Northeastern Analytical Corp.

ANALYTICAL REPORT

for

ROUX ASSOCIATES, INC.
775 Park Avenue
Suite 255
Huntington, New York 11743

Attention: Mr. Joseph Duminuco

TEST REPORT NO. NAC91L-3432

PROJECT: Amtrak - UST Removal
Sunnyside
Queens, New York
#05511Y

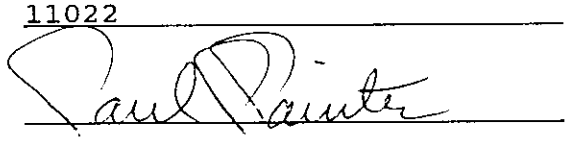
Client Designation	NAC Designation	Date Sampled	Time Sampled	Sampled By	Matrix
MW-41	91L-3432-1	11-06-91	1700	Client	Aqueous
Field Blank	91L-3432-2	11-06-91	1650	Client	Aqueous
Trip Blank	91L-3432-3	NP	NP	Client	Aqueous

NP: Not Provided.

Laboratory Name: Northeastern Analytical Corp.

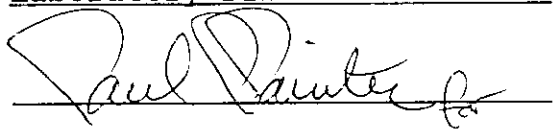
NJ Certification No: 03117

NY Certification No: 11022



Name: Paul P. Painter

Title: Laboratory Director



Name: June S. Baker

Title: Quality Assurance Manager

Date: November 29, 1991

NORTHEASTERN ANALYTICAL CORPORATION

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B. TABLE OF CONTENTS

NORTHEASTERN ANALYTICAL CORPORATION

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C. SAMPLE ANALYSIS REQUEST

- None Provided -

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D. CHAIN OF CUSTODY DOCUMENTS

ROUX

CHAIN OF CUSTODY

№ 00142

Ground-Water Consultants
ROUX ASSOCIATES INC

PAGE OF

PROJECT NAME: Amtrak-UST removal
PROJECT NUMBER: 055i1Y
PROJECT LOCATION: Sunnyside, Queens
SAMPLER(S): H. Elst, H. Gregg

ANALYSES

SAMPLE DESIGNATION/LOCATION	DATE COLLECTED	TIME COLLECTED		SAMPLE MATRIX	VOCs Method 624					TOTAL BOTTLES	PRESERVATION
MW-41	11/6/91	1200		4						4	
Field Blank	11/6/91	16:50		4						4	
Trip Blank	—	—		4						4	

RELINQUISHED BY: SAMPLER'S (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N
[signature]	ROUX	11/6/91	1800	(Y) OR N	[signature]	NAC	11/7/91	1000	(Y) OR N
RELINQUISHED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N
RELINQUISHED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N

DELIVERY METHOD: Fed Ex

ANALYTICAL LABORATORY: NAC

COMMENTS: Att: Mark Riether

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NORTHEASTERN ANALYTICAL CORPORATION

INTERNAL CHAIN OF CUSTODY

NAC NO. 911-3432 PROJECT Rex Assoc

SAMPLE/CONTAINERS 1-3 PARAMETER(S) 624

4-40ml. vials each

DATE	TIME	SAMPLE(S) RELINQUISHED BY	SAMPLE(S) RECEIVED BY	REASON FOR CHANGE OF CUSTODY
11/7/91	1600			Analysis + Storage

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E. METHODOLOGY REVIEW

. Purgeables by GC/MS

EPA Method 624 - This is a purge and trap gas chromatograph/mass spectrometer (GC/MS) method. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer. Federal Register, Vol. 40, No. 136, July, 1988.

An HP5890/5970 GC/MS was used with a packed column of 1% SP-1000 on Carbopack B.

Method detection limits are as stated.

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F. DATA SUMMARY PACKAGE

1. Non-Conformance Summary Report

None.

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F. DATA SUMMARY PACKAGE (Continued)

2. Quality Control Summary

a. Volatile Organics by GC/MS

1. Tune Summary

NORTHEASTERN ANALYTICAL CORPORATION

BFB GC/MS TUNE SUMMARY SHEET

INSTRUMENT A

LAB FILE ID:>A3274 DATE:10/29/91 TIME:08:46

This Performance tune applies to the following Samples, Blanks and Standards.

LAB SAMPLE ID	LAB FILE ID	INJECT DATE AND TIME
50UG/L HSL CAL CHK	>A3275	10/29/91 09:48
100UG/L HSL CAL CHK	>A3276	10/29/91 10:51
150UG/L HSL CAL CHK	>A3277	10/29/91 11:42
200UG/L HSL CAL CHK	>A3278	10/29/91 13:05
20UG/L HSL CAL CHK	>A3280	10/29/91 16:12

NORTHEASTERN ANALYTICAL CORPORATION

BFB GC/MS TUNE SUMMARY SHEET

INSTRUMENT A

LAB FILE ID:>A3512 DATE:11/12/91 TIME:08:38

This Performance tune applies to the following Samples, Blanks and Standards.

LAB SAMPLE ID	LAB FILE ID	INJECT DATE AND TIME
HSL CAL CHK	>A3513	11/12/91 08:56
METHOD BLANK	>A3514	11/12/91 10:03
91L-3432-1	>A3516	11/12/91 12:01
91L-3432-2	>A3517	11/12/91 13:31
91L-3432-3	>A3519	11/12/91 15:40

NORTHEASTERN ANALYTICAL CORPORATION

BFB GC/MS TUNE SUMMARY SHEET

INSTRUMENT A

LAB FILE ID:>A3524 DATE:11/12/91 TIME:20:52

This Performance tune applies to the following Samples, Blanks and Standards.

LAB SAMPLE ID	LAB FILE ID	INJECT DATE AND TIME
HSL CAL CHK	>A3525	11/12/91 21:19
METHOD BLANK	>A3526	11/12/91 22:21
91L-3365-6MS A-354	>A3528	11/13/91 00:10
91L-3365-6MSD A-354	>A3529	11/13/91 01:00

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F. DATA SUMMARY PACKAGE (Continued)

2. Quality Control Summary (Continued)

a. Volatile Organics by GC/MS (Continued)

2. Surrogate Recovery Summary

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE AQUEOUS SURROGATE SPIKE PERCENT RECOVERY

* INDICATES RECOVERY OUTSIDE OF RANGE

DATA FILE	DATE	SAMPLE ID	TOLUENE-d8 (88-110)	BROMOFLOURO BENZENE (86-115)	1,2-DICHLORO ETHENE (76-114)
>A3516	11/12/91	91L-3432-1	102	100	99
>A3517	11/12/91	91L-3432-2	104	102	101
>A3519	11/12/91	91L-3432-3	108	103	104

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE AQUEOUS SURROGATE SPIKE PERCENT RECOVERY

* INDICATES RECOVERY OUTSIDE OF RANGE

DATA FILE	DATE	SAMPLE ID	TOLUENE-d8 (88-110)	BROMOFLOURO BENZENE (86-115)	1,2-DICHLORO ETHENE (76-114)
>A3514	11/12/91	METHOD BLANK	96	99	95

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE AQUEOUS SURROGATE SPIKE PERCENT RECOVERY

* INDICATES RECOVERY OUTSIDE OF RANGE

DATA FILE	DATE	SAMPLE ID	TOLUENE-d8 (88-110)	BROMOFLOURO BENZENE (86-115)	1,2-DICHLORO ETHENE (76-114)
>A3526	11/12/91	METHOD BLANK	103	104	105

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE AQUEOUS SURROGATE SPIKE PERCENT RECOVERY

* INDICATES RECOVERY OUTSIDE OF RANGE

DATA FILE	DATE	SAMPLE ID	TOLUENE-d8 (88-110)	BROMOFLOURO BENZENE (86-115)	1,2-DICHLORO ETHENE (76-114)
>A3528	11/13/91	91L-3365-6MS A	100	103	102
>A3529	11/13/91	91L-3365-6MSD	101	102	101

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F. DATA SUMMARY PACKAGE (Continued)

2. Quality Control Summary (Continued)

a. Volatile Organics by GC/MS (Continued)

3. Method Blank Summary

NORTHEASTERN ANALYTICAL CORPORATION

VOLATILE METHOD BLANK SUMMARY SHEET

LAB SAMPLE ID:METHOD BLANK

LAB FILE ID:>A3514

MATRIX:AQUEOUS

LEVEL:LOW

DATE ANALYZED:11/12/91

TIME ANALYZED:10:03

This method blank applies to the following Samples, MS and MSD

LAB SAMPLE ID	LAB FILE ID	INJECT DATE AND TIME
91L-3432-1	>A3516	11/12/91 12:01
91L-3432-2	>A3517	11/12/91 13:31
91L-3432-3	>A3519	11/12/91 15:40

NORTHEASTERN ANALYTICAL CORPORATION

VOLATILE METHOD BLANK SUMMARY SHEET

LAB SAMPLE ID:METHOD BLANK LAB FILE ID:>A3526

MATRIX:AQUEOUS LEVEL:LOW

DATE ANALYZED:11/12/91 TIME ANALYZED:22:21

This method blank applies to the following Samples, MS and MSD

LAB SAMPLE ID	LAB FILE ID	INJECT DATE AND TIME
91L-3365-6MS A	>A3528	11/13/91 00:10
91L-3365-6MSD	>A3529	11/13/91 01:00

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F. DATA SUMMARY PACKAGE (Continued)

2. Quality Control Summary (Continued)

a. Volatile Organics by GC/MS (Continued)

4. Matrix Spike/Matrix Spike Duplicate Summary

NORTHEASTERN ANALYTICAL CORPORATION
AQUEOUS VOLATILE MATRIX SPIKE AND MATRIX SPIKE DUPLICATE

SAMPLE NAME:91L-3365-6 ANALYSIS DATE:11/13/91

BATCH NO:354

COMPOUND	SPIKE ADDED	MS CONC	MSD CONC	SAM CONC	MS% REC	MSD% REC	RPD
1,1-Dichloroethene	50	43	42	ND	86	84	2
Trichloroethene	50	43	41	ND	86	82	5
Benzene	50	52	50	ND	104	100	4
Toluene	50	45	45	ND	90	90	0
Chlorobenzene	50	46	44	ND	92	88	4

UNITS OF CONCENTRATION ARE UG/L

QC LIMITS	%REC	RPD
1,1-Dichloroethene	61-145	14
Trichloroethene	71-120	14
Benzene	76-127	11
Toluene	76-125	13
Chlorobenzene	75-130	13

* INDICATES RECOVERY OUTSIDE OF LIMITS

RPD: 0 OUT OF 5 OUTSIDE OF LIMITS
SPIKE RECOVERY: 0 OUT OF 10 OUTSIDE OF LIMITS

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F. DATA SUMMARY PACKAGE (Continued)

2. Quality Control Summary (Continued)

a. Volatile Organics by GC/MS (Continued)

4. Internal Standard Area Summary

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE INTERNAL STANDARD SUMMARY SHEET

LAB SAMPLE ID:91L-3432-1 INSTRUMENT ID:A

SAMPLE FILE ID:>A3516 STANDARD FILE ID:>A3513

DATE ANALYZED:11/12/91 TIME ANALYZED:12:01

INTERNAL STANDARD	SAM SCAN	STD SCAN	SAMPLE AREA	STAND AREA	UPPER LIMIT	LOWER LIMIT
Bromochloromethane	221	221	25072	28533	57066	14267
1,4-Difluorobenzene	488	487	116171	121500	243000	60750
Chlorobenzene-d5	613	613	96603	100759	201518	50380

UPPER LIMIT=STAND AREA X 2
LOWER LIMIT=STAND AREA/2

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE INTERNAL STANDARD SUMMARY SHEET

LAB SAMPLE ID:91L-3432-2 INSTRUMENT ID:A

SAMPLE FILE ID:>A3517 STANDARD FILE ID:>A3513

DATE ANALYZED:11/12/91 TIME ANALYZED:13:31

INTERNAL STANDARD	SAM SCAN	STD SCAN	SAMPLE AREA	STAND AREA	UPPER LIMIT	LOWER LIMIT
Bromochloromethane	221	221	25522	28533	57066	14267
1,4-Difluorobenzene	488	487	116563	121500	243000	60750
Chlorobenzene-d5	614	613	97212	100759	201518	50380

UPPER LIMIT=STAND AREA X 2
LOWER LIMIT=STAND AREA/2

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE INTERNAL STANDARD SUMMARY SHEET

LAB SAMPLE ID:91L-3432-3 INSTRUMENT ID:A

SAMPLE FILE ID:>A3519 STANDARD FILE ID:>A3513

DATE ANALYZED:11/12/91 TIME ANALYZED:15:40

INTERNAL STANDARD	SAM SCAN	STD SCAN	SAMPLE AREA	STAND AREA	UPPER LIMIT	LOWER LIMIT
Bromochloromethane	221	221	23198	28533	57066	14267
1,4-Difluorobenzene	487	487	109368	121500	243000	60750
Chlorobenzene-d5	614	613	87828	100759	201518	50380

UPPER LIMIT=STAND AREA X 2
LOWER LIMIT=STAND AREA/2

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE INTERNAL STANDARD SUMMARY SHEET

LAB SAMPLE ID:METHOD BLANK

INSTRUMENT ID:A

SAMPLE FILE ID:>A3514

STANDARD FILE ID:>A3513

DATE ANALYZED:11/12/91

TIME ANALYZED:10:03

INTERNAL STANDARD	SAM SCAN	STD SCAN	SAMPLE AREA	STAND AREA	UPPER LIMIT	LOWER LIMIT
Bromochloromethane	221	221	29932	28533	57066	14267
1,4-Difluorobenzene	488	487	123271	121500	243000	60750
Chlorobenzene-d5	613	613	102232	100759	201518	50380

UPPER LIMIT=STAND AREA X 2
LOWER LIMIT=STAND AREA/2

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE INTERNAL STANDARD SUMMARY SHEET

LAB SAMPLE ID:METHOD BLANK
INSTRUMENT ID:A

SAMPLE FILE ID:>A3526
STANDARD FILE ID:>A3525

DATE ANALYZED:11/12/91
TIME ANALYZED:22:21

INTERNAL STANDARD	SAM SCAN	STD SCAN	SAMPLE AREA	STAND AREA	UPPER LIMIT	LOWER LIMIT
Bromochloromethane	221	221	25354	24972	49944	12486
1,4-Difluorobenzene	488	487	111525	110072	220144	55036
Chlorobenzene-d5	614	613	92275	90727	181454	45364

UPPER LIMIT=STAND AREA X 2
LOWER LIMIT=STAND AREA/2

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE INTERNAL STANDARD SUMMARY SHEET

LAB SAMPLE ID:91L-3365-6MS A-354 INSTRUMENT ID:A

SAMPLE FILE ID:>A3528 STANDARD FILE ID:>A3525

DATE ANALYZED:11/13/91 TIME ANALYZED:00:10

INTERNAL STANDARD	SAM SCAN	STD SCAN	SAMPLE AREA	STAND AREA	UPPER LIMIT	LOWER LIMIT
Bromochloromethane	221	221	25813	24972	49944	12486
1,4-Difluorobenzene	487	487	107677	110072	220144	55036
Chlorobenzene-d5	613	613	92586	90727	181454	45364

UPPER LIMIT=STAND AREA X 2
LOWER LIMIT=STAND AREA/2

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE INTERNAL STANDARD SUMMARY SHEET

LAB SAMPLE ID:91L-3365-6MSD A-354 INSTRUMENT ID:A

SAMPLE FILE ID:>A3529 STANDARD FILE ID:>A3525

DATE ANALYZED:11/13/91 TIME ANALYZED:01:00

INTERNAL STANDARD	SAM SCAN	STD SCAN	SAMPLE AREA	STAND AREA	UPPER LIMIT	LOWER LIMIT
Bromochloromethane	221	221	25676	24972	49944	12486
1,4-Difluorobenzene	487	487	110409	110072	220144	55036
Chlorobenzene-d5	613	613	92335	90727	181454	45364

UPPER LIMIT=STAND AREA X 2
LOWER LIMIT=STAND AREA/2

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F. DATA SUMMARY PACKAGE (Continued)

3. Sample Data Package

a. Volatile Organics by GC/MS (Continued)

1. Sample Result Summary and Method Detection Limit

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NORTHEASTERN ANALYTICAL CORPORATION

VOLATILE ORGANIC ANALYSIS DATA SHEET

LAB SAMPLE ID:91L-3432-1 LAB FILE ID:>A3516

DATE RECEIVED:11/06/91 DATE ANALYZED:911112

SAMPLE WT/VOL:5.0ML LEVEL:LOW

CAS NO.		MDL	CONC. ug/L
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	20	U
67-64-1	Acetone	10	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-60-5	Trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-02-7	m&p Xylenes	10	U
110-75-8	O-Xylenes	5	U

U; Not Detected

NORTHEASTERN ANALYTICAL CORPORATION

VOLATILE ORGANIC ANALYSIS DATA SHEET

LAB SAMPLE ID:91L-3432-2

LAB FILE ID:>A3517

DATE RECEIVED:11/06/91

DATE ANALYZED:911112

SAMPLE WT/VOL:5.0ML

LEVEL:LOW

CAS NO.		MDL	CONC. ug/L
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	7
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	20	U
67-64-1	Acetone	10	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-60-5	Trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-02-7	m&p Xylenes	10	U
110-75-8	O-Xylenes	5	U

U; Not Detected

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NORTHEASTERN ANALYTICAL CORPORATION

VOLATILE ORGANIC ANALYSIS DATA SHEET

LAB SAMPLE ID:91L-3432-3 LAB FILE ID:>A3519

DATE RECEIVED:11/06/91 DATE ANALYZED:911112

SAMPLE WT/VOL:5.0ML LEVEL:LOW

CAS NO.		MDL	CONC. ug/L
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	20	U
67-64-1	Acetone	10	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-60-5	Trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-02-7	m&p Xylenes	10	U
110-75-8	O-Xylenes	5	U

U; Not Detected

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F. DATA SUMMARY PACKAGE (Continued)

3. Sample Data Package (Continued)

a. Volatile Organics by GC/MS (Continued)

2. Sample Chromatograms, Quantitation Reports and Mass Spectra

QUANT REPORT

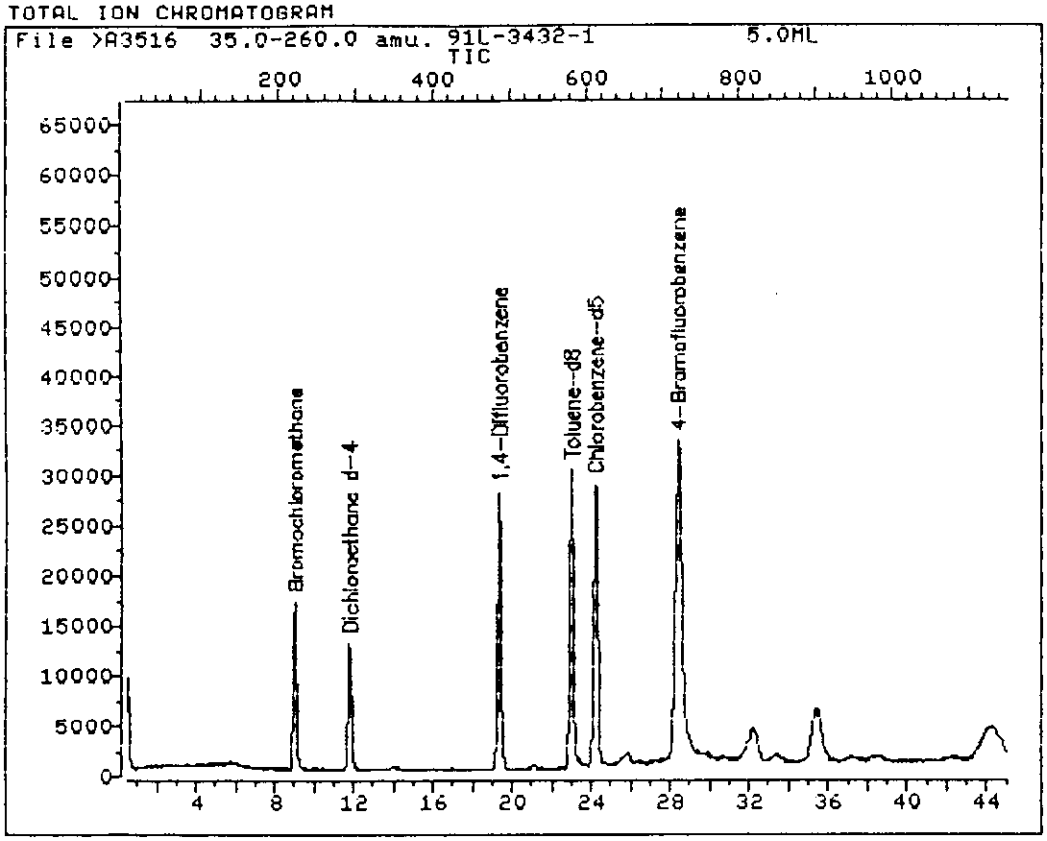
Operator ID: MALOS Quant Rev: 6 Quant Time: 911112 12:56
Output File: ^A3516::D1 Injected at: 911112 12:01
Data File: >A3516::D4 Dilution Factor: 1.00000
Name: 91L-3432-1
Misc: 5.0ML

ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.03	221	25072	50.00	ug/L	90
16)	1,2-Dichloroethane-d4	11.82	293	64575	49.26	ug/L	81
23)	*1,4-Difluorobenzene	19.37	488	116171	50.00	ug/L	68
33)	*Chlorobenzene-d5	24.21	613	96603	50.00	ug/L	98
39)	Toluene-d8	23.01	582	123732	51.10	ug/L	97
45)	Bromofluorobenzene	28.40	721	101391	50.19	ug/L	90

* Compound is ISTD

TOTAL ION CHROMATOGRAM

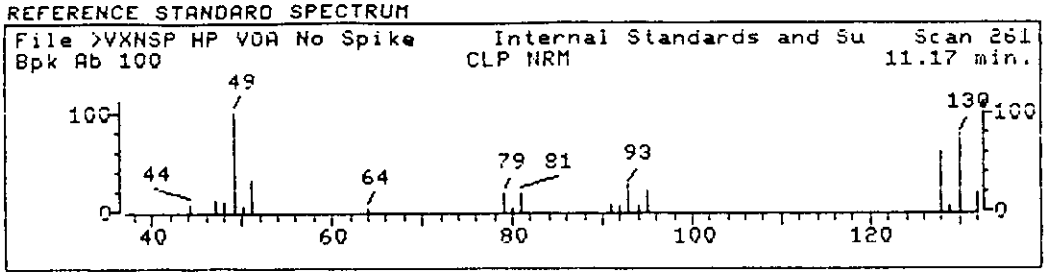


Data File: >A3516::D4 Quant Output File: ^A3516::D1
Name: 91L-3432-1
Misc: 5.0ML

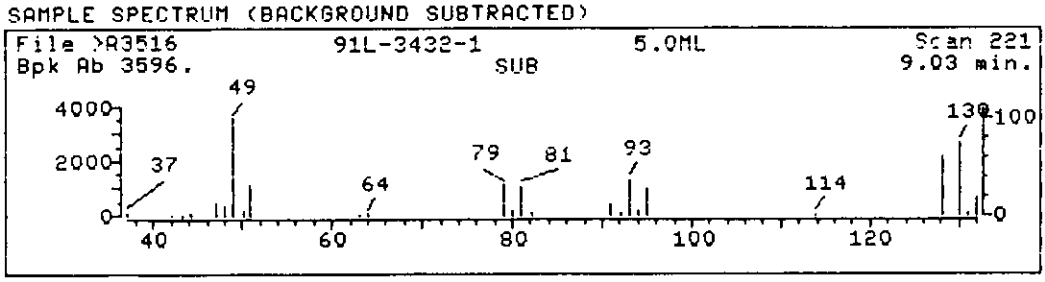
Id File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

Operator ID: MALOS
Quant Time: 911112 12:56
Injected at: 911112 12:01

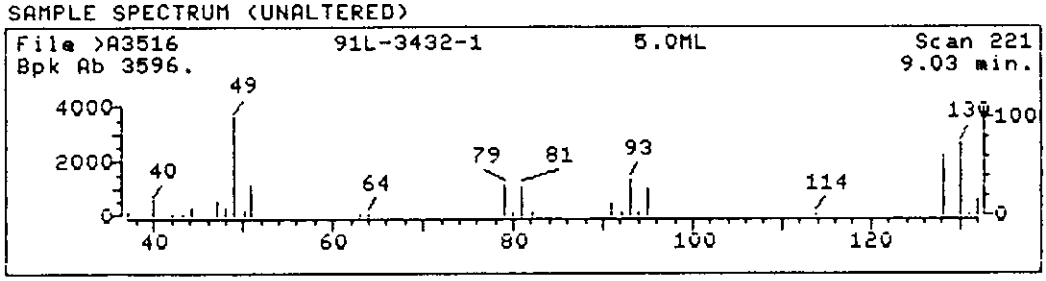
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



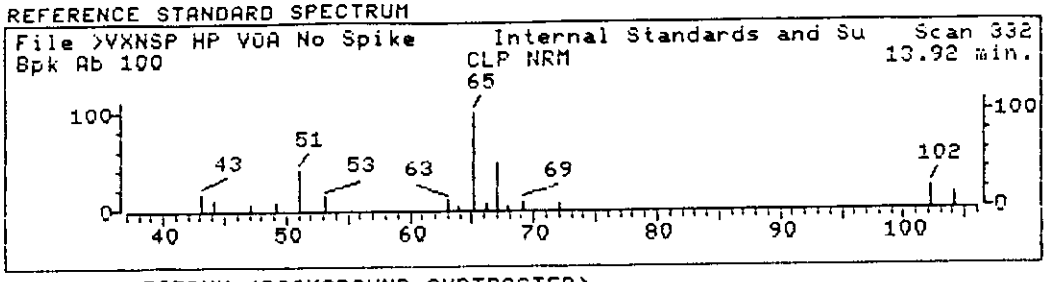
SAMPLE SPECTRUM (UNALTERED)



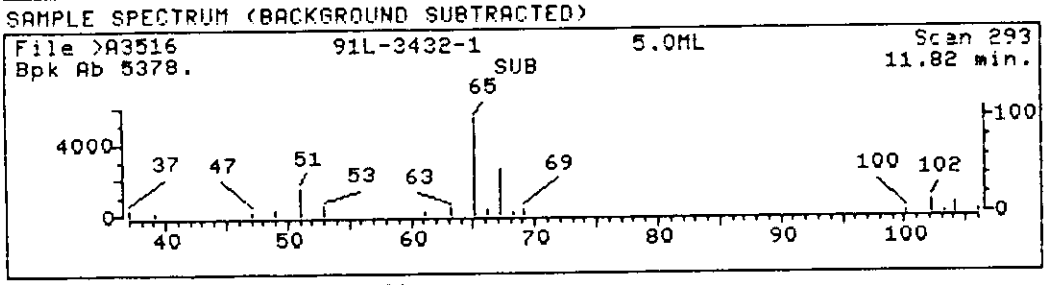
Data File: >A3516::D4 Quant Output File: ^A3516::D1
Name: 91L-3432-1
Misc: 5.0ML
Quant Time: 911112 12:56 Quant ID File: ID_VOA::D2
Injected at: 911112 12:01 Last Calibration: 911029 17:27

Compound No: 1 (ISTD)
Compound Name: Bromochloromethane
Scan Number: 221
Retention Time: 9.03 min.
Quant Ion: 128.0
Area: 25072
Concentration: 50.00 ug/L
q-value: 90

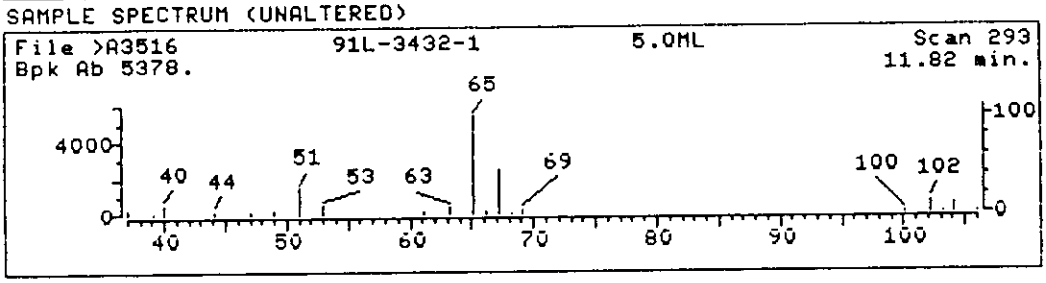
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



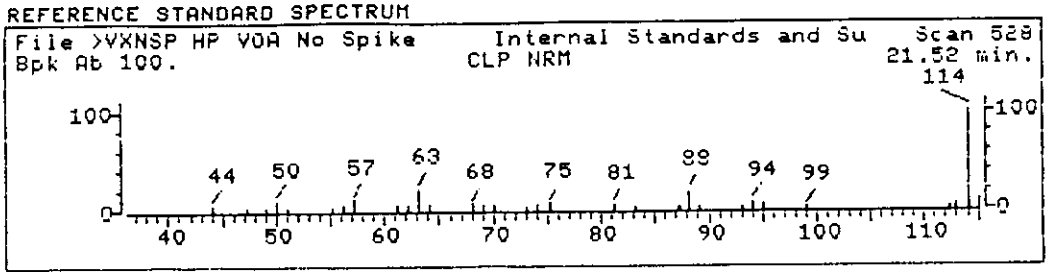
SAMPLE SPECTRUM (UNALTERED)



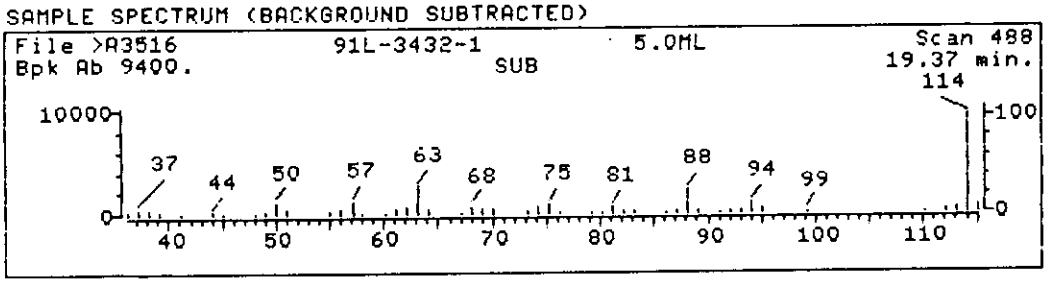
Data File: >A3516::D4 Quant Output File: ^A3516::D1
Name: 91L-3432-1
Misc: 5.0ML
Quant Time: 911112 12:56 Quant ID File: ID_VOA::D2
Injected at: 911112 12:01 Last Calibration: 911029 17:27

Compound No: 16
Compound Name: 1,2-Dichloroethane-d4
Scan Number: 293
Retention Time: 11.82 min.
Quant Ion: 65.0
Area: 64575
Concentration: 49.26 ug/L
q-value: 81

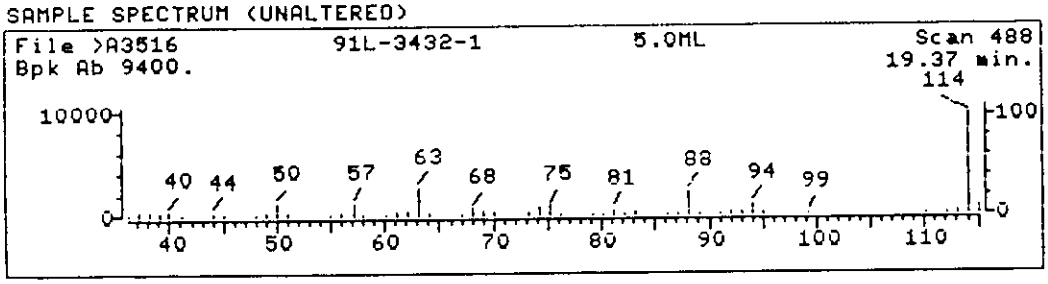
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



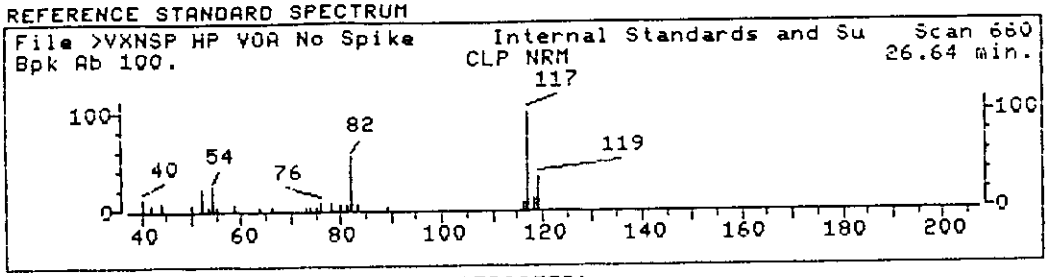
SAMPLE SPECTRUM (UNALTERED)



