M60050.000051
MCAS EL TORO
SSIC # 5090.3

HADLEY INDUSTRIES
environmental technologies

October 14, 1991

Southwest Division, NAVFACENGCOM
1220 Pacific Highway (Code 0214)
San Diego, California 92132-5190
Attn: Mr. Andy Piszkin, RPM

Reference: MCAS EL TORO
Santa Ana, California

Dear Mr. Piszkin:

Enclosed is the Sample Data Package of CLP analytical work and associated Quality Assurance/Quality Control data for the samples collected during the month of September, 1991.

Please feel free to call me at 1-800-345-4227 if you have any questions regarding this information.

Sincerely,

Donald A. Klemm
National Operations Manager

Enclosure

DAK:vlb

Eastern Regional Office
P.O. Box 40
Beaver Falls, Pennsylvania 15010
(412) 847-3847 • FAX (412) 847-3844

Central Regional Office
5900 West Fourth Street • P. O. Box 489
Ludington, Michigan 49431 • (616) 845-0537
(800) 345-4227 • FAX (616) 843-3882

Western Regional Office
Suite 388 • 5241 Mission Oaks Blvd.
Camarillo, California 93012 • (805) 389-4768
(800) 676-6808 • FAX (805) 389-4789

COMPUCHEM LABORATORIES

09/OCT/91

Ms. Karen Hobart
Hadley Industries
5900 West 4th Street
Ludington, MI 49431

Subject: Report of Data - Account Number 500253

Enclosed herewith are the results of analytical work and associated Quality Control data for the samples received by CompuChem@ under the referenced account number.

As you know, CLP service is performed in accordance with EPA methodologies as defined for the National Contract Laboratory Program; 'SOW For Organic Analysis; Multi-Media, Multi-Concentration'. Your original data has been stored and is available for future reference.

Thank you for selecting CompuChem@ Laboratories for your sample analysis. We would like to continue providing you analytical support and services in the future. If you should have questions or require additional analytical services, please contact your representative at 1-919-549-8263.

Sincerely,

Elise L. Cobb
Supervisor, Report Deliverables

Attachment

COMPUCHEM
LABORATORIES, INC.

09/OCT/91

Ms. Karen Hobart
Hadley Industries
5900 West 4th Street
Ludington, MI 49431

ACCOUNT #: 500253

CC#	SAMPLE-ID	RECEIPT DATE
445460	EFFLUENT	9/14/91
445464	BETWEEN	9/14/91
445465	INFLUENT	9/14/91

TOTAL NUMBER OF SAMPLES = 3

VOA
GC/MS WORKSHEET

J( ) J3( ) D( ) (:1)

J2( ) J4( ) D2( ) (:1)

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CLP, 23861, 7, EFFLUENTMSD, LOW, WATER, 445462, VOA, MSD, F50053 941 | 313

==========

GC/MS ANALYSIS
AMOUNT PURGED: 5000. UL
INTERNAL STANDARD/SURROGATE MIX VOLUME ADDED 5UL OR ___ UL
BFB FILENAME: BF910918A53
BLANK FILENAME: CC910918A53
STANDARD FILENAME: CT910918A53
SAMPLE FILENAME: CN045462A53

ANALYST(S): INJECTION _____ WORKUP 1171 K

==========

GC/MS REVIEW

OK JA DI SH SL
IH IL DA DW OT*

CONDITION CODE OK

DISPOSITION: [✓] COMPLETE

EXTRANEOUS PEAKS SEARCH RESULTS:
OF PEAKS FOUND : 0

[ ] REINJECT NEAT
[ ] DILUTE ( )

QUALITY ASSURANCE NOTICE(S):
NOTICES REQUIRED 0

COMMENTS: NOTE: IF CONDITION CODE IS "OT" EXPLAIN FULLY HERE.

POSTED

GC/MS REVIEW [signature] DATE 9/20/91 AUDITOR _____ DATE ___/___/___

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REPORT INTEGRATION: TOTAL # OF INJECTIONS: ____

FINAL REPORTABLE PACKAGE(S): CN045462A23 / _____

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QA COMMENTS:

INITIALS _____ DATE ___/___/___

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FINAL REVIEW: INITIALS _____ DATE ___/___/___

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:44	0.99	0.587	1.00	1.85	50.00	0.014	0.391	0.04
13	6:03		0.620						
14	6:39	0.99	0.680	1.00	3.56	50.00	0.151	2.124	0.07
15	7:15	0.99	0.741	1.00	0.30	50.00	0.010	1.592	0.01
16	8:06		0.829						
17	9:18		0.952						
18	9:21		0.957						
19	9:59		1.021						
20	10:20		0.869						
21	10:40		0.898						
22	11:05	1.00	0.932	1.00	55.47	50.00	1.013	0.913	1.11
23	11:06	0.99	1.136	1.00	0.86	50.00	0.030	1.722	0.02
24	12:24	1.00	1.044	1.00	55.90	50.00	0.452	0.404	1.12
25	12:50		1.080						
26	13:25		1.129						
27	14:42		0.818						
28	15:03	1.00	0.837	1.00	56.10	50.00	1.253	1.117	1.12
29	14:20		1.206						
30	15:31		1.305						
31	15:53		1.336						
32	16:12		0.901						
33	16:27		0.916						
34	16:42		1.405						
35	18:02	1.00	1.004	1.00	56.69	50.00	0.999	0.881	1.13
36	18:18		1.018						
37	18:34		1.033						
38	19:26		1.082						
39	19:28		1.083						
40	19:50		1.668						
41	20:53		1.163						
42	7:15	0.99	0.741	1.00	0.32	100.00	0.005	1.491	0.00
43	18:34	0.00	1.033	0.00	-0.00	150.00	-0.000	0.554	-0.00

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	770	9:44	1	1.000	A BB	52165.	50.000 UG/L	8.75
2	114	937	11:51	2	1.000	A BB	235225.	50.000 UG/L	8.75
3	117	1418	17:56	3	1.000	A BB	218762.	50.000 UG/L	8.75
4	65	862	10:54	1	1.119	A BB	87234.	46.311 UG/L	8.11
5	98	1175	14:51	3	0.829	A BB	242320.	47.216 UG/L	8.26
6	95	1625	20:33	3	1.146	A BB	188338.	46.204 UG/L	8.09
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	96	442	5:35	1	0.574	A BB	67261.	50.637 UG/L	8.86
12	43	451	5:42	1	0.586	A BB	753.	1.847 UG/L	0.32
13	NOT FOUND								
14	84	523	6:37	1	0.679	A BB	7893.	3.562 UG/L	0.62
15	96	569	7:12	1	0.739	A BB	501.	0.302 UG/L	0.05 BDL
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	78	873	11:02	2	0.932	A BB	238220.	55.468 UG/L	9.71
23	62	873	11:02	1	1.134	A BB	1549.	0.862 UG/L	0.15
24	130	978	12:22	2	1.044	A BB	106354.	55.898 UG/L	9.78
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	91	1186	15:00	3	0.836	A BB	274102.	56.099 UG/L	9.82
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	112	1422	17:59	3	1.003	A BB	218532.	56.687 UG/L	9.92
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	96	569	7:12	1	0.739	**B*	500.	0.321 UG/L	0.06
43	106	6724	0:00	3	0.000	****	-2.	-0.001 UG/L	-0.00

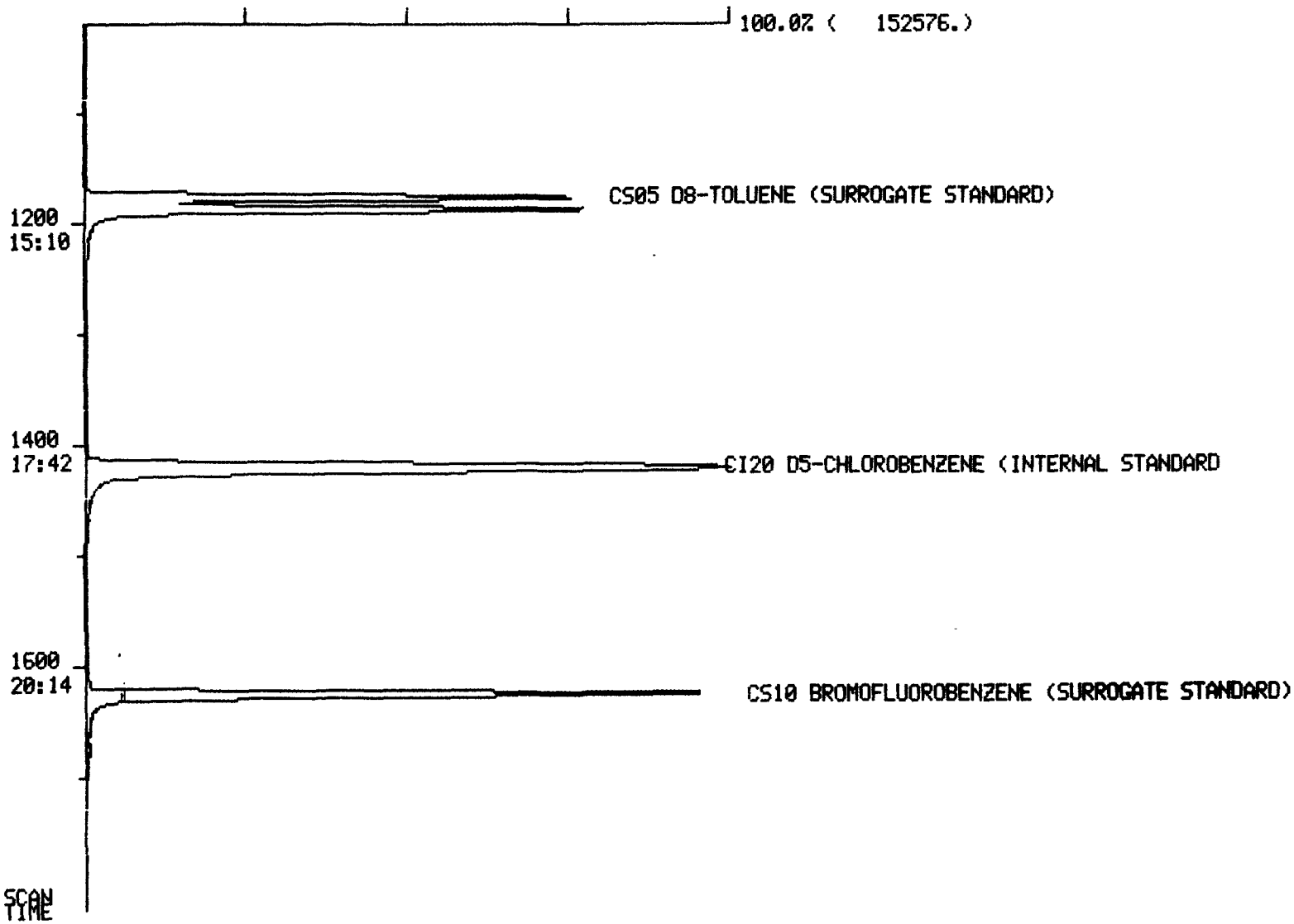
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:46	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:53	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:56	1.00	1.119	1.00	46.31	50.00	1.672	1.805	0.93
5	14:55	1.00	0.830	1.00	47.22	50.00	1.108	1.173	0.94
6	20:35	1.00	1.146	1.00	46.20	50.00	0.861	0.932	0.92
7	3:14		0.331						
8	3:23		0.347						
9	3:55		0.401						
10	4:08		0.423						
11	5:38	0.99	0.577	0.99	50.64	50.00	1.289	1.273	1.01

Data: CN045462A53.TI
09/18/91 21:01:00
Sample: CLP,23861,7,EFFLUENTMSD,LOW,WATER,445462,VOA,MSD,F50053
Conds.: DB624,CT910918A53,BF910918A53,CC910918A53
Formula: NWSW Instrument: F50053 Weight: 5000.000
Submitted by: NWSW Analyst: 2033 Acct. No.: MHY

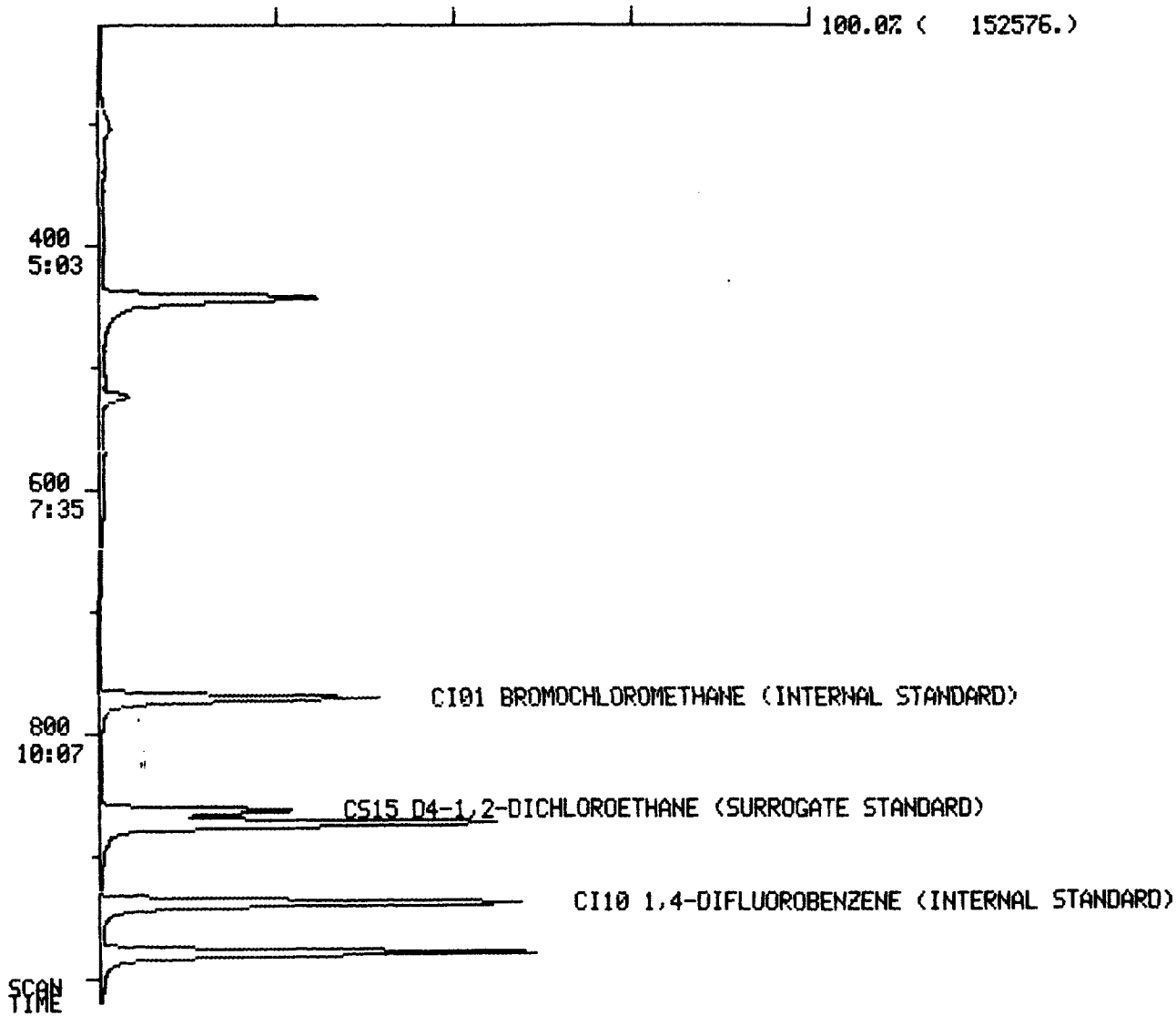
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CN045462A53 SCANS 1020 TO 1700 ACQUIRED: 09/18/91 21:01:00
CALI: CN045462A53 #3 OUT OF 220 TO 1700
SAMPLE: CLP,23861,7,EFFLUENTMSD,LOW,WATER,445462,VOA,MSD,F50053
CONDS.: DB624,CT910918A53,BF910918A53,CC910918A53



DATA FROM FILE: CN045462A53 SCANS 220 TO 1020 ACQUIRED: 09/18/91 21:01:00
CALI: CN045462A53 #3 OUT OF 220 TO 1700
SAMPLE: CLP,23861,7,EFFLUENTMSD,LOW,WATER,445462,VOA,MSD,F50053
CONDS.: DB624,CT910918A53,BF910918A53,CC910918A53



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENTMSD

Lab Name: COMPUCHEM.RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445462

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN045462A53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	51	
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	56	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	56	
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	56	
108-90-7	Chlorobenzene	57	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

(4) Matrix Spike Duplicate data

(a) Tabulated results (Form I VOA) of nonspiked TCL compounds. Form I VOA – TIC not required.

(b) Reconstructed ion chromatogram(s) and GC/MS quantitation report(s) or legible facsimile. Spectra not required.

VOA
GC/MS WORKSHEET

J( ) J3( ) D( ) (:1)

J2( ) J4( ) D2( ) (:1)

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CLP,23861,7,EFFLUENTMS,LOW,WATER,445461,VOA,MS,F50053 941/313

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GC/MS ANALYSIS
AMOUNT PURGED: 5000. UL
INTERNAL STANDARD/SURROGATE MIX VOLUME ADDED 5UL OR ___ UL
BFB FILENAME: BF910918A53
BLANK FILENAME: CC910918A53
STANDARD FILENAME: CT910918A53
SAMPLE FILENAME: CN045461A53

ANALYST(S): INJECTION _____ WORKUP _____

==========

GC/MS REVIEW

OK JA DI SH SL
IH IL DA DW OT*

CONDITION CODE ---OK---

DISPOSITION: [X] COMPLETE

EXTRANEOUS PEAKS SEARCH RESULTS:
OF PEAKS FOUND : 0

[ ] REINJECT NEAT
[ ] DILUTE ( )

QUALITY ASSURANCE NOTICE(S):
NOTICES REQUIRED _____

COMMENTS: NOTE: IF CONDITION CODE IS "OT" EXPLAIN FULLY HERE.

REPORTED

GC/MS REVIEW _____ DATE 9/20/91 AUDITOR _____ DATE ___/___/___

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REPORT INTEGRATION: TOTAL # OF INJECTIONS: ____

FINAL REPORTABLE PACKAGE(S): CN045461A53 / _____

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QA COMMENTS:

INITIALS _____ DATE ___/___/___

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FINAL REVIEW: INITIALS _____ DATE ___/___/___

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:44	1.00	0.587	1.00	3.80	50.00	0.030	0.391	0.08
13	6:03		0.620						
14	6:39	1.00	0.680	1.00	1.37	50.00	0.058	2.124	0.03
15	7:15	0.99	0.741	1.00	0.48	50.00	0.015	1.592	0.01
16	8:06		0.829						
17	9:18		0.952						
18	9:21		0.957						
19	9:59		1.021						
20	10:20		0.869						
21	10:40		0.898						
22	11:05	1.00	0.932	1.00	55.29	50.00	1.009	0.913	1.11
23	11:06	1.00	1.136	1.00	0.99	50.00	0.034	1.722	0.02
24	12:24	1.00	1.044	1.00	55.45	50.00	0.449	0.404	1.11
25	12:50		1.080						
26	13:25		1.129						
27	14:42		0.818						
28	15:03	1.00	0.837	1.00	56.30	50.00	1.257	1.117	1.13
29	14:20		1.206						
30	15:31		1.305						
31	15:53		1.336						
32	16:12		0.901						
33	16:27		0.916						
34	16:42		1.405						
35	18:02	1.00	1.004	1.00	55.48	50.00	0.978	0.881	1.11
36	18:18		1.018						
37	18:34		1.033						
38	19:26		1.082						
39	19:28		1.083						
40	19:50		1.668						
41	20:53		1.163						
42	7:15	0.99	0.741	1.00	0.51	100.00	0.008	1.491	0.01
43	18:34	0.00	1.033	0.00	-0.00	150.00	-0.000	0.554	-0.00

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	771	9:45	1	1.000	A BB	48182.	50.000 UG/L	8.64
2	114	938	11:52	2	1.000	A BB	222826.	50.000 UG/L	8.64
3	117	1421	17:58	3	1.000	A BB	208880.	50.000 UG/L	8.64
4	65	864	10:56	1	1.121	A BB	86905.	49.951 UG/L	8.63
5	98	1178	14:54	3	0.829	A BB	236379.	48.237 UG/L	8.34
6	95	1628	20:35	3	1.146	A BB	184740.	47.465 UG/L	8.20
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	96	444	5:37	1	0.576	A BB	65331.	53.250 UG/L	9.20 y
12	43	452	5:43	1	0.586	A BB	1431.	3.800 UG/L	0.66 nc
13	NOT FOUND								
14	84	524	6:38	1	0.680	A BB	2798.	1.367 UG/L	0.24 y
15	96	569	7:12	1	0.738	A BB	733.	0.478 UG/L	0.08 nc
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	78	874	11:03	2	0.932	A BB	224936.	55.289 UG/L	9.56 y
23	62	875	11:04	1	1.135	A BB	1642.	0.989 UG/L	0.17 nc
24	130	979	12:23	2	1.044	A BB	99946.	55.453 UG/L	9.59 y
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	91	1189	15:02	3	0.837	A BB	262644.	56.297 UG/L	9.73 y
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	112	1425	18:01	3	1.003	A BB	204216.	55.479 UG/L	9.59 y
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	96	569	7:12	1	0.738	**B*	732.	0.509 UG/L	0.09
43	106	6724	0:00	3	0.000	****	-2.	-0.001 UG/L	-0.00

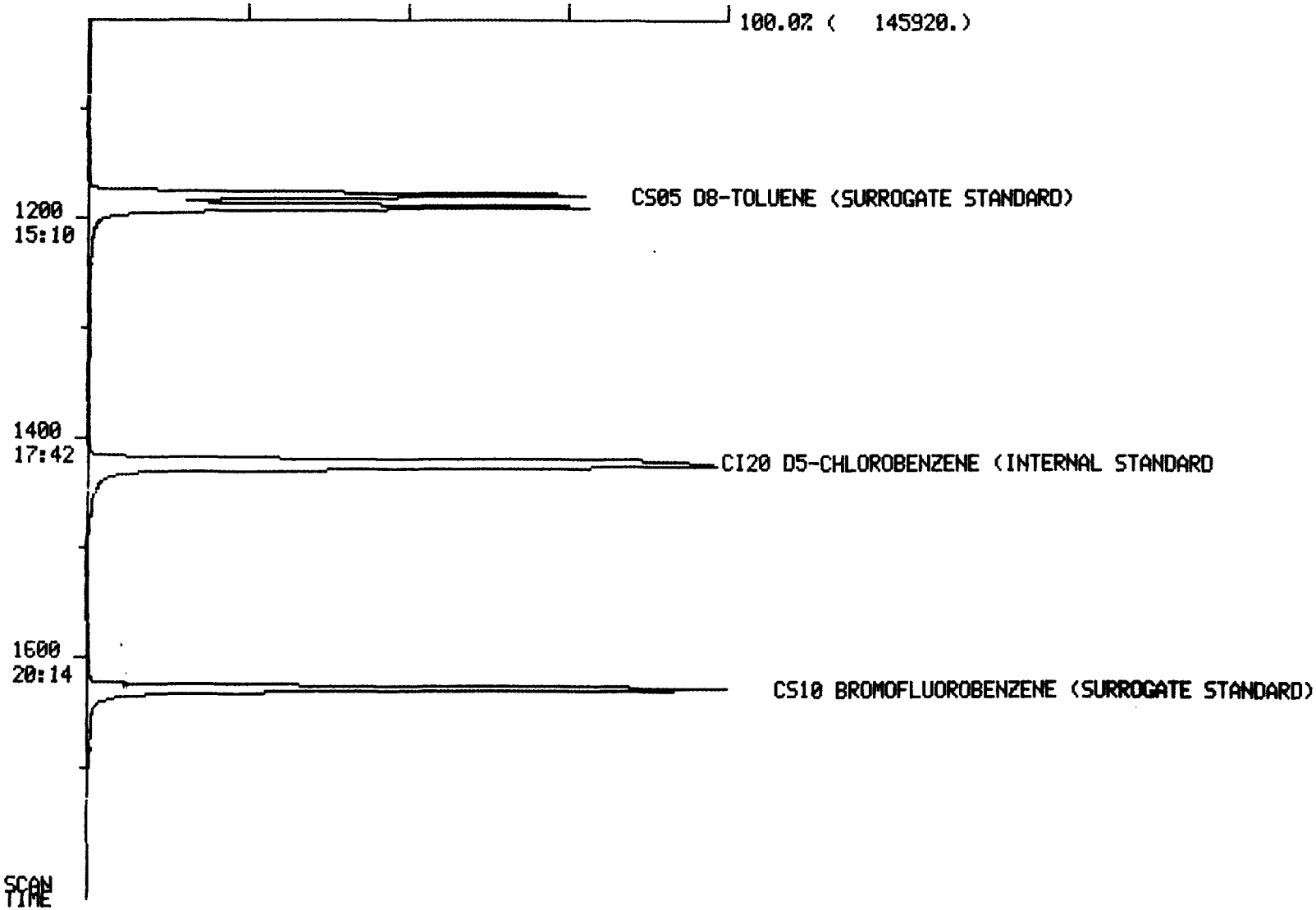
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:46	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:53	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:56	1.00	1.119	1.00	49.95	50.00	1.804	1.805	1.00
5	14:55	1.00	0.830	1.00	48.24	50.00	1.132	1.173	0.96
6	20:35	1.00	1.146	1.00	47.47	50.00	0.884	0.932	0.95
7	3:14		0.331						
8	3:23		0.347						
9	3:55		0.401						
10	4:08		0.423						
11	5:38	1.00	0.577	1.00	53.25	50.00	1.356	1.273	1.07

Data: CN045461A53.TI
09/18/91 20:08:00
Sample: CLP,23861,7,EFFLUENTMS,LOW,WATER,445461,VOA,MS,F50053
Conds.: DB624,CT910918A53,BF910918A53,CC910918A53
Formula: NWSW Instrument: F50053 Weight: 5000.000
Submitted by: NWSW Analyst: 2033 Acct. No.: MHY

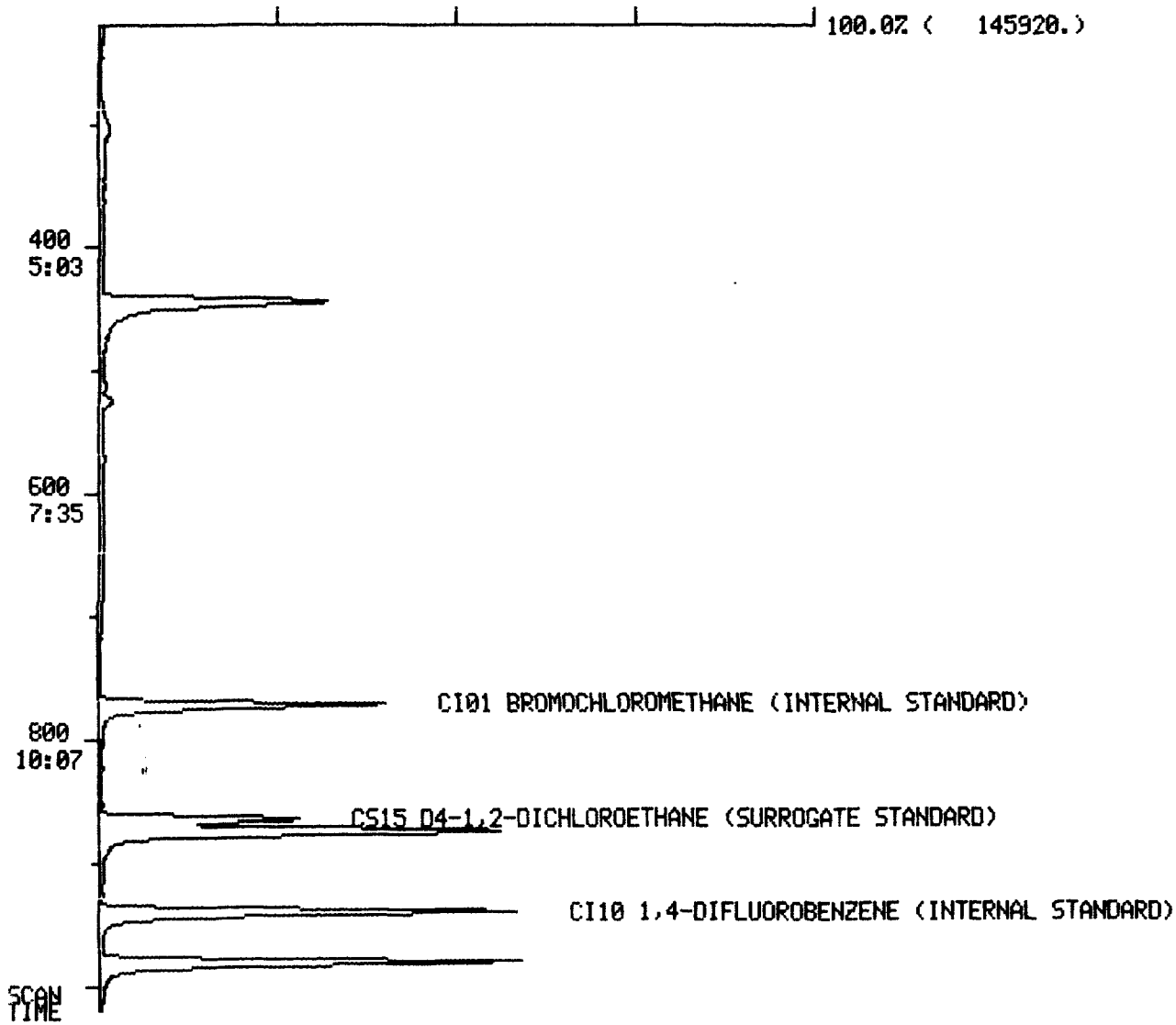
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CN045461A53 SCANS 1020 TO 1700 ACQUIRED: 09/18/91 20:08:00
CALI: CN045461A53 #3 OUT OF 220 TO 1700
SAMPLE: CLP,23861,7,EFFLUENTMS,LOW,WATER,445461,VOA,MS,F50053
CONDS.: DB624,CT910918A53,BF910918A53,CC910918A53



DATA FROM FILE: CN045461A53 SCANS 220 TO 1020 ACQUIRED: 09/18/91 20:08:00
CALI: CN045461A53 #3 OUT OF 220 TO 1700
SAMPLE: CLP,23861,7,EFFLUENTMS,LOW,WATER,445461,VOA,MS,F50053
CONDS.: DB624,CT910918A53,BF910918A53,CC910918A53



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENTMS

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445461

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN045461A53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	53	
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	56	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	55	
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	56	
108-90-7	Chlorobenzene	56	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

(3) Matrix Spike data

(a) Tabulated results (Form I VOA) of nonspiked TCL compounds. Form I VOA – TIC not required.

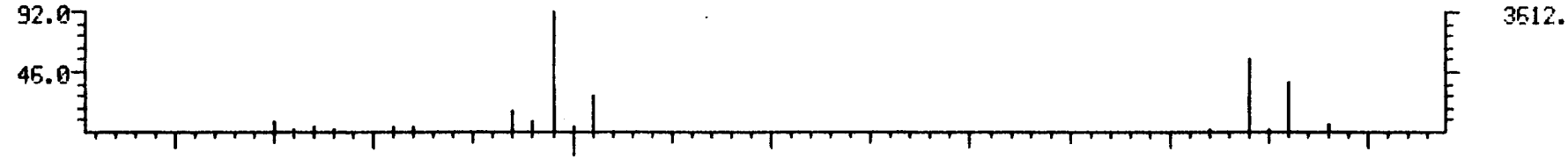
(b) Reconstructed ion chromatogram(s) and GC/MS quantitation report(s) or legible facsimile. Spectra not required.

TARGET COMPOUND COMPARISON

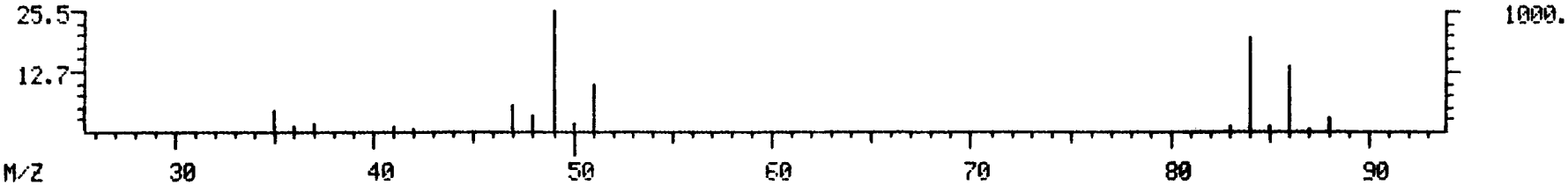
COMPOUND: C030 METHYLENE CHLORIDE <75-09-2>

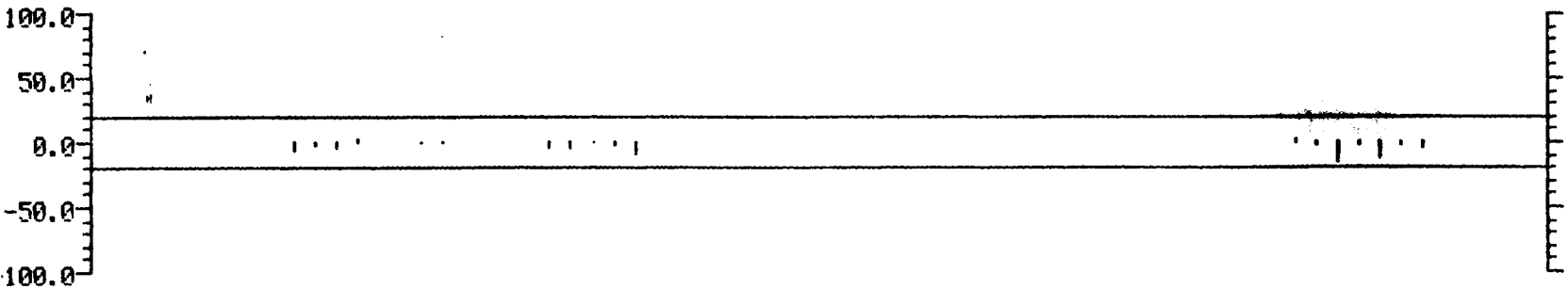
RAW DATA: CB910919C53 #526 BASE M/Z: 49 RIC: 12864.
09/19/91 5:31
SAMPLE: CLP,BLANK,,VBLKPD,LOW,WATER,,VOA,BLANK,F50053
CONDS.: DB624,CT910919C53,BI910919C53

ENHANCED DATA: CB910919C53 #526 BASE M/Z: 49 RIC: 10848.



LIBRARY FILE: NW #14 BASE M/Z: 49 RIC: 3644.

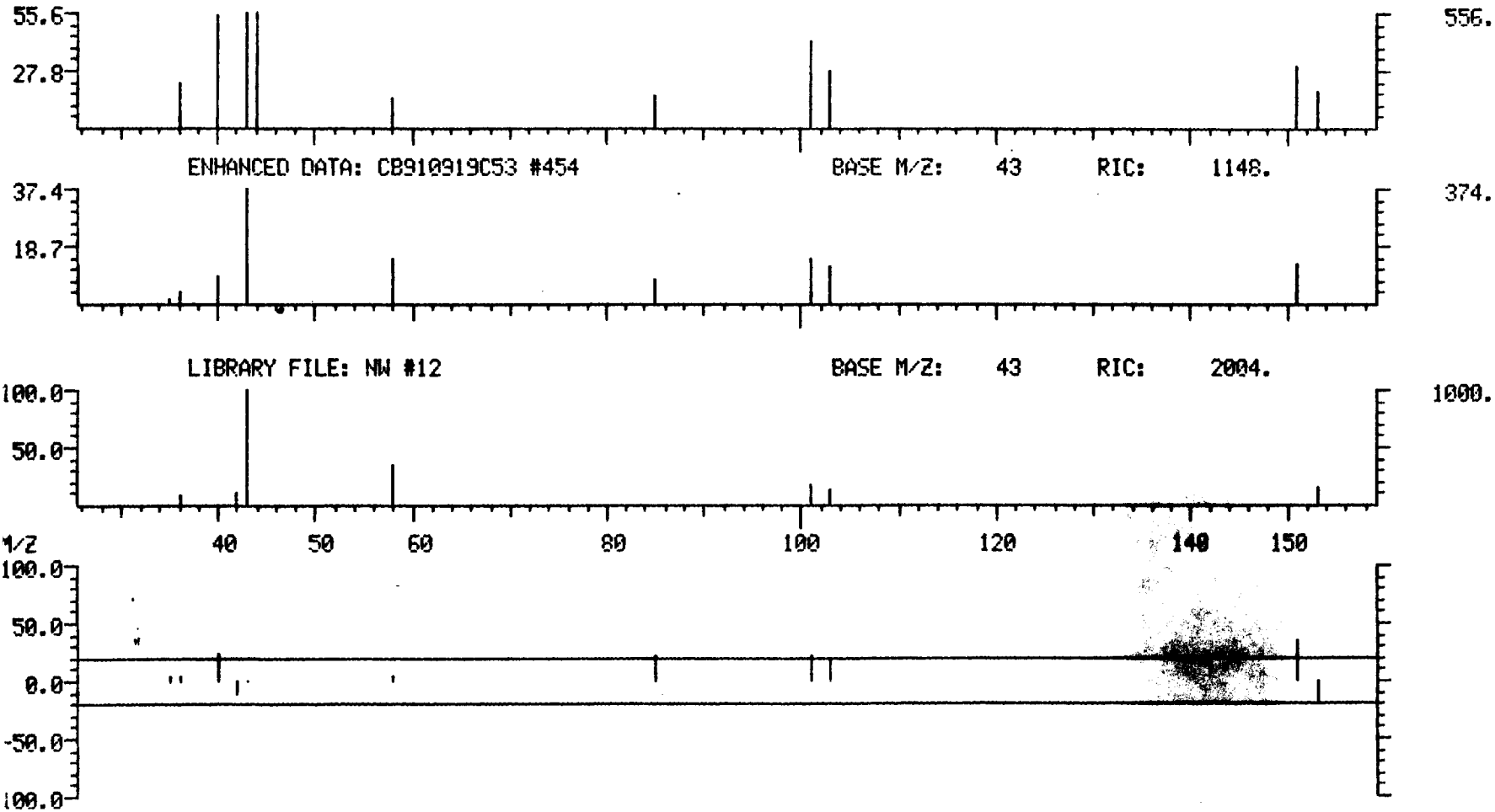




TARGET COMPOUND COMPARISON

COMPOUND: C035 ACETONE <67-64-1>

RAW DATA: CB910919C53 #454 BASE M/Z: 43 RIC: 3344.
09/19/91 5:31
SAMPLE: CLP,BLANK,,VBLKPD,LOW,WATER,,VOA,BLANK,F50053
CONDS.: DB624,CT910919C53,BI910919C53



No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:43	1.00	0.586	1.00	10.35	50.00	0.096	0.462	0.21
13	6:01		0.617						
14	6:37	1.01	0.678	1.00	5.83	50.00	0.311	2.664	0.12
15	7:12	1.00	0.739	1.00	0.28	50.00	0.009	1.574	0.01
16	8:04		0.827						
17	9:17		0.952						
18	9:20	1.01	0.957	1.00	0.65	50.00	0.007	0.504	0.01
19	9:57		1.021						
20	10:18		0.868						
21	10:39		0.897						
22	11:03	1.00	0.931	1.00	0.45	50.00	0.009	0.959	0.01
23	11:05		1.136						
24	12:24		1.044						
25	12:49		1.080						
26	13:24		1.129						
27	14:42	1.00	0.818	1.00	0.52	50.00	0.004	0.368	0.01
28	15:02	1.00	0.837	1.00	0.21	50.00	0.005	1.156	0.00
29	14:20		1.208						
30	15:30		1.306						
31	15:53		1.338						
32	16:12		0.901						
33	16:27	1.00	0.916	1.00	0.33	50.00	0.001	0.227	0.01
34	16:42		1.407						
35	18:01		1.003						
36	18:18		1.018						
37	18:34		1.033						
38	19:26		1.082						
39	19:28		1.083						
40	19:49	1.00	1.669	1.00	0.07	50.00	0.000	0.338	0.00
41	20:53	1.00	1.163	1.00	0.77	50.00	0.008	0.553	0.02
42	7:12	1.00	0.739	1.00	0.29	100.00	0.004	1.479	0.00
43	18:34	0.00	1.033	0.00	-0.00	150.00	-0.000	0.589	-0.00

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	773	9:46	1	1.000	A BB	55671.	50.000 UG/L	15.42
2	114	940	11:53	2	1.000	A BB	249429.	50.000 UG/L	15.42
3	117	1422	17:59	3	1.000	A BB	225902.	50.000 UG/L	15.42
4	65	866	10:57	1	1.120	A BB	92963.	50.922 UG/L	15.71
5	98	1180	14:55	3	0.830	A BB	268762.	52.976 UG/L	16.34
6	95	1629	20:36	3	1.146	A BB	211744.	50.557 UG/L	15.60
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	43	454	5:44	1	0.587	A BB	5321.	10.348 UG/L	3.19 γ[es]
13	NOT FOUND								
14	84	526	6:39	1	0.680	A BB	17287.	5.827 UG/L	1.80 γ[es]
15	96	572	7:14	1	0.740	A BB	483.	0.276 UG/L	0.08 ND
16	NOT FOUND								
17	NOT FOUND								
18	43	743	9:24	1	0.961	A BB	364.	0.648 UG/L	0.20 ND
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	78	876	11:05	2	0.932	A BB	2142.	0.448 UG/L	0.14 ND
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	43	1164	14:43	3	0.819	A BB	858.	0.517 UG/L	0.16 ND
28	91	1190	15:03	3	0.837	A BB	1097.	0.210 UG/L	0.06 ND
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	43	1305	16:30	3	0.918	A BB	333.	0.325 UG/L	0.10 ND
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	173	1569	19:50	2	1.669	A BB	116.	0.069 UG/L	0.02 ND
41	83	1654	20:55	3	1.163	A BB	1918.	0.767 UG/L	0.24 ND
42	96	572	7:14	1	0.740	**B*	482.	0.293 UG/L	0.09 ND
43	106	6724	0:00	3	0.000	****	-2.	-0.001 UG/L	-0.00 ND

