WESTON • SPER
Region II
300 McGaw Drive - 2nd Floor, Raritan Center
Edison, NJ 08837 • (201) 225-6116

TECHNICAL ASSIS~~TANCE~~ TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-6669

TRANSMITTAL MEMO

TO: Paula Cammarata
Response and Prevention Branch, U.S. EPA

FROM: Therese Perrette
TAT Region II

SUBJECT: Documentation of Transmittal

DATE: July 31, 1987

The purpose of this memo is to transmit the following information:

SITE: Rhymek Highway (TUTU)
Virgin Islands

SUBJECT: Original Data Package
for 9 Volatile Organics
Analyses on well water

cc: TAT PM Mike Mentzel
TAT FILE 8707-L4

251658

Draft

ANALYSIS OF WATER SAMPLES FOR VOLATILE ORGANIC COMPOUNDS
ROY F. WESTON INC. PROJECT # TS/131

CLIENT: ROY F. WESTON INC.
TAT TEAM, REGION II
1090 KING GEORGES RD.
EDISON, N.J. 08837

REQUESTED BY: MS. T. PERRETTI

Thomas Sabatino
C.A.L. TECHNOLOGIES INC.
7/30/87

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C.A.L. TECHNOLOGIES INC. ENVIRONMENTAL, ANALYTICAL LABORATORIES
19 ROSS STREET, SOMERVILLE, NEW JERSEY 08876, (201) 725-6927

ANALYSIS OF VOLATILE ORGANIC COMPOUNDS IN WATER BY USEPA METHOD 8240, GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY, FORM VOAFORM1

CLIENT	~~ROY F.~~ WESTON INC.	GC/MS REF#	V005A16A.D
SAMPLE #	090809	MATRIX	WATER
COLLECTED	7/22/87	DATE ANALYZED	7/26/87
C.A.L. #	87-473	ANALYST	SABATINO
DATE REC.	7/24/87	REPORT DATE	7/30/87

COMPOUND	CONCENTRATION UG/L	PQL (2) UG/L
Chloromethane	N.D. < 10 (1)	10
Bromomethane	N.D. < 10	10
Vinyl Chloride	N.D. < 10	10
Chloroethane	N.D. < 10	10
Methylene Chloride	N.D. < 5	5
Trichlorofluoromethane	N.D. < 5	5
1,1-Dichloroethene	N.D. < 5	5
1,1-Dichloroethane	N.D. < 5	5
trans-1,2-Dichloroethene	N.D. < 5	5
Chloroform	N.D. < 5	5
1,2-Dichloroethane	N.D. < 5	5
1,1,1-Trichloroethane	N.D. < 5	5
Carbon Tetrachloride	N.D. < 5	5
Bromodichloromethane	N.D. < 5	5
1,2-Dichloropropane	N.D. < 5	5
cis-1,3-Dichloropropene	N.D. < 5	5
Trichloroethene	6.95	5
Benzene	N.D. < 5	5
Dibromochloromethane	N.D. < 5	5
1,1,2-Trichloroethane	N.D. < 5	5
trans-1,3-Dichloropropene	N.D. < 10	10
2-Chloroethylvinyl Ether	N.D. < 10	10
Bromoform	N.D. < 5	5
1,1,2,2-Tetrachloroethane	N.D. < 5	5
Tetrachloroethene	102	5
Toluene	5.70	5
Chlorobenzene	N.D. < 5	5
Ethylbenzene	N.D. < 5	5
1,3 + 1,4- Xylene Isomers	N.D. < 5	5
1,2-Xylene	N.D. < 5	5
1,2-Dichlorobenzene	N.D. < 5	5
1,3-Dichlorobenzene	N.D. < 5	5
1,4-Dichlorobenzene	N.D. < 5	5

(1) N.D. = Non-Detectable, less than concentration indicated
(2) Practical Quantitation Limit

GC/MS REFERENCE # V005A16A.D

SURROGATE COMPOUND RECOVERY	CONCENTRATION UG/L ADDED	FOUND	%RECOVERY
Bromochloromethane	24.00	25.73	107
Pentafluorobenzene	24.00	25.97	108
1,2-Dichloroethane D4	24.00	23.44	98
1,4-Difluorobenzene	24.00	25.02	104
Fluorobenzene	24.00	25.29	105
Toluene D8	24.00	24.82	103
2-Bromo-1-Chloropropane	24.00	23.79	99
Chlorobenzene D5	24.00	25.41	106
Ethylbenzene D10	24.00	25.45	106
1,4-Dichlorobutane	24.00	19.09	80
4-Bromofluorobenzene	24.00	24.65	103

NON-TARGET COMPOUNDS CONCENTRATION UG/L (3)

NON-TARGET COMPOUND ANALYSIS NOT REQUESTED BY CLIENT

(3) Concentration Estimated Using D-6 Benzene's Response Factor

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ANALYSIS OF VOLATILE ORGANIC COMPOUNDS IN WATER BY USEPA METHOD 8240, GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY, FORM VOAFORM1

CLIENT	~~ROY F.~~ WESTON INC.	GC/MS REF#	V005A17A.D
SAMPLE #	090810	MATRIX	WATER
COLLECTED	7/22/87	DATE ANALYZED	7/26/87
C.A.L. #	87-474	ANALYST	SABATINO
DATE REC.	7/24/87	REPORT DATE	7/30/87

COMPOUND	CONCENTRATION UG/L	PQL (2) UG/L
Chloromethane	N.D. < 10 (1)	10
Bromomethane	N.D. < 10	10
Vinyl Chloride	N.D. < 10	10
Chloroethane	N.D. < 10	10
Methylene Chloride	N.D. < 5	5
Trichlorofluoromethane	N.D. < 5	5
1,1-Dichloroethene	N.D. < 5	5
1,1-Dichloroethane	N.D. < 5	5
trans-1,2-Dichloroethene	N.D. < 5	5
Chloroform	1.26	5
1,2-Dichloroethane	N.D. < 5	5
1,1,1-Trichloroethane	N.D. < 5	5
Carbon Tetrachloride	N.D. < 5	5
Bromodichloromethane	N.D. < 5	5
1,2-Dichloropropane	N.D. < 5	5
cis-1,3-Dichloropropene	N.D. < 5	5
Trichloroethene	N.D. < 5	5
Benzene	N.D. < 5	5
Dibromochloromethane	N.D. < 5	5
1,1,2-Trichloroethane	N.D. < 5	5
trans-1,3-Dichloropropene	N.D. < 10	10
2-Chloroethylvinyl Ether	N.D. < 10	10
Bromoform	N.D. < 5	5
1,1,2,2-Tetrachloroethane	N.D. < 5	5
Tetrachloroethene	2.92	5
Toluene	6.27	5
Chlorobenzene	N.D. < 5	5
Ethylbenzene	0.83	5
1,3 + 1,4- Xylene Isomers	N.D. < 5	5
1,2-Xylene	N.D. < 5	5
1,2-Dichlorobenzene	N.D. < 5	5
1,3-Dichlorobenzene	N.D. < 5	5
1,4-Dichlorobenzene	N.D. < 5	5