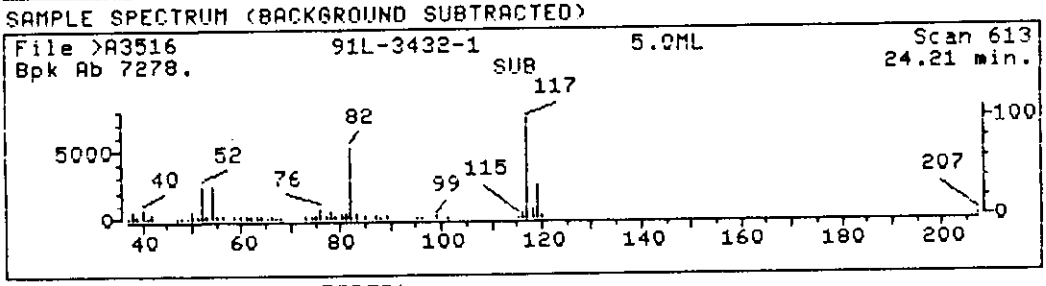
Data File: >A3516::D4 Quant Output File: ^A3516::D1
Name: 91L-3432-1
Misc: 5.0ML
Quant Time: 911112 12:56 Quant ID File: ID_VOA::D2
Injected at: 911112 12:01 Last Calibration: 911029 17:27

Compound No: 23 (ISTD)
Compound Name: 1,4-Difluorobenzene
Scan Number: 488
Retention Time: 19.37 min.
Quant Ion: 114.0
Area: 116171
Concentration: 50.00 ug/L
q-value: 68

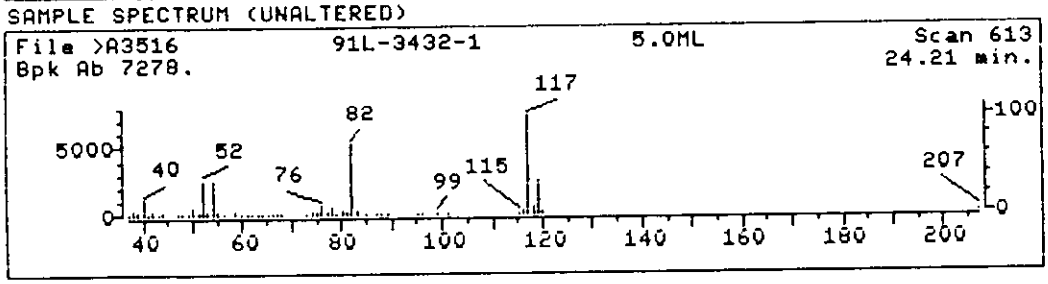
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



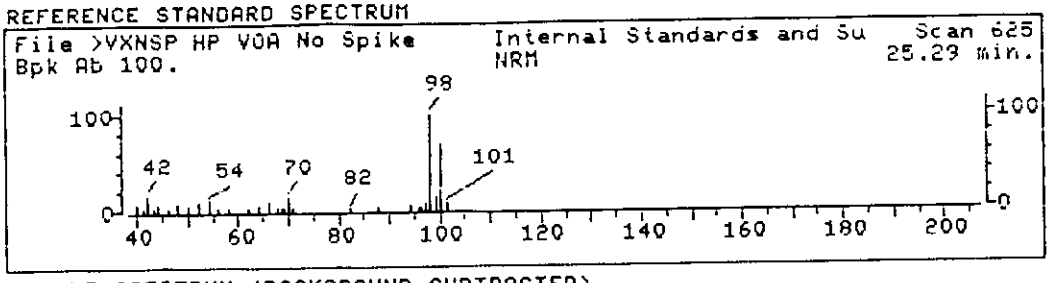
Data File: >A3516::D4
Name: 91L-3432-1
Misc: 5.0ML
Quant Time: 911112 12:56
Injected at: 911112 12:01

Quant Output File: ^A3516::D1

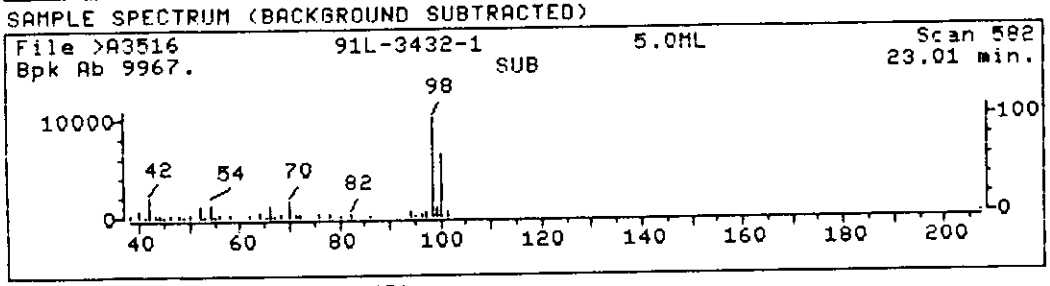
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 33 (ISTD)
Compound Name: Chlorobenzene-d5
Scan Number: 613
Retention Time: 24.21 min.
Quant Ion: 117.0
Area: 96603
Concentration: 50.00 ug/L
q-value: 98

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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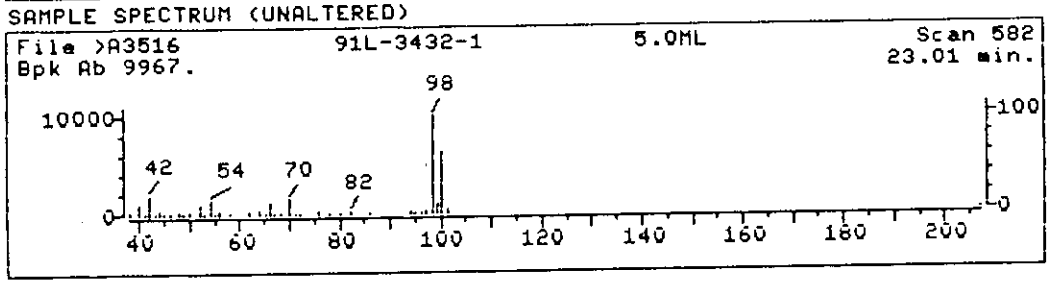


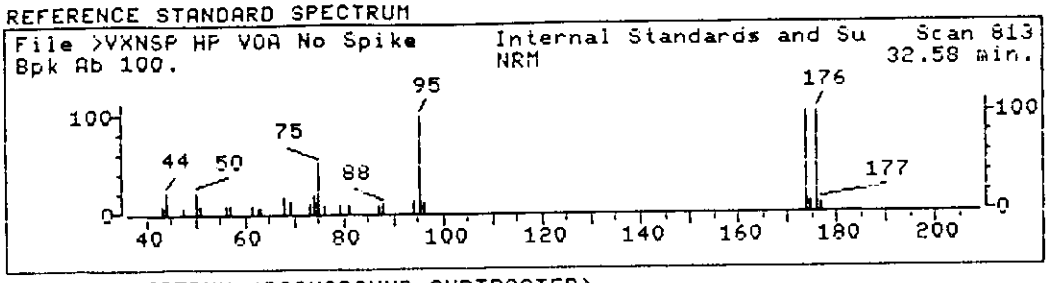
Data File: >A3516::D4
Name: 91L-3432-1
Misc: 5.0ML
Quant Time: 911112 12:56
Injected at: 911112 12:01

Quant Output File: ^A3516::D1

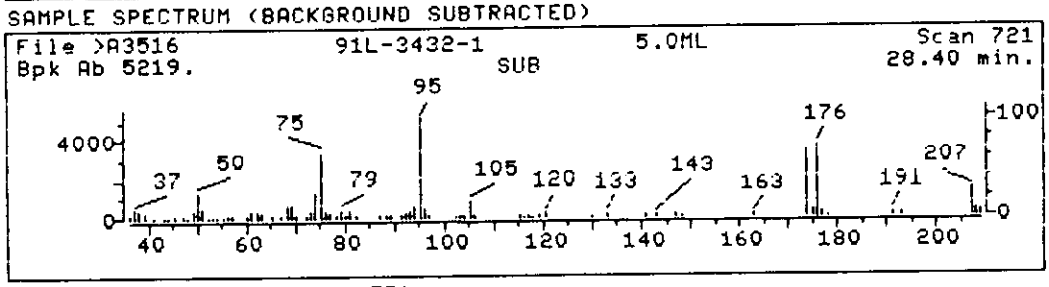
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 39
Compound Name: Toluene-d8
Scan Number: 582
Retention Time: 23.01 min.
Quant Ion: 98.0
Area: 123732
Concentration: 51.10 ug/L
q-value: 97

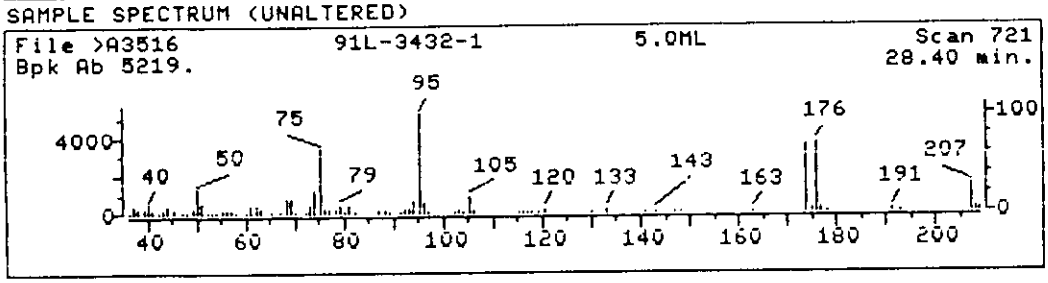
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Quant Output File: ^A3516::D1

Name: 91L-3432-1
Misc: 5.0ML
Quant Time: 911112 12:56
Injected at: 911112 12:01

Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 45
Compound Name: Bromofluorobenzene
Scan Number: 721
Retention Time: 28.40 min.
Quant Ion: 95.0
Area: 101391
Concentration: 50.19 ug/L
q-value: 90

QUANT REPORT

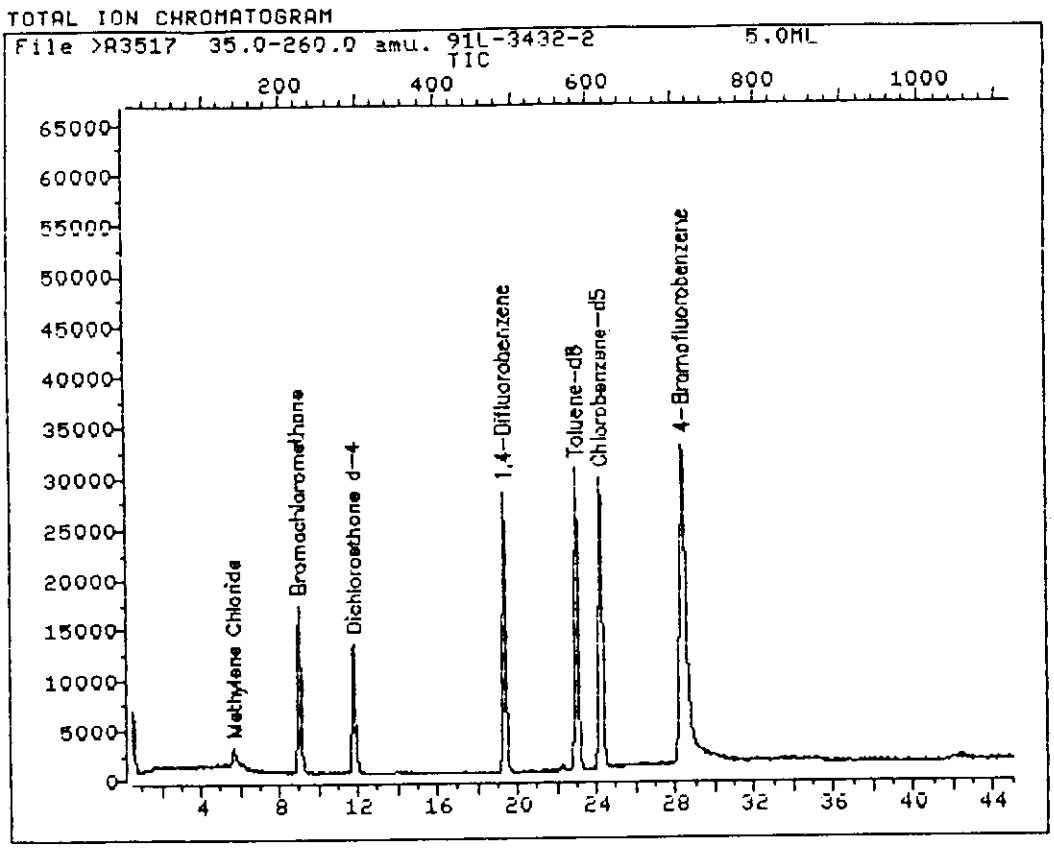
Operator ID: MALOS
Output File: ^A3517::D1
Data File: >A3517::D4
Name: 91L-3432-2
Misc: 5.0ML

Quant Rev: 6 Quant Time: 911112 14:22
Injected at: 911112 13:31
Dilution Factor: 1.00000

ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.02	221	25522	50.00	ug/L	96
6)	Methylene Chloride	5.69	135	4463	7.33	ug/L	84
16)	1,2-Dichloroethane-d4	11.85	294	67287	50.43	ug/L	82
23)	*1,4-Difluorobenzene	19.36	488	116563	50.00	ug/L	69
33)	*Chlorobenzene-d5	24.24	614	97212	50.00	ug/L	93
39)	Toluene-d8	23.00	582	126615	51.96	ug/L	99
45)	Bromofluorobenzene	28.43	713	104032	51.18	ug/L	91

* Compound is ISTD

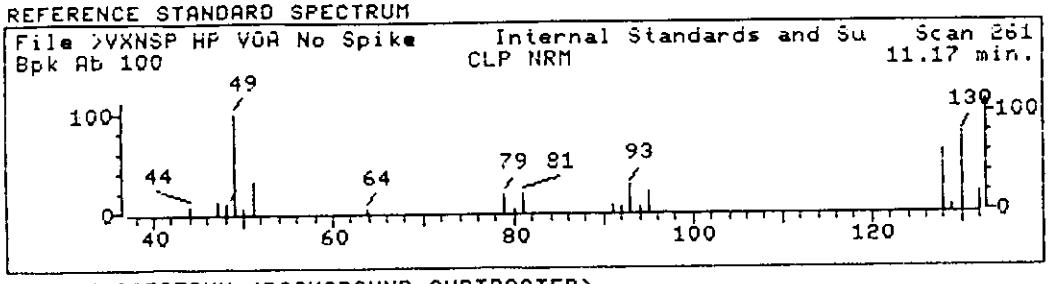


Data File: >A3517::D4 Quant Output File: ^A3517::D1
Name: 91L-3432-2
Misc: 5.0ML

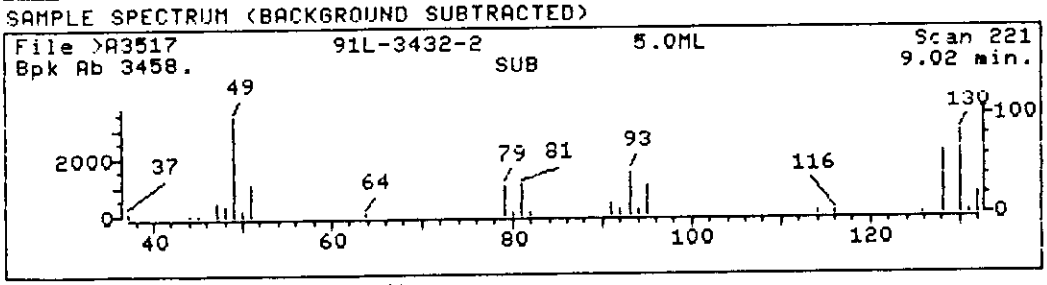
Id File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

Operator ID: MALOS
Quant Time: 911112 14:22
Injected at: 911112 13:31

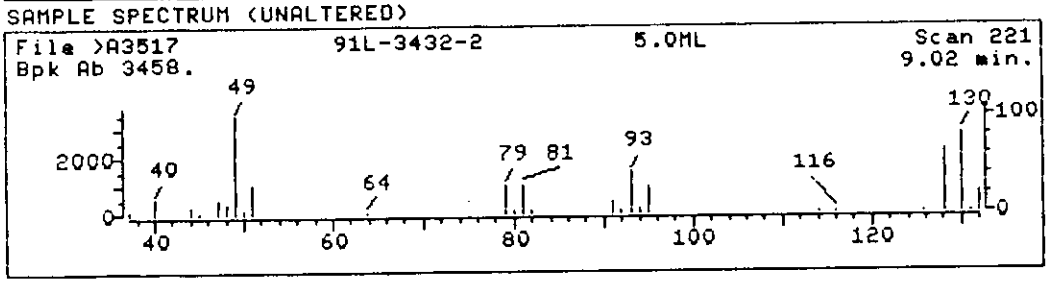
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



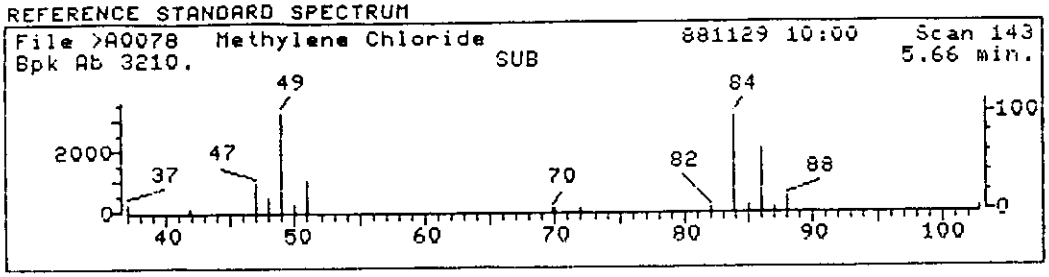
SAMPLE SPECTRUM (UNALTERED)



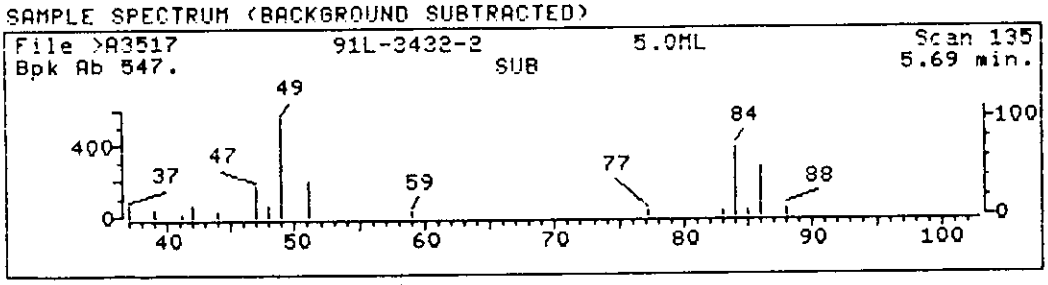
Data File: >A3517::D4 Quant Output File: ^A3517::D1
Name: 91L-3432-2
Misc: 5.0ML
Quant Time: 911112 14:22 Quant ID File: ID_VOA::D2
Injected at: 911112 13:31 Last Calibration: 911029 17:27

Compound No: 1 (ISTD)
Compound Name: Bromochloromethane
Scan Number: 221
Retention Time: 9.02 min.
Quant Ion: 128.0
Area: 25522
Concentration: 50.00 ug/L
q-value: 96

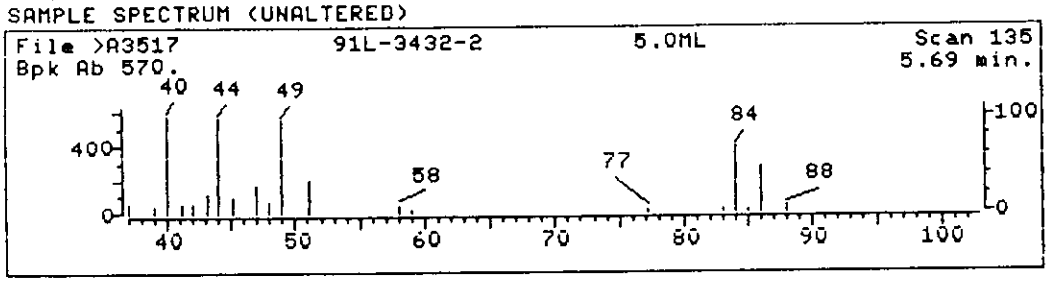
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



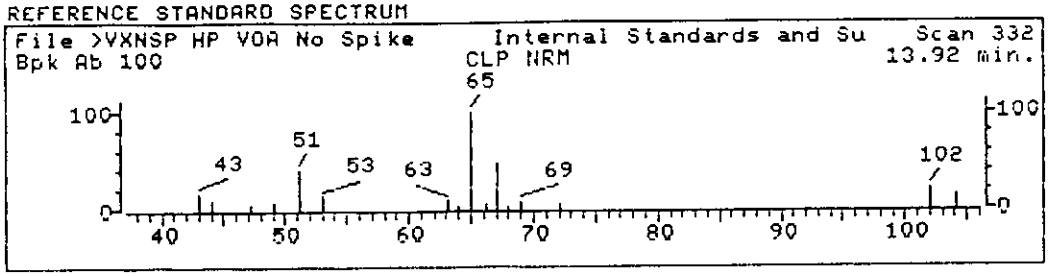
Data File: >A3517::D4
Name: 91L-3432-2
Misc: 5.0ML
Quant Time: 911112 14:22
Injected at: 911112 13:31

Quant Output File: ^A3517::D1

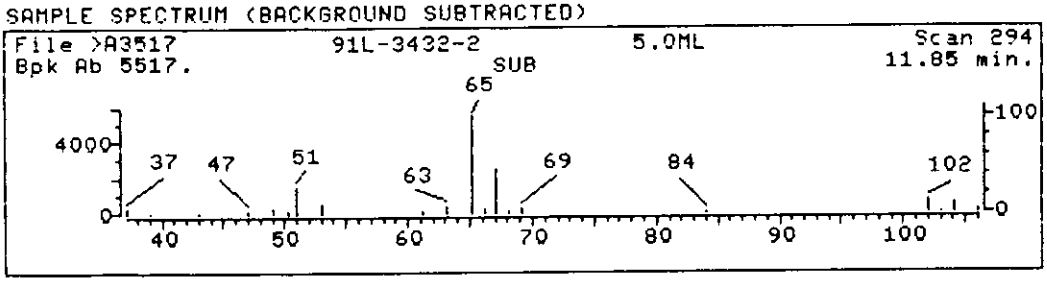
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 6
Compound Name: Methylene Chloride
Scan Number: 135
Retention Time: 5.69 min.
Quant Ion: 84.0
Area: 4463
Concentration: 7.33 ug/L
q-value: 84

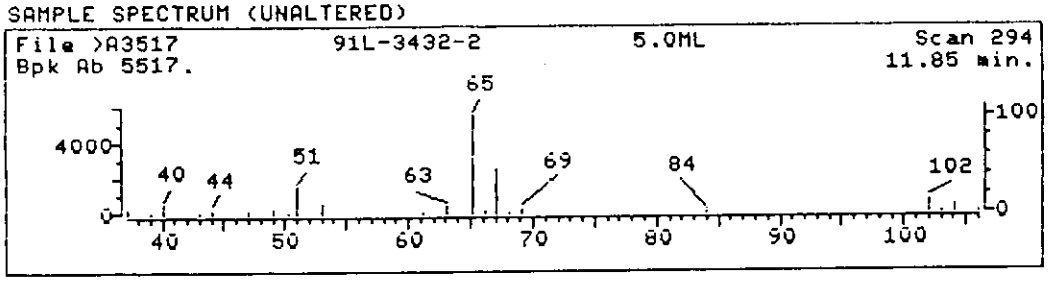
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



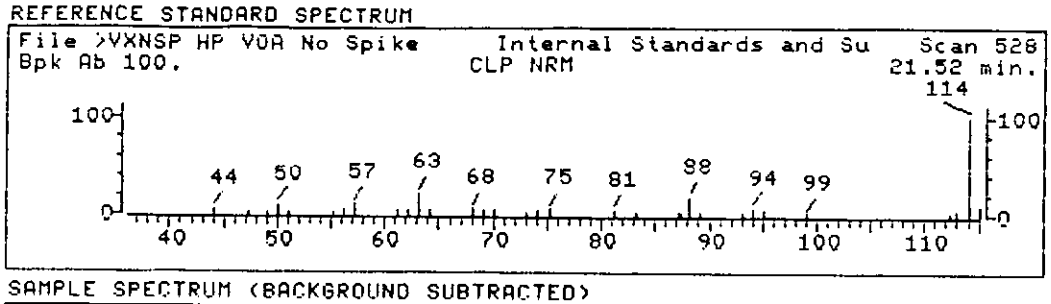
SAMPLE SPECTRUM (UNALTERED)



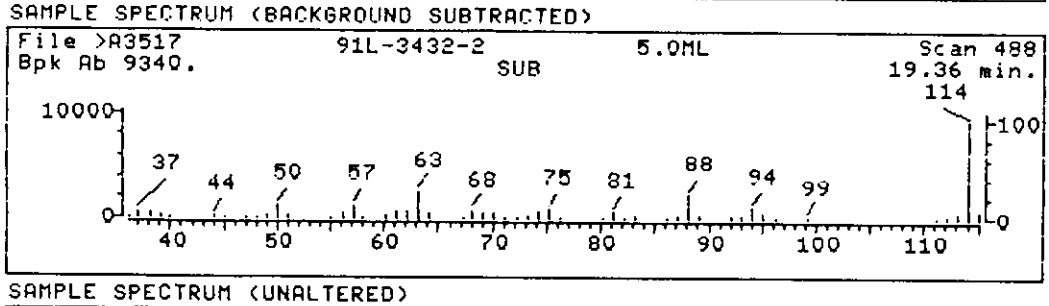
Data File: >A3517::D4 Quant Output File: ^A3517::D1
Name: 91L-3432-2
Misc: 5.0ML
Quant Time: 911112 14:22 Quant ID File: ID_VCA::D2
Injected at: 911112 13:31 Last Calibration: 911029 17:27

Compound No: 16
Compound Name: 1,2-Dichloroethane-d4
Scan Number: 294
Retention Time: 11.85 min.
Quant Ion: 65.0
Area: 67287
Concentration: 50.43 ug/L
q-value: 82

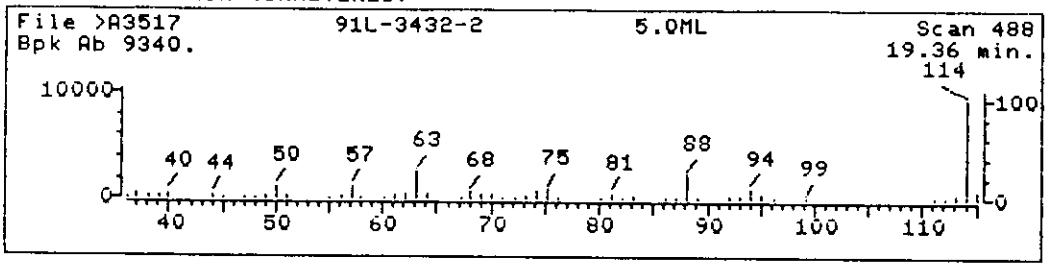
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



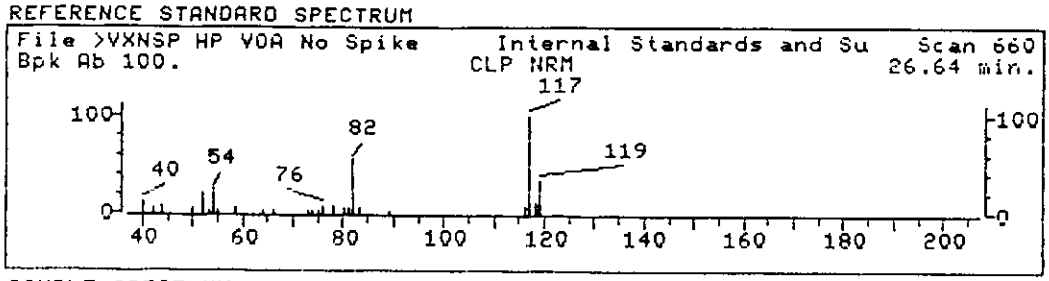
SAMPLE SPECTRUM (UNALTERED)



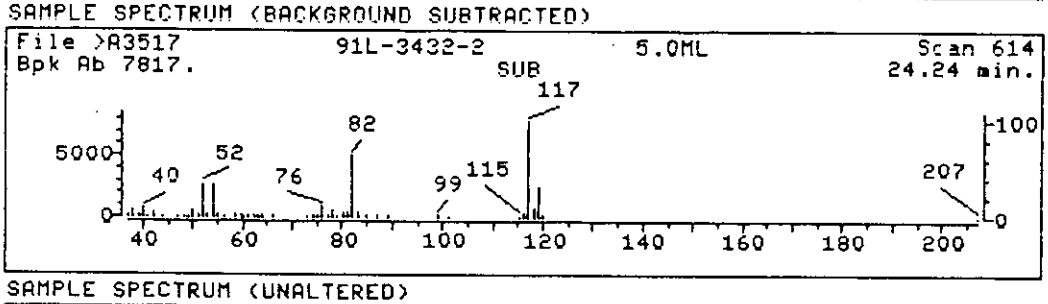
Data File: >A3517::D4 Quant Output File: ^A3517::D1
Name: 91L-3432-2
Misc: 5.0ML
Quant Time: 911112 14:22 Quant ID File: ID_VOA::D2
Injected at: 911112 13:31 Last Calibration: 911029 17:27

Compound No: 23 (ISTD)
Compound Name: 1,4-Difluorobenzene
Scan Number: 488
Retention Time: 19.36 min.
Quant Ion: 114.0
Area: 116563
Concentration: 50.00 ug/L
q-value: 69

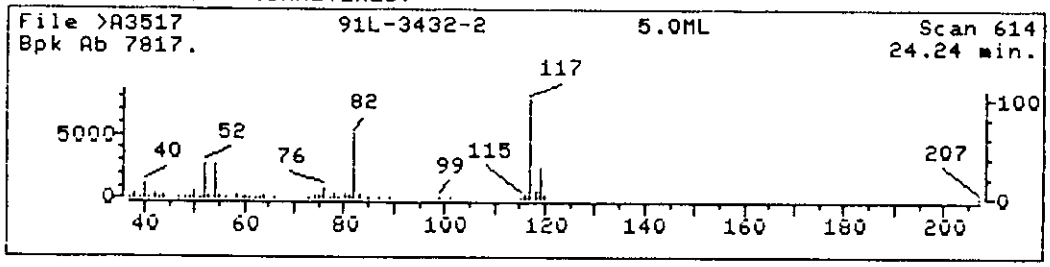
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

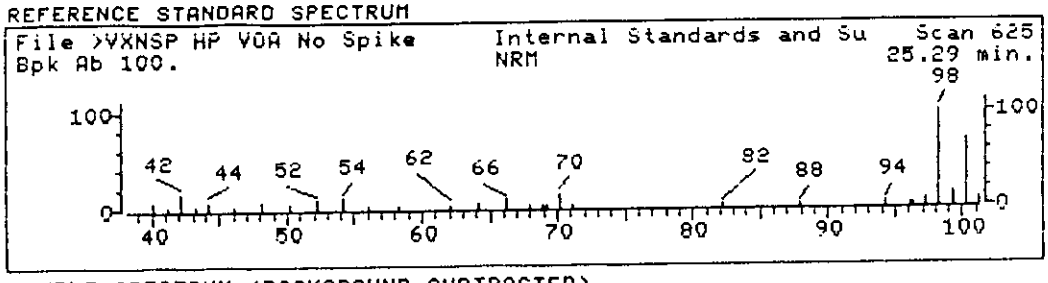


Data File: >A3517::D4
Name: 91L-3432-2
Misc: 5.0ML
Quant Time: 911112 14:22
Injected at: 911112 13:31

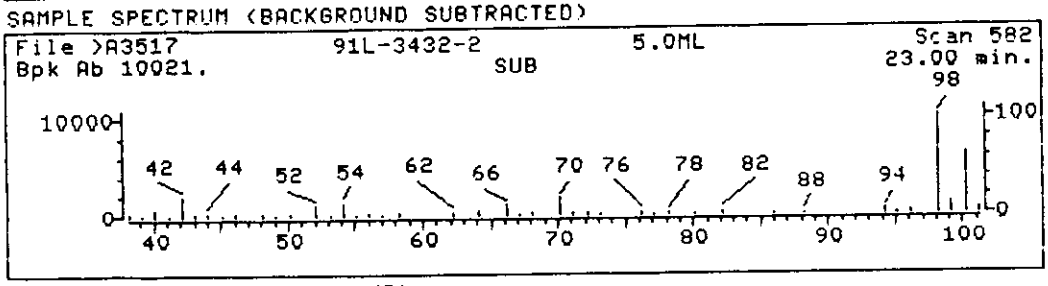
Quant Output File: ^A3517::D1
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 33 (ISTD)
Compound Name: Chlorobenzene-d5
Scan Number: 614
Retention Time: 24.24 min.
Quant Ion: 117.0
Area: 97212
Concentration: 50.00 ug/L
q-value: 93

