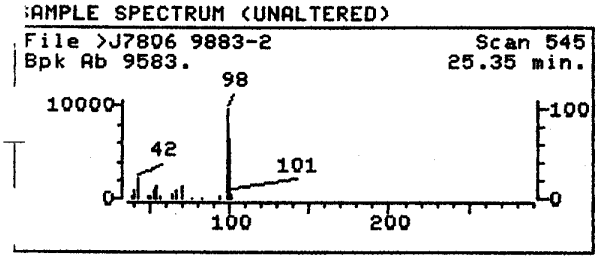




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



:AMPLE SPECTRUM (UNALTERED)



Data File: >J7806::D7
Name: 9883-2
Misc: HP-3 5mL TCLP
Quant Time: 940921 14:21
Injected at: 940921 13:45
Last Qcal Time: 940921 11:20

Quant Output File: ^J7806::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 46
Compound Name : Dicyclopentadiene
Scan Number : 545
Retention Time: 25.35 min.
Quant Ion : 66.0
Area : 10167
Concentration : 38.24 ug/l
q-value : 100

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ANN94TR00301

ab Name: ARDL, INC. Contract: ANNETTE ISLAND

ab Code: --- Case No.: 9883 SAS No.: --- SDG No.: ---

trix: (soil/water) TCLP Lab Sample ID: 9883-3

ample wt/vol: 5.0 (g/ml) mL Lab File ID: >J7807

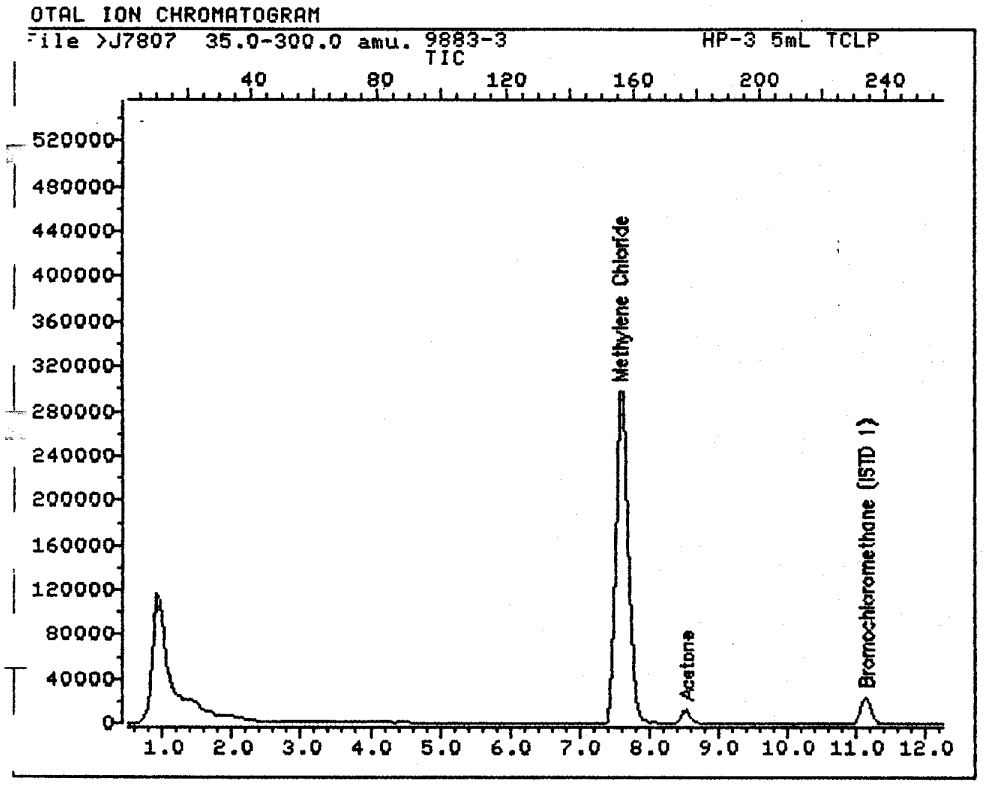
vel: (low/med) LOW Date Received: 9/16/94

Moisture: not dec. --- Date Analyzed: 9/21/94

olumn: (pack/cap) PACK Dilution Factor: 1.0

LP Preparation Date: 9/15/94

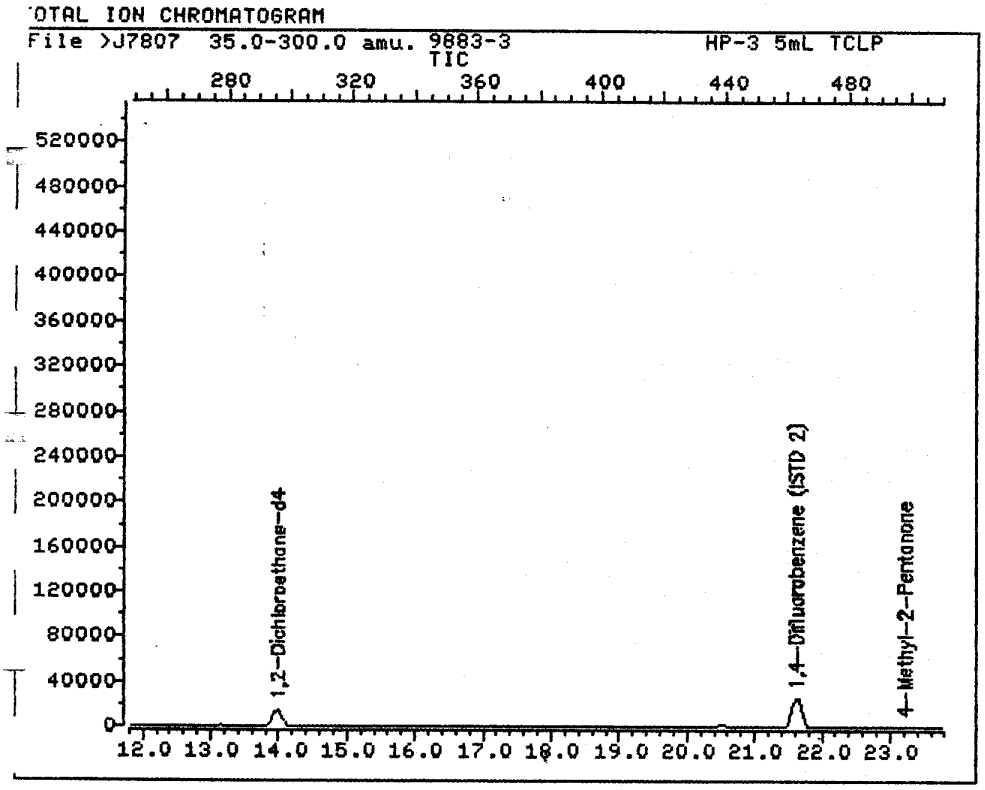
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
56-23-5	Carbon Tetrachloride	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	5	U



Data File: >J7807::D2 Quant Output File: ^J7807::D1
Name: 9883-3 Instrument ID: HP-3
Misc: HP-3 5mL TCLP

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940921 11:20

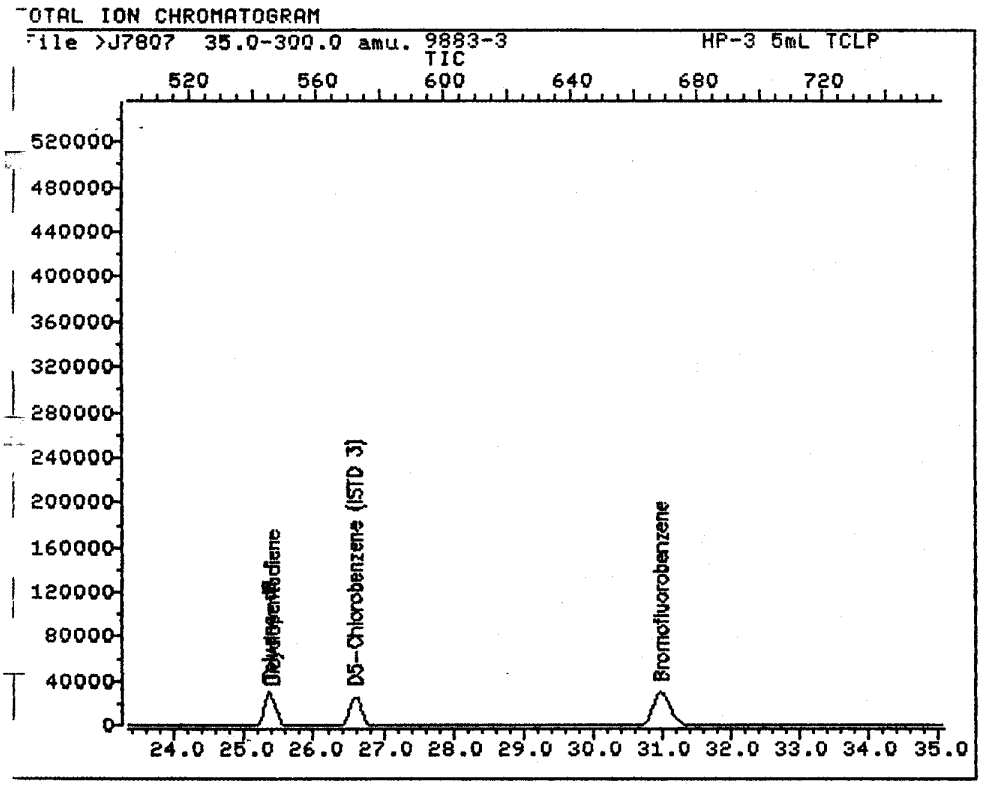
Operator ID: RICH
Quant Time : 940921 15:26
Injected at: 940921 14:50



Data File: >J7807::D2 Quant Output File: ^J7807::D1
Name: 9883-3 Instrument ID: HP-3
Misc: HP-3 5mL TCLP

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940921 11:20

Operator ID: RICH
Quant Time : 940921 15:26
Injected at: 940921 14:50



Data File: >J7807::D2 Quant Output File: ^J7807::D1
Name: 9883-3 Instrument ID: HP-3
Misc: HP-3 5mL TCLP

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940921 11:20

Operator ID: RICH
Quant Time : 940921 15:26
Injected at: 940921 14:50

Page 3 of 3

QUANT REPORT

Operator ID: RICH
Output File: ^J7807::D1
Data File: >J7807::D2
Name: 9883-3
Misc: HP-3 5mL TCLP

Quant Rev: 7
Quant Time: 940921 15:26
Injected at: 940921 14:50
Dilution Factor: 1.00000
Instrument ID: HP-3

ID File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56
Last Qcal Date: 940921 11:20

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.15	234	35823	50.00	ug/l	90
17)	1,2-Dichloroethane-d4	13.98	296	55099	49.35	ug/l	96
19)	*1,4-Difluorobenzene (ISTD 2)	21.61	463	126445	50.00	ug/l	93
38)	*D5-Chlorobenzene (ISTD 3)	26.59	572	107012	50.00	ug/l	97
44)	Toluene-d8	25.35	545	126808	54.50	ug/l	100
53)	Bromofluorobenzene	30.97	668	103816	53.84	ug/l	63

* Compound is ISTD

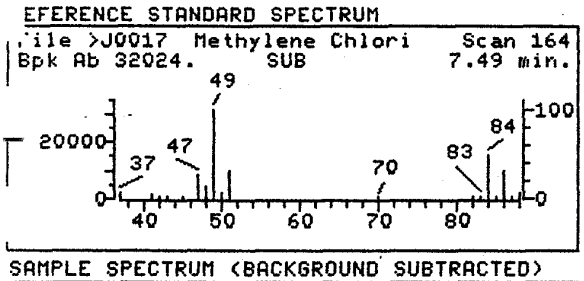
QUANT REPORT

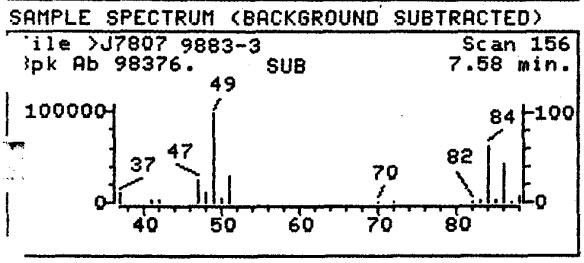
erator ID: RICH Quant Rev: 7 Quant Time: 940921 15:26
put File: ^J7807::D1 Injected at: 940921 14:50
a File: >J7807::D2 Dilution Factor: 1.00000
me: 9883-3 Instrument ID: HP-3
c: HP-3 5mL TCLP

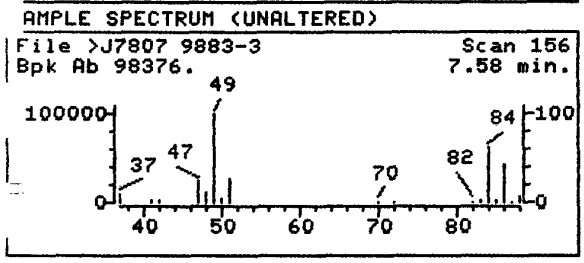
File: IDW340::SC
le: VOLATILE TARGET COMPOUNDS W/RMA
t Calibration: 940816 16:56 Last Qcal Time: 940921 11:20

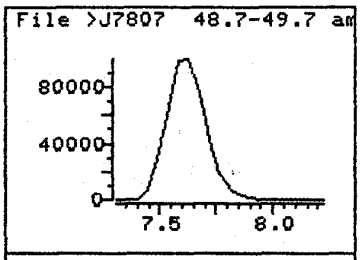
	Compound	R.T.	Scan#	Area	Conc	Units	q
)	*Bromochloromethane (ISTD 1)	11.15	234	35823	50.00	ug/l	90
)	Methylene Chloride	7.58	156	789128	807.71	ug/l	89
)	Acetone	8.54	177	92625	1143.48	ug/l	90
7)	1,2-Dichloroethane-d4	13.98	296	55099	49.35	ug/l	96
)	*1,4-Difluorobenzene (ISTD 2)	21.61	463	126445	50.00	ug/l	93
3)	*D5-Chlorobenzene (ISTD 3)	26.59	572	107012	50.00	ug/l	97
)	4-Methyl-2-Pentanone	23.21	498	3998	5.82	ug/l	100
)	Toluene-d8	25.35	545	126808	54.50	ug/l	100
)	Dicyclopentadiene	25.40	546	10119	40.56	ug/l	100
3)	Bromofluorobenzene	30.97	668	103816	53.84	ug/l	63

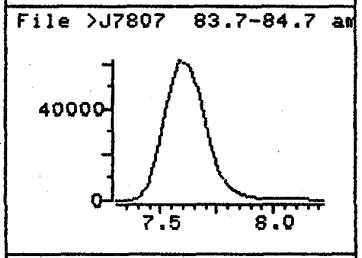
Compound is ISTD

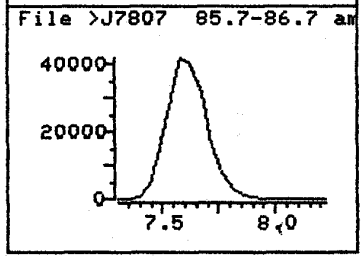










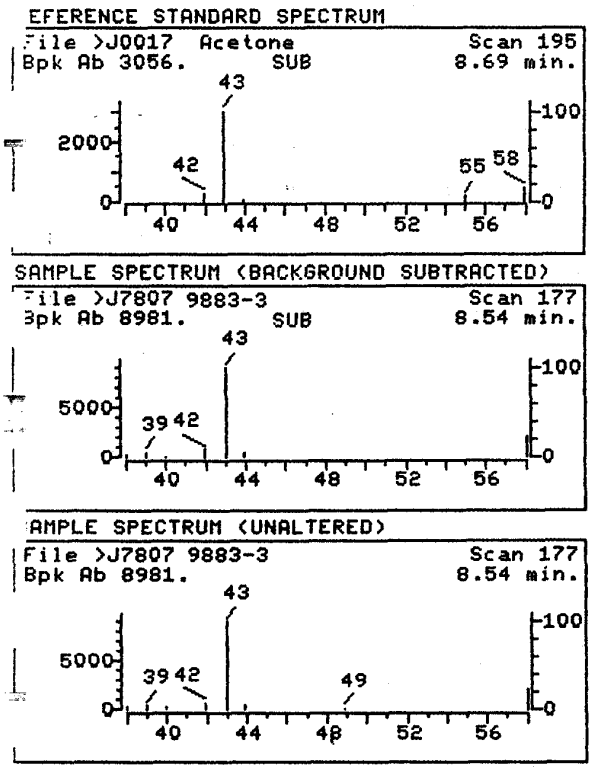


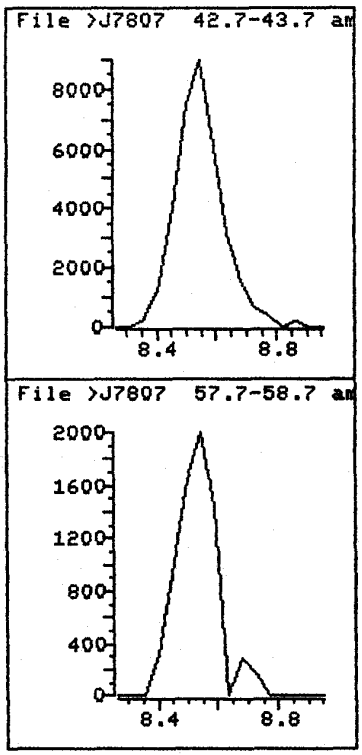
Data File: >J7807::D2
Name: 9883-3
Misc: HP-3 5mL TCLP
Quant Time: 940921 15:26
Injected at: 940921 14:50
Last Qcal Time: 940921 11:20

Quant Output File: ^J7807::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 7
Compound Name : Methylene Chloride
Scan Number : 156
Retention Time: 7.58 min.
Quant Ion : 84.0
Area : 789128
Concentration : 807.71 ug/l
q-value : 89





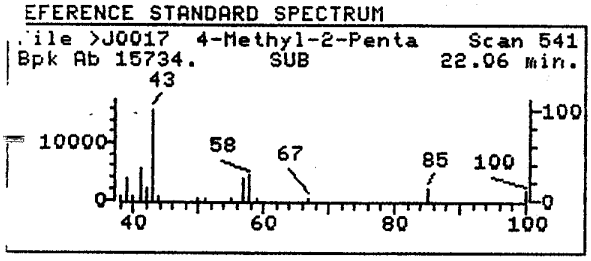
Data File: >J7807::D2
Name: 9883-3
Misc: HP-3 5mL TCLP
Quant Time: 940921 15:26
Injected at: 940921 14:50
Last Qcal Time: 940921 11:20

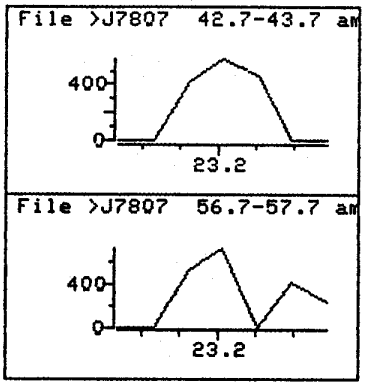
Quant Output File: ^J7807::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

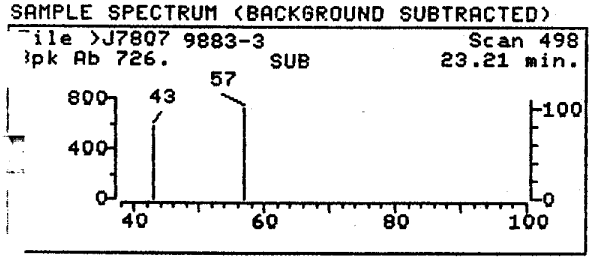
Compound No : 8
Compound Name : Acetone
Scan Number : 177
Retention Time: 8.54 min.
Quant Ion : 43.0
Area : 92625
Concentration : 1143.48 ug/l
q-value : 90

EFERENCE STANDARD SPECTRUM

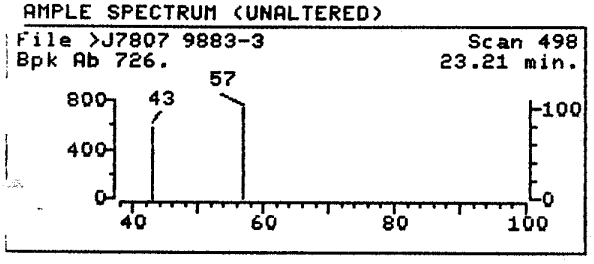




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



AMPLE SPECTRUM (UNALTERED)



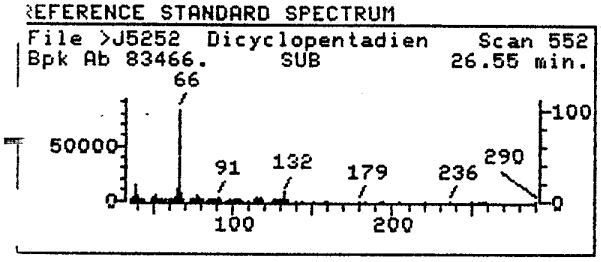
Data File: >J7807::D2
Name: 9883-3
Misc: HP-3 5mL TCLP
Quant Time: 940921 15:26
Injected at: 940921 14:50
Last Qcal Time: 940921 11:20

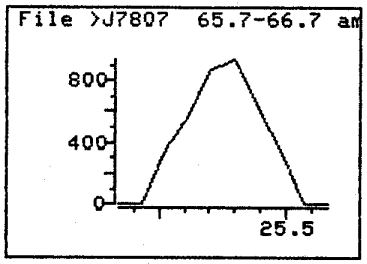
Quant Output File: ^J7807::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

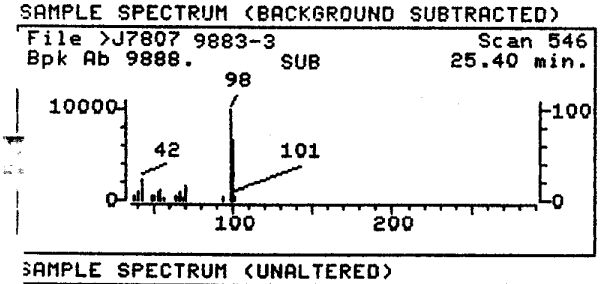
Compound No : 39
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 498
Retention Time: 23.21 min.
Quant Ion : 43.0
Area : 3998
Concentration : 5.82 ug/l
q-value : 100

REFERENCE STANDARD SPECTRUM

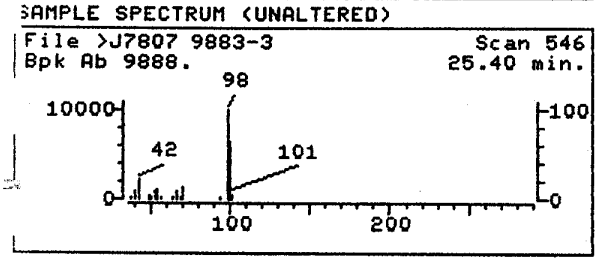




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >J7807::D2
Name: 9883-3
Misc: HP-3 5mL TCLP
Quant Time: 940921 15:26
Injected at: 940921 14:50
Last Qcal Time: 940921 11:20

Quant Output File: ^J7807::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 46
Compound Name : Dicyclopentadiene
Scan Number : 546
Retention Time: 25.40 min.
Quant Ion : 66.0
Area : 10119
Concentration : 40.56 ug/l
q-value : 100

5A

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

ab Name: ARDL, INC. Contract: ---

b Code: --- Case No.: --- SAS No.: --- SDG No.: ---

ab File ID: >CF810 BFB Injection Date: 8/10/94

strument ID: HP-3 BFB Injection Time: 10:51

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% OF MASS 95	28.5
75	30.0 - 60.0% OF MASS 95	54.1
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	7.7
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	73.8
175	5.0 - 9.0% of mass 174	5.9(8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.1(100.4)1
177	5.0 - 9.0% of mass 176	5.8(7.9)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VOA STD	050 NG STD	>J7383	8/10/94	15:29
02	VOA STD	010 NG STD	>J7384	8/10/94	16:16
03	VOA STD	020 NG STD	>J7385	8/10/94	17:02
04	VOA STD	100 NG STD	>J7386	8/10/94	17:49
05	VOA STD	200 NG STD	>J7387	8/10/94	18:36
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
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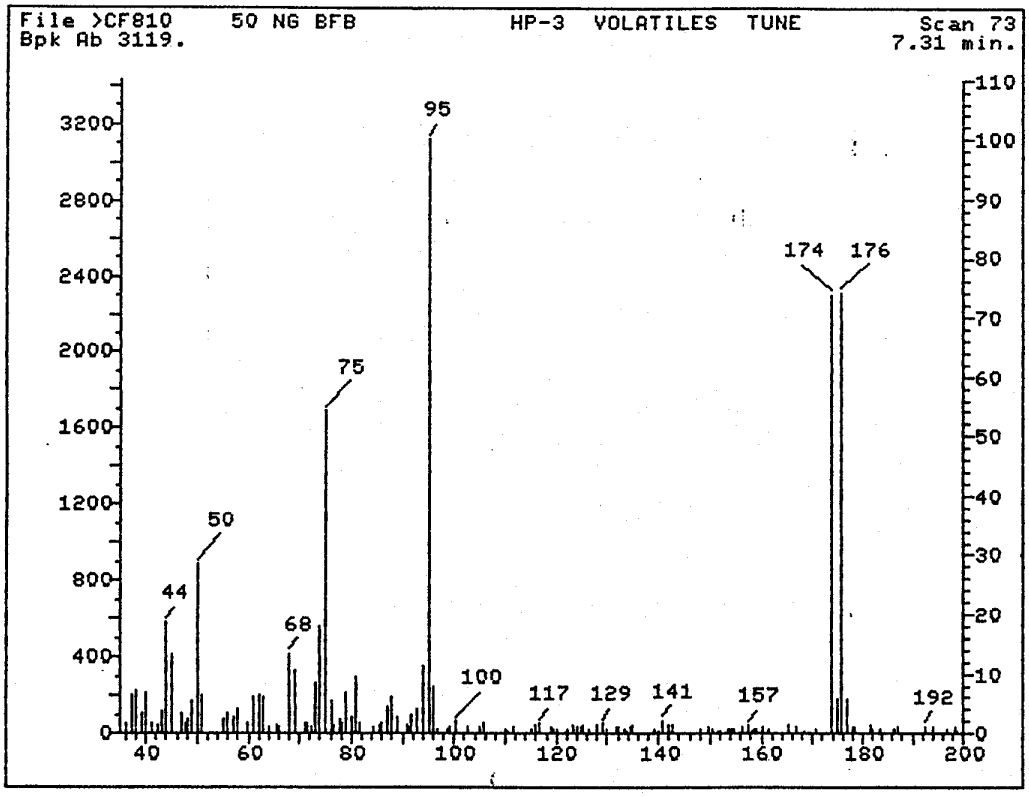
17					
18					
19					
20					
21					
22					