(1) N.D. = Non-Detectable, less than concentration indicated
(2) Practical Quantitation Limit

GC/MS REFERENCE # V005A17A.D

SURROGATE COMPOUND RECOVERY	CONCENTRATION UG/L ADDED	FOUND	%RECOVERY
Bromochloromethane	24.00	25.14	105
Pentafluorobenzene	24.00	25.73	107
1,2-Dichloroethane D4	24.00	21.94	91
1,4-Difluorobenzene	24.00	24.86	104
Fluorobenzene	24.00	25	104
Toluene D8	24.00	25.41	106
2-Bromo-1-Chloropropane	24.00	23.27	97
Chlorobenzene D5	24.00	25.43	106
Ethylbenzene D10	24.00	26	108
1,4-Dichlorobutane	24.00	16.4	68
4-Bromofluorobenzene	24.00	23.66	99

NON-TARGET COMPOUNDS CONCENTRATION UG/L (3)

NON-TARGET COMPOUND ANALYSIS NOT REQUESTED BY CLIENT

(3) Concentration Estimated Using D-6 Benzene's Response Factor

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ANALYSIS OF VOLATILE ORGANIC COMPOUNDS IN WATER BY USEPA METHOD 8240, GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY, FORM VOAFORM1

CLIENT ~~ROY F.~~ WESTON INC.		GC/MS REF#	V005A18A.D
SAMPLE #	090811	MATRIX	WATER
COLLECTED	7/22/87	DATE ANALYZED	7/26/87
C.A.L. #	87-475	ANALYST	SABATINO
DATE REC.	7/24/87	REPORT DATE	7/30/87

COMPOUND	CONCENTRATION UG/L	PQL (2) UG/L
Chloromethane	N.D. < 10 (1)	10
Bromomethane	N.D. < 10	10
Vinyl Chloride	N.D. < 10	10
Chloroethane	N.D. < 10	10
Methylene Chloride	N.D. < 5	5
Trichlorofluoromethane	N.D. < 5	5
1,1-Dichloroethene	N.D. < 5	5
1,1-Dichloroethane	N.D. < 5	5
trans-1,2-Dichloroethene	N.D. < 5	5
Chloroform	1.01	5
1,2-Dichloroethane	N.D. < 5	5
1,1,1-Trichloroethane	N.D. < 5	5
Carbon Tetrachloride	N.D. < 5	5
Bromodichloromethane	N.D. < 5	5
1,2-Dichloropropane	N.D. < 5	5
cis-1,3-Dichloropropene	N.D. < 5	5
Trichloroethene	18.8	5
Benzene	6.69	5
Dibromochloromethane	N.D. < 5	5
1,1,2-Trichloroethane	N.D. < 5	5
trans-1,3-Dichloropropene	N.D. < 10	10
2-Chloroethylvinyl Ether	N.D. < 10	10
Bromoform	N.D. < 5	5
1,1,2,2-Tetrachloroethane	N.D. < 5	5
Tetrachloroethene	64.2	5
Toluene	5.93	5
Chlorobenzene	N.D. < 5	5
Ethylbenzene	8.86	5
1,3 + 1,4- Xylene Isomers	N.D. < 5	5
1,2-Xylene	N.D. < 5	5
1,2-Dichlorobenzene	N.D. < 5	5
1,3-Dichlorobenzene	N.D. < 5	5
1,4-Dichlorobenzene	N.D. < 5	5

(1) N.D. = Non-Detectable, less than concentration indicated
(2) Practical Quantitation Limit

GC/MS REFERENCE # V005A18A.D

SURROGATE COMPOUND RECOVERY	CONCENTRATION UG/L ADDED	FOUND	%RECOVERY
Bromochloromethane	24.00	25	104
Pentafluorobenzene	24.00	25.67	107
1,2-Dichloroethane D4	24.00	22.66	94
1,4-Difluorobenzene	24.00	24.78	103
Fluorobenzene	24.00	25	104
Toluene D8	24.00	25.42	106
2-Bromo-1-Chloropropane	24.00	23.46	98
Chlorobenzene D5	24.00	26.1	109
Ethylbenzene D10	24.00	26.28	110
1,4-Dichlorobutane	24.00	17.47	73
4-Bromofluorobenzene	24.00	24.53	102

NON-TARGET COMPOUNDS CONCENTRATION UG/L (3)

NON-TARGET COMPOUND ANALYSIS NOT REQUESTED BY CLIENT

(3) Concentration Estimated Using D-6 Benzene's Response Factor

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ANALYSIS OF VOLATILE ORGANIC COMPOUNDS IN WATER BY USEPA METHOD 8240, GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY, FORM VOAFORM1

CLIENT	ROY F. WESTON INC.	GC/MS REF#	V005A19A.D
SAMPLE #	090812	MATRIX	WATER
COLLECTED	7/22/87	DATE ANALYZED	7/26/87
C.A.L. #	87-476	ANALYST	SABATINO
DATE REC.	7/24/87	REPORT DATE	7/30/87

COMPOUND	CONCENTRATION UG/L	PQL (2) UG/L
Chloromethane	N.D. < 10 (1)	10
Bromomethane	N.D. < 10	10
Vinyl Chloride	N.D. < 10	10
Chloroethane	N.D. < 10	10
Methylene Chloride	N.D. < 5	5
Trichlorofluoromethane	N.D. < 5	5
1,1-Dichloroethene	N.D. < 5	5
1,1-Dichloroethane	N.D. < 5	5
trans-1,2-Dichloroethene	N.D. < 5	5
Chloroform	0.97	5
1,2-Dichloroethane	N.D. < 5	5
1,1,1-Trichloroethane	N.D. < 5	5
Carbon Tetrachloride	N.D. < 5	5
Bromodichloromethane	N.D. < 5	5
1,2-Dichloropropane	N.D. < 5	5
cis-1,3-Dichloropropene	N.D. < 5	5
Trichloroethene	18.6	5
Benzene	6.59	5
Dibromochloromethane	N.D. < 5	5
1,1,2-Trichloroethane	N.D. < 5	5
trans-1,3-Dichloropropene	N.D. < 10	10
2-Chloroethylvinyl Ether	N.D. < 10	10
Bromoform	N.D. < 5	5
1,1,2,2-Tetrachloroethane	N.D. < 5	5
Tetrachloroethene	61.1	5
Toluene	5.67	5
Chlorobenzene	N.D. < 5	5
Ethylbenzene	0.81	5
1,3 + 1,4- Xylene Isomers	N.D. < 5	5
1,2-Xylene	N.D. < 5	5
1,2-Dichlorobenzene	N.D. < 5	5
1,3-Dichlorobenzene	N.D. < 5	5
1,4-Dichlorobenzene	N.D. < 5	5