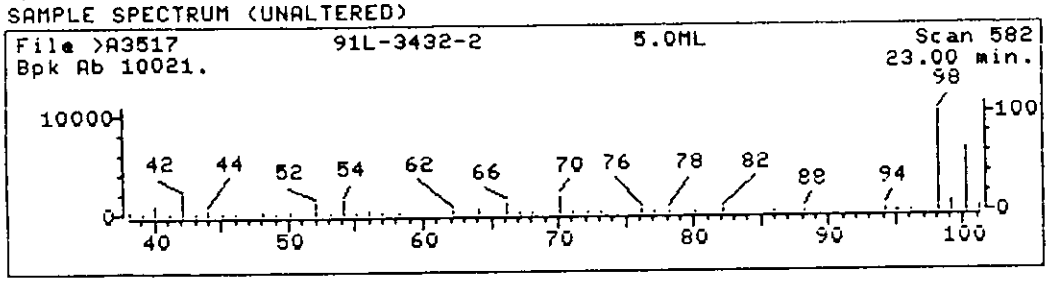
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



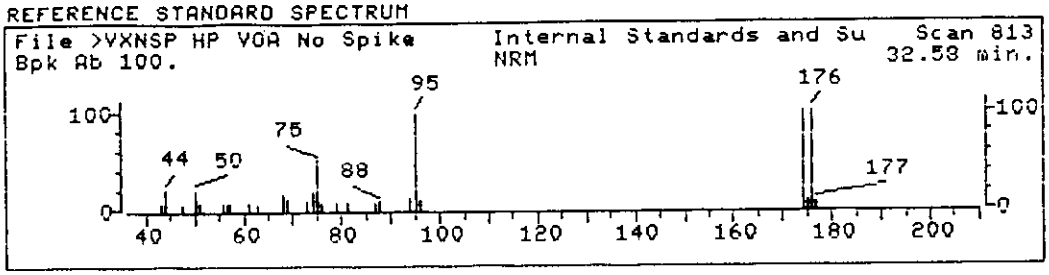
Data File: >A3517::D4
Name: 91L-3432-2
Misc: 5.0ML
Quant Time: 911112 14:22
Injected at: 911112 13:31

Quant Output File: ^A3517::D1

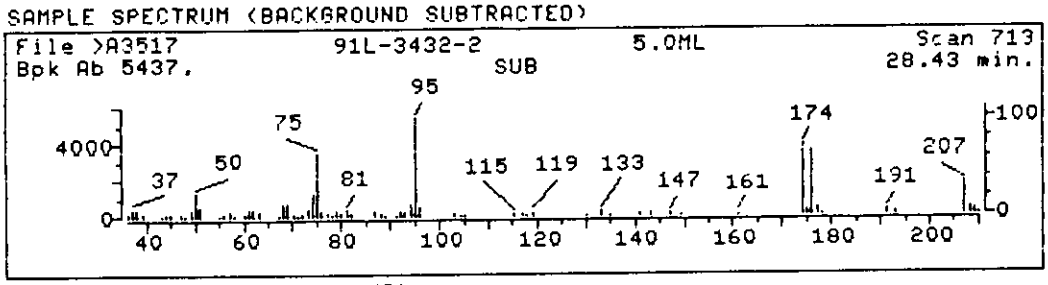
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 39
Compound Name: Toluene-d8
Scan Number: 582
Retention Time: 23.00 min.
Quant Ion: 98.0
Area: 126615
Concentration: 51.96 ug/L
q-value: 99

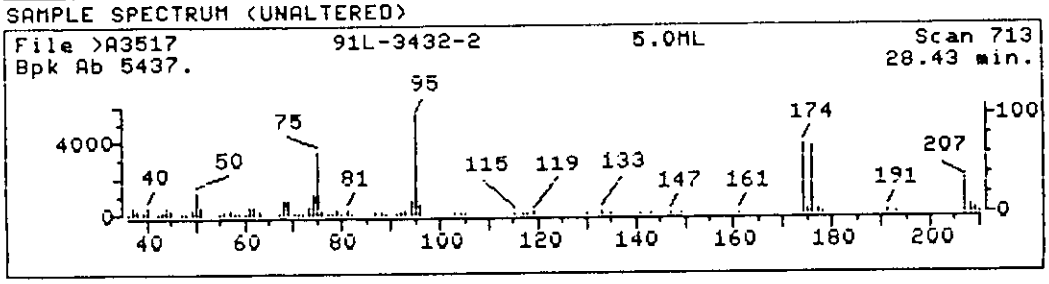
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >A3517::D4
Name: 91L-3432-2
Misc: 5.0ML
Quant Time: 911112 14:22
Injected at: 911112 13:31

Quant Output File: ^A3517::D1

Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 45
Compound Name: Bromofluorobenzene
Scan Number: 713
Retention Time: 28.43 min.
Quant Ion: 95.0
Area: 104032
Concentration: 51.18 ug/L
q-value: 91

QUANT REPORT

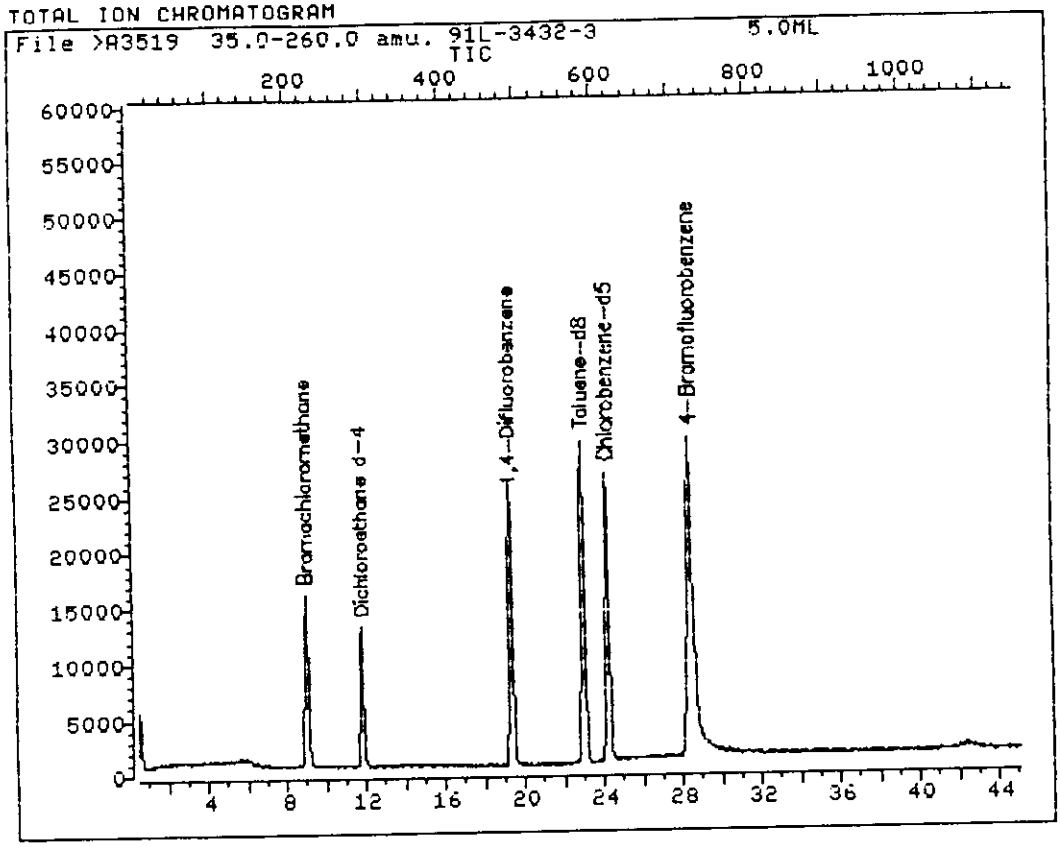
Operator ID: LAURA
Output File: ^A3519::D2
Data File: >A3519::D4
Name: 91L-3432-3
Misc: 5.0ML

Quant Rev: 6 Quant Time: 911112 16:26
Injected at: 911112 15:40
Dilution Factor: 1.00000

ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.02	221	23198	50.00	ug/L	91
16)	1,2-Dichloroethane-d4	11.84	294	62997	51.94	ug/L	81
23)	*1,4-Difluorobenzene	19.32	487	109368	50.00	ug/L	68
33)	*Chlorobenzene-d5	24.24	614	87828	50.00	ug/L	97
39)	Toluene-d8	23.00	582	119065	54.08	ug/L	98
45)	Bromofluorobenzene	28.42	722	94977	51.72	ug/L	89

* Compound is ISTD

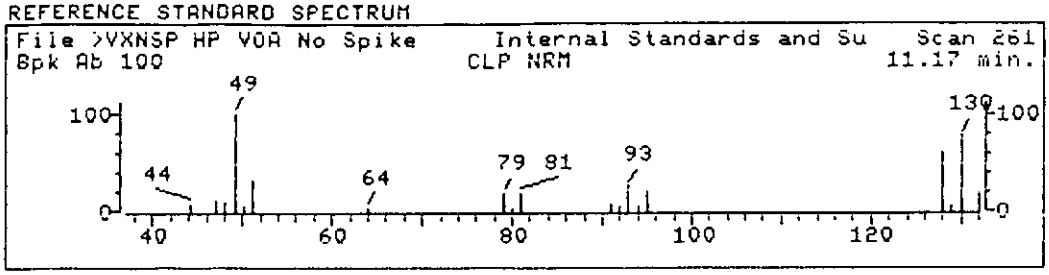


Data File: >A3519::D4 Quant Output File: ^A3519::D2
Name: 91L-3432-3
Misc: 5.0ML

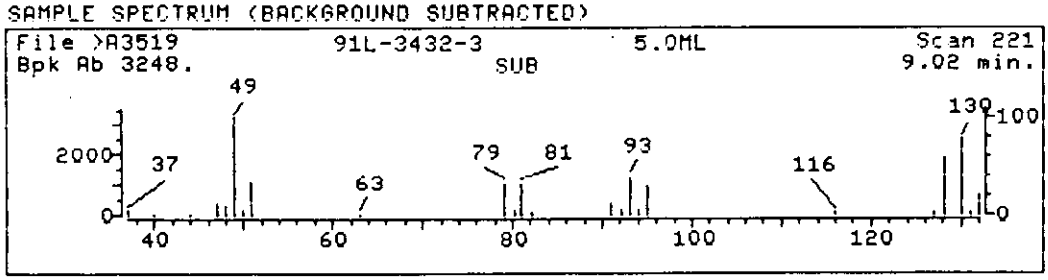
Id File: ID_VCA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

Operator ID: LAURA
Quant Time: 911112 16:26
Injected at: 911112 15:40

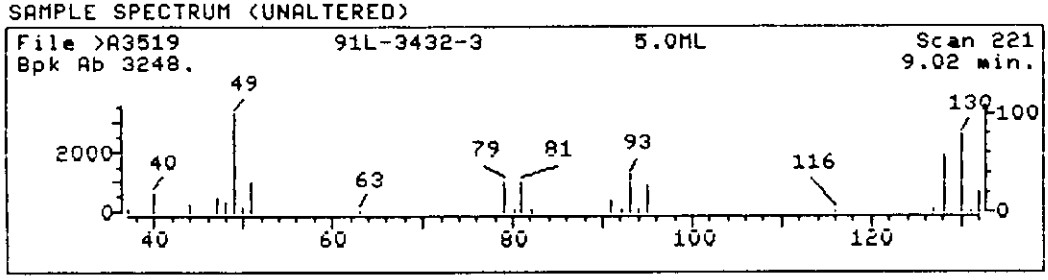
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



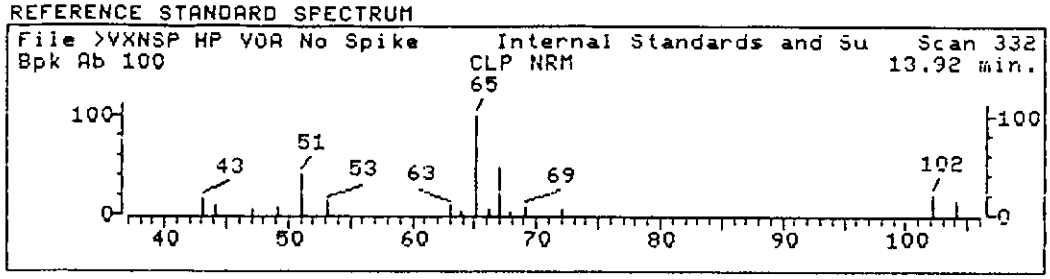
SAMPLE SPECTRUM (UNALTERED)



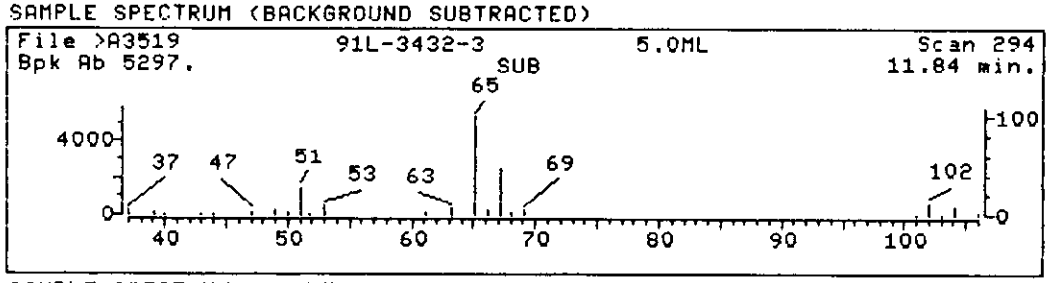
Data File: >A3519::D4 Quant Output File: ^A3519::D2
Name: 91L-3432-3
Misc: 5.0ML
Quant Time: 911112 16:26 Quant ID File: ID_VOA::D2
Injected at: 911112 15:40 Last Calibration: 911029 17:27

Compound No: 1 (ISTD)
Compound Name: Bromochloromethane
Scan Number: 221
Retention Time: 9.02 min.
Quant Ion: 128.0
Area: 23198
Concentration: 50.00 ug/L
q-value: 91

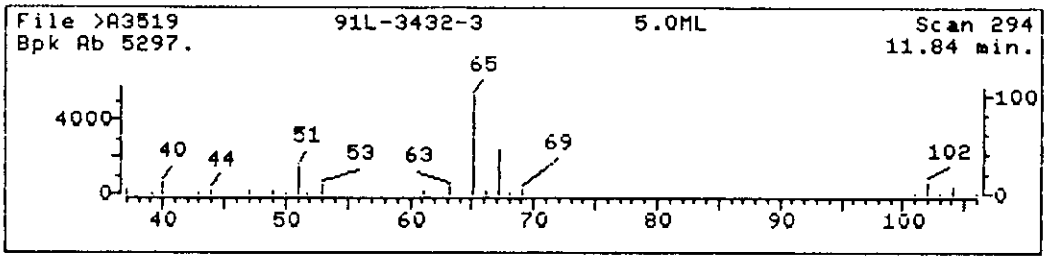
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



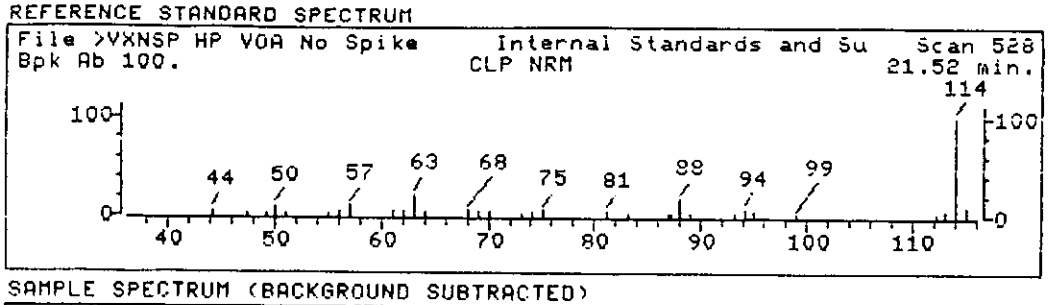
SAMPLE SPECTRUM (UNALTERED)



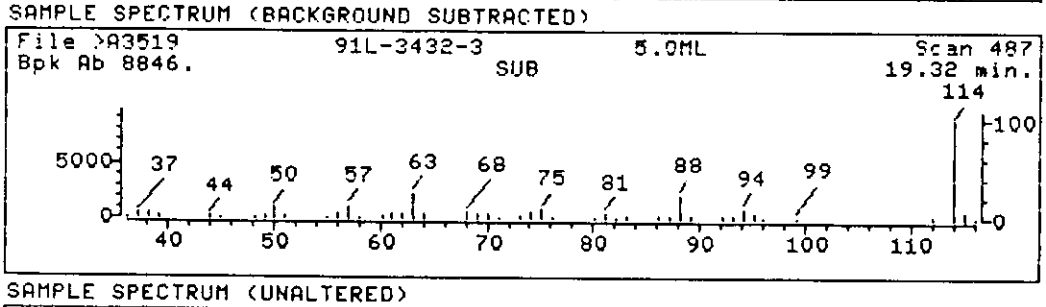
Data File: >A3519::D4 Quant Output File: ^A3519::D2
Name: 91L-3432-3
Misc: 5.0ML
Quant Time: 911112 16:26 Quant ID File: ID_VOA::D2
Injected at: 911112 15:40 Last Calibration: 911029 17:27

Compound No: 16
Compound Name: 1,2-Dichloroethane-d4
Scan Number: 294
Retention Time: 11.84 min.
Quant Ion: 65.0
Area: 62997
Concentration: 51.94 ug/L
q-value: 81

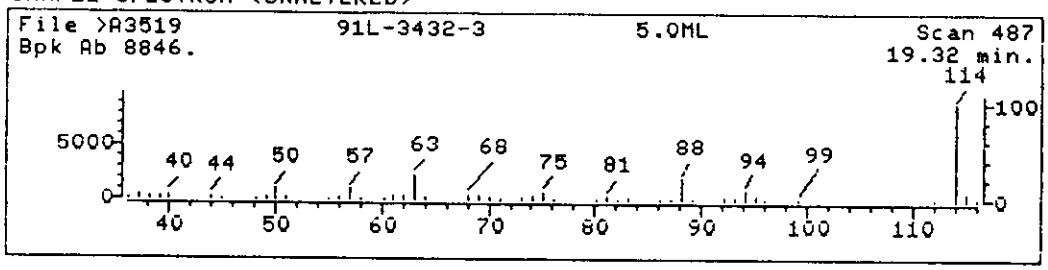
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



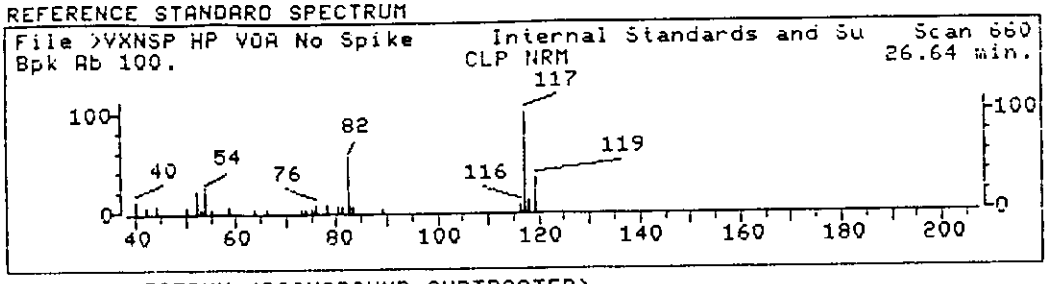
SAMPLE SPECTRUM (UNALTERED)



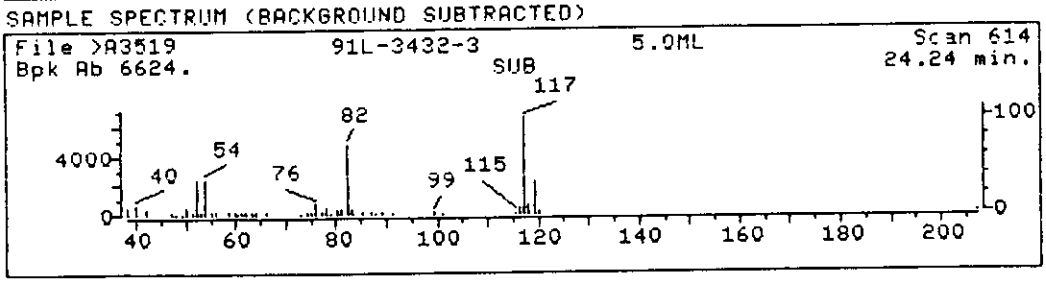
Data File: >A3519::D4 Quant Output File: ^A3519::D2
Name: 91L-3432-3
Misc: 5.0ML
Quant Time: 911112 16:26 Quant ID File: ID_VOA::D2
Injected at: 911112 15:40 Last Calibration: 911029 17:27

Compound No: 23 (ISTD)
Compound Name: 1,4-Difluorobenzene
Scan Number: 487
Retention Time: 19.32 min.
Quant Ion: 114.0
Area: 109368
Concentration: 50.00 ug/L
q-value: 68

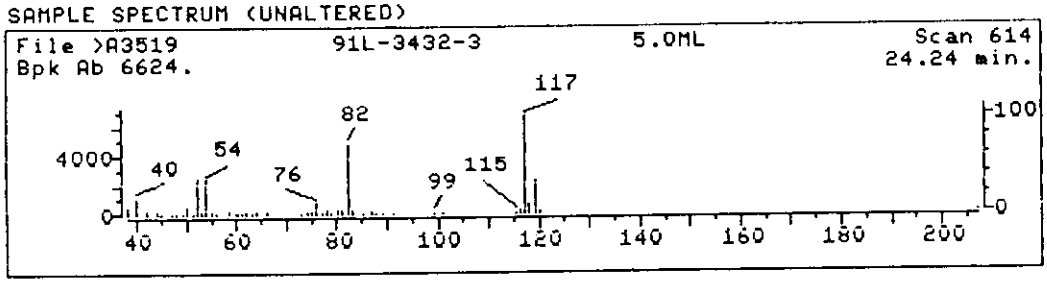
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



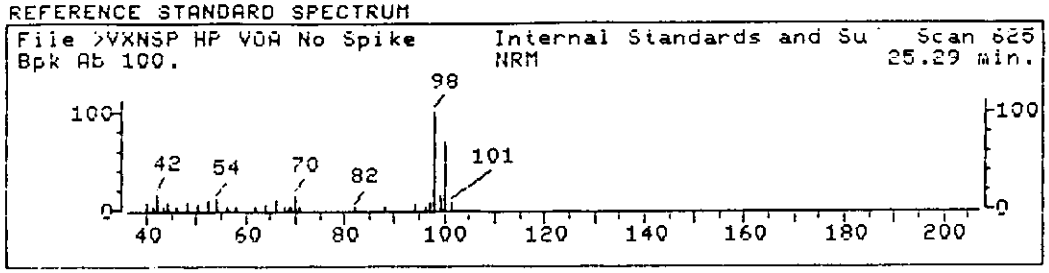
Data File: >A3519::D4
Name: 91L-3432-3
Misc: 5.0ML
Quant Time: 911112 16:26
Injected at: 911112 15:40

Quant Output File: ^A3519::D2

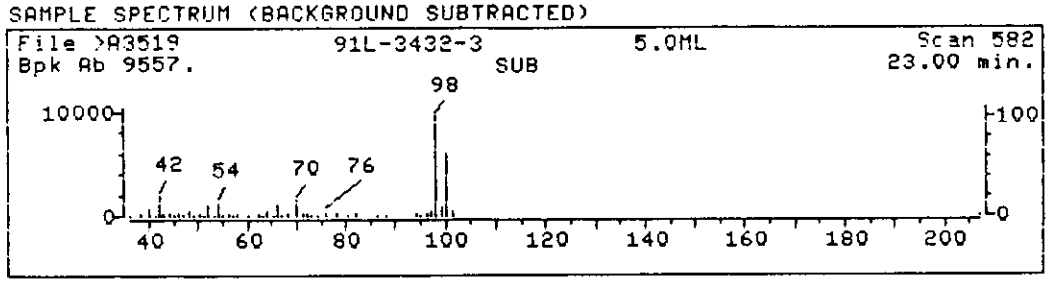
Quant ID File: ID_VOA::D2
Last Calibration: 911029 17:27

Compound No: 33 (ISTD)
Compound Name: Chlorobenzene-d5
Scan Number: 614
Retention Time: 24.24 min.
Quant Ion: 117.0
Area: 87828
Concentration: 50.00 ug/L
q-value: 97

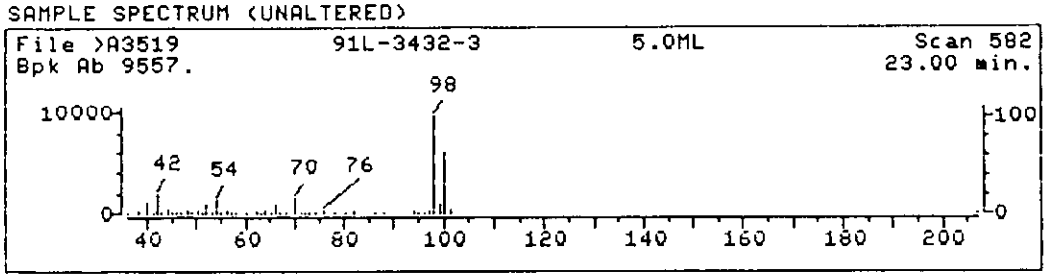
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



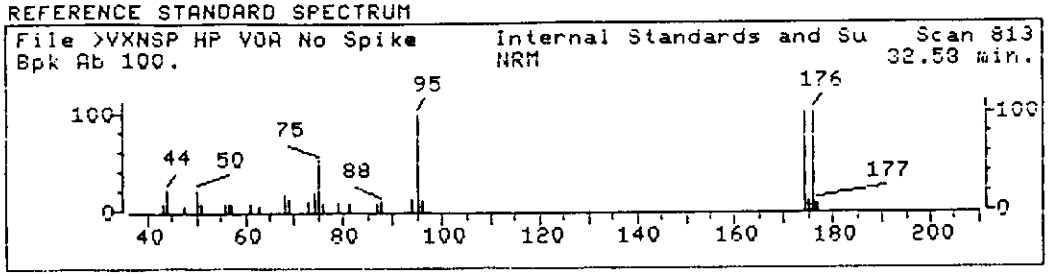
Data File: >A3519::D4
Name: 91L-3432-3
Misc: 5.0ML
Quant Time: 911112 16:26
Injected at: 911112 15:40

Quant Output File: ^A3519::D2

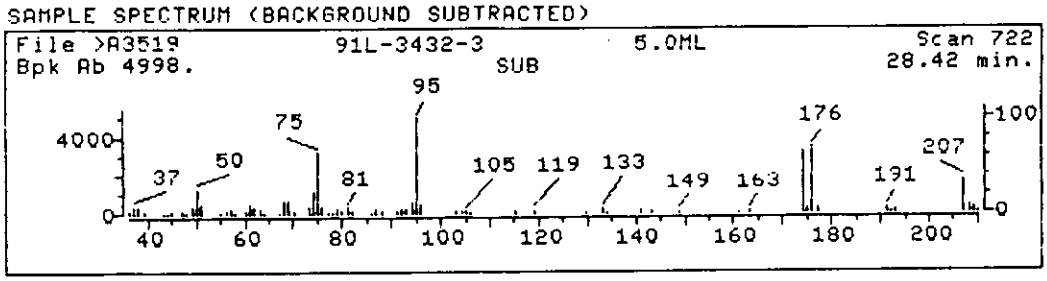
Quant ID File: ID_VOA::D2
Last Calibration: 911029 17:27

Compound No: 39
Compound Name: Toluene-d8
Scan Number: 582
Retention Time: 23.00 min.
Quant Ion: 98.0
Area: 119065
Concentration: 54.08 ug/L
q-value: 98

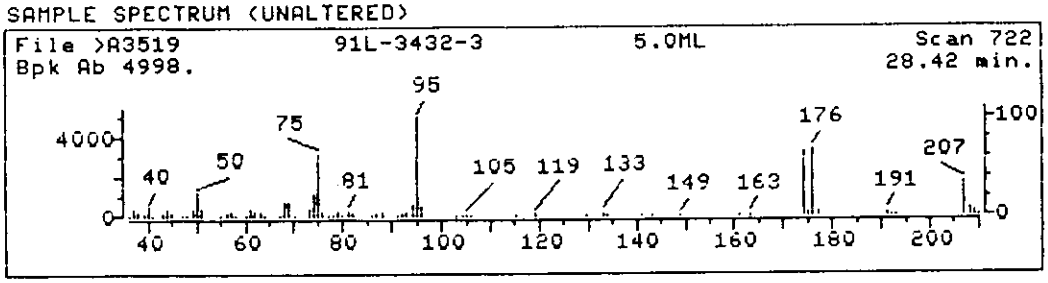
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >A3519::D4 Quant Output File: ^A3519::D2
Name: 91L-3432-3
Misc: 5.0ML
Quant Time: 911112 16:26 Quant ID File: ID_VOA::D2
Injected at: 911112 15:40 Last Calibration: 911029 17:27

Compound No: 45
Compound Name: Bromofluorobenzene
Scan Number: 722
Retention Time: 28.42 min.
Quant Ion: 95.0
Area: 94977
Concentration: 51.72 ug/L
q-value: 89

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-3432
Certification No. 03117
November 29, 1991

F. DATA SUMMARY PACKAGE (Continued)

3. Sample Data Package (Continued)

a. Volatile Organics by GC/MS (Continued)

3. Library Searches for Non-Target Compounds

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE UNKNOWN IDENTIFICATION

LAB SAMPLE ID:91L-3432-1 LAB FILE ID:>A3516

DATE RECEIVED:11/06/91 DATE ANALYZED:911112

SAMPLE WT/VOL:5.0ML LEVEL:LOW

COMPOUND	RET TIME	CONC
1.Unknown	32.20	16 ug/L J
2.Unknown	35.45	25 ug/L J
3.Unknown Aromatic	44.21	25 ug/L J

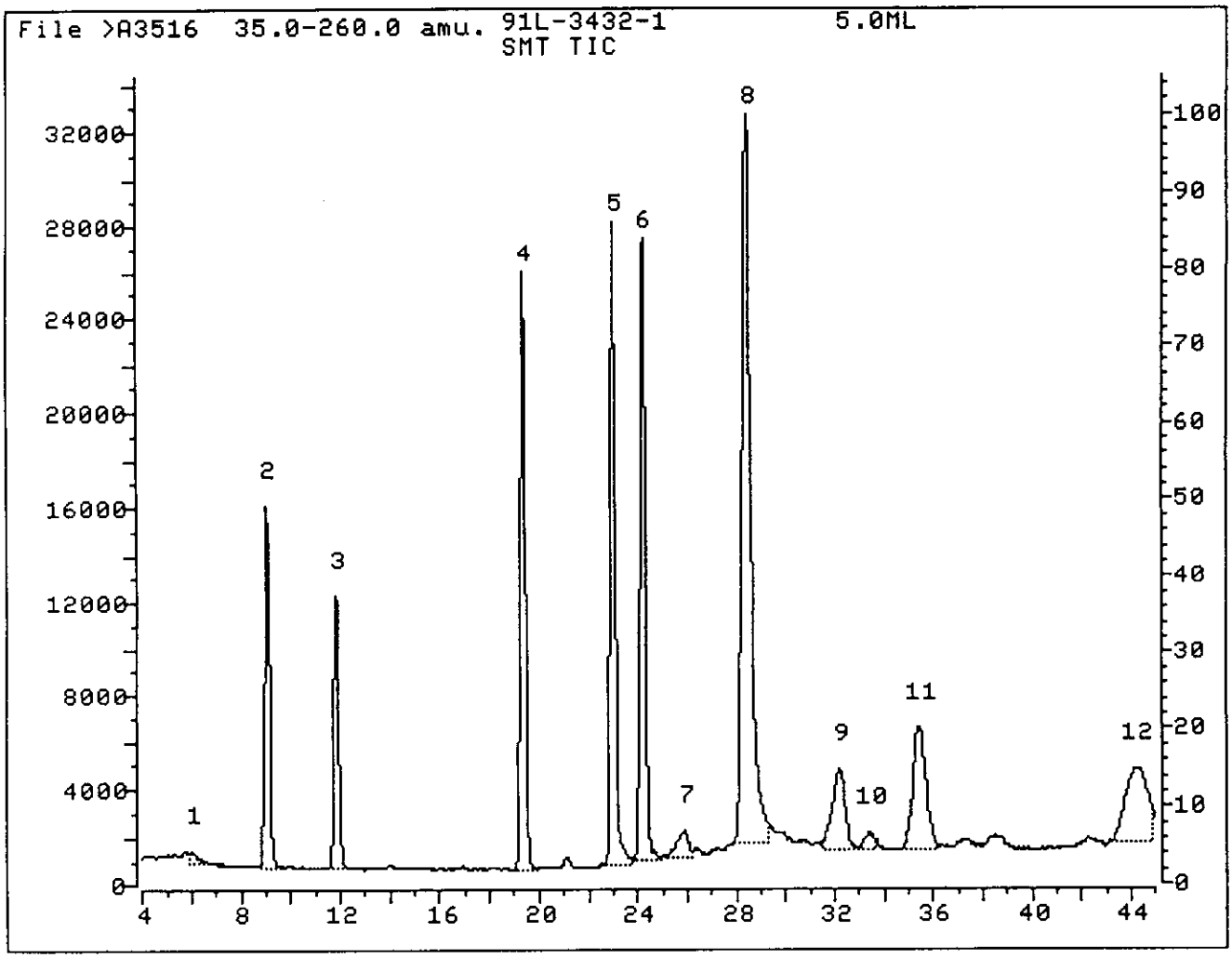
J; Estimated Concentration

SAMPLE INTEGRATION SUMMARY

SAMPLE NAME AND AMT: 91L-3432-1 5.0ML
SAMPLE DATA FILE: >A3516

PEAK NO.	RET. TIME	SCAN	AREA	IDENTIFICATION
1	6.01	143	11399	<10%
2	9.03	221	202380	IS
3	11.82	293	151871	SS
4	19.37	488	345823	IS
5	23.01	582	391521	SS
6	24.25	614	382497	IS
7	25.92	657	33757	<10%
8	28.44	722	768068	SS
9	32.20	819	119822	UK
10	33.44	851	17220	<10%
11	35.45	903	188119	UK
12	44.21	1129	191211	UK

IS = INTERNAL STANDARD
SS = SURROGATE
TC = TARGET COMPOUND
UK = UNKNOWN
<10% = UNKNOWN LESS THEN 10% OF INTERNAL STANDARD


File >A3516 35.0-260.0 amu. 91L-3432-1 5.0ML
SMT TIC
32000
28000
24000
20000
16000
12000
8000
4000
0
100
90
80
70
60
50
40
30
20
10
0
4
8
12
16
20
24
28
32
36
40
44
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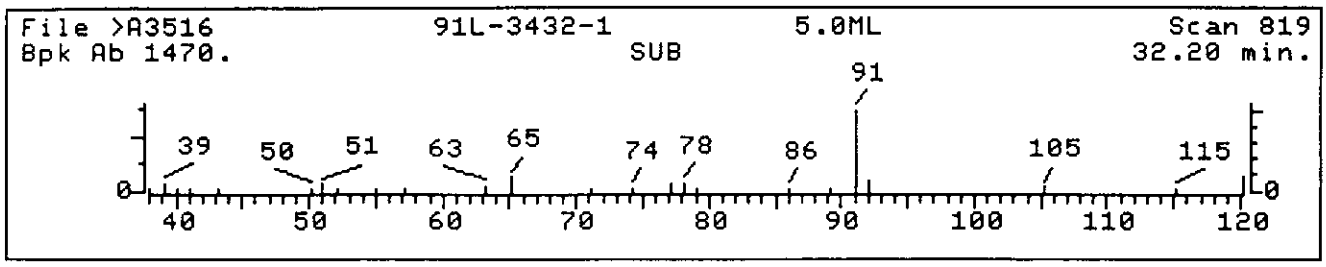
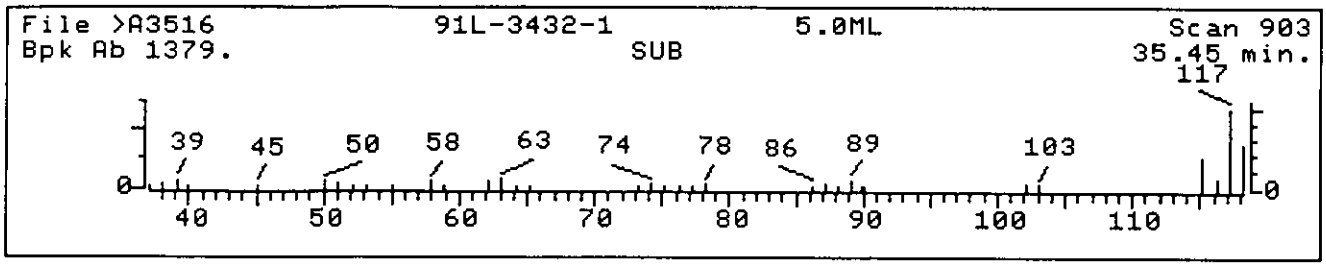
3
4
5
6
7
8
9
10
11
12



Sample file: >A3516 Spectrum #: 819

No data base entries were retrieved.