Instrument ID: HP-3 Analyzed on: 8/10/94 10:51

30034

`CF810 50 NG BFB HP-3 VOLATILES TUNE
73 NRM

ile: >CF810 Scan #: 73 Retn. time: 7.31

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.10	1.860	79.90	2.853	128.90	1.667	182.10	.705	252.15	.545
37.10	6.380	80.90	9.651	129.80	.898	183.50	.834	253.65	.481
38.10	7.310	81.70	1.731	131.70	1.058	186.40	.673	255.95	.802
39.00	3.463	84.20	1.154	132.00	.930	187.00	1.154	256.25	.769
39.95	6.989	85.40	1.411	133.40	.673	192.45	1.250	257.95	.481
41.05	1.860	85.70	1.186	133.80	.577	193.85	.962	258.75	.513
42.25	1.603	86.00	1.667	134.40	.994	196.85	.673	259.25	.449
43.15	3.783	87.00	4.360	135.00	1.315	198.15	.930	261.65	.930
43.95	18.564	88.00	6.156	139.30	.802	198.85	.449	263.15	1.026
45.05	13.370	89.00	2.725	140.00	.481	201.05	.673	263.35	1.026
47.05	3.366	90.85	1.507	140.90	2.244	201.25	.769	263.65	.673
47.75	1.667	91.35	1.058	141.85	1.571	206.35	1.026	265.05	.577
48.25	2.437	91.85	3.014	142.85	1.539	207.15	.577	266.05	.417
48.95	5.515	93.05	4.296	148.05	.834	208.35	.609	267.25	.962
49.95	28.471	93.95	11.254	149.75	1.090	211.25	.802	268.15	.481
50.95	6.348	95.05	100.000	150.45	.705	213.45	1.539	268.65	.866
54.95	2.469	95.95	7.727	151.75	.545	214.05	.769	271.20	.385
55.95	3.431	96.95	.769	151.95	.449	216.05	.673	272.90	.321
57.05	2.789	98.55	.673	153.55	.673	216.45	.545	274.20	.609
57.95	4.232	99.05	1.186	153.95	.705	216.65	.673	276.40	.385
59.95	1.924	100.35	1.956	154.45	.834	217.75	.962	276.80	.353
60.95	6.028	102.75	1.122	154.75	.705	218.70	.866	278.10	.577
62.05	6.605	104.75	1.250	156.15	1.250	220.50	.769	278.80	.481
63.05	6.188	105.65	1.763	157.65	1.315	220.80	.641	279.80	.417
64.15	1.250	109.85	.673	158.35	.577	225.10	.449	280.20	.353
65.80	1.539	110.25	.449	158.65	.609	226.30	.769	281.30	.930
66.10	1.122	111.55	.962	158.85	.769	226.60	.641	282.20	.609
68.00	13.306	115.15	.737	160.05	.994	227.80	.577	282.50	.481
69.00	10.548	115.90	1.603	161.45	.705	229.80	.705	283.50	.545
71.00	1.763	116.80	1.635	165.35	1.315	230.30	.577	284.10	.353
71.60	1.795	119.00	.930	166.75	.994	231.10	.769	287.90	.545
72.10	.930	119.50	.737	168.30	.449	234.00	.866	288.30	.802
72.90	8.368	120.30	.673	170.80	.673	234.50	.481	288.80	.353
73.90	17.922	122.10	.769	173.90	73.774	236.90	.802	289.40	.513
75.00	54.088	123.10	1.475	175.00	5.899	237.10	.769	289.60	.513
76.00	5.547	123.90	.994	175.90	74.094	240.00	.898	292.00	.385
76.70	1.507	124.60	1.090	177.00	5.835	240.20	.898	293.50	.737
77.70	2.373	125.10	1.347	178.00	1.122	240.90	.737	296.45	.994
78.20	1.731	126.20	.673	178.30	1.026	245.95	.673	297.75	.449
78.90	6.701	127.70	1.347	181.40	1.443	250.65	.609		

Instrument ID: HP-3 Analyzed on: 8/10/94 10:51

5A

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

Lab Name: ARDL, INC. Contract: ---

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

Lab File ID: >C920F BFB Injection Date: 9/20/94

Instrument ID: HP-3 BFB Injection Time: 12:37

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% OF MASS 95	21.3
75	30.0 - 60.0% OF MASS 95	50.9
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	7.6
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	96.2
175	5.0 - 9.0% of mass 174	6.5(6.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	95.0(98.8)1
177	5.0 - 9.0% of mass 176	5.6(5.9)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VOA STD	050 NG STD	>J7784	9/20/94	13:09
02	BK3 9/20/94	BK3 9/20/94	>J7785	9/20/94	14:09
03	SS-PIT-GW	8309-20	>J7786	9/20/94	15:04
04	SS-PIT-GWMS	8309-20MS	>J7788	9/20/94	16:35
05	SS-PIT-GWMSD	8309-20MSD	>J7789	9/20/94	17:17
06	ANN94TR00101	9883-1	>J7791	9/20/94	18:40
07	ANN94TR00101MS	9883-1MS	>J7794	9/20/94	20:44
08	ANN94TR00101MSD	9883-1MSD	>J7795	9/20/94	21:26
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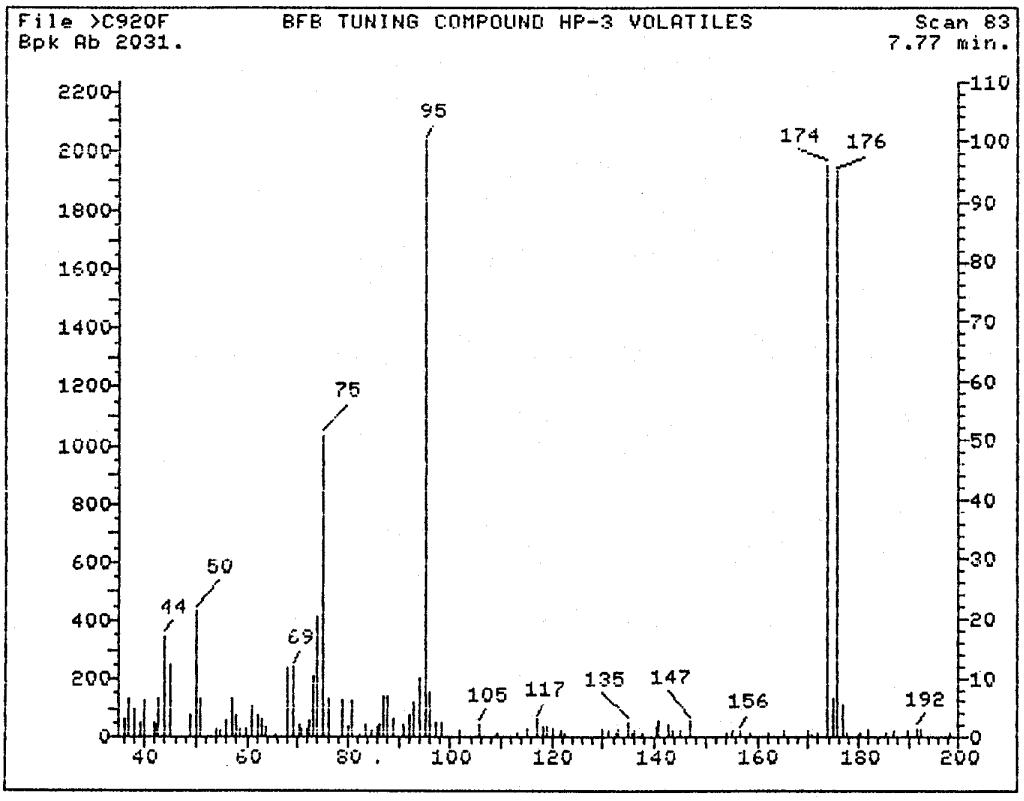

Instrument ID: HP-3 Analyzed on: 9/20/94 12:37

C920F BFB TUNING COMPOUND HP-3 VOLATILES
83 NRM

ile: >C920F Scan #: 83 Retn. time: 7.77

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	3.151	70.30	2.216	98.45	2.314	155.05	.985	206.85	1.231
37.00	6.499	70.60	1.576	101.65	1.034	156.65	1.034	207.15	1.132
38.00	4.776	71.80	1.280	105.65	2.216	158.75	.837	209.85	1.231
39.05	2.511	72.20	2.757	109.15	.689	161.95	.640	210.65	.492
40.05	6.204	73.00	10.094	112.95	.788	165.15	.935	212.15	.788
41.95	2.511	73.90	20.384	115.05	1.379	165.35	.935	213.15	1.576
42.25	2.117	75.00	50.911	117.00	3.003	170.00	.935	216.35	.886
42.85	6.598	76.10	6.548	118.00	1.773	170.80	.542	222.60	.640
43.95	17.085	78.90	6.155	118.80	1.822	171.80	.689	223.60	.542
45.05	12.260	80.00	1.871	120.10	1.329	173.90	96.160	226.20	.689
48.85	3.890	80.80	6.056	121.60	1.034	174.90	6.548	234.60	.640
50.05	21.320	82.40	.591	122.50	.837	175.90	95.027	236.70	1.379
50.95	6.352	83.40	2.265	130.00	1.477	176.80	5.613	241.70	.492
53.95	1.329	84.70	1.034	130.90	1.231	177.80	.640	243.45	1.083
54.65	1.083	86.00	1.822	132.40	.788	179.90	.492	250.75	.788
55.95	2.856	86.20	2.019	133.00	1.329	180.60	.788	251.15	1.083
57.05	6.647	87.10	6.992	134.90	2.462	182.10	1.329	259.75	.788
58.05	3.791	87.70	4.284	135.60	.739	185.40	.640	261.15	1.231
58.75	1.526	88.00	6.696	136.00	1.182	187.20	1.132	267.05	.739
59.85	1.576	89.10	3.003	137.80	.837	189.80	1.083	267.75	.542
61.05	5.268	91.05	2.117	140.20	1.773	191.80	1.477	268.85	1.182
61.95	3.939	92.05	3.939	140.90	2.659	192.55	1.428	271.90	.837
63.05	3.151	92.95	5.908	142.85	2.265	198.45	.640	284.30	.985
63.85	1.625	93.95	9.946	143.35	1.231	200.25	1.379	294.00	.492
65.70	.542	95.05	100.000	145.05	1.034	201.65	.542	298.05	.837
68.00	11.669	96.05	7.632	147.15	2.708	204.05	.985	298.75	.886
69.00	11.817	97.15	2.413	154.05	.788				

Instrument ID: HP-3 Analyzed on: 9/20/94 12:37

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

Lab Name: ARDL, INC. Contract: ---

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

Lab File ID: >CF921 BFB Injection Date: 9/21/94

Instrument ID: HP-3 BFB Injection Time: 10:49

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% OF MASS 95	23.0
75	30.0 - 60.0% OF MASS 95	59.2
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	91.9
175	5.0 - 9.0% of mass 174	5.7(6.2)1
176	Greater than 95.0%, but less than 101.0% of mass 174	87.9(95.7)1
177	5.0 - 9.0% of mass 176	5.5(6.2)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VOA STD	050 NG STD	>J7804	9/21/94	11:20
02	BK3 9/21/94	BK3 9/21/94	>J7805	9/21/94	12:51
03	ANN94TR00201	9883-2	>J7806	9/21/94	13:45
04	ANN94TR00301	9883-3	>J7807	9/21/94	14:50
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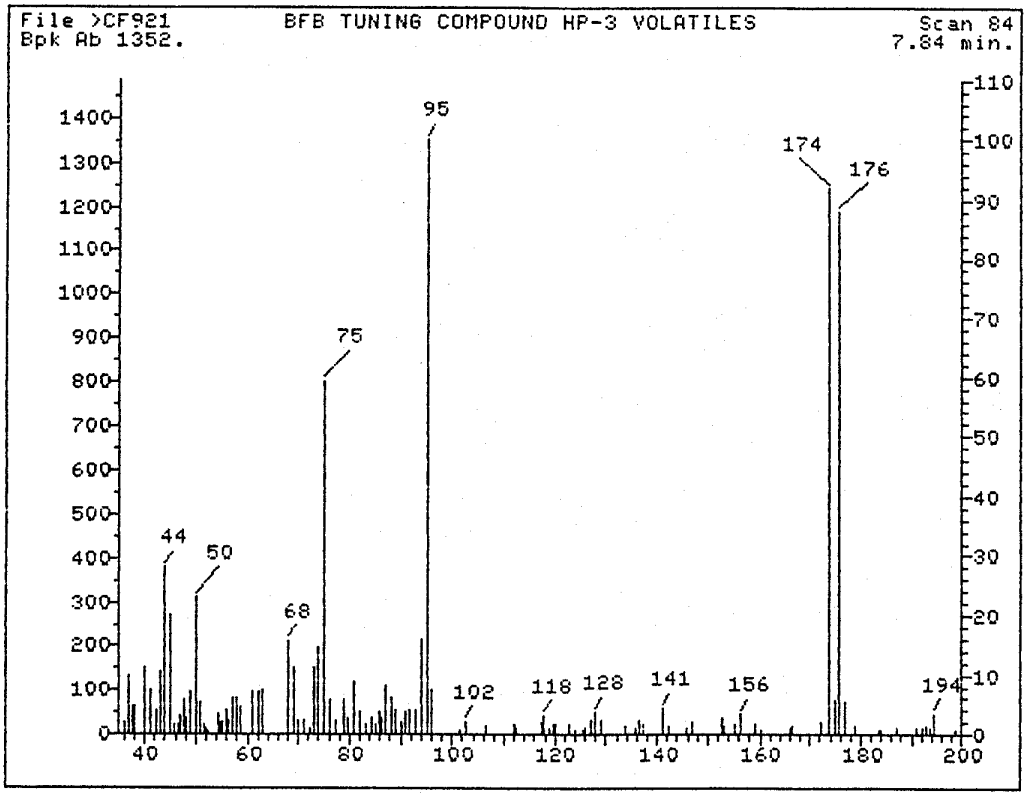
FORM V VOA

1/83 Rev.

30039



Instrument ID: HP-3 Analyzed on: 9/21/94 10:49

30040

>CF921 BFB TUNING COMPOUND HP-3 VOLATILES
84 NRM

'ile: >CF921 Scan #: 84 Retn. time: 7.84

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	2.145	58.05	6.065	90.15	2.071	137.10	1.627	192.85	1.405
37.00	9.985	58.75	4.734	90.95	3.772	141.00	4.364	193.65	1.257
37.70	4.956	60.95	7.322	91.75	4.290	142.25	1.553	194.25	3.476
38.00	4.808	61.95	7.175	92.85	4.142	142.45	1.553	198.85	.740
39.95	11.095	63.05	7.470	94.05	15.976	145.65	1.109	199.95	1.036
41.05	7.396	68.00	15.754	95.05	100.000	146.95	2.219	203.05	1.775
42.25	4.290	69.00	11.095	95.95	7.396	152.75	2.959	207.05	1.627
43.05	10.651	69.80	2.515	101.45	.814	153.05	1.479	208.35	.814
43.95	28.107	71.00	2.515	102.45	2.219	155.05	1.849	208.65	.740
45.05	19.896	72.10	1.257	106.65	1.405	156.15	3.328	209.15	.888
45.95	1.923	73.00	11.095	111.85	1.923	158.85	1.849	209.55	.814
46.75	1.627	74.00	14.497	112.25	1.183	160.25	.740	209.85	1.183
47.15	3.033	75.00	59.246	117.20	2.071	166.15	1.257	210.75	.888
47.75	5.843	76.00	5.843	117.80	3.254	166.35	1.405	213.35	1.405
48.25	2.663	77.20	2.441	118.90	1.183	166.55	1.479	217.05	2.367
48.95	7.101	78.90	5.991	119.90	1.775	172.10	2.145	243.40	1.775
49.95	23.003	79.60	2.663	120.10	1.849	173.90	91.938	251.45	1.036
51.05	5.399	81.00	8.802	122.80	1.627	174.90	5.695	259.95	1.036
51.65	1.849	81.80	3.772	124.00	.888	175.90	87.944	270.30	1.923
52.15	.962	83.30	1.923	125.50	.888	177.00	5.473	274.80	.888
52.45	.814	84.40	2.737	125.90	1.257	179.00	1.553	275.40	1.997
54.25	3.402	85.00	1.775	127.20	2.367	183.40	.888	278.00	1.331
54.65	2.219	86.00	3.920	127.90	3.772	183.80	.888	283.40	.888
54.95	2.219	86.40	2.663	128.90	2.293	186.90	.962	285.70	1.331
55.95	4.068	87.00	8.284	133.90	1.479	187.10	1.036	288.20	.888
56.45	2.515	88.10	6.213	135.50	1.183	191.10	1.036	288.50	.814
56.95	6.213	89.00	4.290	136.50	2.441	191.90	1.257	299.55	1.036

Instrument ID: HP-3 Analyzed on: 9/21/94 10:49

Initial Calibration Data
HSL Compounds

Case No:

Instrument ID: HP-3

Contractor: ARDL,INC

Calibration Date: 08/11/94

Contract No:

Initial did not contain extra RMA Compds. gD 8/11/9

Minimum $\overline{RF}$ for SPCC is 0.3 Maximum % RSD for CCC is 30%

Laboratory ID:	>J7384	>J7385	>J7383	>J7386	>J7387						
Compound	RF 10.00	RF 20.00	RF 50.00	RF 100.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC	
Chloromethane	.62036	.71906	.77109	.80801	.76082	.146	.73587	9.774		**	
Bromomethane	1.00924	.86898	.73640	.70672	.65180	.242	.79463	18.140			
Dichlorodifluoromethane	1.99244	1.95461	2.17264	2.06737	1.80671	.306	1.99875	6.796			
Vinyl Chloride	.79373	.66070	.73681	.73658	.38851	.314	.66327	24.229	*		
Chloroethane	.32249	.46579	.44474	.46539	.44203	.423	.42809	14.034			
Methylene Chloride	1.31552	1.46501	1.32634	1.31110	1.25325	.668	1.33425	5.879			
Acetone	.25219	.19561	.16322	.17651	.16253	.751	.19001	19.610			(Conc=20.0,40.0,100.0,200
2-Propenal	-	-	.02475	.02251	.03910	.754	.02879	31.277			(Conc=20.0,40.0,100.0,200
Carbon Disulfide	2.54664	2.68428	3.01725	3.19068	2.97238	.823	2.88225	9.069			
Acrylonitrile	-	.11862	.17397	.17086	.17053	.824	.15850	16.802			(Conc=20.0,40.0,100.0,200
Trichlorofluoromethane	3.72278	3.79012	4.10013	4.07028	3.82873	.878	3.90240	4.393			
1,1-Dichloroethene	1.20411	1.20769	1.21243	1.22656	1.11903	.954	1.19396	3.581	*		
1,1-Dichloroethane	2.25273	2.30047	2.32549	2.35066	2.18351	1.077	2.28257	2.898		**	
1,2-Dichloroethene (total)	1.26744	1.34057	1.30007	1.29168	1.19615	1.151	1.27918	4.172			(Conc=20.0,40.0,100.0,200
Chloroform	2.99868	3.04005	3.12850	3.03547	2.90461	1.207	3.02146	2.677	*		
1,2-Dichloroethane-d4	1.86469	1.80398	1.82081	1.76303	1.69135	1.265	1.78877	3.663			
1,2-Dichloroethane	1.90899	1.93653	1.95420	1.87412	1.79129	1.275	1.89303	3.403			
2-Butanone	.10873	.08460	.08086	.08538	.08191	.646	.08830	13.105			(Conc=20.0,40.0,100.0,200
1,1,1-Trichloroethane	.88438	.86251	.90269	.85245	.83954	.707	.86831	2.910			
Carbon Tetrachloride	1.01738	.93387	1.02673	.98633	.97258	.726	.98738	3.766			
Vinyl Acetate	.48069	.50045	.55339	.50513	.55065	.737	.51806	6.243			
Bromodichloromethane	.92009	.84687	.93963	.88346	.89771	.753	.89755	3.957			
Bicyclo[2,2,1] Hepta-2,5-Diene	-	-	-	-	-	-	-	-			
1,2-Dichloropropane	.40238	.38843	.39887	.38801	.38544	.815	.39263	1.909	*		
cis-1,3-Dichloropropene	.55263	.54678	.60315	.56839	.58182	.829	.57055	3.997			
Trichloroethene	.56197	.55561	.55833	.53060	.51232	.856	.54377	3.951			
Benzene	.84744	.81699	.81166	.79664	.75258	.878	.80506	4.306			
Dibromochloromethane	.93554	.90365	.99514	.90904	.89781	.885	.92824	4.319			
trans-1,3-Dichloropropene	.49815	.46866	.52205	.47473	.45825	.890	.48437	5.295			
1,1,2-Trichloroethane	.39114	.33207	.35773	.31982	.30511	.890	.34117	9.951			

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: HP-3

Contractor: ARDL,INC Calibration Date: 08/11/94

Contract No:

Minimum $\overline{RF}$ for SPCC is 0.3 Maximum % RSD for CCC is 30%

Laboratory ID:	>J7384	>J7385	>J7383	>J7386	>J7387						
Compound	RF 10.00	RF 20.00	RF 50.00	RF 100.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC	
2-Pentanone	-	-	-	-	-	-	-	-			(Conc=20.0,40.0,100.0,200
Chloroethylvinylether	.18313	.18166	.20802	.19273	.20442	.941	.19399	6.193			(Conc=10.0,20.0,50.0,100.
Methylcyclohexane	-	-	-	-	-	-	-	-			
Bromoform	.70956	.74054	.82285	.76996	.79985	1.012	.76855	5.889		**	
4-Methyl-2-Pentanone	.36586	.33428	.34756	.33188	.32844	.839	.34160	4.501			(Conc=20.0,40.0,100.0,200
2-Hexanone	.29323	.24278	.22738	.23028	.21728	.899	.24219	12.364			(Conc=20.0,40.0,100.0,200
Tetrachloroethene	.66480	.66410	.62632	.64722	.57748	.911	.63598	5.704			
1,1,2,2-Tetrachloroethane	.62914	.58254	.63093	.57099	.53310	.911	.58934	7.026		**	
Trichloropropene	-	-	-	-	-	-	-	-			
Toluene-d8	1.18112	1.05753	1.09095	1.08712	1.01574	.953	1.08649	5.602			
Toluene	.69277	.64045	.66587	.64229	.62320	.960	.65292	4.129	*		
Dicyclopentadiene	.04668	.04900	.12167	.12935	.11861	.953	.09306	44.566			← Not in mix gO 8/11/94
Chlorobenzene	1.09319	1.00405	1.02429	1.00811	.97163	1.005	1.02025	4.414		**	
Ethylbenzene	.46362	.41832	.42020	.44169	.42752	1.077	.43427	4.330	*		
1-Methyl-1,3-cyclopentadiene	-	-	-	-	.09216	1.162	.09216	-			
1,2-dibromo-3-chloropropane	-	-	-	-	-	-	-	-			
Bromofluorobenzene	1.04532	.95005	1.00693	.98453	.97058	1.161	.99148	3.685			
Styrene	.94341	.86459	.92581	.92399	.90348	1.209	.91225	3.307			
m-Xylene	.48149	.53502	.54416	.55414	.54845	1.219	.53265	5.527			
o & p-Xylene	.55543	.53720	.55508	.54718	.54029	1.252	.54704	1.523			(Conc=20.0,40.0,100.0,200
1,3-Dichlorobenzene	1.37489	1.40584	1.40237	1.40417	1.40877	1.377	1.39921	.986			
1,4-Dichlorobenzene	1.11102	1.21507	.93585	.61057	.95567	1.410	.96563	23.752			
1,2 Dichlorobenzene	1.11102	1.21507	.93585	.61057	.95567	1.410	.96563	23.752			

RF - Response Factor (Subscript is amount in ug/l)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

QUANT REPORT

Operator ID: JACK Quant Rev: 7 Quant Time: 940810 16:10
Output File: ^J7383::D1 Injected at: 940810 15:29
Data File: >J7383::D4 Dilution Factor: 1.00000
Name: VSTD050 Instrument ID: HP-3
Misc: HP-3 8240 CALIB

D File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940808 16:31 Last Qcal Date: 940808 10:21

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	10.83	227	45633	50.00	ug/l	98
2)	Chloromethane	1.65	26	35187	84.29	ug/l	93
3)	Bromomethane	2.70	49	33604	46.64	ug/l	86
4)	Dichlorodifluoromethane	3.39	64	99144	114.09	ug/l	91
5)	Vinyl Chloride	3.48	66	33623	71.07	ug/l	97
6)	Chloroethane	4.71	93	20295	56.91	ug/l	98
7)	Methylene Chloride	7.27	149	60525	47.26	ug/l	91
8)	Acetone	8.14	168	14896	78.43	ug/l	94
9)	2-Propenal	8.14	168	2259	38.81	ug/l	97
10)	Carbon Disulfide	8.92	185	137686	67.50	ug/l	100
11)	Acrylonitrile	8.96	186	15878	125.69	ug/l	97
12)	Trichlorofluoromethane	9.55	199	187101	52.23	ug/l	90
13)	1,1-Dichloroethene	10.33	216	55327	60.05	ug/l	90
14)	1,1-Dichloroethane	11.66	245	106119	52.71	ug/l	93
15)	1,2-Dichloroethene (total)	12.48	263	118652	110.57	ug/l	95
16)	Chloroform	13.07	276	142763	47.84	ug/l	98
17)	1,2-Dichloroethane-d4	13.71	290	83089	54.55	ug/l	95
18)	1,2-Dichloroethane	13.80	292	89176	47.13	ug/l	67
19)	*1,4-Difluorobenzene (ISTD 2)	21.30	456	156063	50.00	ug/l	95
20)	2-Butanone	13.80	292	25239	93.58	ug/l	94
21)	1,1,1-Trichloroethane	15.08	320	140877	38.41	ug/l	97
22)	Carbon Tetrachloride	15.45	328	160235	44.90	ug/l	88
23)	Vinyl Acetate	15.72	334	86363	53.58	ug/l	99
24)	Bromodichloromethane	16.04	341	146641	44.05	ug/l	98
26)	1,2-Dichloropropane	17.37	370	62249	52.39	ug/l	96
27)	cis-1,3-Dichloropropene	17.69	377	94129	49.14	ug/l	86
28)	Trichloroethene	18.24	389	87135	51.97	ug/l	94
29)	Benzene	18.69	399	126670	50.94	ug/l	91
30)	Dibromochloromethane	18.88	403	155305	49.87	ug/l	98
31)	trans-1,3-Dichloropropene	18.97	405	81472	47.24	ug/l	98
32)	1,1,2-Trichloroethane	18.97	405	55828	53.41	ug/l	96
34)	Chloroethylvinylether	20.06	429	32464	57.54	ug/l	95
37)	Bromoform	21.57	462	128416	52.11	ug/l	97
38)	*D5-Chlorobenzene (ISTD 3)	26.28	565	139251	50.00	ug/l	99
39)	4-Methyl-2-Pentanone	22.07	473	96795	116.51	ug/l	100
40)	2-Hexanone	23.63	507	63326	111.94	ug/l	77
41)	Tetrachloroethene	23.95	514	87215	51.88	ug/l	86
42)	1,1,2,2-Tetrachloroethane	23.95	514	87858	59.17	ug/l	97
44)	Toluene-d8	25.04	538	151916	56.90	ug/l	100
45)	Toluene	25.23	542	92723	54.69	ug/l	92
46)	Dicyclopentadiene	25.04	538	16942	40.37	ug/l	100
47)	Chlorobenzene	26.41	568	142633	53.36	ug/l	96

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8)	Ethylbenzene	28.29	609	58513	49.14 ug/l	95
53)	Bromofluorobenzene	30.53	658	140216	54.02 ug/l	78
54)	Styrene	31.81	686	128920	53.52 ug/l	94
55)	m-Xylene	32.04	691	75775	52.33 ug/l	90
56)	o & p-Xylene	32.95	711	154591	108.86 ug/l	92
57)	1,3-Dichlorobenzene	36.24	783	195282	54.15 ug/l	100
58)	1,4-Dichlorobenzene	37.15	803	173221M	53.61 ug/l	100
59)	1,2 Dichlorobenzene	37.61	813	187302M	56.93 ug/l	100