(1) N.D. = Non-Detectable, less than concentration indicated
(2) Practical Quantitation Limit

GC/MS REFERENCE # V005A19A.D

SURROGATE COMPOUND RECOVERY	CONCENTRATION UG/L ADDED	FOUND	%RECOVERY
Bromochloromethane	24.00	24.97	104
Pentafluorobenzene	24.00	25.82	108
1,2-Dichloroethane D4	24.00	21.52	90
1,4-Difluorobenzene	24.00	24.78	103
Fluorobenzene	24.00	24.89	104
Toluene D8	24.00	24.28	101
2-Bromo-1-Chloropropane	24.00	22.39	93
Chlorobenzene D5	24.00	25.05	104
Ethylbenzene D10	24.00	25.59	107
1,4-Dichlorobutane	24.00	15.97	67
4-Bromofluorobenzene	24.00	23.45	98

NON-TARGET COMPOUNDS CONCENTRATION UG/L (3)

NON-TARGET COMPOUND ANALYSIS NOT REQUESTED BY CLIENT

(3) Concentration Estimated Using D-6 Benzene's Response Factor

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ANALYSIS OF VOLATILE ORGANIC COMPOUNDS IN WATER BY USEPA METHOD 8240, GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY, FORM VOAFORM1

CLIENT ~~ROY F.~~ WESTON INC.		GC/MS REF#	V005A20A.D
SAMPLE #	090813	MATRIX	WATER
COLLECTED	7/22/87	DATE ANALYZED	7/26/87
C.A.L. #	87-477	ANALYST	SABATINO
DATE REC.	7/24/87	REPORT DATE	7/30/87

COMPOUND	CONCENTRATION UG/L	PQL (2) UG/L
Chloromethane	N.D. < 10 (1)	10
Bromomethane	N.D. < 10	10
Vinyl Chloride	N.D. < 10	10
Chloroethane	N.D. < 10	10
Methylene Chloride	9.25	5
Trichlorofluoromethane	N.D. < 5	5
1,1-Dichloroethene	N.D. < 5	5
1,1-Dichloroethane	N.D. < 5	5
trans-1,2-Dichloroethene	35.0	5
Chloroform	4.98	5
1,2-Dichloroethane	N.D. < 5	5
1,1,1-Trichloroethane	4.47	5
Carbon Tetrachloride	N.D. < 5	5
Bromodichloromethane	9.69	5
1,2-Dichloropropane	N.D. < 5	5
cis-1,3-Dichloropropene	N.D. < 5	5
Trichloroethene	65.3	5
Benzene	633	5
Dibromochloromethane	N.D. < 5	5
1,1,2-Trichloroethane	N.D. < 5	5
trans-1,3-Dichloropropene	N.D. < 10	10
2-Chloroethylvinyl Ether	N.D. < 10	10
Bromoform	N.D. < 5	5
1,1,2,2-Tetrachloroethane	N.D. < 5	5
Tetrachloroethene	200	5
Toluene	48.1	5
Chlorobenzene	N.D. < 5	5
Ethylbenzene	1.59	5
1,3 + 1,4- Xylene Isomers	7.79	5
1,2-Xylene	3.60	5
1,2-Dichlorobenzene	N.D. < 5	5
1,3-Dichlorobenzene	N.D. < 5	5
1,4-Dichlorobenzene	N.D. < 5	5

(1) N.D. = Non-Detectable, less than concentration indicated
(2) Practical Quantitation Limit

GC/MS REFERENCE # V005A20A.D

SURROGATE COMPOUND RECOVERY	CONCENTRATION UG/L ADDED	FOUND	%RECOVERY
Bromochloromethane	24.00	39.8	166
Pentafluorobenzene	24.00	41	171
1,2-Dichloroethane D4	24.00	37.7	157
1,4-Difluorobenzene	24.00	40.6	169
Fluorobenzene	24.00	40.5	169
Toluene D8	24.00	41.8	174
2-Bromo-1-Chloropropane	24.00	39.9	166
Chlorobenzene D5	24.00	41.2	172
Ethylbenzene D10	24.00	41.4	173
1,4-Dichlorobutane	24.00	29.9	125
4-Bromofluorobenzene	24.00	39.8	166

NON-TARGET COMPOUNDS CONCENTRATION UG/L (3)

NON-TARGET COMPOUND ANALYSIS NOT REQUESTED BY CLIENT

(3) Concentration Estimated Using D-6 Benzene's Response Factor

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ANALYSIS OF VOLATILE ORGANIC COMPOUNDS IN WATER BY USEPA METHOD 8240, GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY, FORM VOAFORM1

CLIENT	ROY F. WESTON INC.	GC/MS REF#	V005A21A.D
SAMPLE #	090814	MATRIX	WATER
COLLECTED	7/22/87	DATE ANALYZED	7/26/87
C.A.L. #	87-478	ANALYST	SABATINO
DATE REC.	7/24/87	REPORT DATE	7/30/87

COMPOUND	CONCENTRATION UG/L	PQL (2) UG/L
Chloromethane	N.D. < 10 (1)	10
Bromomethane	N.D. < 10	10
Vinyl Chloride	N.D. < 10	10
Chloroethane	N.D. < 10	10
Methylene Chloride	N.D. < 5	5
Trichlorofluoromethane	N.D. < 5	5
1,1-Dichloroethene	N.D. < 5	5
1,1-Dichloroethane	N.D. < 5	5
trans-1,2-Dichloroethene	N.D. < 5	5
Chloroform	1.11	5
1,2-Dichloroethane	N.D. < 5	5
1,1,1-Trichloroethane	N.D. < 5	5
Carbon Tetrachloride	N.D. < 5	5
Bromodichloromethane	N.D. < 5	5
1,2-Dichloropropane	N.D. < 5	5
cis-1,3-Dichloropropene	N.D. < 5	5
Trichloroethene	9.35	5
Benzene	15.3	5
Dibromochloromethane	N.D. < 5	5
1,1,2-Trichloroethane	N.D. < 5	5
trans-1,3-Dichloropropene	N.D. < 10	10
2-Chloroethylvinyl Ether	N.D. < 10	10
Bromoform	N.D. < 5	5
1,1,2,2-Tetrachloroethane	N.D. < 5	5
Tetrachloroethene	35.7	5
Toluene	5.99	5
Chlorobenzene	N.D. < 5	5
Ethylbenzene	0.89	5
1,3 + 1,4- Xylene Isomers	N.D. < 5	5
1,2-Xylene	N.D. < 5	5
1,2-Dichlorobenzene	N.D. < 5	5
1,3-Dichlorobenzene	N.D. < 5	5
1,4-Dichlorobenzene	N.D. < 5	5

(1) N.D. = Non-Detectable, less than concentration indicated
(2) Practical Quantitation Limit