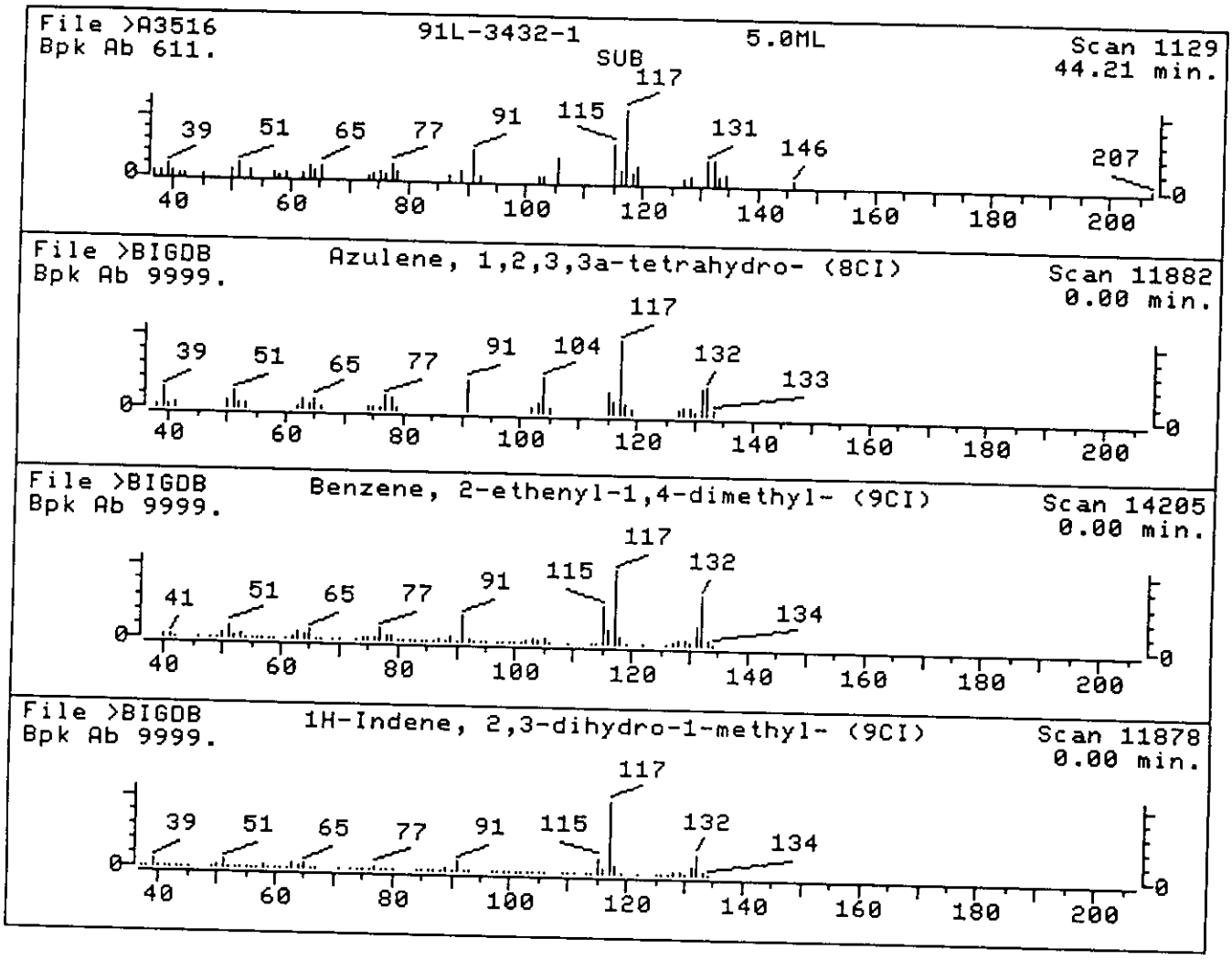
CORRECTED TOTAL ION AREA OF UNKNOWN = 119822
CORRECTED TOTAL ION AREA OF INTERNAL STANDARD = 382497
CONCENTRATION OF INTERNAL STD = 50 ug/L DILUTION FACTOR = 1
SEMI QUANTITATION OF UNKNOWN = 16 ug/L



Sample file: >A3516 Spectrum #: 903

No data base entries were retrieved.

CORRECTED TOTAL ION AREA OF UNKNOWN = 188119
CORRECTED TOTAL ION AREA OF INTERNAL STANDARD = 382497
CONCENTRATION OF INTERNAL STD = 50 ug/L DILUTION FACTOR = 1
SEMI QUANTITATION OF UNKNOWN = 25 ug/L



1.	Azulene, 1,2,3,3a-tetrahydro- (8CI)	132 C10H12
2.	Benzene, 2-ethenyl-1,4-dimethyl- (9CI)	132 C10H12
3.	1H-Indene, 2,3-dihydro-1-methyl- (9CI)	132 C10H12
4.	Benzofuran, 2-methyl- (8CI9CI)	132 C9H8O
5.	1H-Indene, 2,3-dihydro-5-methyl- (9CI)	132 C10H12

Sample file: >A3516 Spectrum #: 1129
Search speed: 1 Tilting option: S No. of ion ranges searched: 61

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	62*	33877871	11882	"BIGDB	69	45	2	0	77	29	25	49
2.	43	2039896	14205	"BIGDB	71	36	3	0	100	21	17	14
3.	33*	767588	11878	"BIGDB	44	53	2	1	100	33	12	16
4.	32*	4265252	14211	"BIGDB	49	41	2	3	35	45	12	23
5.	28*	874351	14199	"BIGDB	44	62	2	0	67	38	10	14

CORRECTED TOTAL ION AREA OF UNKNOWN = 191211
CORRECTED TOTAL ION AREA OF INTERNAL STANDARD = 382497
CONCENTRATION OF INTERNAL STD = 50 ug/L DILUTION FACTOR = 1
SEMI QUANTITATION OF UNKNOWN = 25 ug/L

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE UNKNOWN IDENTIFICATIION

LAB SAMPLE ID:91L-3432-2 LAB FILE ID:>A3517

DATE RECEIVED:11/06/91 DATE ANALYZED:911112

SAMPLE WT/VOL:5.0ML LEVEL:LOW

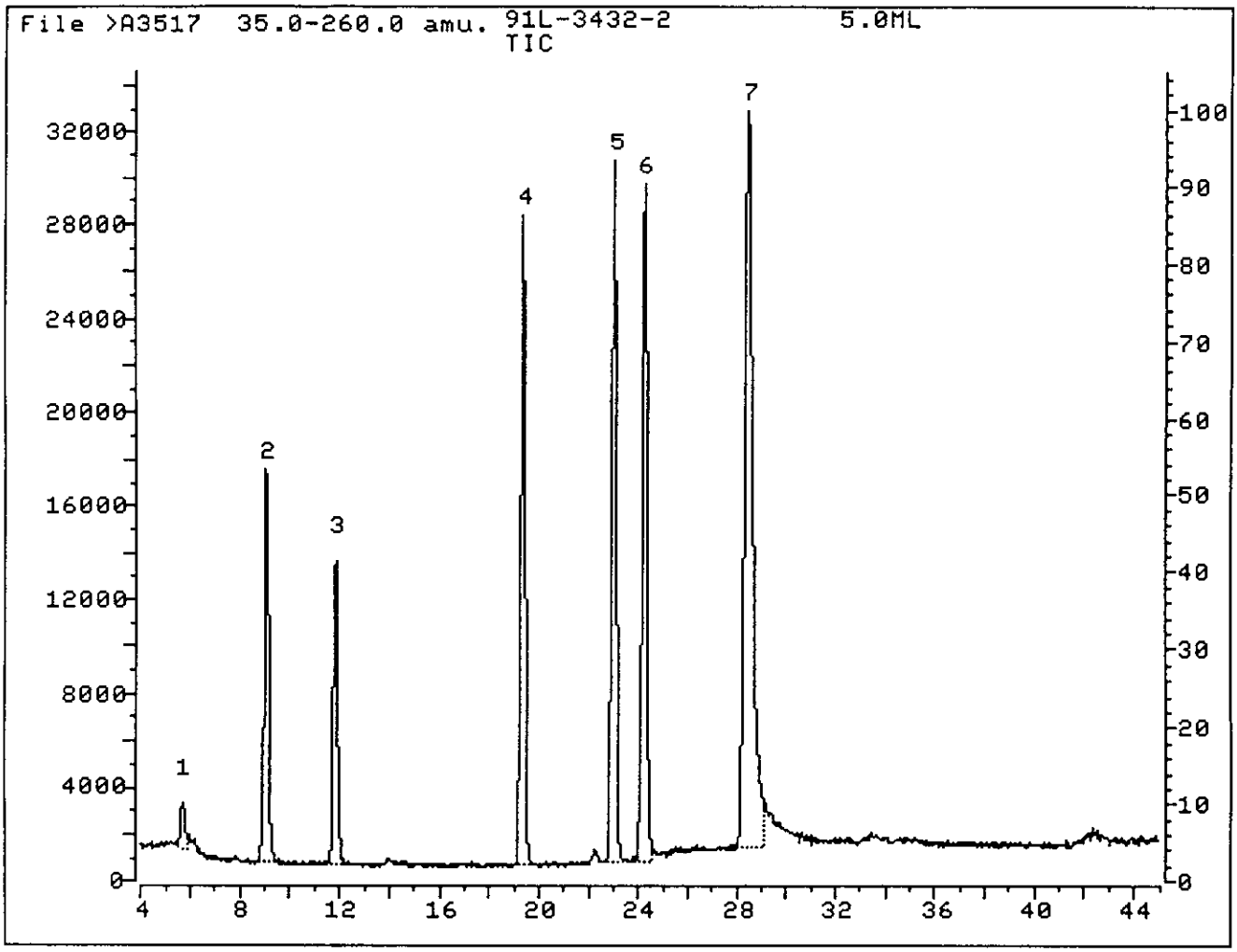
COMPOUND	RET TIME(MIN)	CONC
NONE FOUND		

SAMPLE INTEGRATION SUMMARY

SAMPLE NAME AND AMT: 91L-3432-2 5.0ML
SAMPLE DATA FILE: >A3517

PEAK NO.	RET. TIME	SCAN	AREA	IDENTIFICATION
1	5.69	135	25612	TC
2	9.02	221	205082	IS
3	11.85	294	157362	SS
4	19.36	488	333741	IS
5	23.00	582	381475	SS
6	24.24	614	379266	IS
7	28.43	713	724360	SS

IS = INTERNAL STANDARD
SS = SURROGATE
TC = TARGET COMPOUND
UK = UNKNOWN
<10% = UNKNOWN LESS THEN 10% OF INTERNAL STANDARD


File >A3517 35.0-260.0 amu. 91L-3432-2 5.0ML
TIC
32000
28000
24000
20000
16000
12000
8000
4000
0
100
90
80
70
60
50
40
30
20
10
0
4
8
12
16
20
24
28
32
36
40
44
1
2
3
4
5
6
7

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE UNKNOWN IDENTIFICATIION

LAB SAMPLE ID:91L-3432-3

LAB FILE ID:>A3519

DATE RECEIVED:11/06/91

DATE ANALYZED:911112

SAMPLE WT/VOL:5.0ML

LEVEL:LOW

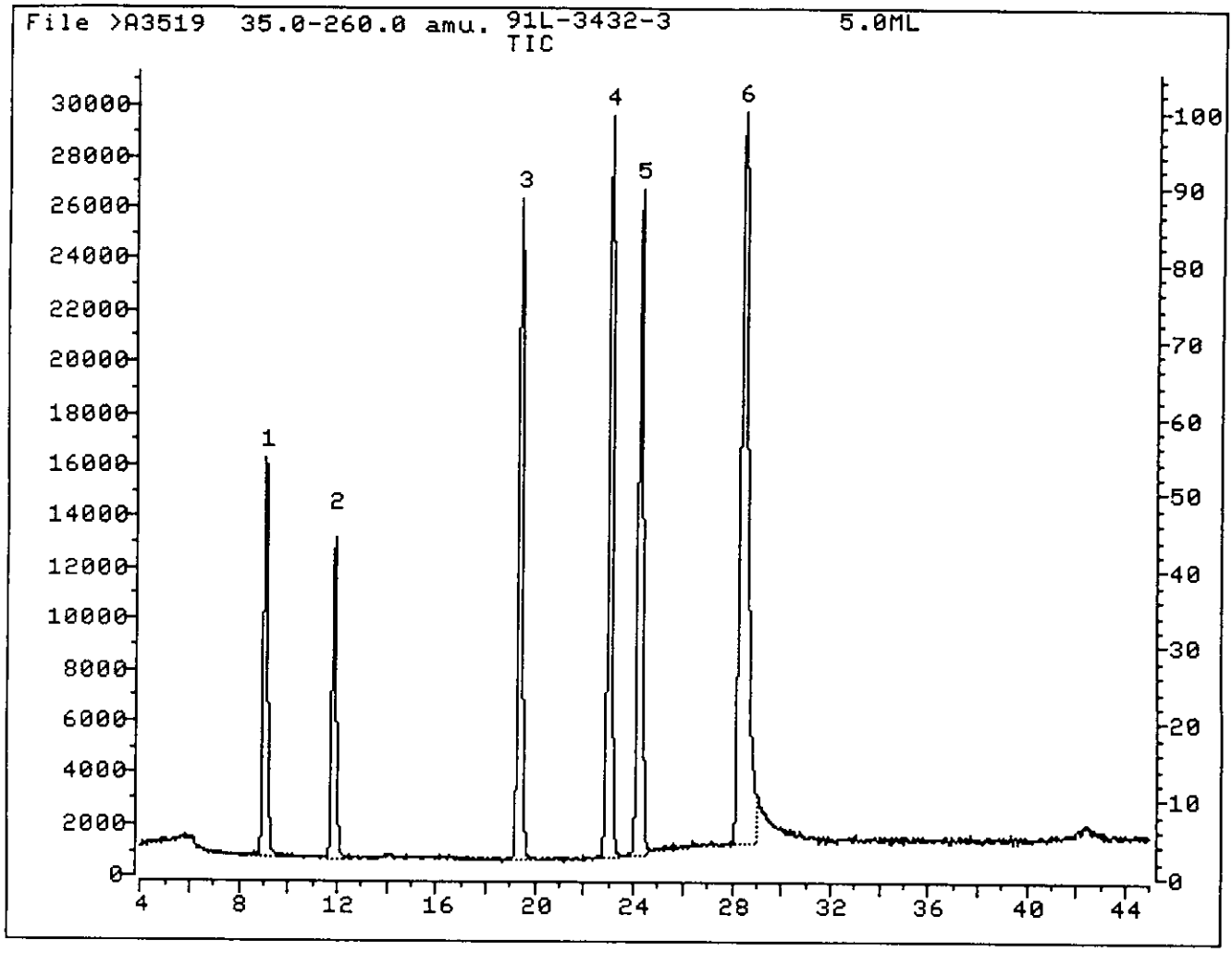
COMPOUND	RET TIME(MIN)	CONC
NONE FOUND		

SAMPLE INTEGRATION SUMMARY

SAMPLE NAME AND AMT: 91L-3432-3 5.0ML
SAMPLE DATA FILE: >A3519

PEAK NO.	RET. TIME	SCAN	AREA	IDENTIFICATION
1	9.02	221	191201	IS
2	11.84	294	149251	SS
3	19.36	488	312320	IS
4	23.00	582	361059	SS
5	24.24	614	341836	IS
6	28.42	722	644710	SS

IS = INTERNAL STANDARD
SS = SURROGATE
TC = TARGET COMPOUND
UK = UNKNOWN
<10% = UNKNOWN LESS THEN 10% OF INTERNAL STANDARD


File >A3519 35.0-260.0 amu. 91L-3432-3 5.0ML
TIC
30000
28000
26000
24000
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
100
90
80
70
60
50
40
30
20
10
0
4
8
12
16
20
24
28
32
36
40
44
1
2
3
4
5
6

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-3432
Certification No. 03117
November 29, 1991

G. STANDARDS DATA PACKAGE

1. Volatile Organics by GC/MS (Continued)

a. Initial Calibration Data

Calibration Report

Title: HP VOA Standards for 5 Point Calibration Curve
Calibrated: 911029 17:23

Compound	Files: >A3280 RF 20.00	>A3275 RF 50.00	>A3276 RF 100.00	>A3277 RF 150.00	>A3278 RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	
Chloromethane	.61314	.59874	.61832	.66773	.60210	.141	.62001	4.491	
Bromomethane	1.24852	1.31449	1.30680	1.41762	1.26121	.229	1.30973	5.089	
Vinyl Chloride	.82996	.81813	.82345	.90642	.79693	.297	.83498	5.008	
Chloroethane	.55636	.60726	.59674	.62709	.60179	.400	.59785	4.331	
Methylene Chloride	1.15458	1.18490	1.20341	1.23425	1.18645	.626	1.19272	2.442	
Acrolein	.05006	.08564	.07656	.07753	.08387	.712	.07473	19.185	
Acrylonitrile	.09358	.10453	.10306	.10134	.10567	.792	.10164	4.709	
Acetone	.14975	.14639	.13795	.13905	.14023	.713	.14267	3.596	
Carbon Disulfide	2.10377	2.24151	2.30317	2.42110	2.30575	.790	2.27506	5.085	
Trichlorofluoromethane	6.34454	6.31823	6.89528	6.92054	6.68487	.856	6.63270	4.373	
1,1-Dichloroethene	1.32213	1.36851	1.43436	1.44682	1.40721	.941	1.39581	3.652	
1,1-Dichloroethane	2.84451	2.82917	3.05269	3.07003	3.01051	1.087	2.96138	3.912	
Trans-1,2-Dichloroethene	1.24590	1.32430	1.36148	1.38042	1.35574	1.171	1.33357	3.974	
Chloroform	4.33191	4.33101	4.65031	4.67608	4.50250	1.240	4.49836	3.693	
1,2-Dichloroethane-d4	2.57666	2.38648	2.69050	2.73451	2.68265	1.311	2.61416	5.350	
1,2-Dichloroethane	2.73409	2.59567	2.83586	2.80474	2.78883	1.322	2.75184	3.444	
2-Butanone	.24046	.21041	.22902	.22621	.23355	1.314	.22793	4.903	
1,1,1-Trichloroethane	4.22882	4.39535	4.71721	4.70804	4.55544	1.458	4.52097	4.637	
Carbon Tetrachloride	4.30610	4.39528	4.89146	4.95884	4.85595	1.501	4.68152	6.534	
Vinyl Acetate	1.43979	1.43453	1.55802	1.61428	1.64902	1.527	1.53913	6.406	
Bromodichloromethane	4.13262	4.06562	4.45238	4.39804	4.43256	1.571	4.29624	4.249	
1,2-Dichloropropane	.34474	.33528	.35883	.35242	.35391	.800	.34904	2.637	
cis-1,3-Dichloropropene	.59198	.60367	.63333	.62003	.63944	.815	.61769	3.219	(Conc=32.4,81.0,162.0,243.0,324.0
Trichloroethene	.43573	.45787	.48044	.46348	.46557	.843	.46062	3.522	
Dibromochloromethane	.55902	.57327	.59985	.58953	.60919	.879	.58617	3.446	
1,1,2-Trichloroethane	.28157	.27712	.28616	.27793	.28265	.883	.28108	1.309	
Benzene	.74243	.73734	.77739	.78276	.78509	.867	.76500	3.028	
trans-1,3-Dichloropropene	.50600	.51466	.54639	.55429	.55918	.882	.53610	4.507	(Conc=8.0,19.0,38.0,57.0,76.0)
2-Chloroethylvinylether	.12896	.12657	.13217	.13230	.13746	.936	.13149	3.123	
Bromoform	.42891	.45220	.46712	.45837	.48772	1.018	.45886	4.678	
2-Hexanone	.14374	.12351	.11594	.12372	.13458	.891	.12830	8.489	
4-Methyl-2-Pentanone	.18354	.18417	.18691	.18622	.19806	.828	.18778	3.149	
Tetrachloroethene	.51763	.54587	.54243	.53842	.52288	.905	.53345	2.336	
1,1,2,2-Tetrachloroethane	.43573	.44315	.43390	.43062	.43585	.907	.43585	1.054	
Toluene	.65604	.67489	.68930	.69097	.66182	.957	.67860	2.085	
Toluene-d8	1.19778	1.19783	1.28858	1.31359	1.26669	.949	1.25333	4.237	
Chlorobenzene	.93336	.96350	.98075	1.00743	.96055	1.005	.96912	2.819	
Ethylbenzene	.43380	.46389	.46350	.45593	.45049	1.080	.45361	2.719	
Styrene	.87147	.93850	.90685	.92858	.91418	1.222	.91588	3.018	

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

Calibration Report

Title: HP VOA Standards for 5 Point Calibration Curve
Calibrated: 911029 17:23

Compound	Files: >A3280 RF 20.00	>A3275 RF 50.00	>A3276 RF 100.00	>A3277 RF 150.00	>A3278 RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	
m&p Xylenes	.26271	.28051	.28251	.27934	.28166	1.232	.27735	2.981	(Conc=40.0,100.0,200.0,300.0,400
O-Xylenes	.97507	1.08608	1.09493	1.09133	1.10276	1.267	1.07003	4.994	
Bromofluorobenzene	1.02751	.99500	1.06442	1.08037	1.06033	1.172	1.04553	3.267	
1,3-Dichlorobenzene	1.02949	1.04762	1.10501	1.06516	1.07763	1.403	1.06498	2.706	
1,2 &1,4-Dichlorobenzenes	1.03046	1.04299	1.08112	1.04501	1.08605	1.459	1.05712	2.351	(Conc=40.0,100.0,200.0,300.0,400

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

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-3432
Certification No. 03117
November 29, 1991

G. STANDARDS DATA PACKAGE (Continued)

1. Volatile Organics by GC/MS (Continued)

b. Continuing Calibration Data

Calibration Check Report

Title: HP VOA Standards for 5 Point Calibration Curve
Calibrated: 911029 17:23

Check Standard Data File: >A3513
Injection Time: 911112 08:56

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
Chloromethane	.62001	.62556	.90	Average	
Bromomethane	1.30973	1.34241	2.50	Average	
Vinyl Chloride	.83498	.84471	1.16	Average	
Chloroethane	.59785	.63004	5.38	Average	
Methylene Chloride	1.19272	1.22732	2.90	Average	
Acrolein	.07473	.06915	7.47	Average	
Acrylonitrile	.10164	.09571	5.83	Average	
Acetone	.14267	.16192	13.49	Average	
Carbon Disulfide	2.27506	2.33333	2.56	Average	
Trichlorofluoromethane	6.63270	6.89037	3.88	Average	
1,1-Dichloroethene	1.39581	1.45256	4.07	Average	
1,1-Dichloroethane	2.96138	3.05141	3.04	Average	
Trans-1,2-Dichloroethene	1.33357	1.39102	4.31	Average	
Chloroform	4.49836	4.56086	1.39	Average	
1,2-Dichloroethane-d4	2.61416	2.68696	2.78	Average	
1,2-Dichloroethane	2.75184	2.70248	1.79	Average	
2-Butanone	.22793	.23594	3.51	Average	
1,1,1-Trichloroethane	4.52097	4.52217	.03	Average	
Carbon Tetrachloride	4.68152	4.68195	.01	Average	
Vinyl Acetate	1.53913	1.39968	9.06	Average	
Bromodichloromethane	4.29624	4.23117	1.51	Average	
1,2-Dichloropropane	.34904	.36400	4.29	Average	
cis-1,3-Dichloropropene	.61769	.57494	6.92	Average	(Conc=81.00)
Trichloroethene	.46062	.46663	1.31	Average	
Dibromochloromethane	.58617	.54881	6.37	Average	
1,1,2-Trichloroethane	.28108	.27906	.72	Average	
Benzene	.76500	.80515	5.25	Average	
trans-1,3-Dichloropropene	.53610	.50230	6.31	Average	(Conc=19.00)
2-Chloroethylvinylether	.13149	.11149	15.21	Average	
Bromoform	.45886	.40760	11.17	Average	
2-Hexanone	.12830	.10792	15.88	Average	
4-Methyl-2-Pentanone	.18778	.17965	4.33	Average	
Tetrachloroethene	.53345	.53299	.08	Average	
1,1,2,2-Tetrachloroethane	.43585	.41003	5.92	Average	
Toluene	.67860	.69680	2.68	Average	
Toluene-d8	1.25333	1.29530	3.35	Average	
Chlorobenzene	.96912	.97994	1.12	Average	
Ethylbenzene	.45361	.46293	2.05	Average	
Styrene	.91588	.93491	2.08	Average	
m&p Xylenes	.27735	.28587	3.07	Average	(Conc=100.00)

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

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

%Diff - % Difference from original average or curve

Calibration Check Report

Title: HP VOA Standards for 5 Point Calibration Curve
Calibrated: 911029 17:23

Check Standard Data File: >A3513
Injection Time: 911112 08:56

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
O-Xylenes	1.07003	1.10609	3.37	Average	
Bromofluorobenzene	1.04553	1.07837	3.14	Average	
1,3-Dichlorobenzene	1.06498	1.05402	1.03	Average	
1,2 &1,4-Dichlorobenzenes	1.05712	1.04933	.74	Average	(Conc=100.00)

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

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

%Diff - % Difference from original average or curve

Calibration Check Report

Title: HP VOA Standards for 5 Point Calibration Curve
Calibrated: 911029 17:23

Check Standard Data File: >A3525
Injection Time: 911112 21:19

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
Chloromethane	.62001	.65722	6.00	Average	
Bromomethane	1.30973	1.31888	.70	Average	
Vinyl Chloride	.83498	.83433	.08	Average	
Chloroethane	.59785	.64200	7.38	Average	
Methylene Chloride	1.19272	1.25657	5.35	Average	
Acrolein	.07473	.05498	26.43	Average	
Acrylonitrile	.10164	.10812	6.38	Average	
Acetone	.14267	.14692	2.98	Average	
Carbon Disulfide	2.27506	2.33153	2.48	Average	
Trichlorofluoromethane	6.63270	6.91250	4.22	Average	
1,1-Dichloroethene	1.39581	1.45843	4.49	Average	
1,1-Dichloroethane	2.96138	3.22541	8.92	Average	
Trans-1,2-Dichloroethene	1.33357	1.44874	8.64	Average	
Chloroform	4.49836	4.82132	7.18	Average	
1,2-Dichloroethane-d4	2.61416	2.88231	10.26	Average	
1,2-Dichloroethane	2.75184	2.89260	5.12	Average	
2-Butanone	.22793	.24732	8.51	Average	
1,1,1-Trichloroethane	4.52097	4.64801	2.81	Average	
Carbon Tetrachloride	4.68152	4.92199	5.14	Average	
Vinyl Acetate	1.53913	1.48126	3.76	Average	
Bromodichloromethane	4.29624	4.48586	4.41	Average	
1,2-Dichloropropane	.34904	.39235	12.41	Average	
cis-1,3-Dichloropropene	.61769	.62332	.91	Average	(Conc=81.00)
Trichloroethene	.46062	.47671	3.49	Average	
Dibromochloromethane	.58617	.58780	.28	Average	
1,1,2-Trichloroethane	.28108	.30521	8.58	Average	
Benzene	.76500	.86613	13.22	Average	
trans-1,3-Dichloropropene	.53610	.51605	3.74	Average	(Conc=19.00)
2-Chloroethylvinylether	.13149	.12024	8.56	Average	
Bromoform	.45886	.43122	6.02	Average	
2-Hexanone	.12830	.12421	3.19	Average	
4-Methyl-2-Pentanone	.18778	.19569	4.21	Average	
Tetrachloroethene	.53345	.53605	.49	Average	
1,1,2,2-Tetrachloroethane	.43585	.47140	8.16	Average	
Toluene	.67860	.72512	6.85	Average	
Toluene-d8	1.25333	1.32949	6.08	Average	
Chlorobenzene	.96912	1.01800	5.04	Average	
Ethylbenzene	.45361	.47664	5.08	Average	
Styrene	.91588	.92524	1.02	Average	
m&p Xylenes	.27735	.29592	6.70	Average	(Conc=100.00)

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

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

%Diff - % Difference from original average or curve

Calibration Check Report

Title: HP VOA Standards for 5 Point Calibration Curve
Calibrated: 911029 17:23

Check Standard Data File: >A3525
Injection Time: 911112 21:19

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
O-Xylenes	1.07003	1.13487	6.06	Average	
Bromofluorobenzene	1.04553	1.14342	9.36	Average	
1,3-Dichlorobenzene	1.06498	1.13985	7.03	Average	
1,2 &1,4-Dichlorobenzenes	1.05712	1.12688	6.60	Average	(Conc=100.00)

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

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

%Diff - % Difference from original average or curve

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-3432
Certification No. 03117
November 29, 1991

G. STANDARDS DATA PACKAGE (Continued)

1. Volatile Organics by GC/MS (Continued)

c. Chromatograms and Quantitation Reports of Standards

QUANT REPORT

Operator ID: MALOS Quant Rev: 6 Quant Time: 911029 17:10
Output File: ^A3280::D2 Injected at: 911029 16:12
Data File: >A3280::D1 Dilution Factor: 1.00000
Name: 20UG/L HSL CAL CHK
Misc:

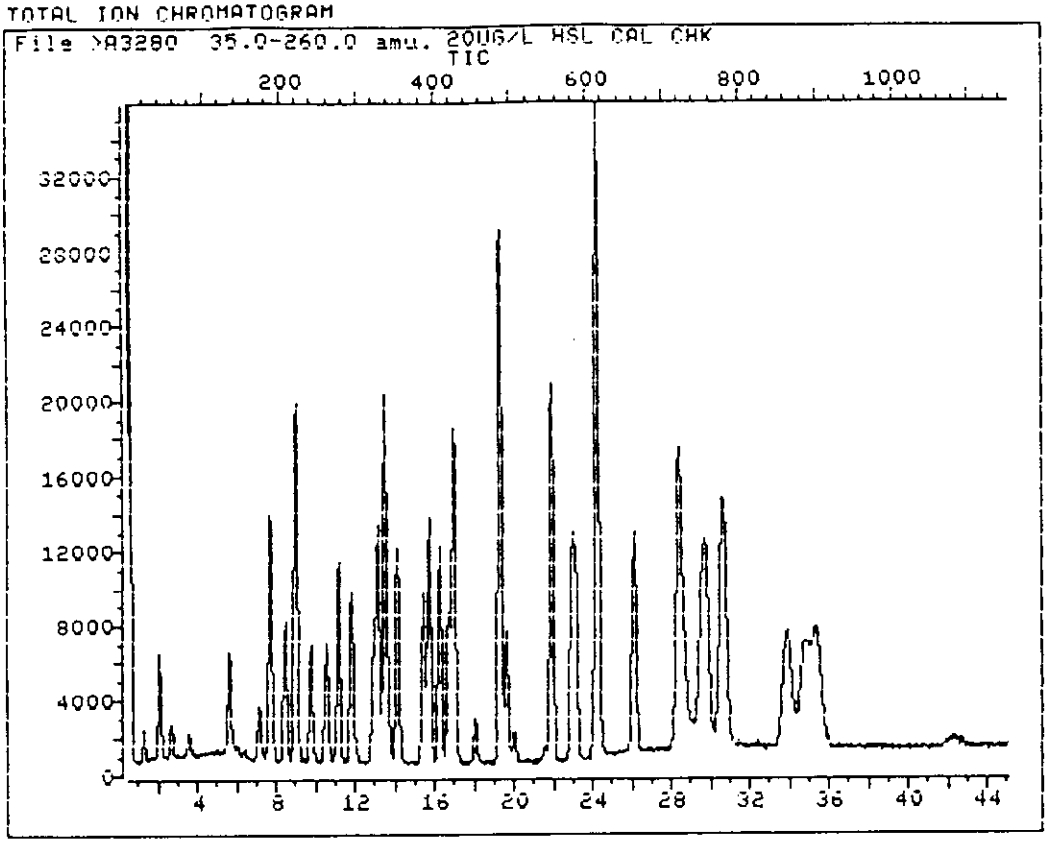
ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 910912 17:18

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.02	221	28664	50.00	ug/L	92
2)	Chloromethane	1.27	21	7030	9.44	ug/L	89
3)	Bromomethane	2.08	42	14315	15.06	ug/L	88
4)	Vinyl Chloride	2.67	57	9516	12.33	ug/L	97
5)	Chloroethane	3.59	81	6379	13.98	ug/L	94
6)	Methylene Chloride	5.65	134	13238	19.94	ug/L	84
7)	Acrolein	6.42	154	574M	14.15	ug/L	
8)	Acrylonitrile	7.16	173	1073M	9.78	ug/L	
9)	Acetone	6.38	153	1717	15.71	ug/L	85
10)	Carbon Disulfide	7.16	173	24121	11.09	ug/L	100
11)	Trichlorofluoromethane	7.70	187	72744	31.54	ug/L	95
12)	1,1-Dichloroethene	8.48	207	15159	24.41	ug/L	90
13)	1,1-Dichloroethane	9.79	241	32614	21.20	ug/L	97
14)	Trans-1,2-Dichloroethene	10.57	261	14285	20.46	ug/L	87
15)	Chloroform	11.19	277	49668	23.44	ug/L	99
16)	1,2-Dichloroethane-d4	11.81	293	29543	22.79	ug/L	81
17)	1,2-Dichloroethane	11.92	296	31348	20.15	ug/L	97
18)	2-Butanone	11.81	293	2757	11.61	ug/L	98
19)	1,1,1-Trichloroethane	13.12	327	48486	24.25	ug/L	77
20)	Carbon Tetrachloride	13.51	337	49372	24.88	ug/L	89
21)	Vinyl Acetate	13.74	343	16508	11.87	ug/L	76
22)	Bromodichloromethane	14.13	353	47383	20.90	ug/L	88
23)	*1,4-Difluorobenzene	19.32	487	122049	50.00	ug/L	69
24)	1,2-Dichloropropane	15.45	387	16830	16.92	ug/L	95
25)	cis-1,3-Dichloropropene	15.72	394	46818	28.03	ug/L	94
26)	Trichloroethene	16.26	408	21272	20.29	ug/L	92
27)	Dibromochloromethane	16.96	426	27291	17.06	ug/L	98
28)	1,1,2-Trichloroethane	17.04	428	13746	15.89	ug/L	90
29)	Benzene	16.73	420	36245	17.20	ug/L	86
30)	trans-1,3-Dichloropropene	17.04	428	9881	6.41	ug/L	90
31)	2-Chloroethylvinylether	18.08	455	6296	12.64	ug/L	85
32)	Bromoform	19.67	496	20939	14.38	ug/L	90
33)	*Chlorobenzene-d5	24.20	613	100824M	50.00	ug/L	
34)	2-Hexanone	21.57	545	5797	12.06	ug/L	90
35)	4-Methyl-2-Pentanone	20.02	505	7402	9.76	ug/L	89
36)	Tetrachloroethene	21.92	554	20876	21.72	ug/L	95
37)	1,1,2,2-Tetrachloroethane	21.96	555	17573M	12.41	ug/L	
38)	Toluene	23.16	586	26458M	18.53	ug/L	
39)	Toluene-d8	22.96	581	48306M	22.95	ug/L	
40)	Chlorobenzene	24.32	616	37642M	19.23	ug/L	
41)	Ethylbenzene	26.14	663	17495M	19.32	ug/L	
42)	Styrene	29.55	751	35146M	18.43	ug/L	
43)	m&p Xylenes	29.82	758	21190M	38.79	ug/L	

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	O-Xylenes	30.64	729	39324	18.00	ug/L	85
45)	Bromofluorobenzene	28.35	720	41439M	21.56	ug/L	
46)	1,3-Dichlorobenzene	33.97	865	41519	20.62	ug/L	91
47)	1,2 &1,4-Dichlorobenzenes	35.29	899	83116M	39.36	ug/L	91

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A3280::D1 Quant Output File: ^A3280::D2
Name: 20UG/L HSL CAL CHK
Misc:

Id File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 910912 17:18

Operator ID: MALOS
Quant Time: 911029 17:10
Injected at: 911029 16:12

QUANT REPORT

Operator ID: MALOS
Output File: ^A3275::D4
Data File: >A3275::D2
Name: 50UG/L HSL CAL CHK
Misc:

Quant Rev: 6 Quant Time: 911029 10:49
Injected at: 911029 09:48
Dilution Factor: 1.00000

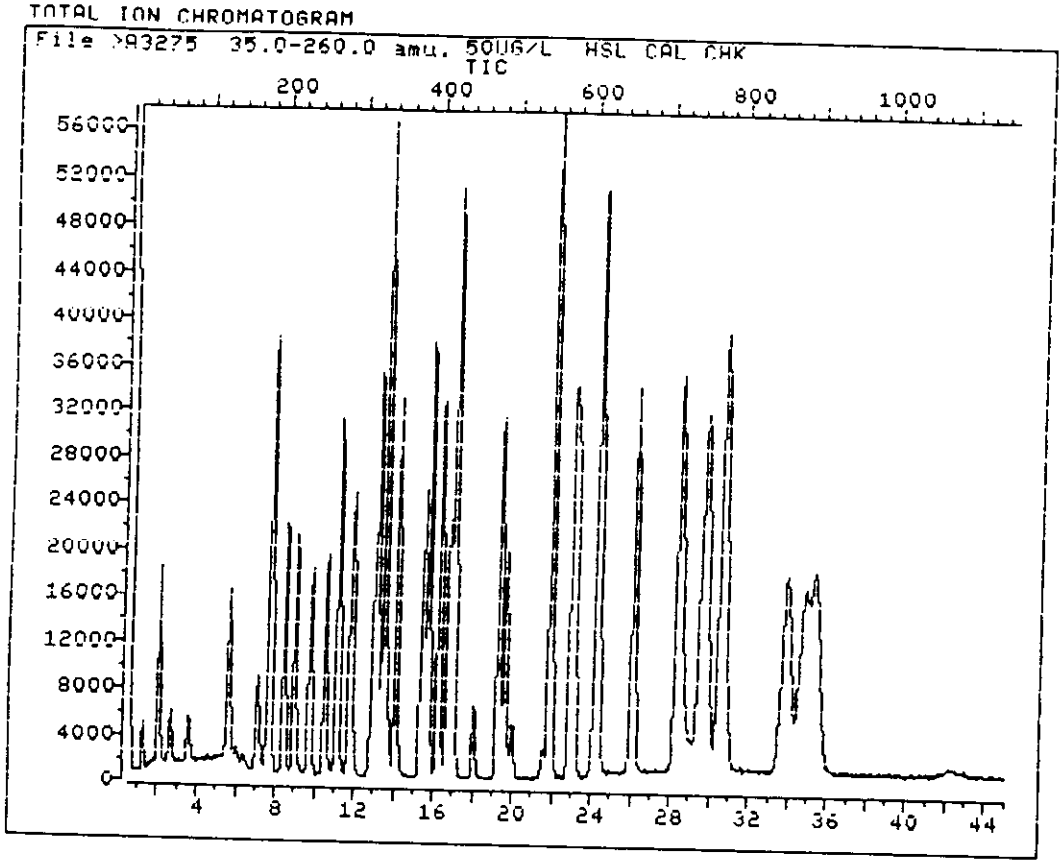
ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 910912 17:18

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.00	220	32612	50.00	ug/L	98
2)	Chloromethane	1.25	20	19526	23.04	ug/L	91
3)	Bromomethane	2.07	41	42868	39.65	ug/L	84
4)	Vinyl Chloride	2.69	57	26681	30.39	ug/L	95
5)	Chloroethane	3.62	81	19804	38.15	ug/L	98
6)	Methylene Chloride	5.63	133	38642	51.16	ug/L	82
7)	Acrolein	6.41	153	2793	60.52	ug/L	62
8)	Acrylonitrile	7.14	172	3409	27.32	ug/L	91
9)	Acetone	6.41	153	4774	38.40	ug/L	67
10)	Carbon Disulfide	7.10	171	73100	29.54	ug/L	100
11)	Trichlorofluoromethane	7.72	187	206050	78.53	ug/L	99
12)	1,1-Dichloroethene	8.46	206	44630	63.18	ug/L	90
13)	1,1-Dichloroethane	9.78	240	92265	52.71	ug/L	95
14)	Trans-1,2-Dichloroethene	10.55	260	43188	54.38	ug/L	90
15)	Chloroform	11.17	276	141243	58.59	ug/L	91
16)	1,2-Dichloroethane-d4	11.29	292	77828	52.78	ug/L	83
17)	1,2-Dichloroethane	11.91	295	84650	47.82	ug/L	99
18)	2-Butanone	11.83	293	6862	25.41	ug/L	99
19)	1,1,1-Trichloroethane	13.11	326	143341	63.01	ug/L	76
20)	Carbon Tetrachloride	13.50	336	143339	63.48	ug/L	82
21)	Vinyl Acetate	13.73	342	46783	29.56	ug/L	73
22)	Bromodichloromethane	14.16	353	132588	51.40	ug/L	98
23)	*1,4-Difluorobenzene	19.27	485	135282	50.00	ug/L	68
24)	1,2-Dichloropropane	15.44	386	45357	41.15	ug/L	94
25)	cis-1,3-Dichloropropene	15.71	393	132298	71.46	ug/L	96
26)	Trichloroethene	16.29	408	61942	53.31	ug/L	93
27)	Dibromochloromethane	16.95	425	77553	43.73	ug/L	97
28)	1,1,2-Trichloroethane	17.02	427	37489	39.11	ug/L	90
29)	Benzene	16.71	419	99749	42.71	ug/L	85
30)	trans-1,3-Dichloropropene	17.02	427	26457	15.48	ug/L	95
31)	2-Chloroethylvinylether	18.07	454	17122	31.00	ug/L	99
32)	Bromoform	19.62	494	61174	37.90	ug/L	96
33)	*Chlorobenzene-d5	24.19	612	110932	50.00	ug/L	99
34)	2-Hexanone	21.56	544	13701	25.91	ug/L	91
35)	4-Methyl-2-Pentanone	20.01	504	20430	24.48	ug/L	88
36)	Tetrachloroethene	21.91	553	60554	57.27	ug/L	97
37)	1,1,2,2-Tetrachloroethane	21.95	554	49159M	31.55	ug/L	
38)	Toluene	23.15	585	74867	47.67	ug/L	94
39)	Toluene-d8	22.95	580	132878	57.37	ug/L	98
40)	Chlorobenzene	24.31	615	106883	49.62	ug/L	97
41)	Ethylbenzene	26.13	662	51460	51.65	ug/L	99
42)	Styrene	29.54	250	104110	49.61	ug/L	89

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	O-Xylenes	30.71	780	120481	50.12	ug/L	87
45)	Bromofluorobenzene	28.38	720	110377	52.21	ug/L	91
46)	1,3-Dichlorobenzene	33.92	863	116215M	52.47	ug/L	
47)	1,2 &1,4-Dichlorobenzenes	35.28	898	231402M	99.59	ug/L	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A3275::D2
Name: 50UG/L HSL CAL CHK
Misc:

Quant Output File: ^A3275::D4

Id File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 910912 17:18

Operator ID: MALOS
Quant Time: 911029 10:49
Injected at: 911029 09:48

QUANT REPORT

Operator ID: MALOS
Output File: ^A3276::D4
Data File: >A3276::D2
Name: 100UG/L HSL CAL CHK
Misc:

Quant Rev: 6 Quant Time: 911029 11:44
Injected at: 911029 10:51
Dilution Factor: 1.00000

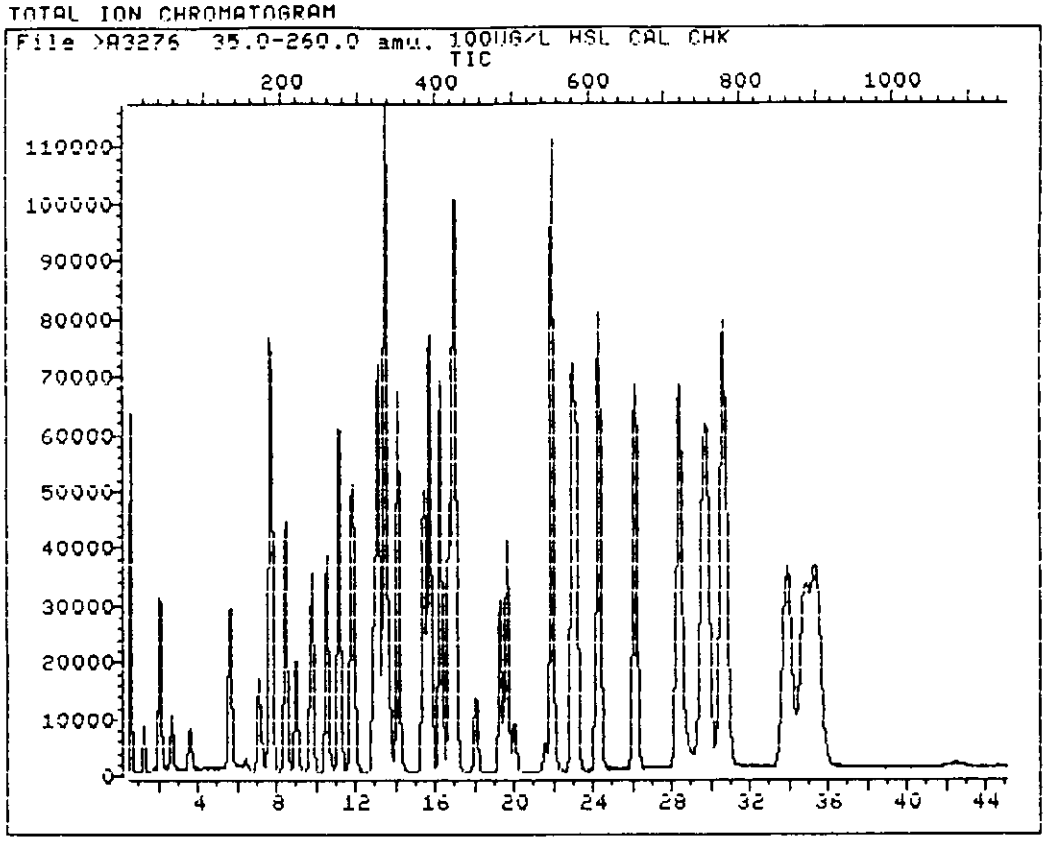
ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 910912 17:18

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	8.99	220	30583	50.00	ug/L	97
2)	Chloromethane	1.28	21	37820	47.59	ug/L	92
3)	Bromomethane	2.05	41	79932	78.84	ug/L	88
4)	Vinyl Chloride	2.67	57	50367	61.18	ug/L	94
5)	Chloroethane	3.60	81	36500	74.97	ug/L	97
6)	Methylene Chloride	5.62	133	73608	103.91	ug/L	79
7)	Acrolein	6.43	154	4683	108.20	ug/L	64
8)	Acrylonitrile	7.13	172	6304	53.87	ug/L	87
9)	Acetone	6.43	154	8438	72.37	ug/L	74
10)	Carbon Disulfide	7.13	172	140876	60.70	ug/L	100
11)	Trichlorofluoromethane	7.71	187	421757	171.41	ug/L	99
12)	1,1-Dichloroethene	8.49	207	87734	132.44	ug/L	89
13)	1,1-Dichloroethane	9.80	241	186721	113.75	ug/L	93
14)	Trans-1,2-Dichloroethene	10.54	260	83276	111.81	ug/L	85
15)	Chloroform	11.16	276	284441	125.83	ug/L	94
16)	1,2-Dichloroethane-d4	11.82	293	164567	119.00	ug/L	83
17)	1,2-Dichloroethane	11.90	295	173458	104.48	ug/L	98
18)	2-Butanone	11.86	294	14008	55.31	ug/L	96
19)	1,1,1-Trichloroethane	13.14	327	288533	135.24	ug/L	79
20)	Carbon Tetrachloride	13.52	337	299191	141.29	ug/L	88
21)	Vinyl Acetate	13.76	343	95298	64.21	ug/L	73
22)	Bromodichloromethane	14.14	353	272334	112.59	ug/L	92
23)	*1,4-Difluorobenzene	19.30	486	131346	50.00	ug/L	69
24)	1,2-Dichloropropane	15.46	387	94261	88.08	ug/L	92
25)	cis-1,3-Dichloropropene	15.73	394	269521	149.94	ug/L	96
26)	Trichloroethene	16.28	408	126208	111.88	ug/L	92
27)	Dibromochloromethane	16.97	426	157576	91.51	ug/L	94
28)	1,1,2-Trichloroethane	17.05	428	75172	80.76	ug/L	91
29)	Benzene	16.74	420	204213	90.06	ug/L	89
30)	trans-1,3-Dichloropropene	17.01	427	54542	32.88	ug/L	96
31)	2-Chloroethylvinylether	18.06	454	34719	64.75	ug/L	98
32)	Bromoform	19.65	495	122710	78.30	ug/L	99
33)	*Chlorobenzene-d5	24.18	612	109494	50.00	ug/L	97
34)	2-Hexanone	21.58	545	25390	48.65	ug/L	85
35)	4-Methyl-2-Pentanone	20.03	505	40930	49.69	ug/L	86
36)	Tetrachloroethene	21.89	553	118785	113.81	ug/L	95
37)	1,1,2,2-Tetrachloroethane	21.93	554	95019M	61.79	ug/L	
38)	Toluene	23.13	585	150949	97.37	ug/L	98
39)	Toluene-d8	22.94	580	282183	123.43	ug/L	98
40)	Chlorobenzene	24.30	615	214772	101.01	ug/L	94
41)	Ethylbenzene	26.12	662	101501	103.21	ug/L	93
42)	Styrene	29.57	751	198589	95.87	ug/L	84

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	O-Xylenes	30.65	779	239777	101.05	ug/L	85
45)	Bromofluorobenzene	28.37	720	233095	111.70	ug/L	91
46)	1,3-Dichlorobenzene	33.91	863	241983M	110.68	ug/L	
47)	1,2 &1,4-Dichlorobenzenes	35.27	898	473503M	206.47	ug/L	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A3276::D2 Quant Output File: ^A3276::D4
Name: 100UG/L HSL CAL CHK
Misc:

Id File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 910912 17:18

Operator ID: MALOS
Quant Time: 911029 11:44
Injected at: 911029 10:51

QUANT REPORT

Operator ID: MALDS Quant Rev: 6 Quant Time: 911029 12:51
Output File: ^A3277::D4 Injected at: 911029 11:42
Data File: >A3277::D2 Dilution Factor: 1.00000
Name: 150UG/L HSL CAL CHK
Misc:

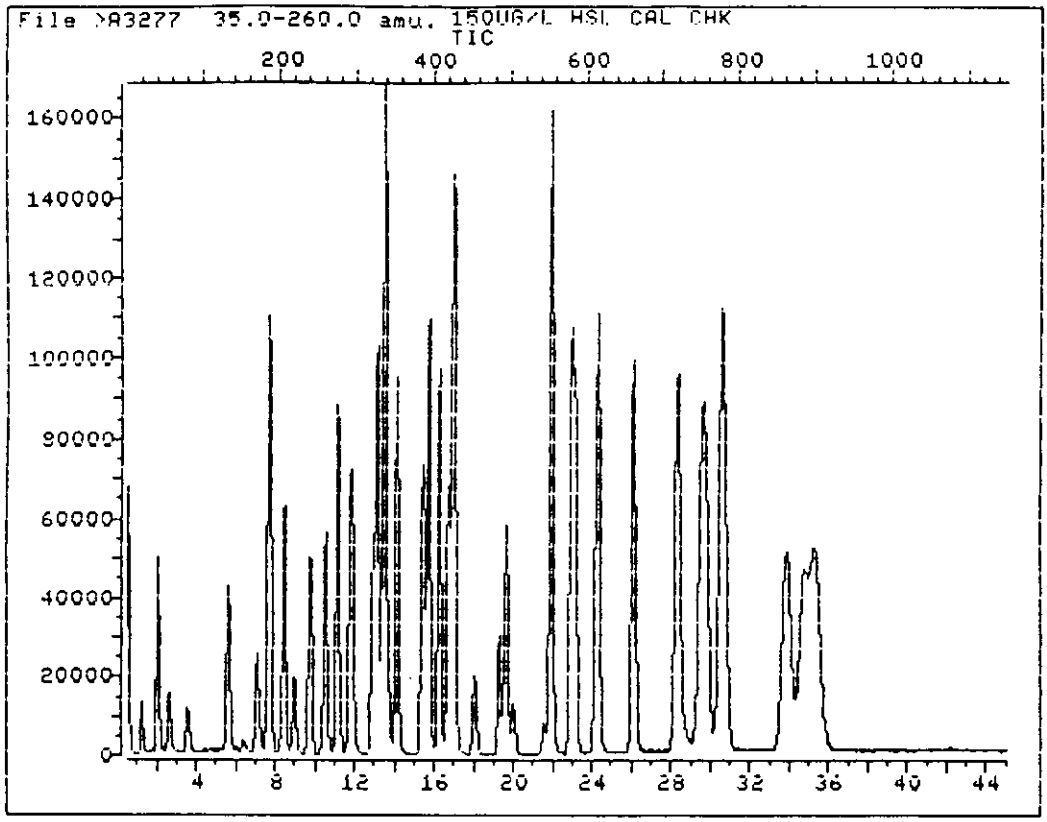
ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 910912 17:18

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	8.98	220	29119	50.00	ug/L	97
2)	Chloromethane	1.27	21	58331	77.09	ug/L	94
3)	Bromomethane	2.05	41	123839	128.28	ug/L	87
4)	Vinyl Chloride	2.67	57	79182	101.02	ug/L	93
5)	Chloroethane	3.60	81	54781	118.18	ug/L	98
6)	Methylene Chloride	5.65	134	107820	159.86	ug/L	82
7)	Acrolein	6.39	153	6773	164.36	ug/L	52
8)	Acrylonitrile	7.12	172	8853	79.46	ug/L	95
9)	Acetone	6.43	154	12147	109.41	ug/L	76
10)	Carbon Disulfide	7.08	171	211500	95.71	ug/L	100
11)	Trichlorofluoromethane	7.70	187	604558	258.06	ug/L	99
12)	1,1-Dichloroethene	8.44	206	126390	200.38	ug/L	91
13)	1,1-Dichloroethane	9.76	240	268189	171.59	ug/L	94
14)	Trans-1,2-Dichloroethene	10.53	260	120589	170.04	ug/L	87
15)	Chloroform	11.15	276	408488	189.79	ug/L	98
16)	1,2-Dichloroethane-d4	11.77	292	238879	181.42	ug/L	81
17)	1,2-Dichloroethane	11.89	295	245014	155.01	ug/L	99
18)	2-Butanone	11.81	293	19761	81.95	ug/L	98
19)	1,1,1-Trichloroethane	13.13	327	411280	202.46	ug/L	77
20)	Carbon Tetrachloride	13.52	337	433189	214.85	ug/L	87
21)	Vinyl Acetate	13.75	343	141019	99.80	ug/L	70
22)	Bromodichloromethane	14.14	353	384200	166.82	ug/L	96
23)	*1,4-Difluorobenzene	19.29	486	127830	50.00	ug/L	68
24)	1,2-Dichloropropane	15.42	386	135151	129.76	ug/L	92
25)	cis-1,3-Dichloropropene	15.73	394	385196	220.18	ug/L	96
26)	Trichloroethene	16.27	408	177741	161.90	ug/L	90
27)	Dibromochloromethane	16.93	425	226080	134.90	ug/L	97
28)	1,1,2-Trichloroethane	17.04	428	106582	117.66	ug/L	95
29)	Benzene	16.69	419	300181	136.03	ug/L	89
30)	trans-1,3-Dichloropropene	17.00	427	80775	50.03	ug/L	94
31)	2-Chloroethylvinylether	18.05	454	50737	97.23	ug/L	93
32)	Bromoform	19.64	495	175779	115.24	ug/L	99
33)	*Chlorobenzene-d5	24.17	612	106121	50.00	ug/L	95
34)	2-Hexanone	21.54	544	39389	77.87	ug/L	87
35)	4-Methyl-2-Pentanone	19.99	504	59286	74.26	ug/L	87
36)	Tetrachloroethene	21.89	553	171414	169.45	ug/L	89
37)	1,1,2,2-Tetrachloroethane	21.93	554	137095M	91.98	ug/L	
38)	Toluene	23.13	585	219979	146.40	ug/L	95
39)	Toluene-d8	22.93	580	418200	188.75	ug/L	99
40)	Chlorobenzene	24.29	615	320727	155.64	ug/L	96
41)	Ethylbenzene	26.11	662	145150	152.28	ug/L	95
42)	Styrene	29.56	751	295561	147.23	ug/L	85

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	O-Xylenes	30.61	778	347440	151.08	ug/L	84
45)	Bromofluorobenzene	28.32	719	343949	170.06	ug/L	90
46)	1,3-Dichlorobenzene	33.90	863	339108M	160.03	ug/L	
47)	1,2 &1,4-Dichlorobenzenes	35.34	900	665383M	299.36	ug/L	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A3277::D2 Quant Output File: ^A3277::D4
Name: 150UG/L HSL CAL CHK
Misc:

Id File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 910912 17:18

Operator ID: MALOS
Quant Time: 911029 12:51
Injected at: 911029 11:42

QUANT REPORT

Operator ID: MALOS Quant Rev: 6 Quant Time: 911029 13:54
Output File: ^A3278::D4 Injected at: 911029 13:05
Data File: >A3278::D2 Dilution Factor: 1.00000
Name: 200UG/L HSL CAL CHK
Misc:

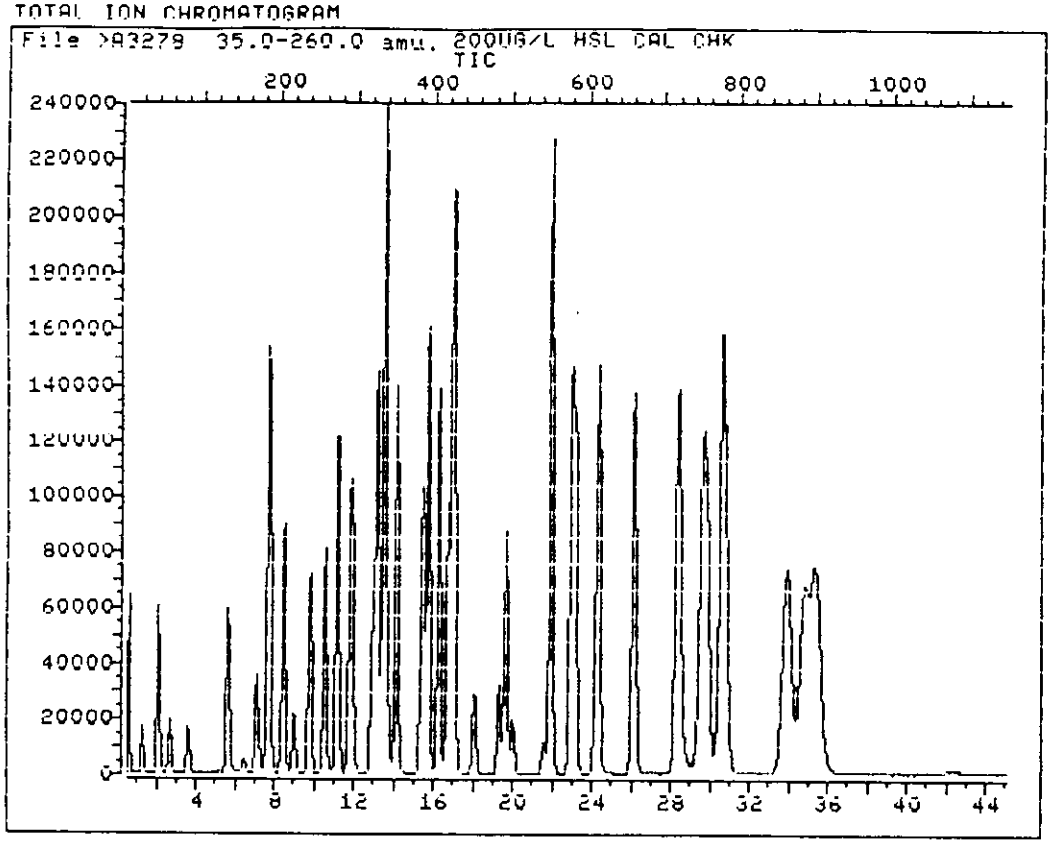
ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 910912 17:18

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.02	221	32014	50.00	ug/L	89
2)	Chloromethane	1.28	21	77103	92.68	ug/L	95
3)	Bromomethane	2.05	41	161506	152.17	ug/L	91
4)	Vinyl Chloride	2.67	57	102052	118.43	ug/L	99
5)	Chloroethane	3.60	81	77063	151.22	ug/L	99
6)	Methylene Chloride	5.61	133	151932	204.89	ug/L	78
7)	Acrolein	6.39	153	10740M	237.06	ug/L	
8)	Acrylonitrile	7.09	171	13532	110.47	ug/L	92
9)	Acetone	6.47	155	17957	147.12	ug/L	77
10)	Carbon Disulfide	7.09	171	295265	121.53	ug/L	100
11)	Trichlorofluoromethane	7.71	187	856038	332.36	ug/L	99
12)	1,1-Dichloroethene	8.48	207	180202	259.86	ug/L	91
13)	1,1-Dichloroethane	9.80	241	385514	224.35	ug/L	93
14)	Trans-1,2-Dichloroethene	10.54	260	173610	222.67	ug/L	84
15)	Chloroform	11.16	276	576572	243.66	ug/L	94
16)	1,2-Dichloroethane-d4	11.81	293	343530	237.31	ug/L	81
17)	1,2-Dichloroethane	11.89	295	357127	205.50	ug/L	99
18)	2-Butanone	11.85	294	29908	112.81	ug/L	98
19)	1,1,1-Trichloroethane	13.13	327	583351	261.20	ug/L	78
20)	Carbon Tetrachloride	13.52	337	621833	280.53	ug/L	93
21)	Vinyl Acetate	13.75	343	211167	135.93	ug/L	74
22)	Bromodichloromethane	14.14	353	567616	224.17	ug/L	94
23)	*1,4-Difluorobenzene	19.30	486	135675	50.00	ug/L	70
24)	1,2-Dichloropropane	15.46	387	192066	173.74	ug/L	92
25)	cis-1,3-Dichloropropene	15.73	394	562183	302.77	ug/L	96
26)	Trichloroethene	16.27	408	252664	216.84	ug/L	93
27)	Dibromochloromethane	16.97	426	330606	185.86	ug/L	92
28)	1,1,2-Trichloroethane	17.05	428	153393	159.54	ug/L	91
29)	Benzene	16.74	420	426067	181.91	ug/L	91
30)	trans-1,3-Dichloropropene	17.01	427	115318	67.29	ug/L	95
31)	2-Chloroethylvinylether	18.06	454	74602	134.69	ug/L	96
32)	Bromoform	19.64	495	264686	163.49	ug/L	95
33)	*Chlorobenzene-d5	24.18	612	112925	50.00	ug/L	94
34)	2-Hexanone	21.54	544	60790	112.94	ug/L	87
35)	4-Methyl-2-Pentanone	20.03	505	89462	105.31	ug/L	86
36)	Tetrachloroethene	21.89	553	236185	219.42	ug/L	90
37)	1,1,2,2-Tetrachloroethane	21.93	554	196875M	124.13	ug/L	
38)	Toluene	23.13	585	307976	192.62	ug/L	96
39)	Toluene-d8	22.94	580	573156	243.10	ug/L	98
40)	Chlorobenzene	24.30	615	433881	197.86	ug/L	98
41)	Ethylbenzene	26.12	662	203692	200.83	ug/L	94
42)	Styrene	29.53	750	421970	197.53	ug/L	88
43)	m&p Xylenes	29.80	757	254455	415.84	ug/L	92