* Compound is ISTD

QUANT REPORT

Operator ID: JACK Quant Rev: 7 Quant Time: 940810 16:57
Output File: ^J7384::D1 Injected at: 940810 16:16
Data File: >J7384::D4 Dilution Factor: 1.00000
Name: VSTD010 Instrument ID: HP-3
Misc: HP-3 8240 CALIB

D File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940808 16:31 Last Qcal Date: 940808 10:21

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	10.76	225	41645	50.00	ug/l	95
2)	Chloromethane	1.39	20	5167	13.56	ug/l	98
3)	Bromomethane	2.40	42	8406	12.78	ug/l	89
4)	Dichlorodifluoromethane	3.08	57	16595M	20.92	ug/l	
5)	Vinyl Chloride	3.18	59	6611M	15.31	ug/l	
6)	Chloroethane	4.41	86	2686M	8.25	ug/l	
7)	Methylene Chloride	7.10	145	10957	9.37	ug/l	88
8)	Acetone	8.02	165	4201M	24.24	ug/l	
0)	Carbon Disulfide	8.89	184	21211	11.39	ug/l	100
2)	Trichlorofluoromethane	9.43	196	31007	9.48	ug/l	89
13)	1,1-Dichloroethene	10.26	214	10029	11.93	ug/l	87
4)	1,1-Dichloroethane	11.63	244	18763	10.21	ug/l	91
5)	1,2-Dichloroethene (total)	12.40	261	21113	21.56	ug/l	97
16)	Chloroform	13.04	275	24976	9.17	ug/l	88
17)	1,2-Dichloroethane-d4	13.68	289	15531M	11.17	ug/l	
8)	1,2-Dichloroethane	13.73	290	15900	9.21	ug/l	58
9)	*1,4-Difluorobenzene (ISTD 2)	21.27	455	141432	50.00	ug/l	99
20)	2-Butanone	13.73	290	6151M	25.17	ug/l	
1)	1,1,1-Trichloroethane	15.05	319	25016	7.53	ug/l	96
2)	Carbon Tetrachloride	15.42	327	28778	8.90	ug/l	91
23)	Vinyl Acetate	15.65	332	13597M	9.31	ug/l	
4)	Bromodichloromethane	16.01	340	26026	8.63	ug/l	92
6)	1,2-Dichloropropane	17.34	369	11382	10.57	ug/l	86
7)	cis-1,3-Dichloropropene	17.61	375	15632	9.00	ug/l	96
28)	Trichloroethene	18.21	388	15896	10.46	ug/l	95
9)	Benzene	18.66	398	23971	10.64	ug/l	89
0)	Dibromochloromethane	18.85	402	26463	9.38	ug/l	96
31)	trans-1,3-Dichloropropene	18.94	404	14091	9.02	ug/l	86
2)	1,1,2-Trichloroethane	18.94	404	11064	11.68	ug/l	87
4)	Chloroethylvinylether	19.99	427	5180M	10.13	ug/l	
37)	Bromoform	21.54	461	20071	8.99	ug/l	95
38)	*D5-Chlorobenzene (ISTD 3)	26.25	564	126181	50.00	ug/l	97
9)	4-Methyl-2-Pentanone	22.00	471	18466	24.53	ug/l	100
0)	2-Hexanone	23.60	506	14800	28.87	ug/l	72
41)	Tetrachloroethene	23.92	513	16777	11.01	ug/l	84
2)	1,1,2,2-Tetrachloroethane	23.87	512	15877	11.80	ug/l	97
4)	Toluene-d8	25.01	537	29807	12.32	ug/l	100
45)	Toluene	25.20	541	17483	11.38	ug/l	99
6)	Dicyclopentadiene	25.01	537	1178	3.10	ug/l	100
7)	Chlorobenzene	26.38	567	27588	11.39	ug/l	97
48)	Ethylbenzene	28.26	608	11700	10.84	ug/l	98
53)	Bromofluorobenzene	30.45	656	26380	11.22	ug/l	79

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4)	Styrene	31.73	684	23808	10.91 ug/l	89
55)	m-Xylene	32.00	690	12151	9.26 ug/l	99
56)	o & p-Xylene	32.83	708	28034	21.79 ug/l	94
7)	1,3-Dichlorobenzene	36.11	780	34697	10.62 ug/l	100
8)	1,4-Dichlorobenzene	36.94	798	28038	9.58 ug/l	100
59)	1,2 Dichlorobenzene	37.53	811	35740M	11.99 ug/l	100

* Compound is ISTD

QUANT REPORT

perator ID: JACK Quant Rev: 7 Quant Time: 940810 17:43
Output File: ^J7385::D1 Injected at: 940810 17:02
ata File: >J7385::D4 Dilution Factor: 1.00000
ame: VSTD020 Instrument ID: HP-3
Misc: HP-3 8240 CALIB

D File: IDW340::SC
itle: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940808 16:31 Last Qcal Date: 940808 10:21

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	10.83	227	38853	50.00	ug/l	94
2)	Chloromethane	1.65	26	11175	31.44	ug/l	93
3)	Bromomethane	2.65	48	13505	22.01	ug/l	93
4)	Dichlorodifluoromethane	3.39	64	30377	41.05	ug/l	97
5)	Vinyl Chloride	3.48	66	10268	25.49	ug/l	96
6)	Chloroethane	4.67	92	7239	23.84	ug/l	97
7)	Methylene Chloride	7.22	148	22768	20.88	ug/l	85
8)	Acetone	8.09	167	6080M	37.60	ug/l	
0)	Carbon Disulfide	8.96	186	41717	24.02	ug/l	100
1)	Acrylonitrile	8.87	184	3687	34.28	ug/l	98
12)	Trichlorofluoromethane	9.51	198	58903	19.31	ug/l	89
13)	1,1-Dichloroethene	10.33	216	18769	23.93	ug/l	87
4)	1,1-Dichloroethane	11.65	245	35752	20.86	ug/l	97
5)	1,2-Dichloroethene (total)	12.48	263	41668	45.61	ug/l	91
16)	Chloroform	13.07	276	47246	18.60	ug/l	94
7)	1,2-Dichloroethane-d4	13.66	289	28036	21.62	ug/l	95
8)	1,2-Dichloroethane	13.80	292	30096	18.68	ug/l	71
19)	*1,4-Difluorobenzene (ISTD 2)	21.25	455	138132	50.00	ug/l	99
0)	2-Butanone	13.71	290	9349M	39.17	ug/l	
1)	1,1,1-Trichloroethane	15.03	319	47656	14.68	ug/l	96
22)	Carbon Tetrachloride	15.45	328	51599	16.33	ug/l	93
23)	Vinyl Acetate	15.67	333	27651M	19.38	ug/l	
4)	Bromodichloromethane	16.04	341	46792	15.88	ug/l	89
6)	1,2-Dichloropropane	17.32	369	21462	20.41	ug/l	93
27)	cis-1,3-Dichloropropene	17.64	376	30211	17.82	ug/l	97
8)	Trichloroethene	18.19	388	30699	20.69	ug/l	97
9)	Benzene	18.64	398	45141	20.51	ug/l	91
30)	Dibromochloromethane	18.83	402	49929	18.11	ug/l	96
31)	trans-1,3-Dichloropropene	18.92	404	25895	16.96	ug/l	96
2)	1,1,2-Trichloroethane	18.92	404	18348	19.83	ug/l	92
34)	Chloroethylvinylether	20.01	428	10037	20.10	ug/l	99
37)	Bromoform	21.52	461	40917	18.76	ug/l	96
8)	*D5-Chlorobenzene (ISTD 3)	26.23	564	125557	50.00	ug/l	96
9)	4-Methyl-2-Pentanone	22.02	472	33577	44.82	ug/l	100
40)	2-Hexanone	23.58	506	24386	47.81	ug/l	73
1)	Tetrachloroethene	23.90	513	33353	22.01	ug/l	90
2)	1,1,2,2-Tetrachloroethane	23.90	513	29257	21.85	ug/l	97
44)	Toluene-d8	24.99	537	53112	22.06	ug/l	100
45)	Toluene	25.18	541	32165	21.04	ug/l	97
6)	Dicyclopentadiene	25.04	538	2461	6.50	ug/l	100
7)	Chlorobenzene	26.36	567	50426	20.92	ug/l	98
48)	Ethylbenzene	28.24	608	21009	19.57	ug/l	96

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3)	Bromofluorobenzene	30.48	657	47714	20.39 ug/l	74
54)	Styrene	31.71	684	43422	19.99 ug/l	93
55)	m-Xylene	31.94	689	26870	20.58 ug/l	94
6)	o & p-Xylene	32.81	708	53959	42.14 ug/l	92
57)	1,3-Dichlorobenzene	36.09	780	70605	21.71 ug/l	100
58)	1,4-Dichlorobenzene	37.01	800	61024	20.95 ug/l	100
9)	1,2 Dichlorobenzene	37.51	811	69586M	23.46 ug/l	100

* Compound is ISTD

QUANT REPORT

Operator ID: JACK Quant Rev: 7 Quant Time: 940810 18:30
Output File: ^J7386::D1 Injected at: 940810 17:49
ata File: >J7386::D4 Dilution Factor: 1.00000
ame: VSTD100 Instrument ID: HP-3
Misc: HP-3 8240 CALIB

D File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940808 16:31 Last Qcal Date: 940808 10:21

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	10.81	226	40455	50.00	ug/l	95
2)	Chloromethane	1.63	25	65376	176.64	ug/l	99
3)	Bromomethane	2.68	48	57181	89.52	ug/l	87
4)	Dichlorodifluoromethane	3.36	63	167271	217.12	ug/l	94
5)	Vinyl Chloride	3.45	65	59597	142.10	ug/l	97
6)	Chloroethane	4.69	92	37655	119.10	ug/l	96
7)	Methylene Chloride	7.24	148	106081	93.43	ug/l	89
8)	Acetone	8.16	168	28563	169.64	ug/l	88
9)	2-Propenal	8.16	168	3642	70.57	ug/l	58
0)	Carbon Disulfide	8.89	184	258158	142.75	ug/l	100
11)	Acrylonitrile	8.89	184	27649	246.88	ug/l	87
12)	Trichlorofluoromethane	9.48	197	329326	103.69	ug/l	92
3)	1,1-Dichloroethene	10.31	215	99241	121.51	ug/l	87
14)	1,1-Dichloroethane	11.63	244	190192	106.55	ug/l	98
15)	1,2-Dichloroethene (total)	12.45	262	209020	219.72	ug/l	90
6)	Chloroform	13.05	275	245600	92.84	ug/l	99
7)	1,2-Dichloroethane-d4	13.64	288	142647	105.64	ug/l	96
18)	1,2-Dichloroethane	13.78	291	151635	90.40	ug/l	65
9)	*1,4-Difluorobenzene (ISTD 2)	21.27	455	143525	50.00	ug/l	94
0)	2-Butanone	13.73	290	49018	197.63	ug/l	85
21)	1,1,1-Trichloroethane	15.06	319	244695	72.54	ug/l	97
22)	Carbon Tetrachloride	15.42	327	283125	86.26	ug/l	94
3)	Vinyl Acetate	15.65	332	144999	97.82	ug/l	88
24)	Bromodichloromethane	16.02	340	253596	82.83	ug/l	95
26)	1,2-Dichloropropane	17.34	369	111379	101.92	ug/l	99
7)	cis-1,3-Dichloropropene	17.62	375	163156	92.61	ug/l	92
8)	Trichloroethene	18.21	388	152309	98.78	ug/l	92
29)	Benzene	18.67	398	228675	99.99	ug/l	89
0)	Dibromochloromethane	18.81	401	260940	91.11	ug/l	98
1)	trans-1,3-Dichloropropene	18.90	403	136270	85.91	ug/l	97
32)	1,1,2-Trichloroethane	18.94	404	91803	95.49	ug/l	96
34)	Chloroethylvinylether	19.99	427	55322	106.63	ug/l	87
7)	Bromoform	21.50	460	221017	97.52	ug/l	96
38)	*D5-Chlorobenzene (ISTD 3)	26.21	563	124880	50.00	ug/l	97
39)	4-Methyl-2-Pentanone	22.00	471	165782	222.50	ug/l	100
0)	2-Hexanone	23.60	506	115030	226.74	ug/l	69
1)	Tetrachloroethene	23.88	512	161650	107.23	ug/l	85
42)	1,1,2,2-Tetrachloroethane	23.88	512	142611	107.10	ug/l	95
4)	Toluene-d8	24.97	536	271520	113.40	ug/l	100
5)	Toluene	25.16	540	160419	105.51	ug/l	97
46)	Dicyclopentadiene	24.97	536	32306	85.84	ug/l	100
47)	Chlorobenzene	26.35	566	251786	105.04	ug/l	98

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8)	Ethylbenzene	28.22	607	110317	103.30 ug/l	91
53)	Bromofluorobenzene	30.41	655	245897	105.63 ug/l	85
54)	Styrene	31.69	683	230776	106.83 ug/l	95
5)	m-Xylene	31.97	689	138402	106.59 ug/l	87
56)	o & p-Xylene	32.84	708	273326	214.62 ug/l	96
57)	1,3-Dichlorobenzene	36.08	779	350705	108.44 ug/l	100
8)	1,4-Dichlorobenzene	36.95	798	286150M	98.76 ug/l	100
9)	1,2 Dichlorobenzene	37.41	808	323738M	109.72 ug/l	100

* Compound is ISTD

QUANT REPORT

Operator ID: JACK Quant Rev: 7 Quant Time: 940810 19:17
Output File: ^J7387::D1 Injected at: 940810 18:36
Data File: >J7387::D4 Dilution Factor: 1.00000
Name: VSTD200 Instrument ID: HP-3
Misc: HP-3 8240 CALIB

ID File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940808 16:31 Last Qcal Date: 940808 10:21

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	10.82	226	43629	50.00	ug/l	99
2)	Chloromethane	1.59	24	132775	332.65	ug/l	95
3)	Bromomethane	2.64	47	113749	165.12	ug/l	93
4)	Dichlorodifluoromethane	3.32	62	315300	379.48	ug/l	96
5)	Vinyl Chloride	3.42	64	67802	149.91	ug/l	93
6)	Chloroethane	4.65	91	77141	226.25	ug/l	98
7)	Methylene Chloride	7.25	148	218713	178.62	ug/l	89
8)	Acetone	8.21	169	56727	312.40	ug/l	90
9)	2-Propenal	8.17	168	13648	245.23	ug/l	87
10)	Carbon Disulfide	8.85	183	518728	265.97	ug/l	100
11)	Acrylonitrile	8.94	185	59522	492.81	ug/l	88
12)	Trichlorofluoromethane	9.49	197	668174	195.07	ug/l	85
13)	1,1-Dichloroethene	10.32	215	195288	221.71	ug/l	87
14)	1,1-Dichloroethane	11.64	244	381058	197.95	ug/l	99
15)	1,2-Dichloroethene (total)	12.42	261	417496	406.94	ug/l	89
16)	Chloroform	13.01	274	506901	177.68	ug/l	95
17)	1,2-Dichloroethane-d4	13.65	288	295167	202.69	ug/l	93
18)	1,2-Dichloroethane	13.79	291	312609	172.80	ug/l	67
19)	*1,4-Difluorobenzene (ISTD 2)	21.29	455	146314	50.00	ug/l	96
20)	2-Butanone	13.74	290	95879	379.20	ug/l	90
21)	1,1,1-Trichloroethane	15.02	318	491346	142.89	ug/l	93
22)	Carbon Tetrachloride	15.43	327	569211	170.12	ug/l	89
23)	Vinyl Acetate	15.66	332	322272	213.28	ug/l	92
24)	Bromodichloromethane	16.03	340	525388	168.32	ug/l	97
26)	1,2-Dichloropropane	17.35	369	225579	202.49	ug/l	96
27)	cis-1,3-Dichloropropene	17.63	375	340512	189.60	ug/l	93
28)	Trichloroethene	18.18	387	299838	190.75	ug/l	99
29)	Benzene	18.68	398	440450	188.92	ug/l	90
30)	Dibromochloromethane	18.82	401	525449	179.97	ug/l	99
31)	trans-1,3-Dichloropropene	18.91	403	268196	165.87	ug/l	98
32)	1,1,2-Trichloroethane	18.91	403	178566	182.21	ug/l	96
34)	Chloroethylvinylether	20.01	427	119637	226.19	ug/l	96
37)	Bromoform	21.51	460	468115	202.61	ug/l	98
38)	*D5-Chlorobenzene (ISTD 3)	26.22	563	131169	50.00	ug/l	97
39)	4-Methyl-2-Pentanone	22.02	471	344645	440.38	ug/l	100
40)	2-Hexanone	23.57	505	228007	427.88	ug/l	70
41)	Tetrachloroethene	23.89	512	302989	191.36	ug/l	87
42)	1,1,2,2-Tetrachloroethane	23.89	512	279707	199.99	ug/l	97
44)	Toluene-d8	24.99	536	532933	211.91	ug/l	100
45)	Toluene	25.17	540	326979	204.75	ug/l	96
46)	Dicyclopentadiene	24.99	536	62233	157.42	ug/l	100
47)	Chlorobenzene	26.36	566	509790	202.48	ug/l	98

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3)	Ethylbenzene	28.23	607	224308	199.98	ug/l	93
51)	1-Methyl-1,3-cyclopentadiene	30.47	656	48353	48353.00	NO CALIB	49
53)	Bromofluorobenzene	30.43	655	509238	208.26	ug/l	79
1)	Styrene	31.71	683	474032	208.91	ug/l	93
55)	m-Xylene	31.98	689	287761	210.99	ug/l	92
56)	o & p-Xylene	32.85	708	566954	423.83	ug/l	95
7)	1,3-Dichlorobenzene	36.05	778	739149	217.60	ug/l	100
3)	1,4-Dichlorobenzene	36.96	798	656884M	215.84	ug/l	100
59)	1,2 Dichlorobenzene	37.46	809	695850M	224.52	ug/l	100

* Compound is ISTD

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/20/94

Contractor: ARDL,INC Time: 13:09

Contract No: Laboratory ID: >J7784

Instrument ID: HP-3 Initial Calibration Date: 08/16/94

Minimum $\overline{RF}$ for SPCC is 0.3 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Chloromethane	.73587	.75605	2.74		**	
Bromomethane	.79463	.67033	15.64			
Dichlorodifluoromethane	1.99875	1.72858	13.52			
Vinyl Chloride	.66327	.74550	12.40	*		
Chloroethane	.42809	.48753	13.88			
Methylene Chloride	1.33425	1.18361	11.29			
Acetone	.07602	.10826	42.42			(Conc=250.00)
2-Propenal	.02879	.04416	53.39			(Conc=100.00)
Carbon Disulfide	2.88225	2.59567	9.94			
Acrylonitrile	.15850	.14711	7.18			(Conc=100.00)
Trichlorofluoromethane	3.90240	4.34312	11.29			
1,1-Dichloroethene	1.19396	1.04737	12.28	*		
1,1-Dichloroethane	2.28257	1.95254	14.46		**	
1,2-Dichloroethene (total)	1.27918	1.22793	4.01			(Conc=100.00)
Chloroform	3.02146	2.77483	8.16	*		
1,2-Dichloroethane-d4	1.78877	1.39710	21.90			(Conc=50.00)
1,2-Dichloroethane	1.89303	1.62963	13.91			
2-Butanone	.03533	.06814	92.90			(Conc=250.00)
1,1,1-Trichloroethane	.86831	.92726	6.79			
Carbon Tetrachloride	.98738	1.04376	5.71			
Vinyl Acetate	.51806	.47732	7.87			
Bromodichloromethane	.89755	.90548	.88			
Bicyclo[2,2,1] Hepta-2,5-Diene	-	.81602	-			
1,2-Dichloropropane	.39263	.37120	5.46	*		
cis-1,3-Dichloropropene	.57055	.58646	2.79			
Trichloroethene	.54377	.60267	10.83			
Benzene	.80506	.76921	4.45			
Dibromochloromethane	.92824	1.02424	10.34			
trans-1,3-Dichloropropene	.48437	.53492	10.44			
1,1,2-Trichloroethane	.34117	.36182	6.05			
2-Pentanone	-	-	-			(Conc=100.00)
Chloroethylvinylether	.19399	.16444	15.23			(Conc=50.00)

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/20/94

Contractor: ARDL,INC Time: 13:09

Contract No: Laboratory ID: >J7784

Instrument ID: HP-3 Initial Calibration Date: 08/16/94

Minimum $\overline{RF}$ for SPCC is 0.3 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Methylcyclohexane	-	-	-			
Bromoform	.76855	.79741	3.76		**	
4-Methyl-2-Pentanone	.34160	.30886	9.58			(Conc=100.00)
2-Hexanone	.24219	.19155	20.91			(Conc=100.00)
Tetrachloroethene	.63598	.70108	10.24			
1,1,2,2-Tetrachloroethane	.58934	.59009	.13		**	
Trichloropropene	-	-	-			
Toluene-d8	1.08649	1.08162	.45			(Conc=50.00)
Toluene	.65292	.67102	2.77	*		
Dicyclopentadiene	.09306	1.39488	1398.89			
Chlorobenzene	1.02025	1.11405	9.19		**	
Ethylbenzene	.43427	.49284	13.49	*		
1-Methyl-1,3-cyclopentadiene	.09216	-	-			
1,2-dibromo-3-chloropropane	-	.17243	-			(Conc=50.00)
Bromofluorobenzene	.99148	.91179	8.04			(Conc=50.00)
Styrene	.91225	.97938	7.36			
m-Xylene	.53265	.58315	9.48			
o & p-Xylene	.54704	.57940	5.92			(Conc=100.00)
1,3-Dichlorobenzene	1.39921	1.52350	8.88			
1,4-Dichlorobenzene	1.19354	1.35616	13.62			
1,2 Dichlorobenzene	1.35386	1.55096	14.56			

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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QUANT REPORT

Operator ID: RICH Quant Rev: 7 Quant Time: 940920 13:50
Output File: ^J7784::D1 Injected at: 940920 13:09
Data File: >J7784::D7 Dilution Factor: 1.00000
Name: VSTD050 Instrument ID: HP-3
Misc: HP-3 5mL CONT CALIB

ID File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Date: 940913 15:25

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.15	234	61984	50.00	ug/l	85
2)	Chloromethane	1.78	29	46863	54.90	ug/l	89
3)	Bromomethane	2.88	53	41550	69.74	ug/l	88
4)	Dichlorodifluoromethane	3.61	69	107144	107144.0	NO CALIB	90
5)	Vinyl Chloride	3.75	72	46209	63.67	ug/l	96
6)	Chloroethane	5.07	101	30219	62.90	ug/l	99
7)	Methylene Chloride	7.63	157	73365	48.92	ug/l	92
8)	Acetone	8.59	178	33552	224.55	ug/l	94
9)	2-Propenal	8.59	178	5474	70.21	ug/l	93
10)	Carbon Disulfide	9.28	193	160890	52.04	ug/l	100
11)	Acrylonitrile	9.32	194	18237	96.70	ug/l	98
12)	Trichlorofluoromethane	9.91	207	269204	269204.0	NO CALIB	89
13)	1,1-Dichloroethene	10.65	223	64920	51.14	ug/l	94
14)	1,1-Dichloroethane	11.97	252	121026	49.78	ug/l	97
15)	1,2-Dichloroethene (total)	12.75	269	152224	105.85	ug/l	93
16)	Chloroform	13.34	282	171995	53.76	ug/l	99
17)	1,2-Dichloroethane-d4	13.98	296	86598	58.81	ug/l	98
18)	1,2-Dichloroethane	14.07	298	101011	51.62	ug/l	69
19)	*1,4-Difluorobenzene (ISTD 2)	21.61	463	189688	50.00	ug/l	95
20)	2-Butanone	14.07	298	64629	235.02	ug/l	92
21)	1,1,1-Trichloroethane	15.35	326	175891	53.77	ug/l	97
22)	Carbon Tetrachloride	15.72	334	197989	54.74	ug/l	86
23)	Vinyl Acetate	15.99	340	90541	49.49	ug/l	98
24)	Bromodichloromethane	16.27	346	171759	54.38	ug/l	97
25)	Bicyclo[2,2,1] Hepta-2,5-Diene	16.54	352	154789	73.77	ug/l	89
26)	1,2-Dichloropropane	17.64	376	70413	53.03	ug/l	97
27)	cis-1,3-Dichloropropene	17.91	382	111245	52.61	ug/l	99
28)	Trichloroethene	18.50	395	114320	54.09	ug/l	93
29)	Benzene	19.01	406	145909	51.17	ug/l	99
30)	Dibromochloromethane	19.05	407	194286	53.57	ug/l	98
31)	trans-1,3-Dichloropropene	19.19	410	101467	52.45	ug/l	92
32)	1,1,2-Trichloroethane	19.19	410	68632	52.15	ug/l	94
34)	Chloroethylvinylether	20.33	435	31192	47.08	ug/l	93
37)	Bromoform	21.79	467	151260	52.87	ug/l	98
38)	*D5-Chlorobenzene (ISTD 3)	26.59	572	159958	50.00	ug/l	96
39)	4-Methyl-2-Pentanone	22.34	479	98810	95.70	ug/l	100
40)	2-Hexanone	23.89	513	61281	98.38	ug/l	74
41)	Tetrachloroethene	24.21	520	112144	51.71	ug/l	92
42)	1,1,2,2-Tetrachloroethane	24.17	519	94390	49.93	ug/l	96
44)	Toluene-d8	25.36	545	173013	61.20	ug/l	100
45)	Toluene	25.54	549	107335	49.91	ug/l	98
46)	Dicyclopentadiene	26.45	569	223123	54.64	ug/l	100

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7)	Chlorobenzene	26.68	574	178201	53.89 ug/l	92
48)	Ethylbenzene	28.60	616	78833	54.90 ug/l	96
2)	1,2-dibromo-3-chloropropane	28.92	623	27582M	37.82 ug/l	
3)	Bromofluorobenzene	30.93	667	145848	57.97 ug/l	61
54)	Styrene	32.30	697	156659	52.36 ug/l	98
55)	m-Xylene	32.62	704	93279	50.50 ug/l	89
6)	o & p-Xylene	33.49	723	185360	102.45 ug/l	97
57)	1,3-Dichlorobenzene	36.92	798	243696	53.43 ug/l	100
58)	1,4-Dichlorobenzene	37.88	819	216929M	50.46 ug/l	100
9)	1,2 Dichlorobenzene	38.38	830	248088M	55.14 ug/l	100