GC/MS REFERENCE # V005A21A.D

SURROGATE COMPOUND RECOVERY	CONCENTRATION UG/L ADDED	FOUND	%RECOVERY
Bromochloromethane	24.00	24.57	102
Pentafluorobenzene	24.00	25.68	107
1,2-Dichloroethane D4	24.00	21.46	89
1,4-Difluorobenzene	24.00	24.95	104
Fluorobenzene	24.00	25.23	105
Toluene D8	24.00	24.91	104
2-Bromo-1-Chloropropane	24.00	22.56	94
Chlorobenzene D5	24.00	24.64	103
Ethylbenzene D10	24.00	25.56	107
1,4-Dichlorobutane	24.00	15.47	64
4-Bromofluorobenzene	24.00	23.28	97

NON-TARGET COMPOUNDS CONCENTRATION UG/L (3)

NON-TARGET COMPOUND ANALYSIS NOT REQUESTED BY CLIENT

(3) Concentration Estimated Using D-6 Benzene's Response Factor

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ANALYSIS OF VOLATILE ORGANIC COMPOUNDS IN WATER BY USEPA METHOD 8240, GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY, FORM VOAFORM1

CLIENT	ROY F. WESTON INC.	GC/MS REF#	V005A22A.D
SAMPLE #	090815	MATRIX	WATER
COLLECTED	7/22/87	DATE ANALYZED	7/26/87
C.A.L. #	87-479	ANALYST	SABATINO
DATE REC.	7/24/87	REPORT DATE	7/30/87

COMPOUND	CONCENTRATION UG/L	PQL (2) UG/L
Chloromethane	N.D. < 10 (1)	10
Bromomethane	N.D. < 10	10
Vinyl Chloride	N.D. < 10	10
Chloroethane	N.D. < 10	10
Methylene Chloride	N.D. < 5	5
Trichlorofluoromethane	N.D. < 5	5
1,1-Dichloroethene	N.D. < 5	5
1,1-Dichloroethane	N.D. < 5	5
trans-1,2-Dichloroethene	N.D. < 5	5
Chloroform	1.03	5
1,2-Dichloroethane	N.D. < 5	5
1,1,1-Trichloroethane	N.D. < 5	5
Carbon Tetrachloride	N.D. < 5	5
Bromodichloromethane	N.D. < 5	5
1,2-Dichloropropane	N.D. < 5	5
cis-1,3-Dichloropropene	N.D. < 5	5
Trichloroethene	16.5	5
Benzene	3.09	5
Dibromochloromethane	N.D. < 5	5
1,1,2-Trichloroethane	N.D. < 5	5
trans-1,3-Dichloropropene	N.D. < 10	10
2-Chloroethylvinyl Ether	N.D. < 10	10
Bromoform	N.D. < 5	5
1,1,2,2-Tetrachloroethane	N.D. < 5	5
Tetrachloroethene	57.6	5
Toluene	5.86	5
Chlorobenzene	N.D. < 5	5
Ethylbenzene	0.84	5
1,3 + 1,4- Xylene Isomers	N.D. < 5	5
1,2-Xylene	N.D. < 5	5
1,2-Dichlorobenzene	N.D. < 5	5
1,3-Dichlorobenzene	N.D. < 5	5
1,4-Dichlorobenzene	N.D. < 5	5

(1) N.D. = Non-Detectable, less than concentration indicated
(2) Practical Quantitation Limit

GC/MS REFERENCE # V005A22A.D

SURROGATE COMPOUND RECOVERY	CONCENTRATION UG/L ADDED	FOUND	%RECOVERY
Bromochloromethane	24.00	24.62	103
Pentafluorobenzene	24.00	25.6	107
1,2-Dichloroethane D4	24.00	21.82	91
1,4-Difluorobenzene	24.00	25.42	106
Fluorobenzene	24.00	25.67	107
Toluene D8	24.00	25	104
2-Bromo-1-Chloropropane	24.00	22.88	95
Chlorobenzene D5	24.00	24.83	103
Ethylbenzene D10	24.00	25.95	108
1,4-Dichlorobutane	24.00	16.08	67
4-Bromofluorobenzene	24.00	24.12	101

NON-TARGET COMPOUNDS CONCENTRATION UG/L (3)

NON-TARGET COMPOUND ANALYSIS NOT REQUESTED BY CLIENT

(3) Concentration Estimated Using D-6 Benzene's Response Factor

Thomas Sabatino
C.A.L. Technologies Inc.

C.A.L. TECHNOLOGIES INC. ENVIRONMENTAL, ANALYTICAL LABORATORIES
19 ROSS STREET, SOMERVILLE, NEW JERSEY 08876, (201) 725-6927

ANALYSIS OF VOLATILE ORGANIC COMPOUNDS IN WATER BY USEPA METHOD 8240, GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY, FORM VOAFORM1

CLIENT	ROY F. WESTON INC.	GC/MS REF#	V005A23A.D
SAMPLE #	090816	MATRIX	WATER
COLLECTED	7/22/87	DATE ANALYZED	7/27/87
C.A.L. #	87-480	ANALYST	SABATINO
DATE REC.	7/24/87	REPORT DATE	7/30/87

COMPOUND	CONCENTRATION UG/L	PQL (2) UG/L
Chloromethane	N.D. < 10 (1)	10
Bromomethane	N.D. < 10	10
Vinyl Chloride	N.D. < 10	10
Chloroethane	N.D. < 10	10
Methylene Chloride	85.5	5
Trichlorofluoromethane	N.D. < 5	5
1,1-Dichloroethene	N.D. < 5	5
1,1-Dichloroethane	N.D. < 5	5
trans-1,2-Dichloroethene	327	5
Chloroform	50.2	5
1,2-Dichloroethane	N.D. < 5	5
1,1,1-Trichloroethane	58.5	5
Carbon Tetrachloride	N.D. < 5	5
Bromodichloromethane	71.6	5
1,2-Dichloropropane	N.D. < 5	5
cis-1,3-Dichloropropene	N.D. < 5	5
Trichloroethene	711	5
Benzene	6950	5
Dibromochloromethane	1460	5
1,1,2-Trichloroethane	N.D. < 5	5
trans-1,3-Dichloropropene	N.D. < 10	10
2-Chloroethylvinyl Ether	N.D. < 10	10
Bromoform	N.D. < 5	5
1,1,2,2-Tetrachloroethane	N.D. < 5	5
Tetrachloroethene	2040	5
Toluene	452	5
Chlorobenzene	N.D. < 5	5
Ethylbenzene	951	5
1,3 + 1,4- Xylene Isomers	N.D. < 5	5
1,2-Xylene	N.D. < 5	5
1,2-Dichlorobenzene	N.D. < 5	5
1,3-Dichlorobenzene	N.D. < 5	5
1,4-Dichlorobenzene	N.D. < 5	5

(1) N.D. = Non-Detectable, less than concentration indicated
(2) Practical Quantitation Limit