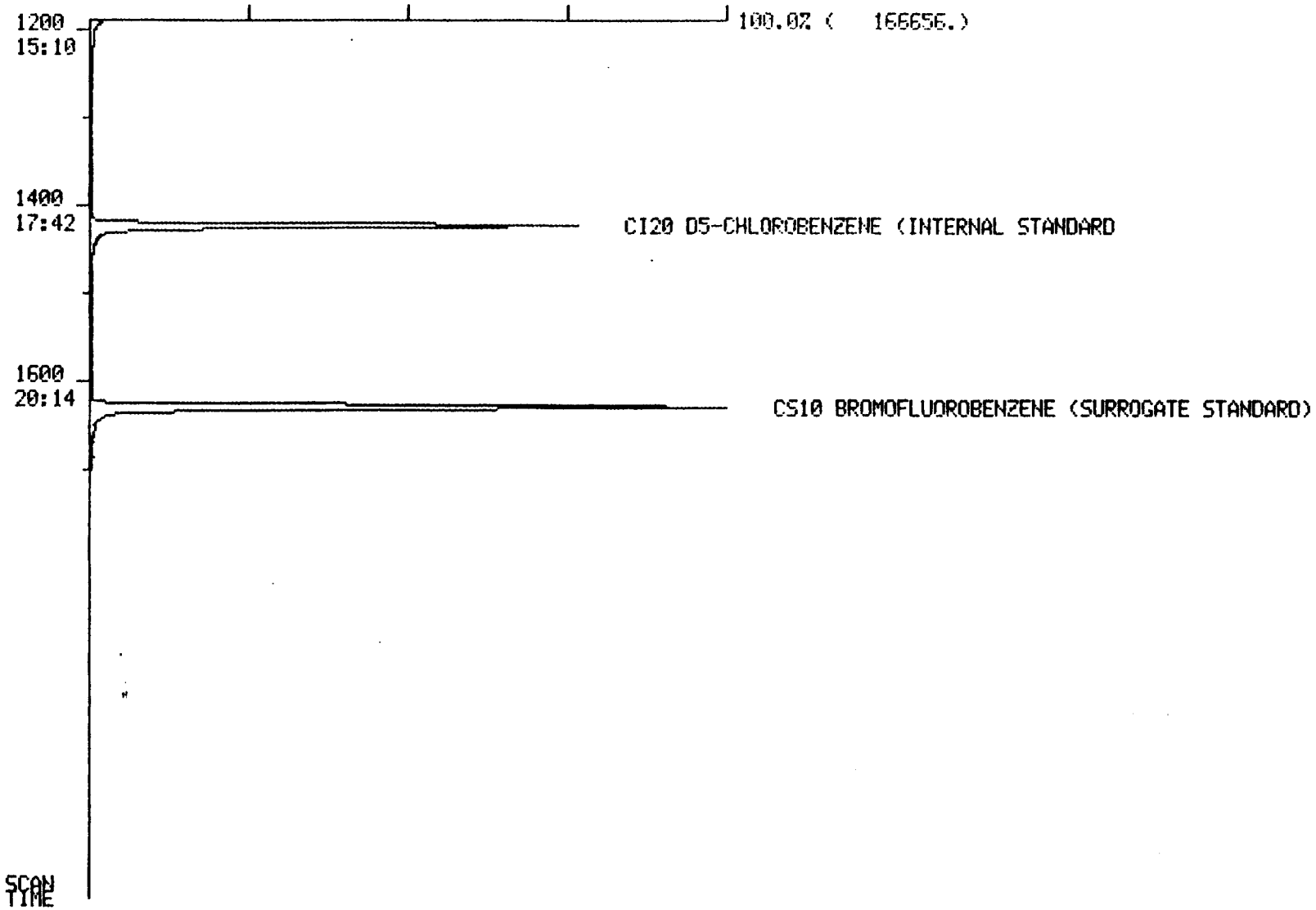
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:52	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:56	1.00	1.121	1.00	50.92	50.00	1.670	1.640	1.02
5	14:54	1.00	0.829	1.00	52.98	50.00	1.190	1.123	1.06
6	20:35	1.00	1.146	1.00	50.56	50.00	0.937	0.927	1.01
7	3:12		0.328						
8	3:20		0.342						
9	3:52		0.397						
10	4:07		0.422						
11	5:36		0.575						

Data: CB910919C53.TI
09/19/91 5:31:00
Sample: CLP,BLANK,,VBLKPD,LOW,WATER,,VOA,BLANK,F50053
Conds.: DB624,CT910919C53,BI910919C53
Formula: NWSW Instrument: F50053 Weight: 0.000
Submitted by: NWSW Analyst: 1171 Acct. No.: AM

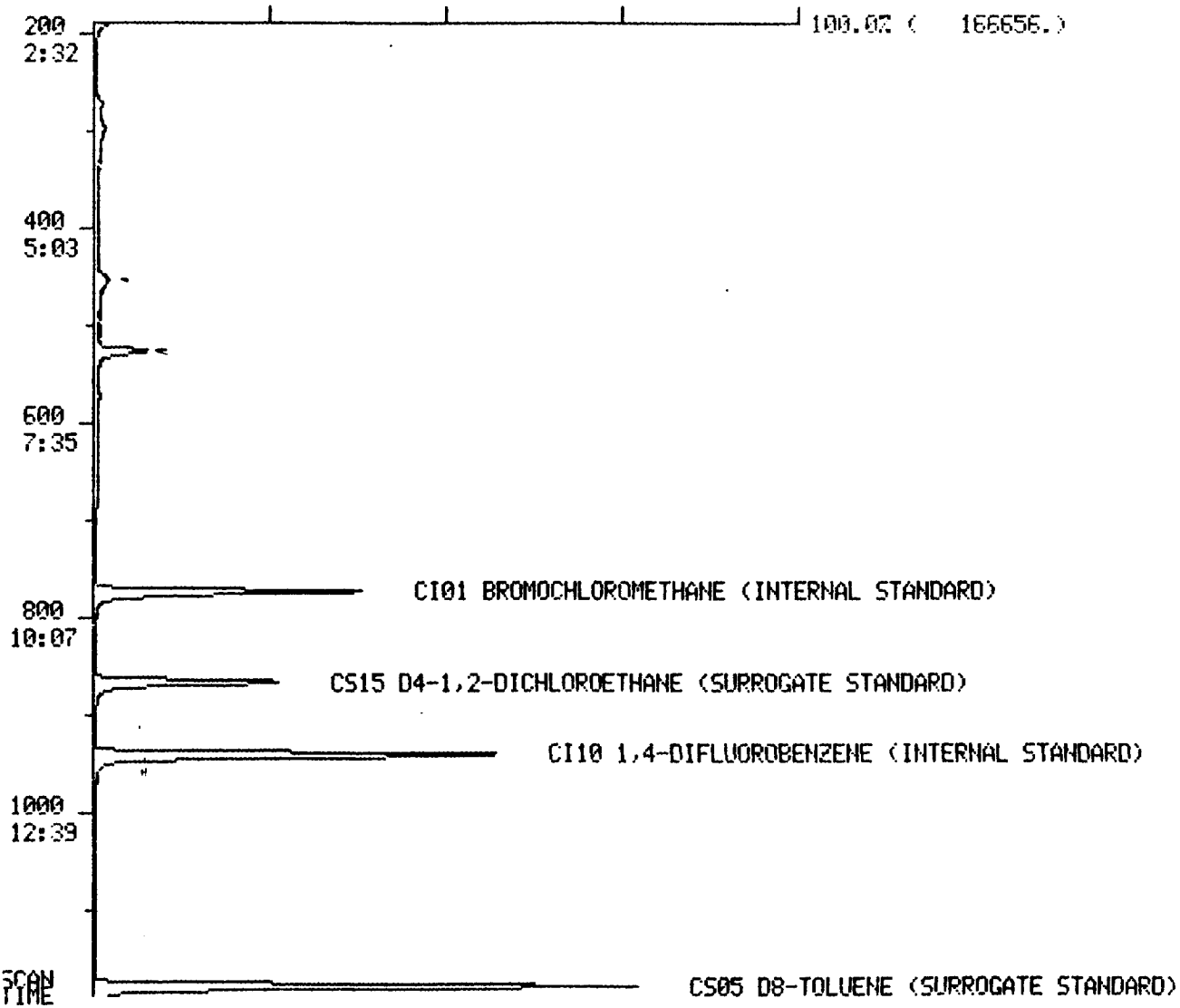
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry.

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CB910919C53 SCANS 1190 TO 1700 ACQUIRED: 09/19/91 5:31:00
CALI: CB910919C53 #3 OUT OF 190 TO 1700
SAMPLE: CLP,BLANK,,VBLKPD,LOW,WATER,,VOA,BLANK,F50053
CONDS.: DB624,CT910919C53,BI910919C53



DATA FROM FILE: CB910919C53 SCANS 190 TO 1190 ACQUIRED: 09/19/91 5:31:00
CALI: CB910919C53 #3 OUT OF 190 TO 1700
SAMPLE: CLP,BLANK,,VBLKPD,LOW,WATER,,VOA,BLANK,F50053
CONDS.: DB624,CT910919C53,BI910919C53



1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKPD

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: VBLKPD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CB910919C53

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

% Moisture: not dec. ____ Date Analyzed: 09/19/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKPD

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: VBLKPD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CB910919C53

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

% Moisture: not dec. ____ Date Analyzed: 09/19/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

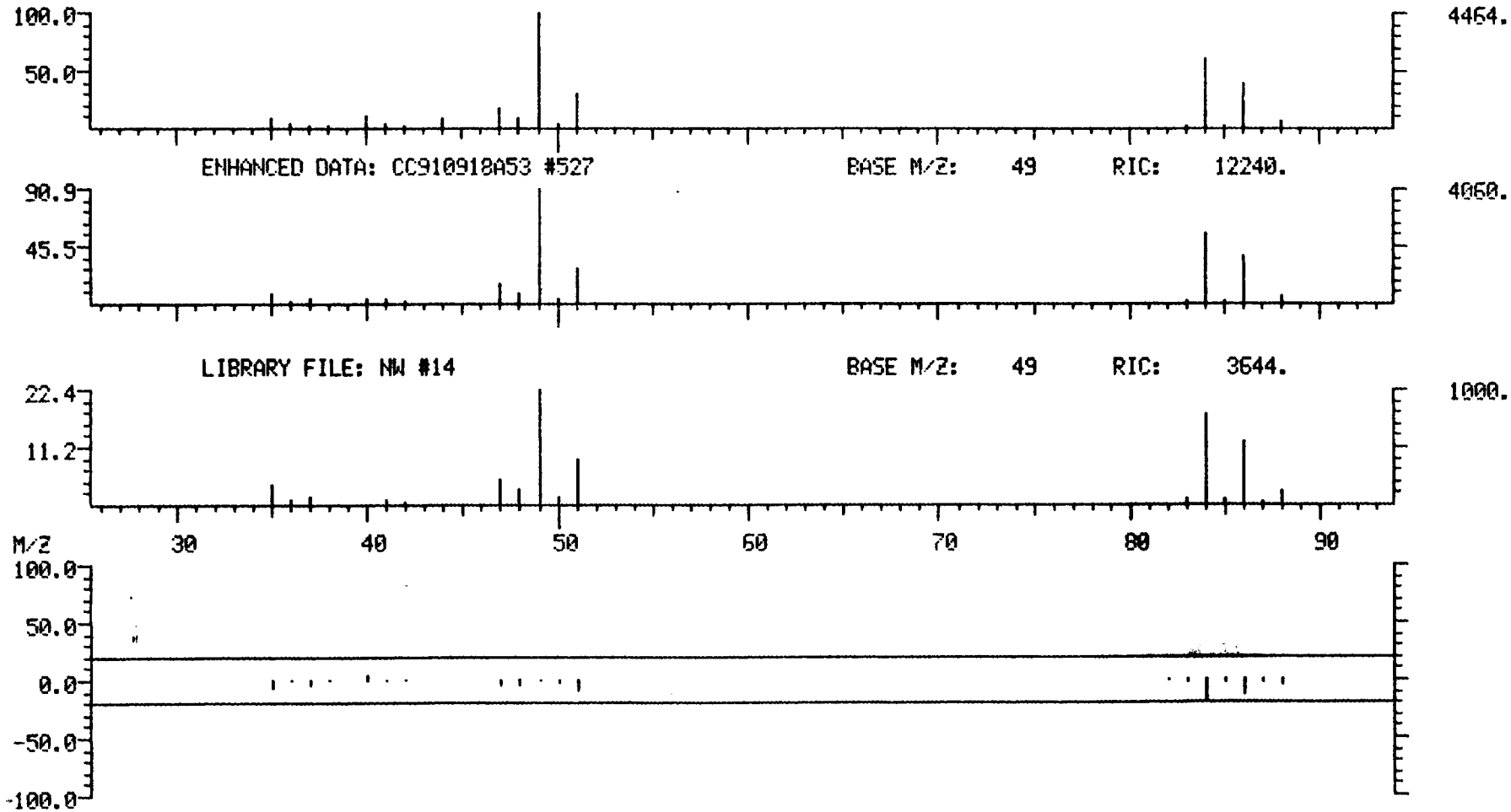
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	J
67-64-1	Acetone	10	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

TARGET COMPOUND COMPARISON

COMPOUND: C030 METHYLENE CHLORIDE <75-09-2>

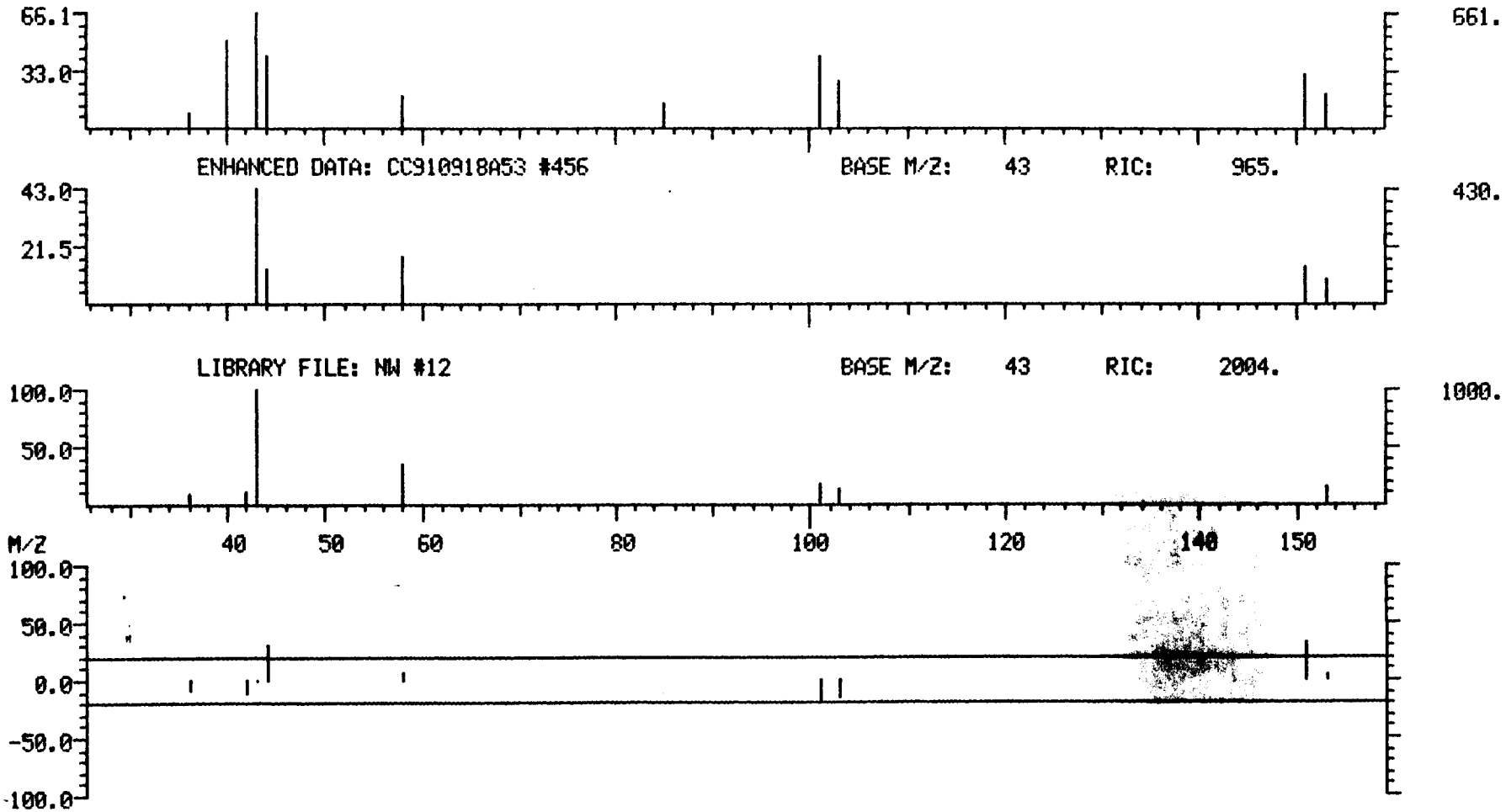
RAW DATA: CC910918A53 #527 BASE M/Z: 49 RIC: 14064.
09/18/91 13:46
SAMPLE: CLP,BLANK,,VBLKTT,LOW,WATER,,VOA,BLANK,F50053
CONDS.: DB624,CT910918A53,BF910918A53



TARGET COMPOUND COMPARISON

COMPOUND: C035 ACETONE <67-64-1>

RAW DATA: CC910918A53 #456 BASE M/Z: 43 RIC: 3204.
09/18/91 13:46
SAMPLE: CLP,BLANK,,VBLKTT,LOW,WATER,,VOA,BLANK,F50053
CONDS.: DB624,CT910918A53,BF910918A53



No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:44	1.00	0.587	1.00	18.59	50.00	0.145	0.391	0.37
13	6:03		0.620						
14	6:39	1.00	0.680	1.00	10.50	50.00	0.446	2.124	0.21
15	7:15	1.00	0.741	1.00	0.41	50.00	0.013	1.592	0.01
16	8:06		0.829						
17	9:18		0.952						
18	9:21		0.957						
19	9:59	1.00	1.021	1.00	0.32	50.00	0.017	2.690	0.01
20	10:20		0.869						
21	10:40		0.898						
22	11:05	1.00	0.932	1.00	0.60	50.00	0.011	0.913	0.01
23	11:06		1.136						
24	12:24		1.044						
25	12:50		1.080						
26	13:25		1.129						
27	14:42		0.818						
28	15:03	1.00	0.837	1.00	0.26	50.00	0.006	1.117	0.01
29	14:20		1.206						
30	15:31		1.305						
31	15:53		1.336						
32	16:12		0.901						
33	16:27		0.916						
34	16:42		1.405						
35	18:02		1.004						
36	18:18		1.018						
37	18:34		1.033						
38	19:26		1.082						
39	19:28		1.083						
40	19:50		1.668						
41	20:53		1.163						
42	7:15	1.00	0.741	1.00	0.44	100.00	0.007	1.491	0.00
43	18:34	0.00	1.033	0.00	-0.00	150.00	-0.000	0.554	-0.00

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	774	9:47	1	1.000	A BB	43848.	50.000 UG/L	15.05
2	114	941	11:54	2	1.000	A BB	204059.	50.000 UG/L	15.05
3	117	1422	17:59	3	1.000	A BB	182728.	50.000 UG/L	15.05
4	65	867	10:58	1	1.120	A BB	78005.	49.266 UG/L	14.83
5	98	1180	14:55	3	0.830	A BB	223004.	52.021 UG/L	15.66
6	95	1630	20:37	3	1.146	A BB	169853.	49.886 UG/L	15.01
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	43	456	5:46	1	0.589	A BB	6373.	18.594 UG/L	5.60 ✓
13	NOT FOUND								
14	84	527	6:40	1	0.681	A BB	19552.	10.497 UG/L	3.16 ✓
15	96	573	7:15	1	0.740	A BB	577.	0.413 UG/L	0.12
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	83	790	9:59	1	1.021	A BB	748.	0.317 UG/L	0.10
20	NOT FOUND								
21	NOT FOUND								
22	78	877	11:05	2	0.932	A BB	2227.	0.598 UG/L	0.18
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	91	1191	15:04	3	0.838	A BB	1077.	0.264 UG/L	0.08
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	96	573	7:15	1	0.740	**B*	576.	0.440 UG/L	0.13
43	106	6724	0:00	3	0.000	****	-2.	-0.001 UG/L	-0.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:46	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:53	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:56	1.00	1.119	1.00	49.27	50.00	1.779	1.805	0.99
5	14:55	1.00	0.830	1.00	52.02	50.00	1.220	1.173	1.04
6	20:35	1.00	1.146	1.00	49.89	50.00	0.930	0.932	1.00
7	3:14		0.331						
8	3:23		0.347						
9	3:55		0.401						
10	4:08		0.423						
11	5:38		0.577						

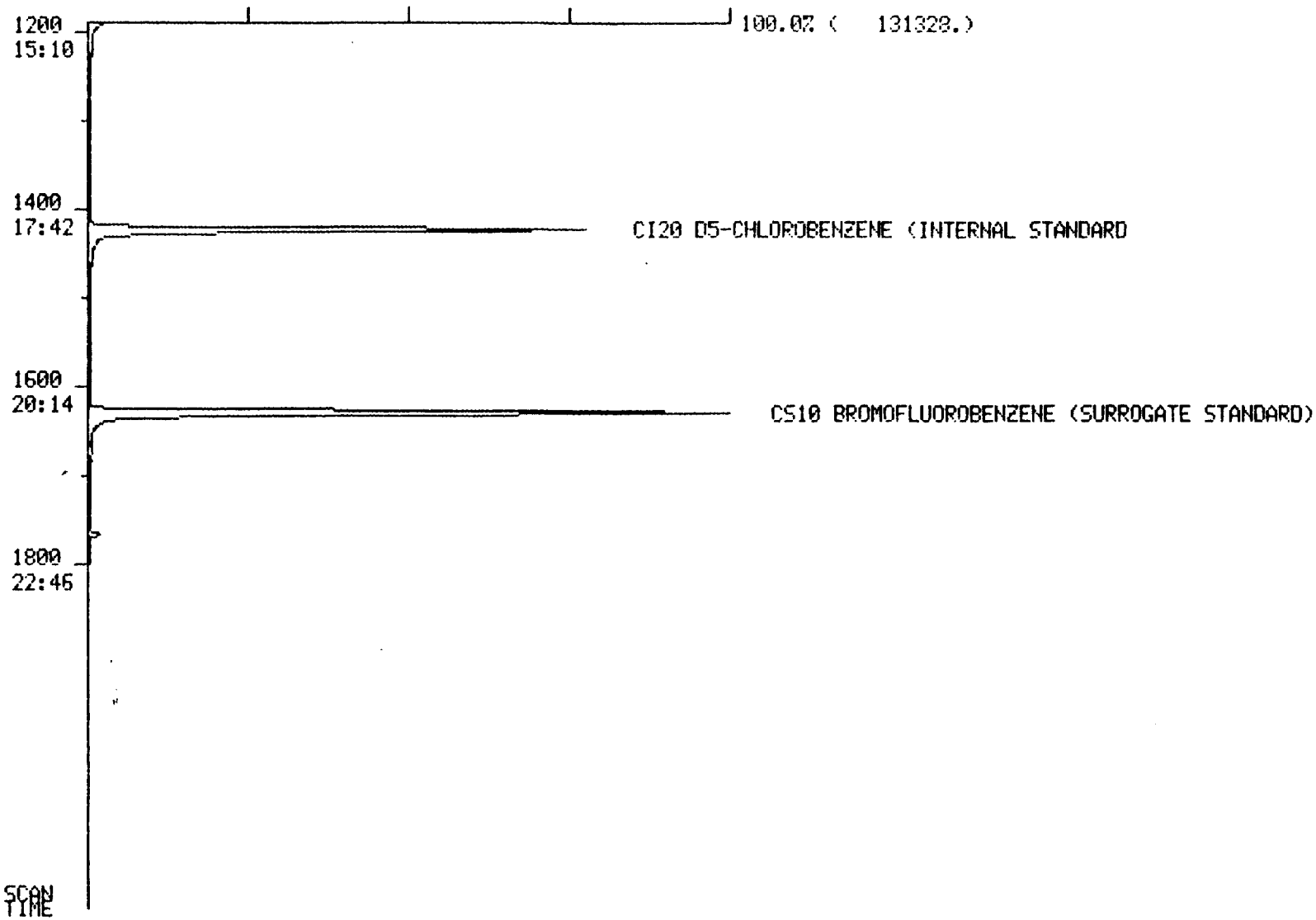
Quantitation Report File: CC910918A53

Data: CC910918A53.TI
09/18/91 13:46:00
Sample: CLP,BLANK,,VBLKTT,LOW,WATER,,VOA,BLANK,F50053
Conds.: DB624,CT910918A53,BF910918A53
Formula: NWSW Instrument: F50053 Weight: 0.000
Submitted by: 428 Analyst: 2033 Acct. No.: MHY

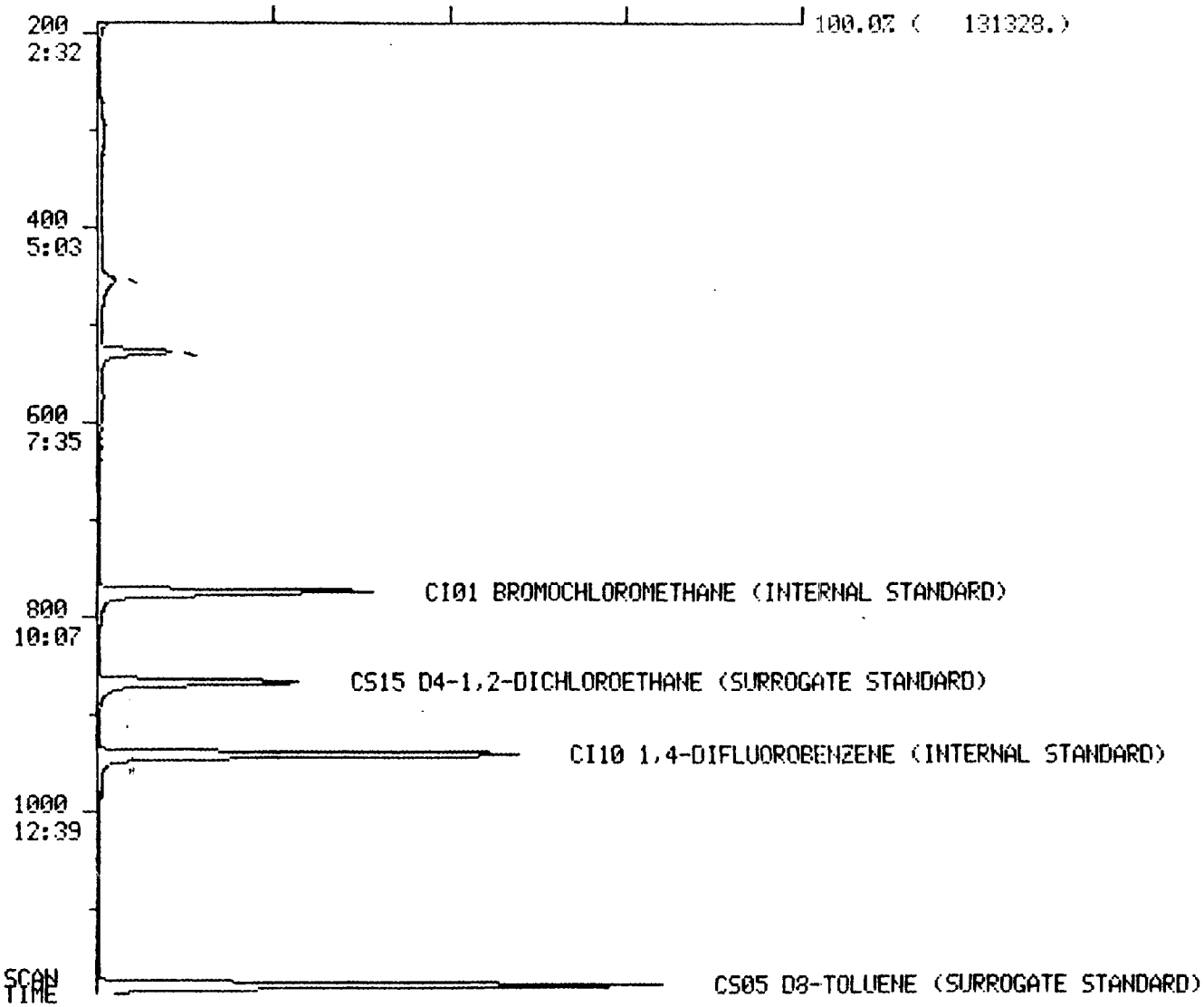
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CC910918A53 SCANS 1190 TO 1800 ACQUIRED: 09/18/91 13:46:00
CALI: CC910918A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,BLANK,,VBLKTT,LOW,WATER,,VOA,BLANK,F50053
CONDS.: DB624,CT910918A53,BF910918A53



DATA FROM FILE: CC910918A53 SCANS 190 TO 1190 ACQUIRED: 09/18/91 13:46:00
CALI: CC910918A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,BLANK,,VBLKTT,LOW,WATER,,VOA,BLANK,F50053
CONDS.: DB624,CT910918A53,BF910918A53



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKTT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: VBLKTT

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CC910918A53

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

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKTT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: VBLKTT

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CC910918A53

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

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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	10	
67-64-1	Acetone	19	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

(2) Blank data – in chronological order. NOTE: This order is different from that used for samples.

(a) Tabulated results (Form I VOA)

(b) Tentatively Identified Compounds (Form I VOA – TIC); even if none found.

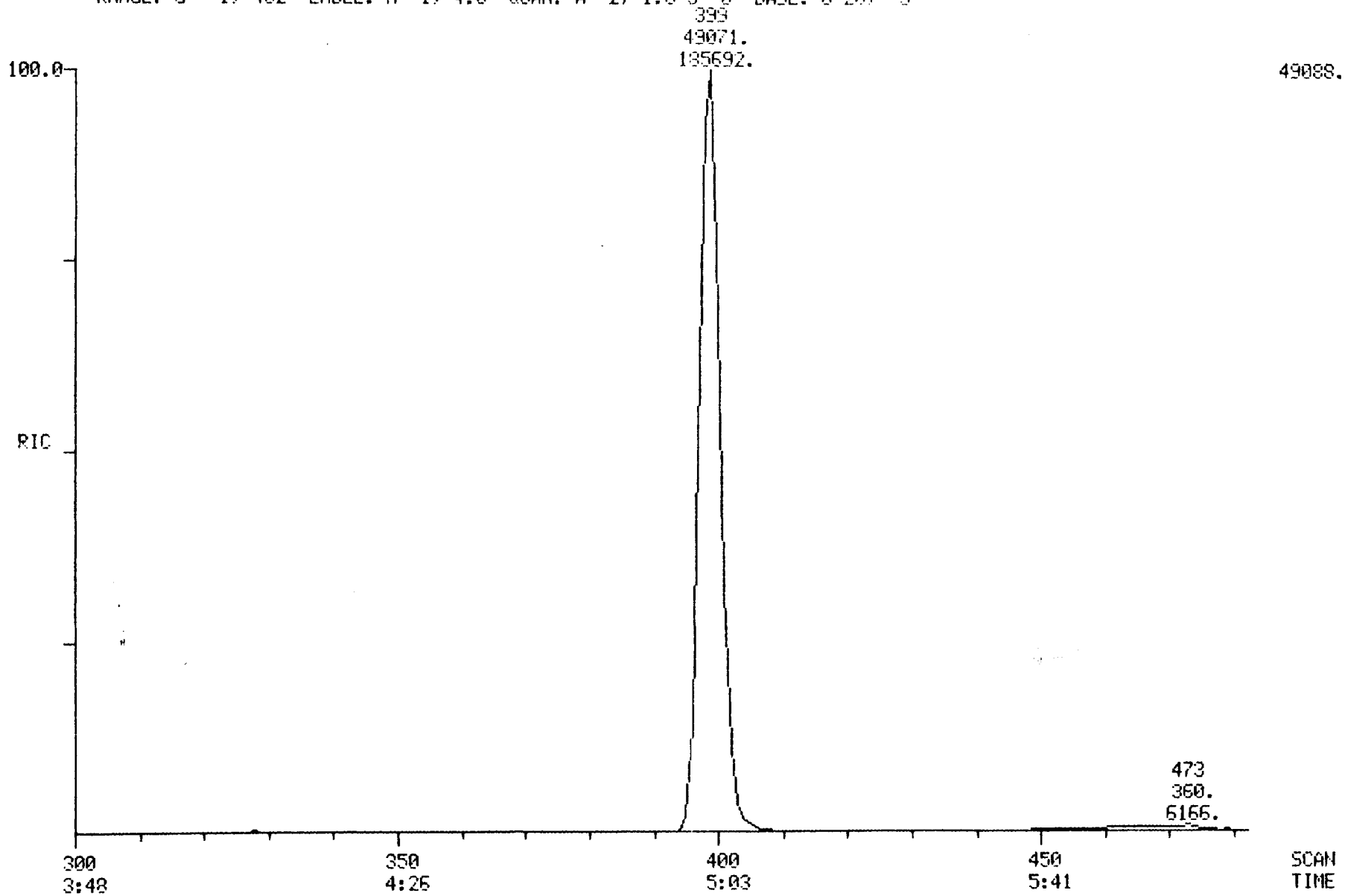
(c) Reconstructed ion chromatogram(s) and GC/MS quantitation report(s) or legible facsimile.

(d) TCL spectra with lab generated standard. Data systems which are incapable of dual display shall provide spectra in the following order:
- Raw TCL compound spectra
- Enhanced or background substracted spectra
- Laboratory generated TCL standard spectra

(e) GC/MS library search spectra for Tentatively Identified Compound(s) (TIC) concentrations.

(f) Quantitation/calculation of Tentatively Identified Compound(s) concentrations.

RIC DATA: BI910919C53 #398 SCANS 300 TO 482
09/19/91 4:25:00 CALI: CALTAB #3
SAMPLE: CLP,,,BFB,LOW,WATER,,VOA,TUNE,F50053
CONDS.: DB624
RANGE: G 1, 482 LABEL: N 1, 4.0 QUAN: A 2, 1.0 J 0 BASE: U 20, 3



09/19/91 4:25:00 + 5:03 Cali: CALTAB # 3 RIC: 128128.
Sample: CLP,,,BFB,LOW,WATER,,VOA,TUNE,F50053
Conds.: DB624
#398 to #400 summed - #370

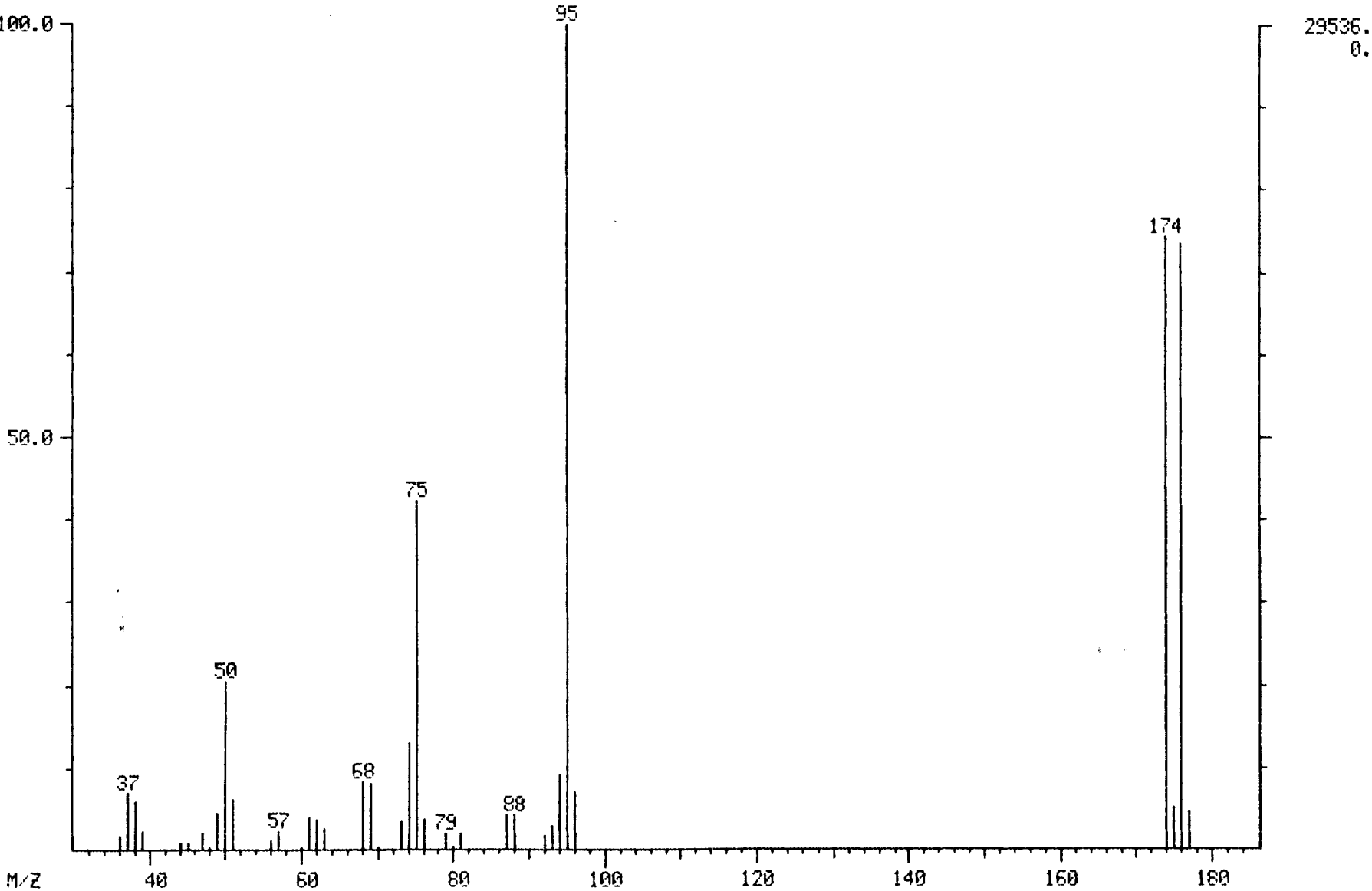
36	0.00	0.	Minima	Min Inten:	0.
177			Maxima	# 0	

Mass		% RA	Inten.
36?		1.75	516.
37?		7.02	2072.
38?		5.86	1732.
39?		2.11	624.
40?	S	0.14	40.
44?	S	0.70	206.
45?		0.85	251.
47?		1.80	533.
48?		0.30	89.
49?		4.50	1328.
50?		20.45	6040.
51?		6.04	1784.
56?		1.08	319.
57?		2.17	641.
60?		0.27	79.
61?		4.00	1182.
62?		3.70	1094.
63?		2.58	761.
68?		8.25	2436.
69		7.88	2328.
70		0.20	59.
73		3.44	1017.
74		12.99	3836.
75		42.20	12464.
76		3.49	1030.
79		1.89	558.
80		0.18	54.
81		1.81	535.
87		4.04	1194.
88		4.10	1212.
92		1.77	523.
93		2.88	852.
94		9.11	2692.
95		100.00	29536.
96		6.96	2056.
174		74.32	21952.
175		4.88	1440.
176		73.56	21728.
177		4.48	1322.

MASS SPECTRUM
09/19/91 4:25:00 + 5:03
SAMPLE: CLP,,,BFB,LOW,WATER,,VOA,TUNE,F50053
CONDS.: DB624
TEMP: 180 DEG. C
#398 TO #400 SUMMED - #370

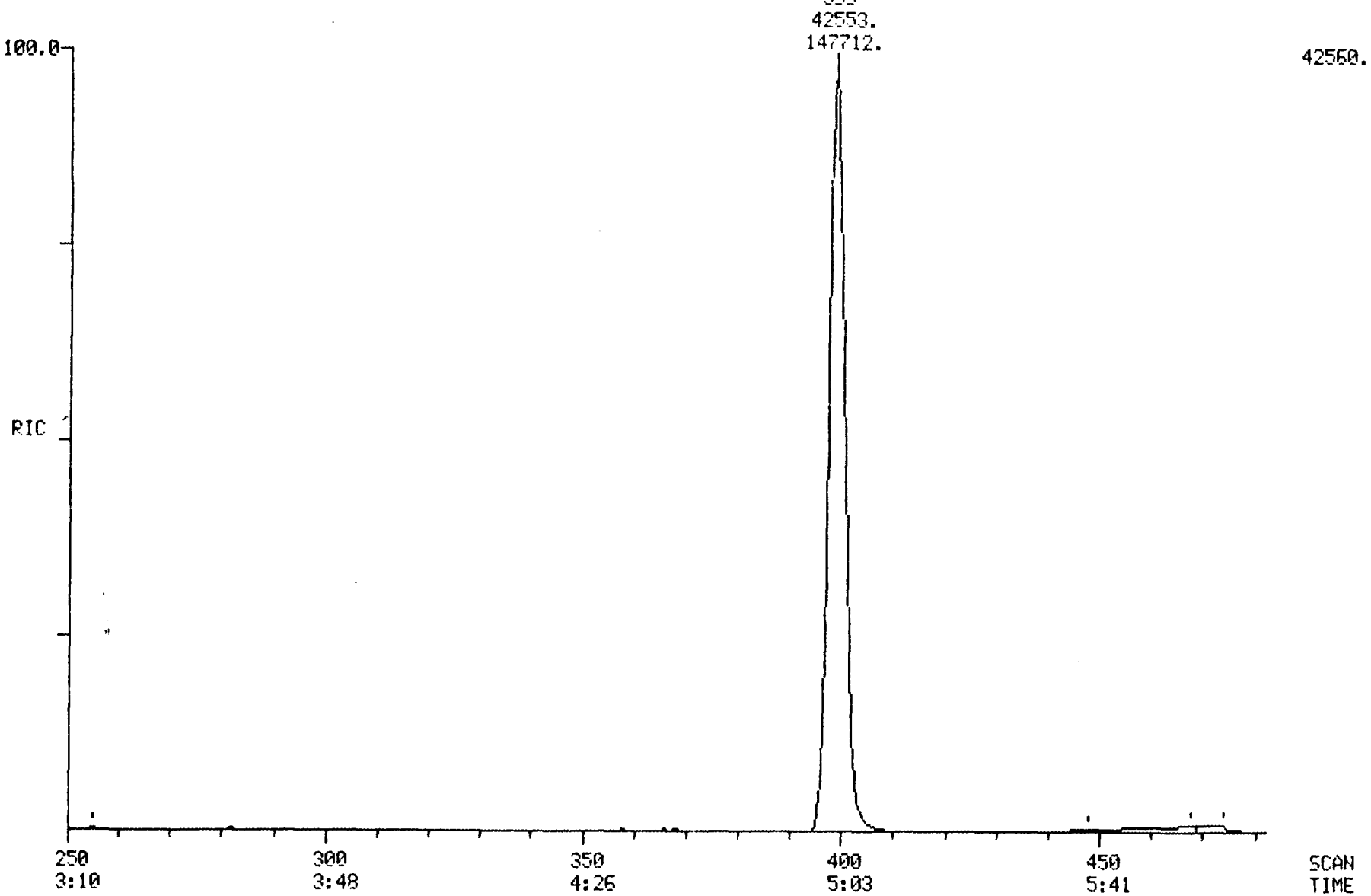
DATA: BI910913C53 #399
CALI: CALTAB #3

BASE M/Z: 95
RIC: 128128.