* Compound is ISTD

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/21/94

Contractor: ARDL,INC Time: 11:20

Contract No: Laboratory ID: >J7804

Instrument ID: HP-3 Initial Calibration Date: 08/16/94

Minimum $\overline{RF}$ for SPCC is 0.3 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Chloromethane	.73587	.76605	4.10		**	
Bromomethane	.79463	.72624	8.61			
Dichlorodifluoromethane	1.99875	1.94341	2.77			
Vinyl Chloride	.66327	.81117	22.30	*		
Chloroethane	.42809	.54543	27.41			
Methylene Chloride	1.33425	1.36364	2.20			
Acetone	.07602	.11306	48.73			(Conc=250.00)
2-Propenal	.02879	.05677	97.21			(Conc=100.00)
Carbon Disulfide	2.88225	2.70559	6.13			
Acrylonitrile	.15850	.14395	9.18			(Conc=100.00)
Trichlorofluoromethane	3.90240	4.65103	19.18			
1,1-Dichloroethene	1.19396	1.10488	7.46	*		
1,1-Dichloroethane	2.28257	2.20540	3.38		**	
1,2-Dichloroethene (total)	1.27918	1.27910	.01			(Conc=100.00)
Chloroform	3.02146	3.07992	1.93	*		
1,2-Dichloroethane-d4	1.78877	1.55824	12.89			(Conc=50.00)
1,2-Dichloroethane	1.89303	1.85882	1.81			
2-Butanone	.03533	.06601	86.85			(Conc=250.00)
1,1,1-Trichloroethane	.86831	1.01694	17.12			
Carbon Tetrachloride	.98738	1.14785	16.25			
Vinyl Acetate	.51806	.47661	8.00			
Bromodichloromethane	.89755	.99340	10.68			
Bicyclo[2,2,1] Hepta-2,5-Diene	-	-	-			
1,2-Dichloropropane	.39263	.39482	.56	*		
cis-1,3-Dichloropropene	.57055	.63315	10.97			
Trichloroethene	.54377	.60883	11.97			
Benzene	.80506	.77433	3.82			
Dibromochloromethane	.92824	1.06648	14.89			
trans-1,3-Dichloropropene	.48437	.54681	12.89			
1,1,2-Trichloroethane	.34117	.38292	12.24			
2-Pentanone	-	-	-			(Conc=100.00)
Chloroethylvinylether	.19399	.16148	16.76			(Conc=50.00)

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 09/21/94

Contractor: ARDL,INC Time: 11:20

Contract No: Laboratory ID: >J7804

Instrument ID: HP-3 Initial Calibration Date: 08/16/94

Minimum $\overline{RF}$ for SPCC is 0.3 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Methylcyclohexane	-	-	-			
Bromoform	.76855	.90313	17.51		**	
4-Methyl-2-Pentanone	.34160	.32099	6.03			(Conc=100.00)
2-Hexanone	.24219	.19703	18.65			(Conc=100.00)
Tetrachloroethene	.63598	.74390	16.97			
1,1,2,2-Tetrachloroethane	.58934	.62323	5.75		**	
Trichloropropene	-	-	-			
Toluene-d8	1.08649	1.08719	.06			(Conc=50.00)
Toluene	.65292	.71405	9.36	*		
Dicyclopentadiene	.09306	.11658	25.27			
Chlorobenzene	1.02025	1.15822	13.52		**	
Ethylbenzene	.43427	.46766	7.69	*		
1-Methyl-1,3-cyclopentadiene	.09216	-	-			
1,2-dibromo-3-chloropropane	-	-	-			(Conc=50.00)
Bromofluorobenzene	.99148	.90102	9.12			(Conc=50.00)
Styrene	.91225	.98718	8.21			
m-Xylene	.53265	.58344	9.53			
o & p-Xylene	.54704	.57803	5.67			(Conc=100.00)
1,3-Dichlorobenzene	1.39921	-	-			
1,4-Dichlorobenzene	1.19354	-	-			
1,2 Dichlorobenzene	1.35386	-	-			

RF - Response Factor from daily standard file at 50.00 ug/l

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

QUANT REPORT

perator ID: RICH Quant Rev: 7 Quant Time: 940921 11:56
itput File: ^J7804::D1 Injected at: 940921 11:20
Data File: >J7804::D7 Dilution Factor: 1.00000
ame: VSTD050 Instrument ID: HP-3
isc: HP-3 5mL CONT CALIB

D File: IDW340::SC
itle: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Date: 940920 13:09

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.14	233	47322	50.00	ug/l	88
2)	Chloromethane	1.77	28	36251	50.66	ug/l	93
3)	Bromomethane	2.87	52	34367	54.17	ug/l	96
4)	Dichlorodifluoromethane	3.60	68	91966	56.21	ug/l	91
5)	Vinyl Chloride	3.69	70	38386	54.40	ug/l	98
6)	Chloroethane	5.06	100	25811	55.94	ug/l	98
7)	Methylene Chloride	7.62	156	64530	57.60	ug/l	90
8)	Acetone	8.58	177	26751	261.08	ug/l	90
9)	2-Propenal	8.53	176	5373	128.57	ug/l	88
0)	Carbon Disulfide	9.27	192	128034	52.12	ug/l	100
1)	Acrylonitrile	9.31	193	13624	97.85	ug/l	84
12)	Trichlorofluoromethane	9.86	205	220096	53.54	ug/l	87
3)	1,1-Dichloroethene	10.68	223	52285	52.75	ug/l	96
4)	1,1-Dichloroethane	11.96	251	104364	56.48	ug/l	96
15)	1,2-Dichloroethene (total)	12.74	268	121059	104.17	ug/l	95
16)	Chloroform	13.33	281	145748	55.50	ug/l	97
7)	1,2-Dichloroethane-d4	13.97	295	73739	55.77	ug/l	97
8)	1,2-Dichloroethane	14.06	297	87963	57.03	ug/l	70
19)	*1,4-Difluorobenzene (ISTD 2)	21.60	462	147749	50.00	ug/l	97
0)	2-Butanone	14.06	297	48761	242.16	ug/l	88
1)	1,1,1-Trichloroethane	15.34	325	150252	54.84	ug/l	98
22)	Carbon Tetrachloride	15.71	333	169593	54.99	ug/l	83
23)	Vinyl Acetate	15.98	339	70418	49.93	ug/l	95
4)	Bromodichloromethane	16.26	345	146774	54.85	ug/l	99
6)	1,2-Dichloropropane	17.63	375	58334	53.18	ug/l	95
27)	cis-1,3-Dichloropropene	17.90	381	93547	53.98	ug/l	96
8)	Trichloroethene	18.50	394	89954	50.51	ug/l	94
9)	Benzene	19.00	405	114407	50.33	ug/l	90
30)	Dibromochloromethane	19.09	407	157572	52.06	ug/l	99
1)	trans-1,3-Dichloropropene	19.18	409	80790	51.11	ug/l	94
2)	1,1,2-Trichloroethane	19.23	410	56576	52.92	ug/l	91
34)	Chloroethylvinylether	20.32	434	23859	49.10	ug/l	94
37)	Bromoform	21.78	466	133437	56.63	ug/l	99
8)	*D5-Chlorobenzene (ISTD 3)	26.58	571	127876	50.00	ug/l	99
9)	4-Methyl-2-Pentanone	22.33	478	82095	103.93	ug/l	100
40)	2-Hexanone	23.93	513	50391	102.86	ug/l	74
1)	Tetrachloroethene	24.21	519	95127	53.05	ug/l	89
2)	1,1,2,2-Tetrachloroethane	24.16	518	79696	52.81	ug/l	97
4)	Toluene-d8	25.35	544	139025	50.26	ug/l	100
45)	Toluene	25.53	548	91310	53.21	ug/l	99
6)	Dicyclopentadiene	25.39	545	14908	4.18	ug/l	100
47)	Chlorobenzene	26.72	574	148109	51.98	ug/l	99
48)	Ethylbenzene	28.64	616	59803	47.45	ug/l	96

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3)	Bromofluorobenzene	30.92	666	115219	49.41 ug/l	67
54)	Styrene	32.34	697	126236	50.40 ug/l	93
5)	m-Xylene	32.61	703	74608	50.03 ug/l	91
6)	o & p-Xylene	33.53	723	147832	99.76 ug/l	96

* Compound is ISTD

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: ARDL, INC. Contract: ---

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

Lab File ID: >J7785 Lab Sample ID: BK3 9/20/94

Date Analyzed: 9/20/94 Time Analyzed: 14:09

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

Instrument ID: HP-3

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	SS-PIT-GW	8309-20	>J7786	15:04
02	SS-PIT-GWMS	8309-20MS	>J7788	16:35
03	SS-PIT-GWMSD	8309-20MSD	>J7789	17:17
04	ANN94TR00101	9883-1	>J7791	18:40
05	ANN94TR00101MS	9883-1MS	>J7794	20:44
06	ANN94TR00101MSD	9883-1MSD	>J7795	21:26
07				
08				
09				
10				
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BK3 9/20/94

Lab Name: ARDL, INC. Contract: ---

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

Matrix: (soil/water) WATER Lab Sample ID: BK3 9/20/94

Sample wt/vol: 5.0 (g/ml) mL Lab File ID: >J7785

Level: (low/med) LOW Date Received: NA

% Moisture: not dec. --- Date Analyzed: 9/20/94

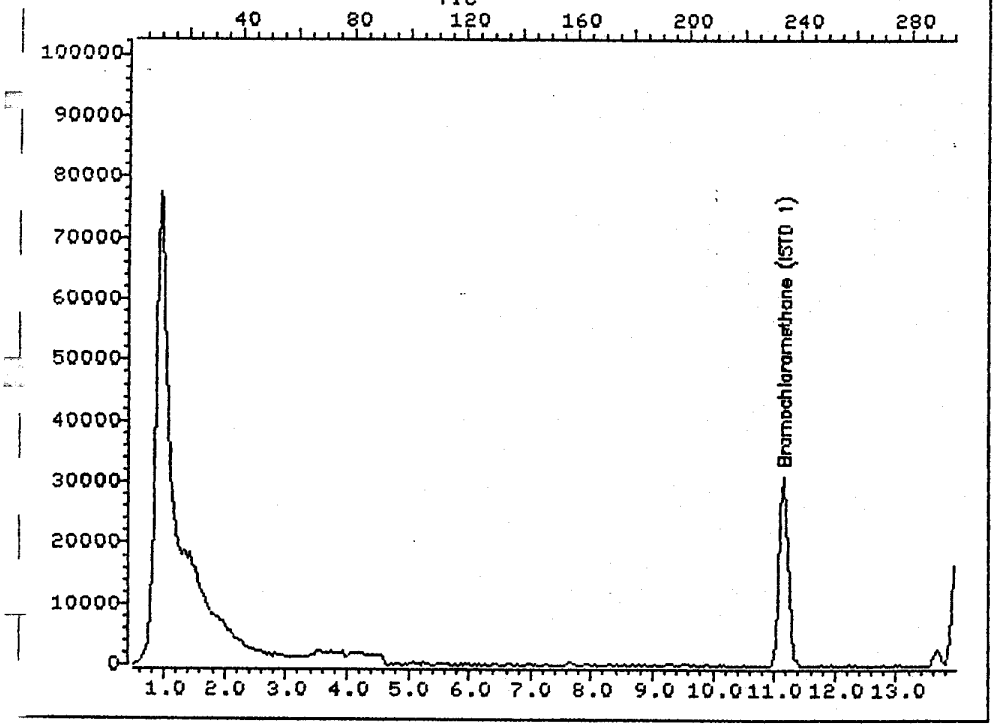
Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
56-23-5	Carbon Tetrachloride	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	5	U

TOTAL ION CHROMATOGRAM

File >J7785 35.0-300.0 amu. VBLKC HP-3 5mL METH BLANK

TIC

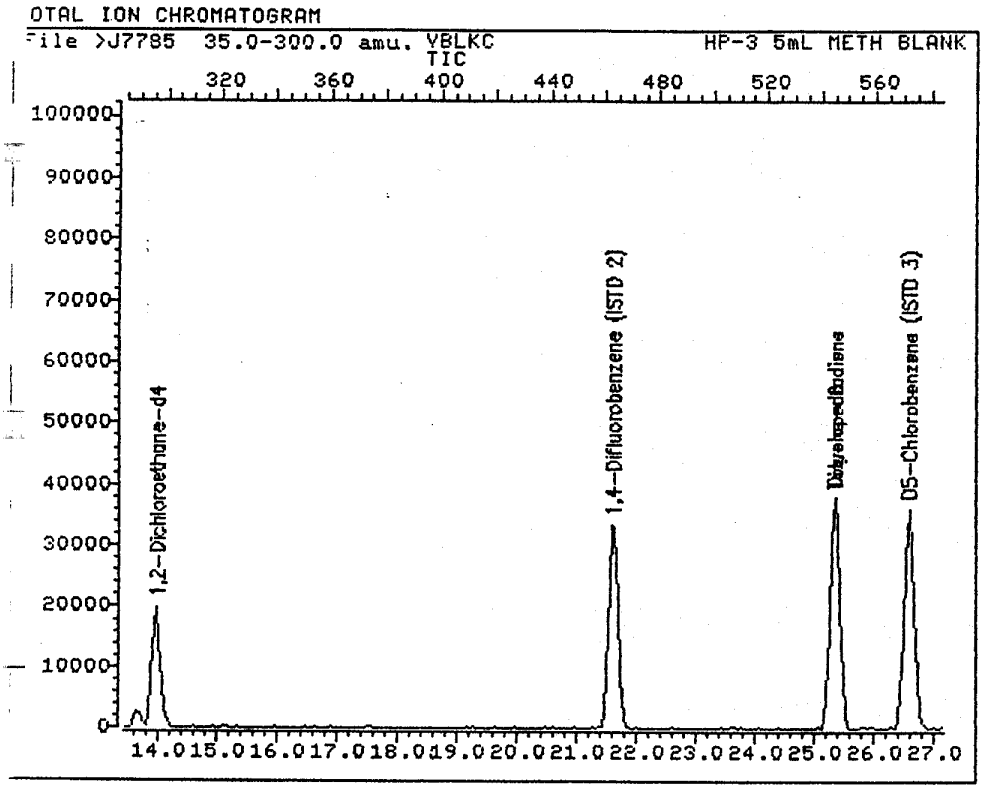


Data File: >J7785::D7 Quant Output File: ^J7785::D1
Name: VBLKC Instrument ID: HP-3
Misc: HP-3 5mL METH BLANK

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940920 13:09

Operator ID: RICH
Quant Time : 940920 14:50
Injected at: 940920 14:09

Page 1 of 3

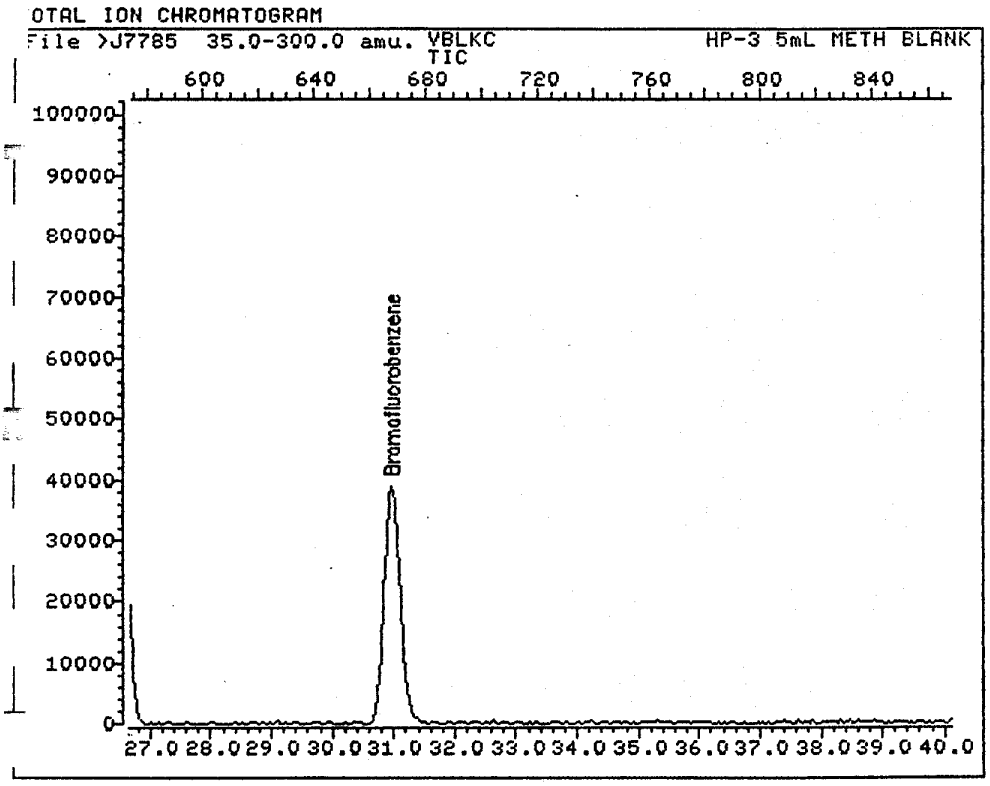


Data File: >J7785::D7 Quant Output File: ^J7785::D1
Name: VBLKC Instrument ID: HP-3
Misc: HP-3 5mL METH BLANK

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940920 13:09

Operator ID: RICH
Quant Time : 940920 14:50
Injected at: 940920 14:09

Page 2 of 3



Data File: >J7785::D7 Quant Output File: ^J7785::D1
Name: VBLKC Instrument ID: HP-3
Misc: HP-3 5mL METH BLANK

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940920 13:09

Operator ID: RICH
Quant Time : 940920 14:50
Injected at: 940920 14:09

QUANT REPORT

Operator ID: RICH
Output File: ^J7785::D1
Data File: >J7785::D7
Name: VBLKC
Misc: HP-3 5mL METH BLANK

Quant Rev: 7
Quant Time: 940920 14:50
Injected at: 940920 14:09
Dilution Factor: 1.00000
Instrument ID: HP-3

ID File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56
Last Qcal Date: 940920 13:09

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.15	234	47961	50.00	ug/l	85
17)	1,2-Dichloroethane-d4	13.98	296	72563	54.15	ug/l	99
19)	*1,4-Difluorobenzene (ISTD 2)	21.61	463	164779	50.00	ug/l	94
38)	*D5-Chlorobenzene (ISTD 3)	26.59	572	139368	50.00	ug/l	98
44)	Toluene-d8	25.35	545	157829	52.35	ug/l	100
53)	Bromofluorobenzene	30.97	668	136457	53.69	ug/l	75

* Compound is ISTD

QUANT REPORT

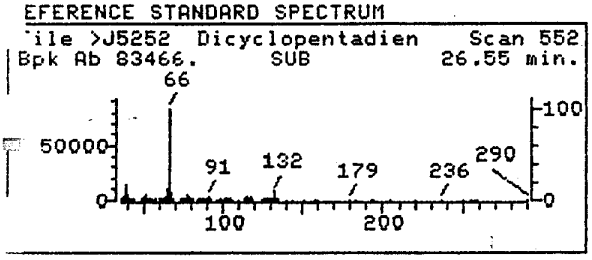
erator ID: RICH Quant Rev: 7 Quant Time: 940920 14:50
put File: ^J7785::D1 Injected at: 940920 14:09
a File: >J7785::D7 Dilution Factor: 1.00000
me: VBLKC Instrument ID: HP-3
sc: HP-3 5mL METH BLANK

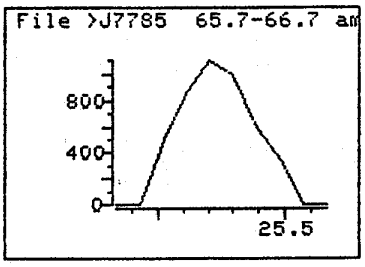
File: IDW340::SC
tle: VOLATILE TARGET COMPOUNDS W/RMA
t Calibration: 940816 16:56 Last Qcal Time: 940920 13:09

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.15	234	47961	50.00	ug/l	85
)	1,2-Dichloroethane-d4	13.98	296	72563	54.15	ug/l	99
)	*1,4-Difluorobenzene (ISTD 2)	21.61	463	164779	50.00	ug/l	94
8)	*D5-Chlorobenzene (ISTD 3)	26.59	572	139368	50.00	ug/l	98
)	Toluene-d8	25.35	545	157829	52.35	ug/l	100
)	Dicyclopentadiene	25.35	545	12116	3.12	ug/l	100
3)	Bromofluorobenzene	30.97	668	136457	53.69	ug/l	75

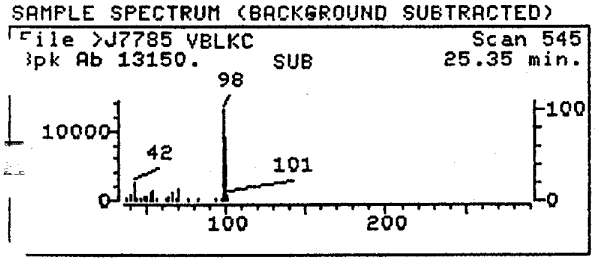
Compound is ISTD

EFERENCE STANDARD SPECTRUM

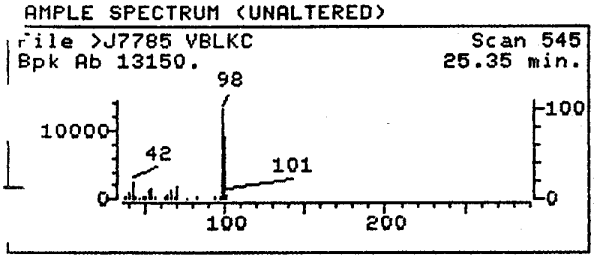




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



AMPLE SPECTRUM (UNALTERED)



Data File: >J7785::D7
Name: VBLKC
Misc: HP-3 5mL METH BLANK
Quant Time: 940920 14:50
Injected at: 940920 14:09
Last Qcal Time: 940920 13:09

Quant Output File: ^J7785::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 46
Compound Name : Dicyclopentadiene
Scan Number : 545
Retention Time: 25.35 min.
Quant Ion : 66.0
Area : 12116
Concentration : 3.12 ug/l
q-value : 100

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: ARDL, INC. Contract: ---

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

Lab File ID: >J7805 Lab Sample ID: BK3 9/21/94

Date Analyzed: 9/21/94 Time Analyzed: 12:51

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

Instrument ID: HP-3

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	ANN94TR00201	9883-2	>J7806	13:45
02	ANN94TR00301	9883-3	>J7807	14:50
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
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22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

FORM IV VOA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BK3 9/21/94

Lab Name: ARDL, INC. Contract: ---

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

Matrix: (soil/water) WATER Lab Sample ID: BK3 9/21/94

Sample wt/vol: 5.0 (g/ml) mL Lab File ID: >J7805

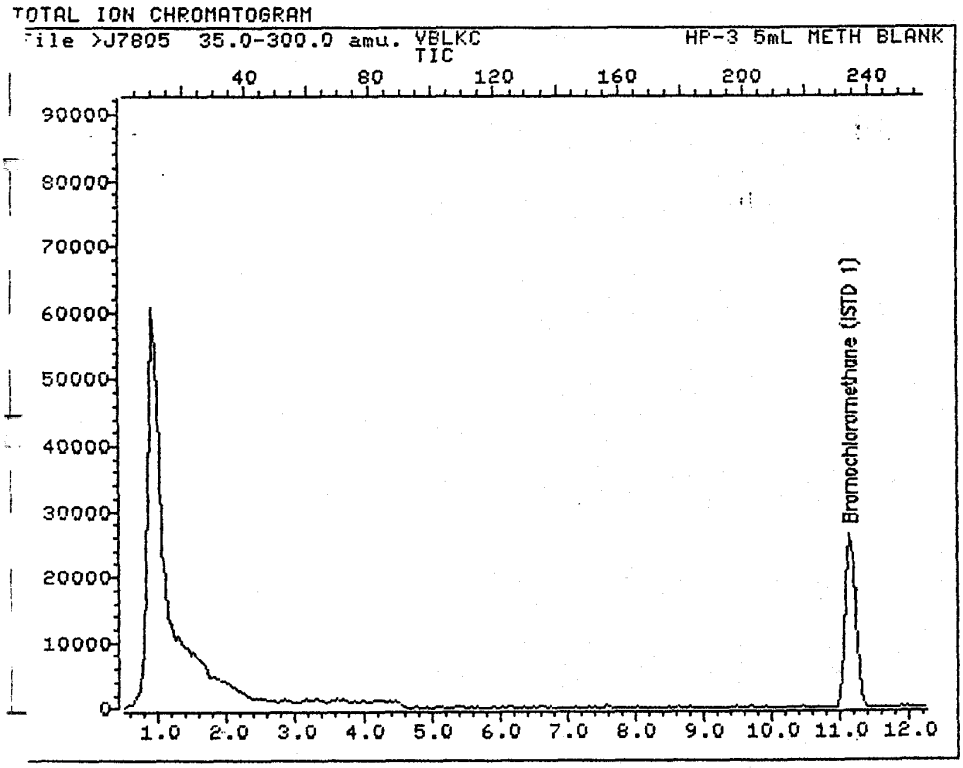
Level: (low/med) LOW Date Received: NA

% Moisture: not dec. --- Date Analyzed: 9/21/94

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
56-23-5	Carbon Tetrachloride	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	5	U

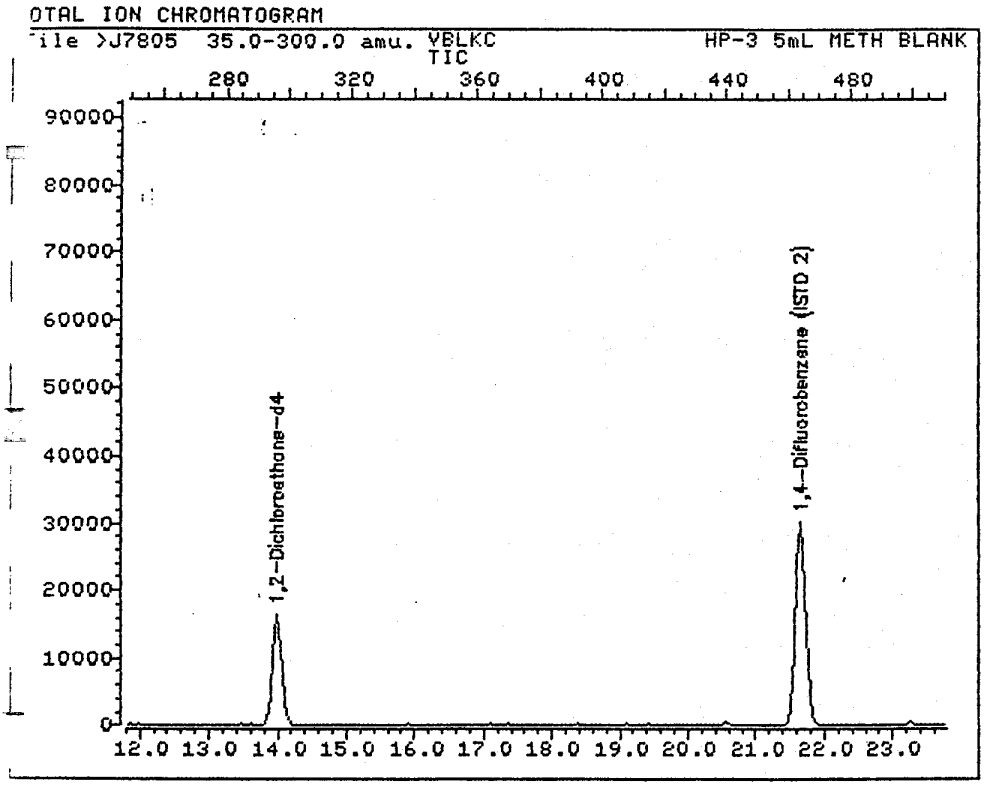
30071



Data File: >J7805::D7 Quant Output File: ^J7805::D1
Name: VBLKC Instrument ID: HP-3
Misc: HP-3 5mL METH BLANK