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	O-Xylenes	30.65	779	498118	203.55	ug/L	89
45)	Bromofluorobenzene	28.36	720	478953	222.54	ug/L	92
46)	1,3-Dichlorobenzene	33.91	863	486767M	215.88	ug/L	96
47)	1,2 &1,4-Dichlorobenzenes	35.31	899	981133M	414.82	ug/L	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A3278::D2 Quant Output File: ^A3278::D4
Name: 200UG/L HSL CAL CHK
Misc:

Id File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 910912 17:18

Operator ID: MALOS
Quant Time: 911029 13:54
Injected at: 911029 13:05

QUANT REPORT

Operator ID: MALOS
Output File: ^A3513::D1
Data File: >A3513::D4
Name: HSL CAL CHK
Misc: 50UG/L

Quant Rev: 6 Quant Time: 911112 09:46
Injected at: 911112 08:56
Dilution Factor: 1.00000

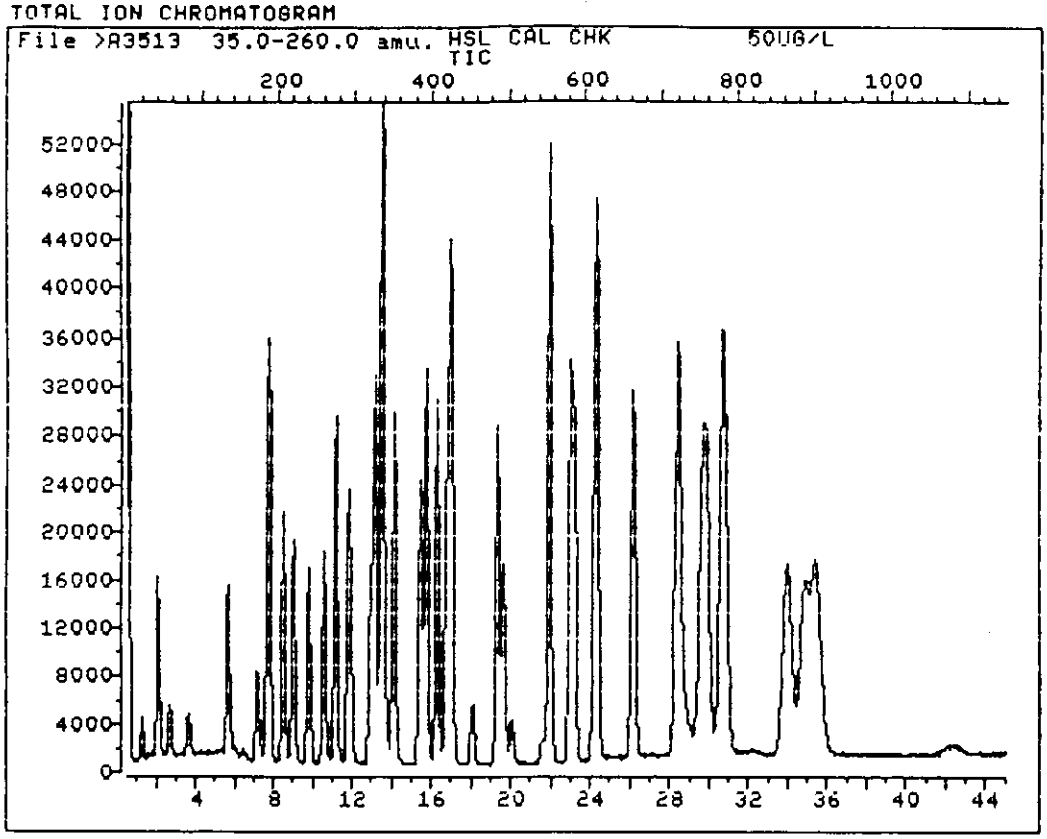
ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.02	221	28533	50.00	ug/L	92
2)	Chloromethane	1.27	21	17849	50.45	ug/L	94
3)	Bromomethane	2.08	42	38303	51.25	ug/L	90
4)	Vinyl Chloride	2.70	58	24102	50.58	ug/L	99
5)	Chloroethane	3.63	82	17977	52.69	ug/L	92
6)	Methylene Chloride	5.69	135	35019	51.45	ug/L	84
7)	Acrolein	6.50	156	1973M	46.26	ug/L	69
8)	Acrylonitrile	7.20	174	2731	47.09	ug/L	92
9)	Acetone	6.46	155	4620	56.74	ug/L	73
10)	Carbon Disulfide	7.16	173	66577	51.28	ug/L	100
11)	Trichlorofluoromethane	7.74	188	196603	51.94	ug/L	98
12)	1,1-Dichloroethene	8.51	208	41446	52.03	ug/L	91
13)	1,1-Dichloroethane	9.83	242	87066	51.52	ug/L	95
14)	Trans-1,2-Dichloroethene	10.57	261	39690	52.15	ug/L	86
15)	Chloroform	11.19	277	130135	50.69	ug/L	94
16)	1,2-Dichloroethane-d4	11.81	293	76667	51.39	ug/L	81
17)	1,2-Dichloroethane	11.92	296	77110	49.10	ug/L	98
18)	2-Butanone	11.89	295	6732	51.76	ug/L	92
19)	1,1,1-Trichloroethane	13.16	328	129031	50.01	ug/L	77
20)	Carbon Tetrachloride	13.51	337	133590	50.00	ug/L	89
21)	Vinyl Acetate	13.78	344	39937	45.47	ug/L	75
22)	Bromodichloromethane	14.13	353	120728	49.24	ug/L	89
23)	*1,4-Difluorobenzene	19.32	487	121500	50.00	ug/L	70
24)	1,2-Dichloropropane	15.45	387	44226	52.14	ug/L	94
25)	cis-1,3-Dichloropropene	15.72	394	113165	75.39	ug/L	95
26)	Trichloroethene	16.26	408	56696	50.65	ug/L	96
27)	Dibromochloromethane	16.96	426	66680	46.81	ug/L	98
28)	1,1,2-Trichloroethane	17.04	428	33906	49.64	ug/L	94
29)	Benzene	16.77	421	97826	52.62	ug/L	90
30)	trans-1,3-Dichloropropene	17.04	428	23191	17.80	ug/L	94
31)	2-Chloroethylvinylether	18.08	455	13546	42.39	ug/L	96
32)	Bromoform	19.63	495	49524	44.41	ug/L	91
33)	*Chlorobenzene-d5	24.21	613	100759	50.00	ug/L	93
34)	2-Hexanone	21.61	546	10874	42.06	ug/L	86
35)	4-Methyl-2-Pentanone	20.06	506	18101	47.83	ug/L	87
36)	Tetrachloroethene	21.92	554	53704	49.96	ug/L	89
37)	1,1,2,2-Tetrachloroethane	21.92	554	41314M	47.04	ug/L	
38)	Toluene	23.20	587	70209	51.34	ug/L	99
39)	Toluene-d8	23.01	582	130513	51.67	ug/L	97
40)	Chlorobenzene	24.32	616	98738	50.56	ug/L	97
41)	Ethylbenzene	26.14	663	46644	51.03	ug/L	99
42)	Styrene	29.63	753	94201	51.04	ug/L	87
43)	m&p-Xylenes	29.90	760	52608	103.02	ug/L	91

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	O-Xylenes	30.76	782	111449	51.68	ug/L	87
45)	Bromofluorobenzene	28.43	722	108655	51.57	ug/L	90
46)	1,3-Dichlorobenzene	34.05	867	106202	49.49	ug/L	96
47)	1,2 &1,4-Dichlorobenzenes	35.41	902	211458M	99.26	ug/L	93

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A3513::D4 Quant Output File: ^A3513::D1
Name: HSL CAL CHK
Misc: 50UG/L

Id File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

Operator ID: MALOS
Quant Time: 911112 09:46
Injected at: 911112 08:56

QUANT REPORT

Operator ID: MALOS
Output File: ^A3525::D4
Data File: >A3525::D3
Name: HSL CAL CHK
Misc: 50 UG/L

Quant Rev: 6 Quant Time: 911112 22:05
Injected at: 911112 21:19
Dilution Factor: 1.00000

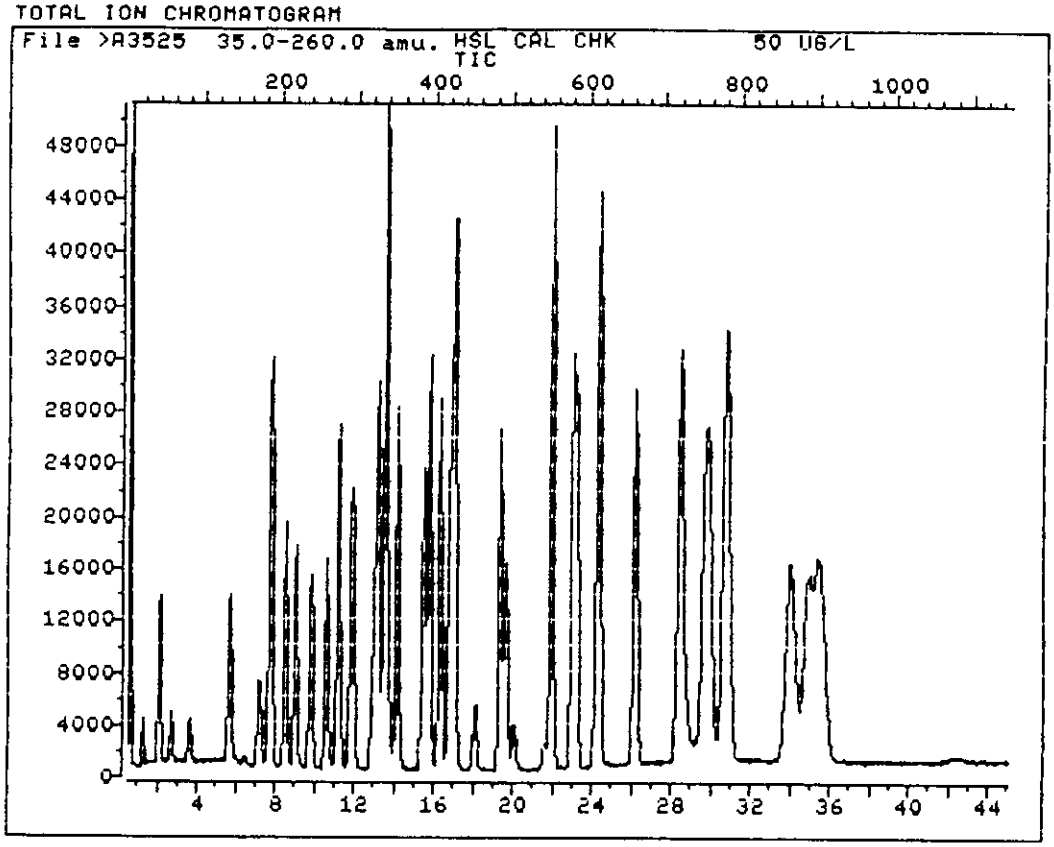
ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.04	221	24972	50.00	ug/L	90
2)	Chloromethane	1.29	21	16412	53.00	ug/L	95
3)	Bromomethane	2.10	42	32935	50.35	ug/L	88
4)	Vinyl Chloride	2.68	57	20835	49.96	ug/L	98
5)	Chloroethane	3.61	81	16032	53.69	ug/L	90
6)	Methylene Chloride	5.70	135	31379	52.68	ug/L	82
7)	Acrolein	6.52	156	1373	36.78	ug/L	82
8)	Acrylonitrile	7.18	173	2700	53.19	ug/L	98
9)	Acetone	6.44	154	3669	51.49	ug/L	76
10)	Carbon Disulfide	7.18	173	58223	51.24	ug/L	100
11)	Trichlorofluoromethane	7.76	188	172619	52.11	ug/L	96
12)	1,1-Dichloroethene	8.53	208	36420	52.24	ug/L	87
13)	1,1-Dichloroethane	9.81	241	80545	54.46	ug/L	96
14)	Trans-1,2-Dichloroethene	10.58	261	36178	54.32	ug/L	86
15)	Chloroform	11.20	277	120398	53.59	ug/L	98
16)	1,2-Dichloroethane-d4	11.82	293	71977	55.13	ug/L	82
17)	1,2-Dichloroethane	11.94	296	72234	52.56	ug/L	98
18)	2-Butanone	11.90	295	6176	54.25	ug/L	98
19)	1,1,1-Trichloroethane	13.14	327	116070	51.40	ug/L	77
20)	Carbon Tetrachloride	13.53	337	122912	52.57	ug/L	84
21)	Vinyl Acetate	13.80	344	36990	48.12	ug/L	69
22)	Bromodichloromethane	14.15	353	112021	52.21	ug/L	90
23)	*1,4-Difluorobenzene	19.34	487	110072	50.00	ug/L	68
24)	1,2-Dichloropropane	15.47	387	43187	56.21	ug/L	93
25)	cis-1,3-Dichloropropene	15.74	394	111148	81.74	ug/L	98
26)	Trichloroethene	16.32	409	52472	51.25	ug/L	88
27)	Dibromochloromethane	16.94	425	64700	50.14	ug/L	97
28)	1,1,2-Trichloroethane	17.06	428	33595	54.29	ug/L	97
29)	Benzene	16.78	421	95337	56.61	ug/L	91
30)	trans-1,3-Dichloropropene	17.06	428	21585	18.29	ug/L	95
31)	2-Chloroethylvinylether	18.10	455	13235	45.72	ug/L	99
32)	Bromoform	19.65	495	47465	46.99	ug/L	95
33)	*Chlorobenzene-d5	24.22	613	90727	50.00	ug/L	96
34)	2-Hexanone	21.59	545	11269	48.41	ug/L	85
35)	4-Methyl-2-Pentanone	20.04	505	17754	52.11	ug/L	86
36)	Tetrachloroethene	21.94	554	48634	50.24	ug/L	90
37)	1,1,2,2-Tetrachloroethane	21.94	554	42769M	54.08	ug/L	
38)	Toluene	23.18	586	65788	53.43	ug/L	96
39)	Toluene-d8	22.98	581	120621	53.04	ug/L	94
40)	Chlorobenzene	24.34	616	92360	52.52	ug/L	94
41)	Ethylbenzene	26.16	663	43244	52.54	ug/L	95
42)	Styrene	29.61	752	83944	50.51	ug/L	87
43)	m&p Xylenes	29.82	760	53685	106.20	ug/L	83

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	O-Xylenes	30.70	780	102963	53.03	ug/L	89
45)	Bromofluorobenzene	28.41	721	103739	54.68	ug/L	90
46)	1,3-Dichlorobenzene	33.99	865	103415	53.51	ug/L	97
47)	1,2 &1,4-Dichlorobenzenes	35.39	901	204476M	106.60	ug/L	84

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A3525::D3 Quant Output File: ^A3525::D4
Name: HSL CAL CHK
Misc: 50 UG/L

Id File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

Operator ID: MALOS
Quant Time: 911112 22:05
Injected at: 911112 21:19

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-3432
Certification No. 03117
November 29, 1991

H. RAW QC DATA PACKAGE

1. Volatile Organics by GC/MS (Continued)

a. BFB Spectra and Mass Listing

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

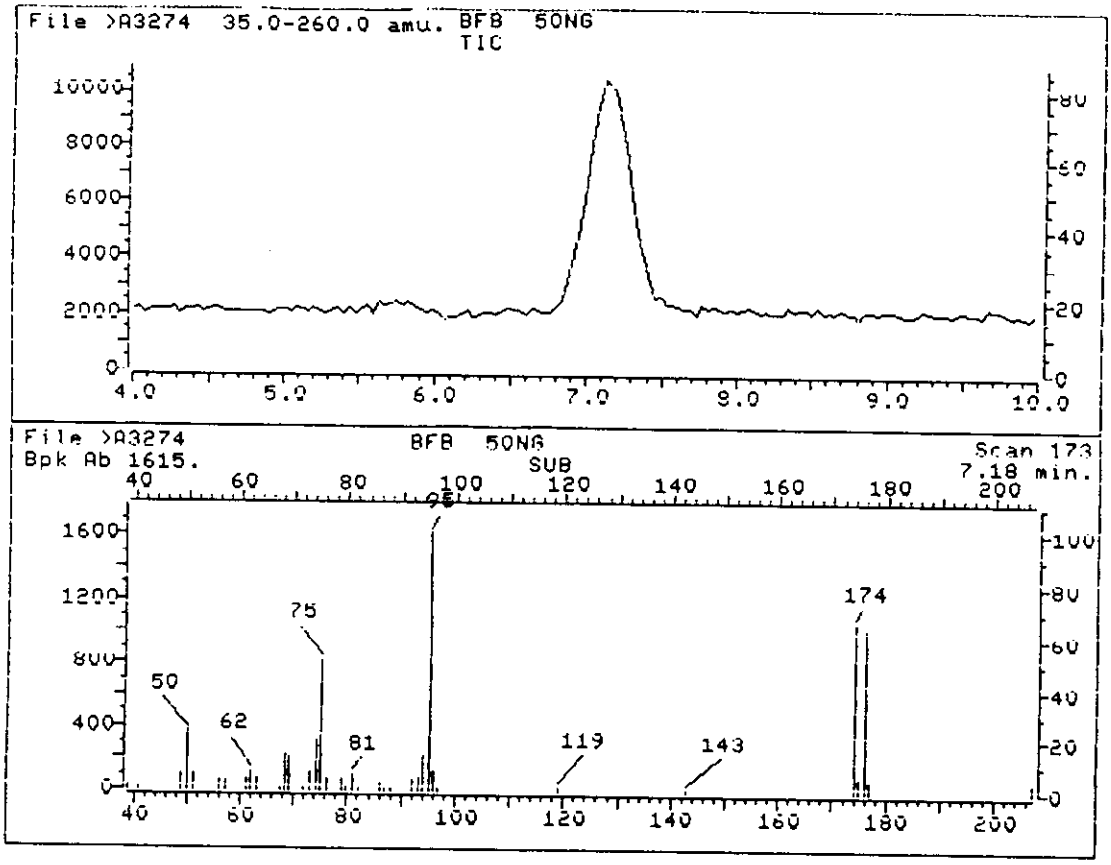
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	22.85	22.85	Ok
75	30-60% of mass 95	50.84	50.84	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	8.11	8.11	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	65.76	65.76	Ok
175	5-9% of mass 174	5.39	8.19	Ok
176	95-101% of mass 174	62.97	95.76	Ok
177	5-9% of mass 176	4.77	7.57	Ok

Injection Date: 10/29/91
Injection Time: 08:46
Data File: >A3274
Scan: 173

>A3274 BFB SUNG
173 SUB NRM

File: >A3274 Scan #: 173 Retn. time: 7.18

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
32.10	6.068	61.15	4.644	74.15	19.876	87.05	.991	119.15	1.858
38.10	5.387	62.15	7.183	75.15	50.836	88.05	.929	143.05	1.053
39.10	1.672	63.15	4.087	76.15	4.211	92.15	4.087	174.05	65.759
41.10	.805	67.35	1.300	79.05	4.396	93.15	5.325	175.05	5.387
49.00	5.759	68.15	13.746	79.95	2.105	94.15	13.746	176.05	62.972
50.10	22.848	69.15	12.879	81.05	6.130	95.15	100.000	177.10	4.768
51.10	6.378	72.05	1.672	82.15	.743	96.05	8.111	207.20	3.715
56.10	3.344	73.15	6.811	86.15	2.477	97.05	1.424	208.20	2.043
57.10	3.158								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6.0
7.0
8.0
9.0
10.0
80
60
40
20
0
File >A3274
Bpk Ab 1615.
BFB 50NG
SUB
Scan 173
7.18 min.
40
60
80
100
120
140
160
180
200
1600
1200
800
400
0
95
75
50
62
81
119
143
174
100
80
60
40
20
0

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

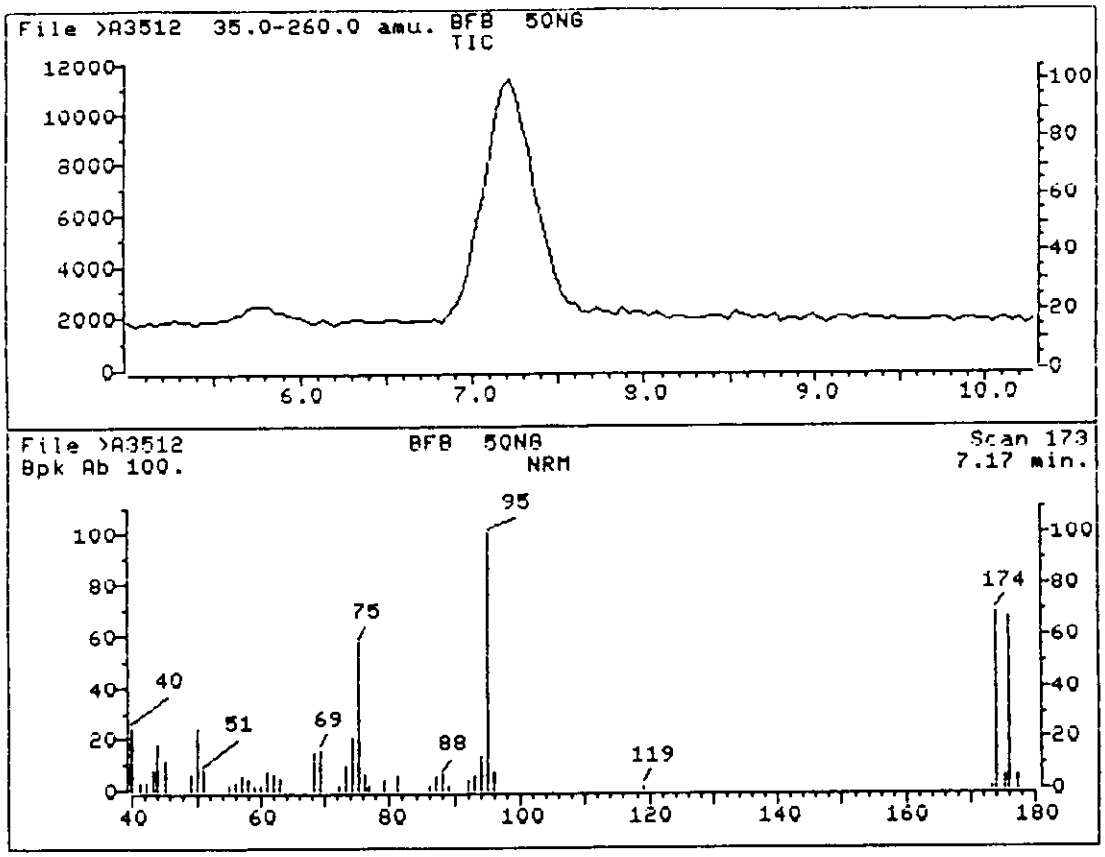
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	23.54	23.54	Ok
75	30-60% of mass 95	56.96	56.96	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.20	7.20	Ok
173	Less than 2% of mass 174	1.16	1.69	Ok
174	Greater than 50% of mass 95	68.42	68.42	Ok
175	5-9% of mass 174	4.94	7.22	Ok
176	95-101% of mass 174	66.26	96.85	Ok
177	5-9% of mass 176	5.04	7.61	Ok

Injection Date: 11/12/91
Injection Time: 08:38
Data File: >A3512
Scan: 173

>A3512 BFB 50NG
173 NRM

File: >A3512 Scan #: 173 Retn. time: 7.17

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	1.156	49.10	6.358	62.15	5.885	79.05	3.626	95.15	100.000
37.10	7.304	50.10	23.542	63.15	4.519	81.05	4.834	96.15	7.199
38.10	5.150	51.10	7.357	68.15	14.714	86.15	1.892	119.05	1.156
39.20	3.205	55.10	2.102	69.15	15.397	87.05	5.465	173.15	1.156
40.00	23.857	56.10	2.838	72.15	2.207	88.15	5.728	174.05	68.418
41.10	2.733	57.10	5.360	73.15	9.564	89.15	1.839	175.15	4.940
42.10	2.365	58.10	4.362	74.15	20.441	92.15	3.941	176.05	66.264
43.10	8.092	59.10	1.682	75.15	56.963	93.15	4.992	177.10	5.045
44.00	17.919	60.05	1.787	76.15	6.253	94.15	12.454	207.20	5.360
45.10	12.191	61.15	6.569	77.05	1.787				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TIC
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10000
8000
6000
4000
2000
0
100
80
60
40
20
0
6.0
7.0
8.0
9.0
10.0
File >A3512
Bpk Ab 100.
BFB 50NB
NRM
Scan 173
7.17 min.
95
174
75
40
51
69
88
119
100
80
60
40
20
0
40
60
80
100
120
140
160
180

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	25.55	25.55	Ok
75	30-60% of mass 95	36.20	36.20	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	8.31	8.31	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	67.65	67.65	Ok
175	5-9% of mass 174	4.74	7.01	Ok
176	95-101% of mass 174	64.77	95.74	Ok
177	5-9% of mass 176	4.60	7.10	Ok

Injection Date: 11/12/91
Injection Time: 20:52
Data File: >A3524
Scan: 184

```
FMGR : NRM,100
FMGR : TAB

 >A3524          BFB 50NG
    184          SUB NRM

 File: >A3524  Scan #:      184  Retn. time:   7.59
```