RIC
09/18/91 10:06:00
SAMPLE: CLP,,,BFB,LOW,WATER,,VOA,TUNE,F50053
CONDS.: DB624
RANGE: G 1, 482 LABEL: N 1, 4.0 QUAN: A 2, 1.0 J 0 BASE: U 20, 3

DATA: BF910918A53 #398 SCANS 250 TO 482
CALI: CALTAB #3



Mass List Data: BF910918A53 # 399 Base m/z: 95
09/18/91 10:06:00 + 5:03 Cali: CALTAB # 3 RIC: 107392.
Sample: CLP,,,BFB,LOW,WATER,,VOA,TUNE,F50053
Conds.: DB624
#398 to #400 summed - #379

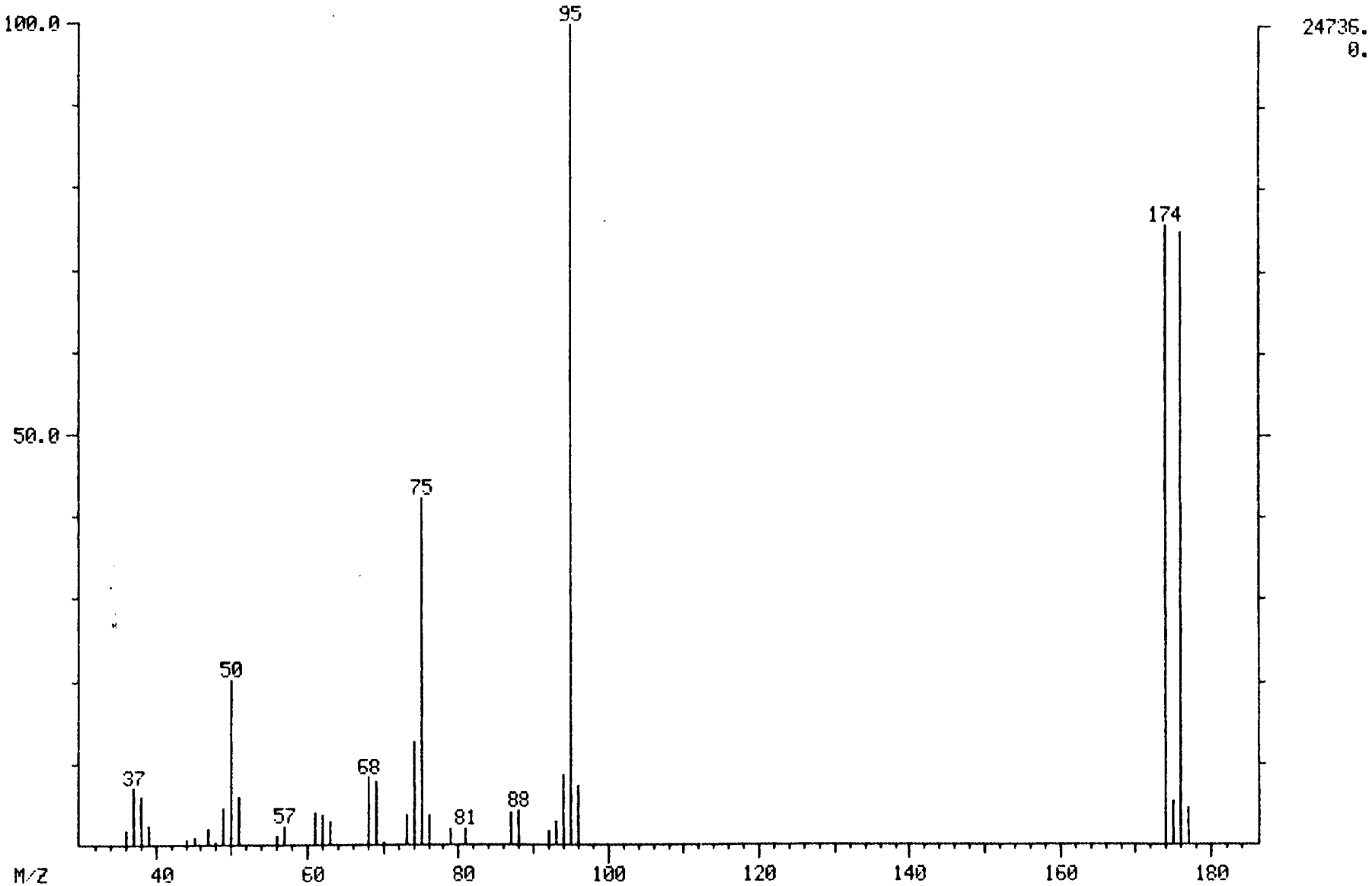
36 0.00 0. Minima Min Inten: 0.
177 Maxima # 0

Mass		% RA	Inten.
36?		1.53	378.
37?		6.82	1688.
38?		5.84	1444.
39?		2.19	542.
40?	S	0.07	18.
44?	S	0.46	115.
45?		0.78	193.
47?		1.82	450.
48?		0.28	69.
49?		4.38	1084.
50?		20.12	4976.
51?		5.82	1440.
56?		1.00	248.
57?		2.12	524.
61?		3.90	965.
62?		3.62	895.
63?		2.66	658.
68?		8.41	2080.
69		7.85	1942.
70		0.27	68.
73		3.46	857.
74		12.73	3148.
75		42.37	10480.
76		3.47	858.
79		1.80	445.
81		1.85	458.
87		4.00	989.
88		4.11	1016.
92		1.63	402.
93		2.83	701.
94		8.52	2108.
95		100.00	24736.
96		7.19	1778.
174		75.68	18720.
175		5.13	1270.
176		74.77	18496.
177		4.52	1118.

MASS SPECTRUM
09/18/91 10:06:00 + 5:03
SAMPLE: CLP,,,BFB,LOW,WATER,,VOA,TUNE,F50053
CONDS.: DB624
TEMP: 180 DEG. C
#398 TO #400 SUMMED - #379

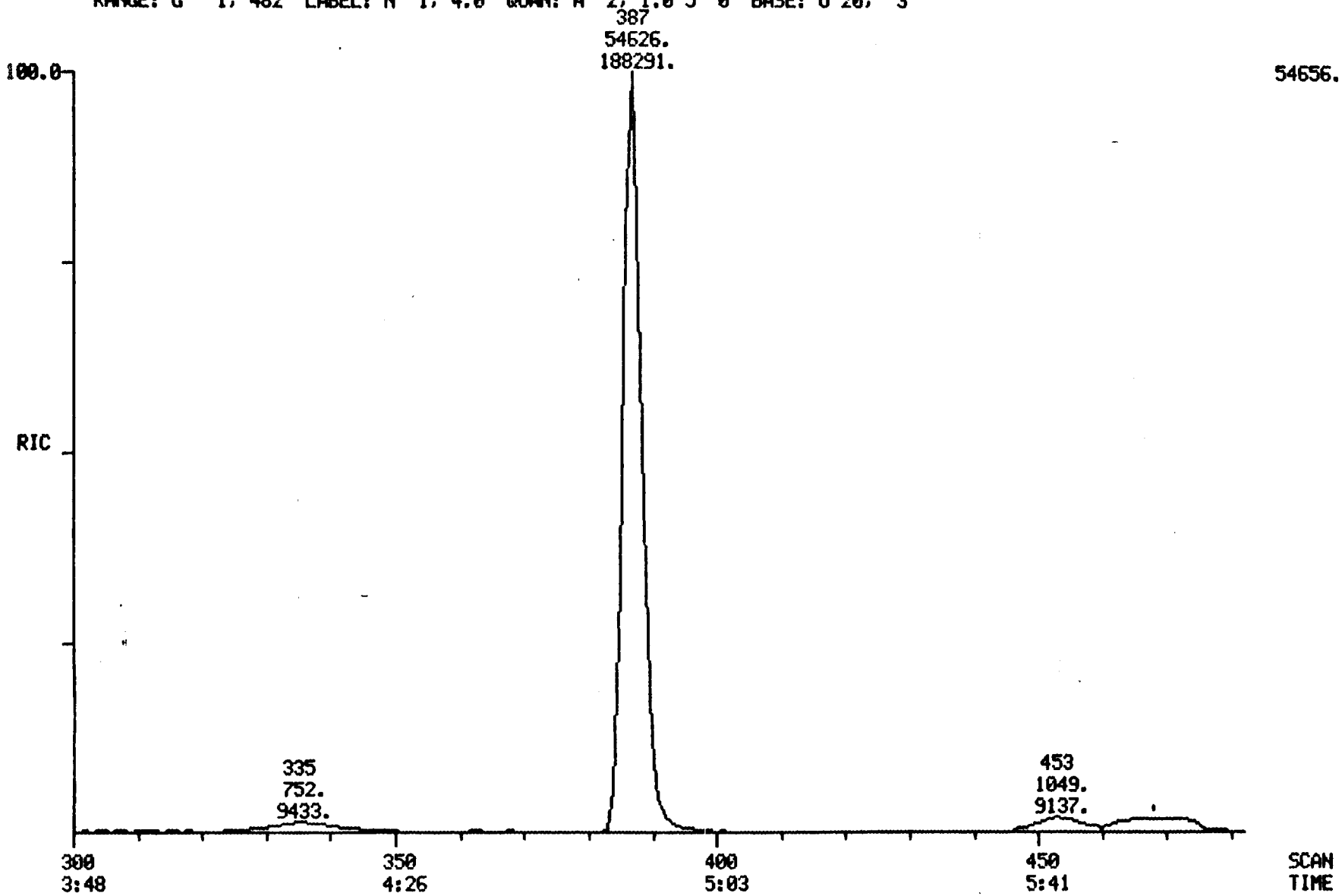
DATA: BF910918A53 #399
CALI: CALTAB #3

BASE M/Z: 95
RIC: 107392.



RIC
09/04/91 11:51:00
SAMPLE: CLP,,,BFB,LOW,WATER,,VOA,TUNE,F50053
CONDS.: DB624
RANGE: G 1, 482 LABEL: N 1, 4.0 QUAN: A 2, 1.0 J 0 BASE: U 20, 3

DATA: BH910904A53 #386 SCANS 300 TO 482
CALI: CALTAB #3



Mass List Data: BH910904A53 # 387 Base m/z: 95
09/04/91 11:51:00 + 4:54 Cali: CALTAB # 3 RIC: 136704.
Sample: CLP,,,BFB,LOW,WATER,,VOA,TUNE,F50053
Conds.: DB624
#386 to #388 summed - #367

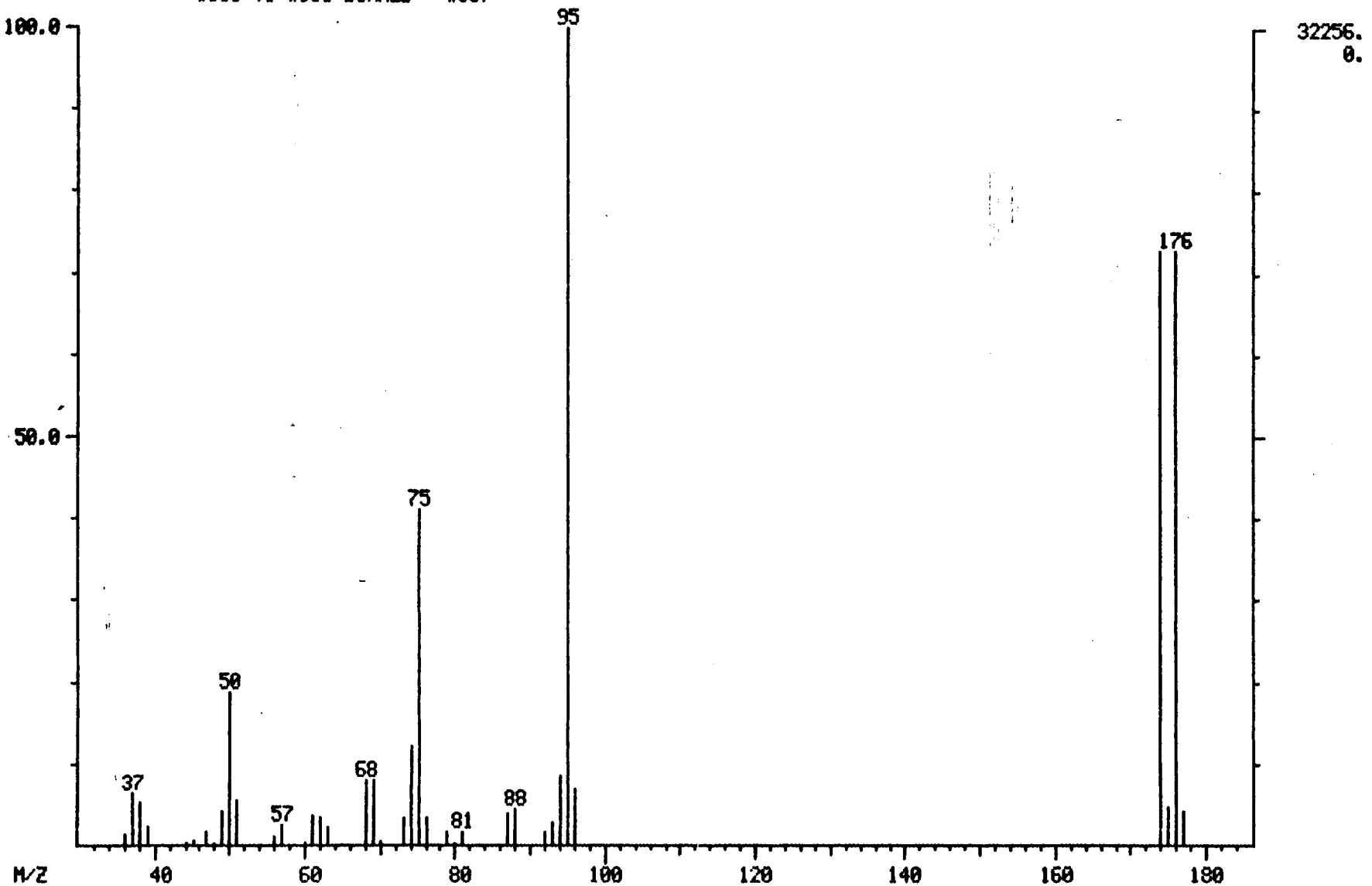
36	0.00	0.	Minima	Min Inten:	0.
177			Maxima	# 0	

Mass		% RA	Inten.
36?		1.40	453.
37?		6.36	2052.
38?		5.36	1728.
39?		2.13	686.
40?	S	0.03	9.
44?	S	0.40	128.
45?		0.59	191.
47?		1.63	526.
48?		0.22	72.
49?		4.15	1340.
50?		18.82	6072.
51?		5.62	1812.
56?		1.20	386.
57?		2.37	766.
60?		0.24	79.
61?		3.70	1192.
62?		3.44	1110.
63?		2.34	755.
68?		8.11	2616.
69		7.92	2556.
70		0.47	151.
73		3.40	1096.
74		12.14	3916.
75		41.12	13264.
76		3.42	1104.
79		1.70	547.
80		0.19	60.
81		1.78	574.
87		3.91	1262.
88		4.48	1446.
92		1.66	535.
93		2.83	914.
94		8.46	2728.
95		100.00	32256.
96		6.81	2196.
174		72.82	23488.
175		4.77	1538.
176		73.02	23552.
177		4.27	1378.

MASS SPECTRUM
09/04/91 11:51:00 + 4:54
SAMPLE: CLP,,,BFB,LOW,WATER,,VOA,TUNE,F50053
CONDS.: DB624
TEMP: 180 DEG. C
#386 TO #388 SUMMED - #367

DATA: BH910904A53 #387
CALI: CALTAB #3

BASE M/Z: 95
RIC: 136704.



(1) BFB (for each 12 hour period, for each GC/MS system utilized)

(a) Bar graph spectrum

(b) Mass listing

(c) Reconstructed total ion chromatogram (RIC)

d. Raw QC data

(1). BFB (for ech 12 hour period, for each GC/MS system utilized)

(a) Bar graph spectrum

(b) Mass listing

(c) Reconstructed total ion chromatogram (RIC)

(2) Blank data – in chronological order. NOTE: This order is different from that used for samples.

(a) Tabulated results (Form I VOA)

(b) Tentatively Identified Compounds (Form I VOA – TIC); even if none found.

(c) Reconstructed ion chromatogram(s) and GC/MS quantitation report(s) or legible facsimile.

(d) TCL spectra with lab generated standard. Data systems which are incapable of dual display shall provide spectra in the following order:
- Raw TCL compound spectra
- Enhanced or background substracted spectra
- Laboratory generated TCL standard spectra

(e) GC/MS library search spectra for Tentatively Identified Compound(s) (TIC) concentrations.

(f) Quantitation/calculation of Tentatively Identified Compound(s) concentrations.

(3) Matrix Spike data

(a) Tabulated results (Form I VOA) of nonspiked TCL compounds. Form I VOA – TIC not required.

(b) Reconstructed ion chromatogram(s) and GC/MS quantitation report(s) or legible facsimile. Spectra not required.

(4) Matrix Spike Duplicate data

(a) Tabulated results (Form I VOA) of nonspiked TCL compounds. Form I VOA – TIC not required.

(b) Reconstructed ion chromatogram(s) and GC/MS quantitation report(s) or legible facsimile. Spectra not required.

COMPUCHEM LABORATORIES, INC.
GC/MS ANALYSIS LOG

VOLATILE

INITIAL TIME OF TUNE 425
TIME TUNE EXPIRES 1625
PREVENTIVE MAINTENANCE NWSC L 9/19

SHIFT(S) (A) ____ (B) ____ (C) —
DATE 9/19/91
ANALYSIS TYPE NWSW

RUN LOG

	REJECTED	FILE NAME	REPORTED	DATE	TIME	EPA ID	CASE NO.	STD ID #	AMOUNT INJECTED	CHEMIST	COMMENTS (Lot #'s, Disposition, Etc.)
1		BI910919C53	✓	9/19/91	4:25	BFB			2ul	1171	LC=52 L 9/19/91
2		CT910919C53	✓	/ /	4:50	USTD050			5ul		
3		CB910919C53	✓	/ /	5:31	UB1KPD					
4		CR045465C53	✓	/ /	6:41	Influent	23861				PH=1
5		CN044983C53	✓	/ /	7:19	BJS96	17083				
6		CN045407C53	✓	/ /	7:53	BJS97					
7		CZR43800C53	✓	/ /	8:28	BJS97MS					
8		CZR43799C53	✓	/ /	9:02	BJS97MSD					
9		CN045294C53	✓	/ /	9:37	GL420	17101				PH=7
10		CN045295C53	✓	/ /	10:12	GL421					
11		CN045296C53	✓	/ /	10:47	GL422					
12		CN045297C53	✓	/ /	11:23	GL423					
13	DH	CN045300C53 SGIA	X	/ /	11:58	GL424					
14		CN045301C53	✓	/ /	12:43	GL425					
15		CN045422C53	✓	/ /	13:07	GL441					
16		CN045423C53	✓	/ /	13:42	GL442					
17		CN045424C53	✓	/ /	14:17	GL443					
18		CN045284A53	✓	/ /	15:11	MS-GL422	17101		5mL	1171	
19		CN045285A53	✓	/ /	15:52	GL422-MSD	17101		5mL	1171	
20				/ /	:						
21				/ /	:						
22				/ /	:						
23				/ /	:						
24				/ /	:						
				/ /	:						

VERIFIED for Manoel Kerola 9-23-91
SUPERVISOR APPROVAL [signature]
FORMME 10919853

23861 7 SAMPLE DATA PACKAGE

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:43	1.00	0.586	1.00	50.00	50.00	0.462	0.462	1.00
13	6:01	1.00	0.617	1.00	50.00	50.00	3.522	3.522	1.00
14	6:37	1.00	0.678	1.00	50.00	50.00	2.664	2.664	1.00
15	7:12	1.00	0.739	1.00	50.00	50.00	1.574	1.574	1.00
16	8:04	1.00	0.827	1.00	50.00	50.00	3.151	3.151	1.00
17	9:17	1.00	0.952	1.00	50.00	50.00	1.384	1.384	1.00
18	9:20	1.00	0.957	1.00	50.00	50.00	0.504	0.504	1.00
19	9:57	1.00	1.021	1.00	50.00	50.00	2.616	2.616	1.00
20	10:18	1.00	0.868	1.00	50.00	50.00	0.419	0.419	1.00
21	10:39	1.00	0.897	1.00	50.00	50.00	0.425	0.425	1.00
22	11:03	1.00	0.931	1.00	50.00	50.00	0.959	0.959	1.00
23	11:05	1.00	1.136	1.00	50.00	50.00	1.751	1.751	1.00
24	12:24	1.00	1.044	1.00	50.00	50.00	0.430	0.430	1.00
25	12:49	1.00	1.080	1.00	50.00	50.00	0.389	0.389	1.00
26	13:24	1.00	1.129	1.00	50.00	50.00	0.513	0.513	1.00
27	14:42	1.00	0.818	1.00	50.00	50.00	0.368	0.368	1.00
28	15:02	1.00	0.837	1.00	50.00	50.00	1.156	1.156	1.00
29	14:20	1.00	1.208	1.00	50.00	50.00	0.466	0.466	1.00
30	15:30	1.00	1.306	1.00	50.00	50.00	0.293	0.293	1.00
31	15:53	1.00	1.338	1.00	50.00	50.00	0.316	0.316	1.00
32	16:12	1.00	0.901	1.00	50.00	50.00	0.471	0.471	1.00
33	16:27	1.00	0.916	1.00	50.00	50.00	0.227	0.227	1.00
34	16:42	1.00	1.407	1.00	50.00	50.00	0.465	0.465	1.00
35	18:01	1.00	1.003	1.00	50.00	50.00	0.926	0.926	1.00
36	18:18	1.00	1.018	1.00	50.00	50.00	0.428	0.428	1.00
37	18:34	1.00	1.033	1.00	100.00	100.00	0.606	0.606	1.00
38	19:26	1.00	1.082	1.00	50.00	50.00	0.554	0.554	1.00
39	19:28	1.00	1.083	1.00	50.00	50.00	0.891	0.891	1.00
40	19:49	1.00	1.669	1.00	50.00	50.00	0.338	0.338	1.00
41	20:53	1.00	1.163	1.00	50.00	50.00	0.553	0.553	1.00
42	7:12	1.00	0.739	1.00	100.00	100.00	1.479	1.479	1.00
43	18:34	1.00	1.033	1.00	150.00	150.00	0.589	0.589	1.00

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	771	9:45	1	1.000	A BB	54571.	50.000	UG/L	2.13
2	114	939	11:52	2	1.000	A BB	239887.	50.000	UG/L	2.13
3	117	1421	17:58	3	1.000	A BB	225856.	50.000	UG/L	2.13
4	65	864	10:56	1	1.121	A BV	89477.	50.000	UG/L	2.13
5	98	1178	14:54	3	0.829	A BB	253613.	50.000	UG/L	2.13
6	95	1628	20:35	3	1.146	A BB	209369.	50.000	UG/L	2.13
7	50	253	3:12	1	0.328	A BB	51478.	50.000	UG/L	2.13
8	62	264	3:20	1	0.342	A BB	56050.	50.000	UG/L	2.13
9	94	306	3:52	1	0.397	A BB	77240.	50.000	UG/L	2.13
10	64	325	4:07	1	0.422	A BB	46831.	50.000	UG/L	2.13
11	96	443	5:36	1	0.575	A BB	70327.	50.000	UG/L	2.13
12	43	452	5:43	1	0.586	A BB	25203.	50.000	UG/L	2.13
13	76	476	6:01	1	0.617	A BB	192199.	50.000	UG/L	2.13
14	84	523	6:37	1	0.678	A BB	145398.	50.000	UG/L	2.13
15	96	570	7:12	1	0.739	A BB	85922.	50.000	UG/L	2.13
16	63	638	8:04	1	0.827	A BB	171927.	50.000	UG/L	2.13
17	96	734	9:17	1	0.952	A BB	75541.	50.000	UG/L	2.13
18	43	738	9:20	1	0.957	A BB	27531.	50.000	UG/L	2.13
19	83	787	9:57	1	1.021	A BB	142772.	50.000	UG/L	2.13
20	97	815	10:18	2	0.868	A BB	100576.	50.000	UG/L	2.13
21	117	842	10:39	2	0.897	A BB	101922.	50.000	UG/L	2.13
22	78	874	11:03	2	0.931	A BB	230093.	50.000	UG/L	2.13
23	62	876	11:05	1	1.136	A BB	95529.	50.000	UG/L	2.13
24	130	980	12:24	2	1.044	A BB	103177.	50.000	UG/L	2.13
25	63	1014	12:49	2	1.080	A BB	93257.	50.000	UG/L	2.13
26	83	1060	13:24	2	1.129	A BB	122978.	50.000	UG/L	2.13
27	43	1162	14:42	3	0.818	A BV	83019.	50.000	UG/L	2.13
28	91	1189	15:02	3	0.837	A BB	261070.	50.000	UG/L	2.13
29	75	1134	14:20	2	1.208	A BB	111710.	50.000	UG/L	2.13
30	75	1226	15:30	2	1.306	A BB	70331.	50.000	UG/L	2.13
31	97	1256	15:53	2	1.338	A BB	75906.	50.000	UG/L	2.13
32	164	1281	16:12	3	0.901	A BB	106412.	50.000	UG/L	2.13
33	43	1301	16:27	3	0.916	A BB	51161.	50.000	UG/L	2.13
34	129	1321	16:42	2	1.407	A BB	111495.	50.000	UG/L	2.13
35	112	1425	18:01	3	1.003	A BB	209208.	50.000	UG/L	2.13
36	106	1447	18:18	3	1.018	A BB	96558.	50.000	UG/L	2.13
37	106	1468	18:34	3	1.033	A BB	273589.	100.000	UG/L	4.26
38	106	1537	19:26	3	1.082	A BB	125203.	50.000	UG/L	2.13
39	104	1539	19:28	3	1.083	A BB	201149.	50.000	UG/L	2.13
40	173	1567	19:49	2	1.669	A BB	81036.	50.000	UG/L	2.13
41	83	1652	20:53	3	1.163	A BB	124931.	50.000	UG/L	2.13
42	96	570	7:12	1	0.739	A*BB	161462.	100.000	UG/L	4.26
43	106	1468	18:34	3	1.033	A*BB	398792.	150.000	UG/L	6.38

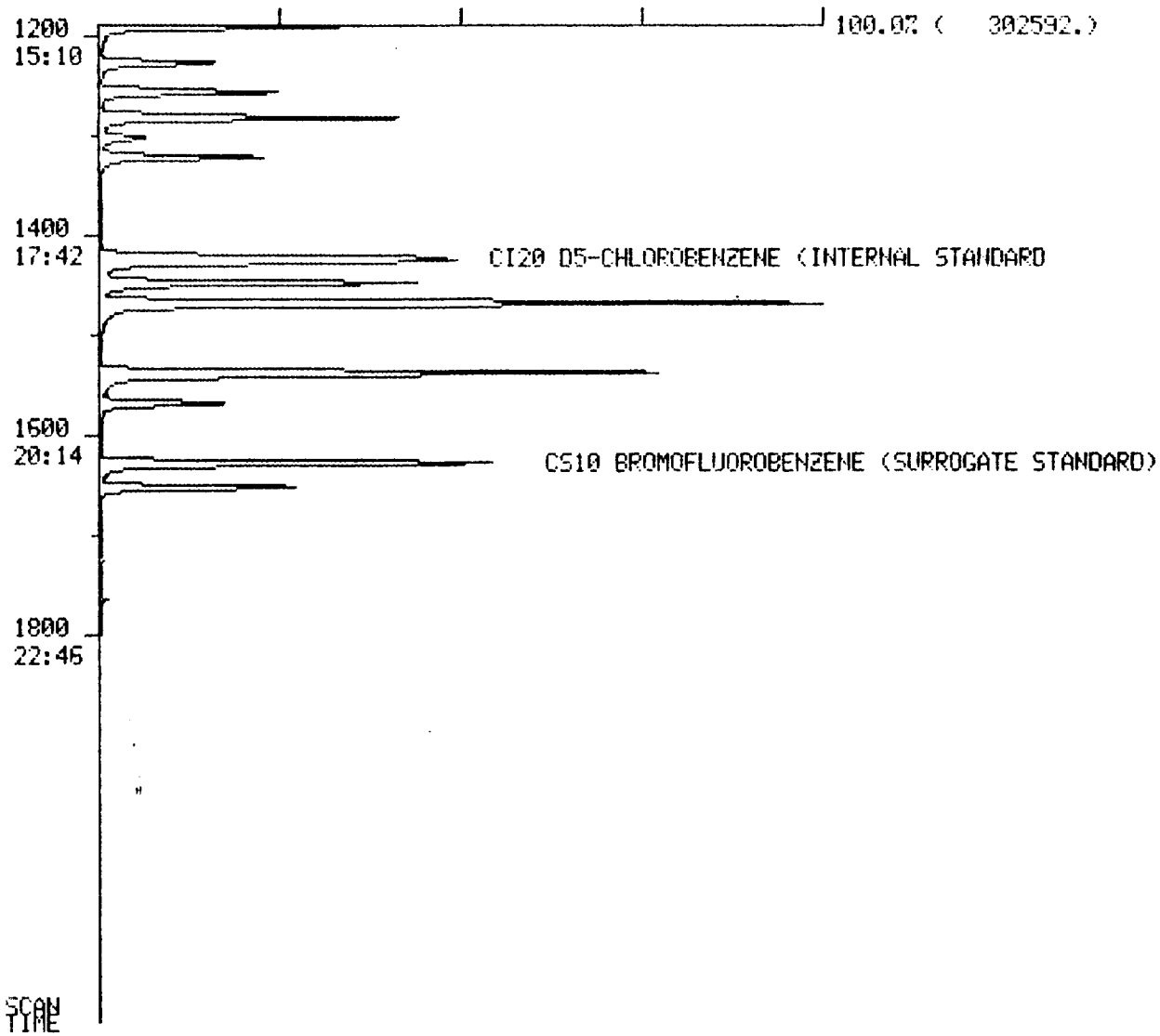
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:52	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:56	1.00	1.121	1.00	50.00	50.00	1.640	1.640	1.00
5	14:54	1.00	0.829	1.00	50.00	50.00	1.123	1.123	1.00
6	20:35	1.00	1.146	1.00	50.00	50.00	0.927	0.927	1.00
7	3:12	1.00	0.328	1.00	50.00	50.00	0.943	0.943	1.00
8	3:20	1.00	0.342	1.00	50.00	50.00	1.027	1.027	1.00
9	3:52	1.00	0.397	1.00	50.00	50.00	1.415	1.415	1.00
10	4:07	1.00	0.422	1.00	50.00	50.00	0.858	0.858	1.00
11	5:36	1.00	0.575	1.00	50.00	50.00	1.289	1.289	1.00

Data: CT910919C53.TI
09/19/91 4:50:00
Sample: CLP,STAND,,VSTD050,LOW,WATER,,VOA,CAL,F50053
Conds.: DB624,,BI910919C53
Formula: NWSW Instrument: F50053 Weight: 0.000
Submitted by: NWSW Analyst: 1171 Acct. No.: AM

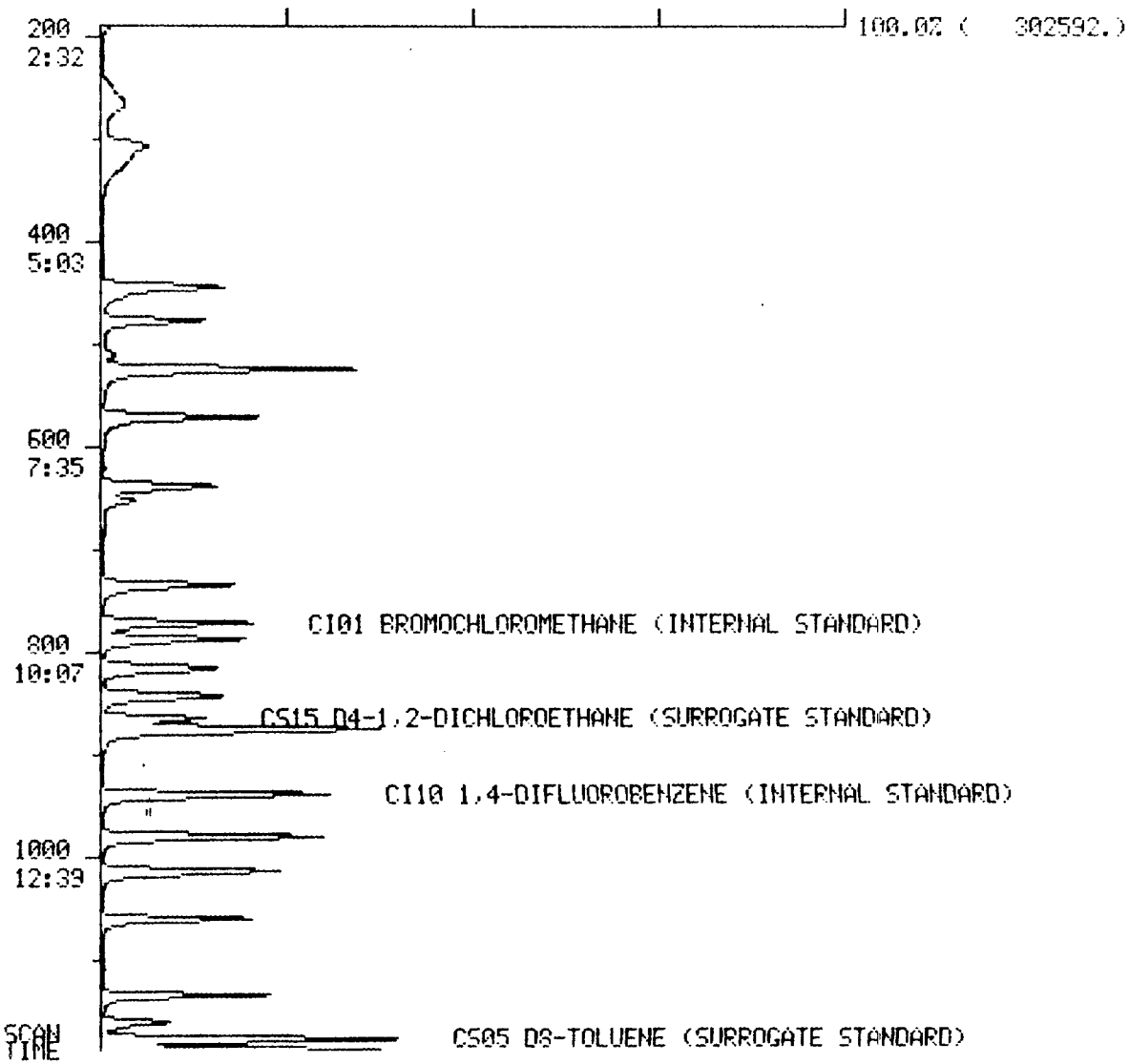
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CT910919C53 SCANS 1190 TO 1800 ACQUIRED: 09/19/91 4:50:00
CALI: CT910919C53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,STAND,,VSTD050,LOW,WATER,,VOA,CAL,F50053
CONDS.: DB624,,BI910919C53



DATA FROM FILE: CT910919C53 SCANS 190 TO 1190 ACQUIRED: 09/19/91 4:50:00
CALI: CT910919C53 #3 OUT OF 190 TO 1900
SAMPLE: CLP,STAND,,VSTD050,LOW,WATER,,VOA,CAL,F50053
CONDS.: DB624,,BI910919C53



7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Instrument ID: F50053 Calibration date: 09/19/91 Time: 0450

Lab File ID: CT910919C53 Init. Calib. Date(s): 09/04/91 09/04/91

Heated Purge: (Y/N) N Init. Calib. Times: 1208 1516

GC Column: DB624 ID: 0.530(mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.876	0.943		-7.6	
Bromomethane	1.117	1.415	0.100	-26.7	25.0
Vinyl Chloride	1.100	1.027	0.100	6.6	25.0
Chloroethane	0.794	0.858		-8.1	
Methylene Chloride	1.923	2.664		-38.5	
Acetone	0.440	0.462		-5.0	
Carbon Disulfide	4.094	3.522		14.0	
1,1-Dichloroethene	1.605	1.289	0.100	19.7	25.0
1,1-Dichloroethane	3.017	3.151	0.200	-4.4	25.0
1,2-Dichloroethene (total)	1.645	1.479		10.1	
Chloroform	3.010	2.616	0.200	13.1	25.0
1,2-Dichloroethane	1.826	1.751	0.100	4.1	25.0
2-Butanone	0.511	0.504		1.4	
1,1,1-Trichloroethane	0.502	0.419	0.100	16.5	25.0
Carbon Tetrachloride	0.474	0.425	0.100	10.3	25.0
Bromodichloromethane	0.560	0.513	0.200	8.4	25.0
1,2-Dichloropropane	0.416	0.389		6.5	
cis-1,3-Dichloropropene	0.539	0.466	0.200	13.5	25.0
Trichloroethene	0.475	0.430	0.300	9.5	25.0
Dibromochloromethane	0.500	0.465	0.100	7.0	25.0
1,1,2-Trichloroethane	0.334	0.316	0.100	5.4	25.0
Benzene	1.031	0.959	0.500	7.0	25.0
Trans-1,3-Dichloropropene	0.347	0.293	0.100	15.6	25.0
Bromoform	0.336	0.338	0.100	-0.6	25.0
4-Methyl-2-Pentanone	0.365	0.368		-0.8	
2-Hexanone	0.229	0.227		0.9	
Tetrachloroethene	0.501	0.471	0.200	6.0	25.0
1,1,2,2-Tetrachloroethane	0.525	0.553	0.500	-5.3	25.0
Toluene	1.318	1.156	0.400	12.3	25.0
Chlorobenzene	1.039	0.926	0.500	10.9	25.0
Ethylbenzene	0.479	0.428	0.100	10.6	25.0
Styrene	0.971	0.891	0.300	8.2	25.0
Xylene (total)	0.603	0.554	0.300	8.1	25.0
Toluene-d8	1.112	1.123		-1.0	
Bromofluorobenzene	0.794	0.927	0.200	-16.8	25.0
1,2-Dichloroethane-d4	1.437	1.640		-14.1	

All other compounds must meet a minimum RRF of 0.010.