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940921 11:20

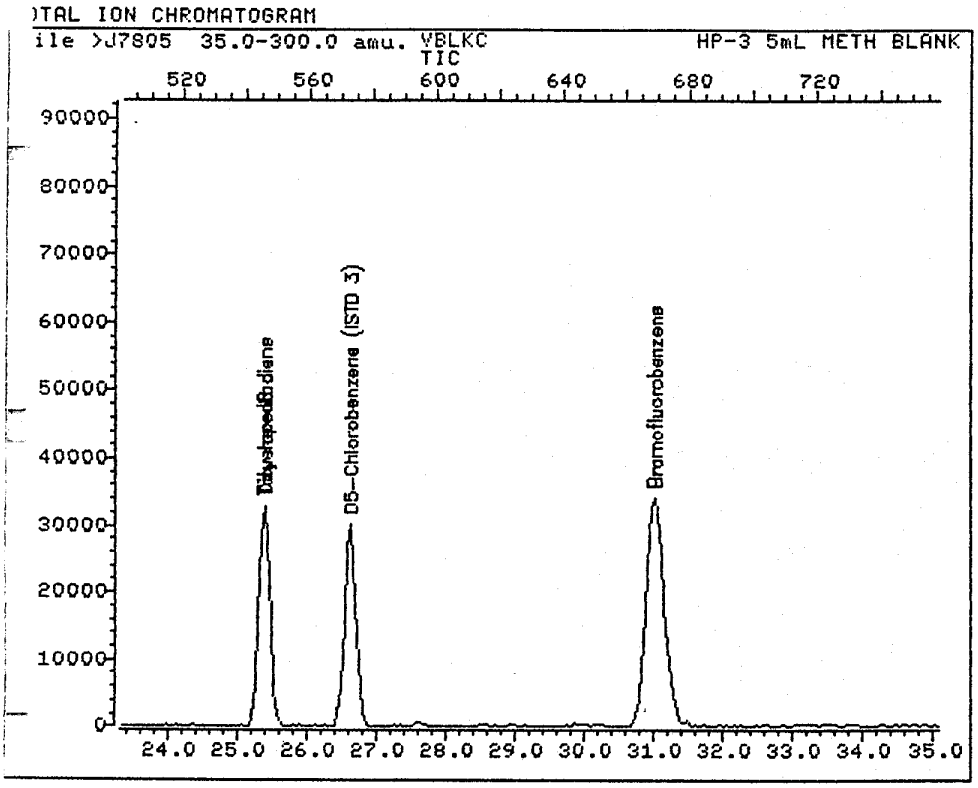
Operator ID: RICH
Quant Time : 940921 13:27
Injected at: 940921 12:51



Data File: >J7805::D7 Quant Output File: ^J7805::D1
Name: VBLKC Instrument ID: HP-3
Misc: HP-3 5mL METH BLANK

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940921 11:20

Operator ID: RICH
Quant Time : 940921 13:27
Injected at: 940921 12:51



Data File: >J7805::D7 Quant Output File: ^J7805::D1
Name: VBLKC Instrument ID: HP-3
Misc: HP-3 5mL METH BLANK

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940921 11:20

Operator ID: RICH
Quant Time : 940921 13:27
Injected at: 940921 12:51

Page 3 of 3

QUANT REPORT

Operator ID: RICH
Output File: ^J7805::D1
Data File: >J7805::D7
Name: VBLKC
Misc: HP-3 5mL METH BLANK

Quant Rev: 7
Quant Time: 940921 13:27
Injected at: 940921 12:51
Dilution Factor: 1.00000
Instrument ID: HP-3

ID File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56
Last Qcal Date: 940921 11:20

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.15	234	39812	50.00	ug/l	89
7)	1,2-Dichloroethane-d4	13.98	296	61750	49.77	ug/l	99
19)	*1,4-Difluorobenzene (ISTD 2)	21.65	464	139870	50.00	ug/l	95
38)	*D5-Chlorobenzene (ISTD 3)	26.63	573	116727	50.00	ug/l	98
4)	Toluene-d8	25.40	546	135970	53.57	ug/l	100
3)	Bromofluorobenzene	31.01	669	113708	54.06	ug/l	72

* Compound is ISTD

QUANT REPORT

erator ID: RICH
tput File: ^J7805::D1
a File: >J7805::D7
e: VBLKC
sc: HP-3 5mL METH BLANK

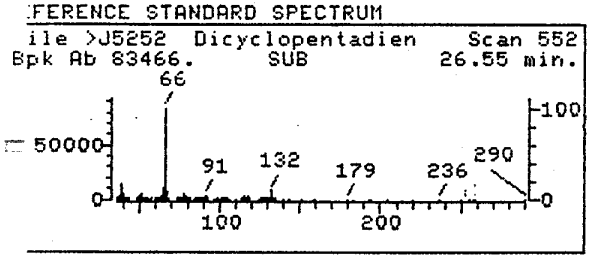
Quant Rev: 7
Quant Time: 940921 13:27
Injected at: 940921 12:51
Dilution Factor: 1.00000
Instrument ID: HP-3

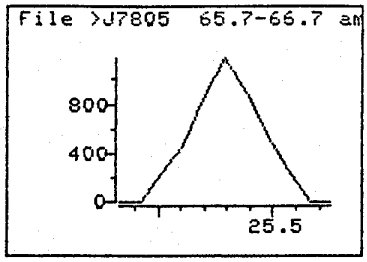
File: IDW340::SC
tle: VOLATILE TARGET COMPOUNDS W/RMA
st Calibration: 940816 16:56
Last Qcal Time: 940921 11:20

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.15	234	39812	50.00	ug/l	89
7)	1,2-Dichloroethane-d4	13.98	296	61750	49.77	ug/l	99
)	*1,4-Difluorobenzene (ISTD 2)	21.65	464	139870	50.00	ug/l	95
8)	*D5-Chlorobenzene (ISTD 3)	26.63	573	116727	50.00	ug/l	98
4)	Toluene-d8	25.40	546	135970	53.57	ug/l	100
)	Dicyclopentadiene	25.40	546	12188	44.78	ug/l	100
)	Bromofluorobenzene	31.01	669	113708	54.06	ug/l	72

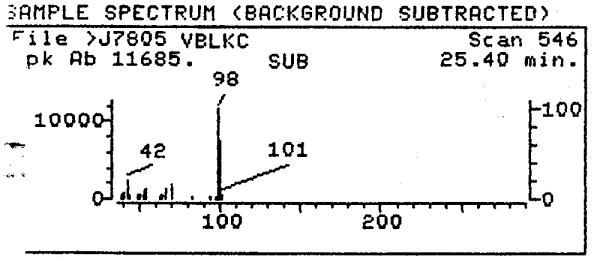
*Compound is ISTD

FERENCE STANDARD SPECTRUM

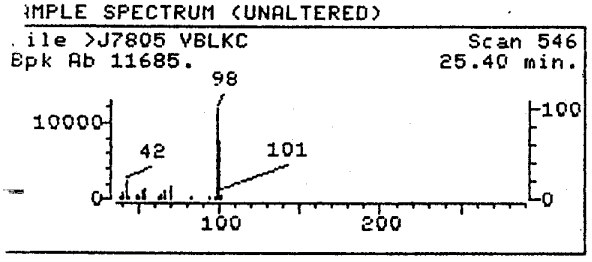




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



MPLE SPECTRUM (UNALTERED)



Data File: >J7805::D7
Name: VBLKC
Misc: HP-3 5mL METH BLANK
Quant Time: 940921 13:27
Injected at: 940921 12:51
Last Qcal Time: 940921 11:20

Quant Output File: ^J7805::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 46
Compound Name : Dicyclopentadiene
Scan Number : 546
Retention Time: 25.40 min.
Quant Ion : 66.0
Area : 12188
Concentration : 44.78 ug/l
q-value : 100

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ANN94TR00101MS

ab Name: ARDL, INC. Contract: ANNETTE ISLAND

ab Code: --- Case No.: 9883 SAS No.: --- SDG No.: ---

atrix: (soil/water) TCLP Lab Sample ID: 9883-1MS

Sample wt/vol: 5.0 (g/ml) mL Lab File ID: >J7794

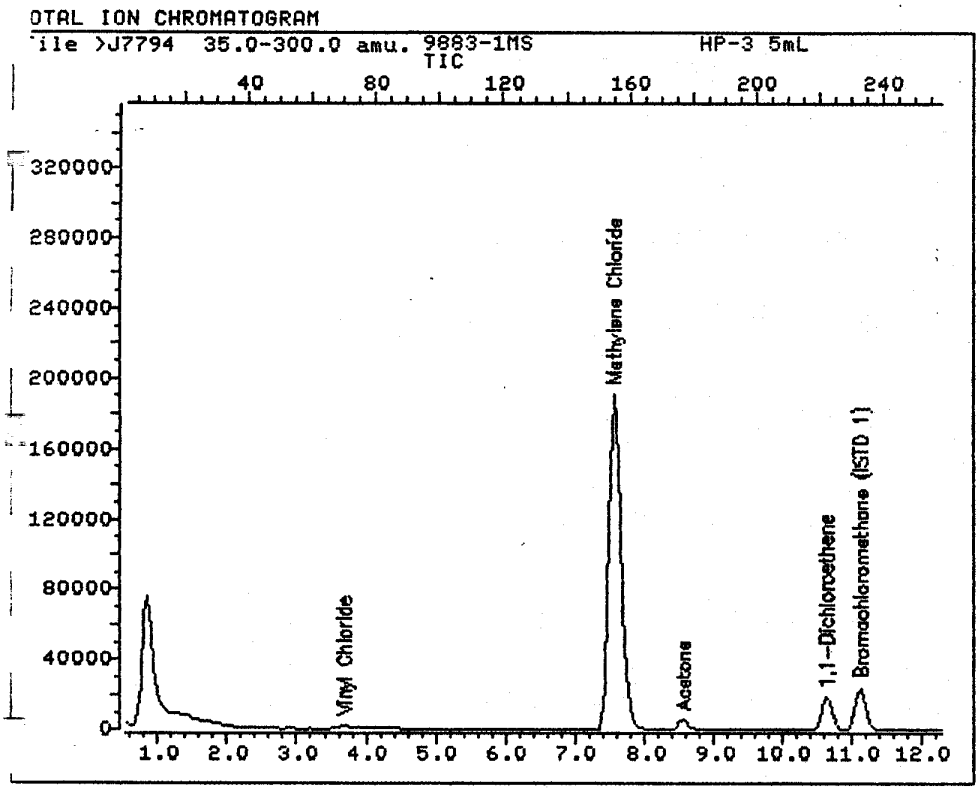
evel: (low/med) LOW Date Received: 9/16/94

Moisture: not dec. --- Date Analyzed: 9/20/94

olumn: (pack/cap) PACK Dilution Factor: 1.0

CLP Preparaion Date: 9/15/94

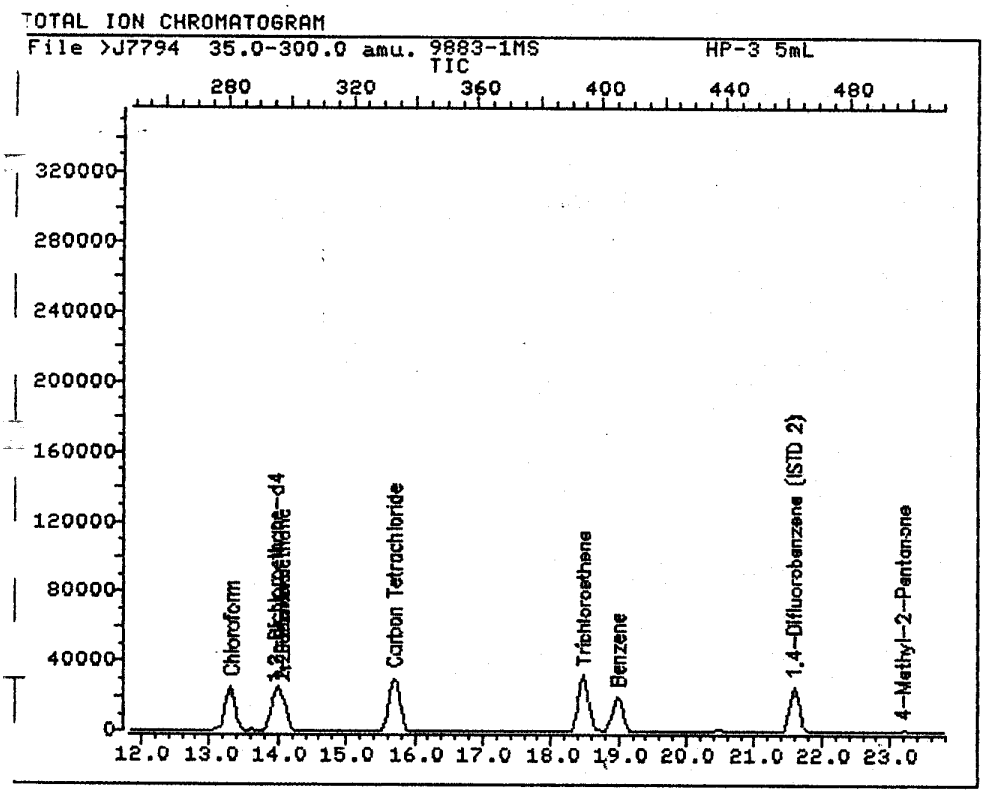
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	27	
75-35-4	1,1-Dichloroethene	52	
67-66-3	Chloroform	47	
107-06-2	1,2-Dichloroethane	47	
78-93-3	2-Butanone	270	
56-23-5	Carbon Tetrachloride	40	
79-01-6	Trichloroethene	42	
71-43-2	Benzene	48	
127-18-4	Tetrachloroethene	51	
108-90-7	Chlorobenzene	48	



Data File: >J7794::D7 Quant Output File: ^J7794::D1
Name: 9883-1MS Instrument ID: HP-3
Misc: HP-3 5mL

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940920 13:09

Operator ID: RICH
Quant Time : 940920 21:20
Injected at: 940920 20:44

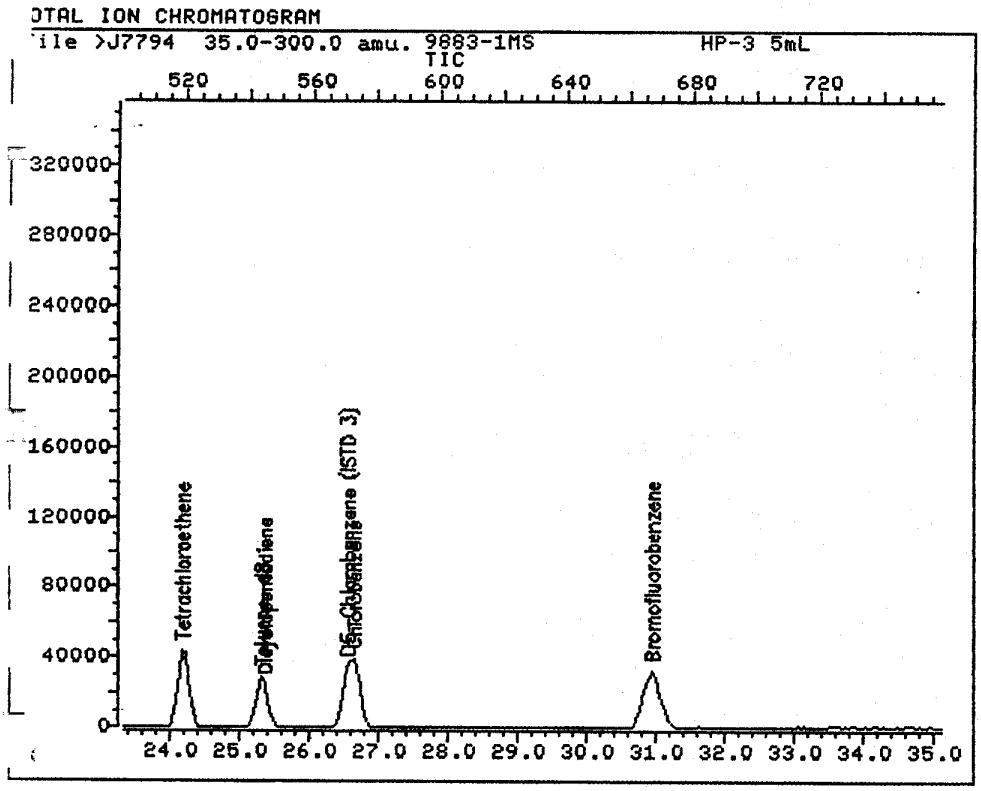


Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL

Quant Output File: ^J7794::D1
Instrument ID: HP-3

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56
Last Qcal Time: 940920 13:09

Operator ID: RICH
Quant Time : 940920 21:20
Injected at: 940920 20:44



Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL

Quant Output File: ^J7794::D1
Instrument ID: HP-3

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56
Last Qcal Time: 940920 13:09

Operator ID: RICH
Quant Time : 940920 21:20
Injected at: 940920 20:44

QUANT REPORT

Operator ID: RICH
Quant Rev: 7
Quant Time: 940920 21:20
Output File: ^J7794::D1
Injected at: 940920 20:44
Data File: >J7794::D7
Dilution Factor: 1.00000
Name: 9883-1MS
Instrument ID: HP-3
Misc: HP-3 5mL

LD File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56
Last Qcal Date: 940920 13:09

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.13	233	37378	50.00	ug/l	91
5)	Vinyl Chloride	3.68	70	15087	27.07	ug/l	91
3)	1,1-Dichloroethene	10.62	222	40575	51.82	ug/l	96
16)	Chloroform	13.32	281	97118	46.82	ug/l	90
7)	1,2-Dichloroethane-d4	13.96	295	57881	55.42	ug/l	96
8)	1,2-Dichloroethane	14.05	297	57057	46.84	ug/l	62
19)	*1,4-Difluorobenzene (ISTD 2)	21.59	462	122100	50.00	ug/l	91
20)	2-Butanone	14.05	297	45182	271.52	ug/l	90
2)	Carbon Tetrachloride	15.69	333	100708	39.51	ug/l	86
28)	Trichloroethene	18.48	394	62241	42.29	ug/l	96
29)	Benzene	18.98	405	90513	48.19	ug/l	95
8)	*D5-Chlorobenzene (ISTD 3)	26.56	571	98163	50.00	ug/l	98
1)	Tetrachloroethene	24.19	519	70132	50.95	ug/l	86
44)	Toluene-d8	25.33	544	122297	57.59	ug/l	100
7)	Chlorobenzene	26.66	573	104364	47.72	ug/l	95
3)	Bromofluorobenzene	30.95	667	107301	59.94	ug/l	65

* Compound is ISTD

QUANT REPORT

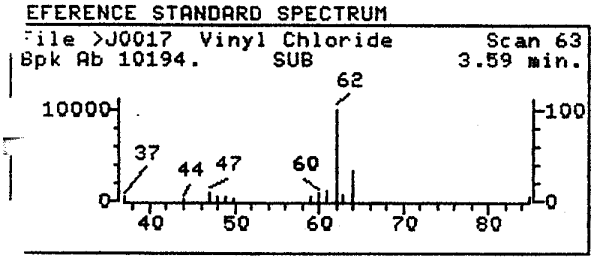
erator ID: RICH Quant Rev: 7 Quant Time: 940920 21:20
put File: ^J7794::D1 Injected at: 940920 20:44
a File: >J7794::D7 Dilution Factor: 1.00000
me: 9883-1MS Instrument ID: HP-3
sc: HP-3 5mL

File: IDW340::SC
tle: VOLATILE TARGET COMPOUNDS W/RMA
t Calibration: 940816 16:56 Last Qcal Time: 940920 13:09

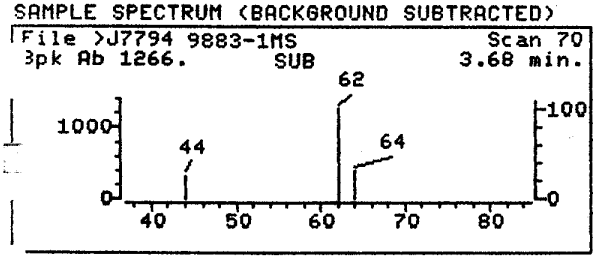
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.13	233	37378	50.00	ug/l	91
)	Vinyl Chloride	3.68	70	15087	27.07	ug/l	91
)	Methylene Chloride	7.56	155	523386	591.52	ug/l	93
8)	Acetone	8.57	177	43887	542.28	ug/l	95
^)	1,1-Dichloroethene	10.62	222	40575	51.82	ug/l	96
)	Chloroform	13.32	281	97118	46.82	ug/l	90
7)	1,2-Dichloroethane-d4	13.96	295	57881	55.42	ug/l	96
8)	1,2-Dichloroethane	14.05	297	57057	46.84	ug/l	62
)	*1,4-Difluorobenzene (ISTD 2)	21.59	462	122100	50.00	ug/l	91
)	2-Butanone	14.05	297	45182	271.52	ug/l	90
2)	Carbon Tetrachloride	15.69	333	100708	39.51	ug/l	86
)	Trichloroethene	18.48	394	62241	42.29	ug/l	96
)	Benzene	18.98	405	90513	48.19	ug/l	95
8)	*D5-Chlorobenzene (ISTD 3)	26.56	571	98163	50.00	ug/l	98
)	4-Methyl-2-Pentanone	23.18	497	4670	7.70	ug/l	100
)	Tetrachloroethene	24.19	519	70132	50.95	ug/l	86
4)	Toluene-d8	25.33	544	122297	57.59	ug/l	100
6)	Dicyclopentadiene	25.38	545	9983	3.65	ug/l	100
)	Chlorobenzene	26.66	573	104364	47.72	ug/l	95
)	Bromofluorobenzene	30.95	667	107301	59.94	ug/l	65

Compound is ISTD

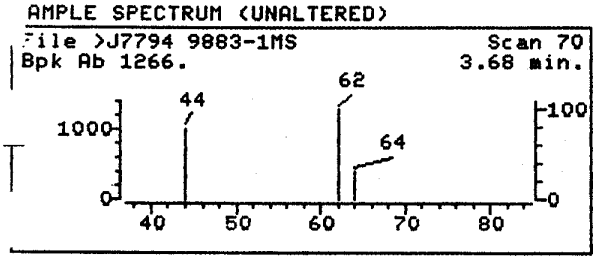
EFERENCE STANDARD SPECTRUM

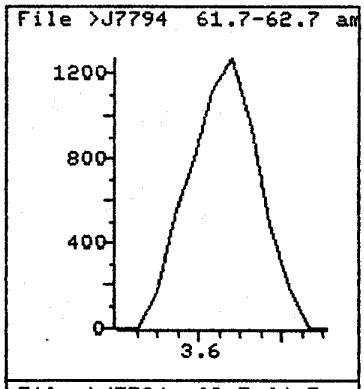


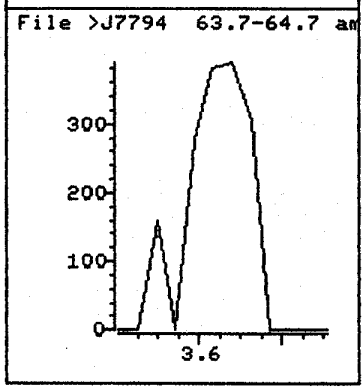
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



AMPLE SPECTRUM (UNALTERED)





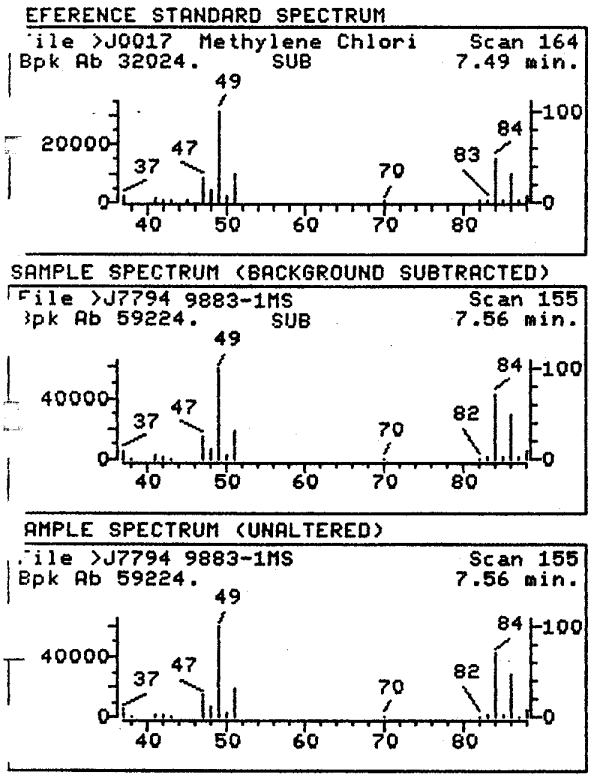


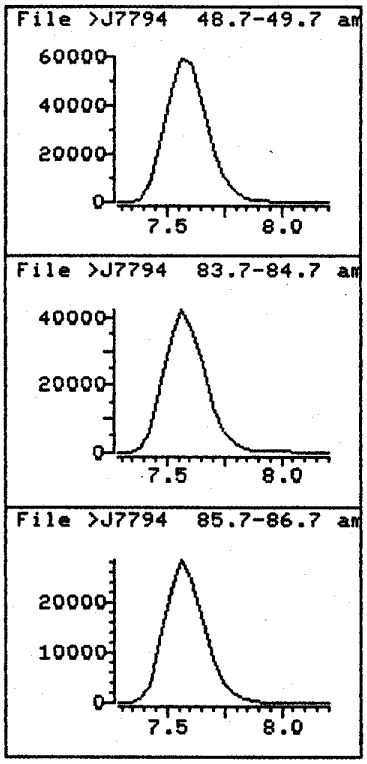
Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

Quant Output File: ^J7794::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 5
Compound Name : Vinyl Chloride
Scan Number : 70
Retention Time: 3.68 min.
Quant Ion : 62.0
Area : 15087
Concentration : 27.07 ug/l
q-value : 91



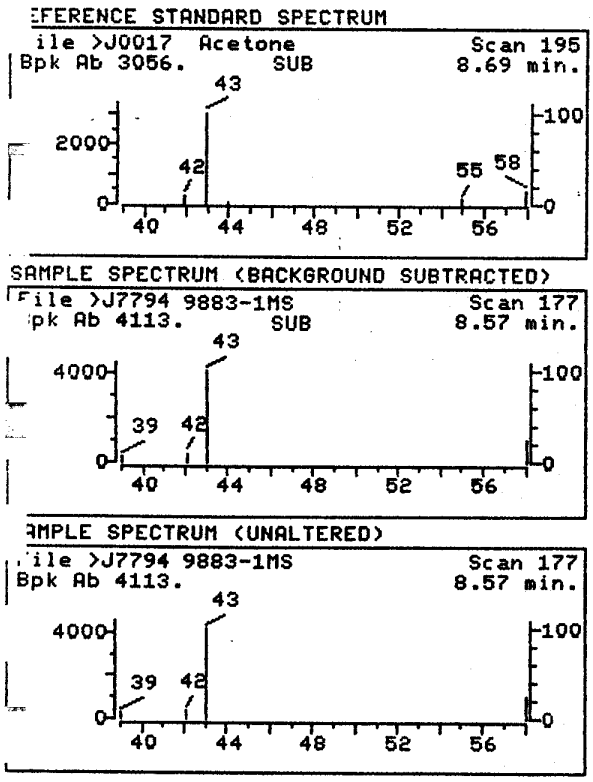


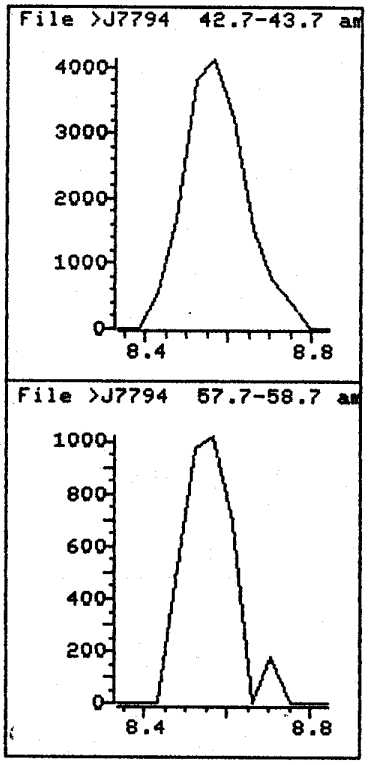
Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