GC/MS REFERENCE # V005A23A.D

SURROGATE COMPOUND RECOVERY	CONCENTRATION UG/L ADDED	FOUND	%RECOVERY
Bromochloromethane	24.00	39.04	163
Pentafluorobenzene	24.00	41.9	175
1,2-Dichloroethane D4	24.00	7.55	31
1,4-Difluorobenzene	24.00	41.72	174
Fluorobenzene	24.00	41.15	171
Toluene D8	24.00	43.19	180
2-Bromo-1-Chloropropane	24.00	39.79	166
Chlorobenzene D5	24.00	15.12	63
Ethylbenzene D10	24.00	43.69	182
1,4-Dichlorobutane	24.00	26.18	109
4-Bromofluorobenzene	24.00	40.17	167

NON-TARGET COMPOUNDS CONCENTRATION UG/L (3)

NON-TARGET COMPOUND ANALYSIS NOT REQUESTED BY CLIENT

(3) Concentration Estimated Using D-6 Benzene's Response Factor

Thomas Sabatino
C.A.L. Technologies Inc.

C.A.L. TECHNOLOGIES INC. ENVIRONMENTAL, ANALYTICAL LABORATORIES
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ANALYSIS OF VOLATILE ORGANIC COMPOUNDS IN WATER BY USEPA METHOD 8240, GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY, FORM VOAFORM1

CLIENT	ROY F. WESTON INC.	GC/MS REF#	V005A32A.D
SAMPLE #	090817	MATRIX	WATER
COLLECTED	7/22/87	DATE ANALYZED	7/27/87
C.A.L. #	87-481	ANALYST	SABATINO
DATE REC.	7/24/87	REPORT DATE	7/30/87

COMPOUND	CONCENTRATION UG/L	PQL (2) UG/L
Chloromethane	N.D. < 10 (1)	10
Bromomethane	N.D. < 10	10
Vinyl Chloride	N.D. < 10	10
Chloroethane	N.D. < 10	10
Methylene Chloride	N.D. < 5	5
Trichlorofluoromethane	N.D. < 5	5
1,1-Dichloroethene	N.D. < 5	5
1,1-Dichloroethane	N.D. < 5	5
trans-1,2-Dichloroethene	N.D. < 5	5
Chloroform	0.74	5
1,2-Dichloroethane	N.D. < 5	5
1,1,1-Trichloroethane	N.D. < 5	5
Carbon Tetrachloride	N.D. < 5	5
Bromodichloromethane	N.D. < 5	5
1,2-Dichloropropane	N.D. < 5	5
cis-1,3-Dichloropropene	N.D. < 5	5
Trichloroethene	N.D. < 5	5
Benzene	N.D. < 5	5
Dibromochloromethane	N.D. < 5	5
1,1,2-Trichloroethane	N.D. < 5	5
trans-1,3-Dichloropropene	N.D. < 10	10
2-Chloroethylvinyl Ether	N.D. < 10	10
Bromoform	N.D. < 5	5
1,1,2,2-Tetrachloroethane	N.D. < 5	5
Tetrachloroethene	N.D. < 5	5
Toluene	5.65	5
Chlorobenzene	N.D. < 5	5
Ethylbenzene	0.79	5
1,3 + 1,4- Xylene Isomers	N.D. < 5	5
1,2-Xylene	N.D. < 5	5
1,2-Dichlorobenzene	N.D. < 5	5
1,3-Dichlorobenzene	N.D. < 5	5
1,4-Dichlorobenzene	N.D. < 5	5

(1) N.D. = Non-Detectable, less than concentration indicated
(2) Practical Quantitation Limit

GC/MS REFERENCE # V005A32A.D

SURROGATE COMPOUND RECOVERY	CONCENTRATION UG/L ADDED	FOUND	%RECOVERY
Bromochloromethane	24.00	20.7	86
Pentafluorobenzene	24.00	25.45	106
1,2-Dichloroethane D4	24.00	16.12	67
1,4-Difluorobenzene	24.00	25.06	104
Fluorobenzene	24.00	25.66	107
Toluene D8	24.00	24.55	102
2-Bromo-1-Chloropropane	24.00	19.21	80
Chlorobenzene D5	24.00	23.21	97
Ethylbenzene D10	24.00	25.52	106
1,4-Dichlorobutane	24.00	10.71	45
4-Bromofluorobenzene	24.00	20.37	85

NON-TARGET COMPOUNDS CONCENTRATION UG/L (3)

NON-TARGET COMPOUND ANALYSIS NOT REQUESTED BY CLIENT

(3) Concentration Estimated Using D-6 Benzene's Response Factor

Thomas Sabatino
C.A.L. Technologies Inc.

C.A.L. TECHNOLOGIES INC. ENVIRONMENTAL, ANALYTICAL LABORATORIES
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ANALYSIS OF VOLATILE ORGANIC COMPOUNDS IN WATER BY USEPA METHOD 8240, GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY, FORM VOAFORM1

CLIENT	~~ROY F.~~ WESTON INC.	GC/MS REF#	V005A25A.D
SAMPLE #	LABORATORY BLANK	MATRIX	WATER
COLLECTED	7/27/87	DATE ANALYZED	7/27/87
C.A.L. #	87-481B	ANALYST	SABATINO
DATE REC.	7/27/87	REPORT DATE	7/30/87

COMPOUND	CONCENTRATION UG/L	PQL (2) UG/L
Chloromethane	N.D. < 10 (1)	10
Bromomethane	N.D. < 10	10
Vinyl Chloride	N.D. < 10	10
Chloroethane	N.D. < 10	10
Methylene Chloride	N.D. < 5	5
Trichlorofluoromethane	N.D. < 5	5
1,1-Dichloroethene	N.D. < 5	5
1,1-Dichloroethane	N.D. < 5	5
trans-1,2-Dichloroethene	N.D. < 5	5
Chloroform	N.D. < 5	5
1,2-Dichloroethane	N.D. < 5	5
1,1,1-Trichloroethane	N.D. < 5	5
Carbon Tetrachloride	N.D. < 5	5
Bromodichloromethane	N.D. < 5	5
1,2-Dichloropropane	N.D. < 5	5
cis-1,3-Dichloropropene	N.D. < 5	5
Trichloroethene	N.D. < 5	5
Benzene	4.73	5
Dibromochloromethane	N.D. < 5	5
1,1,2-Trichloroethane	N.D. < 5	5
trans-1,3-Dichloropropene	N.D. < 10	10
2-Chloroethylvinyl Ether	N.D. < 10	10
Bromoform	N.D. < 5	5
1,1,2,2-Tetrachloroethane	N.D. < 5	5
Tetrachloroethene	N.D. < 5	5
Toluene	5.27	5
Chlorobenzene	N.D. < 5	5
Ethylbenzene	0.8	5
1,3 + 1,4- Xylene Isomers	N.D. < 5	5
1,2-Xylene	N.D. < 5	5
1,2-Dichlorobenzene	N.D. < 5	5
1,3-Dichlorobenzene	N.D. < 5	5
1,4-Dichlorobenzene	N.D. < 5	5