FORM VII VOA 3/90

COMPUCHEM LABORATORIES, INC.
GC/MS ANALYSIS LOG

VOLATILE

INITIAL TIME OF TUNE 10:06
TIME TUNE EXPIRES 22:06

SHIFT(S) (A) ✓ (B) ____ (C) ____
DATE 9-18-91
ANALYSIS TYPE NWSW

PREVENTIVE MAINTENANCE ____

RUN LOG

	REJECTED	FILE NAME	REPORTED	DATE	TIME	EPA ID	CASE NO.	STD ID #	AMOUNT INJECTED	CHEMIST	COMMENTS (Lot #'s, Disposition, Etc.)
1		BF910918A53	/	9/18/91	10:06	BFB			2uL	2033	
2	/	CS910918A53		9/18/91	10:35	VSTD050		1966	5mL	2033	surrogates (2) not four
3		CT910918A53	/	9/18/91	11:47	VST050		1966	5mL	2033	
4	/	CB910918A53		9/18/91	12:45	VBLKTS		—	5mL	2033	~~Mock~~ Too high Acetone
5		CC910918A53	/	9/18/91	13:46	VBLKTT		—	5mL	2033	
6		CNO ~~444~~ 44547A53	/	9/18/91	~~14~~ 16:00	CEB87	17056		5mL	2033	-
7		CNO 44539A53	/	9/18/91	~~14:14~~ 9/18	MS CEB87	9/18		5mL	2033	TIME INSERTED 16:35 9/18
8		CNO 44540A53	/	9/18/91	17:10	MSD CEB87	9/18		5mL	2033	
9		CNO 44538A53	/	9/18/91	17:44	CEB85			5mL	2033	
10		CNO 44543A53	/	9/18/91	18:24	CEB86			5mL	2033	-
11		CNO 44549A53	/	9/18/91	18:59	CEB88	ID #	CASE #	5mL	2033	-
12		~~CNO 44547 A53~~ 9/18	/	9/18/91	~~16:00~~ 9/18	~~CEB87~~ 9/18	EFFLUENT	23861	5mL	2033	FILENAME: CNO45460A53
13		~~CNO 44539A53~~ 9/18	/	9/18/91	20:08	~~MS~~ 9/18	EFFLUENT MS	23861	5mL	2033	FILENAME: CNO45461A53 -
14		~~CNO 44540A53~~ 9/18	/	9/18/91	21:01	~~MSD~~ 9/18	EFFLUENT MSD	23861	5mL	2033	FILENAME: CNO45462A53 -
15		~~CNO 44538A53~~ 9/18	/	9/18/91	21:36	~~CEB85~~ 9/18	FILTER EFF	23861	5mL	2033	FILENAME: CNO45464A53 -
16	/	~~CNO 44543A53~~ 9/18		9/18/91	22:11	~~CEB86~~ 9/18	INFLUENT	23861	5mL	2033	FILENAME: CNO45465A53
17		~~CNO 44549A53~~ 9/18		9/18/91	:	~~CEB88~~ 9/18			5mL	2033	FILENAME:
18				/ /	:						
19				/ /	:						
20				/ /	:						
21				/ /	:						
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24				/ /	:						
				/ /	:						

VERIFIED ____
SUPERVISOR APPROVAL 10919 [illegible]
FORMME 10919A53

54

23861 7 SAMPLE DATA PACKAGE

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:44	1.00	0.587	1.00	45.55	50.00	0.391	0.429	0.91
13	6:03	1.00	0.619	1.00	55.19	50.00	3.569	3.234	1.10
14	6:40	1.00	0.681	1.00	61.15	50.00	2.124	1.737	1.22
15	7:15	1.00	0.740	1.00	58.97	50.00	1.592	1.350	1.18
16	8:07	1.00	0.829	1.00	47.77	50.00	2.517	2.634	0.96
17	9:19	1.00	0.952	1.00	47.42	50.00	1.390	1.466	0.95
18	9:21	1.00	0.956	1.00	38.96	50.00	0.412	0.529	0.78
19	9:59	1.00	1.021	1.00	48.10	50.00	2.690	2.797	0.96
20	10:21	1.00	0.869	1.00	45.49	50.00	0.389	0.428	0.91
21	10:41	1.00	0.898	1.00	46.27	50.00	0.395	0.427	0.93
22	11:05	1.00	0.932	1.00	44.94	50.00	0.913	1.016	0.90
23	11:07	1.00	1.136	1.00	46.02	50.00	1.722	1.871	0.92
24	12:25	1.00	1.044	1.00	45.71	50.00	0.404	0.442	0.91
25	12:51	1.00	1.080	1.00	44.14	50.00	0.364	0.413	0.88
26	13:26	1.00	1.129	1.00	43.98	50.00	0.470	0.534	0.88
27	14:42	1.00	0.818	1.00	36.81	50.00	0.288	0.392	0.74
28	15:04	1.00	0.838	1.00	45.38	50.00	1.117	1.231	0.91
29	14:21	1.00	1.206	1.00	41.87	50.00	0.412	0.492	0.84
30	15:31	1.00	1.304	1.00	41.64	50.00	0.257	0.309	0.83
31	15:53	1.00	1.335	1.00	42.20	50.00	0.280	0.331	0.84
32	16:13	1.00	0.902	1.00	46.70	50.00	0.454	0.486	0.93
33	16:28	1.00	0.916	1.00	35.08	50.00	0.172	0.244	0.70
34	16:43	1.00	1.405	1.00	42.09	50.00	0.410	0.487	0.84
35	18:02	1.00	1.004	1.00	45.07	50.00	0.881	0.978	0.90
36	18:19	1.00	1.019	1.00	45.38	50.00	0.413	0.455	0.91
37	18:35	1.00	1.034	1.00	95.19	100.00	0.574	0.603	0.95
38	19:26	1.00	1.082	1.00	44.53	50.00	0.515	0.578	0.89
39	19:28	1.00	1.083	1.00	44.13	50.00	0.831	0.941	0.88
40	19:50	1.00	1.666	1.00	39.96	50.00	0.275	0.344	0.80
41	20:53	1.00	1.163	1.00	39.33	50.00	0.461	0.587	0.79
42	9:19	0.78	0.952	0.78	105.91	100.00	1.491	1.408	1.06
43	18:35	1.00	1.034	1.00	139.81	150.00	0.554	0.595	0.93

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	773	9:46	1	1.000	A BB	43825.	50.000	UG/L	2.29
2	114	940	11:53	2	1.000	A BB	206610.	50.000	UG/L	2.29
3	117	1421	17:58	3	1.000	A BB	190439.	50.000	UG/L	2.29
4	65	865	10:56	1	1.119	A BB	79125.	53.179	UG/L	2.43
5	98	1179	14:55	3	0.830	A BB	223387.	52.749	UG/L	2.41
6	95	1628	20:35	3	1.146	A BB	177424.	52.212	UG/L	2.39
7	50	256	3:14	1	0.331	A BB	31280.	51.165	UG/L	2.34
8	62	268	3:23	1	0.347	A BB	36384.	48.044	UG/L	2.20
9	94	310	3:55	1	0.401	A BB	51064.	38.799	UG/L	1.77
10	64	327	4:08	1	0.423	A BB	30242.	43.302	UG/L	1.98
11	96	446	5:38	1	0.577	A BB	55797.	46.750	UG/L	2.14
12	43	454	5:44	1	0.587	A BB	17128.	45.551	UG/L	2.08
13	76	479	6:03	1	0.620	A BB	156419.	55.189	UG/L	2.52
14	84	526	6:39	1	0.680	A BB	93085.	61.153	UG/L	2.80
15	96	573	7:15	1	0.741	A BB	69761.	58.966	UG/L	2.70
16	63	641	8:06	1	0.829	A BB	110294.	47.770	UG/L	2.18
17	96	736	9:18	1	0.952	A BB	60933.	47.420	UG/L	2.17
18	43	740	9:21	1	0.957	A BB	18057.	38.955	UG/L	1.78
19	83	789	9:59	1	1.021	A BB	117908.	48.102	UG/L	2.20
20	97	817	10:20	2	0.869	A BB	80389.	45.488	UG/L	2.08
21	117	844	10:40	2	0.898	A BB	81633.	46.273	UG/L	2.12
22	78	876	11:05	2	0.932	A BB	188614.	44.940	UG/L	2.05
23	62	878	11:06	1	1.136	A BB	75483.	46.017	UG/L	2.10
24	130	981	12:24	2	1.044	A BB	83560.	45.713	UG/L	2.09
25	63	1015	12:50	2	1.080	A BB	75250.	44.141	UG/L	2.02
26	83	1061	13:25	2	1.129	A BB	97115.	43.978	UG/L	2.01
27	43	1162	14:42	3	0.818	A BV	54888.	36.809	UG/L	1.68
28	91	1190	15:03	3	0.837	A BB	212673.	45.376	UG/L	2.07
29	75	1134	14:20	2	1.206	A BB	85158.	41.875	UG/L	1.91
30	75	1227	15:31	2	1.305	A BB	53176.	41.636	UG/L	1.90
31	97	1256	15:53	2	1.336	A BB	57773.	42.200	UG/L	1.93
32	164	1281	16:12	3	0.901	A BB	86462.	46.695	UG/L	2.14
33	43	1301	16:27	3	0.916	A BB	32668.	35.085	UG/L	1.60
34	129	1321	16:42	2	1.405	A BB	84683.	42.091	UG/L	1.92
35	112	1426	18:02	3	1.004	A BB	167799.	45.066	UG/L	2.06
36	106	1447	18:18	3	1.018	A BB	78580.	45.379	UG/L	2.08
37	106	1468	18:34	3	1.033	A BB	218554.	95.192	UG/L	4.35
38	106	1537	19:26	3	1.082	A BB	98116.	44.530	UG/L	2.04
39	104	1539	19:28	3	1.083	A BB	158165.	44.128	UG/L	2.02
40	173	1568	19:50	2	1.668	A BB	56812.	39.958	UG/L	1.83
41	83	1652	20:53	3	1.163	A BB	87883.	39.332	UG/L	1.80
42	96	573	7:15	1	0.741	A*BB	130694.	105.909	UG/L	4.84
43	106	1468	18:34	3	1.033	A*BB	316670.	139.805	UG/L	6.39

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:47	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:54	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:57	1.00	1.119	1.00	53.18	50.00	1.805	1.698	1.06
5	14:55	1.00	0.830	1.00	52.75	50.00	1.173	1.112	1.05
6	20:35	1.00	1.146	1.00	52.21	50.00	0.932	0.892	1.04
7	3:13	1.00	0.329	1.01	51.16	50.00	0.714	0.697	1.02
8	3:22	1.01	0.344	1.01	48.04	50.00	0.830	0.864	0.96
9	3:53	1.01	0.397	1.01	38.80	50.00	1.165	1.502	0.78
10	4:07	1.01	0.420	1.01	43.30	50.00	0.690	0.797	0.87
11	5:38	1.00	0.575	1.00	46.75	50.00	1.273	1.362	0.93

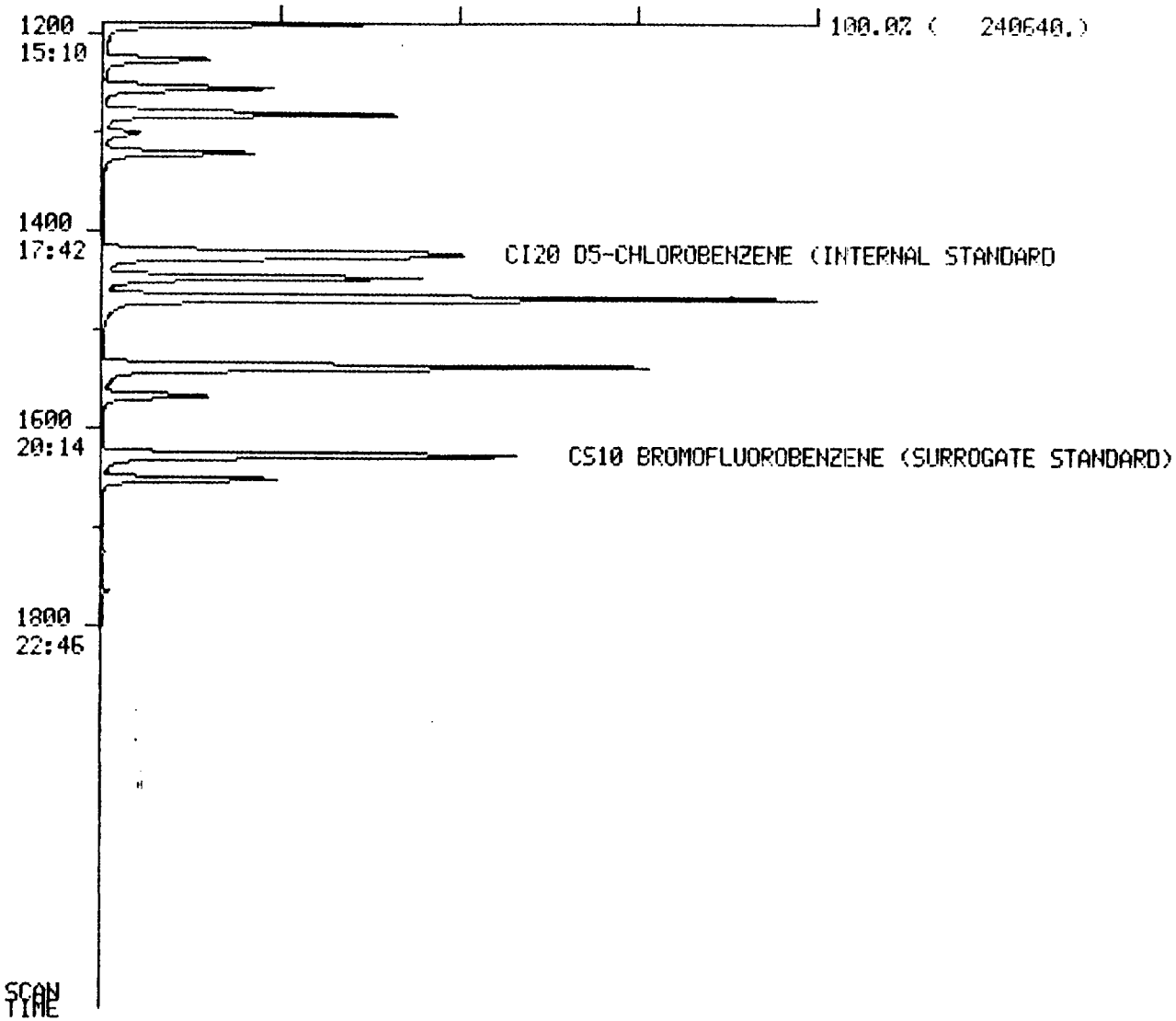
Quantitation Report File: CT910918A53

Data: CT910918A53.TI
09/18/91 11:47:00
Sample: CLP,,,BFB,LOW,WATER,,VOA,TUNE,F50053
Conds.: DB624
Formula: NWSW Instrument: F50053 Weight: 0.000
Submitted by: NWSW Analyst: 2033 Acct. No.: MHY

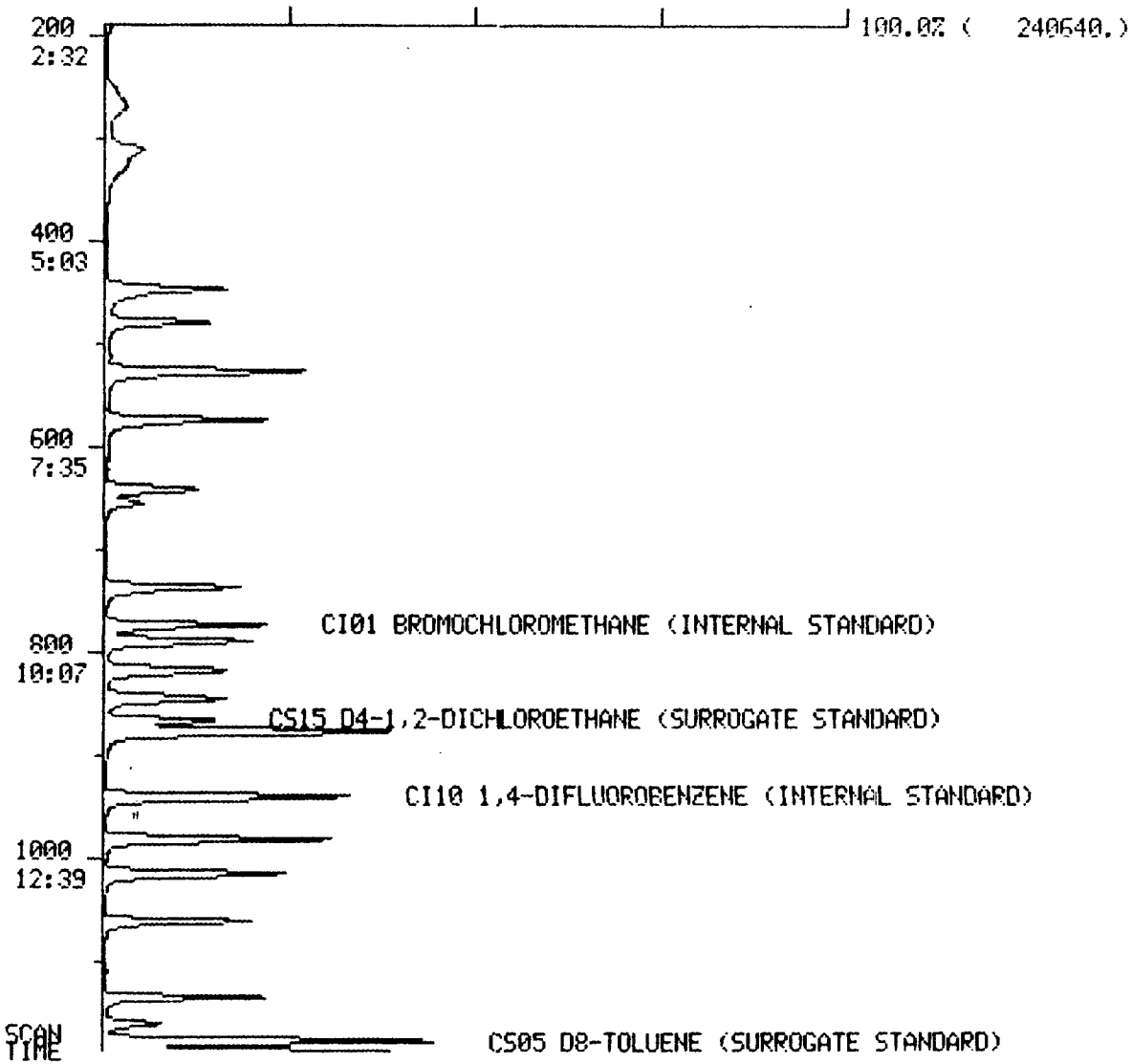
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CT910918A53 SCANS 1190 TO 1800 ACQUIRED: 09/18/91 11:47:00
CALI: CT910918A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,,,BFB,LOW,WATER,,VOA,TUNE,F50053
CONDS.: DB624



DATA FROM FILE: CT910918A53 SCANS 190 TO 1190 ACQUIRED: 09/18/91 11:47:00
CALI: CT910918A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,,,BFB,LOW,WATER,,VOA,TUNE,F50053
CONDS.: DB624



7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Instrument ID: F50053 Calibration date: 09/18/91 Time: 1147

Lab File ID: CT910918A53 Init. Calib. Date(s): 09/04/91 09/04/91

Heated Purge: (Y/N) N Init. Calib. Times: 1208 1516

GC Column: DB624 ID: 0.530(mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.876	0.714		18.5	
Bromomethane	1.117	1.165	0.100	-4.3	25.0
Vinyl Chloride	1.100	0.830	0.100	24.6	25.0
Chloroethane	0.794	0.690		13.1	
Methylene Chloride	1.923	2.124		-10.4	
Acetone	0.440	0.391		11.1	
Carbon Disulfide	4.094	3.569		12.8	
1,1-Dichloroethene	1.605	1.273	0.100	20.7	25.0
1,1-Dichloroethane	3.017	2.517	0.200	16.6	25.0
1,2-Dichloroethene (total)	1.645	1.491		9.4	
Chloroform	3.010	2.690	0.200	10.6	25.0
1,2-Dichloroethane	1.826	1.722	0.100	5.7	25.0
2-Butanone	0.511	0.412		19.4	
1,1,1-Trichloroethane	0.502	0.389	0.100	22.5	25.0
Carbon Tetrachloride	0.474	0.395	0.100	16.7	25.0
Bromodichloromethane	0.560	0.470	0.200	16.1	25.0
1,2-Dichloropropane	0.416	0.364		12.5	
cis-1,3-Dichloropropene	0.539	0.412	0.200	23.6	25.0
Trichloroethene	0.475	0.404	0.300	15.0	25.0
Dibromochloromethane	0.500	0.410	0.100	18.0	25.0
1,1,2-Trichloroethane	0.334	0.280	0.100	16.2	25.0
Benzene	1.031	0.913	0.500	11.4	25.0
Trans-1,3-Dichloropropene	0.347	0.257	0.100	25.9	25.0
Bromoform	0.336	0.275	0.100	18.2	25.0
4-Methyl-2-Pentanone	0.365	0.288		21.1	
2-Hexanone	0.229	0.172		24.9	
Tetrachloroethene	0.501	0.454	0.200	9.4	25.0
1,1,2,2-Tetrachloroethane	0.525	0.461	0.500	12.2	25.0 ✓
Toluene	1.318	1.117	0.400	15.2	25.0
Chlorobenzene	1.039	0.881	0.500	15.2	25.0
Ethylbenzene	0.479	0.413	0.100	13.8	25.0
Styrene	0.971	0.831	0.300	14.4	25.0
Xylene (total)	0.603	0.515	0.300	14.6	25.0
Toluene-d8	1.112	1.173		-5.5	
Bromofluorobenzene	0.794	0.932	0.200	-17.4	25.0
1,2-Dichloroethane-d4	1.437	1.805		-25.6	

All other compounds must meet a minimum RRF of 0.010.

FORM VII VOA 3/90

(2) Continuing Calibration (Form VII VOA) - in order by instrument, if more than one intrument used.

(a) VOA standard(s) reconstructed ion chromatograms and quantitation reports (or legible facsimile) for the initial (five point) calibration. Spectra are not required.

(b) When more than one continuing calibration is performed, forms must be in chronological order, within fraction and instrument.

COMPUCHEM LABORATORIES, INC.
GC/MS ANALYSIS LOG

VOLATILE

INITIAL TIME OF TUNE 1151
TIME TUNE EXPIRES 2351
PREVENTIVE MAINTENANCE 9/4/91

SHIFT(S) (A) ✓ (B) ____ (C) ____
DATE 9/4/91
ANALYSIS TYPE NWSW

RUN LOG

	REJECTED	FILE NAME	REPORTED	DATE	TIME	EPA ID	CASE NO.	STD ID #	AMOUNT INJECTED	CHEMIST	COMMENTS (Lot #'s, Disposition, Etc.)
1		BHS10904A53	/	9/4/91	11 51	BFB	—	7008	2ul	1523	Loose
2		CT910904A53	/	9/4/91	12:08	VSTD050			5ml	1523	
3		CV910904A53	/	9/4/91	13:22	VSTD200			5ml	1523	
4		CV910904A53	/	9/4/91	14:08	VSTD100			5ml	1523	
5		CW910904A53	/	9/4/91	14:42	VSTD020			5ml		
6		CX910904A53	/	9/4/91	15:16	VSTD010			5ml		
7				/ /	:	MB Good					
8				/ /	:						
9				/ /	:						
10				/ /	:						
11				/ /	:						
12				/ /	:						
13				/ /	:						
14				/ /	:						
15				/ /	:						
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VERIFIED ____
SUPERVISOR APPROVAL Russ 9/4/91
FORMME 10904B53
Ck'd Ok=Stu 9-5-91

62

23861 7 SAMPLE DATA PACKAGE

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:24	1.01	0.573	1.01	177.63	50.00	1.163	0.327	3.55
13	5:42	1.00	0.605	1.00	253.43	50.00	19.410	3.829	5.07
14	6:19	1.00	0.670	1.00	212.77	50.00	7.280	1.711	4.26
15	6:53	1.00	0.732	1.00	228.63	50.00	7.000	1.531	4.57
16	7:45	1.00	0.823	1.00	224.07	50.00	12.678	2.829	4.48
17	8:57	1.00	0.950	1.00	211.47	50.00	6.859	1.622	4.23
18	8:59	1.00	0.954	1.01	185.14	50.00	1.580	0.427	3.70
19	9:37	1.00	1.021	1.00	209.86	50.00	12.430	2.962	4.20
20	9:59	1.00	0.864	1.00	217.05	50.00	2.034	0.469	4.34
21	10:20	1.00	0.895	1.00	224.68	50.00	2.047	0.456	4.49
22	10:43	1.00	0.929	1.00	207.97	50.00	4.046	0.973	4.16
23	10:45	1.00	1.141	1.00	202.91	50.00	7.226	1.781	4.06
24	12:04	1.00	1.045	1.00	209.25	50.00	1.972	0.471	4.19
25	12:29	1.00	1.081	1.00	208.68	50.00	1.632	0.391	4.17
26	13:04	1.00	1.133	1.00	216.47	50.00	2.349	0.543	4.33
27	14:21	1.00	0.814	1.00	195.31	50.00	1.211	0.310	3.91
28	14:42	1.00	0.834	1.00	199.59	50.00	5.248	1.315	3.99
29	14:01	1.00	1.214	1.00	224.88	50.00	2.307	0.513	4.50
30	15:11	1.00	1.315	1.00	229.54	50.00	1.489	0.324	4.59
31	15:33	1.00	1.347	1.00	199.97	50.00	1.248	0.312	4.00
32	15:52	1.00	0.900	1.00	206.20	50.00	2.065	0.501	4.12
33	16:08	1.00	0.915	1.00	197.85	50.00	0.757	0.191	3.96
34	16:23	1.00	1.418	1.00	218.38	50.00	2.103	0.481	4.37
35	17:42	1.00	1.004	1.00	200.96	50.00	4.128	1.027	4.02
36	17:58	1.00	1.019	1.00	209.64	50.00	2.006	0.478	4.19
37	18:14	1.00	1.034	1.00	391.26	100.00	2.718	0.695	3.91
38	19:06	1.00	1.083	1.00	205.82	50.00	2.478	0.602	4.12
39	19:08	1.00	1.085	1.00	208.87	50.00	4.042	0.968	4.18
40	19:30	1.00	1.689	1.00	208.09	50.00	1.324	0.318	4.16
41	20:37	1.00	1.168	1.00	169.98	50.00	1.681	0.494	3.40
42	8:57	0.77	0.950	0.77	439.61	100.00	6.929	1.576	4.40
43	18:14	1.00	1.034	1.00	397.43	100.00	3.957	0.996	3.97

OKSmith 9.5.91

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	743	9:24	1	1.000	A BB	61550.	50.000	UG/L	0.55
2	114	911	11:31	2	1.000	A BB	291799.	50.000	UG/L	0.55
3	117	1394	17:38	3	1.000	A BB	274116.	50.000	UG/L	0.55
4	65	837	10:35	1	1.127	A BV	327389.	202.901	UG/L	2.25
5	98	1151	14:33	3	0.826	A BB	1218590.	207.370	UG/L	2.30
6	95	1602	20:15	3	1.149	A BB	856693.	208.167	UG/L	2.30
7	50	238	3:01	1	0.320	A BB	233991.	186.372	UG/L	2.06
8	62	249	3:09	1	0.335	A BB	269147.	200.388	UG/L	2.22
9	94	290	3:40	1	0.390	A BB	285266.	168.557	UG/L	1.87
10	64	304	3:51	1	0.409	A BB	188380.	180.733	UG/L	2.00
11	96	418	5:17	1	0.563	A BB	439716.	234.482	UG/L	2.60
12	43	431	5:27	1	0.580	A BB	71590.	177.632	UG/L	1.97
13	76	449	5:41	1	0.604	A BB	1194670.	253.429	UG/L	2.81
14	84	497	6:17	1	0.669	A BB	448089.	212.765	UG/L	2.36
15	96	543	6:52	1	0.731	A BB	430828.	228.635	UG/L	2.53
16	63	611	7:44	1	0.822	A BB	780323.	224.074	UG/L	2.48
17	96	706	8:56	1	0.950	A BB	422162.	211.468	UG/L	2.34
18	43	714	9:02	1	0.961	A BB	97252.	185.143	UG/L	2.05
19	83	760	9:37	1	1.023	A BB	765071.	209.859	UG/L	2.32
20	97	787	9:57	2	0.864	A BB	593496.	217.052	UG/L	2.40
21	117	815	10:18	2	0.895	A BB	597343.	224.682	UG/L	2.49
22	78	846	10:42	2	0.929	A BB	1180500.	207.966	UG/L	2.30
23	62	849	10:44	1	1.143	A BB	444790.	202.910	UG/L	2.25
24	130	952	12:02	2	1.045	A BB	575516.	209.251	UG/L	2.32
25	63	986	12:28	2	1.082	A BB	476223.	208.676	UG/L	2.31
26	83	1033	13:04	2	1.134	A BB	685389.	216.470	UG/L	2.40
27	43	1135	14:21	3	0.814	A BV	332016.	195.309	UG/L	2.16
28	91	1162	14:42	3	0.834	A BB	1438660.	199.590	UG/L	2.21
29	75	1107	14:00	2	1.215	A BB	673171.	224.875	UG/L	2.49
30	75	1200	15:10	2	1.317	A BB	434425.	229.544	UG/L	2.54
31	97	1229	15:32	2	1.349	A BB	364273.	199.970	UG/L	2.21
32	164	1254	15:51	3	0.900	A BB	566056.	206.197	UG/L	2.28
33	43	1275	16:07	3	0.915	A BB	207617.	197.848	UG/L	2.19
34	129	1294	16:22	2	1.420	A BB	613586.	218.384	UG/L	2.42
35	112	1399	17:41	3	1.004	A BB	1131560.	200.957	UG/L	2.22
36	106	1421	17:58	3	1.019	A BB	549880.	209.643	UG/L	2.32
37	106	1442	18:14	3	1.034	A BB	1490000.	391.264	UG/L	4.33
38	106	1511	19:06	3	1.084	A BB	679352.	205.821	UG/L	2.28
39	104	1513	19:08	3	1.085	A BB	1108080.	208.872	UG/L	2.31
40	173	1541	19:29	2	1.692	A BB	386288.	208.089	UG/L	2.30
41	83	1630	20:37	3	1.169	A BB	460803.	169.982	UG/L	1.88
42	96	543	6:52	1	0.731	A*BB	852991.	439.605	UG/L	4.87
43	106	1442	18:14	3	1.034	A*BB	2169360.	397.424	UG/L	4.40

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:25	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:33	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:38	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:36	1.00	1.125	1.00	202.90	50.00	5.319	1.311	4.06
5	14:34	1.00	0.826	1.00	207.37	50.00	4.446	1.072	4.15
6	20:16	1.00	1.149	1.00	208.17	50.00	3.125	0.751	4.16
7	2:59	1.01	0.317	1.01	186.37	50.00	3.802	1.020	3.73
8	3:09	1.00	0.334	1.00	200.39	50.00	4.373	1.091	4.01
9	3:39	1.01	0.387	1.01	168.56	50.00	4.635	1.375	3.37
10	3:51	1.00	0.408	1.00	180.73	50.00	3.061	0.847	3.61
11	5:18	1.00	0.562	1.00	234.48	50.00	7.144	1.523	4.69

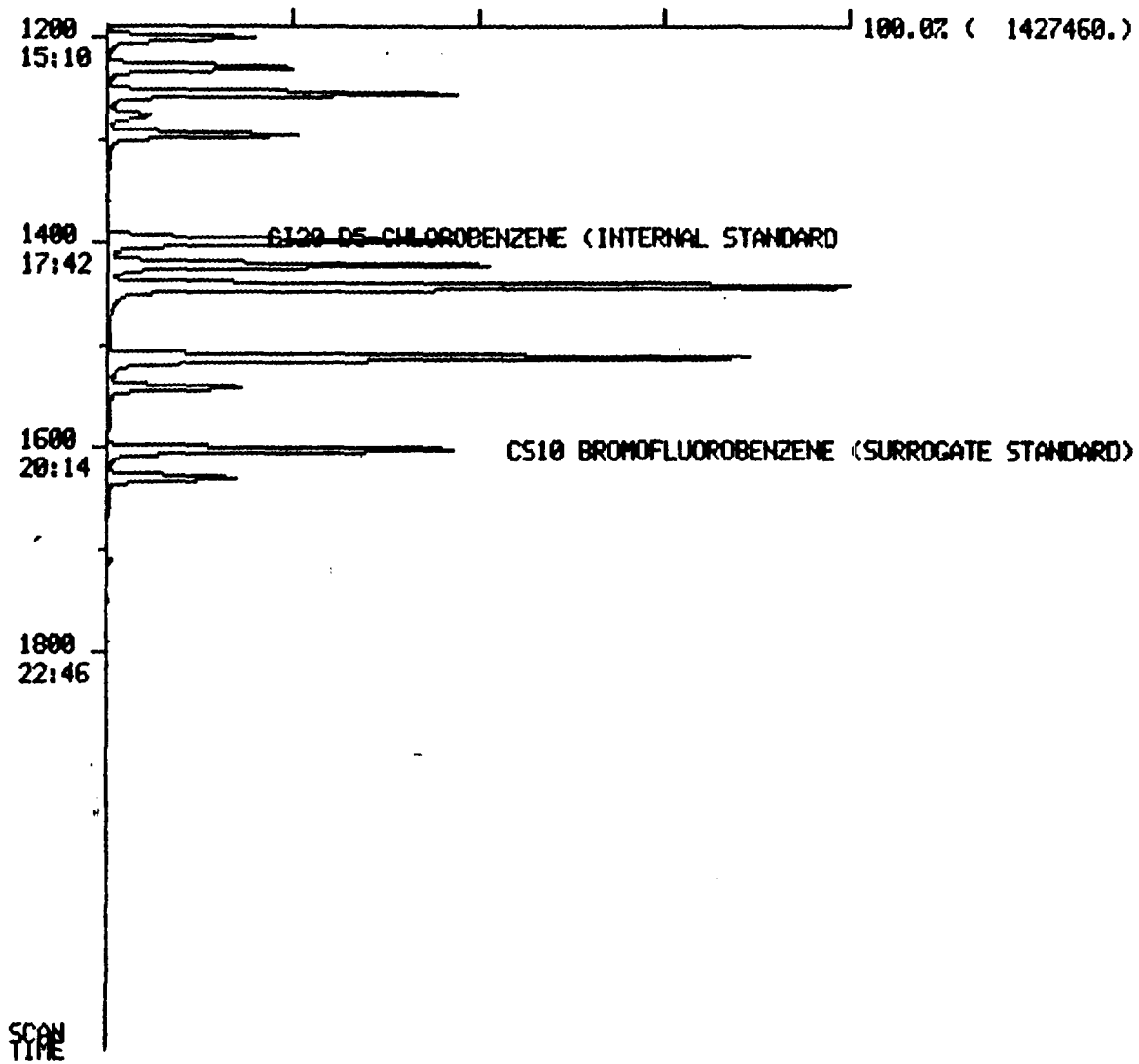
Quantitation Report File: CU910904A53

Data: CU910904A53.TI
09/04/91 13:22:00
Sample: CLP,,,VSTD200,LOW,WATER,,VOA,ICAL200,F50053
Conds.: DB624,,BH910904A53
Formula: NWSW Instrument: F50053 Weight: 2.000
Submitted by: 1973 Analyst: 1523 Acct. No.: RCA

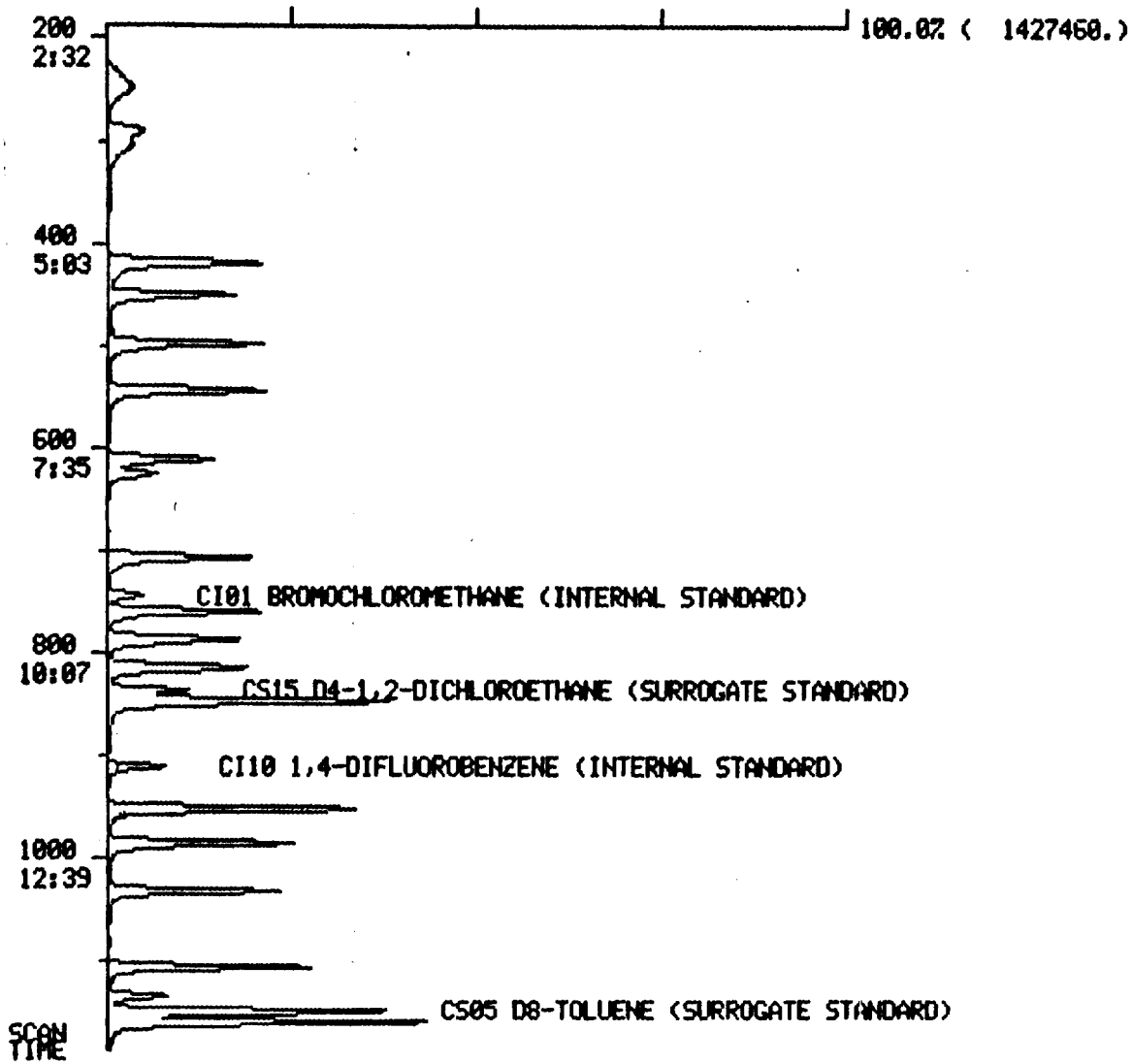
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CU910904A53 SCANS 1190 TO 1800 ACQUIRED: 09/04/91 13:22:00
CALI: CU910904A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,,,VSTD200,LOW,WATER,,VOA,ICAL200,F50053
CONDS.: DB624,,BH910904A53



DATA FROM FILE: CU910904A53 SCANS 190 TO 1190 ACQUIRED: 09/04/91 13:22:00
CALI: CU910904A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,,,V5TD200,LOW,WATER,,VOA,ICAL200,F50053
CONDS.: D8624,,BH910904A53



No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:24	1.03	0.573	1.02	95.89	50.00	0.628	0.327	1.92
13	5:41	1.00	0.605	1.00	135.11	50.00	10.348	3.829	2.70
14	6:18	1.00	0.670	1.00	118.10	50.00	4.041	1.711	2.36
15	6:53	1.00	0.732	1.00	126.14	50.00	3.862	1.531	2.52
16	7:44	1.00	0.823	1.00	126.78	50.00	7.173	2.829	2.54
17	8:56	1.00	0.950	1.00	111.37	50.00	3.612	1.622	2.23
18	8:59	1.01	0.954	1.01	123.94	50.00	1.058	0.427	2.48
19	9:37	1.00	1.021	1.00	116.87	50.00	6.922	2.962	2.34
20	9:58	1.00	0.864	1.00	117.78	50.00	1.104	0.469	2.36
21	10:18	1.00	0.895	1.00	117.77	50.00	1.073	0.456	2.36
22	10:42	1.00	0.929	1.00	116.50	50.00	2.266	0.973	2.33
23	10:43	1.00	1.141	1.00	119.25	50.00	4.247	1.781	2.39
24	12:02	1.00	1.045	1.00	109.54	50.00	1.032	0.471	2.19
25	12:27	1.01	1.081	1.00	120.66	50.00	0.944	0.391	2.41
26	13:03	1.00	1.133	1.00	121.73	50.00	1.321	0.543	2.43
27	14:20	1.01	0.814	1.00	138.47	50.00	0.859	0.310	2.77
28	14:41	1.00	0.834	1.00	106.88	50.00	2.810	1.315	2.14
29	13:59	1.00	1.214	1.00	126.73	50.00	1.300	0.513	2.53
30	15:09	1.00	1.315	1.00	132.20	50.00	0.857	0.324	2.64
31	15:32	1.00	1.347	1.00	119.00	50.00	0.743	0.312	2.38
32	15:51	1.00	0.900	1.00	107.07	50.00	1.072	0.501	2.14
33	16:07	1.00	0.915	1.00	141.10	50.00	0.540	0.191	2.82
34	16:21	1.00	1.418	1.00	124.35	50.00	1.197	0.481	2.49
35	17:40	1.00	1.004	1.00	107.83	50.00	2.215	1.027	2.16
36	17:57	1.00	1.019	1.00	109.18	50.00	1.045	0.478	2.18
37	18:13	1.00	1.034	1.00	219.47	100.00	1.524	0.695	2.19
38	19:05	1.00	1.083	1.00	112.15	50.00	1.350	0.602	2.24
39	19:06	1.00	1.085	1.00	114.91	50.00	2.224	0.968	2.30
40	19:28	1.00	1.689	1.00	130.99	50.00	0.833	0.318	2.62
41	20:35	1.00	1.168	1.00	115.49	50.00	1.142	0.494	2.31
42	8:56	0.77	0.950	0.77	237.09	100.00	3.737	1.576	2.37
43	18:13	1.00	1.034	1.00	220.93	100.00	2.200	0.996	2.21