Quant Output File: ^J7794::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 7
Compound Name : Methylene Chloride
Scan Number : 155
Retention Time: 7.56 min.
Quant Ion : 84.0
Area : 523386
Concentration : 591.52 ug/l
q-value : 93





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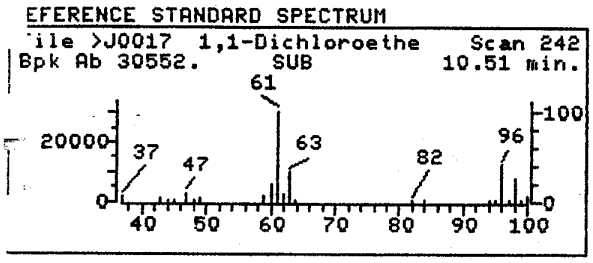
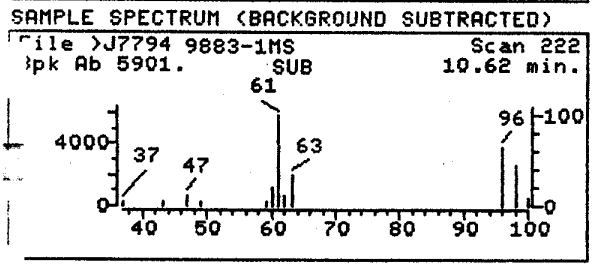
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

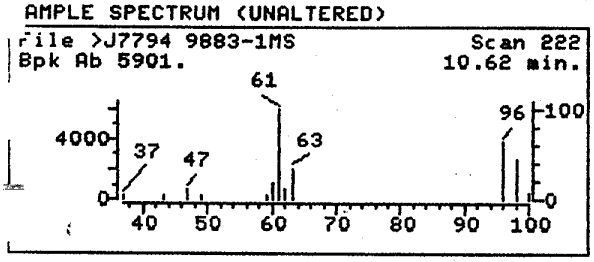
Quant Output File: ^J7794::D1
Instrument ID: HP-3

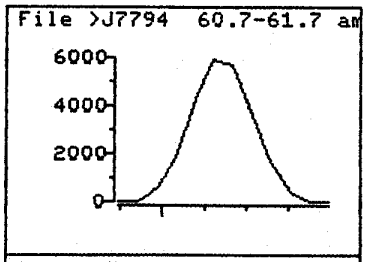
Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

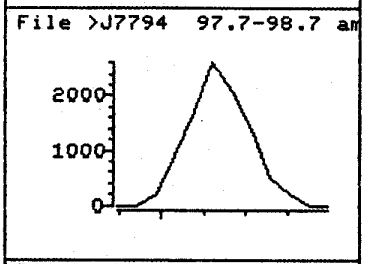
Compound No : 8
Compound Name : Acetone
Scan Number : 177
Retention Time: 8.57 min.
Quant Ion : 43.0
Area : 43887
Concentration : 542.28 ug/l
q-value : 95

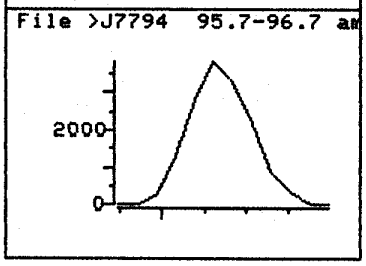










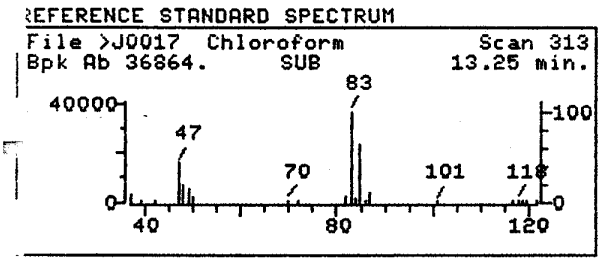


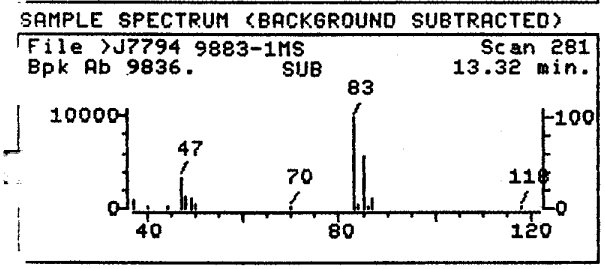
Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

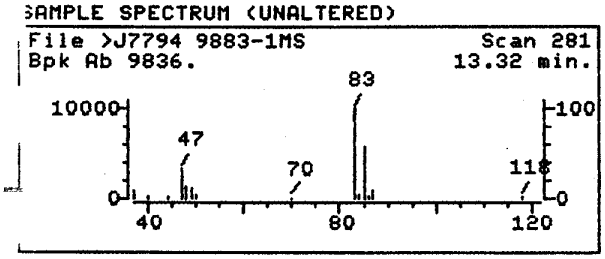
Quant Output File: ^J7794::D1
Instrument ID: HP-3

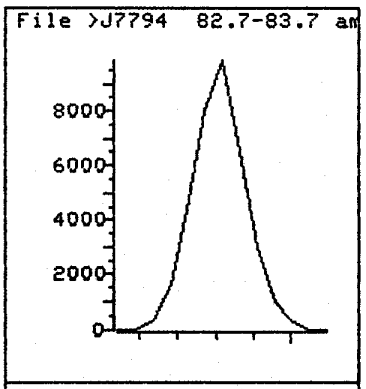
Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

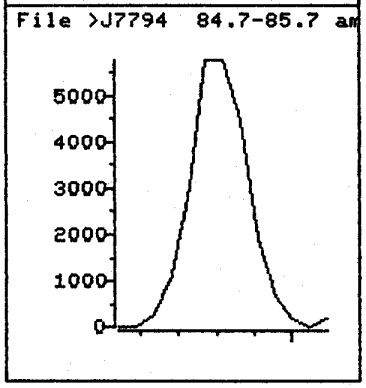
Compound No : 13
Compound Name : 1,1-Dichloroethene
Scan Number : 222
Retention Time: 10.62 min.
Quant Ion : 96.0
Area : 40575
Concentration : 51.82 ug/l
q-value : 96











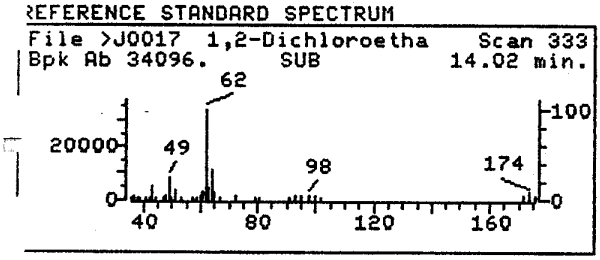
Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

Quant Output File: ^J7794::D1
Instrument ID: HP-3

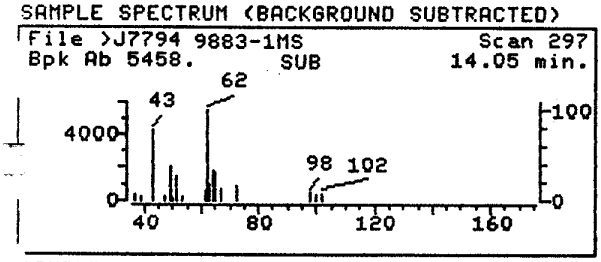
Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 16
Compound Name : Chloroform
Scan Number : 281
Retention Time: 13.32 min.
Quant Ion : 83.0
Area : 97118
Concentration : 46.82 ug/l
q-value : 90

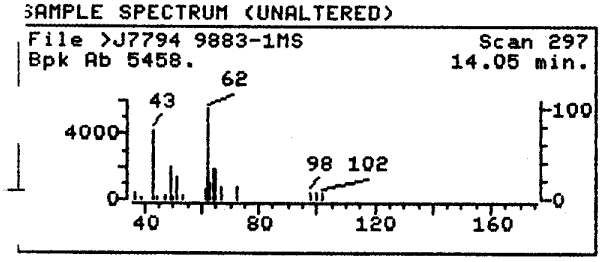
REFERENCE STANDARD SPECTRUM

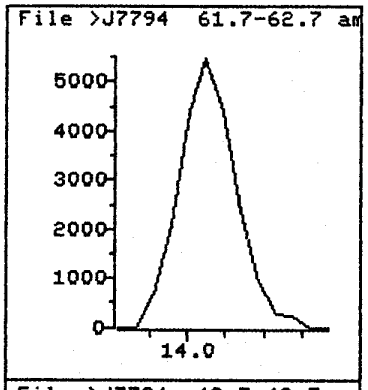


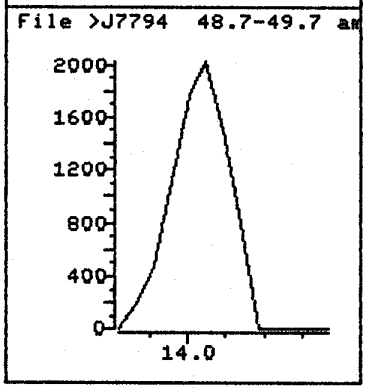
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





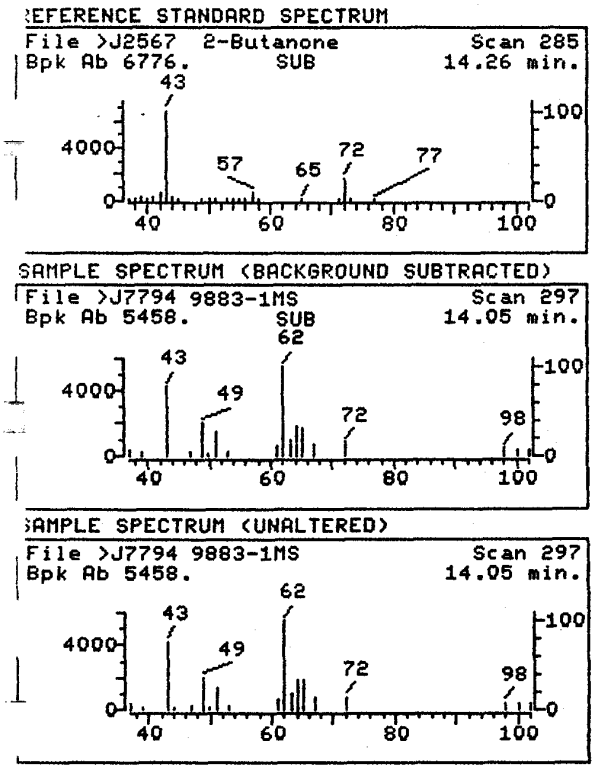


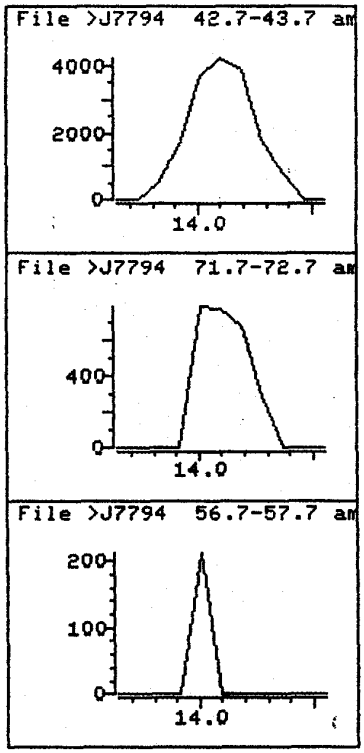
Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

Quant Output File: ^J7794::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 18
Compound Name : 1,2-Dichloroethane
Scan Number : 297
Retention Time: 14.05 min.
Quant Ion : 62.0
Area : 57057
Concentration : 46.84 ug/l
q-value : 62



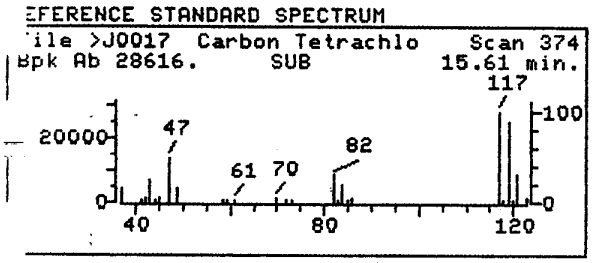


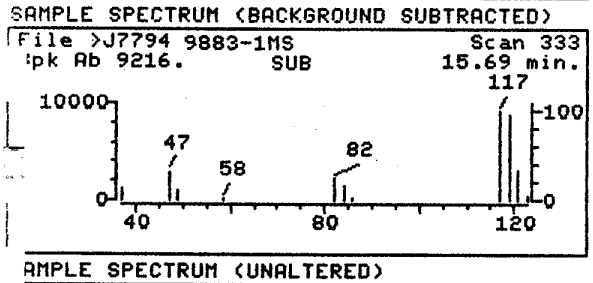
Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

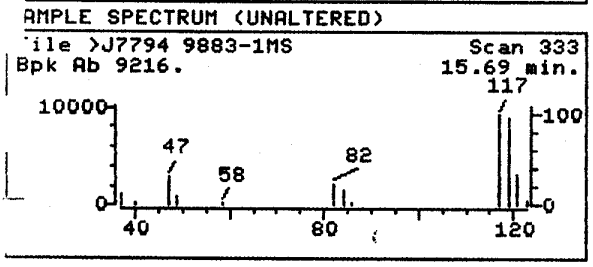
Quant Output File: ^J7794::D1
Instrument ID: HP-3

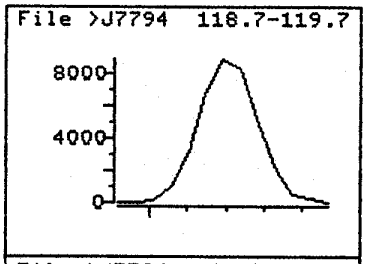
Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

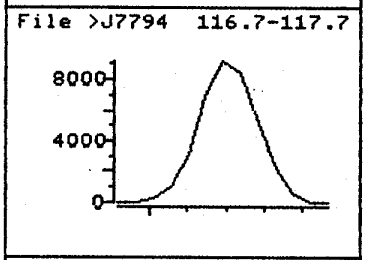
Compound No : 20
Compound Name : 2-Butanone
Scan Number : 297
Retention Time: 14.05 min.
Quant Ion : 43.0
Area : 45182
Concentration : 271.52 ug/l
q-value : 90

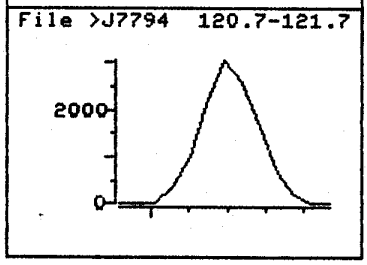










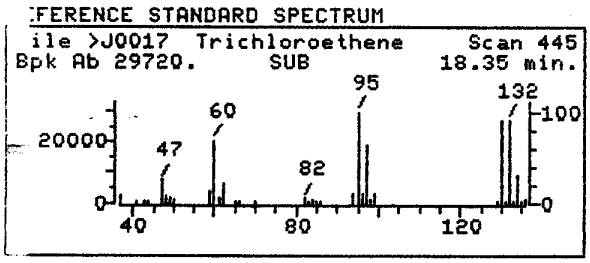


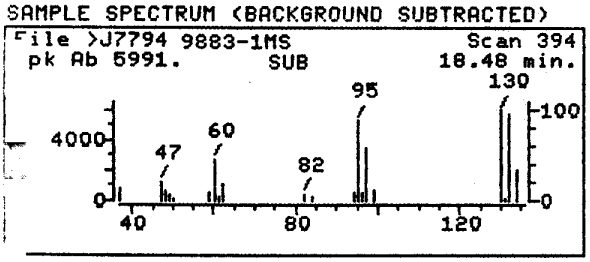
Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

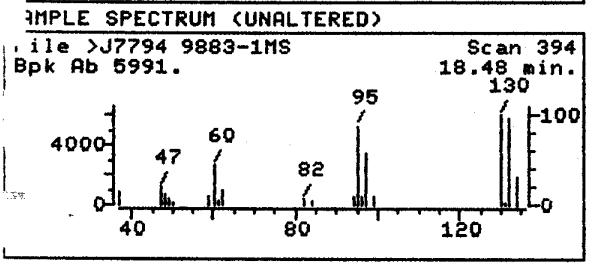
Quant Output File: ^J7794::D1
Instrument ID: HP-3

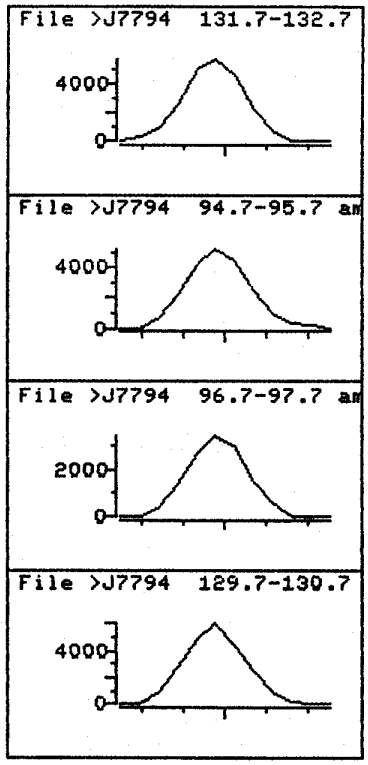
Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 22
Compound Name : Carbon Tetrachloride
Scan Number : 333
Retention Time: 15.69 min.
Quant Ion : 117.0
Area : 100708
Concentration : 39.51 ug/l
q-value : 86







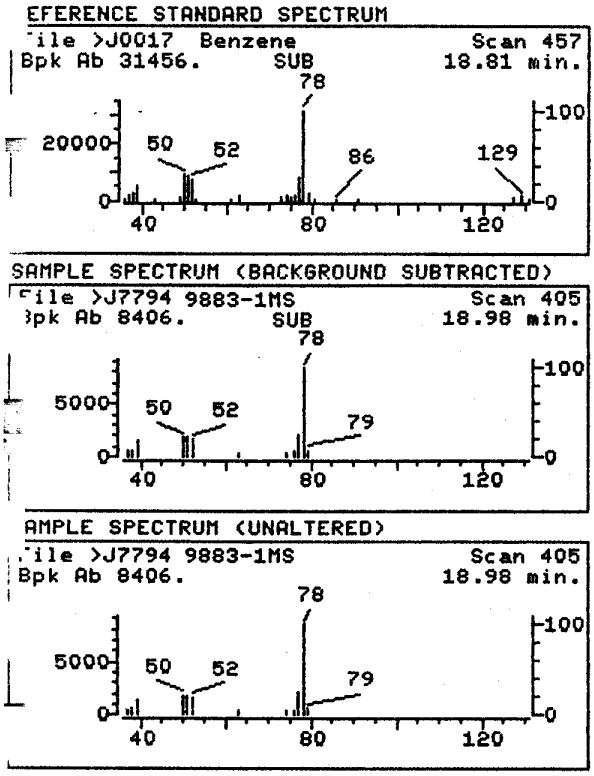


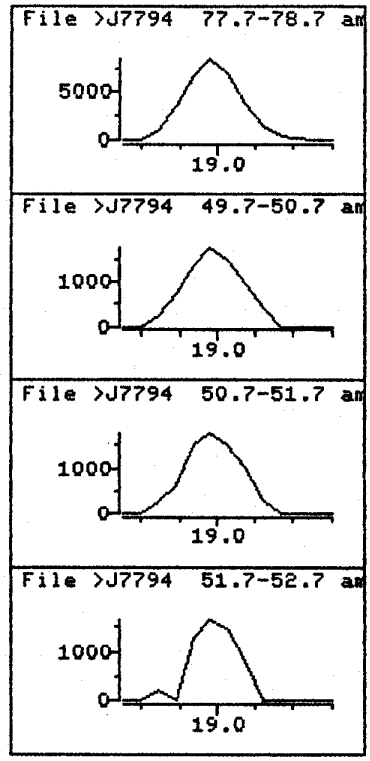
Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

Quant Output File: ^J7794::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 28
Compound Name : Trichloroethene
Scan Number : 394
Retention Time: 18.48 min.
Quant Ion : 130.0
Area : 62241
Concentration : 42.29 ug/l
q-value : 96





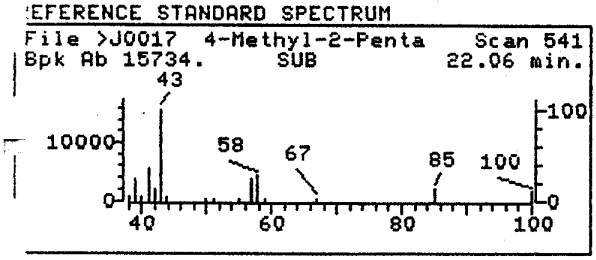
Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

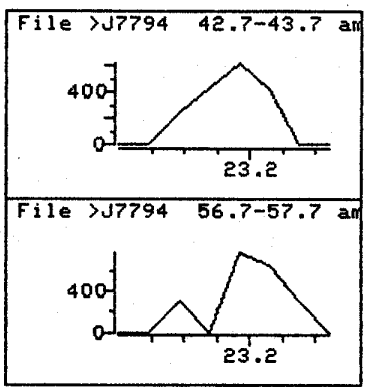
Quant Output File: ^J7794::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

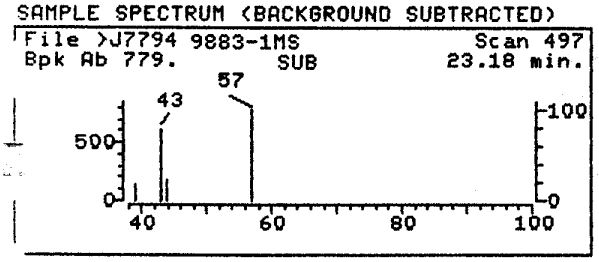
Compound No : 29
Compound Name : Benzene
Scan Number : 405
Retention Time: 18.98 min.
Quant Ion : 78.0
Area : 90513
Concentration : 48.19 ug/l
q-value : 95

EFERENCE STANDARD SPECTRUM

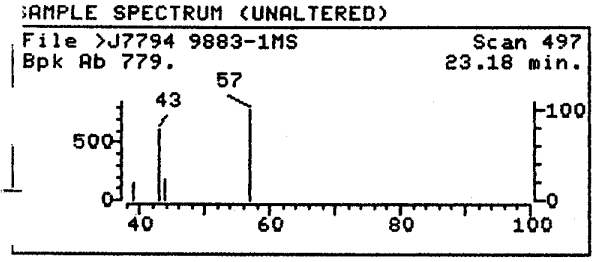




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



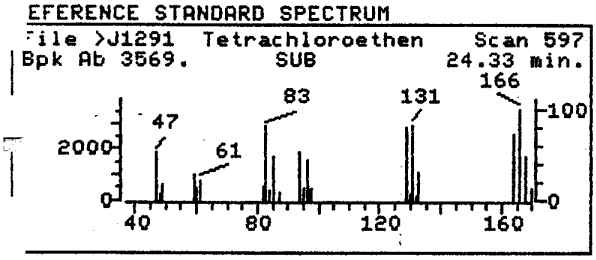
Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

Quant Output File: ^J7794::D1
Instrument ID: HP-3

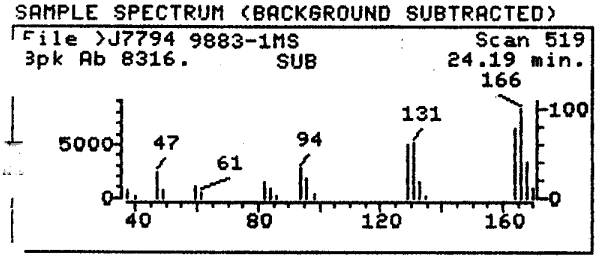
Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 39
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 497
Retention Time: 23.18 min.
Quant Ion : 43.0
Area : 4670
Concentration : 7.70 ug/l
q-value : 100

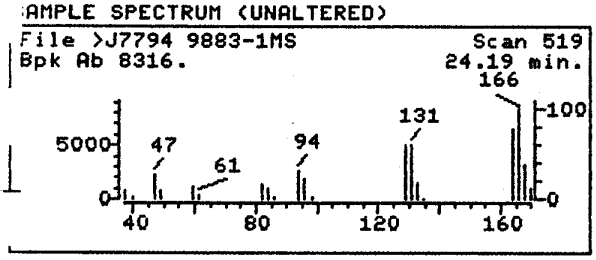
EFERENCE STANDARD SPECTRUM

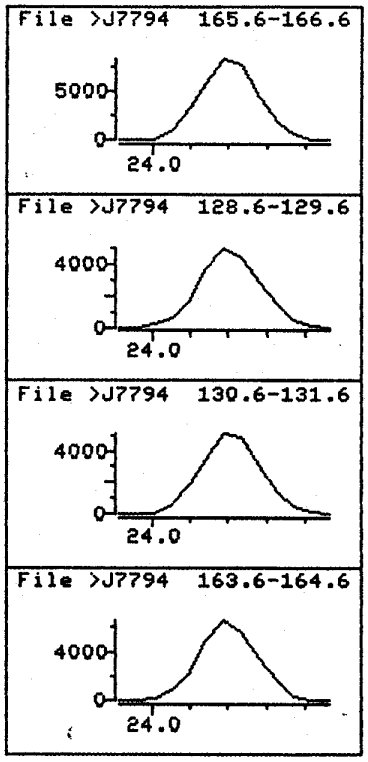


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



AMPLE SPECTRUM (UNALTERED)





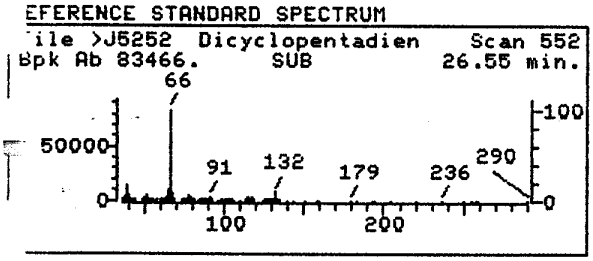
Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

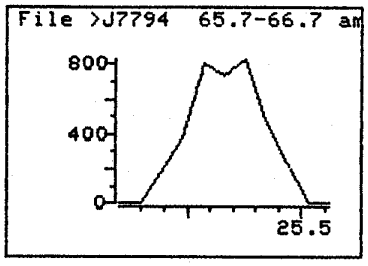
Quant Output File: ^J7794::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

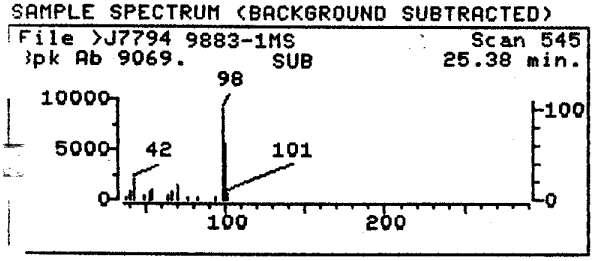
Compound No : 41
Compound Name : Tetrachloroethene
Scan Number : 519
Retention Time: 24.19 min.
Quant Ion : 163.9
Area : 70132
Concentration : 50.95 ug/l
q-value : 86