(1) N.D. = Non-Detectable, less than concentration indicated
(2) Practical Quantitation Limit

GC/MS REFERENCE # V005A25A.D

SURROGATE COMPOUND RECOVERY	CONCENTRATION UG/L ADDED	FOUND	%RECOVERY
Bromochloromethane	24.00	27.16	113
Pentafluorobenzene	24.00	25.7	107
1,2-Dichloroethane D4	24.00	24.72	103
1,4-Difluorobenzene	24.00	24.87	104
Fluorobenzene	24.00	25.35	106
Toluene D8	24.00	24.78	103
2-Bromo-1-Chloropropane	24.00	24.39	102
Chlorobenzene D5	24.00	25.04	104
Ethylbenzene D10	24.00	25.63	107
1,4-Dichlorobutane	24.00	22.39	93
4-Bromofluorobenzene	24.00	24.38	102

NON-TARGET COMPOUNDS CONCENTRATION UG/L (3)

NON-TARGET COMPOUND ANALYSIS NOT REQUESTED BY CLIENT

(3) Concentration Estimated Using D-6 Benzene's Response Factor

Thomas Sabatino
C.A.L. Technologies Inc.

APPENDIX II: DUPLICATE ANALYTICAL RESULTS FOR VOLATILE ORGANIC ANALYSES

C.A.L. TECHNOLOGIES INC. ENVIRONMENTAL, ANALYTICAL LABORATORIES
19 ROSS STREET, SOMERVILLE, NEW JERSEY 08876, (201) 725-6927

ANALYSIS OF VOLATILE ORGANIC COMPOUNDS IN WATER BY USEPA METHOD
METHOD 8240, GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY, FORM VOAFORM5

RESULTS OF FORTIFIED DUPLICATE ANALYSIS

CLIENT	ROY F. WESTON INC.	MATRIX	WATER
SAMPLE #	090817	DATE ANALYZED	7/27/87
C.A.L. #	87-481S	ANALYST	SABATINO
DATE REC.	7/24/87	REPORT DATE	7/30/87
GC/MS REF#	V005A34A.D		

COMPOUND	CONCENTRATION UG/L ADDED	FOUND	%RECOVERY
1,1-Dichloroethene	26.70	27.94	105
Benzene	26.70	27.80	104
Trichloroethene	26.70	28.31	106
Toluene	26.70	27.15	102
Chlorobenzene	26.70	29.93	112

SURROGATE COMPOUND RECOVERY	CONCENTRATION UG/L ADDED	FOUND	%RECOVERY
Bromochloromethane	24.00	27.13	113
Pentafluorobenzene	24.00	23.48	98
1,2-Dichloroethane D4	24.00	24.36	102
1,4-Difluorobenzene	24.00	24.22	101
Fluorobenzene	24.00	24.72	103
Toluene D8	24.00	25.06	104
2-Bromo-1-Chloropropane	24.00	24.20	101
Chlorobenzene D5	24.00	24.94	104
Ethylbenzene D10	24.00	25.42	106
1,4-Dichlorobutane	24.00	25.78	107
4-Bromofluorobenzene	24.00	23.92	100

Thomas Sabatino
C.A.L. Technologies Inc.

APPENDIX III: TOTAL ION CHROMATOGRAMS FOR STANDARS, BLANKS AND SAMPLES: VOLATILE ORGANIC ANALYSES

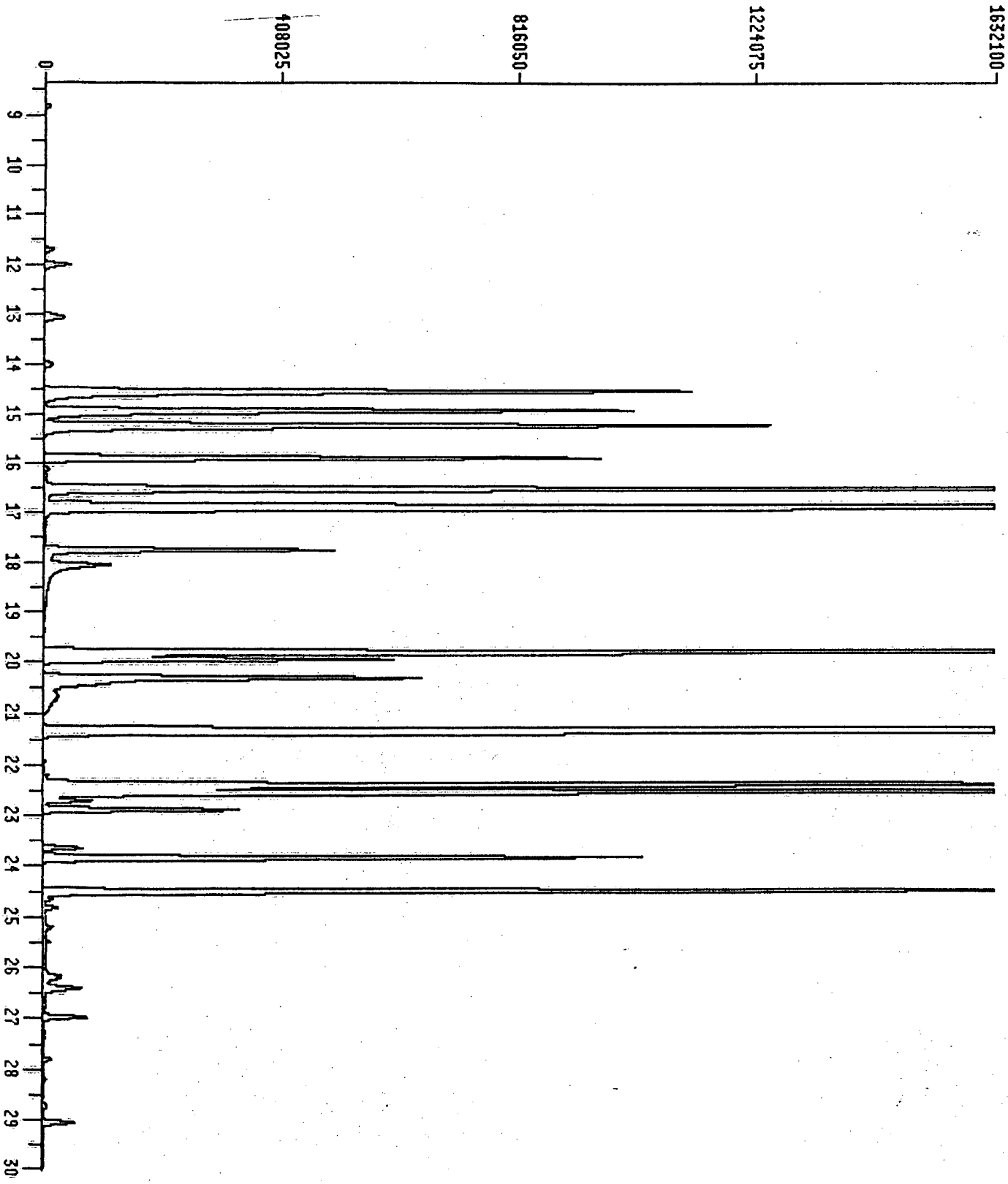
Data file: DATA:V005A16A.D
File type: GC / MS DATA FILE