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	747	9:27	1	1.000	A BB	54624.	50.000	UG/L	0.97
2	114	915	11:34	2	1.000	A BB	259238.	50.000	UG/L	0.97
3	117	1398	17:41	3	1.000	A BB	245672.	50.000	UG/L	0.97
4	65	840	10:37	1	1.124	A BB	177395.	123.881	UG/L	2.41
5	98	1155	14:36	3	0.826	A BB	568965.	108.031	UG/L	2.10
6	95	1606	20:18	3	1.149	A BB	411460.	111.556	UG/L	2.17
7	50	243	3:04	1	0.325	A BB	94231.	84.571	UG/L	1.65
8	62	256	3:14	1	0.343	A BB	125407.	105.208	UG/L	2.05
9	94	293	3:42	1	0.392	A BB	130078.	86.606	UG/L	1.69
10	64	308	3:54	1	0.412	A BB	89671.	96.939	UG/L	1.89
11	96	421	5:19	1	0.564	A BB	210589.	126.537	UG/L	2.46
12	43	438	5:32	1	0.586	A BB	34298.	95.892	UG/L	1.87
13	76	452	5:43	1	0.605	A BB	565237.	135.109	UG/L	2.63
14	84	500	6:19	1	0.669	A BB	220736.	118.101	UG/L	2.30
15	96	546	6:54	1	0.731	A BB	210951.	126.143	UG/L	2.46
16	63	614	7:46	1	0.822	A BB	391826.	126.781	UG/L	2.47
17	96	710	8:59	1	0.950	A BB	197323.	111.375	UG/L	2.17
18	43	718	9:05	1	0.961	A BB	57776.	123.936	UG/L	2.41
19	83	763	9:39	1	1.021	A BB	378127.	116.872	UG/L	2.28
20	97	790	9:59	2	0.863	A BB	286117.	117.781	UG/L	2.29
21	117	818	10:21	2	0.894	A BB	278164.	117.769	UG/L	2.29
22	78	850	10:45	2	0.929	A BB	587515.	116.501	UG/L	2.27
23	62	852	10:46	1	1.141	A BB	231992.	119.252	UG/L	2.32
24	130	956	12:05	2	1.045	A BB	267663.	109.543	UG/L	2.13
25	63	990	12:31	2	1.082	A BB	244633.	120.660	UG/L	2.35
26	83	1036	13:06	2	1.132	A BB	342406.	121.727	UG/L	2.37
27	43	1139	14:24	3	0.815	A BV	210970.	138.472	UG/L	2.70
28	91	1166	14:45	3	0.834	A BB	690429.	106.875	UG/L	2.08
29	75	1111	14:03	2	1.214	A BB	337045.	126.733	UG/L	2.47
30	75	1203	15:13	2	1.315	A BB	222271.	132.196	UG/L	2.57
31	97	1232	15:35	2	1.346	A BB	192578.	118.995	UG/L	2.32
32	164	1257	15:54	3	0.899	A BB	263430.	107.070	UG/L	2.09
33	43	1279	16:10	3	0.915	A BB	132699.	141.096	UG/L	2.75
34	129	1298	16:25	2	1.419	A BB	310391.	124.348	UG/L	2.42
35	112	1402	17:44	3	1.003	A BB	544163.	107.828	UG/L	2.10
36	106	1424	18:00	3	1.019	A BB	256663.	109.182	UG/L	2.13
37	106	1445	18:16	3	1.034	A BB	749042.	219.467	UG/L	4.27
38	106	1514	19:09	3	1.083	A BB	331754.	112.147	UG/L	2.18
39	104	1516	19:10	3	1.084	A BB	546333.	114.906	UG/L	2.24
40	173	1545	19:32	2	1.689	A BB	216032.	130.991	UG/L	2.55
41	83	1633	20:39	3	1.168	A BB	280585.	115.487	UG/L	2.25
42	96	546	6:54	1	0.731	A*BB	408274.	237.092	UG/L	4.62
43	106	1445	18:16	3	1.034	A*BB	1080800.	220.926	UG/L	4.30

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:24	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:31	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:34	1.00	1.125	1.00	123.88	50.00	3.248	1.311	2.48
5	14:33	1.00	0.826	1.00	108.03	50.00	2.316	1.072	2.16
6	20:14	1.00	1.149	1.00	111.56	50.00	1.675	0.751	2.23
7	2:58	1.04	0.317	1.03	84.57	50.00	1.725	1.020	1.69
8	3:08	1.03	0.334	1.03	105.21	50.00	2.296	1.091	2.10
9	3:39	1.01	0.387	1.01	86.61	50.00	2.381	1.375	1.73
10	3:48	1.03	0.408	1.01	96.94	50.00	1.642	0.847	1.94
11	5:17	1.01	0.562	1.00	126.54	50.00	3.855	1.523	2.53

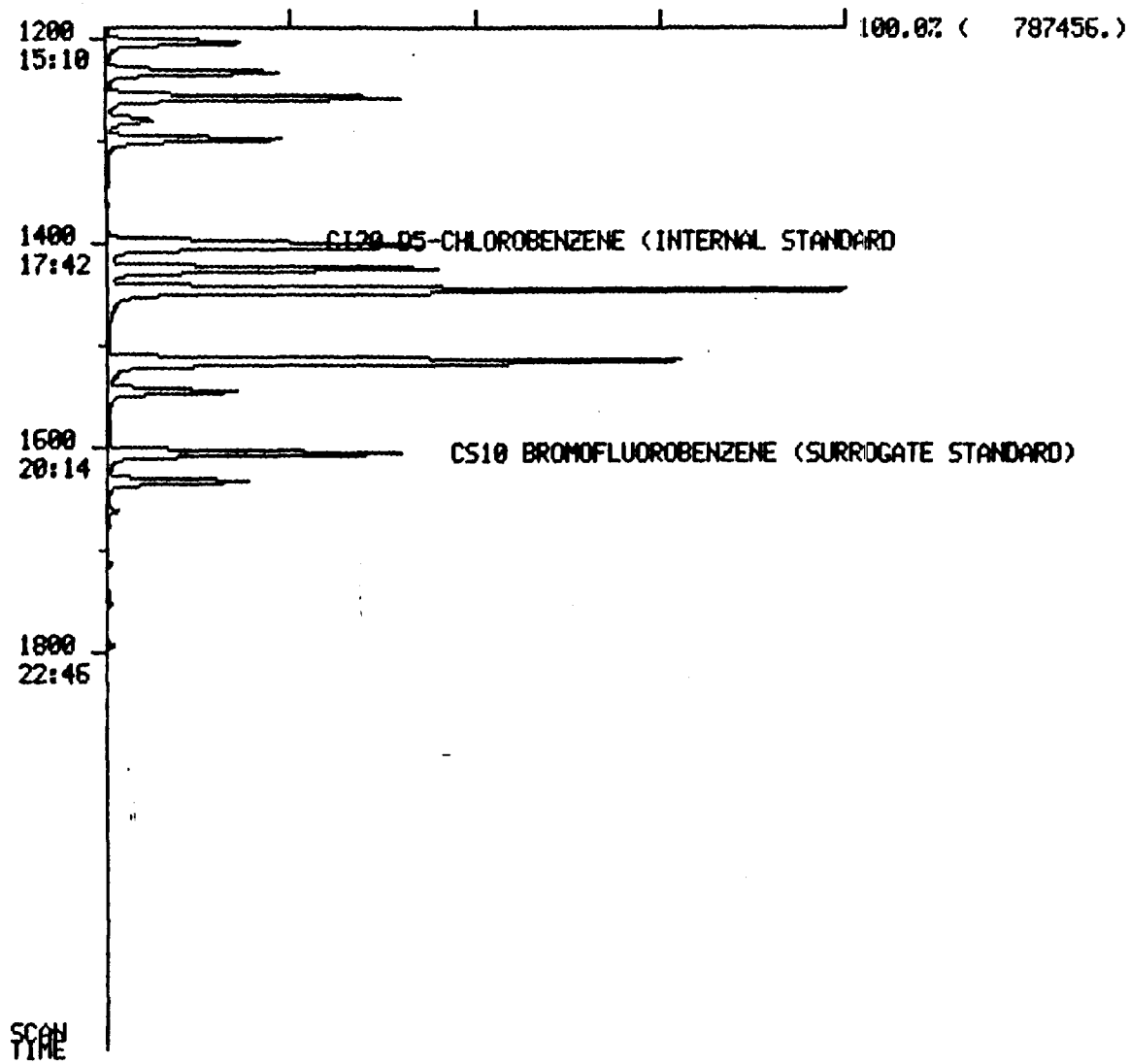
Quantitation Report File: CV910904A53

Data: CV910904A53.TI
09/04/91 14:08:00
Sample: CLP,,,VSTD100,LOW,WATER,,VOA,ICAL100,F50053
Conds.: DB624,,BH910904A53
Formula: NWSW Instrument: F50053 Weight: 2.000
Submitted by: 1972 Analyst: 1523 Acct. No.: RCA

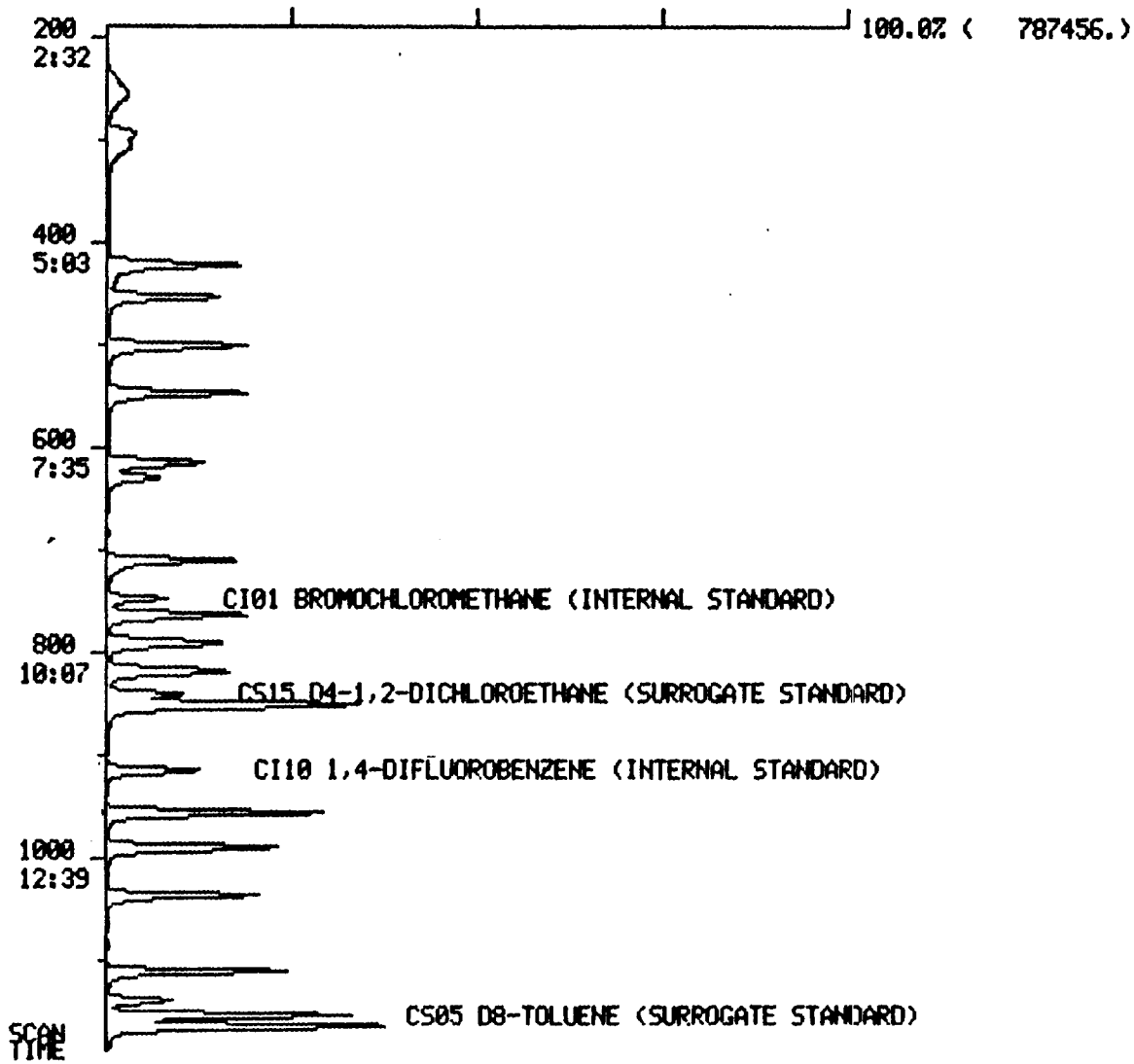
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CV910904A53 SCANS 1190 TO 1800 ACQUIRED: 09/04/91 14:08:00
CALI: CV910904A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,,,VSTD100,LOW,WATER,,VOA,ICAL100,F50053
CONDS.: DB624,,BH910904A53



DATA FROM FILE: CV910904A53 SCANS 190 TO 1190 ACQUIRED: 09/04/91 14:08:00
CALI: CV910904A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,,,VSTD100,LOW,WATER,,VOA,ICAL100,F50053
CONDS.: DB624,,BH910904A53



No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:24	1.00	0.575	1.00	43.91	50.00	0.327	0.373	0.88
13	5:41	1.00	0.606	1.00	44.20	50.00	3.829	4.332	0.88
14	6:18	1.00	0.670	1.00	41.67	50.00	1.711	2.053	0.83
15	6:53	1.00	0.732	1.00	43.80	50.00	1.531	1.747	0.88
16	7:44	1.00	0.824	1.00	43.42	50.00	2.829	3.257	0.87
17	8:56	1.00	0.952	1.00	43.26	50.00	1.622	1.874	0.87
18	8:59	1.00	0.956	1.00	53.22	50.00	0.427	0.401	1.06
19	9:37	1.00	1.023	1.00	43.25	50.00	2.962	3.424	0.86
20	9:58	1.00	0.865	1.00	42.85	50.00	0.469	0.547	0.86
21	10:18	1.00	0.895	1.00	43.04	50.00	0.456	0.529	0.86
22	10:42	1.00	0.929	1.00	43.75	50.00	0.973	1.112	0.88
23	10:43	1.00	1.141	1.00	44.19	50.00	1.781	2.015	0.88
24	12:02	1.00	1.045	1.00	43.95	50.00	0.471	0.536	0.88
25	12:27	1.00	1.081	1.00	44.57	50.00	0.391	0.439	0.89
26	13:03	1.00	1.133	1.00	44.90	50.00	0.543	0.604	0.90
27	14:20	1.00	0.814	1.00	50.39	50.00	0.310	0.308	1.01
28	14:41	1.00	0.834	1.00	43.27	50.00	1.315	1.519	0.87
29	13:59	1.00	1.214	1.00	45.54	50.00	0.513	0.563	0.91
30	15:09	1.00	1.315	1.00	46.79	50.00	0.324	0.347	0.94
31	15:32	1.00	1.348	1.00	46.75	50.00	0.312	0.334	0.93
32	15:51	1.00	0.900	1.00	43.26	50.00	0.501	0.579	0.87
33	16:07	1.00	0.915	1.00	52.90	50.00	0.191	0.181	1.06
34	16:21	1.00	1.419	1.00	46.44	50.00	0.481	0.518	0.93
35	17:40	1.00	1.004	1.00	43.30	50.00	1.027	1.186	0.87
36	17:57	1.00	1.019	1.00	43.42	50.00	0.478	0.551	0.87
37	18:13	1.00	1.034	1.00	91.32	100.00	0.695	0.761	0.91
38	19:05	1.00	1.084	1.00	44.24	50.00	0.602	0.680	0.88
39	19:06	1.00	1.085	1.00	44.16	50.00	0.968	1.096	0.88
40	19:28	1.00	1.689	1.00	49.51	50.00	0.318	0.321	0.99
41	20:35	1.00	1.170	1.00	48.92	50.00	0.494	0.505	0.98
42	8:56	1.00	0.952	1.00	87.04	100.00	1.576	1.811	0.87
43	18:13	1.00	1.034	1.00	90.44	100.00	0.996	1.101	0.90

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	745	9:25	1	1.000	A BB	61183.	50.000	UG/L	2.39
2	114	913	11:33	2	1.000	A BB	291404.	50.000	UG/L	2.39
3	117	1395	17:38	3	1.000	A BB	262636.	50.000	UG/L	2.39
4	65	838	10:36	1	1.125	A BV	80196.	41.229	UG/L	1.97
5	98	1152	14:34	3	0.826	A BB	281516.	42.594	UG/L	2.03
6	95	1603	20:16	3	1.149	A BB	197153.	42.857	UG/L	2.05
7	50	236	2:59	1	0.317	A BB	62401.	48.622	UG/L	2.32
8	62	249	3:09	1	0.334	A BB	66756.	47.319	UG/L	2.26
9	94	288	3:39	1	0.387	A BB	84115.	47.521	UG/L	2.27
10	64	304	3:51	1	0.408	A BB	51805.	47.869	UG/L	2.29
11	96	419	5:18	1	0.562	A BB	93204.	43.752	UG/L	2.09
12	43	427	5:24	1	0.573	A BB	20031.	43.910	UG/L	2.10
13	76	451	5:42	1	0.605	A BB	234296.	44.198	UG/L	2.11
14	84	499	6:19	1	0.670	A BB	104673.	41.671	UG/L	1.99
15	96	545	6:53	1	0.732	A BB	93656.	43.799	UG/L	2.09
16	63	613	7:45	1	0.823	A BB	173083.	43.424	UG/L	2.07
17	96	708	8:57	1	0.950	A BB	99222.	43.260	UG/L	2.07
18	43	711	8:59	1	0.954	A BB	26107.	53.221	UG/L	2.54
19	83	761	9:37	1	1.021	A BB	181195.	43.249	UG/L	2.07
20	97	789	9:59	2	0.864	A BB	136533.	42.849	UG/L	2.05
21	117	817	10:20	2	0.895	A BB	132751.	43.039	UG/L	2.06
22	78	848	10:43	2	0.929	A BB	283437.	43.752	UG/L	2.09
23	62	850	10:45	1	1.141	A BB	108949.	44.185	UG/L	2.11
24	130	954	12:04	2	1.045	A BB	137332.	43.951	UG/L	2.10
25	63	987	12:29	2	1.081	A BB	113951.	44.565	UG/L	2.13
26	83	1034	13:04	2	1.133	A BB	158096.	44.904	UG/L	2.15
27	43	1135	14:21	3	0.814	A BV	81438.	50.395	UG/L	2.41
28	91	1163	14:42	3	0.834	A BB	345311.	43.269	UG/L	2.07
29	75	1108	14:01	2	1.214	A BB	149474.	45.540	UG/L	2.18
30	75	1201	15:11	2	1.315	A BB	94500.	46.786	UG/L	2.23
31	97	1230	15:33	2	1.347	A BB	90959.	46.747	UG/L	2.23
32	164	1255	15:52	3	0.900	A BB	131513.	43.261	UG/L	2.07
33	43	1276	16:08	3	0.915	A BB	50271.	52.899	UG/L	2.53
34	129	1295	16:23	2	1.418	A BB	140293.	46.440	UG/L	2.22
35	112	1400	17:42	3	1.004	A BB	269753.	43.302	UG/L	2.07
36	106	1421	17:58	3	1.019	A BB	125654.	43.415	UG/L	2.07
37	106	1442	18:14	3	1.034	A BB	364868.	91.318	UG/L	4.36
38	106	1511	19:06	3	1.083	A BB	158123.	44.239	UG/L	2.11
39	104	1513	19:08	3	1.085	A BB	254145.	44.156	UG/L	2.11
40	173	1542	19:30	2	1.689	A BB	92692.	49.515	UG/L	2.37
41	83	1630	20:37	3	1.168	A BB	129868.	48.916	UG/L	2.34
42	96	708	8:57	1	0.950	A*BB	192878.	87.040	UG/L	4.16
43	106	1442	18:14	3	1.034	A*BB	522991.	90.440	UG/L	4.32

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:24	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:31	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:34	1.00	1.125	1.00	41.23	50.00	1.311	1.590	0.82
5	14:33	1.00	0.826	1.00	42.59	50.00	1.072	1.258	0.85
6	20:14	1.00	1.149	1.00	42.86	50.00	0.751	0.876	0.86
7	2:58	1.01	0.315	1.01	48.62	50.00	1.020	1.049	0.97
8	3:08	1.00	0.334	1.00	47.32	50.00	1.091	1.153	0.95
9	3:39	1.00	0.389	0.99	47.52	50.00	1.375	1.447	0.95
10	3:48	1.01	0.404	1.01	47.87	50.00	0.847	0.884	0.96
11	5:17	1.00	0.563	1.00	43.75	50.00	1.523	1.741	0.88

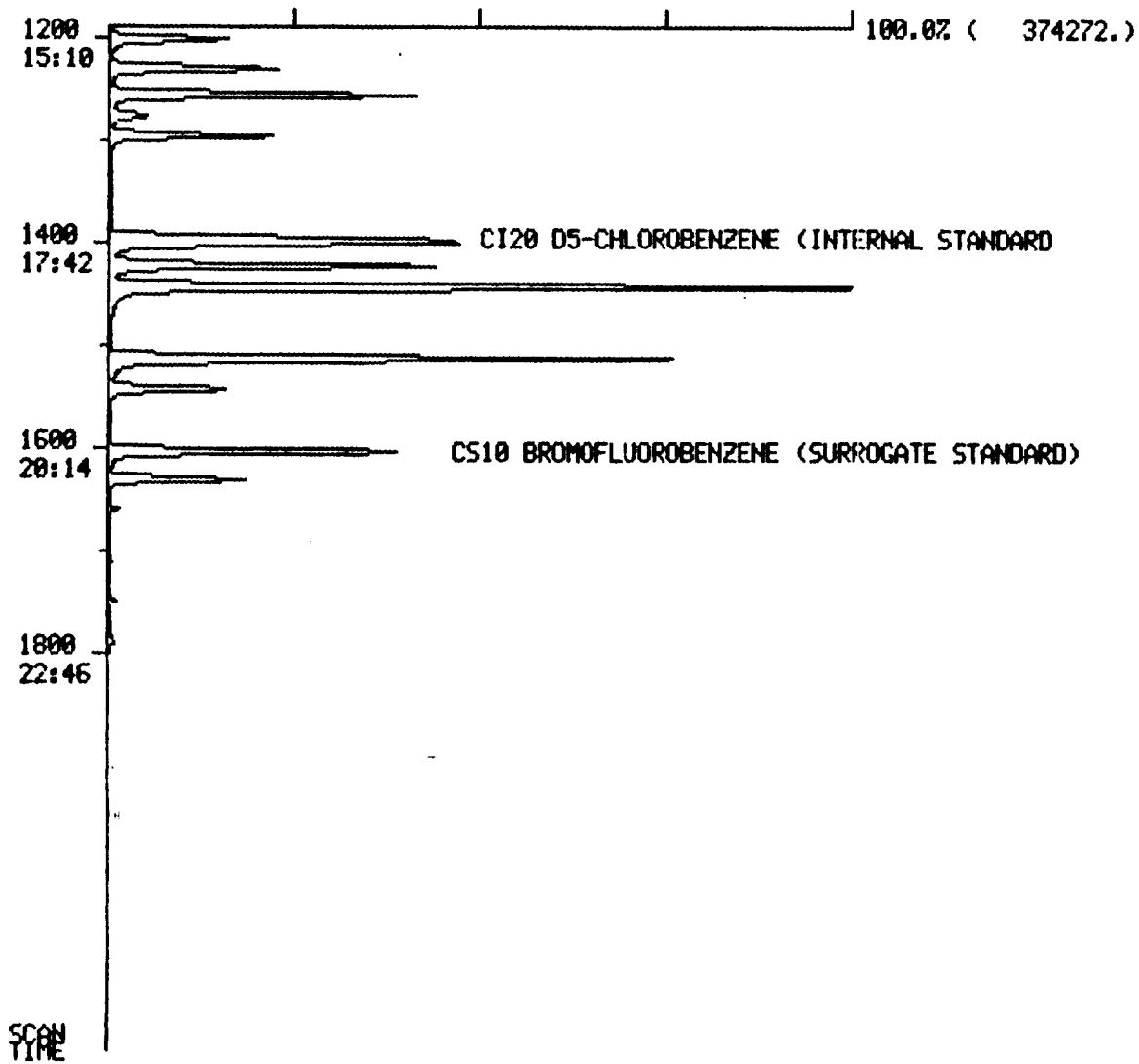
Quantitation Report File: CT910904A53

Data: CT910904A53.TI
09/04/91 12:08:00
Sample: CLP,STAND,,VSTD050,LOW,WATER,,VOA,CAL,F50053
Conds.: DB624,,BH910904A53
Formula: NWSW Instrument: F50053 Weight: 0.000
Submitted by: - Analyst: 1523 Acct. No.: RCA

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

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CT910904A53 SCANS 1190 TO 1800 ACQUIRED: 09/04/91 12:08:00
CALI: CT910904A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,STAND,,VSTD050,LOW,WATER,,VOA,CAL,F50053
CONDS.: DB624,,BH910904A53



DATA FROM FILE: CT910904A53 SCANS 190 TO 1190 ACQUIRED: 09/04/91 12:08:00
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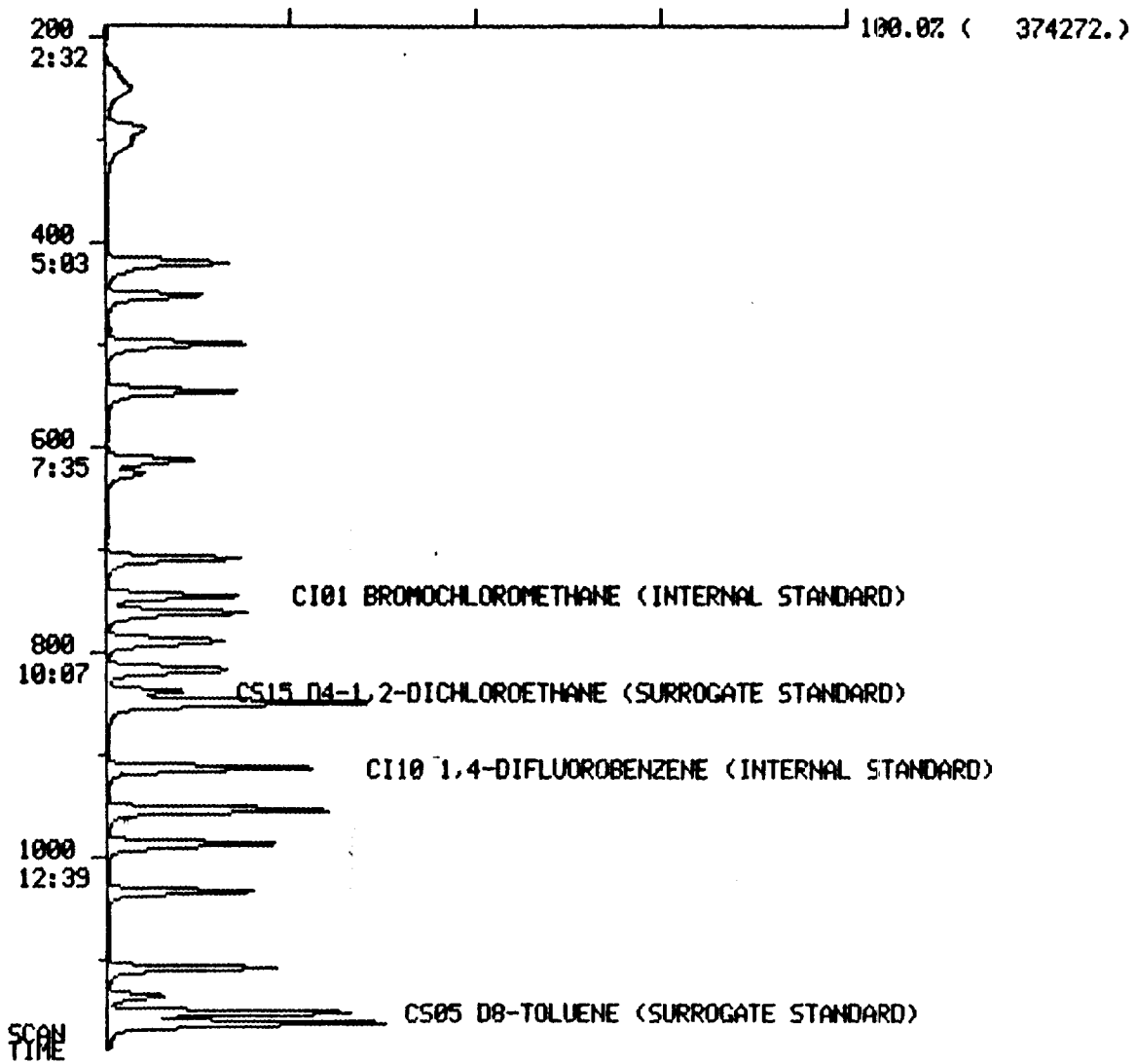
SAMPLE: CLP,STAND,,VSTD050,LOW,WATER,,VOA,CAL,F50053
CONDS.: DB624,,BH910904A53



No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:24	1.03	0.573	1.03	20.76	50.00	0.136	0.327	0.42
13	5:41	1.00	0.605	1.00	18.23	50.00	1.396	3.829	0.36
14	6:18	1.00	0.670	1.00	24.33	50.00	0.833	1.711	0.49
15	6:53	1.00	0.732	1.00	19.82	50.00	0.607	1.531	0.40
16	7:44	1.00	0.823	1.00	19.68	50.00	1.113	2.829	0.39
17	8:56	1.00	0.950	1.00	19.92	50.00	0.646	1.622	0.40
18	8:59	1.01	0.954	1.01	29.16	50.00	0.249	0.427	0.58
19	9:37	1.00	1.021	1.00	18.99	50.00	1.125	2.962	0.38
20	9:58	1.00	0.864	1.00	21.44	50.00	0.201	0.469	0.43
21	10:18	1.00	0.895	1.00	20.09	50.00	0.183	0.456	0.40
22	10:42	1.00	0.929	1.00	22.02	50.00	0.428	0.973	0.44
23	10:43	1.00	1.141	1.00	19.87	50.00	0.708	1.781	0.40
24	12:02	1.00	1.045	1.00	19.52	50.00	0.184	0.471	0.39
25	12:27	1.00	1.081	1.00	21.38	50.00	0.167	0.391	0.43
26	13:03	1.00	1.133	1.00	19.69	50.00	0.214	0.543	0.39
27	14:20	1.00	0.814	1.00	24.57	50.00	0.152	0.310	0.49
28	14:41	1.00	0.834	1.00	19.91	50.00	0.523	1.315	0.40
29	13:59	1.00	1.214	1.00	20.18	50.00	0.207	0.513	0.40
30	15:09	1.00	1.315	1.00	20.51	50.00	0.133	0.324	0.41
31	15:32	1.00	1.347	1.00	22.05	50.00	0.138	0.312	0.44
32	15:51	1.00	0.900	1.00	19.41	50.00	0.194	0.501	0.39
33	16:07	1.00	0.915	1.00	25.03	50.00	0.096	0.191	0.50
34	16:21	1.00	1.418	1.00	19.08	50.00	0.184	0.481	0.38
35	17:40	1.00	1.004	1.00	19.62	50.00	0.403	1.027	0.39
36	17:57	1.00	1.019	1.00	19.30	50.00	0.185	0.478	0.39
37	18:13	1.00	1.034	1.00	37.49	100.00	0.260	0.695	0.37
38	19:05	1.00	1.083	1.00	18.65	50.00	0.225	0.602	0.37
39	19:06	1.00	1.085	1.00	18.95	50.00	0.367	0.968	0.38
40	19:28	1.00	1.689	1.00	20.41	50.00	0.130	0.318	0.41
41	20:35	1.00	1.168	1.00	22.34	50.00	0.221	0.494	0.45
42	8:56	1.00	0.950	1.00	39.75	100.00	0.626	1.576	0.40
43	18:13	1.00	1.034	1.00	37.43	100.00	0.373	0.996	0.37

OKstudy 9.5.91

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	743	9:24	1	1.000	A BB	67405.	50.000	UG/L	4.91
2	114	911	11:31	2	1.000	A BB	274526.	50.000	UG/L	4.91
3	117	1395	17:38	3	1.000	A BB	248387.	50.000	UG/L	4.91
4	65	836	10:34	1	1.125	A BB	39270.	22.224	UG/L	2.18
5	98	1152	14:34	3	0.826	A BB	109897.	20.638	UG/L	2.03
6	95	1604	20:17	3	1.150	A BB	77410.	20.758	UG/L	2.04
7	50	242	3:04	1	0.326	A BB	20281.	14.751	UG/L	1.45
8	62	253	3:12	1	0.341	A BB	28271.	19.220	UG/L	1.89
9	94	291	3:41	1	0.392	A BB	26718.	14.416	UG/L	1.42
10	64	306	3:52	1	0.412	A BB	20337.	17.817	UG/L	1.75
11	96	420	5:19	1	0.565	A BB	38269.	18.635	UG/L	1.83
12	43	438	5:32	1	0.590	A BB	9161.	20.756	UG/L	2.04
13	76	451	5:42	1	0.607	A BB	94095.	18.227	UG/L	1.79
14	84	499	6:19	1	0.672	A BB	56115.	24.331	UG/L	2.39
15	96	545	6:53	1	0.734	A BB	40902.	19.821	UG/L	1.95
16	63	612	7:44	1	0.824	A BB	75047.	19.678	UG/L	1.93
17	96	706	8:56	1	0.950	A BB	43554.	19.922	UG/L	1.96
18	43	717	9:04	1	0.965	A BB	16776.	29.163	UG/L	2.86
19	83	759	9:36	1	1.022	A BB	75829.	18.993	UG/L	1.87
20	97	787	9:57	2	0.864	A BB	55149.	21.438	UG/L	2.11
21	117	814	10:18	2	0.894	A BB	50239.	20.086	UG/L	1.97
22	78	846	10:42	2	0.929	A BB	117622.	22.025	UG/L	2.16
23	62	849	10:44	1	1.143	A BB	47690.	19.866	UG/L	1.95
24	130	952	12:02	2	1.045	A BB	50509.	19.520	UG/L	1.92
25	63	986	12:28	2	1.082	A BB	45895.	21.376	UG/L	2.10
26	83	1033	13:04	2	1.134	A BB	58659.	19.692	UG/L	1.93
27	43	1137	14:23	3	0.815	A BB	37847.	24.570	UG/L	2.41
28	91	1163	14:42	3	0.834	A BB	130023.	19.907	UG/L	1.96
29	75	1108	14:01	2	1.216	A BB	56828.	20.178	UG/L	1.98
30	75	1201	15:11	2	1.318	A BB	36510.	20.505	UG/L	2.01
31	97	1230	15:33	2	1.350	A BB	37786.	22.048	UG/L	2.17
32	164	1255	15:52	3	0.900	A BB	48293.	19.414	UG/L	1.91
33	43	1278	16:10	3	0.916	A BB	23799.	25.028	UG/L	2.46
34	129	1296	16:23	2	1.423	A BB	50440.	19.082	UG/L	1.87
35	112	1400	17:42	3	1.004	A BB	100133.	19.625	UG/L	1.93
36	106	1422	17:59	3	1.019	A BB	45882.	19.305	UG/L	1.90
37	106	1443	18:15	3	1.034	A BB	129372.	37.491	UG/L	3.68
38	106	1512	19:07	3	1.084	A BB	55773.	18.648	UG/L	1.83
39	104	1515	19:09	3	1.086	A BB	91107.	18.952	UG/L	1.86
40	173	1543	19:31	2	1.694	A BB	35654.	20.415	UG/L	2.01
41	83	1632	20:38	3	1.170	A BB	54889.	22.345	UG/L	2.19
42	96	706	8:56	1	0.950	A*BB	84456.	39.746	UG/L	3.90
43	106	1443	18:15	3	1.034	A*BB	185145.	37.432	UG/L	3.68

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:24	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:31	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:34	1.00	1.125	1.00	22.22	50.00	0.583	1.311	0.44
5	14:33	1.00	0.826	1.00	20.64	50.00	0.442	1.072	0.41
6	20:14	1.00	1.149	1.00	20.76	50.00	0.312	0.751	0.42
7	2:58	1.03	0.317	1.03	14.75	50.00	0.301	1.020	0.30
8	3:08	1.02	0.334	1.02	19.22	50.00	0.419	1.091	0.38
9	3:39	1.01	0.387	1.01	14.42	50.00	0.396	1.375	0.29
10	3:48	1.02	0.408	1.01	17.82	50.00	0.302	0.847	0.36
11	5:17	1.00	0.562	1.01	18.63	50.00	0.568	1.523	0.37

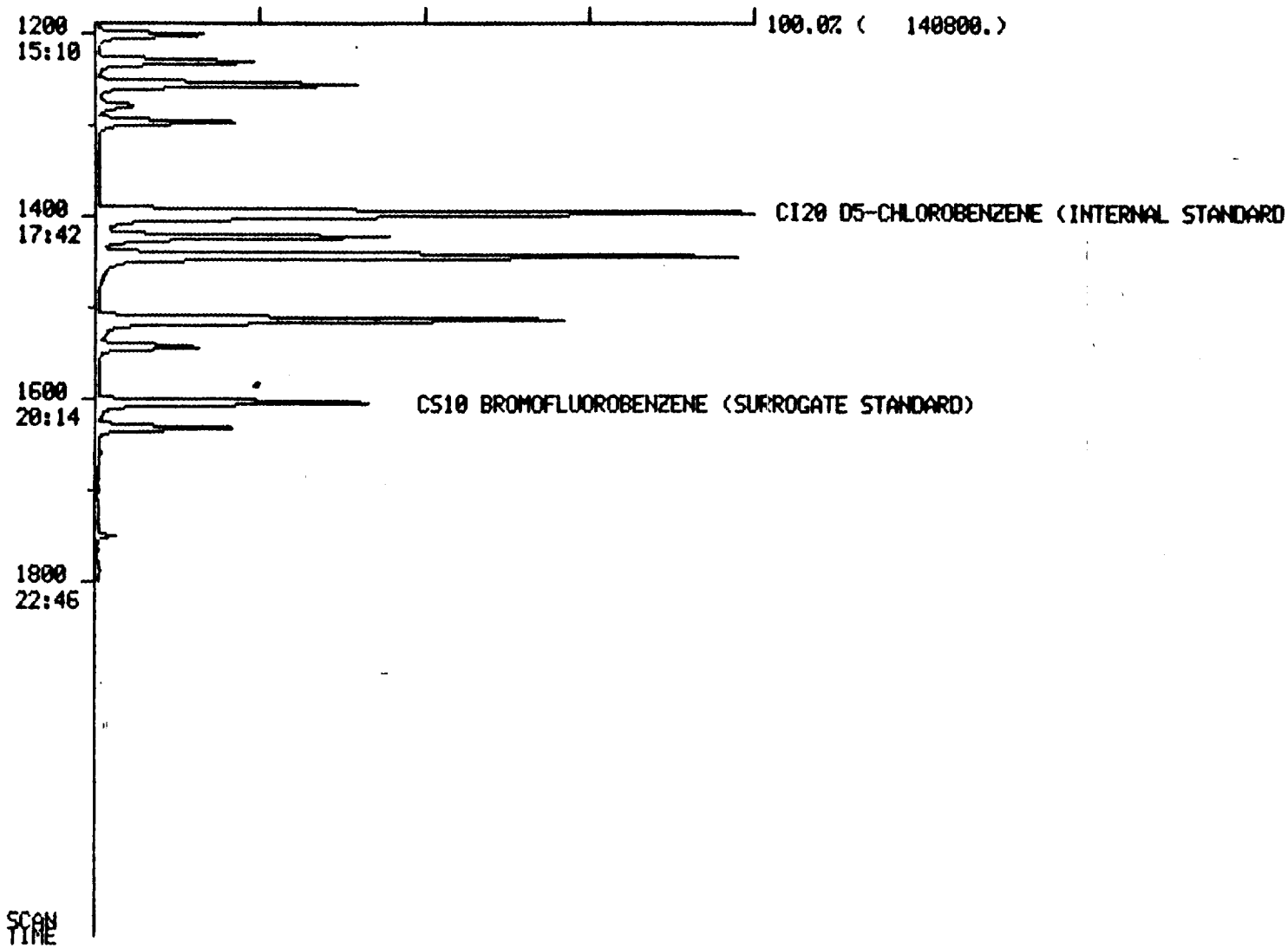
Quantitation Report File: CW910904A53

Data: CW910904A53.TI
09/04/91 14:42:00
Sample: CLP,,,VSTD020,LOW,WATER,,VOA,ICAL020,F50053
Conds.: DB624,,BH910904A53
Formula: NWSW Instrument: F50053 Weight: 2.000
Submitted by: 1970 Analyst: 1523 Acct. No.: RCA

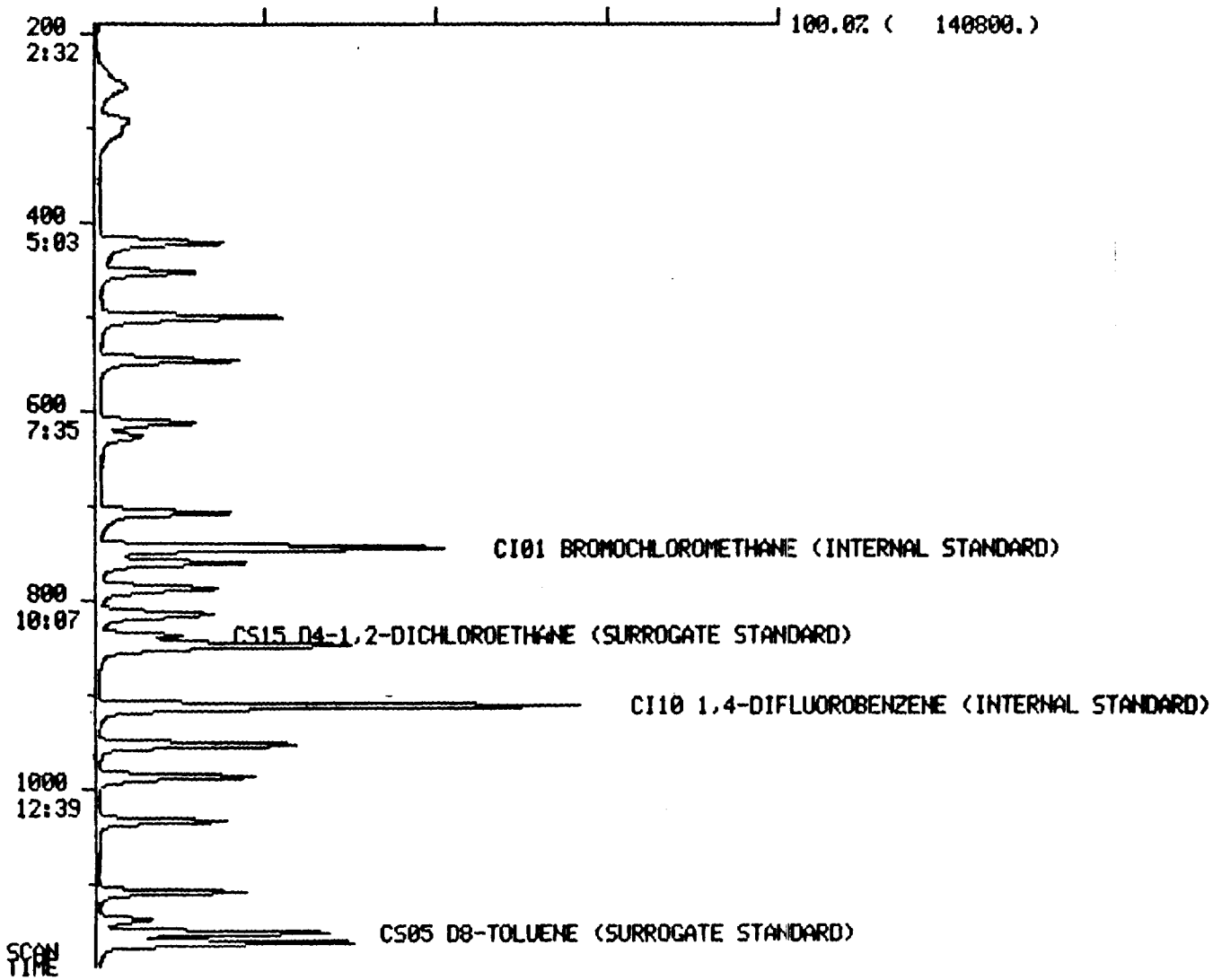
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CW910904A53 SCANS 1190 TO 1800 ACQUIRED: 09/04/91 14:42:00
CALI: CW910904A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,,,VSTD020,LOW,WATER,,VOA,ICAL020,F50053
CONDS.: DB624,,BH910904A53