EFERENCE STANDARD SPECTRUM

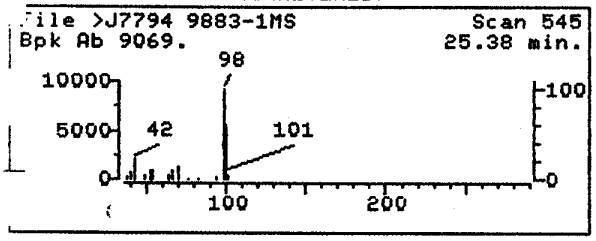




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



AMPLE SPECTRUM (UNALTERED)

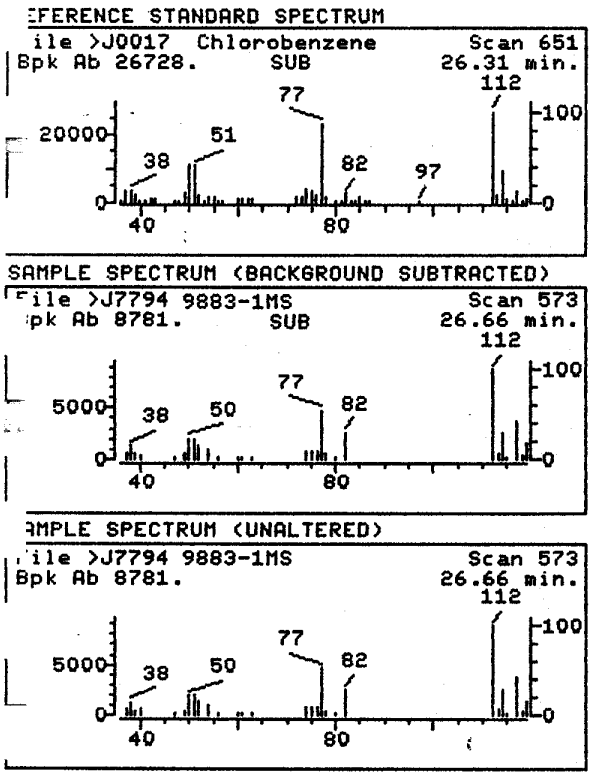


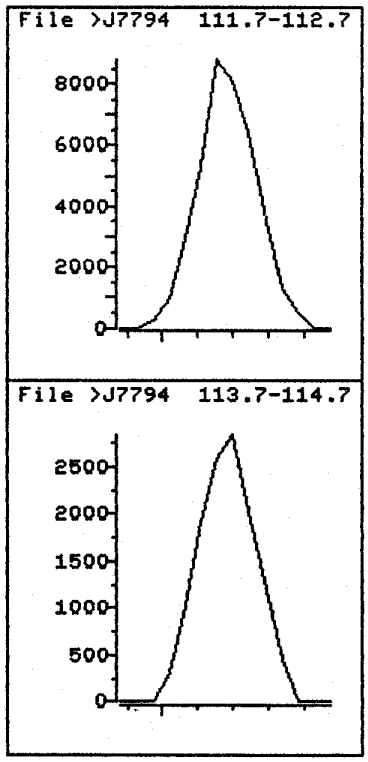
Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

Quant Output File: ^J7794::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 46
Compound Name : Dicyclopentadiene
Scan Number : 545
Retention Time: 25.38 min.
Quant Ion : 66.0
Area : 9983
Concentration : 3.65 ug/l
q-value : 100





Data File: >J7794::D7
Name: 9883-1MS
Misc: HP-3 5mL
Quant Time: 940920 21:20
Injected at: 940920 20:44
Last Qcal Time: 940920 13:09

Quant Output File: ^J7794::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 47
Compound Name : Chlorobenzene
Scan Number : 573
Retention Time: 26.66 min.
Quant Ion : 112.0
Area : 104364
Concentration : 47.72 ug/l
q-value : 95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ANN94TR00101MSD

Lab Name: ARDL, INC. Contract: ANNETTE ISLAND

Lab Code: --- Case No.: 9883 SAS No.: --- SDG No.: ---

Matrix: (soil/water) TCLP Lab Sample ID: 9883-1MSD

Sample wt/vol: 5.0 (g/ml) mL Lab File ID: >J7795

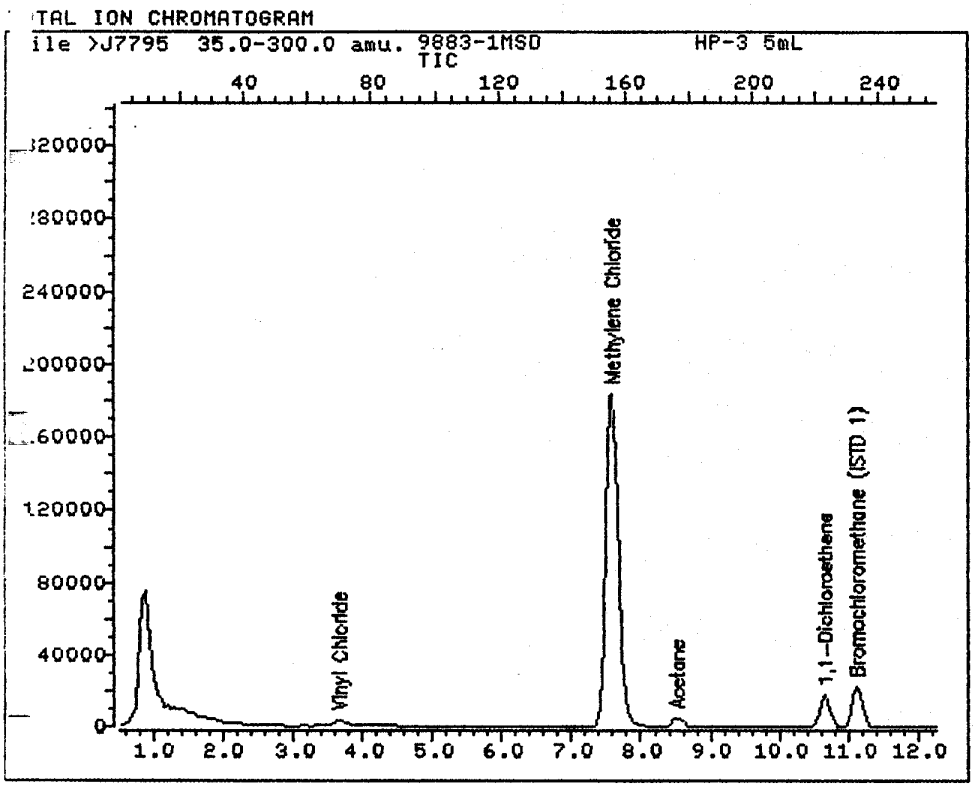
Level: (low/med) LOW Date Received: 9/16/94

% Moisture: not dec. --- Date Analyzed: 9/20/94

Column: (pack/cap) PACK Dilution Factor: 1.0

TCLP Preparation Date: 9/15/94

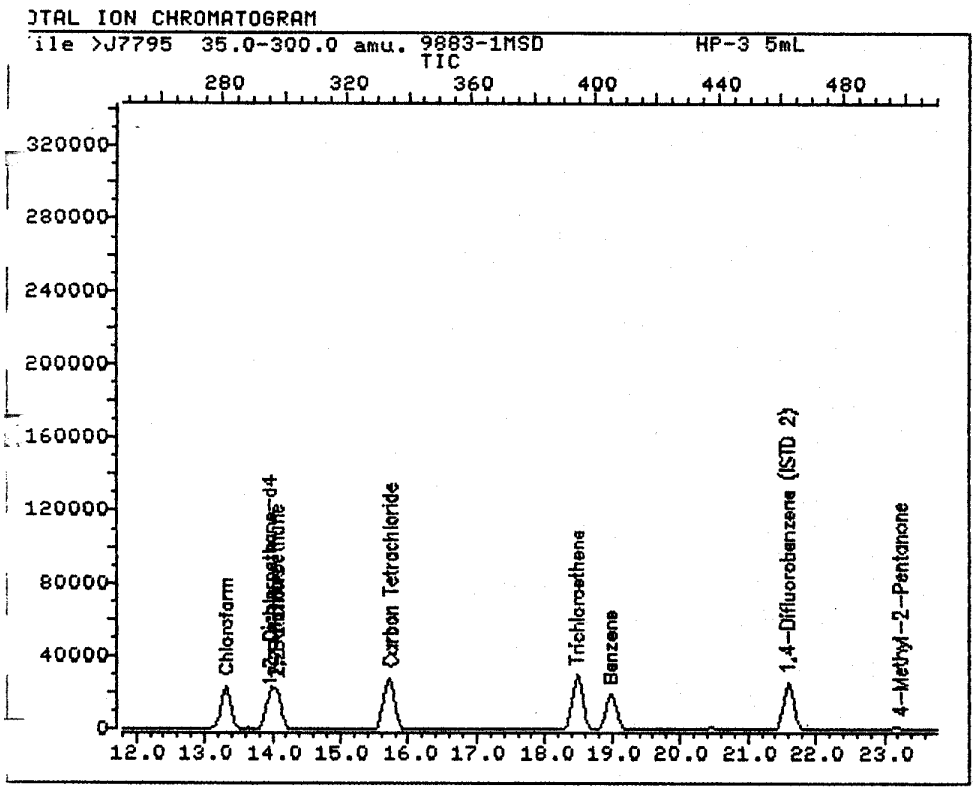
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	42	
75-35-4	1,1-Dichloroethene	47	
67-66-3	Chloroform	46	
107-06-2	1,2-Dichloroethane	46	
78-93-3	2-Butanone	260	
56-23-5	Carbon Tetrachloride	37	
79-01-6	Trichloroethene	41	
71-43-2	Benzene	47	
127-18-4	Tetrachloroethene	43	
108-90-7	Chlorobenzene	44	



Data File: >J7795::D7 Quant Output File: ^J7795::D1
Name: 9883-1MSD Instrument ID: HP-3
Misc: HP-3 5mL

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940920 13:09

Operator ID: RICH
Quant Time : 940920 22:02
Injected at: 940920 21:26



Data File: >J7795::D7 Quant Output File: ^J7795::D1
Name: 9883-1MSD Instrument ID: HP-3
Misc: HP-3 5mL

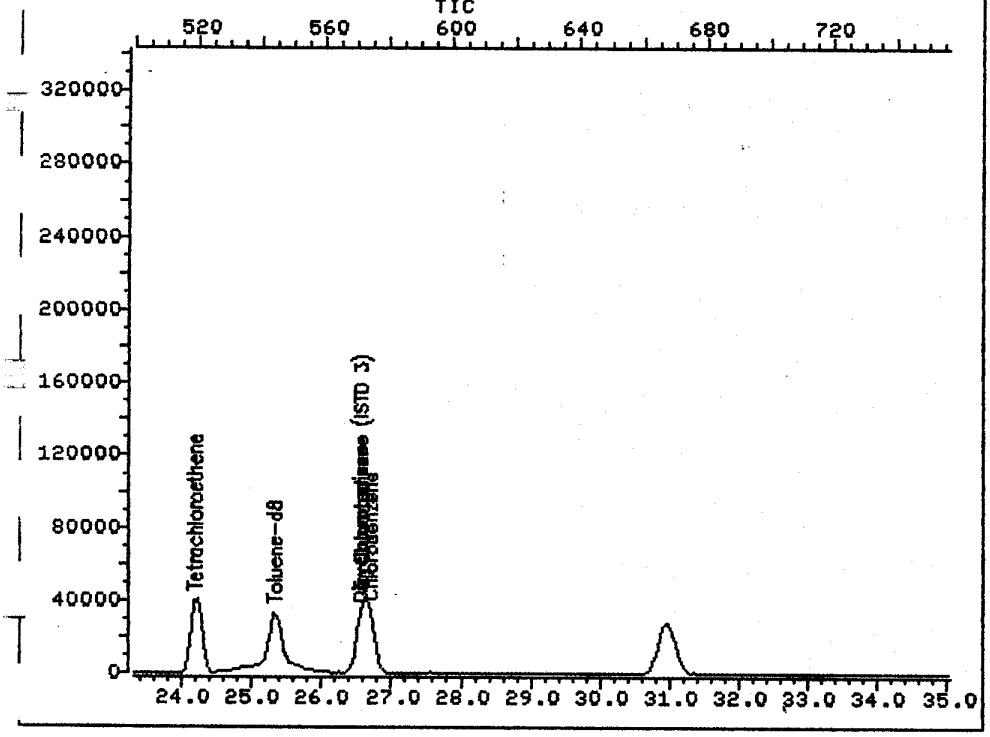
Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940920 13:09

Operator ID: RICH
Quant Time : 940920 22:02
Injected at: 940920 21:26

TOTAL ION CHROMATOGRAM

File >J7795 35.0-300.0 amu. 9883-1MSD HP-3 5mL

TIC



Data File: >J7795::D7 Quant Output File: ^J7795::D1
Name: 9883-1MSD Instrument ID: HP-3
Misc: HP-3 5mL

Id File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56 Last Qcal Time: 940920 13:09

Operator ID: RICH
Quant Time : 940920 22:02
Injected at: 940920 21:26

QUANT REPORT

Operator ID: RICH
Output File: ^J7795::D1
Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL

Quant Rev: 7
Quant Time: 940920 22:02
Injected at: 940920 21:26
Dilution Factor: 1.00000
Instrument ID: HP-3

ID File: IDW340::SC
Title: VOLATILE TARGET COMPOUNDS W/RMA
Last Calibration: 940816 16:56
Last Qcal Date: 940920 13:09

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.12	233	36191	50.00	ug/l	90
5)	Vinyl Chloride	3.67	70	22402	41.52	ug/l	89
13)	1,1-Dichloroethene	10.66	223	35872	47.32	ug/l	98
16)	Chloroform	13.31	281	93084	46.35	ug/l	97
17)	1,2-Dichloroethane-d4	13.95	295	50577	50.01	ug/l	96
18)	1,2-Dichloroethane	14.04	297	54234	45.98	ug/l	63
19)	*1,4-Difluorobenzene (ISTD 2)	21.58	462	119974	50.00	ug/l	89
20)	2-Butanone	14.04	297	41729	255.21	ug/l	91
22)	Carbon Tetrachloride	15.73	334	92977	37.12	ug/l	94
28)	Trichloroethene	18.47	394	59086	40.86	ug/l	92
29)	Benzene	18.97	405	86237	46.72	ug/l	97
38)	*D5-Chlorobenzene (ISTD 3)	26.56	571	104036	50.00	ug/l	93
41)	Tetrachloroethene	24.18	519	63389	43.45	ug/l	84
44)	Toluene-d8	25.32	544	112208	49.86	ug/l	100
47)	Chlorobenzene	26.69	574	102374	44.16	ug/l	92
53)	Bromofluorobenzene	30.94	667	96217M	50.72	ug/l	

* Compound is ISTD

QUANT REPORT

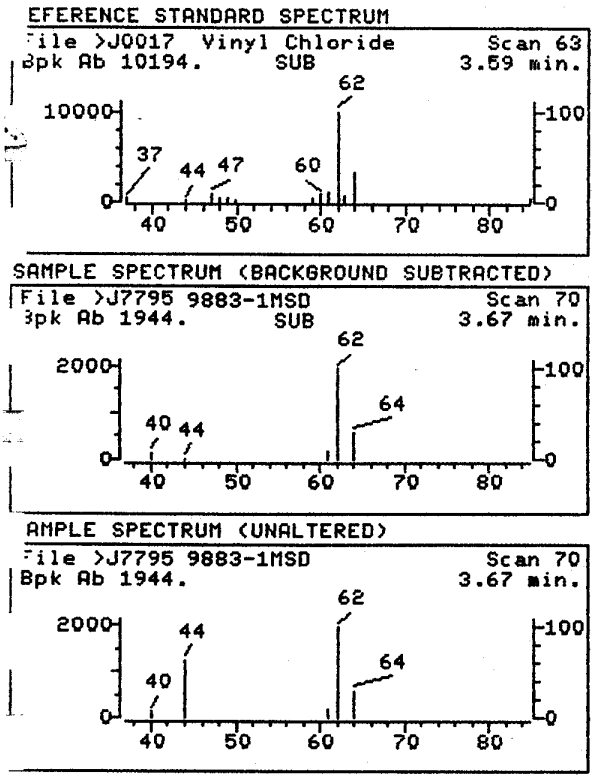
erator ID: RICH
tput File: ^J7795::D1
a File: >J7795::D7
me: 9883-1MSD
sc: HP-3 5mL

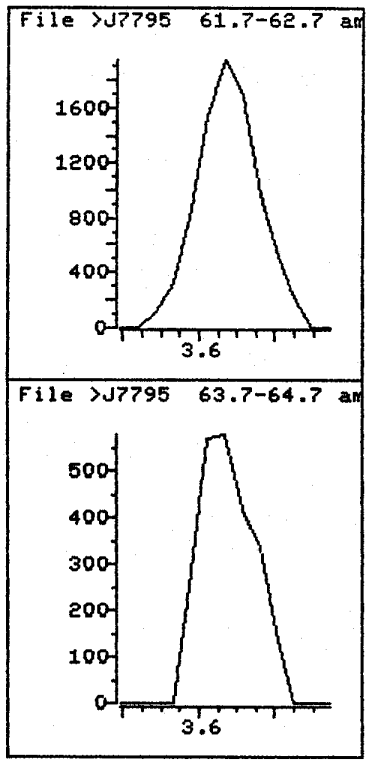
Quant Rev: 7
Quant Time: 940920 22:02
Injected at: 940920 21:26
Dilution Factor: 1.00000
Instrument ID: HP-3

File: IDW340::SC
tle: VOLATILE TARGET COMPOUNDS W/RMA
st Calibration: 940816 16:56
Last Qcal Time: 940920 13:09

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane (ISTD 1)	11.12	233	36191	50.00	ug/l	90
5)	Vinyl Chloride	3.67	70	22402	41.52	ug/l	89
7)	Methylene Chloride	7.60	156	510954	596.41	ug/l	92
8)	Acetone	8.51	176	43237	551.77	ug/l	97
1)	1,1-Dichloroethene	10.66	223	35872	47.32	ug/l	98
5)	Chloroform	13.31	281	93084	46.35	ug/l	97
7)	1,2-Dichloroethane-d4	13.95	295	50577	50.01	ug/l	96
8)	1,2-Dichloroethane	14.04	297	54234	45.98	ug/l	63
1)	*1,4-Difluorobenzene (ISTD 2)	21.58	462	119974	50.00	ug/l	89
0)	2-Butanone	14.04	297	41729	255.21	ug/l	91
2)	Carbon Tetrachloride	15.73	334	92977	37.12	ug/l	94
3)	Trichloroethene	18.47	394	59086	40.86	ug/l	92
1)	Benzene	18.97	405	86237	46.72	ug/l	97
8)	*D5-Chlorobenzene (ISTD 3)	26.56	571	104036	50.00	ug/l	93
9)	4-Methyl-2-Pentanone	23.22	498	5653	8.80	ug/l	100
1)	Tetrachloroethene	24.18	519	63389	43.45	ug/l	84
4)	Toluene-d8	25.32	544	112208	49.86	ug/l	100
6)	Dicyclopentadiene	26.56	571	1603	.552	ug/l	100
7)	Chlorobenzene	26.69	574	102374	44.16	ug/l	92

* Compound is ISTD



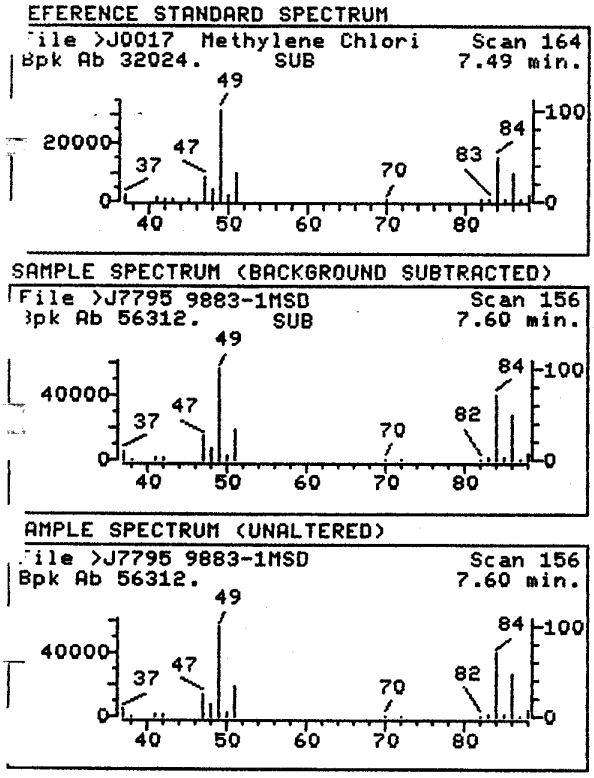


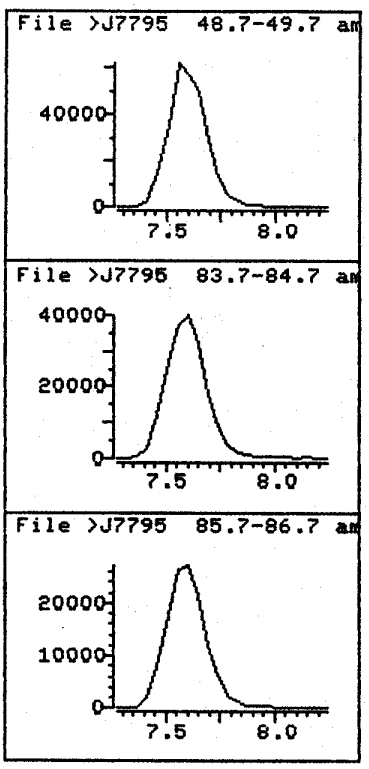
Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

Quant Output File: ^J7795::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 5
Compound Name : Vinyl Chloride
Scan Number : 70
Retention Time: 3.67 min.
Quant Ion : 62.0
Area : 22402
Concentration : 41.52 ug/l
q-value : 89



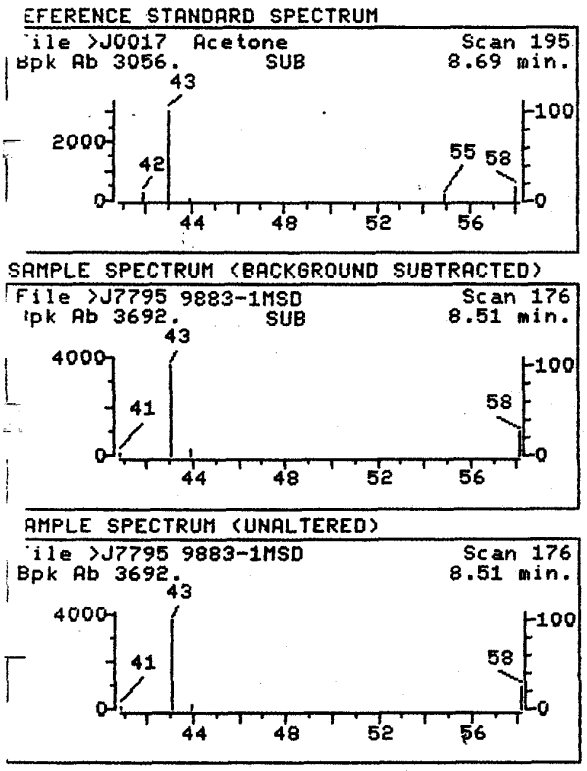


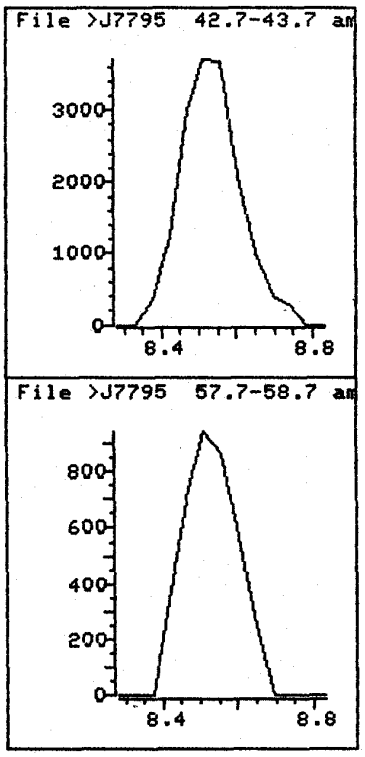
Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

Quant Output File: ^J7795::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 7
Compound Name : Methylene Chloride
Scan Number : 156
Retention Time: 7.60 min.
Quant Ion : 84.0
Area : 510954
Concentration : 596.41 ug/l
q-value : 92





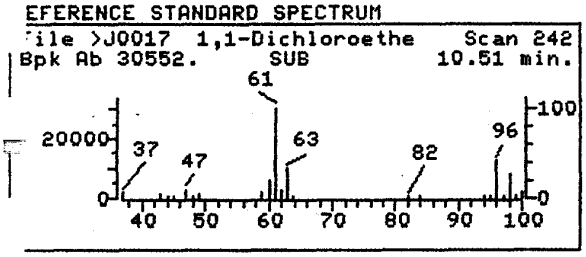
Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

Quant Output File: ^J7795::D1
Instrument ID: HP-3

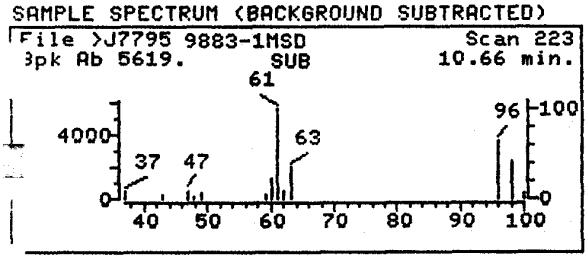
Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 8
Compound Name : Acetone
Scan Number : 176
Retention Time: 8.51 min.
Quant Ion : 43.0
Area : 43237
Concentration : 551.77 ug/l
q-value : 97

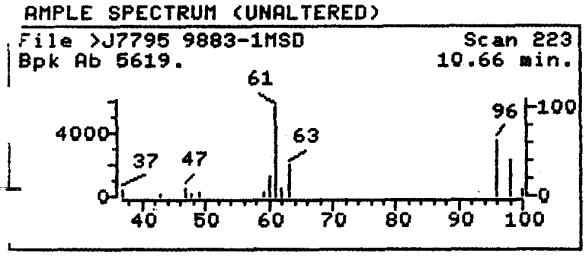
EFERENCE STANDARD SPECTRUM

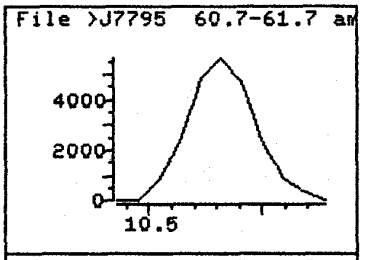


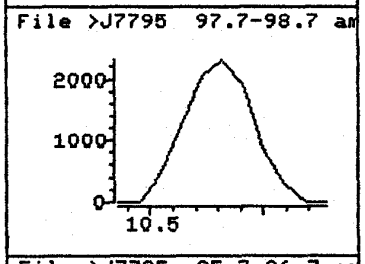
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

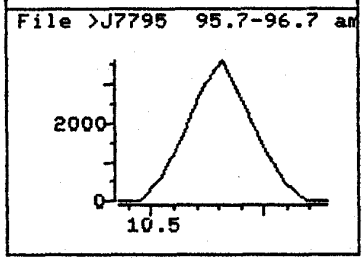


AMPLE SPECTRUM (UNALTERED)