Name Info: RFW WATER SAMPLE #473 COLL. 7/22/87 5.0 MLS 090809
Misc Info: + 24.0 PPB ISS 1400 EMV
Operator : T. SABATINO

Date : 26 Jul 87 7:41 pm
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A16A.D



End of plot. Time = 8.38 to 30.01 minutes Chart speed = 0.91 cm/min

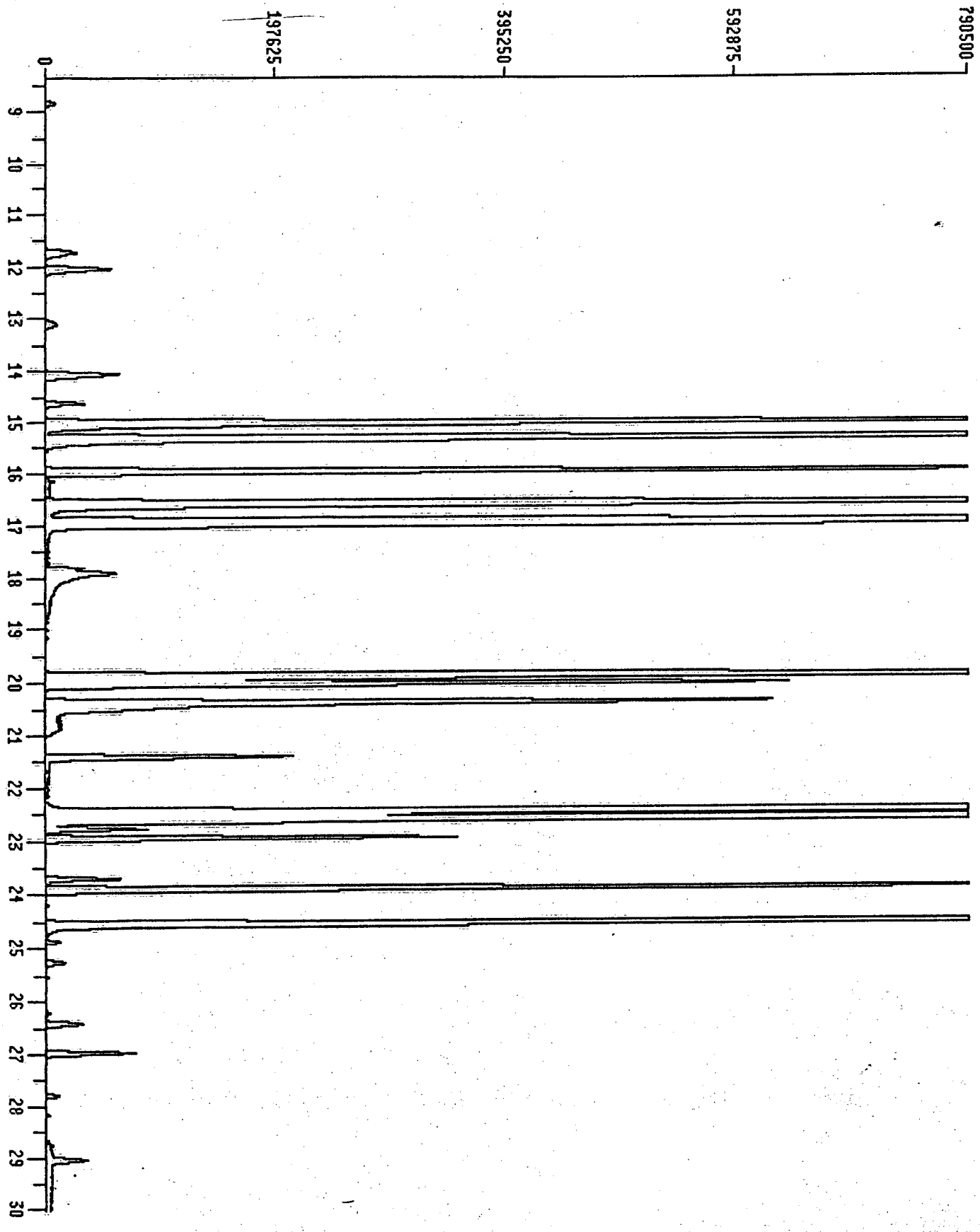
Data file: DATA:V005A17A.D
File type: GC / MS DATA FILE

Name Info: RFW WATER SAMPLE #474 COLL. 7/22/87 5.0 MLS 090810
Misc Info: + 24.0 PPB ISS 1400 EMV
Operator : T. SABATINO

Date : 26 Jul 87 8:17 pm
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A17A.D