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	6.868	57.10	5.495	74.15	18.407	88.15	2.679	133.05	1.786
38.10	6.456	61.15	2.129	75.15	36.195	92.05	3.159	147.05	1.305
39.00	.481	62.15	5.907	76.15	3.022	93.25	3.777	174.05	67.651
49.10	5.563	63.15	3.915	79.05	6.250	94.15	12.843	175.05	4.739
50.10	25.549	68.15	11.195	81.05	5.975	95.15	100.000	176.05	64.766
51.10	6.662	69.15	13.187	86.05	1.511	96.15	8.310	177.10	4.602
56.10	2.679	73.15	2.816	87.15	4.670	117.05	1.168	207.20	5.014

```
FMGR : AL, Move cursor; then press carriage return :
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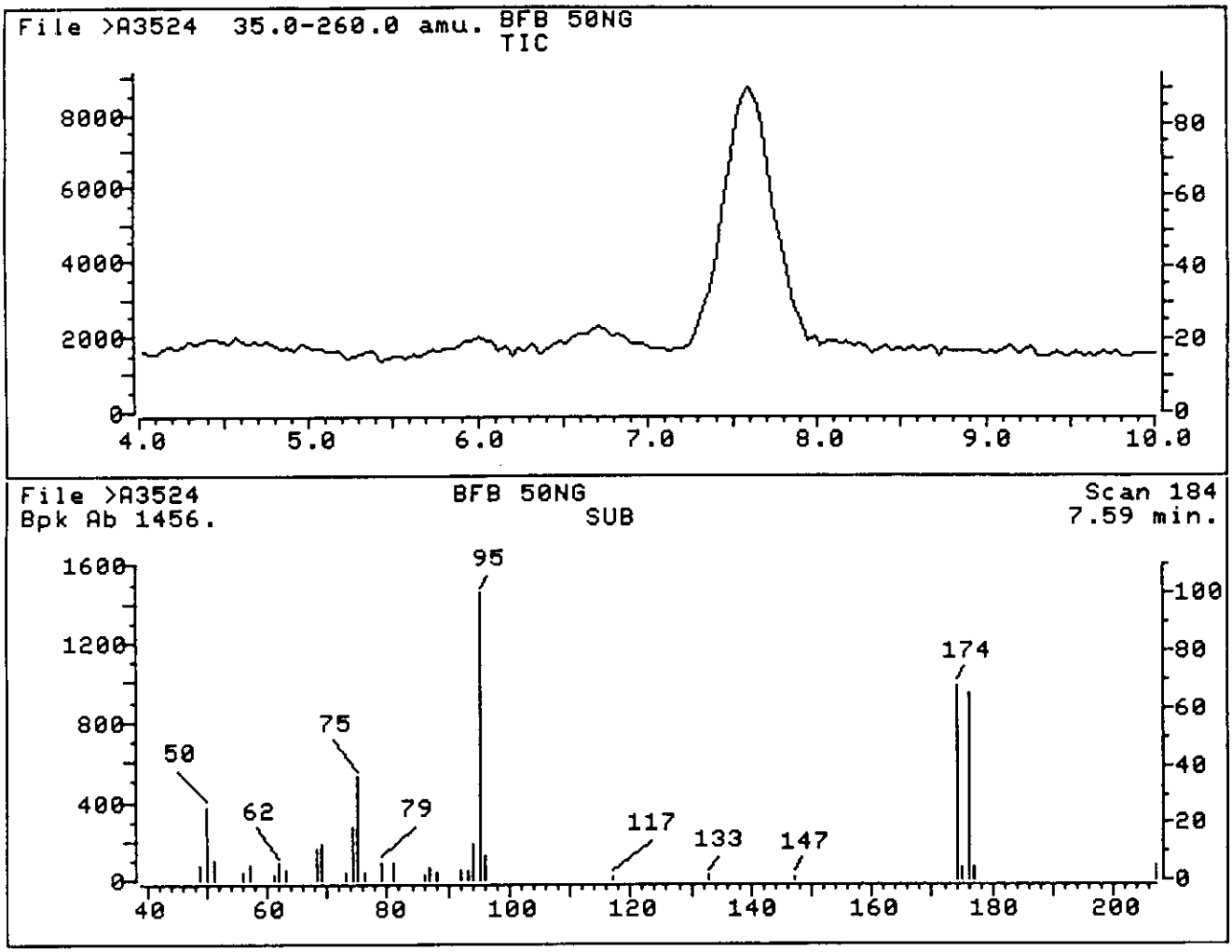
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4000
2000
0
80
60
40
20
0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
File >A3524
Bpk Ab 1456.
BFB 50NG
SUB
Scan 184
7.59 min.
1600
1200
800
400
0
100
80
60
40
20
0
95
174
75
50
62
79
117
133
147
40
60
80
100
120
140
160
180
200

NORTHEASTERN ANALYTICAL CORPORATION

Roux Associates, Inc.
Test Report No. NAC91L-3432
Certification No. 03117
November 29, 1991

H. RAW QC DATA PACKAGE (Continued)

1. Volatile Organics by GC/MS (Continued)

b. Method Blank Chromatograms, Quantitation Reports and Mass Spectra

NORTHEASTERN ANALYTICAL CORPORATION

VOLATILE ORGANIC ANALYSIS DATA SHEET

LAB SAMPLE ID:METHOD BLANK

LAB FILE ID:>A3514

DATE RECEIVED:NA

DATE ANALYZED:911112

SAMPLE WT/VOL:5.0ML

LEVEL:LOW

CAS NO.		MDL	CONC. ug/L
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	20	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-60-5	Trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-02-7	m&p Xylenes	10	U
110-75-8	O-Xylenes	5	U

U; Not Detected

QUANT REPORT

Operator ID: MALOS
Output File: ^A3514::D1
Data File: >A3514::D4
Name: METHOD BLANK
Misc: 5.0ML

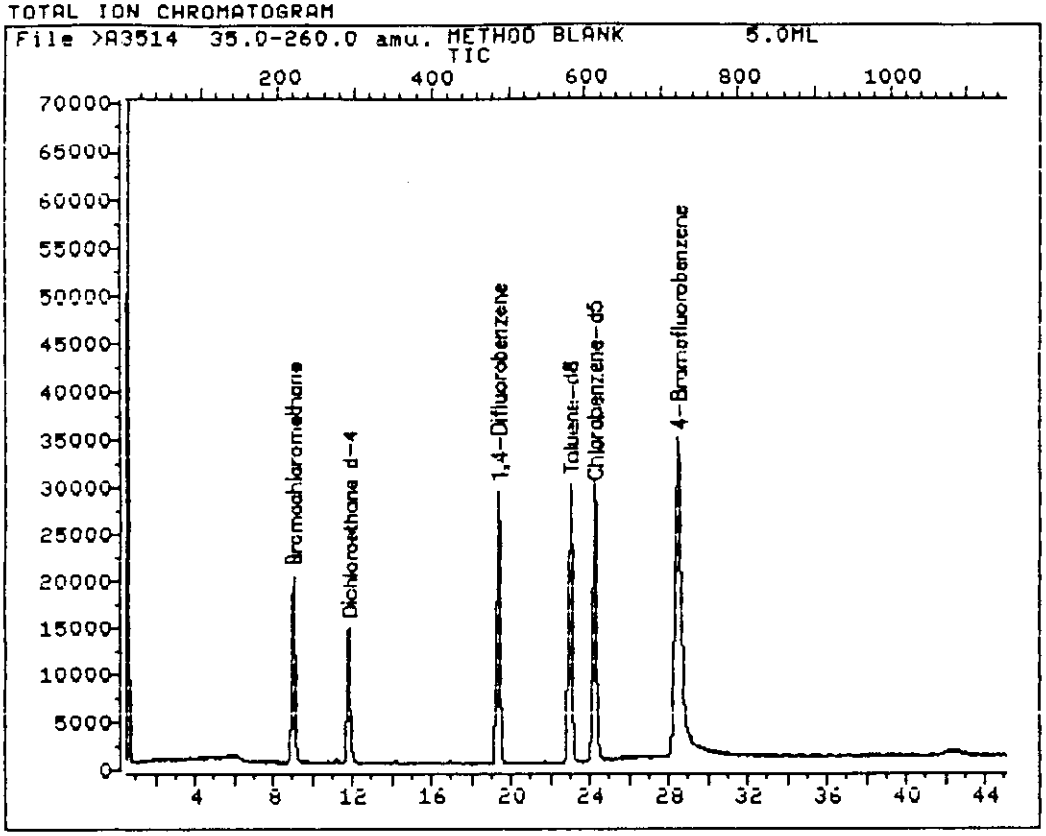
Quant Rev: 6
Quant Time: 911112 10:49
Injected at: 911112 10:03
Dilution Factor: 1.00000

ID File: ID_VCA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.02	221	29932	50.00	ug/L	88
16)	1,2-Dichloroethane-d4	11.85	294	74012	47.29	ug/L	81
23)	*1,4-Difluorobenzene	19.36	488	123271	50.00	ug/L	68
33)	*Chlorobenzene-d5	24.21	613	102232	50.00	ug/L	98
39)	Toluene-d8	23.01	582	122846	47.94	ug/L	97
45)	Bromofluorobenzene	28.47	723	105822	49.50	ug/L	88

* Compound is ISTD

TOTAL ION CHROMATOGRAM

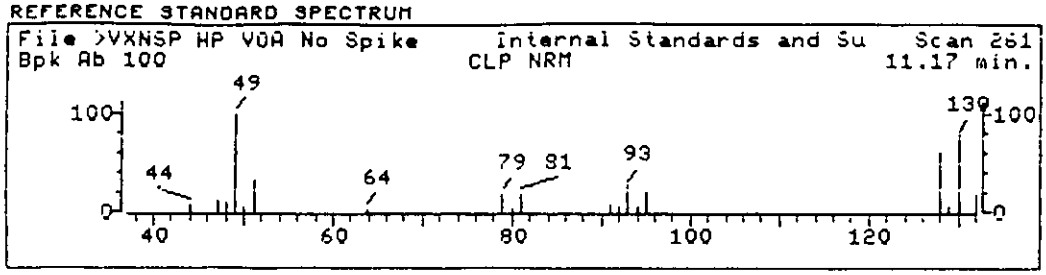


Data File: >A3514::D4 Quant Output File: ^A3514::D1
Name: METHOD BLANK
Misc: 5.0ML

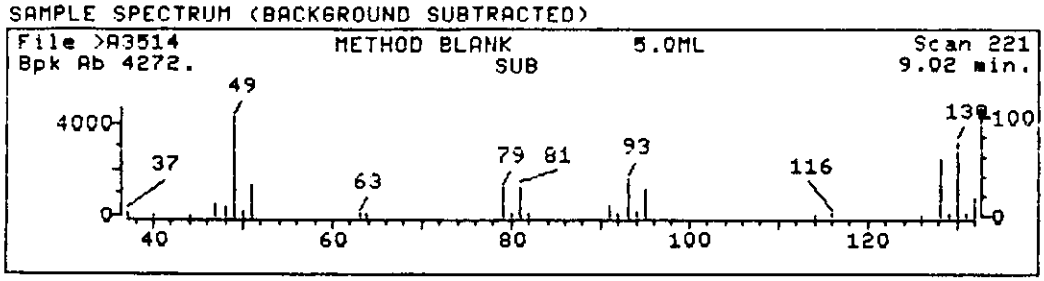
Id File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

Operator ID: MALOS
Quant Time: 911112 10:49
Injected at: 911112 10:03

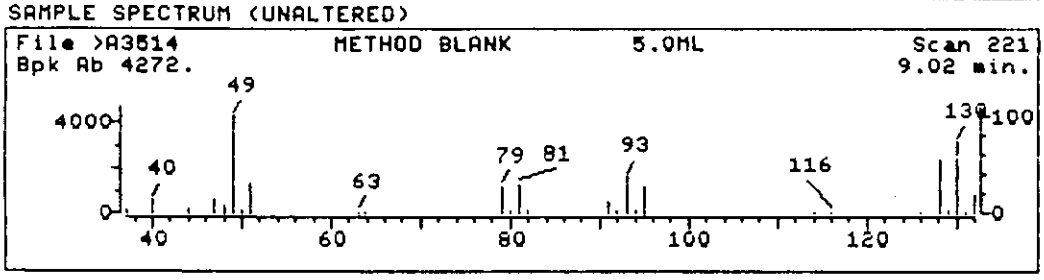
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



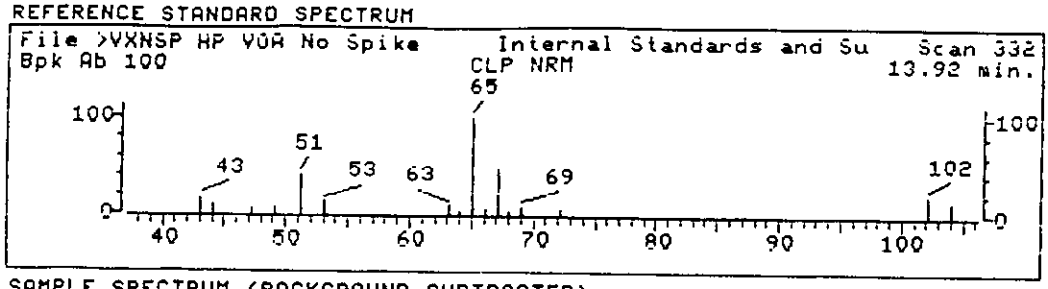
SAMPLE SPECTRUM (UNALTERED)



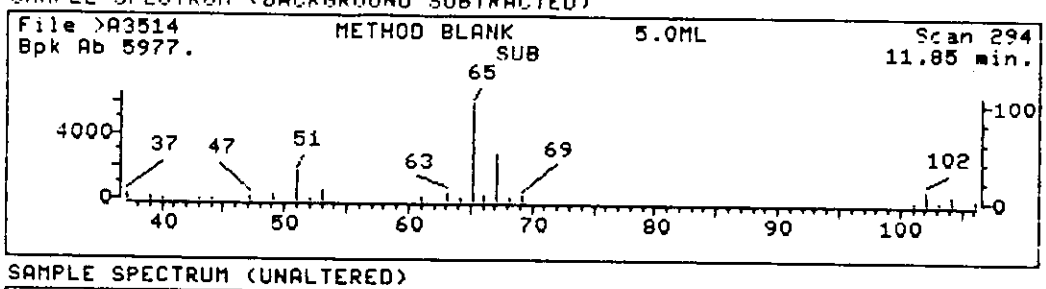
Data File: >A3514::D4 Quant Output File: ^A3514::D1
Name: METHOD BLANK
Misc: 5.0ML
Quant Time: 911112 10:49 Quant ID File: ID_VCA::D2
Injected at: 911112 10:03 Last Calibration: 911029 17:27

Compound No: 1 (ISTD)
Compound Name: Bromochloromethane
Scan Number: 221
Retention Time: 9.02 min.
Quant Ion: 128.0
Area: 29932
Concentration: 50.00 ug/L
q-value: 88

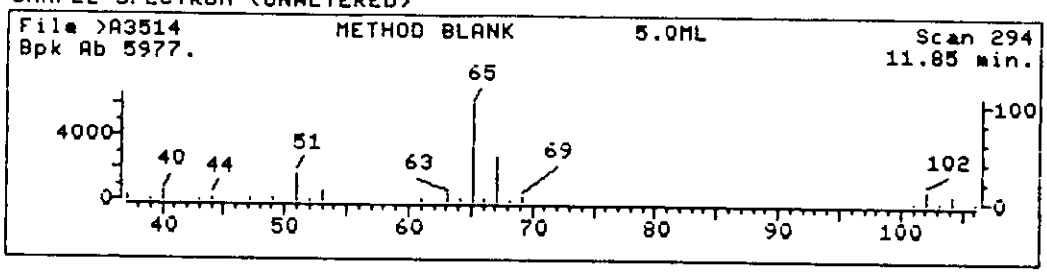
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

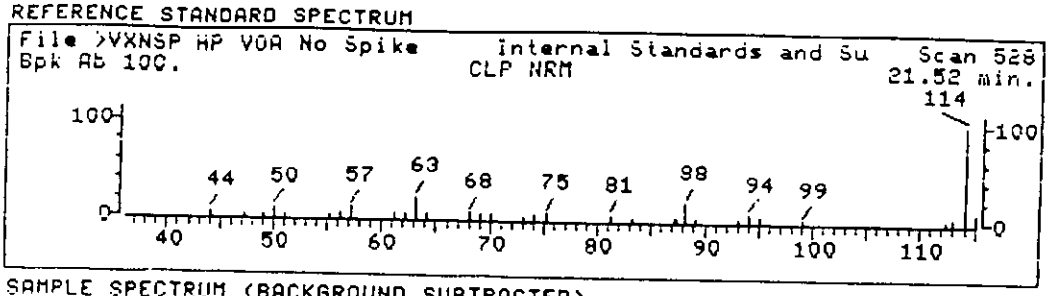


Data File: >A3514::D4
Name: METHOD BLANK
Misc: 5.0ML
Quant Time: 911112 10:49
Injected at: 911112 10:03

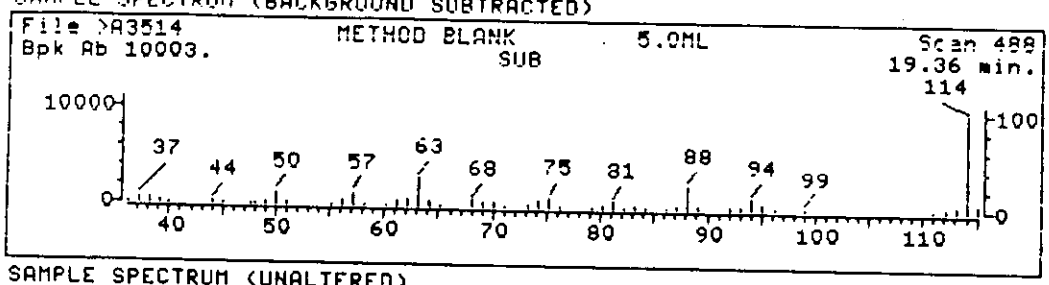
Quant Output File: ^A3514::D1
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 16
Compound Name: 1,2-Dichloroethane-d4
Scan Number: 294
Retention Time: 11.85 min.
Quant Ion: 65.0
Area: 74012
Concentration: 47.29 ug/L
q-value: 81

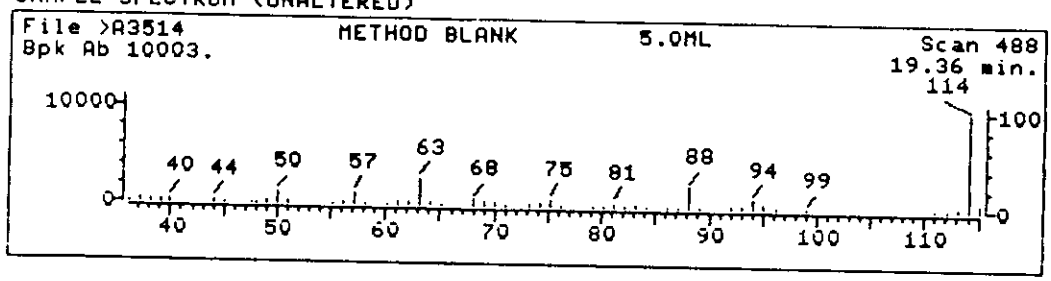
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



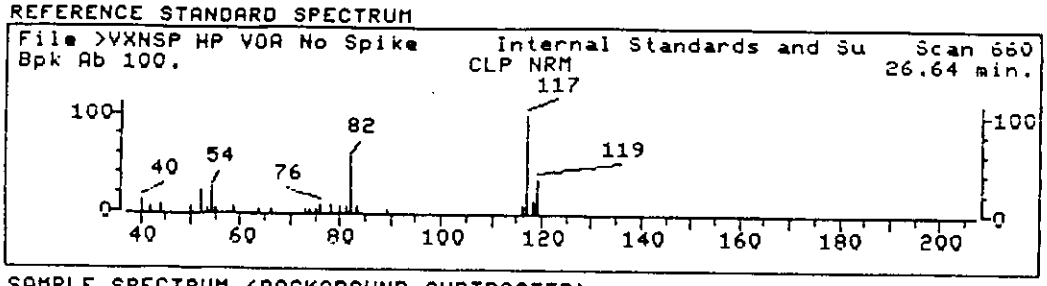
Data File: >A3514::D4
Name: METHOD BLANK
Misc: 5.0ML
Quant Time: 911112 10:49
Injected at: 911112 10:03

Quant Output File: ^A3514::D1

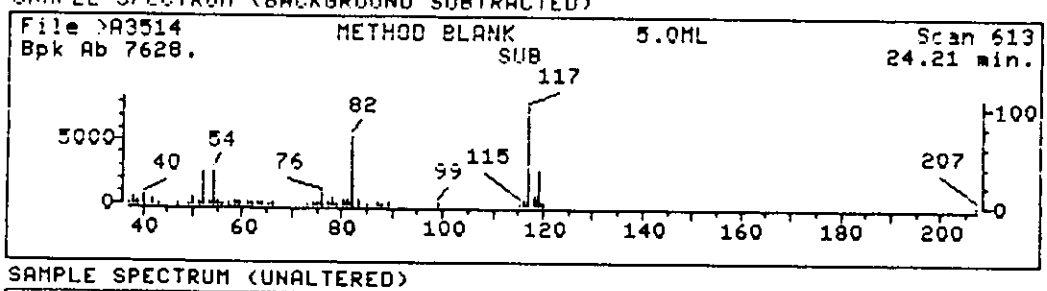
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 23 (ISTD)
Compound Name: 1,4-Difluorobenzene
Scan Number: 488
Retention Time: 19.36 min.
Quant Ion: 114.0
Area: 123271
Concentration: 50.00 ug/L
q-value: 68

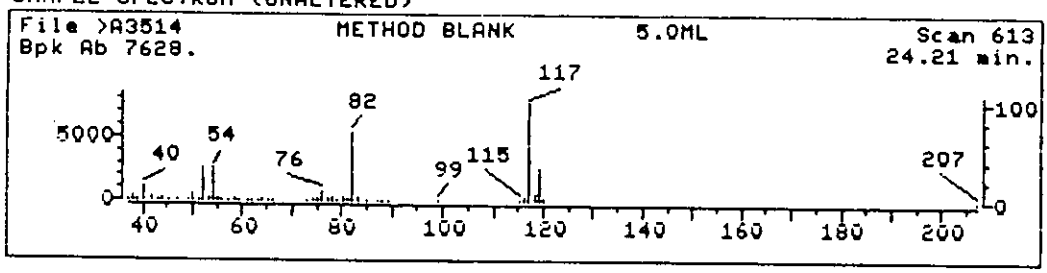
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



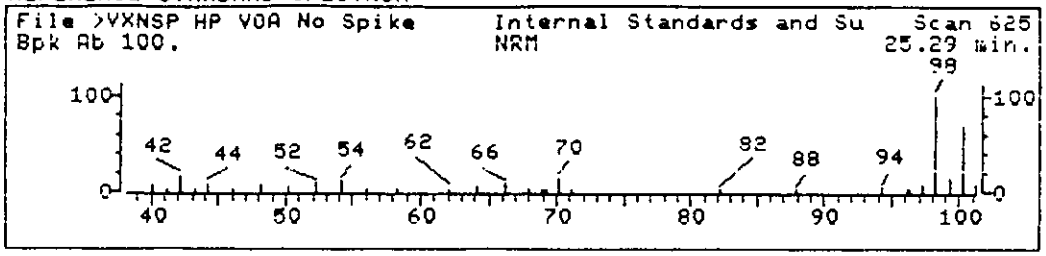
Data File: >A3514::D4
Name: METHOD BLANK
Misc: 5.0ML
Quant Time: 911112 10:49
Injected at: 911112 10:03

Quant Output File: ^A3514::D1

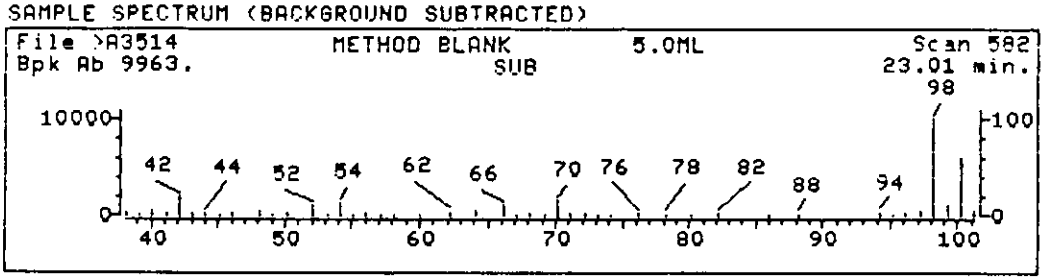
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 33 (ISTD)
Compound Name: Chlorobenzene-d5
Scan Number: 613
Retention Time: 24.21 min.
Quant Ion: 117.0
Area: 102232
Concentration: 50.00 ug/L
q-value: 98

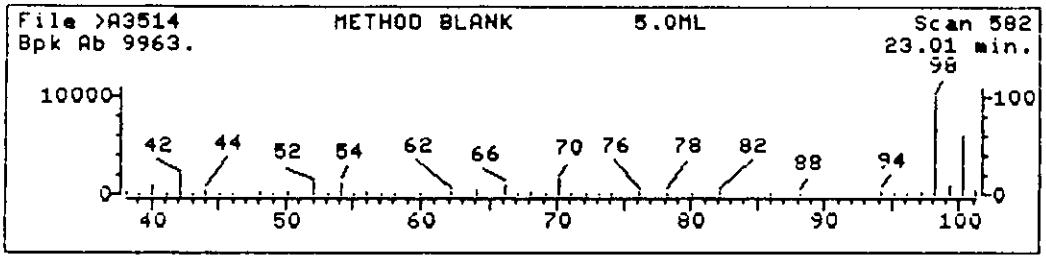
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



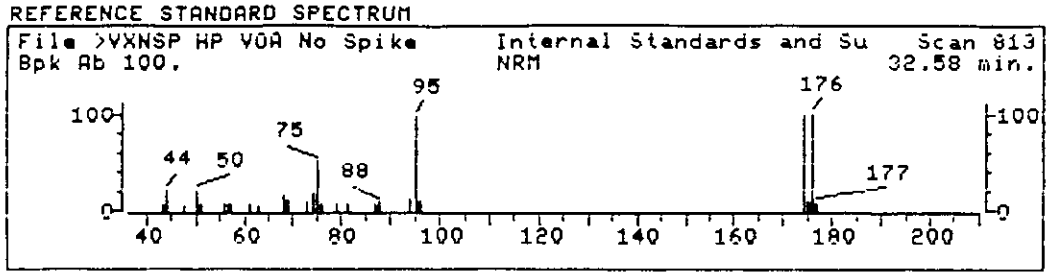
Data File: >A3514::D4
Name: METHOD BLANK
Misc: 5.0ML
Quant Time: 911112 10:49
Injected at: 911112 10:03

Quant Output File: ^A3514::D1

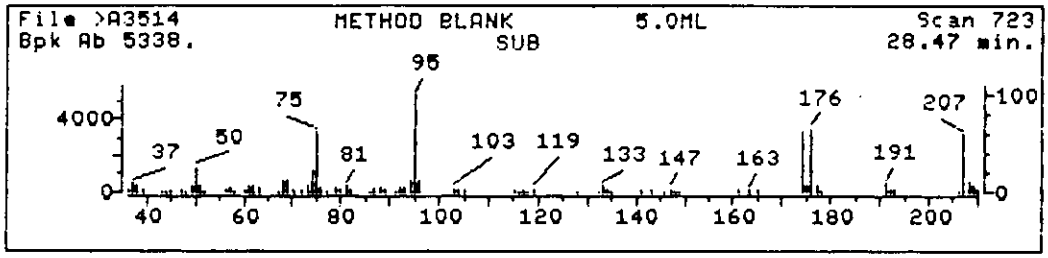
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 39
Compound Name: Toluene-d8
Scan Number: 582
Retention Time: 23.01 min.
Quant Ion: 98.0
Area: 122846
Concentration: 47.94 ug/L
q-value: 97

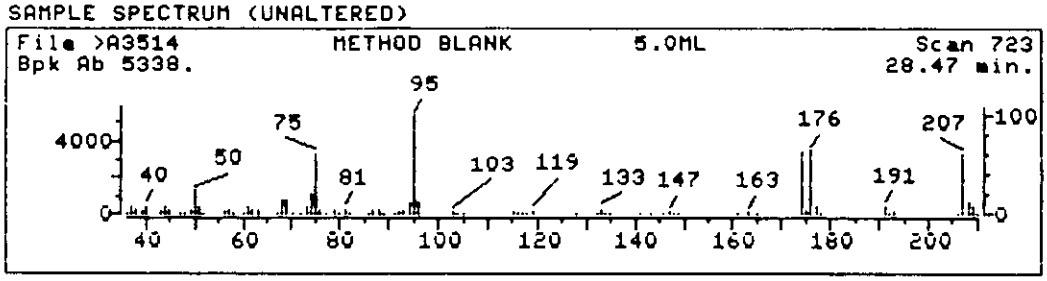
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >A3514::D4 Quant Output File: ^A3514::D1
Name: METHOD BLANK
Misc: 5.0ML
Quant Time: 911112 10:49 Quant ID File: ID_VCA::D2
Injected at: 911112 10:03 Last Calibration: 911029 17:27

Compound No: 45
Compound Name: Bromofluorobenzene
Scan Number: 723
Retention Time: 28.47 min.
Quant Ion: 95.0
Area: 105822
Concentration: 49.50 ug/L
q-value: 88

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE UNKNOWN IDENTIFICATIION

LAB SAMPLE ID:METHOD BLANK

LAB FILE ID:>A3514

DATE RECEIVED:NA

DATE ANALYZED:911112

SAMPLE WT/VOL:5.0ML

LEVEL:LOW

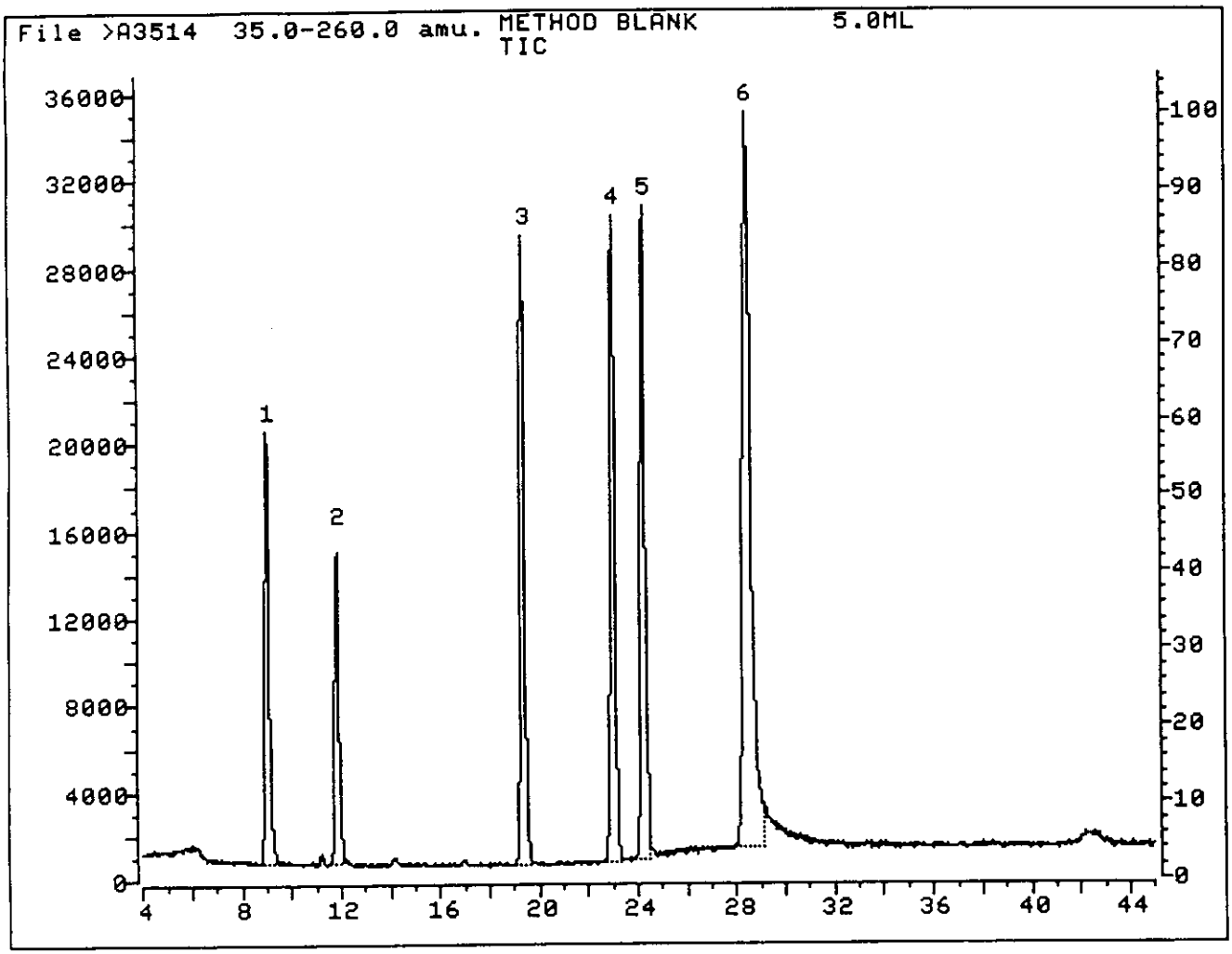
COMPOUND	RET TIME(MIN)	CONC
NONE FOUND		

SAMPLE INTEGRATION SUMMARY

SAMPLE NAME AND AMT: METHOD BLANK 5.0ML
SAMPLE DATA FILE: >A3514

PEAK NO.	RET. TIME	SCAN	AREA	IDENTIFICATION
1	9.02	221	240231	IS
2	11.85	294	171676	SS
3	19.36	488	350451	IS
4	23.01	582	370295	SS
5	24.25	614	391531	IS
6	28.43	722	781801	SS

IS = INTERNAL STANDARD
SS = SURROGATE
TC = TARGET COMPOUND
UK = UNKNOWN
<10% = UNKNOWN LESS THEN 10% OF INTERNAL STANDARD


File >A3514 35.0-260.0 amu. METHOD BLANK 5.0ML
TIC
36000
32000
28000
24000
20000
16000
12000
8000
4000
0
100
90
80
70
60
50
40
30
20
10
0
1
2
3
4
5
6
4
8
12
16
20
24
28
32
36
40
44

NORTHEASTERN ANALYTICAL CORPORATION

VOLATILE ORGANIC ANALYSIS DATA SHEET

LAB SAMPLE ID:METHOD BLANK

LAB FILE ID:>A3526

DATE RECEIVED:NA

DATE ANALYZED:911112

SAMPLE WT/VOL:5ML

LEVEL:LOW

CAS NO.		MDL	CONC. ug/L
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
107-02-8	Acrolein	20	U
107-13-1	Acrylonitrile	20	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-60-5	Trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-02-7	m&p Xylenes	10	U
110-75-8	O-Xylenes	5	U

U; Not Detected

QUANT REPORT

Operator ID: MALOS
Output File: ^A3526::D4
Data File: >A3526::D3
Name: METHOD BLANK
Misc: 5ML

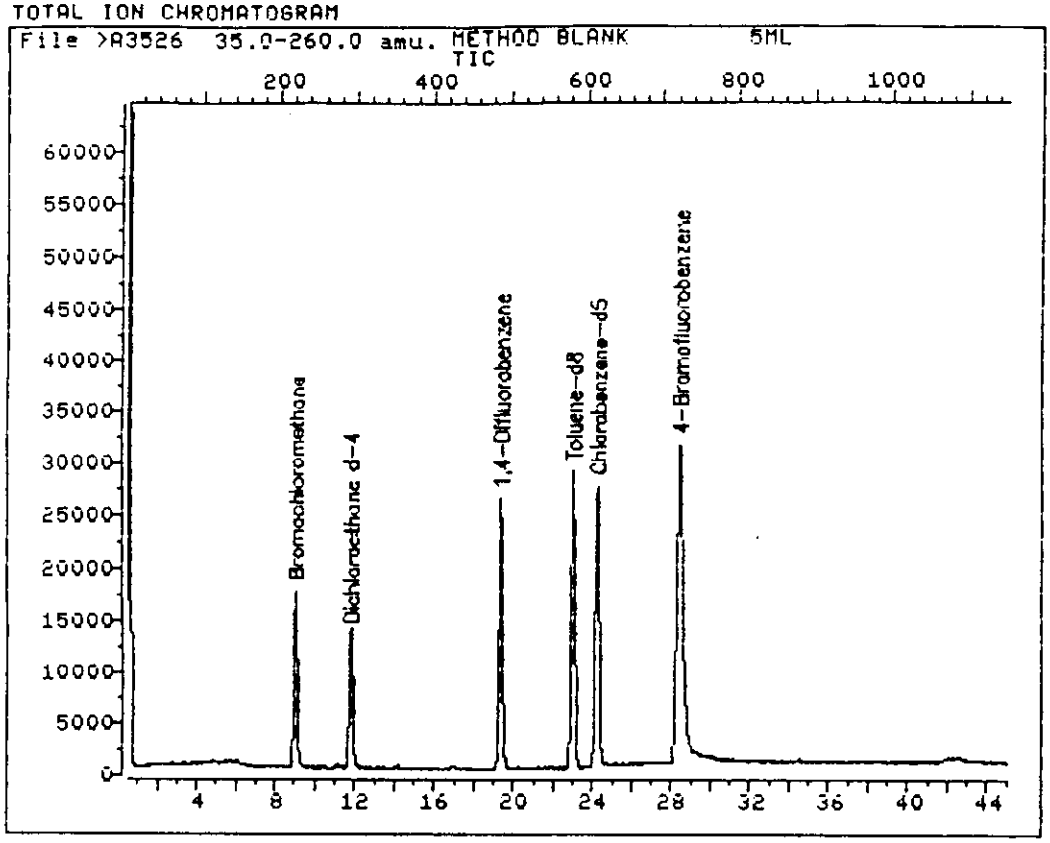