DATA FROM FILE: CW910904A53 SCANS 190 TO 1190 ACQUIRED: 09/04/91 14:42:00
CALI: CW910904A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,,,VSTD020,LOW,WATER,,VOA,ICAL020,F50053
CONDS.: DB624,,BH910904A53



No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:24	1.03	0.573	1.03	28.28	50.00	0.185	0.327	0.57
13	5:41	1.01	0.605	1.00	8.16	50.00	0.625	3.829	0.16
14	6:18	1.00	0.670	1.00	11.60	50.00	0.397	1.711	0.23
15	6:53	1.00	0.732	1.00	9.77	50.00	0.299	1.531	0.20
16	7:44	1.00	0.823	1.00	9.60	50.00	0.543	2.829	0.19
17	8:56	1.00	0.950	1.00	9.08	50.00	0.295	1.622	0.18
18	8:59	1.01	0.954	1.01	13.62	50.00	0.116	0.427	0.27
19	9:37	1.00	1.021	1.00	9.14	50.00	0.541	2.962	0.18
20	9:58	1.00	0.864	1.00	10.20	50.00	0.096	0.469	0.20
21	10:18	1.00	0.895	1.00	8.94	50.00	0.081	0.456	0.18
22	10:42	1.00	0.929	1.00	9.96	50.00	0.194	0.973	0.20
23	10:43	1.00	1.141	1.00	9.26	50.00	0.330	1.781	0.19
24	12:02	1.00	1.045	1.00	9.28	50.00	0.087	0.471	0.19
25	12:27	1.00	1.081	1.00	9.96	50.00	0.078	0.391	0.20
26	13:03	1.00	1.133	1.00	8.76	50.00	0.095	0.543	0.18
27	14:20	1.01	0.814	1.00	12.96	50.00	0.080	0.310	0.26
28	14:41	1.00	0.834	1.00	9.50	50.00	0.250	1.315	0.19
29	13:59	1.00	1.214	1.00	8.51	50.00	0.087	0.513	0.17
30	15:09	1.00	1.315	1.00	8.64	50.00	0.056	0.324	0.17
31	15:32	1.00	1.347	1.00	10.67	50.00	0.067	0.312	0.21
32	15:51	1.00	0.900	1.00	9.34	50.00	0.094	0.501	0.19
33	16:07	1.00	0.915	1.00	13.32	50.00	0.051	0.191	0.27
34	16:21	1.00	1.418	1.00	9.02	50.00	0.087	0.481	0.18
35	17:40	1.00	1.004	1.00	9.92	50.00	0.204	1.027	0.20
36	17:57	1.00	1.019	1.00	9.01	50.00	0.086	0.478	0.18
37	18:13	1.00	1.034	1.00	16.81	100.00	0.117	0.695	0.17
38	19:05	1.00	1.083	1.00	9.28	50.00	0.112	0.602	0.19
39	19:06	1.00	1.085	1.00	8.75	50.00	0.169	0.968	0.18
40	19:28	1.00	1.689	1.00	9.14	50.00	0.058	0.318	0.18
41	20:35	1.00	1.168	1.00	11.85	50.00	0.117	0.494	0.24
42	8:56	0.77	0.950	0.77	18.83	100.00	0.297	1.576	0.19
43	18:13	1.00	1.034	1.00	17.34	100.00	0.173	0.996	0.17

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	745	9:25	1	1.000	A BB	64802.	50.000	UG/L	8.57
2	114	913	11:33	2	1.000	A BB	264885.	50.000	UG/L	8.57
3	117	1396	17:39	3	1.000	A BB	241453.	50.000	UG/L	8.57
4	65	838	10:36	1	1.125	A BB	18990.	11.179	UG/L	1.92
5	98	1153	14:35	3	0.826	A BB	53717.	10.378	UG/L	1.78
6	95	1605	20:18	3	1.150	A BB	39596.	10.923	UG/L	1.87
7	50	241	3:03	1	0.323	A BB	10283.	7.779	UG/L	1.33
8	62	256	3:14	1	0.344	A BB	14524.	10.271	UG/L	1.76
9	94	294	3:43	1	0.395	A BB	11241.	6.309	UG/L	1.08
10	64	307	3:53	1	0.412	A BB	10126.	9.227	UG/L	1.58
11	96	421	5:19	1	0.565	A BB	17740.	8.985	UG/L	1.54
12	43	441	5:35	1	0.592	A BB	11998.	28.276	UG/L	4.85
13	76	453	5:44	1	0.608	A BB	40489.	8.158	UG/L	1.40
14	84	500	6:19	1	0.671	A BB	25716.	11.598	UG/L	1.99
15	96	546	6:54	1	0.733	A BB	19381.	9.769	UG/L	1.67
16	63	613	7:45	1	0.823	A BB	35201.	9.601	UG/L	1.65
17	96	707	8:56	1	0.949	A BB	19087.	9.081	UG/L	1.56
18	43	717	9:04	1	0.962	A BB	7530.	13.616	UG/L	2.33
19	83	760	9:37	1	1.020	A BB	35087.	9.141	UG/L	1.57
20	97	788	9:58	2	0.863	A BB	25326.	10.203	UG/L	1.75
21	117	815	10:18	2	0.893	A BB	21567.	8.936	UG/L	1.53
22	78	847	10:43	2	0.928	A BB	51341.	9.964	UG/L	1.71
23	62	850	10:45	1	1.141	A BB	21369.	9.259	UG/L	1.59
24	130	953	12:03	2	1.044	A BB	23161.	9.277	UG/L	1.59
25	63	988	12:30	2	1.082	A BB	20638.	9.962	UG/L	1.71
26	83	1035	13:05	2	1.134	A BB	25183.	8.762	UG/L	1.50
27	43	1139	14:24	3	0.816	A BB	19400.	12.956	UG/L	2.22
28	91	1164	14:43	3	0.834	A BB	60303.	9.498	UG/L	1.63
29	75	1109	14:01	2	1.215	A BB	23137.	8.514	UG/L	1.46
30	75	1202	15:12	2	1.317	A BB	14851.	8.644	UG/L	1.48
31	97	1231	15:34	2	1.348	A BB	17651.	10.674	UG/L	1.83
32	164	1256	15:53	3	0.900	A BB	22578.	9.337	UG/L	1.60
33	43	1279	16:10	3	0.916	A BB	12314.	13.322	UG/L	2.28
34	129	1297	16:24	2	1.421	A BB	23005.	9.020	UG/L	1.55
35	112	1401	17:43	3	1.004	A BV	49199.	9.919	UG/L	1.70
36	106	1423	18:00	3	1.019	A BB	20818.	9.011	UG/L	1.54
37	106	1445	18:16	3	1.035	A BB	56378.	16.807	UG/L	2.88
38	106	1513	19:08	3	1.084	A BB	26970.	9.276	UG/L	1.59
39	104	1515	19:09	3	1.085	A BB	40906.	8.754	UG/L	1.50
40	173	1544	19:31	2	1.691	A BB	15410.	9.145	UG/L	1.57
41	83	1633	20:39	3	1.170	A BB	28297.	11.850	UG/L	2.03
42	96	546	6:54	1	0.733	A*BB	38468.	18.830	UG/L	3.23
43	106	1445	18:16	3	1.035	A*BB	83348.	17.335	UG/L	2.97

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:24	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:31	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:34	1.00	1.125	1.00	11.18	50.00	0.293	1.311	0.22
5	14:33	1.00	0.826	1.00	10.38	50.00	0.222	1.072	0.21
6	20:14	1.00	1.149	1.00	10.92	50.00	0.164	0.751	0.22
7	2:58	1.03	0.317	1.02	7.78	50.00	0.159	1.020	0.16
8	3:08	1.03	0.334	1.03	10.27	50.00	0.224	1.091	0.21
9	3:39	1.02	0.387	1.02	6.31	50.00	0.173	1.375	0.13
10	3:48	1.02	0.408	1.01	9.23	50.00	0.156	0.847	0.18
11	5:17	1.01	0.562	1.00	8.99	50.00	0.274	1.523	0.18

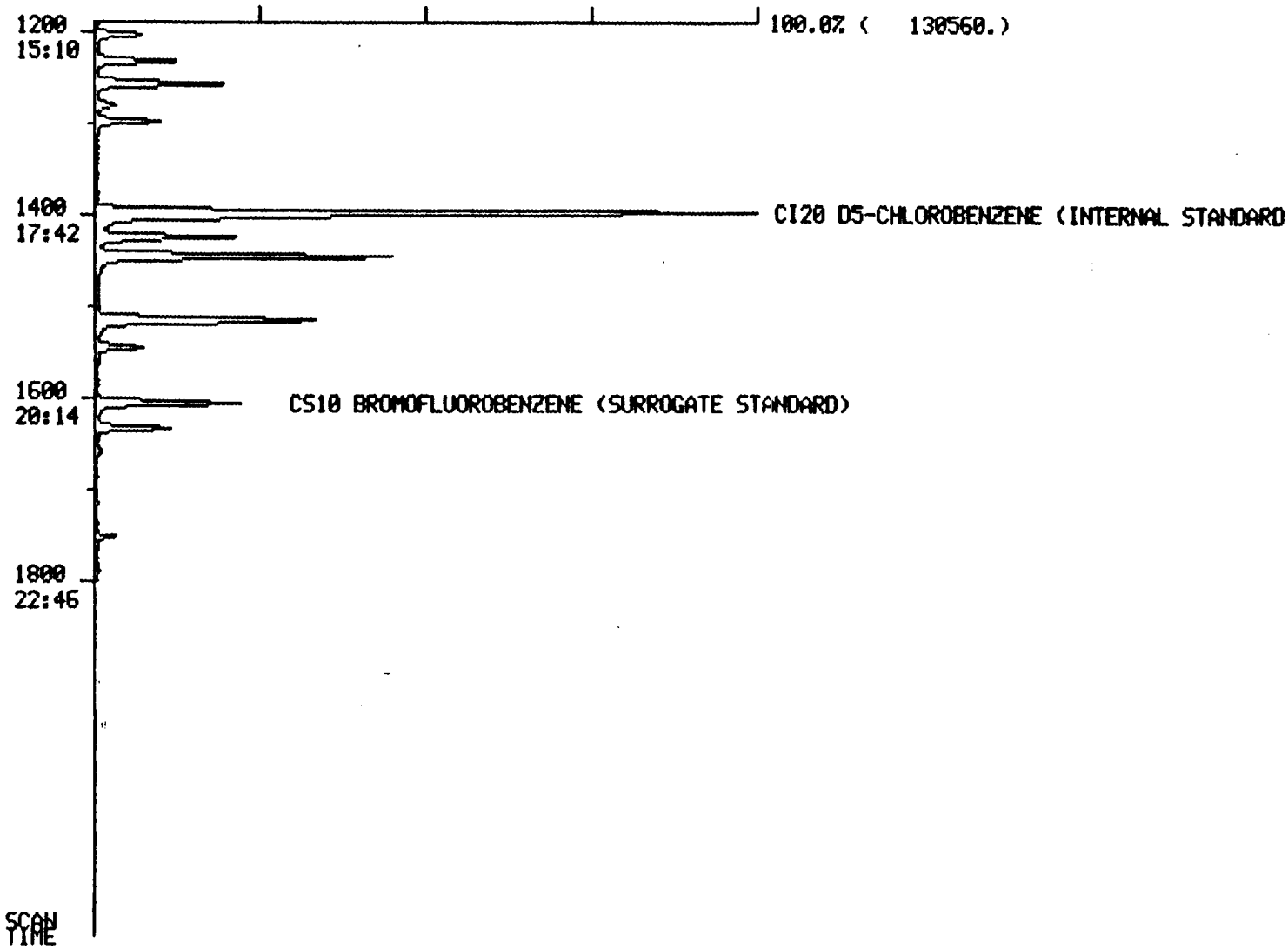
Quantitation Report File: CX910904A53

Data: CX910904A53.TI
09/04/91 15:16:00
Sample: CLP,,,VSTD010,LOW,WATER,,VOA,ICAL010,F50053
Conds.: DB624,,BH910904A53
Formula: NWSW Instrument: F50053 Weight: 2.000
Submitted by: 1969 Analyst: 1523 Acct. No.: RCA

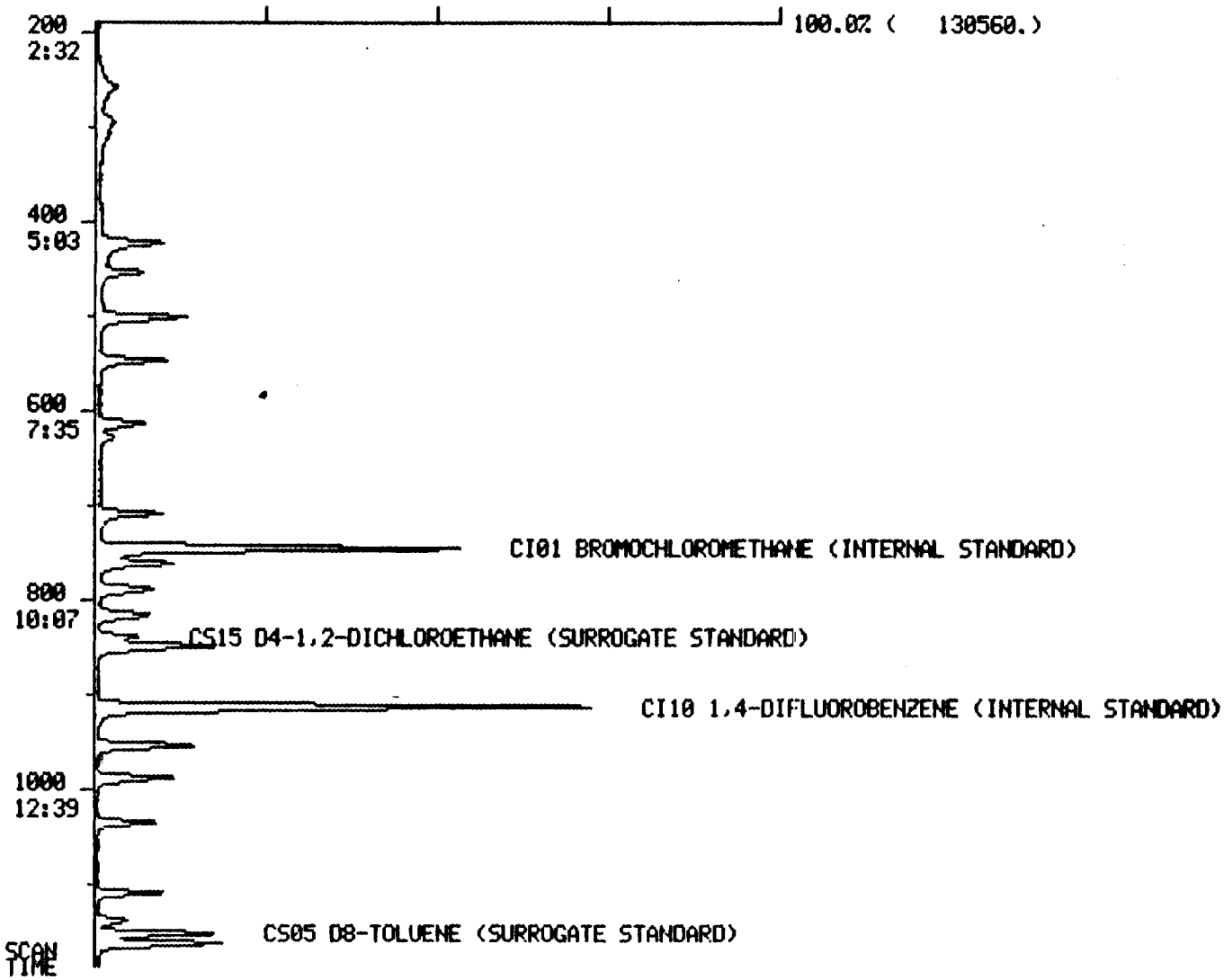
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CX910904A53 SCANS 1190 TO 1800 ACQUIRED: 09/04/91 15:16:00
CALI: CX910904A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,,,VSTD010,LOW,WATER,,VOA,ICAL010,F50053
CONDS.: DB624,,BH910904A53



DATA FROM FILE: CX910904A53 SCANS 190 TO 1190 ACQUIRED: 09/04/91 15:16:00
CALI: CX910904A53 #3 OUT OF 190 TO 1800
SAMPLE: CLP,,,VSTD010,LOW,WATER,,VOA,ICAL010,F50053
CONDS.: DB624,,BH910904A53



6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Instrument ID: F50053 Calibration Date(s): 09/04/91 09/04/91

Heated Purge: (Y/N): N Calibration Times: 1208 1516

GC Column: DB624 ID: 0.530(mm)

LAB FILE ID: RRF10 = CX910904A53 RRF20 = CW910904A53
RRF50= CT910904A53 RRF100= CV910904A53 RRF200= CU910904A53

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Chloromethane		0.793	0.752	1.020	0.863	0.950	0.876	12.6
Bromomethane	*	0.867	0.991	1.375	1.191	1.159	1.117	17.5*
Vinyl Chloride	*	1.121	1.049	1.091	1.148	1.093	1.100	3.4*
Chloroethane		0.781	0.754	0.847	0.821	0.765	0.794	4.9
Methylene Chloride		1.984	2.081	1.711	2.021	1.820	1.923	8.0
Acetone		0.926	0.340	0.327	0.314	0.291	0.440	61.9
Carbon Disulfide		3.124	3.490	3.829	5.174	4.852	4.094	21.6
1,1-Dichloroethene	*	1.369	1.419	1.523	1.928	1.786	1.605	15.1*
1,1-Dichloroethane	*	2.716	2.783	2.829	3.587	3.169	3.017	12.0*
1,2-Dichloroethene (total)		1.484	1.566	1.576	1.869	1.732	1.645	9.4
Chloroform	*	2.707	2.812	2.962	3.461	3.108	3.010	9.8*
1,2-Dichloroethane	*	1.649	1.769	1.781	2.124	1.807	1.826	9.7*
2-Butanone		0.581	0.622	0.427	0.529	0.395	0.511	19.1
1,1,1-Trichloroethane	*	0.478	0.502	0.469	0.552	0.508	0.502	6.5*
Carbon Tetrachloride	*	0.407	0.458	0.456	0.537	0.512	0.474	10.8*
Bromodichloromethane	*	0.475	0.534	0.543	0.660	0.587	0.560	12.3*
1,2-Dichloropropane		0.390	0.418	0.391	0.472	0.408	0.416	8.1
cis-1,3-Dichloropropene	*	0.437	0.518	0.513	0.650	0.577	0.539	14.8*
Trichloroethene	*	0.437	0.460	0.471	0.516	0.493	0.475	6.4*
Dibromochloromethane	*	0.434	0.459	0.481	0.599	0.526	0.500	13.0*
1,1,2-Trichloroethane	*	0.333	0.344	0.312	0.371	0.312	0.334	7.4*
Benzene	*	0.969	1.071	0.973	1.133	1.011	1.031	6.8*
Trans-1,3-Dichloropropene	*	0.280	0.332	0.324	0.429	0.372	0.347	16.2*
Bromoform	*	0.291	0.325	0.318	0.417	0.331	0.336	14.2*
4-Methyl-2-Pentanone		0.402	0.381	0.310	0.429	0.303	0.365	15.4
2-Hexanone		0.255	0.240	0.191	0.270	0.189	0.229	16.2
Tetrachloroethene	*	0.468	0.486	0.501	0.536	0.516	0.501	5.2*
1,1,2,2-Tetrachloroethane	*	0.586	0.552	0.494	0.571	0.420	0.525	13.0*
Toluene	*	1.249	1.309	1.315	1.405	1.312	1.318	4.2*
Chlorobenzene	*	1.019	1.008	1.027	1.107	1.032	1.039	3.8*
Ethylbenzene	*	0.431	0.462	0.478	0.522	0.502	0.479	7.4*
Styrene	*	0.847	0.917	0.968	1.112	1.011	0.971	10.3*
Xylene (total)	*	0.558	0.561	0.602	0.675	0.620	0.603	8.0*
Toluene-d8		1.112	1.106	1.072	1.158	1.111	1.112	2.8
Bromofluorobenzene	*	0.820	0.779	0.751	0.837	0.781	0.794	4.3*
1,2-Dichloroethane-d4		1.465	1.456	1.311	1.624	1.330	1.437	8.8

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

FORM VI VOA 3/90

(1) Initial Calibration data (Form VI VOA) – in order by instrument if more than one instrument used.

(a) VOA standard(s) reconstructed ion chromatograms and quantitation reports (or legible facsimile) for the initial (five point) calibration. Spectra are not required.

(b) All initial calibration data must be included, regardless of when it was performed and for which case. When more than one initial calibration is performed, the data must be put in chronological order, by instrument.

c. Standards data

(1) Initial Calibration data (Form VI VOA) – in order by instrument if more than one instrument used.

(a) VOA standard(s) reconstructed ion chromatograms and quantitation reports (or legible facsimile) for the initial (five point) calibration. Spectra are not required.

(b) All initial calibration data must be included, regardless of when it was performed and for which case. When more than one initial calibration is performed, the data must be put in chronological order, by instrument.

(2) Continuing Calibration (Form VII VOA) – in order by instrument, if more than one intrument used.

(a) VOA standard(s) reconstructed ion chromatograms and quantitation reports (or legible facsimile) for the initial (five point) calibration. Spectra are not required.

(b) When more than one continuing calibration is performed, forms must be in chronological order, within fraction and instrument.

VOA
GC/MS WORKSHEET

J( ) J3( ) D( ) (1)
J2( ) J4( ) D2( ) (1)

==========

CLP, 23861, 7, INFLUENT, LOW, WATER, 445465, VOA, EPA, F50053

==========

GC/MS ANALYSIS
AMOUNT PURGED: 5000. UL
INTERNAL STANDARD/SURROGATE MIX VOLUME ADDED 5UL OR ___ UL
BFB FILENAME: BI910919C53
BLANK FILENAME: CB910919C53
STANDARD FILENAME: CT910919C53
SAMPLE FILENAME: CR045465C53

ANALYST(S): INJECTION MIL WORKUP MIL

==========

GC/MS REVIEW

OK (JA) DI SH SL
IH IL DA DW OT*

CONDITION CODE JA

DISPOSITION: [✓] COMPLETE
[ ] REINJECT NEAT
[ ] DILUTE ( )

ACCEPTED

EXTRANEOUS PEAKS SEARCH RESULTS:
OF PEAKS FOUND 0

QUALITY ASSURANCE NOTICE(S):
NOTICES REQUIRED 0

COMMENTS: NOTE: IF CONDITION CODE IS "OT" EXPLAIN FULLY HERE.

GC/MS REVIEW JMVenola DATE 9/23/91 AUDITOR [illegible] DATE 9/23/91

==========

REPORT INTEGRATION: TOTAL # OF INJECTIONS: 2

FINAL REPORTABLE PACKAGE(S): CR0 — C53 /

==========

QA COMMENTS:

INITIALS _____ DATE ___/___/___

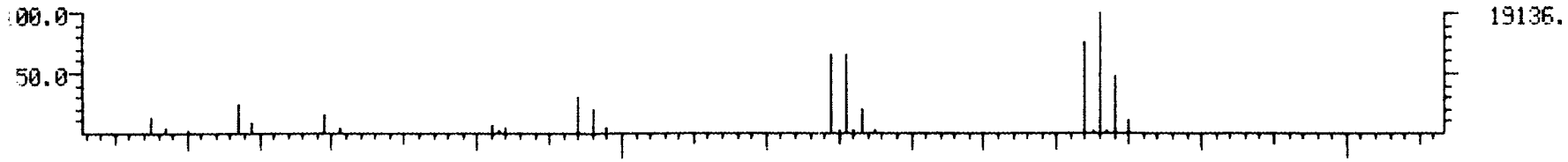
==========

FINAL REVIEW: INITIALS _____ DATE ___/___/___

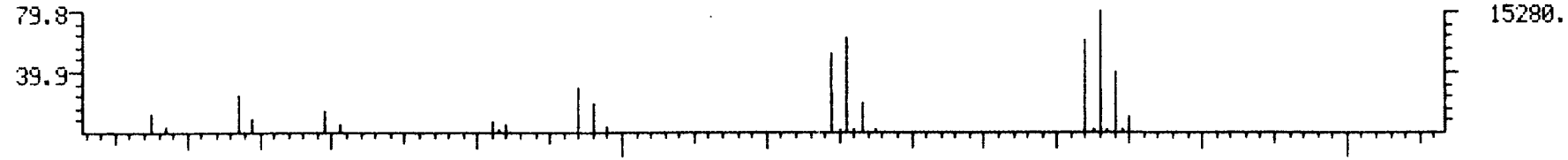
TARGET COMPOUND COMPARISON

COMPOUND: C220 TETRACHLOROETHENE <127-18-4>

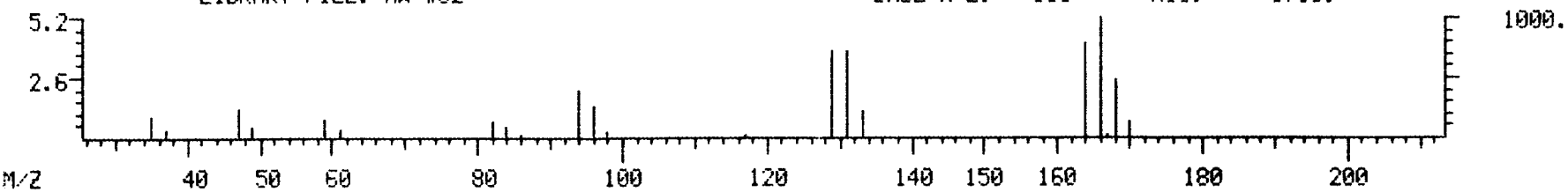
RAW DATA: CR045465C53 #1280 BASE M/Z: 166 RIC: 103936.
09/19/91 6:41
SAMPLE: CLP,23861,7,INFLUENT,LOW,WATER,445465,VOA,EPA,F50053
CONDS.: DB624,CT910919C53,BI910919C53,CB910919C53

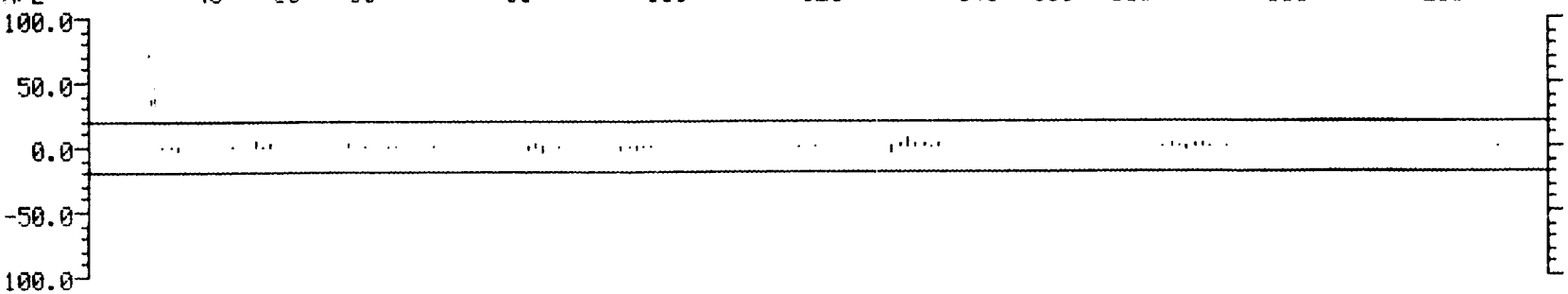


ENHANCED DATA: CR045465C53 #1280 BASE M/Z: 166 RIC: 90112.



LIBRARY FILE: NW #32 BASE M/Z: 166 RIC: 5768.

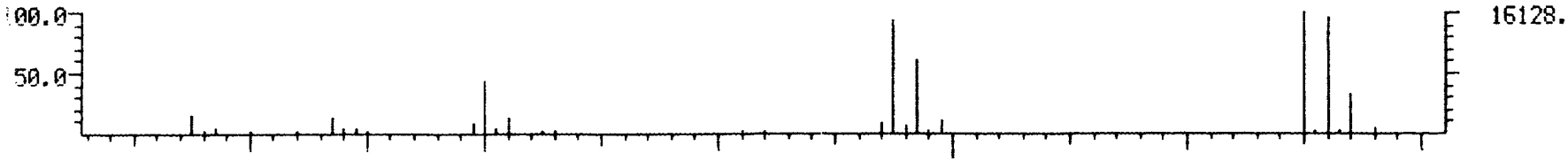




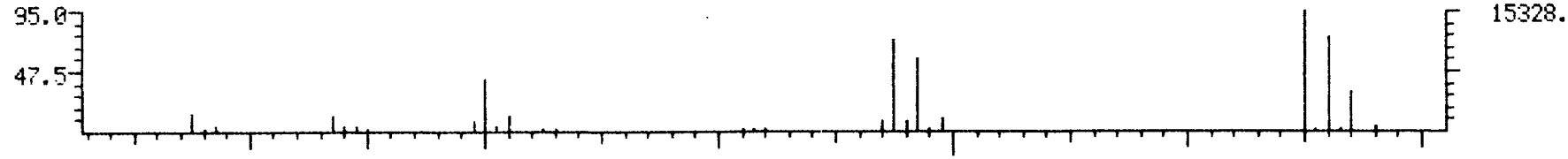
TARGET COMPOUND COMPARISON

COMPOUND: C150 TRICHLOROETHENE <79-01-6>

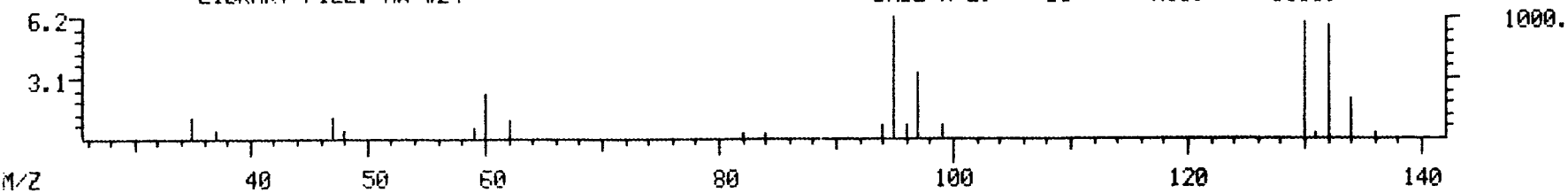
RAW DATA: CR045465C53 #980 BASE M/Z: 130 RIC: 89216.
09/19/91 6:41
SAMPLE: CLP,23861,7,INFLUENT,LOW,WATER,445465,VOA,EPA,F50053
CONDS.: DB624,CT910919C53,BI910919C53,CB910919C53

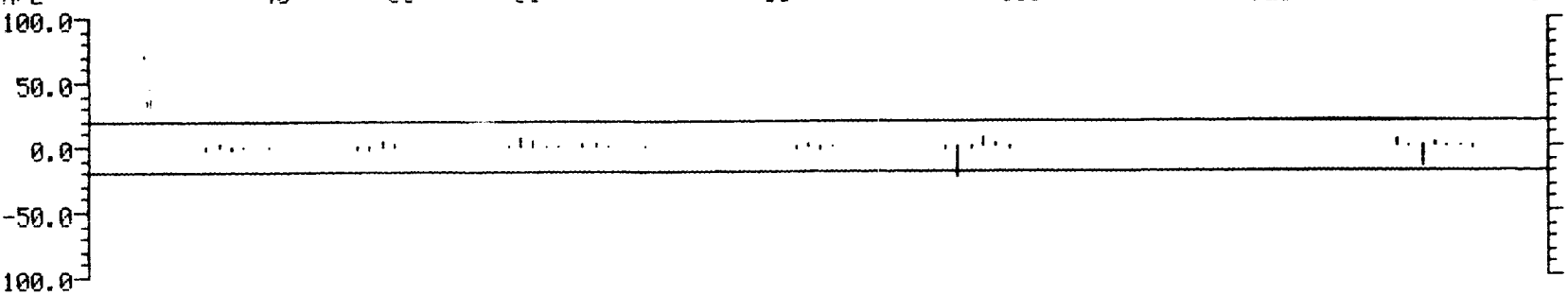


ENHANCED DATA: CR045465C53 #980 BASE M/Z: 130 RIC: 79488.



LIBRARY FILE: NW #24 BASE M/Z: 95 RIC: 5360.

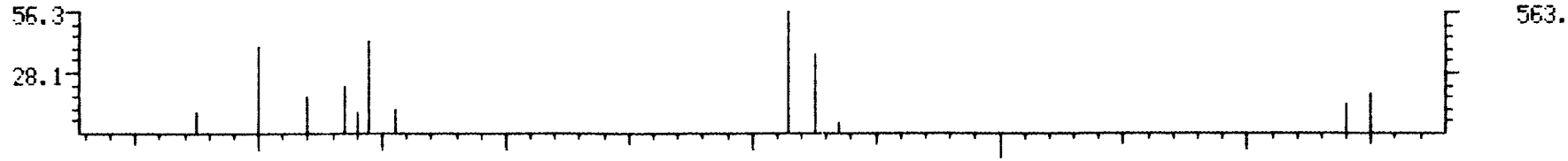




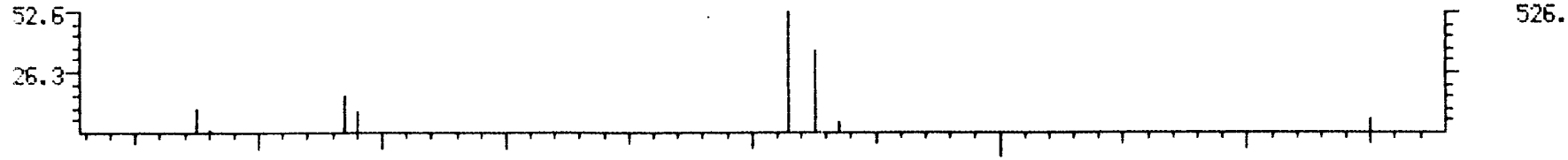
TARGET COMPOUND COMPARISON

COMPOUND: C060 CHLOROFORM <67-66-3>

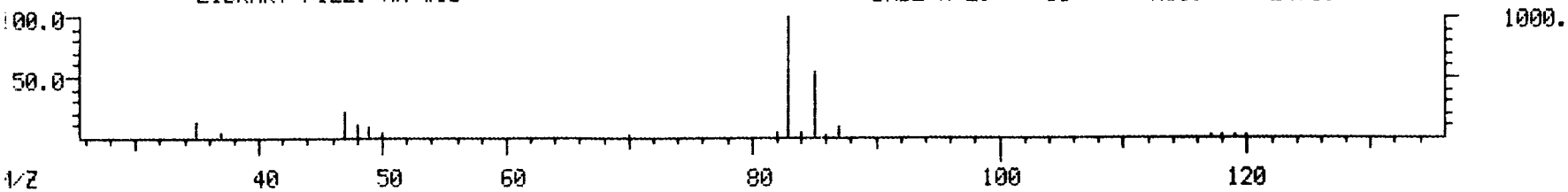
RAW DATA: CR045465C53 #787 BASE M/Z: 83 RIC: 2824.
09/19/91 6:41
SAMPLE: CLP,23861,7,INFLUENT,LOW,WATER,445465,VOA,EPA,F50053
CONDS.: DB624,CT910919C53,BI910919C53,CB910919C53

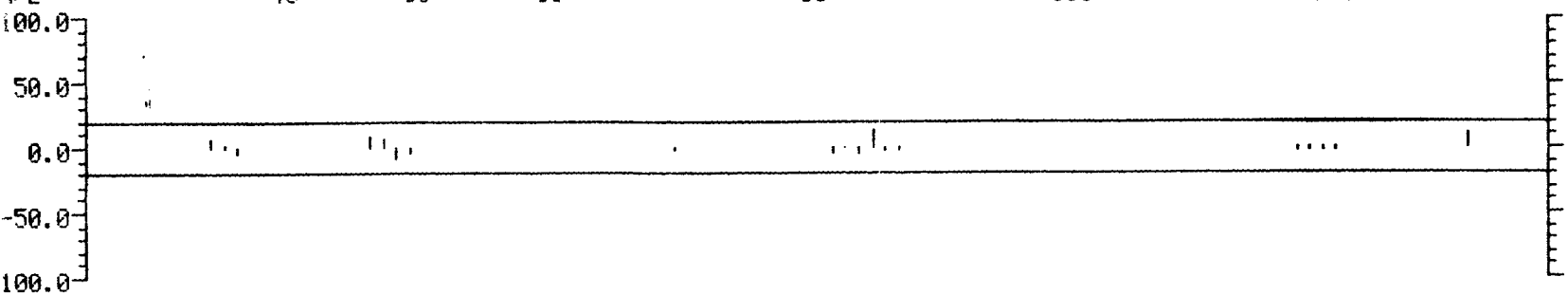


ENHANCED DATA: CR045465C53 #787 BASE M/Z: 83 RIC: 1348.



LIBRARY FILE: NW #19 BASE M/Z: 83 RIC: 2476.