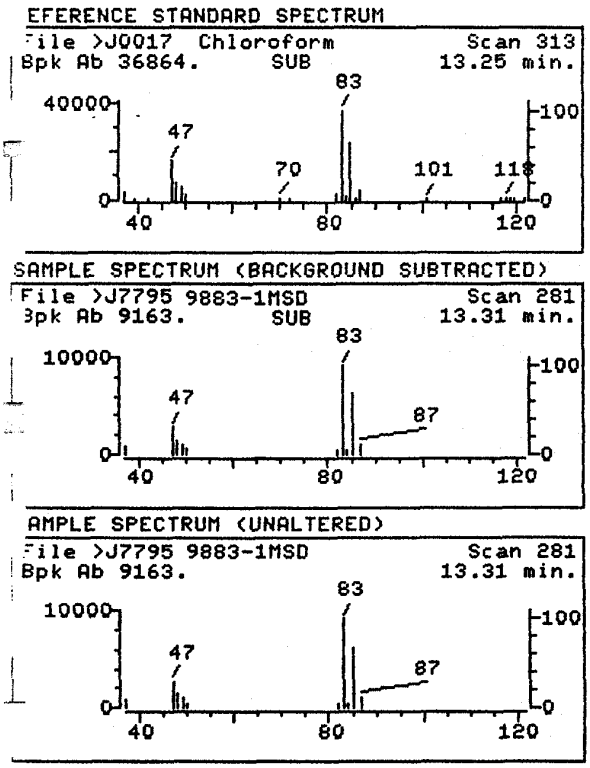


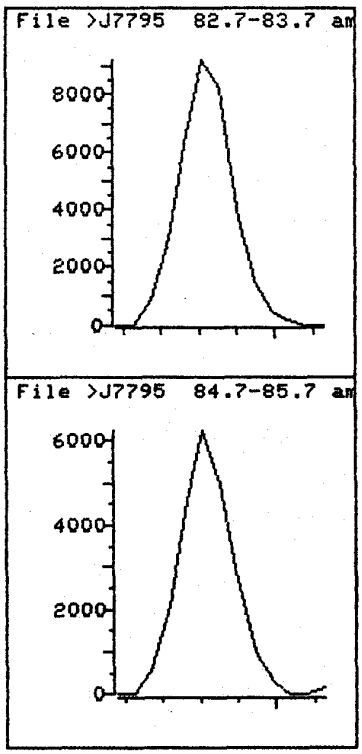
Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

Quant Output File: ^J7795::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 13
Compound Name : 1,1-Dichloroethene
Scan Number : 223
Retention Time: 10.66 min.
Quant Ion : 96.0
Area : 35872
Concentration : 47.32 ug/l
q-value : 98





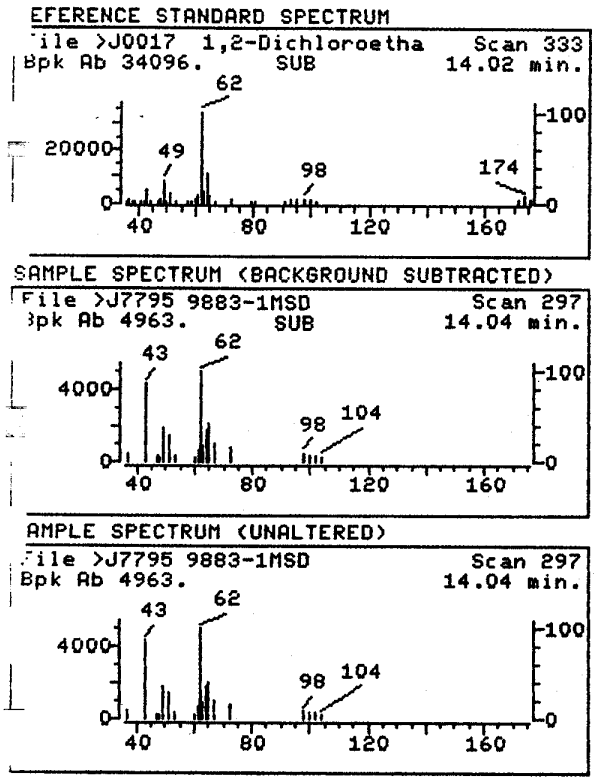
Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

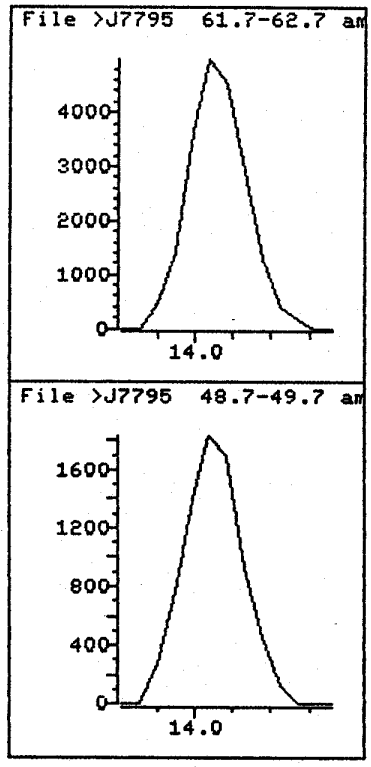
Quant Output File: ^J7795::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 16
Compound Name : Chloroform
Scan Number : 281
Retention Time: 13.31 min.
Quant Ion : 83.0
Area : 93084
Concentration : 46.35 ug/l
q-value : 97

30108





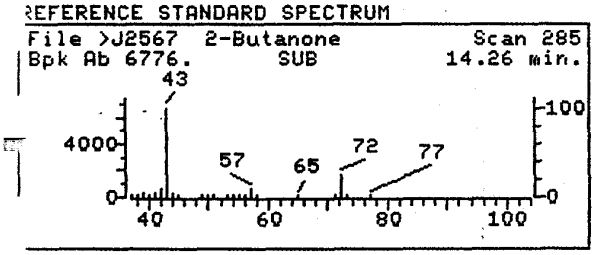
Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

Quant Output File: ^J7795::D1
Instrument ID: HP-3

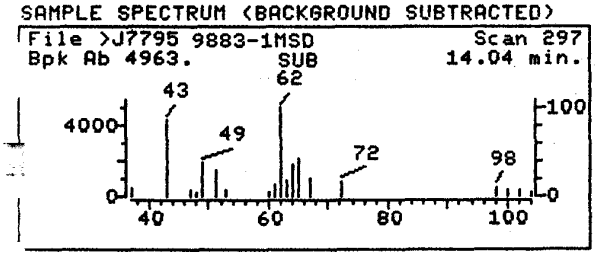
Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 18
Compound Name : 1,2-Dichloroethane
Scan Number : 297
Retention Time: 14.04 min.
Quant Ion : 62.0
Area : 54234
Concentration : 45.98 ug/l
q-value : 63

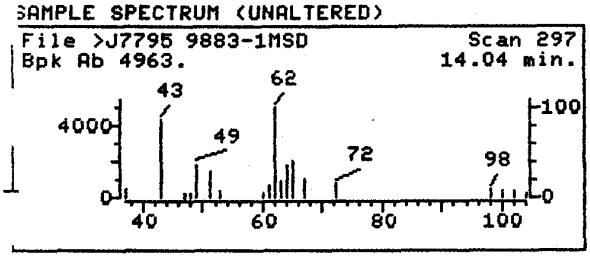
REFERENCE STANDARD SPECTRUM

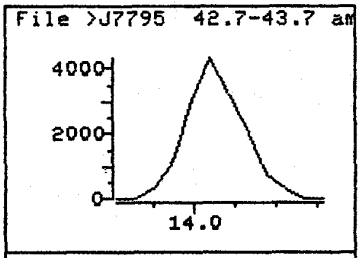


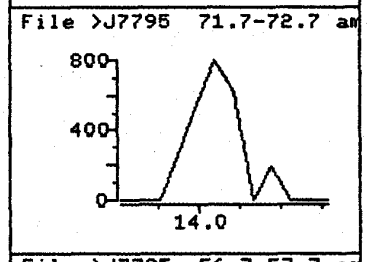
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

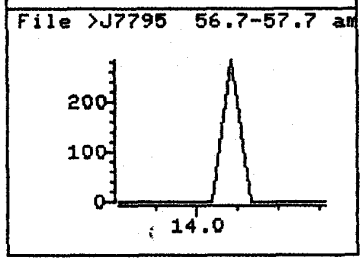


SAMPLE SPECTRUM (UNALTERED)







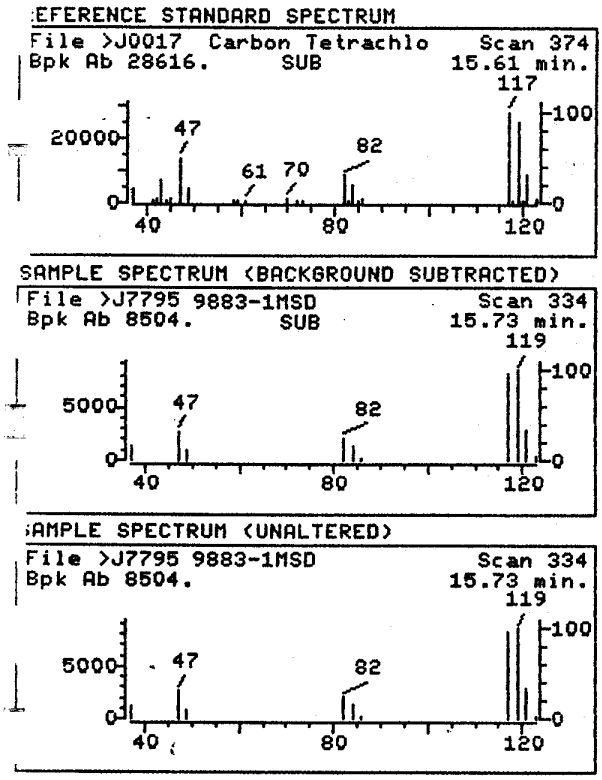


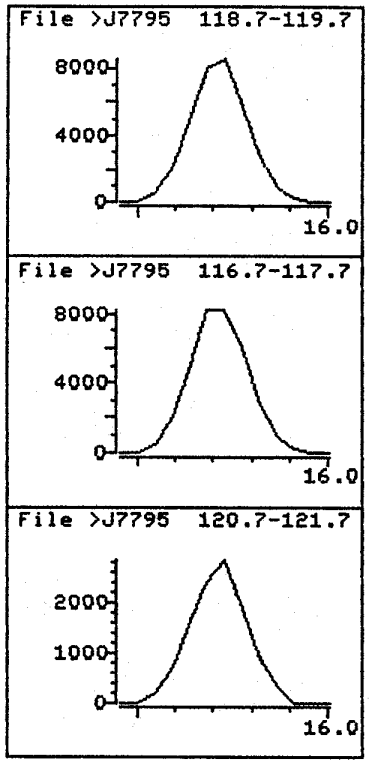
Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

Quant Output File: ^J7795::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 20
Compound Name : 2-Butanone
Scan Number : 297
Retention Time: 14.04 min.
Quant Ion : 43.0
Area : 41729
Concentration : 255.21 ug/l
q-value : 91



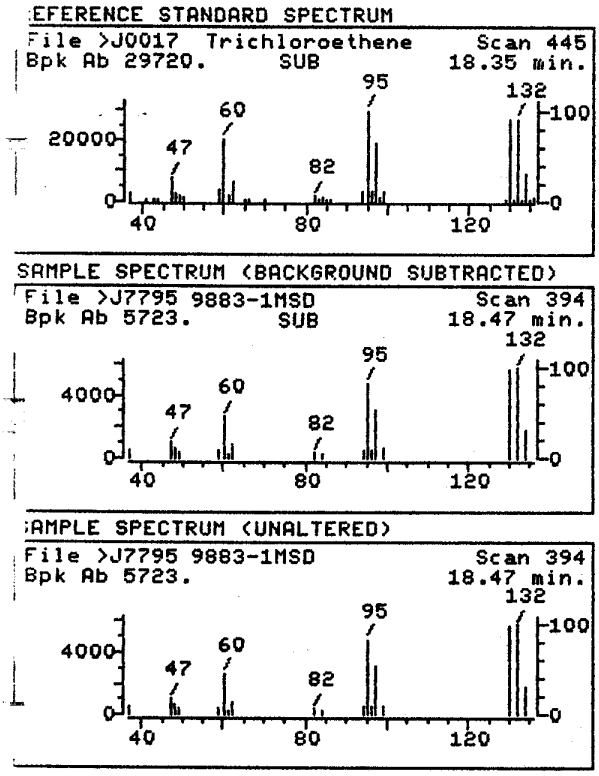


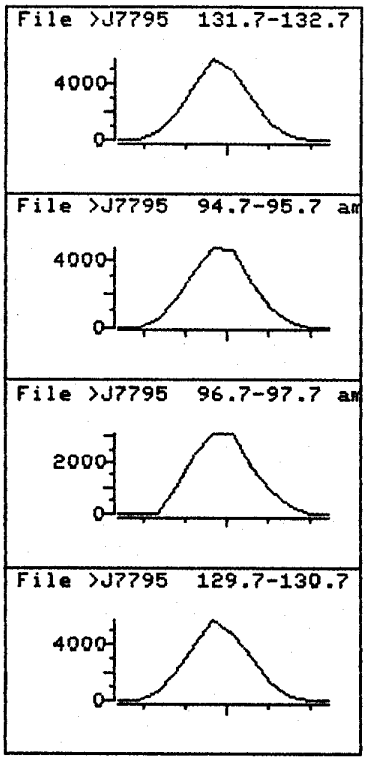
Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

Quant Output File: ^J7795::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 22
Compound Name : Carbon Tetrachloride
Scan Number : 334
Retention Time: 15.73 min.
Quant Ion : 117.0
Area : 92977
Concentration : 37.12 ug/l
q-value : 94





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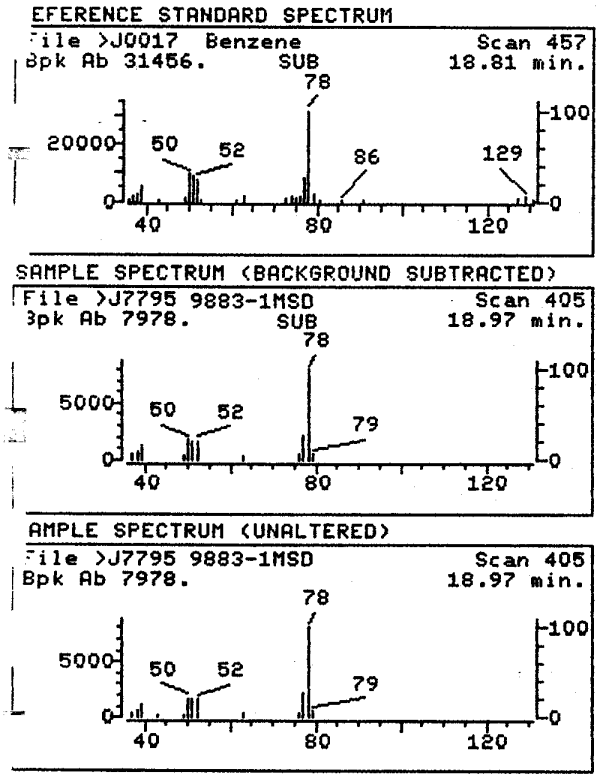
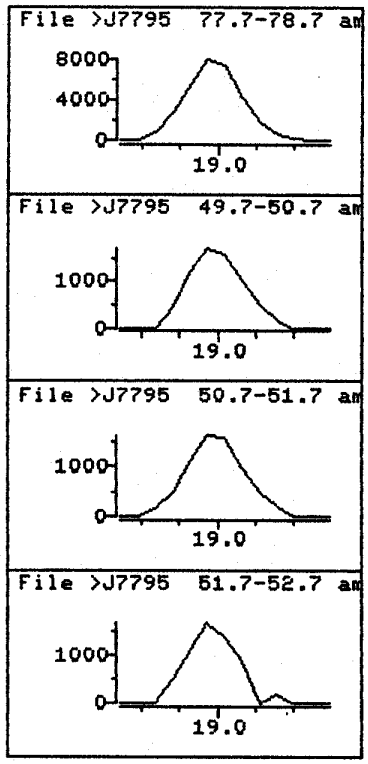
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

Quant Output File: ^J7795::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 28
Compound Name : Trichloroethene
Scan Number : 394
Retention Time: 18.47 min.
Quant Ion : 130.0
Area : 59086
Concentration : 40.86 ug/l
q-value : 92



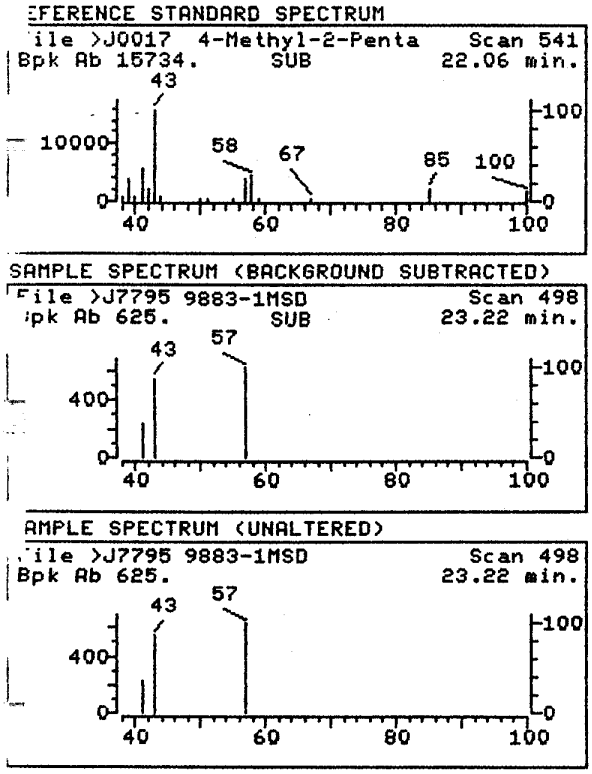


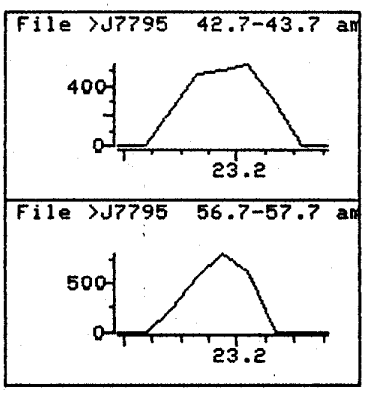
Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

Quant Output File: ^J7795::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 29
Compound Name : Benzene
Scan Number : 405
Retention Time: 18.97 min.
Quant Ion : 78.0
Area : 86237
Concentration : 46.72 ug/l
q-value : 97



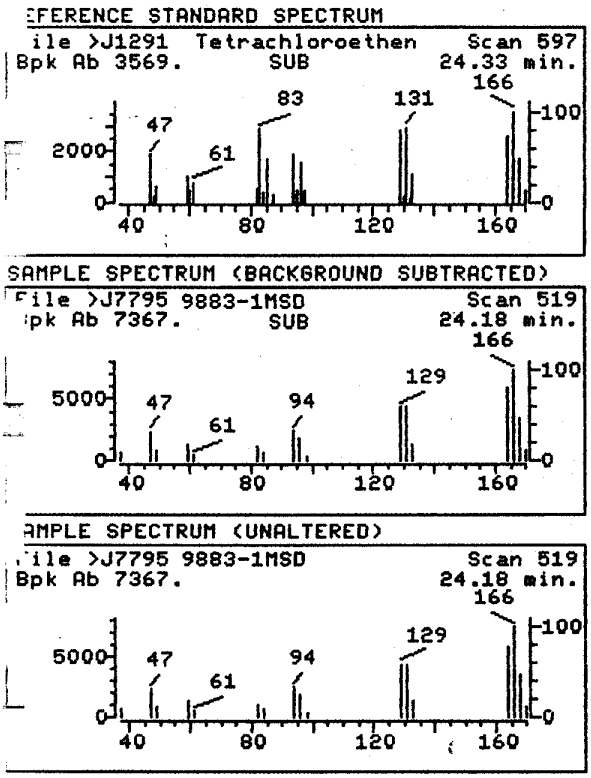


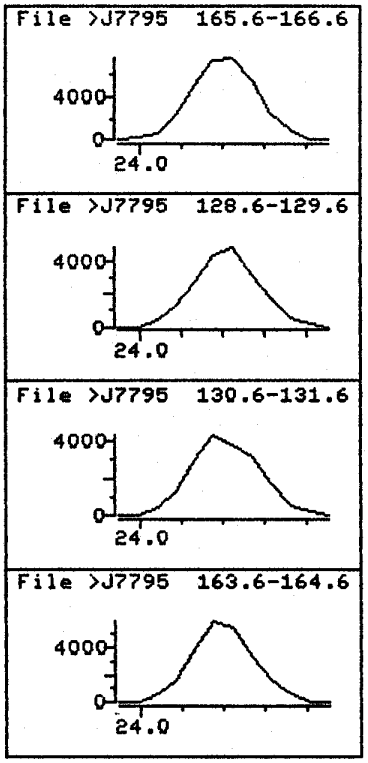
Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

Quant Output File: ^J7795::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 39
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 498
Retention Time: 23.22 min.
Quant Ion : 43.0
Area : 5653
Concentration : 8.80 ug/l
q-value : 100



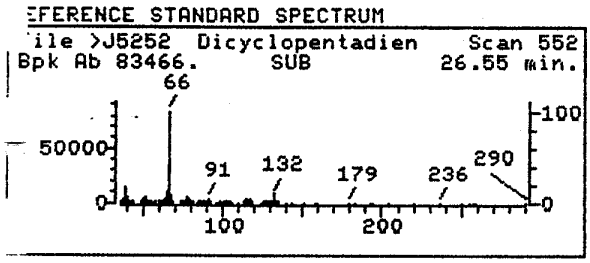


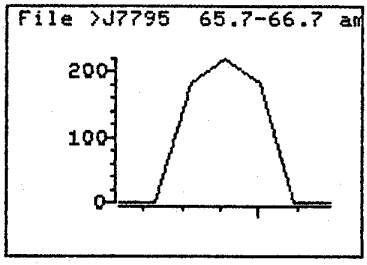
Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

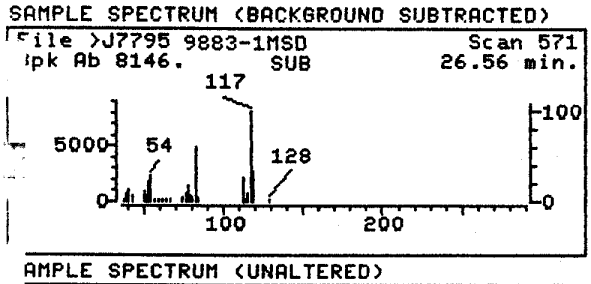
Quant Output File: ^J7795::D1
Instrument ID: HP-3

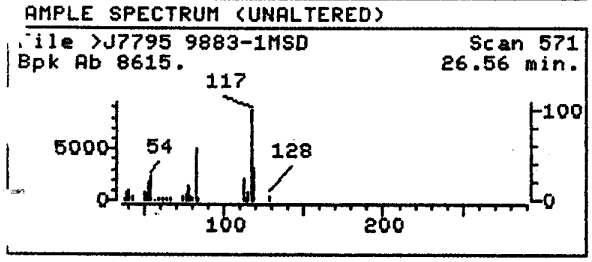
Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

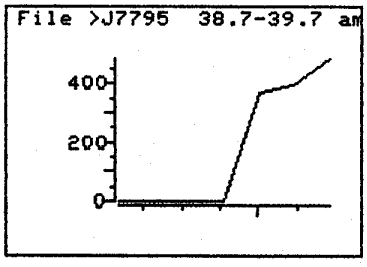
Compound No : 41
Compound Name : Tetrachloroethene
Scan Number : 519
Retention Time: 24.18 min.
Quant Ion : 163.9
Area : 63389
Concentration : 43.45 ug/l
q-value : 84











Data File: >J7795::D7
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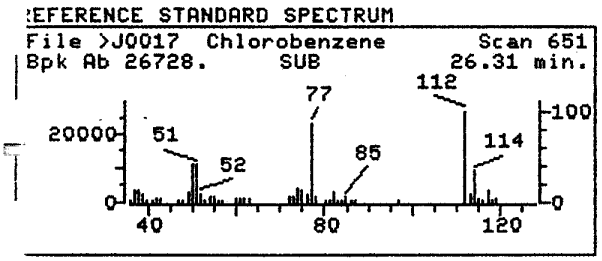
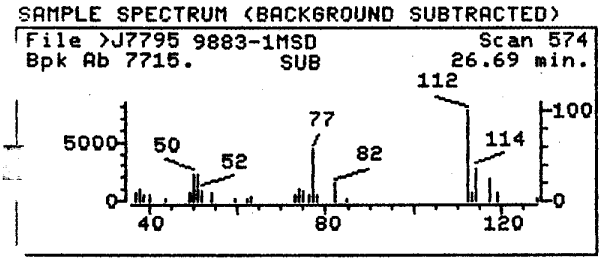
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

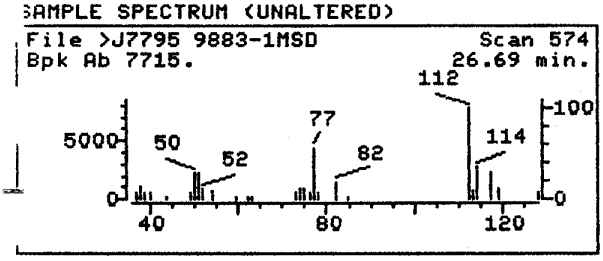
Quant Output File: ^J7795::D1
Instrument ID: HP-3

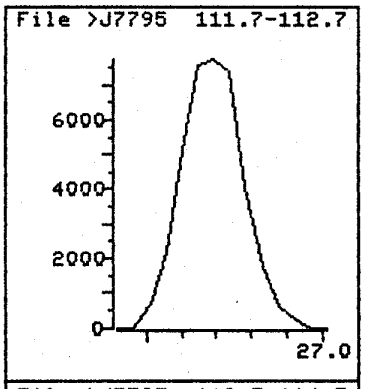
Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

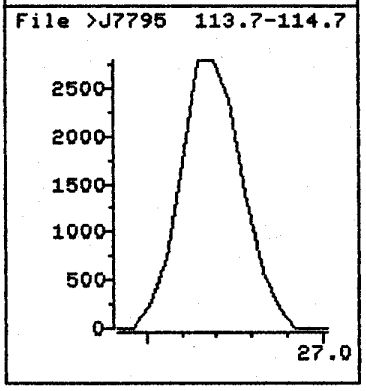
Compound No : 46
Compound Name : Dicyclopentadiene
Scan Number : 571
Retention Time: 26.56 min.
Quant Ion : 66.0
Area : 1603
Concentration : .552 ug/l
q-value : 100











Data File: >J7795::D7
Name: 9883-1MSD
Misc: HP-3 5mL
Quant Time: 940920 22:02
Injected at: 940920 21:26
Last Qcal Time: 940920 13:09

Quant Output File: ^J7795::D1
Instrument ID: HP-3

Quant ID File: IDW340::SC
Last Calibration: 940816 16:56

Compound No : 47
Compound Name : Chlorobenzene
Scan Number : 574
Retention Time: 26.69 min.
Quant Ion : 112.0
Area : 102374
Concentration : 44.16 ug/l
q-value : 92