Quant Rev: 6 Quant Time: 911112 23:07
Injected at: 911112 22:21
Dilution Factor: 1.00000

ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.02	221	25354	50.00	ug/L	85
16)	1,2-Dichloroethane-d4	11.81	293	69349	52.32	ug/L	81
23)	*1,4-Difluorobenzene	19.36	488	111525	50.00	ug/L	69
33)	*Chlorobenzene-d5	24.24	614	92275	50.00	ug/L	94
39)	Toluene-d8	23.00	582	118887	51.40	ug/L	96
45)	Bromofluorobenzene	28.42	722	99877	51.76	ug/L	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM

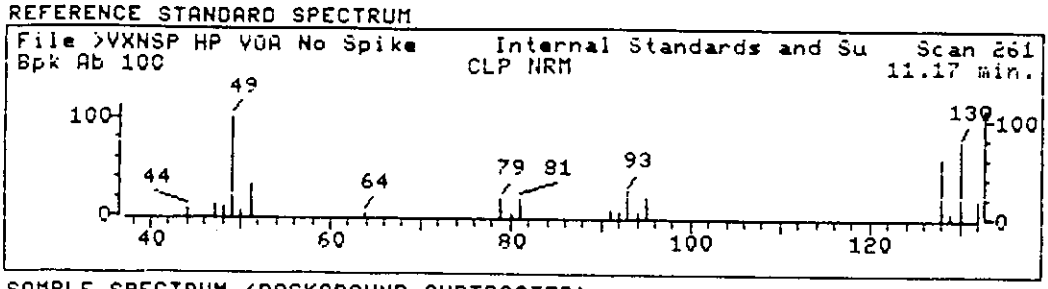


Data File: >A3526::D3 Quant Output File: ^A3526::D4
Name: METHOD BLANK
Misc: 5ML

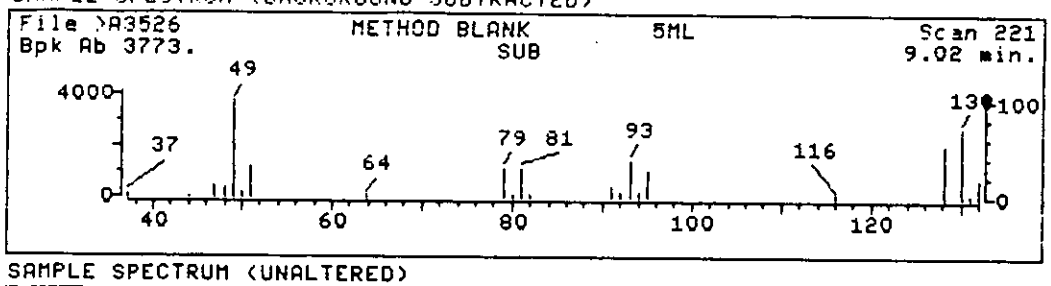
Id File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

Operator ID: MALOS
Quant Time: 911112 23:07
Injected at: 911112 22:21

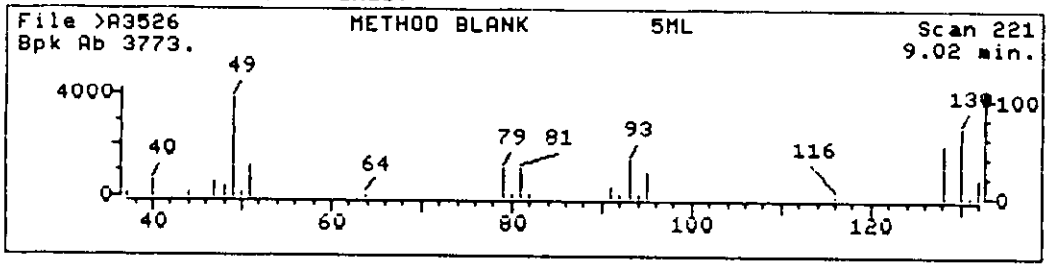
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

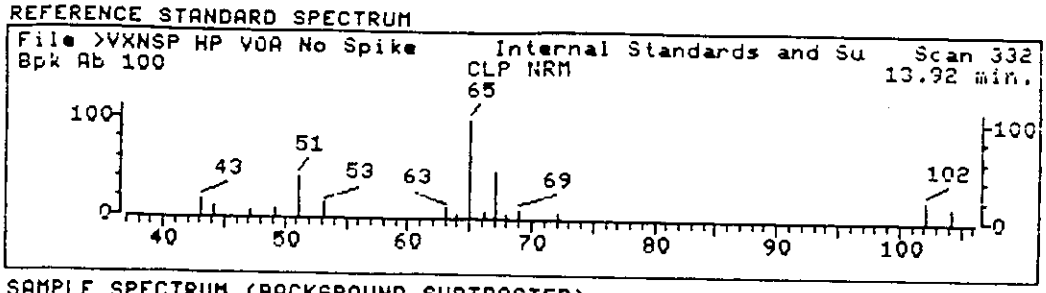


Data File: >A3526::D3
Name: METHOD BLANK
Misc: 5ML
Quant Time: 911112 23:07
Injected at: 911112 22:21

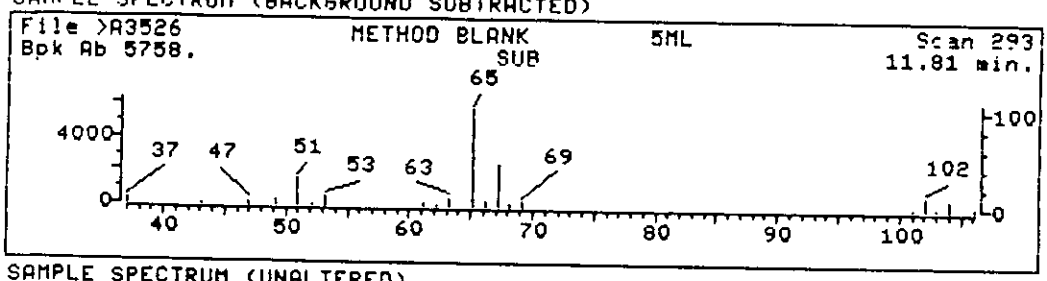
Quant Output File: ^A3526::D4
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 1 (ISTD)
Compound Name: Bromochloromethane
Scan Number: 221
Retention Time: 9.02 min.
Quant Ion: 128.0
Area: 25354
Concentration: 50.00 ug/L
q-value: 85

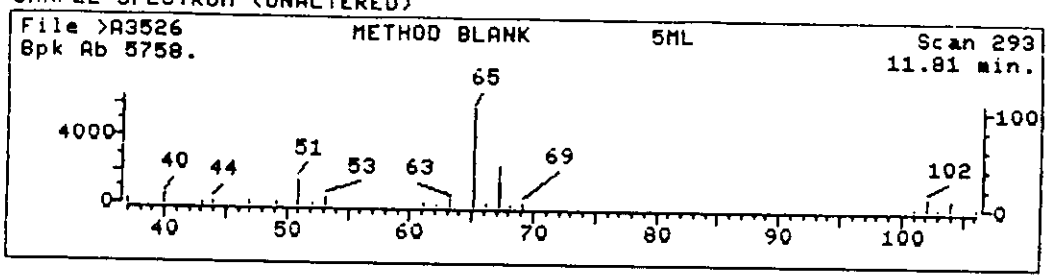
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



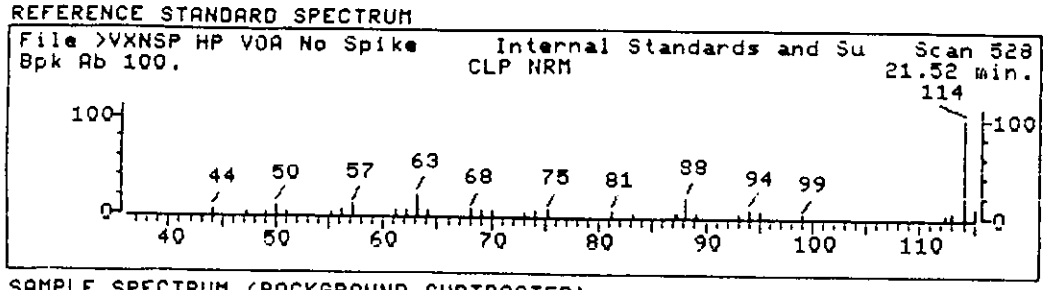
Data File: >A3526::D3
Name: METHOD BLANK
Misc: 5ML
Quant Time: 911112 23:07
Injected at: 911112 22:21

Quant Output File: ^A3526::D4

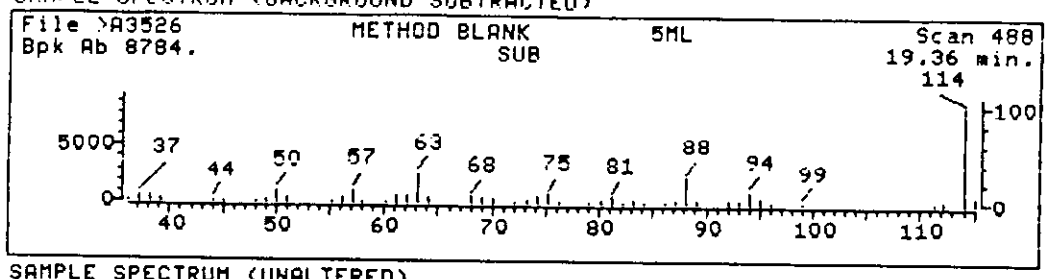
Quant ID File: ID_VOA::D2
Last Calibration: 911029 17:27

Compound No: 16
Compound Name: 1,2-Dichloroethane-d4
Scan Number: 293
Retention Time: 11.81 min.
Quant Ion: 65.0
Area: 69349
Concentration: 52.32 ug/L
q-value: 81

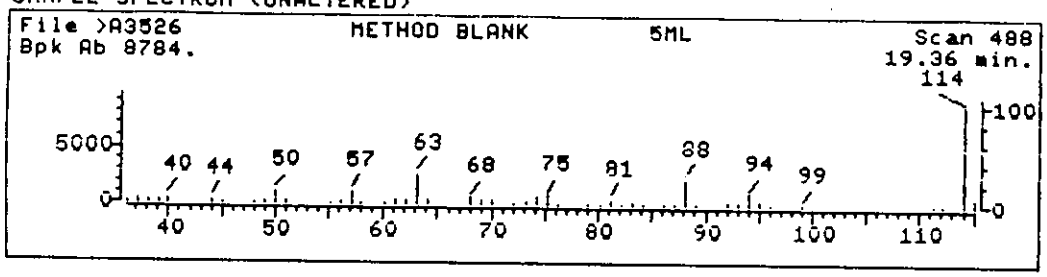
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



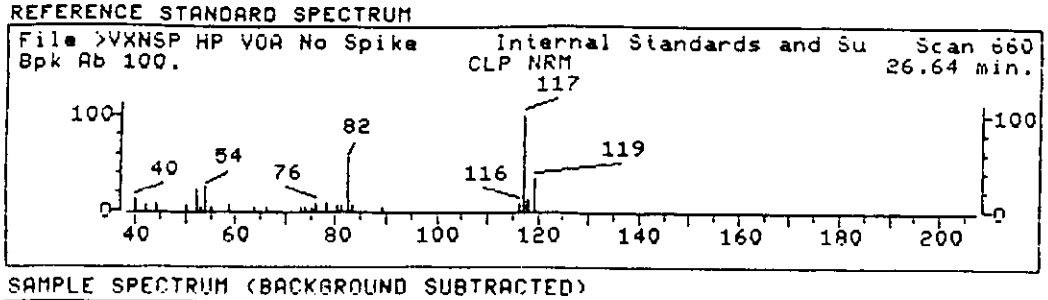
Data File: >A3526::D3
Name: METHOD BLANK
Misc: 5ML
Quant Time: 911112 23:07
Injected at: 911112 22:21

Quant Output File: ^A3526::D4

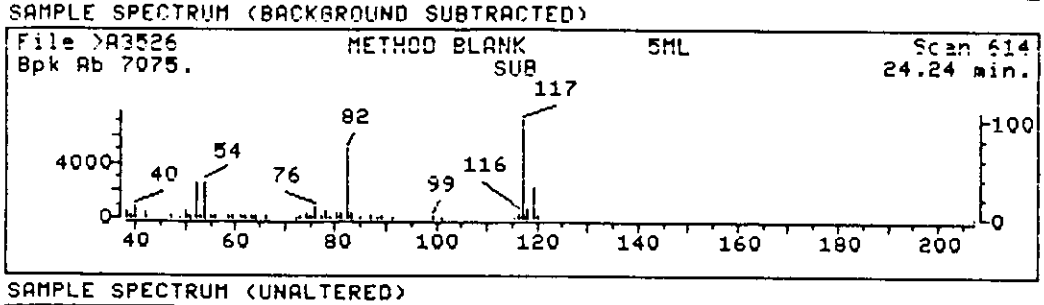
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 23 (ISTD)
Compound Name: 1,4-Difluorobenzene
Scan Number: 488
Retention Time: 19.36 min.
Quant Ion: 114.0
Area: 111525
Concentration: 50.00 ug/L
q-value: 69

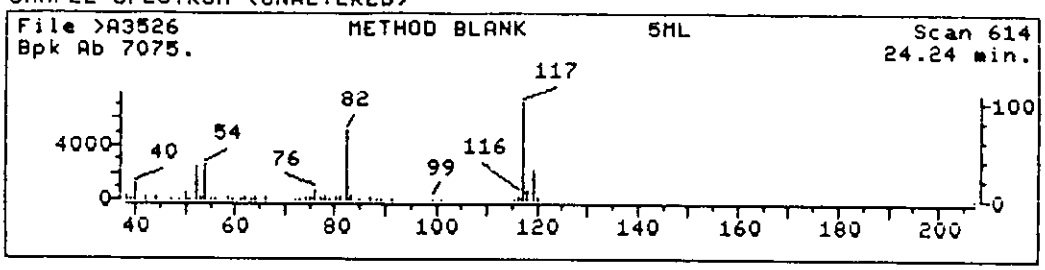
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

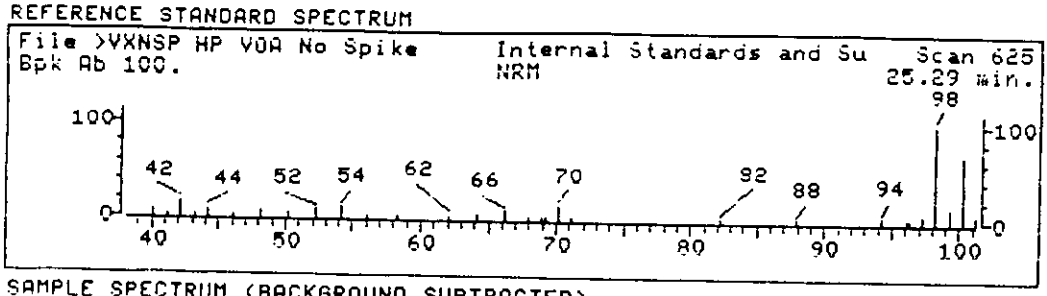


Data File: >A3526::D3
Name: METHOD BLANK
Misc: 5ML
Quant Time: 911112 23:07
Injected at: 911112 22:21

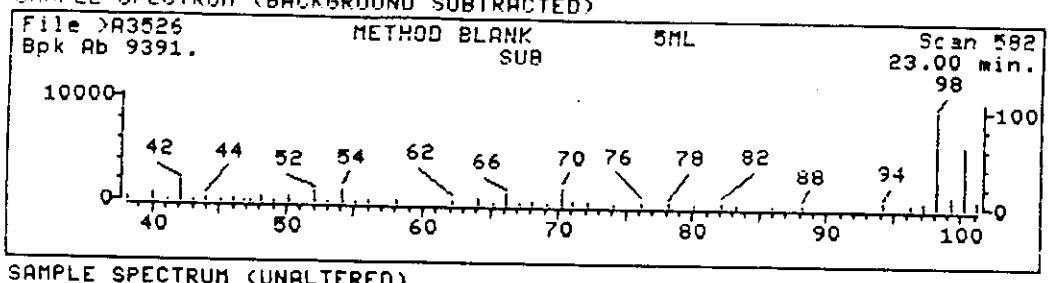
Quant Output File: ^A3526::D4
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 33 (ISTD)
Compound Name: Chlorobenzene-d5
Scan Number: 614
Retention Time: 24.24 min.
Quant Ion: 117.0
Area: 92275
Concentration: 50.00 ug/L
q-value: 94

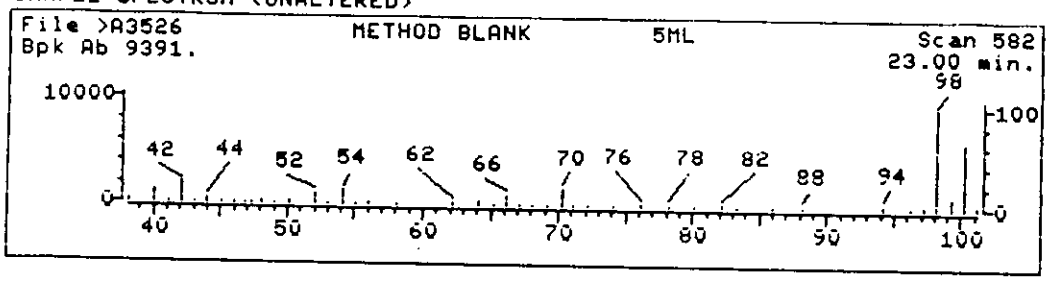
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



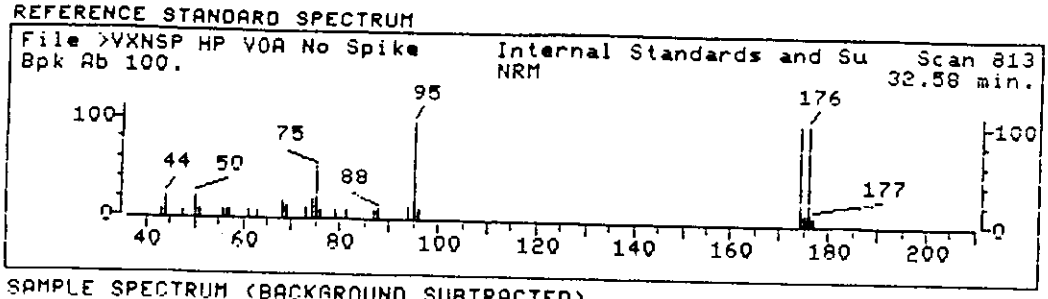
Data File: >A3526::D3
Name: METHOD BLANK
Misc: 5ML
Quant Time: 911112 23:07
Injected at: 911112 22:21

Quant Output File: ^A3526::D4

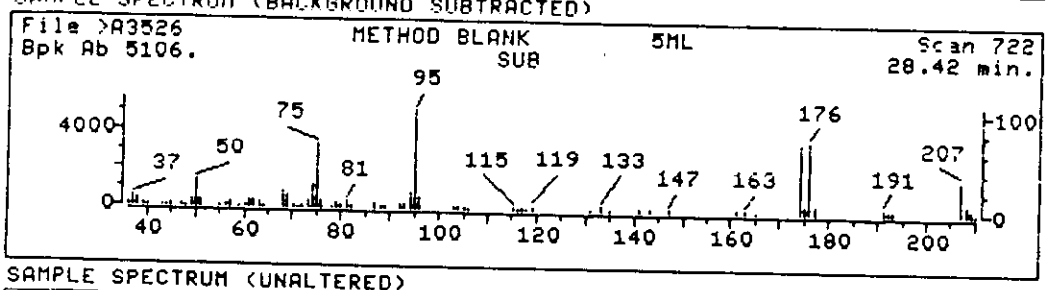
Quant ID File: ID_VCA::D2
Last Calibration: 911029 17:27

Compound No: 39
Compound Name: Toluene-d8
Scan Number: 582
Retention Time: 23.00 min.
Quant Ion: 98.0
Area: 118887
Concentration: 51.40 ug/L
q-value: 96

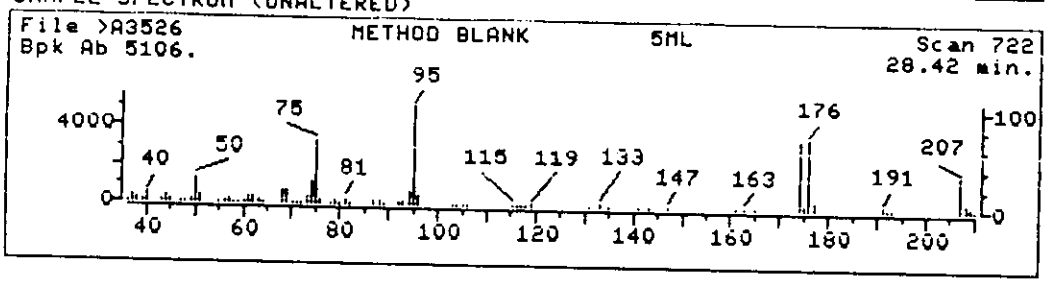
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >A3526::D3
Name: METHOD BLANK
Misc: 5ML
Quant Time: 911112 23:07
Injected at: 911112 22:21

Quant Output File: ^A3526::D4

Quant ID File: ID_VOA::D2
Last Calibration: 911029 17:27

Compound No: 45
Compound Name: Bromofluorobenzene
Scan Number: 722
Retention Time: 28.42 min.
Quant Ion: 95.0
Area: 99877
Concentration: 51.76 ug/L
q-value: 92

NORTHEASTERN ANALYTICAL CORPORATION
VOLATILE UNKNOWN IDENTIFICATIION

LAB SAMPLE ID:METHOD BLANK

LAB FILE ID:>A3526

DATE RECEIVED:NA

DATE ANALYZED:911112

SAMPLE WT/VOL:5ML

LEVEL:LOW

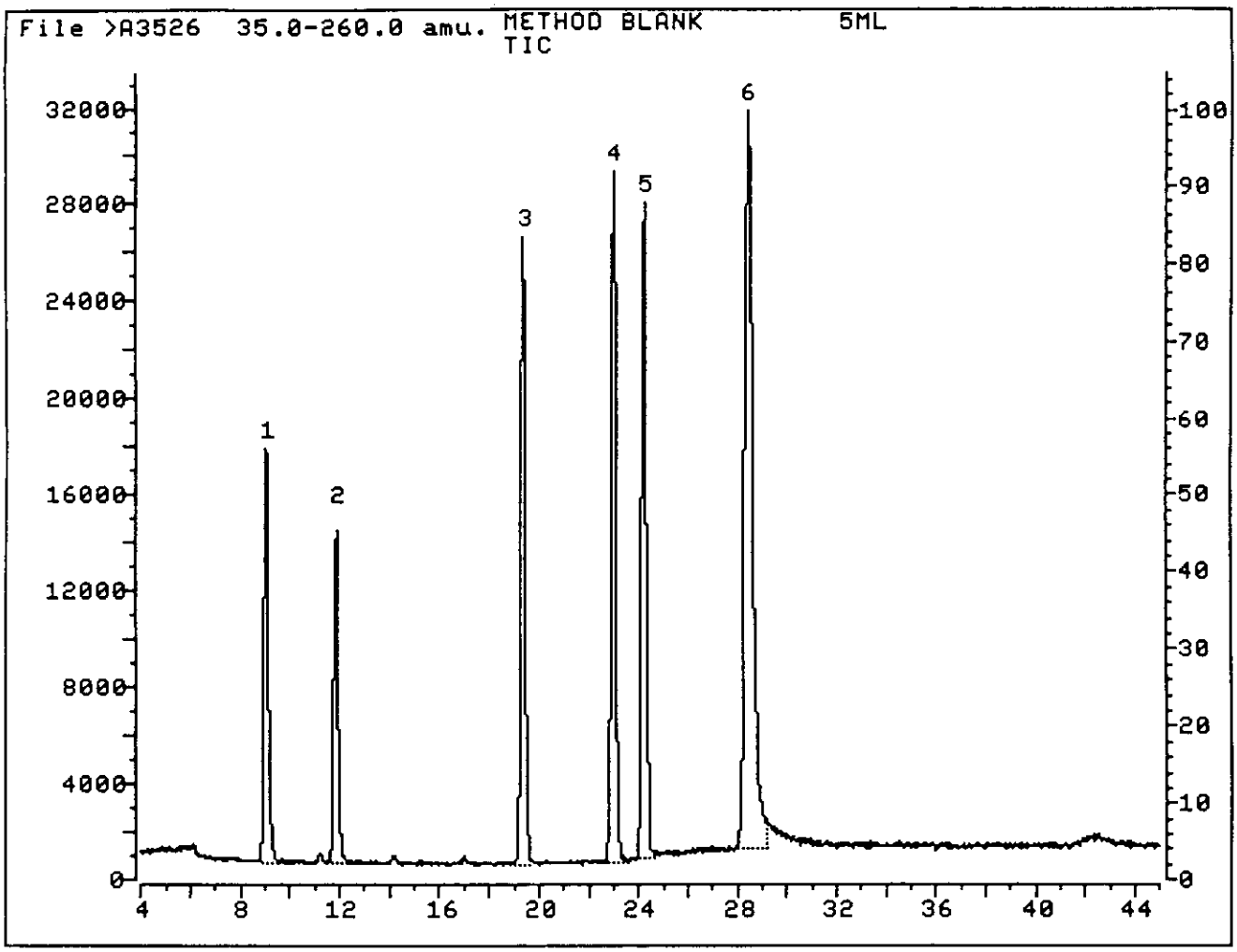
COMPOUND	RET TIME(MIN)	CONC
NONE FOUND		

SAMPLE INTEGRATION SUMMARY

SAMPLE NAME AND AMT: METHOD BLANK 5ML
SAMPLE DATA FILE: >A3526

PEAK NO.	RET. TIME	SCAN	AREA	IDENTIFICATION
1	9.02	221	212603	IS
2	11.84	294	165900	SS
3	19.36	488	317579	IS
4	23.00	582	361706	SS
5	24.24	614	356669	IS
6	28.42	722	703215	SS

IS = INTERNAL STANDARD
SS = SURROGATE
TC = TARGET COMPOUND
UK = UNKNOWN
<10% = UNKNOWN LESS THEN 10% OF INTERNAL STANDARD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50
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0
1
2
3
4
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12
16
20
24
28
32
36
40
44

Roux Associates, Inc.
Test Report No. NAC91L-3432
Certification No. 03117
November 29, 1991

H. RAW QC DATA PACKAGE (Continued)

1. Volatile Organics by GC/MS (Continued)

c. Matrix Spike/Matrix Spike Duplicate Chromatograms and Quantitation Reports

QUANT REPORT

Operator ID: MALOS
Output File: ^A3528::D4
Data File: >A3528::D3
Name: 91L-3365-6MS A-354
Misc: 5ML

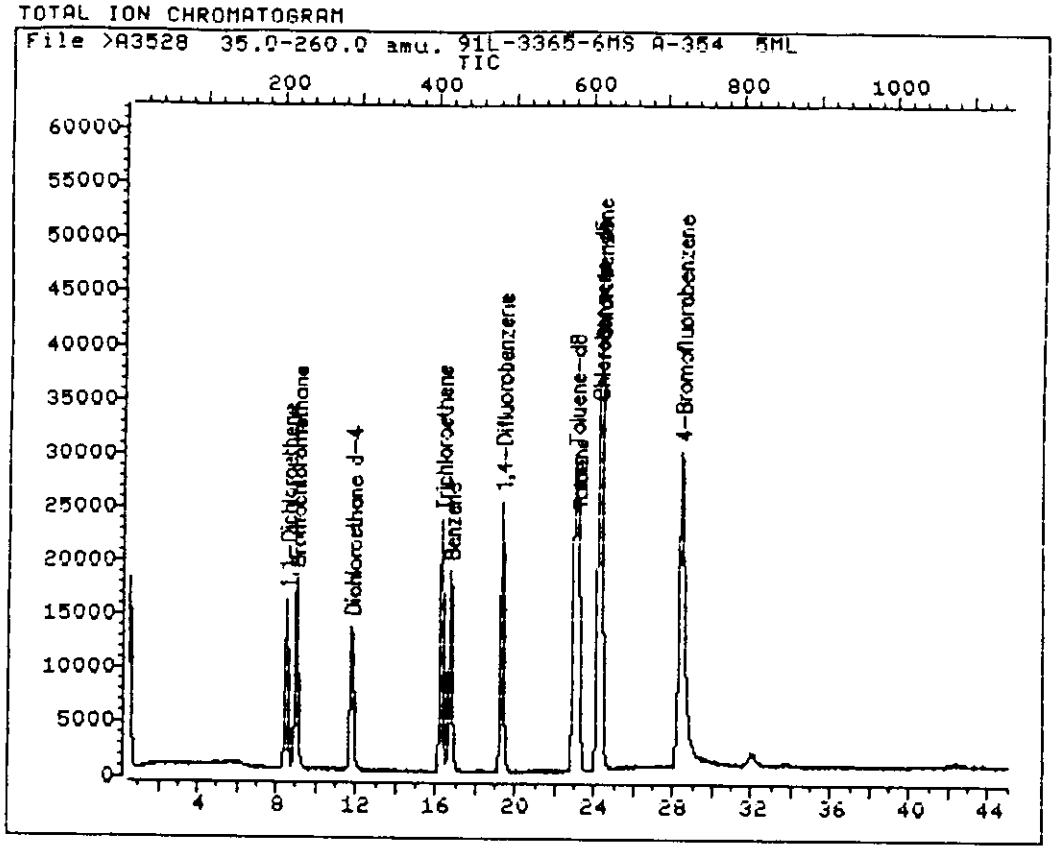
Quant Rev: 6 Quant Time: 911113 00:56
Injected at: 911113 00:10
Dilution Factor: 1.00000

ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.02	221	25813	50.00	ug/L	87
12)	1,1-Dichloroethene	8.51	208	30940	42.94	ug/L	86
16)	1,2-Dichloroethane-d4	11.81	293	68642	50.86	ug/L	80
23)	*1,4-Difluorobenzene	19.32	487	107677	50.00	ug/L	68
26)	Trichloroethene	16.30	409	43031	43.38	ug/L	90
29)	Benzene	16.76	421	86038	52.22	ug/L	92
33)	*Chlorobenzene-d5	24.20	613	92586	50.00	ug/L	94
38)	Toluene	23.19	587	56515	44.98	ug/L	96
39)	Toluene-d8	23.00	582	115927	49.95	ug/L	92
40)	Chlorobenzene	24.32	616	82540	46.00	ug/L	95
45)	Bromofluorobenzene	28.42	722	100129	51.72	ug/L	89

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A3528::D3 Quant Output File: ^A3528::D4
Name: 91L-3365-6MS A-354
Misc: 5ML

Id File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

Operator ID: MALOS
Quant Time: 911113 00:56
Injected at: 911113 00:10

QUANT REPORT

Operator ID: MALOS
Output File: ^A3529::D4
Data File: >A3529::D3
Name: 91L-3365-6MSD A-354
Misc: 5ML

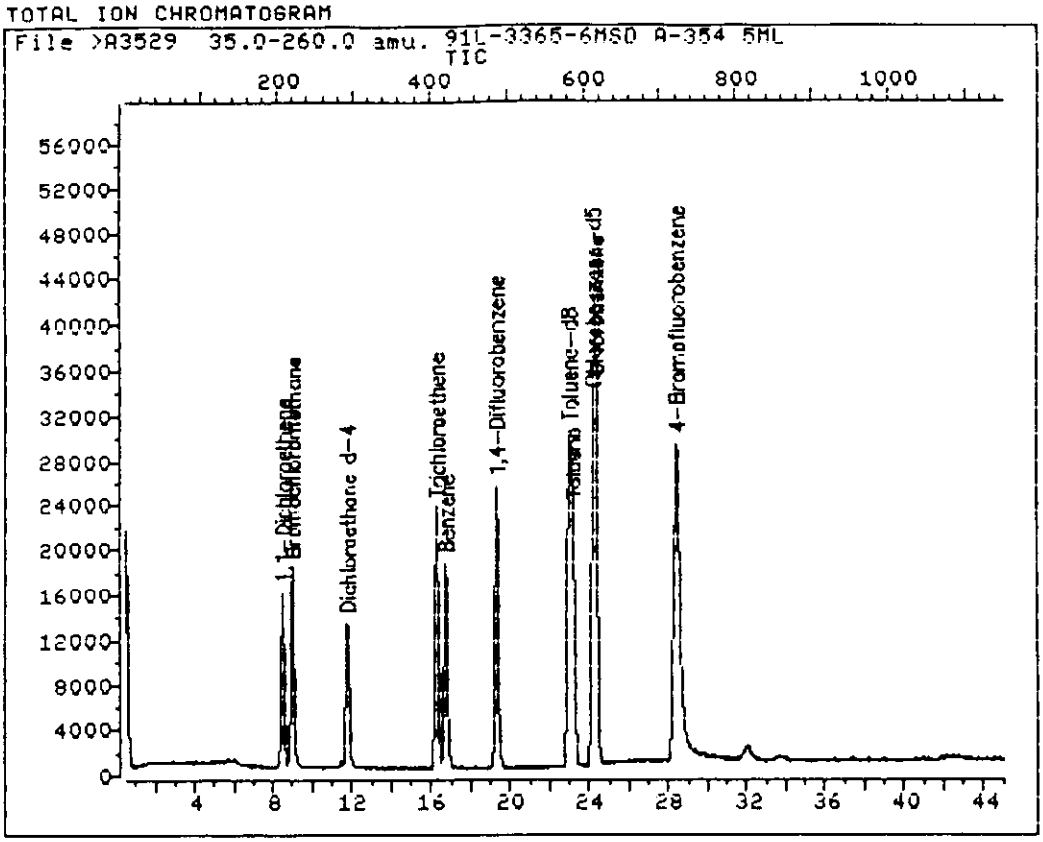
Quant Rev: 6 Quant Time: 911113 01:46
Injected at: 911113 01:00
Dilution Factor: 1.00000

ID File: ID_VOA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.02	221	25676	50.00	ug/L	85
12)	1,1-Dichloroethene	8.51	208	30290	42.26	ug/L	90
16)	1,2-Dichloroethane-d4	11.81	293	67621	50.37	ug/L	83
23)	*1,4-Difluorobenzene	19.32	487	110409	50.00	ug/L	69
26)	Trichloroethene	16.30	409	41701	41.00	ug/L	93
29)	Benzene	16.76	421	83884	49.66	ug/L	95
33)	*Chlorobenzene-d5	24.20	613	92335	50.00	ug/L	95
38)	Toluene	23.19	587	55771	44.50	ug/L	96
39)	Toluene-d8	23.00	582	117234	50.65	ug/L	96
40)	Chlorobenzene	24.36	617	79246	44.28	ug/L	96
45)	Bromofluorobenzene	28.42	722	98931	51.24	ug/L	86

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >A3529::D3 Quant Output File: ^A3529::D4
Name: 91L-3365-6MSD A-354
Misc: 5ML

Id File: ID_VCA::D2
Title: HP VOA Standards for 5 Point Calibration Curve Rev. E
Last Calibration: 911029 17:27

Operator ID: MALOS
Quant Time: 911113 01:46
Injected at: 911113 01:00