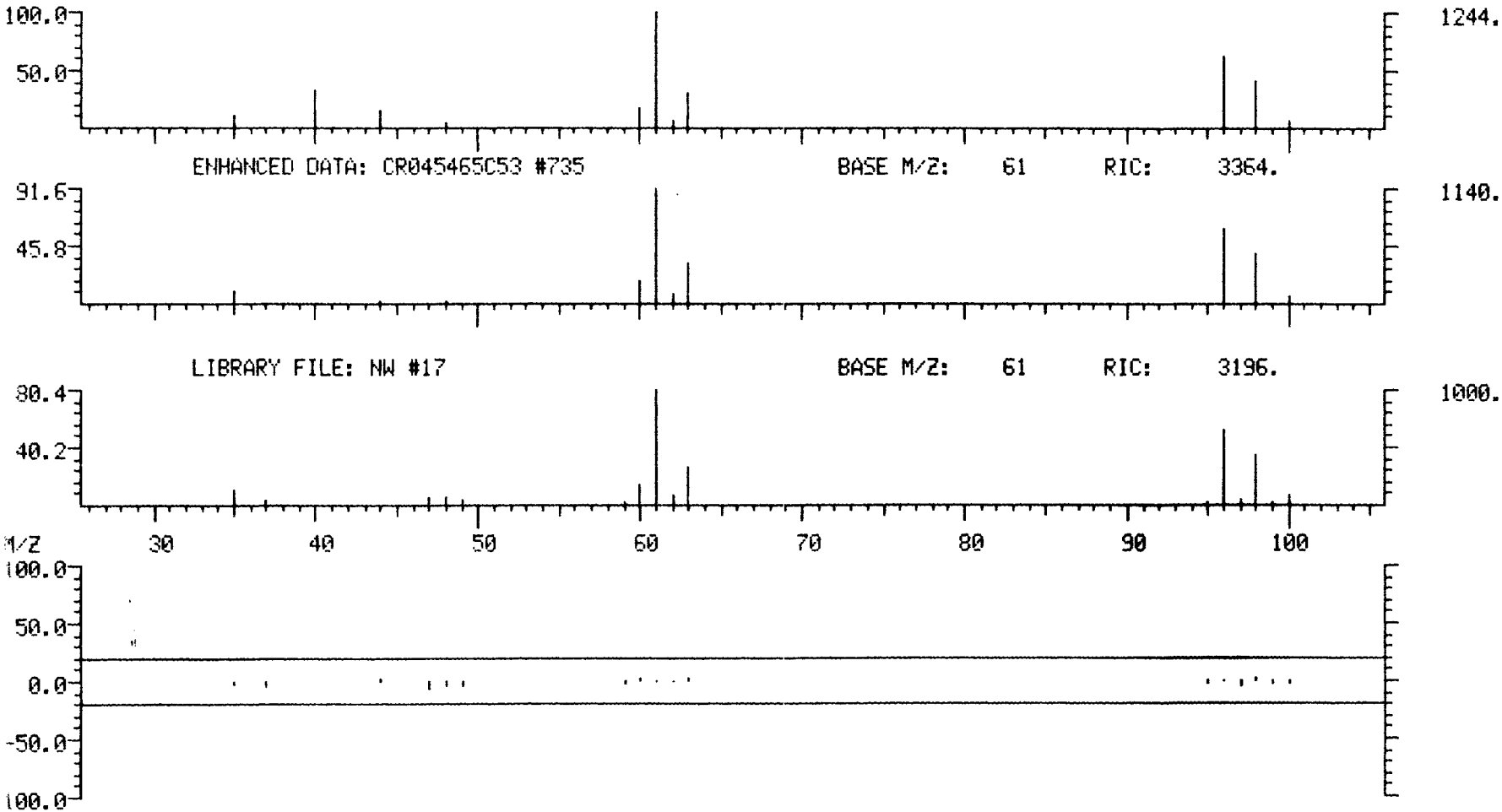




TARGET COMPOUND COMPARISON

COMPOUND: C054 CIS-1,2-DICHLOROETHENE <156-59-2>

RAW DATA: CR045465C53 #735 BASE M/Z: 61 RIC: 4096.
09/19/91 6:41
SAMPLE: CLP,23861,7,INFLUENT,LOW,WATER,445465,VOA,EPA,F50053
CONDS.: DB624,CT910919C53,BI910919C53,CB910919C53



No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:43	1.00	0.586	1.00	2.13	50.00	0.020	0.462	0.04
13	6:01	1.00	0.617	1.00	0.18	50.00	0.013	3.522	0.00
14	6:37	1.00	0.678	1.00	0.60	50.00	0.032	2.664	0.01
15	7:12	1.00	0.739	1.00	0.61	50.00	0.019	1.574	0.01
16	8:04	1.00	0.827	1.00	0.18	50.00	0.011	3.151	0.00
17	9:17	1.00	0.952	1.00	3.48	50.00	0.096	1.384	0.07
18	9:20		0.957						
19	9:57	1.00	1.021	1.00	1.38	50.00	0.072	2.616	0.03
20	10:18	1.00	0.868	1.00	0.05	50.00	0.000	0.419	0.00
21	10:39	1.00	0.897	1.00	0.08	50.00	0.001	0.425	0.00
22	11:03	1.00	0.931	1.00	0.74	50.00	0.014	0.959	0.01
23	11:05	1.00	1.136	1.00	0.12	50.00	0.004	1.751	0.00
24	12:24	1.00	1.044	1.00	46.68	50.00	0.402	0.430	0.93
25	12:49		1.080						
26	13:24		1.129						
27	14:42		0.818						
28	15:02	1.00	0.837	1.00	0.64	50.00	0.015	1.156	0.01
29	14:20		1.208						
30	15:30		1.306						
31	15:53	1.00	1.338	1.00	0.65	50.00	0.004	0.316	0.01
32	16:12	1.00	0.901	1.00	41.47	50.00	0.391	0.471	0.83
33	16:27		0.916						
34	16:42	1.00	1.407	1.00	0.05	50.00	0.000	0.465	0.00
35	18:01	1.00	1.003	1.00	0.37	50.00	0.007	0.926	0.01
36	18:18	1.00	1.018	1.00	0.21	50.00	0.002	0.428	0.00
37	18:34	1.00	1.033	1.00	0.32	100.00	0.002	0.606	0.00
38	19:26	1.00	1.082	1.00	0.17	50.00	0.002	0.554	0.00
39	19:28	1.00	1.083	1.00	0.19	50.00	0.003	0.891	0.00
40	19:49		1.669						
41	20:53		1.163						
42	7:12	1.29	0.739	1.29	3.90	100.00	0.058	1.479	0.04
43	18:34	1.00	1.033	1.00	0.49	150.00	0.002	0.589	0.00

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	772	9:46	1	1.000	A BB	54972.	50.000	UG/L	12.35
2	114	939	11:52	2	1.000	A BB	256249.	50.000	UG/L	12.35
3	117	1419	17:57	3	1.000	A BB	229011.	50.000	UG/L	12.35
4	65	864	10:56	1	1.119	A BB	90679.	50.302	UG/L	12.43
5	98	1178	14:54	3	0.830	A BB	263328.	51.200	UG/L	12.65
6	95	1626	20:34	3	1.146	A BB	204678.	48.206	UG/L	11.91
7	NOT FOUND									
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	96	444	5:37	1	0.575	A BB	624.	0.440	UG/L	0.11 No
12	43	451	5:42	1	0.584	A BB	1079.	2.125	UG/L	0.52 No
13	76	476	6:01	1	0.617	A BB	705.	0.182	UG/L	0.04 No
14	84	525	6:38	1	0.680	A BB	1772.	0.605	UG/L	0.15 No
15	96	572	7:14	1	0.741	A BB	1053.	0.608	UG/L	0.15 No
16	63	640	8:06	1	0.829	A BB	607.	0.175	UG/L	0.04 No
17	96	735	9:18	1	0.952	A BB	5297.	3.480	UG/L	0.86 yes
18	NOT FOUND									
19	83	787	9:57	1	1.019	A BB	3972.	1.381	UG/L	0.34 yes
20	97	814	10:18	2	0.867	A BB	108.	0.050	UG/L	0.01 No
21	117	844	10:40	2	0.899	A BB	179.	0.082	UG/L	0.02 No
22	78	874	11:03	2	0.931	A BB	3627.	0.738	UG/L	0.18 No
23	62	877	11:05	1	1.136	A BB	237.	0.123	UG/L	0.03 No
24	130	980	12:24	2	1.044	A BB	102899.	46.681	UG/L	11.53 yes
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	91	1188	15:01	3	0.837	A BB	3372.	0.637	UG/L	0.16 No
29	NOT FOUND									
30	NOT FOUND									
31	97	1254	15:51	2	1.335	A BB	1052.	0.649	UG/L	0.16 No
32	164	1280	16:11	3	0.902	A BB	89500.	41.474	UG/L	10.24 yes
33	NOT FOUND									
34	129	1320	16:41	2	1.406	A BB	108.	0.045	UG/L	0.01 No
35	112	1424	18:00	3	1.004	A BB	1567.	0.369	UG/L	0.09 No
36	106	1446	18:17	3	1.019	A BB	402.	0.205	UG/L	0.05 No
37	106	1467	18:33	3	1.034	A BB	888.	0.320	UG/L	0.08 No
38	106	1535	19:25	3	1.082	A BB	429.	0.169	UG/L	0.04 No
39	104	1537	19:26	3	1.083	A BB	794.	0.195	UG/L	0.05 No
40	NOT FOUND									
41	NOT FOUND						5297	3.480		
42	96	735	9:18	1	0.952	A*BB	~~6350~~ 1/19-23	~~5.904~~	UG/L	0.96 yes
43	106	1467	18:33	3	1.034	A*BB	1317.	0.489	UG/L	0.12 No

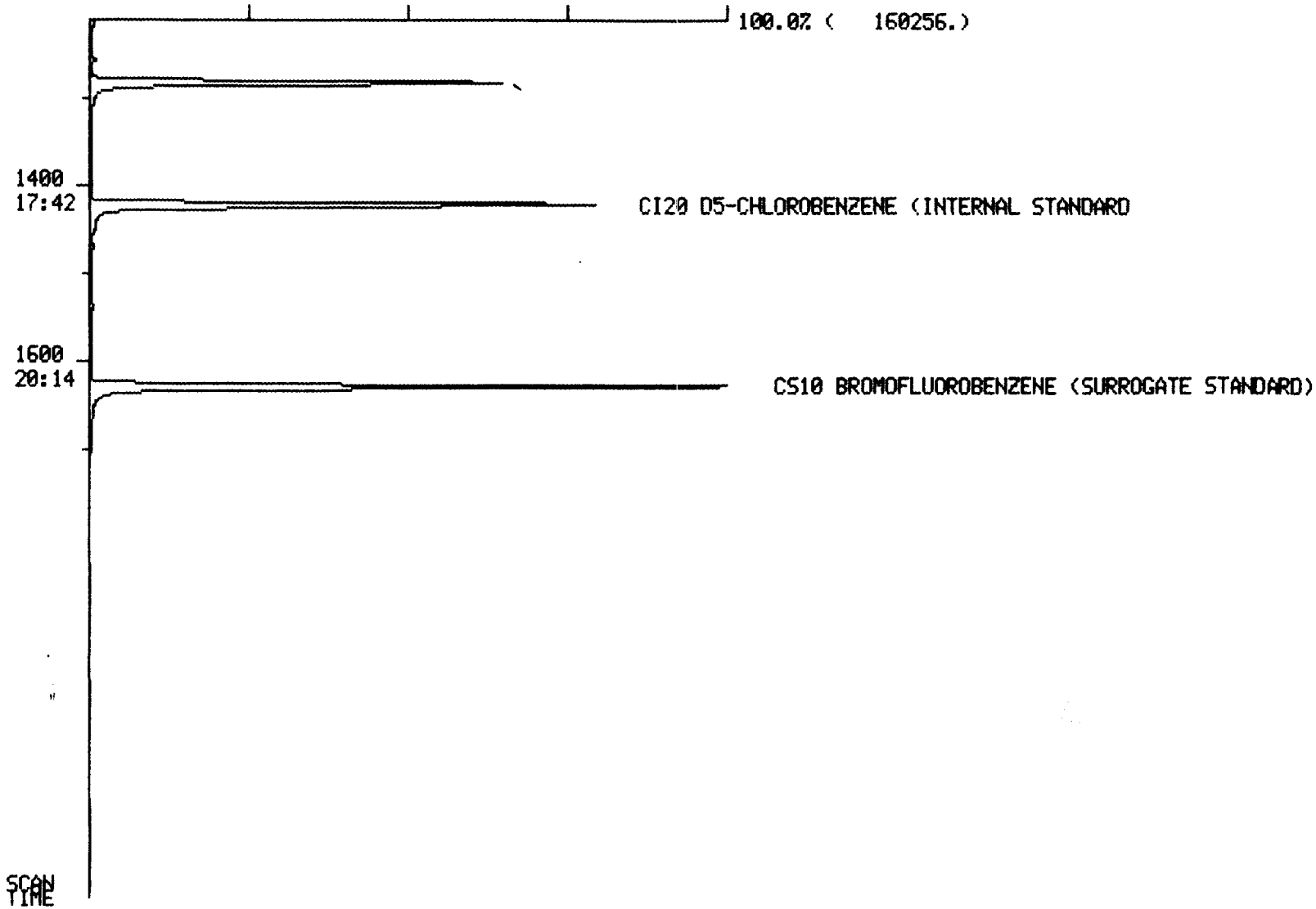
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:52	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:56	1.00	1.121	1.00	50.30	50.00	1.650	1.640	1.01
5	14:54	1.00	0.829	1.00	51.20	50.00	1.150	1.123	1.02
6	20:35	1.00	1.146	1.00	48.21	50.00	0.894	0.927	0.96
7	3:12		0.328						
8	3:20		0.342						
9	3:52		0.397						
10	4:07		0.422						
11	5:36	1.00	0.575	1.00	0.44	50.00	0.011	1.289	0.01

Data: CR045465C53.TI
09/19/91 6:41:00 . .
Sample: CLP,23861;7,INFLUENT,LOW,WATER,445465,VOA,EPA,F50053
Conds.: DB624,CT910919C53,BI910919C53,CB910919C53,
Formula: NWSW Instrument: F50053 Weight: 5000.000
Submitted by: 428 Analyst: 1171 Acct. No.: AM

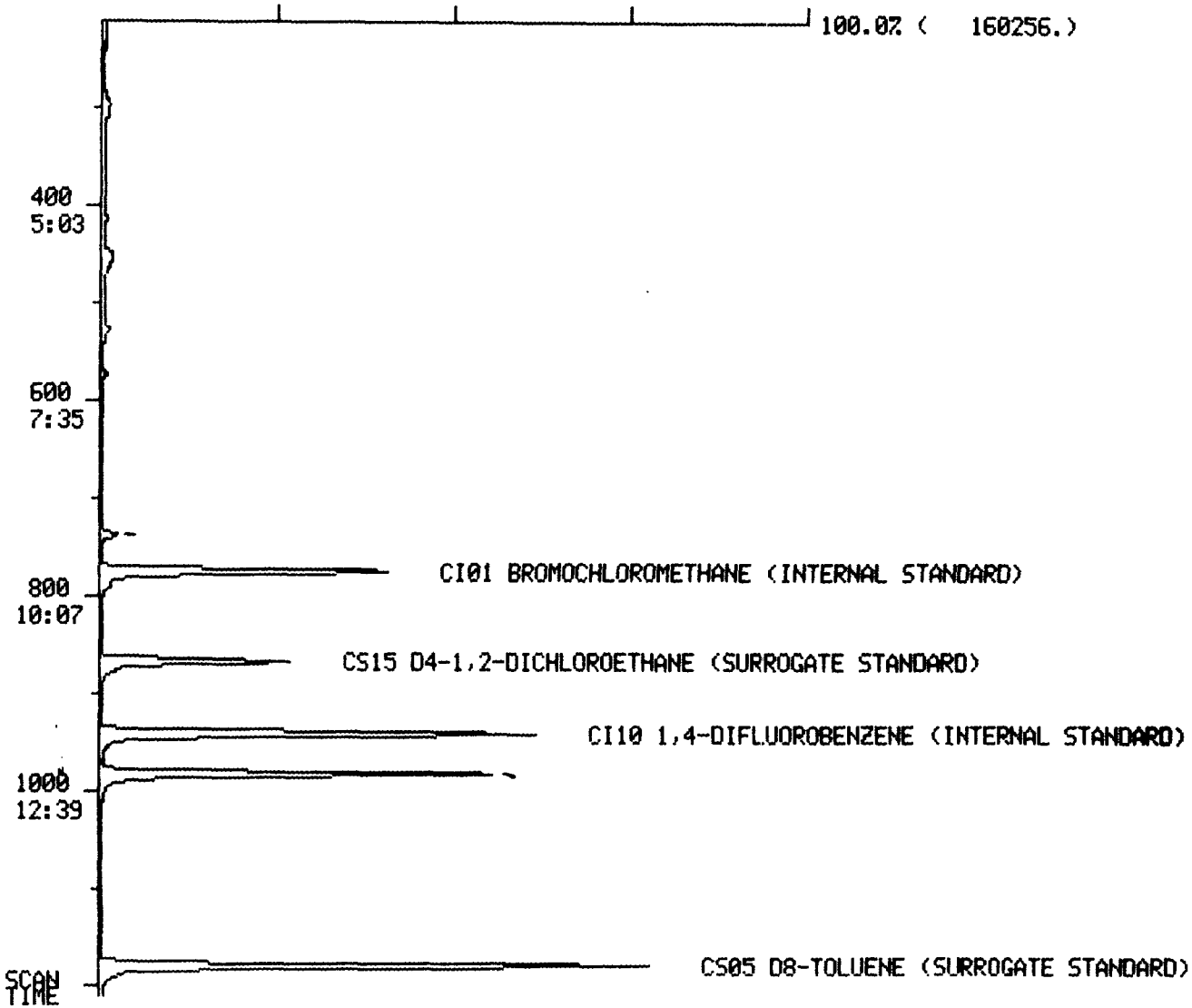
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry.

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CR045465C53 SCANS 1210 TO 1700 ACQUIRED: 09/19/91 6:41:00
CALI: CR045465C53 #3 OUT OF 210 TO 1700
SAMPLE: CLP,23861,7,INFLUENT,LOW,WATER,445465,VOA,EPA,F50053
CONDS.: DB624,CT910919C53,BI910919C53,CB910919C53



DATA FROM FILE: CR045465C53 SCANS 210 TO 1210 ACQUIRED: 09/19/91 6:41:00
CALI: CR045465C53 #3 OUT OF 210 TO 1700
SAMPLE: CLP,23861,7,INFLUENT,LOW,WATER,445465,VOA,EPA,F50053
CONDS.: DB624,CT910919C53,BI910919C53,CB910919C53



1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

INFLUENT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445465

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CR045465C53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/19/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INFLUENT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445465

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CR045465C53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/19/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	3	J
67-66-3	Chloroform	1	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	47	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	42	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

VOA
GC/MS WORKSHEET

J( ) J3( ) D( ) (:1)
J2( ) J4( ) D2( ) (:1)

==========

CLP, 23861, 7, EFFLUENT, LOW, WATER, 445460, VOA, EPA, F50053

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GC/MS ANALYSIS
AMOUNT PURGED: 5000. UL
INTERNAL STANDARD/SURROGATE MIX VOLUME ADDED 5UL OR ___ UL
BFB FILENAME: BF910918A53
BLANK FILENAME: CC910918A53
STANDARD FILENAME: CT910918A53
SAMPLE FILENAME: CN045460A53

ANALYST(S): INJECTION _____ WORKUP _____

==========

GC/MS REVIEW

OK JA DI SH SL
IH IL DA DW OT*

CONDITION CODE ok

DISPOSITION: [X] COMPLETE

EXTRANEOUS PEAKS SEARCH RESULTS:
OF PEAKS FOUND : 0

[ ] REINJECT NEAT
[ ] DILUTE ( )

QUALITY ASSURANCE NOTICE(S):
NOTICES REQUIRED 0

COMMENTS: NOTE: IF CONDITION CODE IS "OT" EXPLAIN FULLY HERE.

POSTED

GC/MS REVIEW _____ DATE 9/20/91 AUDITOR _____ DATE ___/___/___

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REPORT INTEGRATION: TOTAL # OF INJECTIONS: 0

FINAL REPORTABLE PACKAGE(S): CN045460A53 / _____

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QA COMMENTS:

INITIALS _____ DATE ___/___/___

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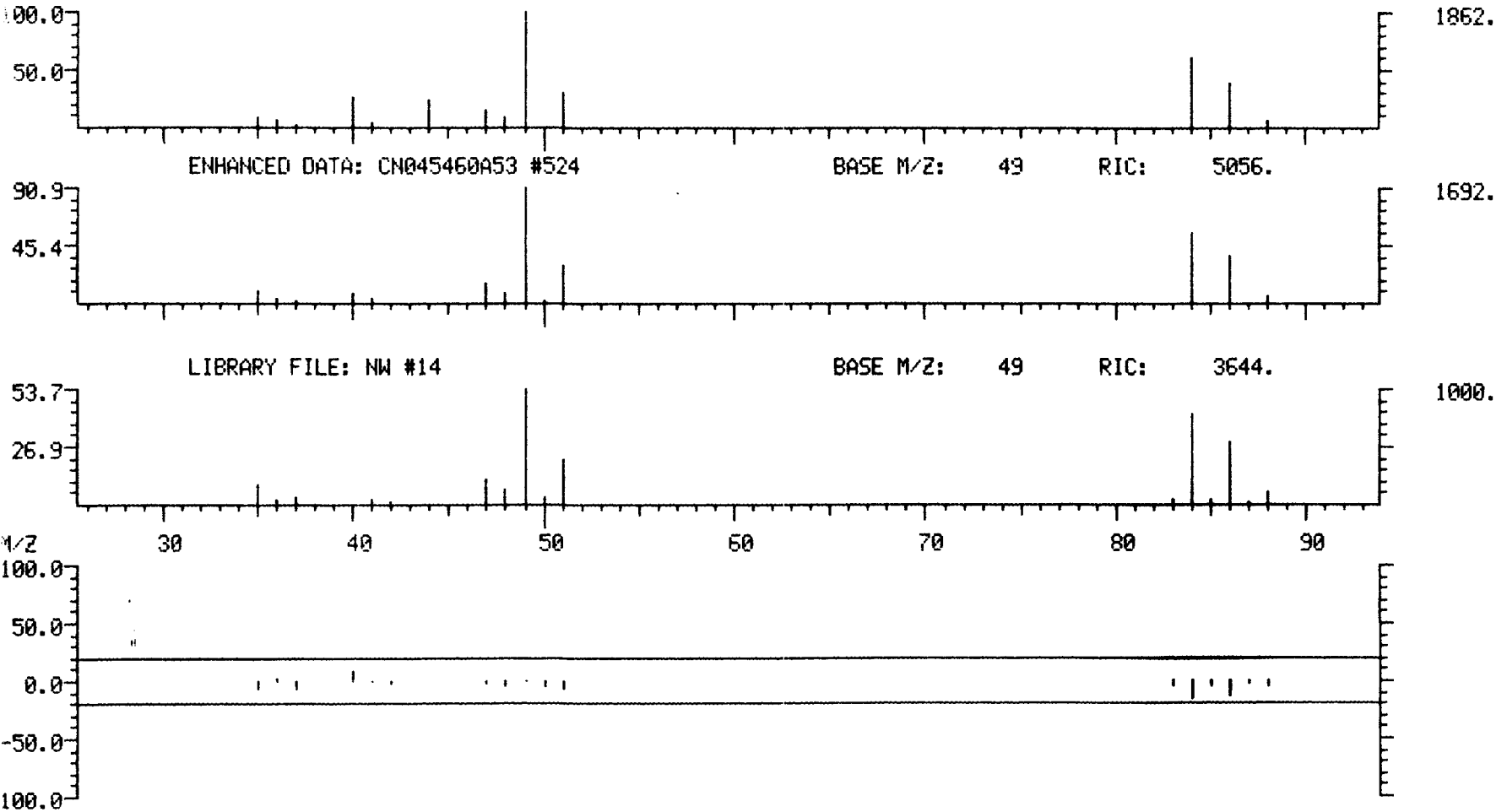
FINAL REVIEW: INITIALS _____ DATE ___/___/___

TARGET COMPOUND COMPARISON

COMPOUND: C030 METHYLENE CHLORIDE <75-09-2>

RAW DATA: CN045460A53 #524 BASE M/Z: 49 RIC: 6248.
09/18/91 19:34
SAMPLE: CLP,23861,7,EFFLUENT,LOW,WATER,445460,VOA,EPA,F50053
CONDS.: DB624,CT910918A53,BF910918A53,CC910918A53



No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:44	0.99	0.587	0.99	3.53	50.00	0.028	0.391	0.07
13	6:03		0.620						
14	6:39	1.00	0.680	1.00	3.91	50.00	0.166	2.124	0.08
15	7:15	0.99	0.741	1.00	0.38	50.00	0.012	1.592	0.01
16	8:06		0.829						
17	9:18		0.952						
18	9:21		0.957						
19	9:59		1.021						
20	10:20		0.869						
21	10:40		0.898						
22	11:05	1.00	0.932	1.00	0.56	50.00	0.010	0.913	0.01
23	11:06		1.136						
24	12:24		1.044						
25	12:50		1.080						
26	13:25		1.129						
27	14:42		0.818						
28	15:03	1.00	0.837	1.00	0.24	50.00	0.005	1.117	0.00
29	14:20		1.206						
30	15:31		1.305						
31	15:53		1.336						
32	16:12		0.901						
33	16:27		0.916						
34	16:42		1.405						
35	18:02		1.004						
36	18:18		1.018						
37	18:34		1.033						
38	19:26		1.082						
39	19:28		1.083						
40	19:50		1.668						
41	20:53		1.163						
42	7:15	0.99	0.741	1.00	0.40	100.00	0.006	1.491	0.00
43	18:34	0.00	1.033	0.00	-0.00	150.00	-0.000	0.554	-0.00

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	771	9:45	1	1.000	A BB	47812.	50.000 UG/L	16.35
2	114	938	11:52	2	1.000	A BB	220054.	50.000 UG/L	16.35
3	117	1420	17:57	3	1.000	A BB	199263.	50.000 UG/L	16.35
4	65	864	10:56	1	1.121	A BB	84784.	49.109 UG/L	16.06
5	98	1178	14:54	3	0.830	A BB	231726.	49.570 UG/L	16.21
6	95	1627	20:34	3	1.146	A BB	178856.	48.172 UG/L	15.75
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	43	450	5:41	1	0.584	A BB	1321.	3.535 UG/L	1.16 NO
13	NOT FOUND								
14	84	524	6:38	1	0.680	A BB	7951.	3.915 UG/L	1.28 JOB
15	96	570	7:12	1	0.739	A BB	577.	0.379 UG/L	0.12 BMC
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	78	874	11:03	2	0.932	A BB	2249.	0.560 UG/L	0.18
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	91	1189	15:02	3	0.837	A BB	1050.	0.236 UG/L	0.08
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	96	570	7:12	1	0.739	**B*	576.	0.404 UG/L	0.13
43	106	6724	0:00	3	0.000	****	-2.	-0.001 UG/L	-0.00

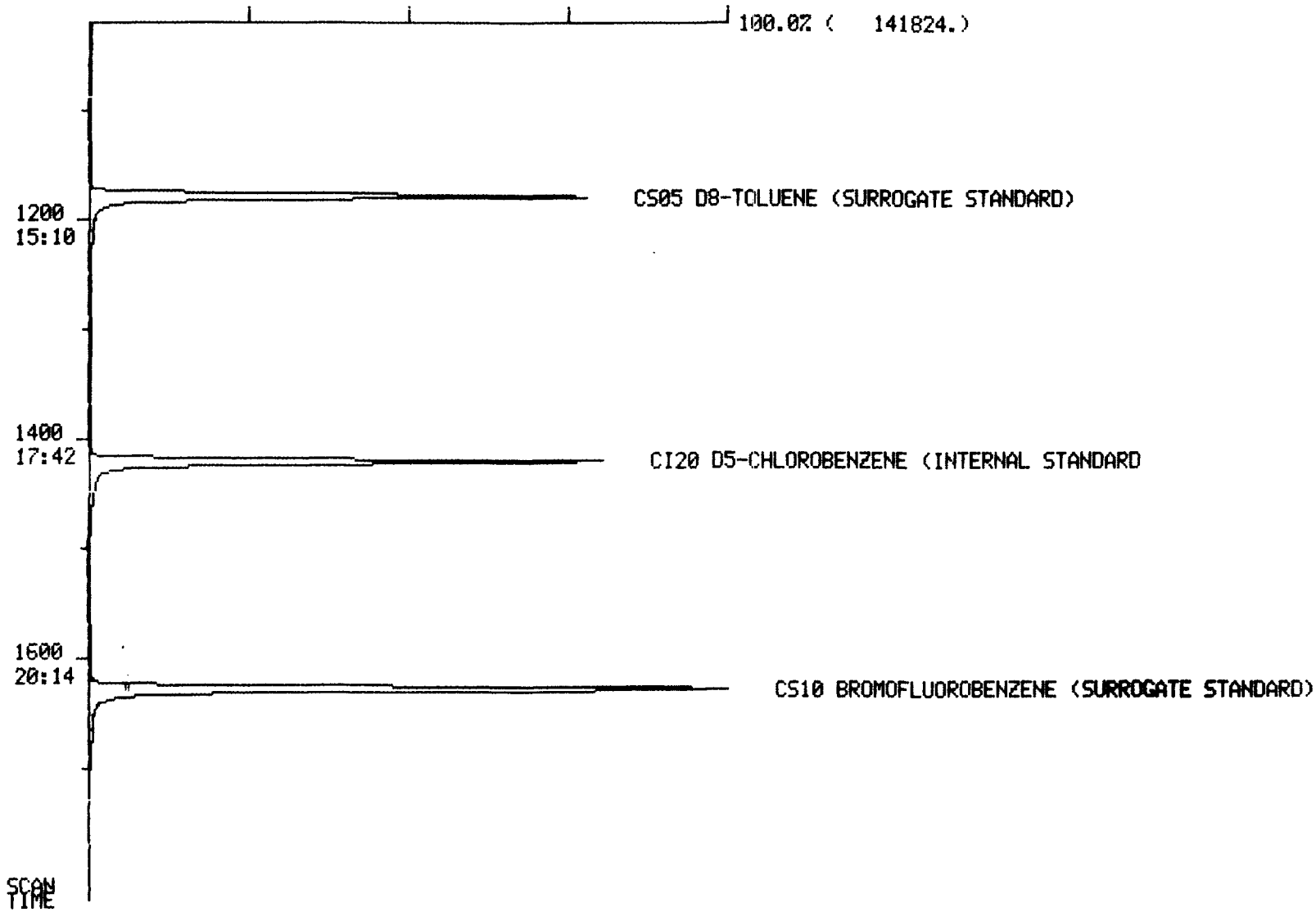
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:46	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:53	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:56	1.00	1.119	1.00	49.11	50.00	1.773	1.805	0.98
5	14:55	1.00	0.830	1.00	49.57	50.00	1.163	1.173	0.99
6	20:35	1.00	1.146	1.00	48.17	50.00	0.898	0.932	0.96
7	3:14		0.331						
8	3:23		0.347						
9	3:55		0.401						
10	4:08		0.423						
11	5:38		0.577						

Data: CN045460A53.TI
09/18/91 19:34:00
Sample: CLP,23861,7,EFFLUENT,LOW,WATER,445460,VOA,EPA,F50053
Conds.: DB624,CT910918A53,BF910918A53,CC910918A53
Formula: NWSW Instrument: F50053 Weight: 5000.000
Submitted by: NWSW Analyst: 2033 Acct. No.: MHY

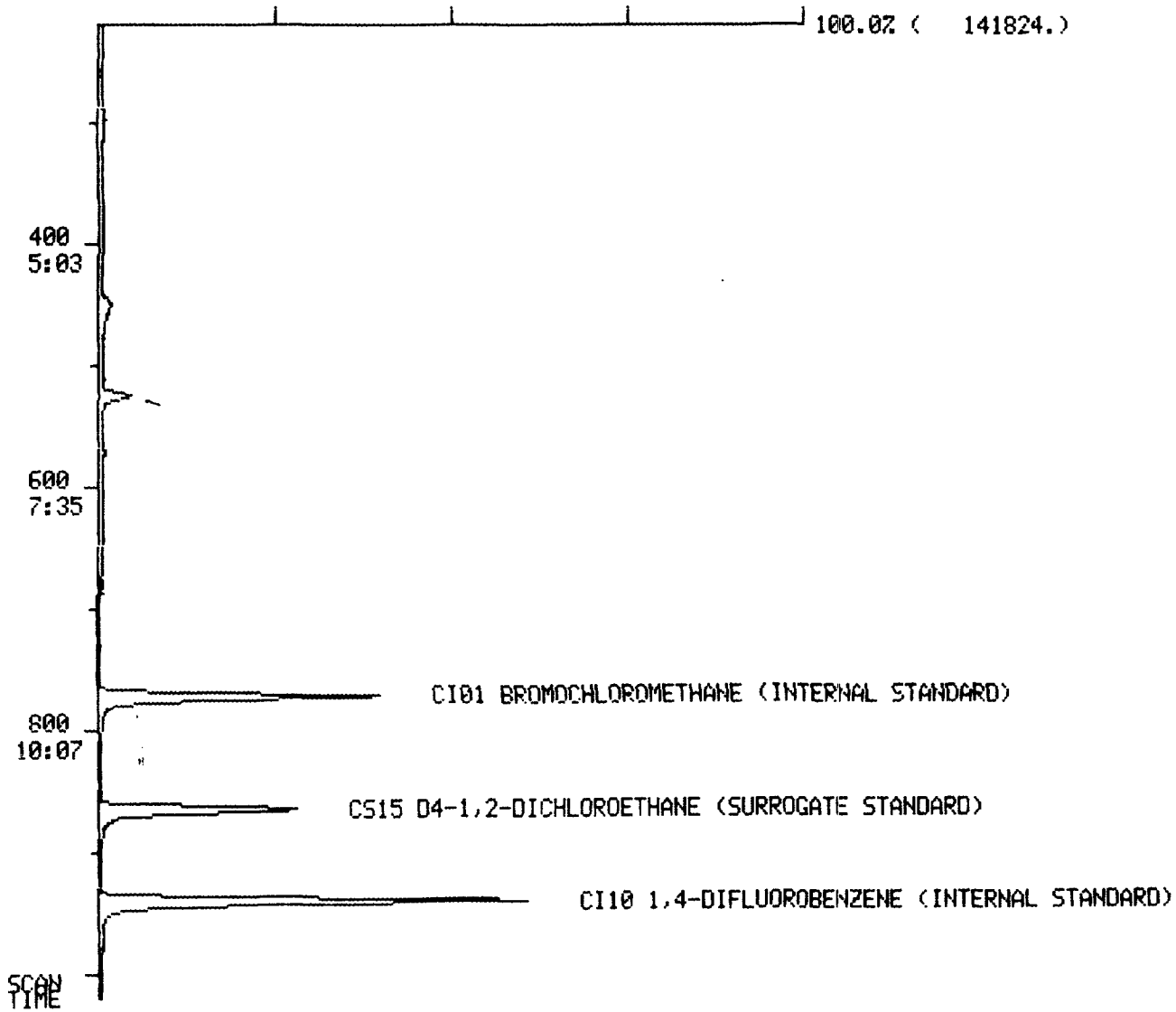
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CN045460A53 SCANS 1020 TO 1700 ACQUIRED: 09/18/91 19:34:00
CALI: CN045460A53 #3 OUT OF 220 TO 1700
SAMPLE: CLP,23861,7,EFFLUENT,LOW,WATER,445460,VOA,EPA,F50053
CONDS.: DB624,CT910918A53,BF910918A53,CC910918A53



DATA FROM FILE: CN045460A53 SCANS 220 TO 1020 ACQUIRED: 09/18/91 19:34:00
CALI: CN045460A53 #3 OUT OF 220 TO 1700
SAMPLE: CLP,23861,7,EFFLUENT,LOW,WATER,445460,VOA,EPA,F50053
CONDS.: DB624,CT910918A53,BF910918A53,CC910918A53



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445460

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN045460A53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445460

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN045460A53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

VOA
GC/MS WORKSHEET

J( ) J3( ) D( ) (:1)
J2( ) J4( ) D2( ) (:1)

==========

CLP, 23861, 7, ~~FILTEREFF~~, LOW, WATER, 445464, VOA, EPA, F50053

==========

GC/MS ANALYSIS
AMOUNT PURGED: 5000. UL
INTERNAL STANDARD/SURROGATE MIX VOLUME ADDED 5UL OR ___ UL
BFB FILENAME: BF910918A53
BLANK FILENAME: CC910918A53
STANDARD FILENAME: CT910918A53
SAMPLE FILENAME: CN045464A53

ANALYST(S): INJECTION _____ WORKUP MK

==========

GC/MS REVIEW

OK JA DI SH SL
IH IL DA DW OT*

CONDITION CODE ok

DISPOSITION: [✓] COMPLETE

EXTRANEOUS PEAKS SEARCH RESULTS:
OF PEAKS FOUND : 0

[ ] REINJECT NEAT
[ ] DILUTE ( )

QUALITY ASSURANCE NOTICE(S):
NOTICES REQUIRED 0

COMMENTS: NOTE: IF CONDITION CODE IS "OT" EXPLAIN FULLY HERE.

POSTED

GC/MS REVIEW UK DATE 9/20/91 AUDITOR _____ DATE ___/___/___

==========

REPORT INTEGRATION: TOTAL # OF INJECTIONS: ___

FINAL REPORTABLE PACKAGE(S): CN045464A53 / _____

==========

QA COMMENTS:

INITIALS _____ DATE ___/___/___

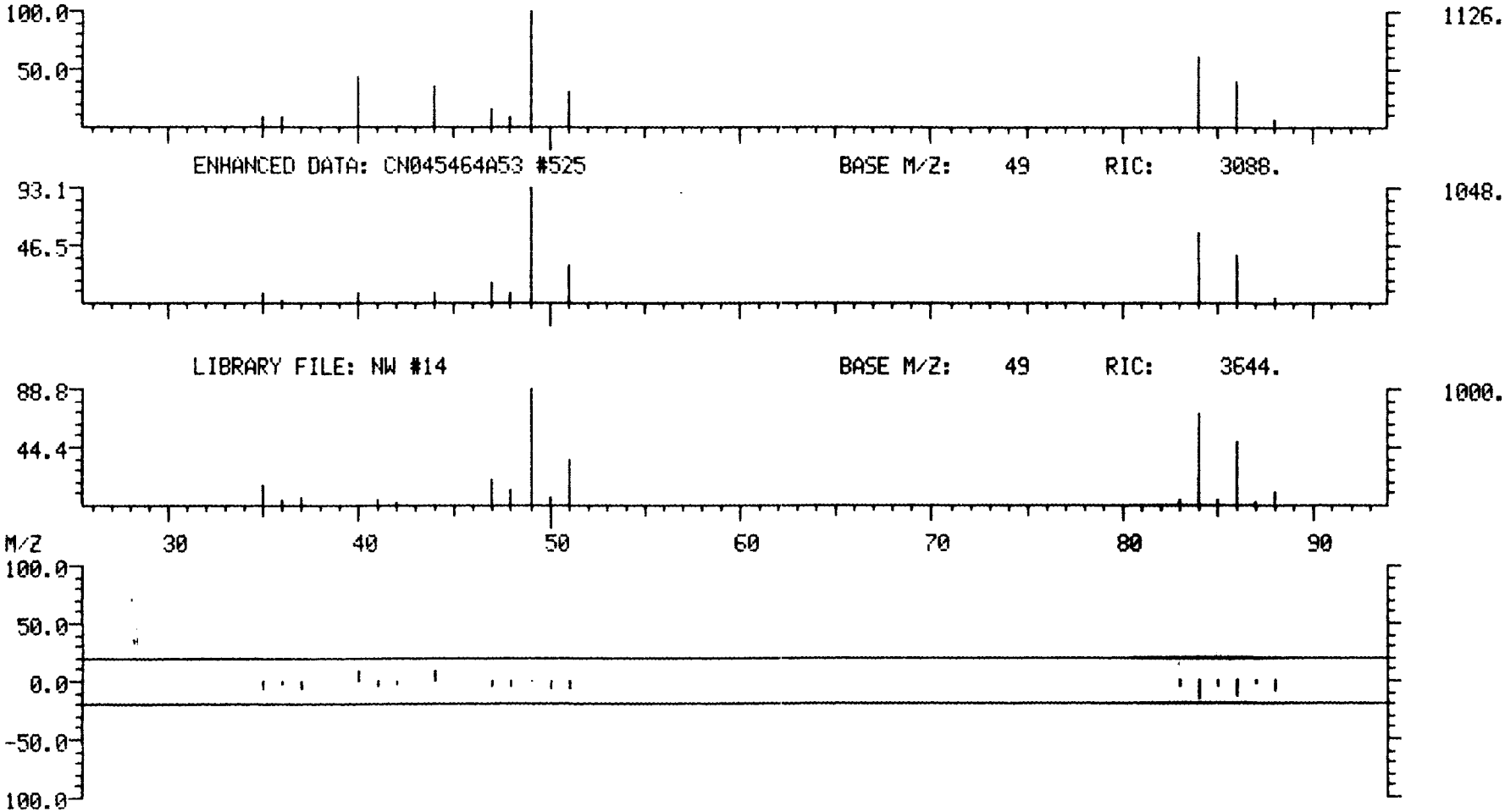
==========

FINAL REVIEW: INITIALS _____ DATE ___/___/___

TARGET COMPOUND COMPARISON

COMPOUND: C030 METHYLENE CHLORIDE <75-09-2>

RAW DATA: CN045464A53 #525 BASE M/Z: 49 RIC: 4036.
09/18/91 21:36 BETWEEN 1/18/91
SAMPLE: CLP, 23861,7,~~FILTEREFF~~,LOW,WATER,445464,VOA,EPA,F50053
CONDS.: DB624,CT910918A53,BF910918A53,CC910918A53



No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	5:44	1.00	0.587	1.00	3.43	50.00	0.027	0.391	0.07
13	6:03		0.620						
14	6:39	1.00	0.680	1.00	2.18	50.00	0.093	2.124	0.04
15	7:15	1.00	0.741	1.00	0.33	50.00	0.011	1.592	0.01
16	8:06		0.829						
17	9:18		0.952						
18	9:21		0.957						
19	9:59		1.021						
20	10:20		0.869						
21	10:40		0.898						
22	11:05	1.00	0.932	1.00	0.62	50.00	0.011	0.913	0.01
23	11:06		1.136						
24	12:24	1.00	1.044	1.00	0.12	50.00	0.001	0.404	0.00
25	12:50		1.080						
26	13:25		1.129						
27	14:42		0.818						
28	15:03	1.00	0.837	1.00	0.38	50.00	0.008	1.117	0.01
29	14:20		1.206						
30	15:31		1.305						
31	15:53		1.336						
32	16:12		0.901						
33	16:27		0.916						
34	16:42		1.405						
35	18:02	1.00	1.004	1.00	0.06	50.00	0.001	0.881	0.00
36	18:18		1.018						
37	18:34		1.033						
38	19:26		1.082						
39	19:28		1.083						
40	19:50		1.668						
41	20:53		1.163						
42	7:15	1.00	0.741	1.00	0.36	100.00	0.005	1.491	0.00
43	18:34	0.00	1.033	0.00	-0.00	150.00	-0.000	0.554	-0.00

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	773	9:46	1	1.000	A BB	51901.	50.000 UG/L	16.55
2	114	940	11:53	2	1.000	A BB	233154.	50.000 UG/L	16.55
3	117	1421	17:58	3	1.000	A BB	210648.	50.000 UG/L	16.55
4	65	866	10:57	1	1.120	A BB	88139.	47.030 UG/L	15.56
5	98	1179	14:55	3	0.830	A BB	245394.	49.656 UG/L	16.43
6	95	1629	20:36	3	1.146	A BB	188630.	48.058 UG/L	15.90
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	43	453	5:44	1	0.586	A BB	1392.	3.431 UG/L	1.14 ND
13	NOT FOUND								
14	84	525	6:38	1	0.679	A BB	4811.	2.182 UG/L	0.72 for B
15	96	571	7:13	1	0.739	A BB	552.	0.334 UG/L	0.11
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	78	875	11:04	2	0.931	A BB	2625.	0.617 UG/L	0.20 BPL
23	NOT FOUND								
24	130	981	12:24	2	1.044	A BB	222.	0.118 UG/L	0.04
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	91	1190	15:03	3	0.837	A BB	1788.	0.380 UG/L	0.13
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	112	1427	18:03	3	1.004	A BB	216.	0.058 UG/L	0.02
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	96	571	7:13	1	0.739	**B*	551.	0.356 UG/L	0.12
43	106	6724	0:00	3	0.000	****	-2.	-0.001 UG/L	-0.00

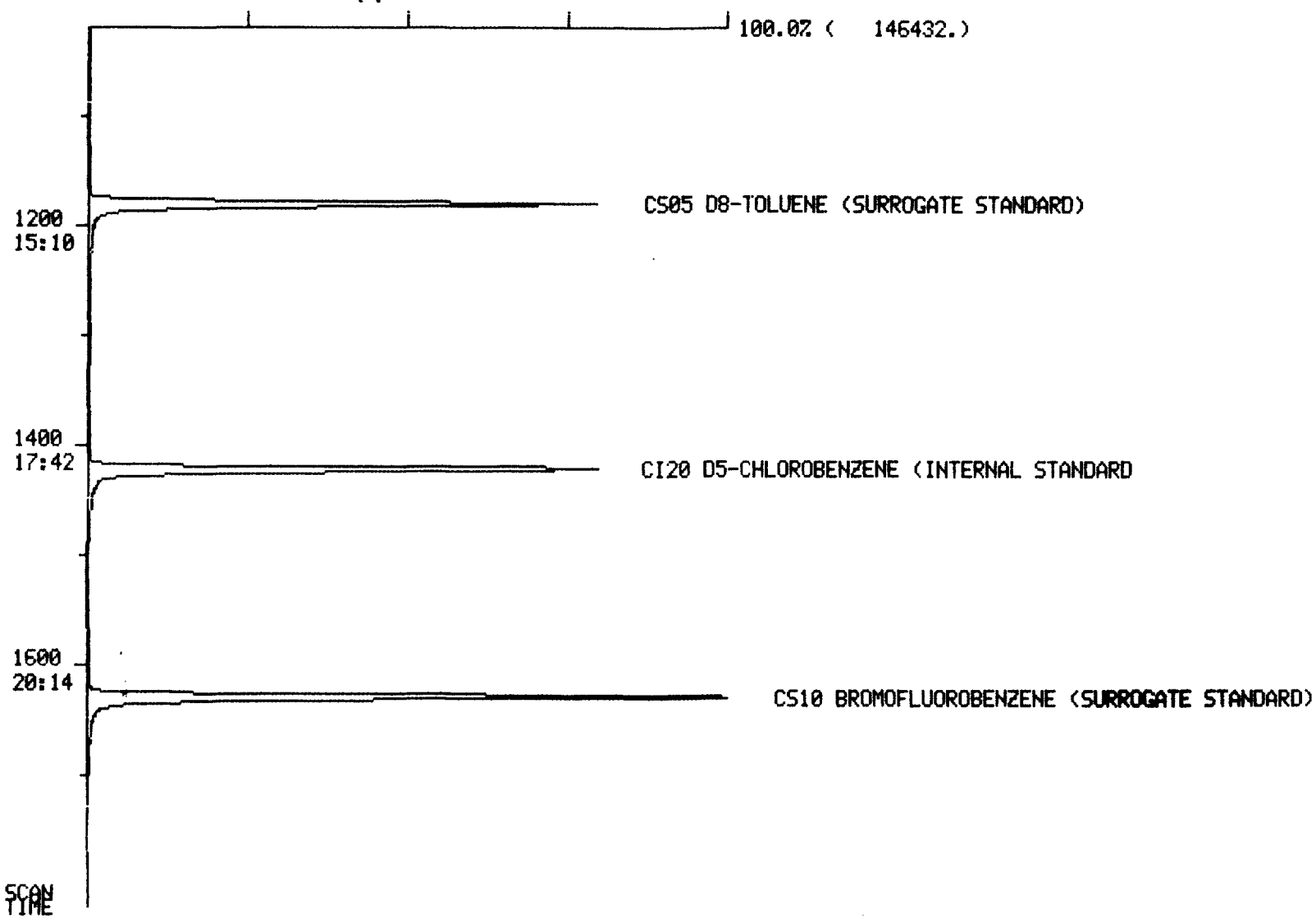
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:46	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	11:53	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	17:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	10:56	1.00	1.119	1.00	47.03	50.00	1.698	1.805	0.94
5	14:55	1.00	0.830	1.00	49.66	50.00	1.165	1.173	0.99
6	20:35	1.00	1.146	1.00	48.06	50.00	0.895	0.932	0.96
7	3:14		0.331						
8	3:23		0.347						
9	3:55		0.401						
10	4:08		0.423						
11	5:38		0.577						

Data: CN045464A53.TI
09/18/91 21:36:00 BETWEEN JCR 10/9/91
Sample: CLP, 23861,7, ~~FILTEREFF,~~ LOW, WATER, 445464, VOA, EPA, F50053
Conds.: DB624, CT910918A53, BF910918A53, CC910918A53
Formula: NWSW Instrument: F50053 Weight: 5000.000
Submitted by: NWSW Analyst: 2033 Acct. No.: MHY

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

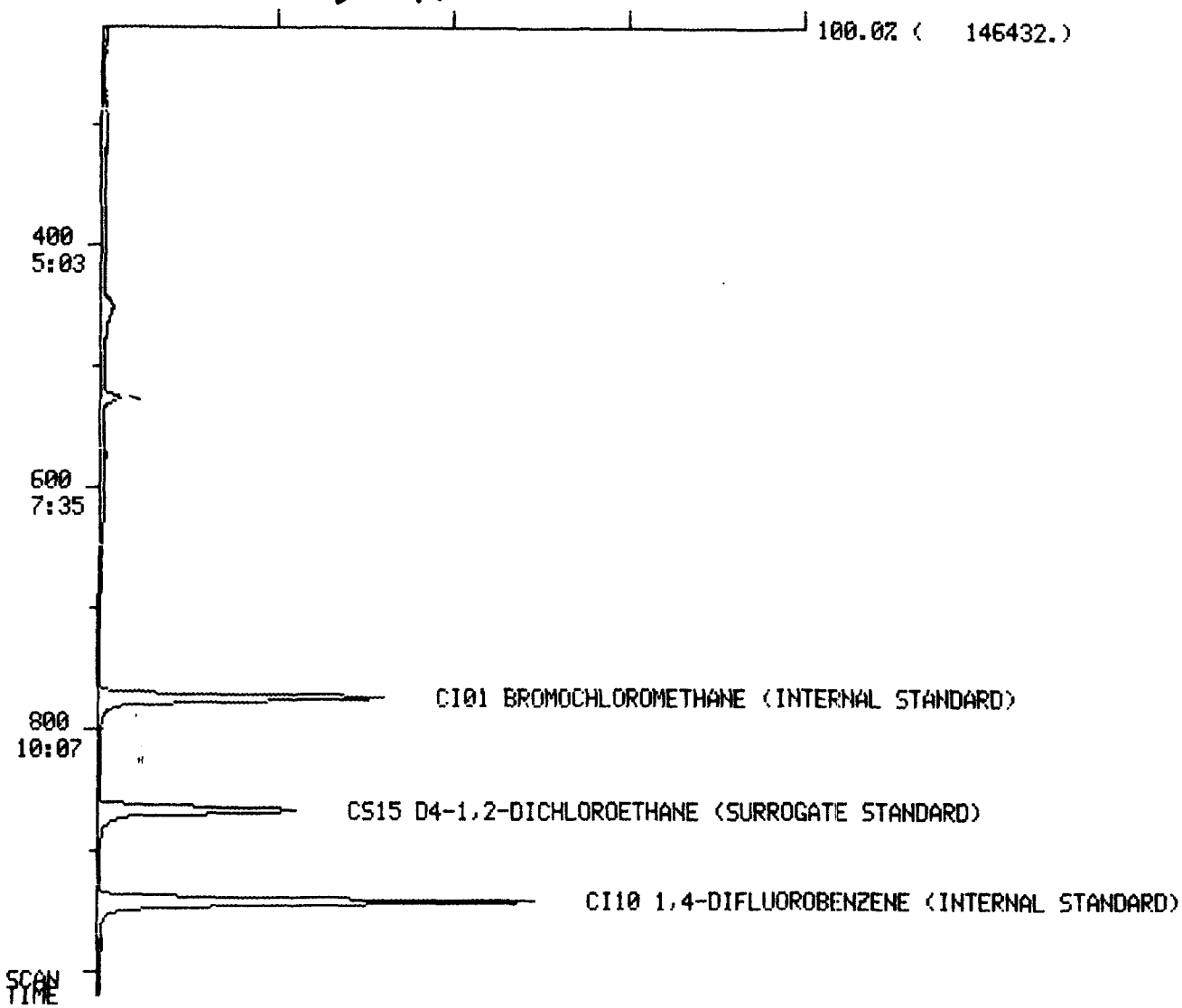
No	Name
1	CI01 BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CI10 1,4-DIFLUOROBENZENE (INTERNAL STANDARD)
3	CI20 D5-CHLOROBENZENE (INTERNAL STANDARD
4	CS15 D4-1,2-DICHLOROETHANE (SURROGATE STANDARD)
5	CS05 D8-TOLUENE (SURROGATE STANDARD)
6	CS10 BROMOFLUOROBENZENE (SURROGATE STANDARD)
7	C010 CHLOROMETHANE <74-87-3>
8	C020 VINYL CHLORIDE <75-01-4>
9	C015 BROMOMETHANE <74-83-9>
10	C025 CHLOROETHANE <75-00-3>
11	C045 1,1-DICHLOROETHENE <75-35-4>
12	C035 ACETONE <67-64-1>
13	C040 CARBON DISULFIDE <75-15-0>
14	C030 METHYLENE CHLORIDE <75-09-2>
15	C055 TRANS-1,2-DICHLOROETHENE <156-60-5>
16	C050 1,1 DICHLOROETHANE <75-34-3>
17	C054 CIS-1,2-DICHLOROETHENE <156-59-2>
18	C110 2-BUTANONE <78-93-3>
19	C060 CHLOROFORM <67-66-3>
20	C115 1,1,1-TRICHLOROETHANE <71-55-6>
21	C120 CARBON TETRACHLORIDE <56-23-5>
22	C165 BENZENE <71-43-2>
23	C065 1,2-DICHLOROETHANE <107-06-2>
24	C150 TRICHLOROETHENE <79-01-6>
25	C140 1,2-DICHLOROPROPANE <78-87-5>
26	C130 BROMODICHLOROMETHAE <7-27-4>
27	C205 4-METHYL-2-PENTANONE <108-10-1>
28	C230 TOLUENE <108-88-3>
29	C143 CIS-1,3-DICHLOROPROPENE <10061-01-5>
30	C172 TRANS-1,3-DICHLOROPROPENE <10061-02-6>
31	C160 1,1,2-TRICHLOROETHANE <79-00-5>
32	C220 TETRACHLOROETHENE <127-18-4>
33	C210 2-HEXANONE <591-78-6>
34	C155 DIBROMOCHLOROMETHANE <124-48-2>
35	C235 CHLOROBENZENE <108-90-7>
36	C240 ETHYLBENZENE <100-41-4>
37	C098 M,P-XYLENES <1330-20-7>
38	C999 O-XYLENE <1330-20-7>
39	C245 STYRENE <100-42-5>
40	C180 BROMOFORM <75-25-2>
41	C225 1,1,2,2-TETRACHLOROETHANE <79-34-5>
42	C053 TOTAL 1,2-DICHLOROETHENE <156-60-5>
43	C250 TOTAL XYLENES <1330-20-7>

DATA FROM FILE: CN045464A53 SCANS 1020 TO 1700 ACQUIRED: 09/18/91 21:36:00
BETWEEN CALI: CN045464A53 #3 OUT OF 220 TO 1700
SAMPLE: CLP, 23861,7,~~FILTEREFF~~,LOW,WATER,445464,VOA,EPA,F50053
CONDS.: DB624,CT910918A53,BF910918A53,CC910918A53
SAL 10/8/91



23861 7 SAMPLE DATA PACKAGE

DATA FROM FILE: CN045464A53 SCANS 220 TO 1020 ACQUIRED: 09/18/91 21:36:00
BETWEEN CALI: CN045464A53 #3 OUT OF 220 TO 1700
SAMPLE: CLP, 23861,7,~~FILTEREFF~~,LOW,WATER,445464,VOA,EPA,F50053
CONDS.: DB624,CT910918A53,BF910918A53,CC910918A53
JAL 10/9/91



23861 7 SAMPLE DATA PACKAGE

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BETWEEN

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445464

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN045464A53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BETWEEN

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445464

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN045464A53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

b. Sample data

Sample data shall be arranged in packets with the Organic Analysis Data Sheet (Form I VOA, including Form I VOA – TIC), followed by the raw data for volatile samples. These sample packets should then be placed in increasing EPA number order, considering both letters and numbers in ordering samples.

- TCL Results – Organic Analysis Data Sheet (Form I VOA). Tabulated results (identification and quantitation) of the specified target compounds.

- Tentatively Identified Compounds (Form I VOA – TIC). This form must be included even if no compounds are found.

- Reconstruced total ion chromatograms (RIC) for each sample, sample extract, standard, blank and spiked sample.

- For each sample, by each compound identified.

(1) Copies of raw spectra and copies of background-substracted mass spectra of target compounds (TCL) that are identified in the sample and corresponding background-substracted TCL standard mass spectra. Compound names must be clearly marked on all spectra.

(2) Copies of mass spectra of nonsurrogate organic compounds (Tentatively Identified Compounds) which associated best-match spectra (three best matches).

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Lab File ID (Standard): CT910919C53 Date Analyzed: 09/19/91

Instrument ID: F50053 Time Analyzed: 0450

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	54571	9.75	239887	11.87	225856	17.97
	UPPER LIMIT	109142	10.25	479774	12.37	451712	18.47
	LOWER LIMIT	27286	9.25	119944	11.37	112928	17.47
	EPA SAMPLE NO.						
01	INFLUENT	54972	9.77	256249	11.87	229011	17.95
02	VBLKPD	55671	9.77	249429	11.89	225902	17.99

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

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Lab File ID (Standard): CT910918A53 Date Analyzed: 09/18/91

Instrument ID: F50053 Time Analyzed: 1147

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	43825	9.77	206610	11.89	190439	17.97
	UPPER LIMIT	87650	10.27	413220	12.39	380878	18.47
	LOWER LIMIT	21912	9.27	103305	11.39	95220	17.47
	EPA SAMPLE NO.						
01	BETWEEN	51901	9.77	233154	11.89	210648	17.97
02	EFFLUENT	47812	9.75	220054	11.87	199263	17.95
03	EFFLUENTMS	48182	9.75	222826	11.87	208880	17.97
04	EFFLUENTMSD	52165	9.74	235225	11.85	218762	17.94
05	VBLKTT	43848	9.79	204059	11.90	182728	17.99

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

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

(5) Internal Standard Area and RT Summary (Form VIII VOA)

(in chronological order; by instrument)

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Lab File ID: BI910919C53 BFB Injection Date: 09/19/91

Instrument ID: F50053 BFB Injection Time: 0425

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.4
75	30.0 - 66.0% of mass 95	42.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	74.3
175	4.0 - 9.0% of mass 174	4.9 (6.6)1
176	93.0 - 101.0% of mass 174	73.6 (99.0)1
177	5.0 - 9.0% of mass 176	4.5 (6.1)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050		CT910919C53	09/19/91	0450
02	VBLKPD	VBLKPD	CB910919C53	09/19/91	0531
03	INFLUENT	445465	CR045465C53	09/19/91	0641

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Lab File ID: BF910918A53 BFB Injection Date: 09/18/91

Instrument ID: F50053 BFB Injection Time: 1006

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.1
75	30.0 - 66.0% of mass 95	42.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	75.7
175	4.0 - 9.0% of mass 174	5.1 (6.8)1
176	93.0 - 101.0% of mass 174	74.8 (98.8)1
177	5.0 - 9.0% of mass 176	4.5 (6.0)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050		CT910918A53	09/18/91	1147
02	VBLKTT	VBLKTT	CC910918A53	09/18/91	1346
03	EFFLUENT	445460	CN045460A53	09/18/91	1934
04	EFFLUENTMS	445461	CN045461A53	09/18/91	2008
05	EFFLUENTMSD	445462	CN045462A53	09/18/91	2101
06	BETWEEN	445464	CN045464A53	09/18/91	2136

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Lab File ID: BH910904A53 BFB Injection Date: 09/04/91

Instrument ID: F50053 BFB Injection Time: 1151

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	18.8
75	30.0 - 66.0% of mass 95	41.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	72.8
175	4.0 - 9.0% of mass 174	4.8 (6.6)1
176	93.0 - 101.0% of mass 174	73.0 (100.3)1
177	5.0 - 9.0% of mass 176	4.2 (5.8)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050		CT910904A53	09/04/91	1208
02	VSTD200		CU910904A53	09/04/91	1322
03	VSTD100		CV910904A53	09/04/91	1408
04	VSTD020		CW910904A53	09/04/91	1442
05	VSTD010		CX910904A53	09/04/91	1516

(4) GC/MS Instrument Performance Check (Form V VOA)

DFB in chronological order; by instrument)

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKPD

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Lab File ID: CB910919C53 Lab Sample ID: VBLKPD

Date Analyzed: 09/19/91 Time Analyzed: 0531

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: F50053

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	INFLUENT	445465	CR045465C53	0641

COMMENTS: CLP,BLANK,,VBLKPD,LOW,WATER,,VOA,BLANK,F50053
DB624,CT910919C53,BI910919C53

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKTT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Lab File ID: CC910918A53 Lab Sample ID: VBLKTT

Date Analyzed: 09/18/91 Time Analyzed: 1346

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: F50053

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	BETWEEN	445464	CN045464A53	2136
02	EFFLUENT	445460	CN045460A53	1934
03	EFFLUENTMS	445461	CN045461A53	2008
04	EFFLUENTMSD	445462	CN045462A53	2101

COMMENTS: CLP,BLANK,,VBLKTT,LOW,WATER,,VOA,BLANK,F50053
DB624,CT910918A53,BF910918A53

(3) Method Blank Summary (Form IV VOA)

(If more than a single form is necessary, forms must be arranged in chronological order by date of analysis of the blank.)

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix Spike - EPA Sample No.: EFFLUENT

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.00	0	53.20	106	61-145
Trichloroethene	50.00	0	55.50	111	71-120
Benzene	50.00	0	55.30	111	76-127
Toluene	50.00	0	56.30	113	76-125
Chlorobenzene	50.00	0	55.50	111	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	50.60	101	5	14	61-145
Trichloroethene	50.00	55.90	112	1	14	71-120
Benzene	50.00	55.50	111	0	11	76-127
Toluene	50.00	56.10	112	1	13	76-125
Chlorobenzene	50.00	56.70	113	2	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

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

COMMENTS: CLP,23861,7,EFFLUENT,LOW,WATER,445460,VOA,EPA,F50053
DB624,CT910918A53,BF910918A53,CC910918A53

FORM III VOA-1 3/90

(2) Matrix Spike/Matrix Spike Duplicate Summary (Form III VOA)

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	BETWEEN	99	96	94	0	0
02	EFFLUENT	99	96	98	0	0
03	INFLUENT	102	96	101	0	0
04	EFFLUENTMS	96	95	100	0	0
05	EFFLUENTMSD	94	92	93	0	0
06	VBLKTT	104	100	99	0	0
07	VBLKPD	106	101	102	0	0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

(1) System Monitoring Compound Summary (Form II VOA)

a. QC summary

(1) System Monitoring Compound Summary (Form II VOA)

(2) Matrix Spike/Matrix Spike Duplicate Summary (Form III VOA)

(3) Method Blank Summary (Form IV VOA)

(If more than a single form is necessary, forms must be arranged in chronological order by date of analysis of the blank.)

(4) GC/MS Instrument Performance Check (Form V VOA)

(BFB in chronological order; by instrument)

(5) Internal Standard Area and RT Summary (Form VIII VOA)

(In chronological order; by instrument)

3. Volatile data

a. QC summary

b. Sample data

c. Standards data

d. Raw QC data

LAB CODE : COMPU

CASE # : 23861

SDG # : 7

SAS # :

CONTRACT# : (3-90)-REVS

COMPUCHEM LABORATORIES

CHAIN-OF-CUSTODY RECORD

№ 026592

445460, 445464, 445465

PROJECT NAME: MCAS El Toro
PROJECT NUMBER: 311146
SAMPLERS (SIGNATURE)
RICHARD SIOCIN
PRINTED NAME

CLIENT ID (9 CHARACTERS) 1	2	3	4	5	6	7	8	9	# No. of Bottles/Vials	GC/MS 624-8240	625-8270	TCL-VOA	TCL-SVOA	Other:	GC 601-8010	602-8020	608-8080	8140	TCL PEST/PCB's	Herbicides	Other:	INORGANICS Metals	Cyanide	TAL Metals	Other:	OTHER TOC	TOX	Oil & Grease	Pet. Hydro.	Phenols						MATRIX: Water/Soil	SAMPLING INFO DATE	TIME	REMARKS
E	N	F	L	A	E	N	T		2	X																										W			
F	I	C	T	E	R	E	F	F	2	X																										W			
E	F	F	L	A	E	N	T		2	X																										W			

RECEIVED IN GOOD CONDITION
JR 9/15/1991
10:00 a.m.

RELINQUISHED BY:	Date/Time	RELINQUISHED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:		COMPANY NAME:	
RECEIVED BY: RICHARD SIOCIN	Date/Time 9/10 15:35	RECEIVED BY: Reginald Dawson	Date/Time 9/15/91 10:00am	RECEIVED BY:	Date/Time
COMPANY NAME: HADCEY		COMPANY NAME: Compuchem		COMPANY NAME:	
RELINQUISHED BY: RICHARD SIOCIN	Date/Time 9/10 15:35	RELINQUISHED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME: HADCEY		COMPANY NAME:		COMPANY NAME:	

SHIPPING INFORMATION
Number of Shipping Containers-
Method of Shipment
Special Handling Requirements

138

23861 7 SAMPLE DATA PACKAGE

2. Traffic Reports

A copy of the Sample Traffic Reports for all of the samples in the SDG. The Traffic Reports shall be arranged in increasing EPA number order, considering both letters and numbering in ordering samples.

CompuChem Laboratories, Inc.

3) CompuChem provides, with OWA-generated hardcopy, mass spectral information on target analytes detected in samples. The OWA-generated spectra are presented on two pages, while the same spectral information is presented on one page from the Incos-500 system.

In some cases, minor differences may be apparent in the retention time (scan number) of a detected target analyte as it appears on the Incos 500 Quantitation Report and the scan number appearing on the mass spectrum for that compound. The differences (no more than a few scans) are a result of the software algorithm which presents the scan number of the apex of the quantitation ion peak on the Quantitation Report and presents, on the mass spectrum, the scan number which produces the spectrum of the target analyte most closely matching the reference spectrum of that same target analyte.

4) For those clients choosing to have library searches performed for Tentatively Identified Compounds (TICs), minor differences may be apparent in the deliverables documentation. The differences specifically relate to the retention time of a TIC as it appears on the actual library search display versus the retention time appearing on the TIC summary form. These differences apply to situations in which more than one compound is present underneath the peak visible on the RIC. The retention time differences (no more than a few scans) are a result of the Incos 500 library search software algorithm which can differentiate changes in total ion intensity and distinguish an apex of a smaller peak coeluting with other constituents within a single visible peak.

We hope this information is beneficial. However, should there be any question regarding the Incos 500 GC/MS deliverables documentation, please feel free to contact your Account Administrator at 1-800-833-5097.

Robert E. Meierer

Robert E. Meierer
Vice President of QA

BE/jhp

COMPUCHEM LABORATORIES, INC.

Notification To Clients Regarding Deliverables Generated By
New Gas Chromatograph / Mass Spectrometer (GC/MS) System

CompuChem has recently purchased several of the Finnigan Incos 500 GC/MS systems to complement our Finnigan OWA GC/MS systems. We are excited about the performance of these instruments and their compatibility with our instrumentation network system.

Depending on the type of deliverables packages requested, a variety of instrument-generated raw data may be included in our reports. As a service to our clients, the following is a listing of the major differences that will be apparent when comparing our current raw data deliverables to those generated by the new Incos 500 systems.

1) One of the most apparent changes in the Incos 500-generated raw data pertains to the Reconstructed Ion Chromatogram (RIC). In viewing a hardcopy of an OWA-generated RIC the baseline is presented at the bottom of the page, peaks rise and, for internal standards and surrogates the peaks are labelled with alpha-numeric identifiers, e.g. - IS #1 means Internal Standard #1. The identifiers are keyed to descriptions on the GC/MS Quantitation Report. At the very top of the RIC the OWA-generated hardcopy contains "header" information similar to that presented on the Quantitation Report. In viewing a hardcopy of an Incos 500-generated RIC, the baseline is presented along the left-hand side of the page, peaks are presented horizontally, and the internal standards and surrogates are labelled with the actual compound names on the RIC. The header information is presented at the top of the RIC.

Regarding the RIC, whereas the OWA-generated volatile RIC is a single page, the Incos-500 RIC presentation for volatiles contains two pages and the semi-volatile RIC contains three pages.

2) The RIC header information generated by the Incos 500 system contains many data elements and includes GC/MS data file numbers for the tune, calibration and blank associated with the sample being reported. As is normal convention, the instrument identifier (number) is included in the sample file number for both the Incos 500 and the Finnigan OWA systems.

COMPUCHEM
LABORATORIES, INC.

QUALITY ASSURANCE NOTICE

Specific guidelines are presented in the EPA CLP Organic Statement of work for the positive qualitative identification of compounds through mass spectral interpretation. Applying these guidelines absolutely may not be possible when the nature of the sample is less than pure reference material. Where the mass spectral pattern of a compound to be identified demostrates interferences or coelution from one or more additional compounds, either unknowns, internal standards, or surrogate standards, the "+" sign is added to the top of the dual spectra page.

Linda Fowler
Sr. Quality Assurance Specialist

Robert E. Meierer
Vice President, Quality Assurance

DATA REPORTING QUALIFIERS - PAGE 2

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined flag, discussed below.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified TCL compound.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG Narrative. If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B", and "D" flags for some sample. The laboratory-defined flags are limited to the letters "X", "Y", and "Z".

COMPUCHEM LABORATORIES, INC.

DATA REPORTING QUALIFIERS

VALUE - If the result is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

U - Indicates compound was analyzed for but not detected. The sample Quantitation Limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U) \times df}{D} \quad \text{where } D = \frac{100 - \%\ moisture}{100}$$

and df = dilution factor

$$\text{At 24\% moisture, } D = \frac{100 - 24}{100} = 0.76$$

$$\frac{(330\ U)}{.76} \times 10 = 4300\ U$$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However if a sample extract cannot be concentratred to the protocol-specifed volume, this fact must be accounted for in reporting the sample quantitation limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero. For example, if the sample quantitation limit is 10 ug/l, but a concentration of 3 ug/l is calculated, report it as 3J. The sample quantitation limit must be adjusted for dilution as dicussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.

COMPUCHEM LABORATORIES, INC.

pH Summary

COMPUCHEM #	SAMPLE ID	pH
445464	BETWEEN	1
445460	EFFLUENT	1
445465	INFLUENT	1

COMPUCHEM LABORATORIES, INC.

Jean M. Zimmerman
Jean M. Zimmerman
Technical Reviewer
October 9, 1991

Audited by:

Cindy E. Edwards
Cynthia Edwards 10/09/91
Final Technical Reviewer

Note: This report is paginated for reference and accountability.

COMPUCHEM LABORATORIES, INC. P.O. Box 12652 3308 Chapel Hill/Nelson Highway Research Triangle Park, NC 27709 (919) 549-8263

SDG NARRATIVE -- CASE 23861
SDG NO. 07
Contract No. (3-90)-REVS
Compuchem Laboratories, Inc.

Samples: BETWEEN, EFFLUENT, INFLUENT

Attached are pertinent Quality Assurance Notices dealing with the analysis of three (3) water samples associated with Case 23861, SDG No. 07. The samples listed above were received intact on September 15, 1991 in properly sealed shipping containers with the corresponding chain-of-custody documents. The samples were logged into the Compuchem Laboratory Management system and scheduled for the analysis of the volatile fraction. The pH values of the samples are summarized on the attached pH summary sheet. The pH values of all samples were 1.

As per client request, the sample ID for the sample originally listed on the chain-of-custody document as FILTEREFF, was changed to BETWEEN.

Volatiles
The samples were analyzed within the proper holding time requirements. EPA target compound list (TCL) compounds 1,2-dichloroethene, chloroform, trichloroethene, and tetrachloroethene were detected in sample INFLUENT and TCL compound methylene chloride was detected in samples EFFLUENT and BETWEEN. None of the samples contained tentatively identified compounds (TICs).

In the volatile fraction, recovery and RPD values met QC limits in the matrix spike, EFFLUENTMS, and the matrix spike duplicate, EFFLUENTMSD. In addition to the spiking compounds, methylene chloride was present in the MS and the MSD.

TCL compounds methylene chloride and acetone were detected in the two volatile instrument blanks. No TICs were detected in the instrument blanks. Surrogate recovery values for the samples, the blanks, and the sample spikes met contract required QC limits.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature:

1. SDG Narrative

This document shall be clearly labeled "SDG Narrative" and shall contain: laboratory name; sample numbers in the Sample Delivery Group (SDG), differentiating between initial analyses and reanalyses; SDG number: Contract number; and detailed documentation of any quality control, sample, shipment and/or analytical problems encountered in processing the samples reported in the data package.

Whenever data from sample reanalyses are submitted, the Contractor shall state in the SDG Narrative for each reanalysis, whether it considers the reanalysis to be billable, and if so, why.

The contractor must also include documentation of any internal quality control processes used, a summary of corrective actions taken, and the resolution.

B. SAMPLE DATA PACKAGE

The Sample Data Package shall include data for analyses of all samples in one Sample Delivery Group, including field samples, reanalyses, blanks, matrix spikes and matrix spike duplicates. The Sample Data Package consists of the following:

1. SDG Narrative
2. Traffic Reports
3. Volatile data
4. Semivolatile data
5. Pesticide/PCB data

LAB CODE : COMPU

CASE # : 23861.

SDG # : 7

SAS# :

CONTRACT# : (3-90)-REVS

(check one)

___ Organic SOW 2/88
✓ Organic SOW OLM01.0
___ Low Concentration Organic SOW OLC01.0
___ High Concentration Organic SOW 9/88

THIS PACKAGE CONTAINS:

___ RAS data only
___ SAS data only
___ RAS + SAS data
___ Regional request/additional data
___ Other (please explain below):

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Lab File ID (Standard): CT910919C53 Date Analyzed: 09/19/91

Instrument ID: F50053 Time Analyzed: 0450

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	54571	9.75	239887	11.87	225856	17.97
	UPPER LIMIT	109142	10.25	479774	12.37	451712	18.47
	LOWER LIMIT	27286	9.25	119944	11.37	112928	17.47
	EPA SAMPLE NO.						
01	INFLUENT	54972	9.77	256249	11.87	229011	17.95
02	VBLKPD	55671	9.77	249429	11.89	225902	17.99

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

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Lab File ID (Standard): CT910918A53 Date Analyzed: 09/18/91

Instrument ID: F50053 Time Analyzed: 1147

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	43825	9.77	206610	11.89	190439	17.97
	UPPER LIMIT	87650	10.27	413220	12.39	380878	18.47
	LOWER LIMIT	21912	9.27	103305	11.39	95220	17.47
	EPA SAMPLE NO.						
01	BETWEEN	51901	9.77	233154	11.89	210648	17.97
02	EFFLUENT	47812	9.75	220054	11.87	199263	17.95
03	EFFLUENTMS	48182	9.75	222826	11.87	208880	17.97
04	EFFLUENTMSD	52165	9.74	235225	11.85	218762	17.94
05	VBLKTT	43848	9.79	204059	11.90	182728	17.99

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

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

6. By fraction (VOA and SV only) – internal standard area data (Form VIII)

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKPD

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: VBLKPD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CB910919C53

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

% Moisture: not dec. ____ Date Analyzed: 09/19/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 3/90

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKPD

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: VBLKPD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CB910919C53

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

% Moisture: not dec. ____ Date Analyzed: 09/19/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	J
67-64-1	Acetone	10	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKPD

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Lab File ID: CB910919C53 Lab Sample ID: VBLKPD

Date Analyzed: 09/19/91 Time Analyzed: 0531

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: F50053

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	INFLUENT	445465	CR045465C53	0641

COMMENTS: CLP,BLANK,,VBLKPD,LOW,WATER,,VOA,BLANK,F50053
DB624,CT910919C53,BI910919C53

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKTT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: VBLKTT

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CC910918A53

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

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKTT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: VBLKTT

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CC910918A53

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

% Moisture: not dec. _____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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	10	
67-64-1	Acetone	19	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKTT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Lab File ID: CC910918A53 Lab Sample ID: VBLKTT

Date Analyzed: 09/18/91 Time Analyzed: 1346

GC Column: DB624 ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: F50053

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	BETWEEN	445464	CN045464A53	2136
02	EFFLUENT	445460	CN045460A53	1934
03	EFFLUENTMS	445461	CN045461A53	2008
04	EFFLUENTMSD	445462	CN045462A53	2101

COMMENTS: CLP,BLANK,,VBLKTT,LOW,WATER,,VOA,BLANK,F50053
DB624,CT910918A53,BF910918A53

5. By fraction (VOA, SV, PEST) – blank data (Form IV) and tabulated results (Form I) including tentatively identified compounds (Form I, TIC) (VOA and SV only).

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix Spike - EPA Sample No.: EFFLUENT

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.00	0	53.20	106	61-145
Trichloroethene	50.00	0	55.50	111	71-120
Benzene	50.00	0	55.30	111	76-127
Toluene	50.00	0	56.30	113	76-125
Chlorobenzene	50.00	0	55.50	111	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	50.60	101	5	14	61-145
Trichloroethene	50.00	55.90	112	1	14	71-120
Benzene	50.00	55.50	111	0	11	76-127
Toluene	50.00	56.10	112	1	13	76-125
Chlorobenzene	50.00	56.70	113	2	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

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

COMMENTS: CLP,23861,7,EFFLUENT,LOW,WATER,445460,VOA,EPA,F50053
DB624,CT910918A53,BF910918A53,CC910918A53

FORM III VOA-1 3/90

4. By fraction (VOA, SV, PEST) – matrix spike/matrix spike duplicate results (Form III).

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	BETWEEN	99	96	94	0	0
02	EFFLUENT	99	96	98	0	0
03	INFLUENT	102	96	101	0	0
04	EFFLUENTMS	96	95	100	0	0
05	EFFLUENTMSD	94	92	93	0	0
06	VBLKTT	104	100	99	0	0
07	VBLKPD	106	101	102	0	0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3. By fraction (VOA, SV, PEST) – surrogate spike analysis results (Form II) by matrix (Water and/or Soil) and for soil, by concentration (Low or Medium).

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENTMSD

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445462

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN045462A53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	51	
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	56	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	56	
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	56	
108-90-7	Chlorobenzene	57	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENTMS

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445461

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN045461A53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	53	
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	56	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	55	
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	56	
108-90-7	Chlorobenzene	56	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

INFLUENT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445465

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CR045465C53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/19/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 3/90

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INFLUENT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445465

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CR045465C53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/19/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	3	J
67-66-3	Chloroform	1	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	47	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	42	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445460

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN045460A53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445460

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN045460A53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BETWEEN

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445464

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN045464A53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BETWEEN

Lab Name: COMPUCHEM,RTP Contract: (3-90)-REVS

Lab Code: COMPU Case No.: 23861 SAS No.: _____ SDG No.: 7

Matrix: (soil/water) WATER Lab Sample ID: 445464

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN045464A53

Level: (low/med) LOW Date Received: 09/15/91

% Moisture: not dec. ____ Date Analyzed: 09/18/91

GC Column: DB624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA 3/90

2. By fraction (VOA, SV, PEST) and by sample within each fraction – tabulated target compound results (Form I) and tentatively identified compounds (Form I, TIC) (VOA and SV only).

COMPUCHEM LABORATORIES, INC.

3) CompuChem provides, with OWA-generated hardcopy, mass spectral information on target analytes detected in samples. The OWA-generated spectra are presented on two pages, while the same spectral information is presented on one page from the Incos-500 system.

In some cases, minor differences may be apparent in the retention time (scan number) of a detected target analyte as it appears on the Incos 500 Quantitation Report and the scan number appearing on the mass spectrum for that compound. The differences (no more than a few scans) are a result of the software algorithm which presents the scan number of the apex of the quantitation ion peak on the Quantitation Report and presents, on the mass spectrum, the scan number which produces the spectrum of the target analyte most closely matching the reference spectrum of that same target analyte.

4) For those clients choosing to have library searches performed for Tentatively Identified Compounds (TICs), minor differences may be apparent in the deliverables documentation. The differences specifically relate to the retention time of a TIC as it appears on the actual library search display versus the retention time appearing on the TIC summary form. These differences apply to situations in which more than one compound is present underneath the peak visible on the RIC. The retention time differences (no more than a few scans) are a result of the Incos 500 library search software algorithm which can differentiate changes in total ion intensity and distinguish an apex of a smaller peak coeluting with other constituents within a single visible peak.

We hope this information is beneficial. However, should there be any question regarding the Incos 500 GC/MS deliverables documentation, please feel free to contact your Account Administrator at 1-800-833-5097.

Robert E. Meierer

Robert E. Meierer
Vice President of QA

BE/jhp

COMPUCHEM LABORATORIES, INC.

Notification To Clients Regarding Deliverables Generated By
New Gas Chromatograph / Mass Spectrometer (GC/MS) System

CompuChem has recently purchased several of the Finnigan Incos 500 GC/MS systems to complement our Finnigan OWA GC/MS systems. We are excited about the performance of these instruments and their compatibility with our instrumentation network system.

Depending on the type of deliverables packages requested, a variety of instrument-generated raw data may be included in our reports. As a service to our clients, the following is a listing of the major differences that will be apparent when comparing our current raw data deliverables to those generated by the new Incos 500 systems.

1) One of the most apparent changes in the Incos 500-generated raw data pertains to the Reconstructed Ion Chromatogram (RIC). In viewing a hardcopy of an OWA-generated RIC the baseline is presented at the bottom of the page, peaks rise and, for internal standards and surrogates the peaks are labelled with alpha-numeric identifiers, e.g. - IS #1 means Internal Standard #1. The identifiers are keyed to descriptions on the GC/MS Quantitation Report. At the very top of the RIC the OWA-generated hardcopy contains "header" information similar to that presented on the Quantitation Report. In viewing a hardcopy of an Incos 500-generated RIC, the baseline is presented along the left-hand side of the page, peaks are presented horizontally, and the internal standards and surrogates are labelled with the actual compound names on the RIC. The header information is presented at the top of the RIC.

Regarding the RIC, whereas the OWA-generated volatile RIC is a single page, the Incos-500 RIC presentation for volatiles contains two pages and the semi-volatile RIC contains three pages.

2) The RIC header information generated by the Incos 500 system contains many data elements and includes GC/MS data file numbers for the tune, calibration and blank associated with the sample being reported. As is normal convention, the instrument identifier (number) is included in the sample file number for both the Incos 500 and the Finnigan OWA systems.

COMPUCHEM LABORATORIES, INC.

QUALITY ASSURANCE NOTICE

Specific guidelines are presented in the EPA CLP Organic Statement of work for the positive qualitative identification of compounds through mass spectral interpretation. Applying these guidelines absolutely may not be possible when the nature of the sample is less than pure reference material. Where the mass spectral pattern of a compound to be identified demostrates interferences or coelution from one or more additional compounds, either unknowns, internal standards, or surrogate standards, the "+" sign is added to the top of the dual spectra page.

Linda Fowler
Sr. Quality Assurance Specialist

Robert E. Meierer
Vice President, Quality Assurance

DATA REPORTING QUALIFIERS - PAGE 2

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined flag, discussed below.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified TCL compound.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG Narrative. If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B", and "D" flags for some sample. The laboratory-defined flags are limited to the letters "X", "Y", and "Z".

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DATA REPORTING QUALIFIERS

VALUE - If the result is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

U - Indicates compound was analyzed for but not detected. The sample Quantitation Limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U) \times df}{D} \quad \text{where } D = \frac{100 - \%\ \text{moisture}}{100}$$

and df = dilution factor

$$\text{At 24\% moisture, } D = \frac{100 - 24}{100} = 0.76$$

$$\frac{(330\ U)}{.76} \times 10 = 4300\ U$$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However if a sample extract cannot be concentratred to the protocol-specifed volume, this fact must be accounted for in reporting the sample quantitation limit.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero. For example, if the sample quantitation limit is 10 ug/l, but a concentration of 3 ug/l is calculated, report it as 3J. The sample quantitation limit must be adjusted for dilution as dicussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.

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pH Summary

COMPUCHEM #	SAMPLE ID	pH
445464	BETWEEN	1
445460	EFFLUENT	1
445465	INFLUENT	1

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Jean M. Zimmerman
Jean M. Zimmerman
Technical Reviewer
October 9, 1991

Audited by:

Cindy E. Edwards 10/09/91
Cynthia Edwards
Final Technical Reviewer

Note: This report is paginated for reference and accountability.

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SDG NARRATIVE -- CASE 23861
SDG NO. 07
Contract No. (3-90)-REVS
Compuchem Laboratories, Inc.

Samples: BETWEEN, EFFLUENT, INFLUENT

Attached are pertinent Quality Assurance Notices dealing with the analysis of three (3) water samples associated with Case 23861, SDG No. 07. The samples listed above were received intact on September 15, 1991 in properly sealed shipping containers with the corresponding chain-of-custody documents. The samples were logged into the Compuchem Laboratory Management system and scheduled for the analysis of the volatile fraction. The pH values of the samples are summarized on the attached pH summary sheet. The pH values of all samples were 1.

As per client request, the sample ID for the sample originally listed on the chain-of-custody document as FILTEREFF, was changed to BETWEEN.

Volatiles
The samples were analyzed within the proper holding time requirements. EPA target compound list (TCL) compounds 1,2-dichloroethene, chloroform, trichloroethene, and tetrachloroethene were detected in sample INFLUENT and TCL compound methylene chloride was detected in samples EFFLUENT and BETWEEN. None of the samples contained tentatively identified compounds (TICs).

In the volatile fraction, recovery and RPD values met QC limits in the matrix spike, EFFLUENTMS, and the matrix spike duplicate, EFFLUENTMSD. In addition to the spiking compounds, methylene chloride was present in the MS and the MSD.

TCL compounds methylene chloride and acetone were detected in the two volatile instrument blanks. No TICs were detected in the instrument blanks. Surrogate recovery values for the samples, the blanks, and the sample spikes met contract required QC limits.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature:

1. Case/SDG Narrative

23861 7 SAMPLE DATA SUMMARY

A. SAMPLE DATA SUMMARY PACKAGE

The Sample Data Summary Package shall contain data for samples in one Sample Delivery Group (SDG) of the Case, as follows:

1. Case/SDG Narrative

2. By fraction (VOA, SV, PEST) and by sample within each fraction – tabulated target compound results (Form I) and tentatively identified compounds (Form I, TIC) (VOA and SV only).

3. By fraction (VOA, SV, PEST) – surrogate spike analysis results (Form II) by matrix (Water and/or Soil) and for soil, by concentration (Low or Medium).

4. By fraction (VOA, SV, PEST) – matrix spike/matrix spike duplicate results (Form III).

5. By fraction (VOA, SV, PEST) – blank data (Form IV) and tabulated results (Form I) including tentatively identified compounds (Form I, TIC) (VOA and SV only).

6. By fraction (VOA and SV only) – internal standard area data (Form VIII)

LAB CODE : COMPU

CASE # : 23861

SDG # : 7

SAS# :

CONTRACT# : (3-90)-REVS