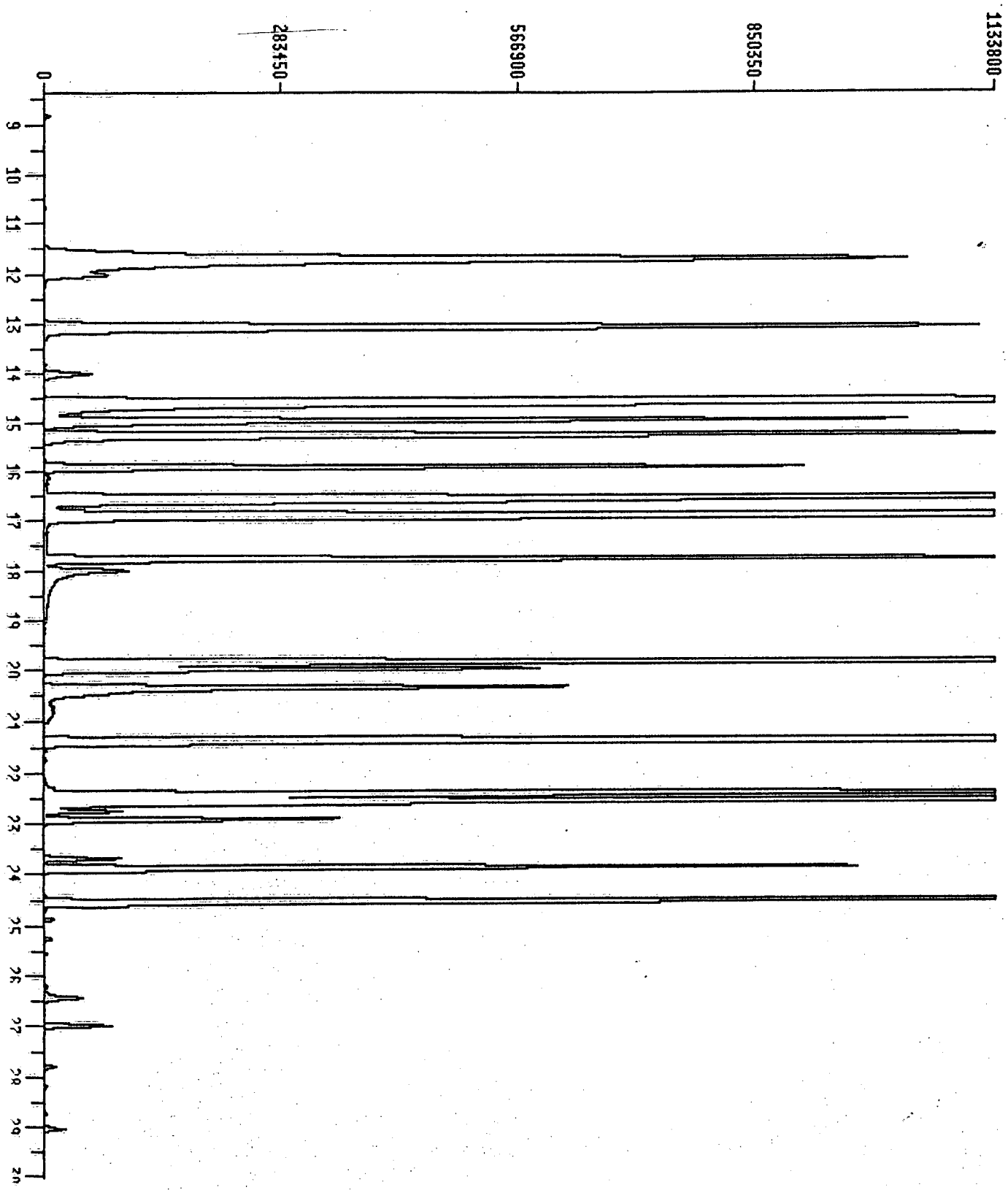
Data file: DATA:V005A18A.D
File type: GC / MS DATA FILE

Name Info: RFW WATER SAMPLE #475 COLL. 7/22/87 5.0 MLS 090811
Misc Info: + 24.0 PPB ISS 1400 EMV
Operator : T. SABATINO

Date : 26 Jul 87 8:58 pm
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A18A.D



End of plot. Time = 8.38 to 30.01 minutes Chart speed = 0.91 cm/min

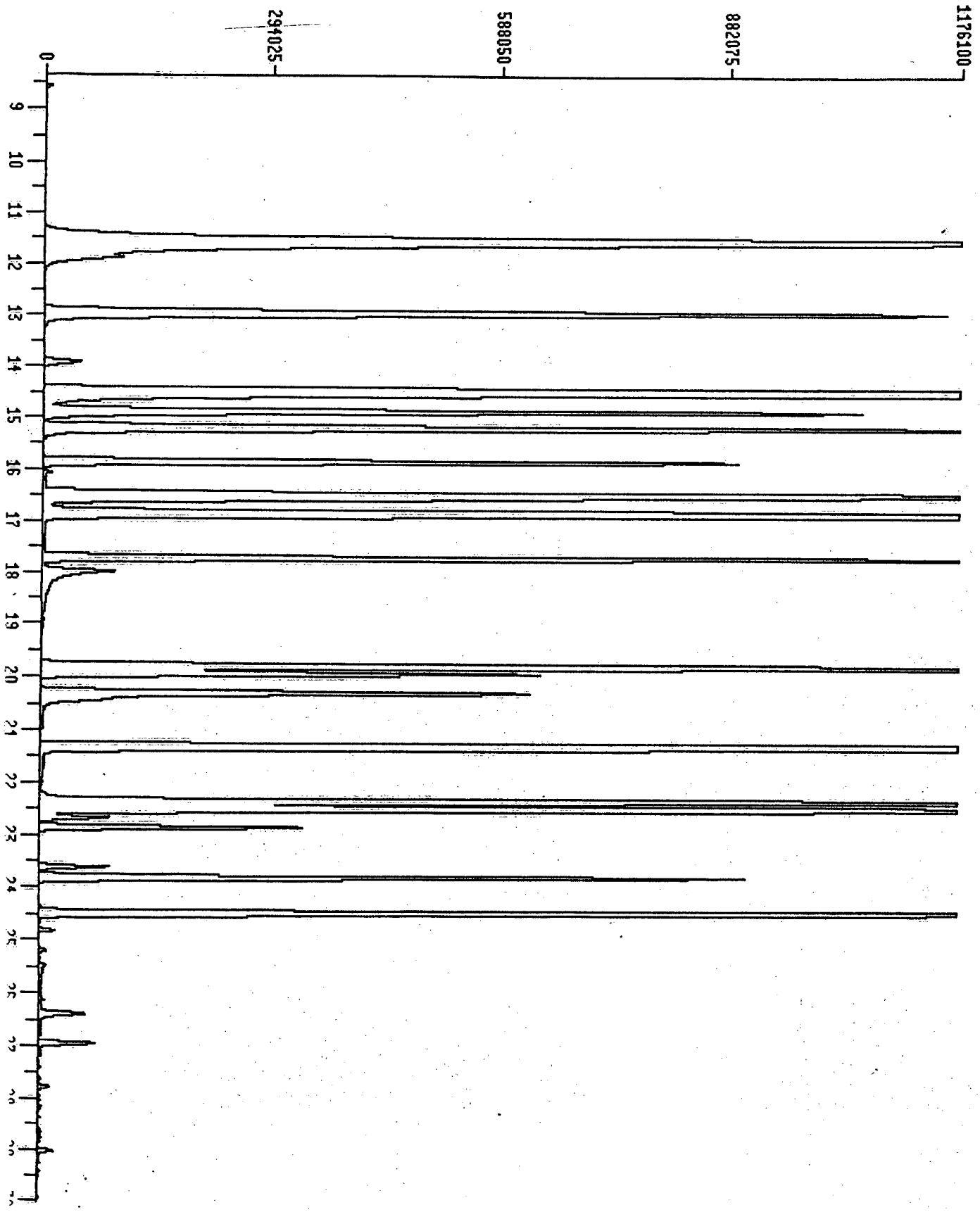
Data file: DATA:V005A19A.D
File type: GC / MS DATA FILE

Name Info: RFW WATER SAMPLE #476 COLL. 7/22/87 5.0 MLS 090812
Misc Info: + 24.0 PPB ISS 1400 EMV
Operator : T. SABATINO

Date : 26 Jul 87 9:43 pm
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A19A.D



nd of plot. Time = 8.38 to 30.01 minutes Chart speed = 0.92 cm/min

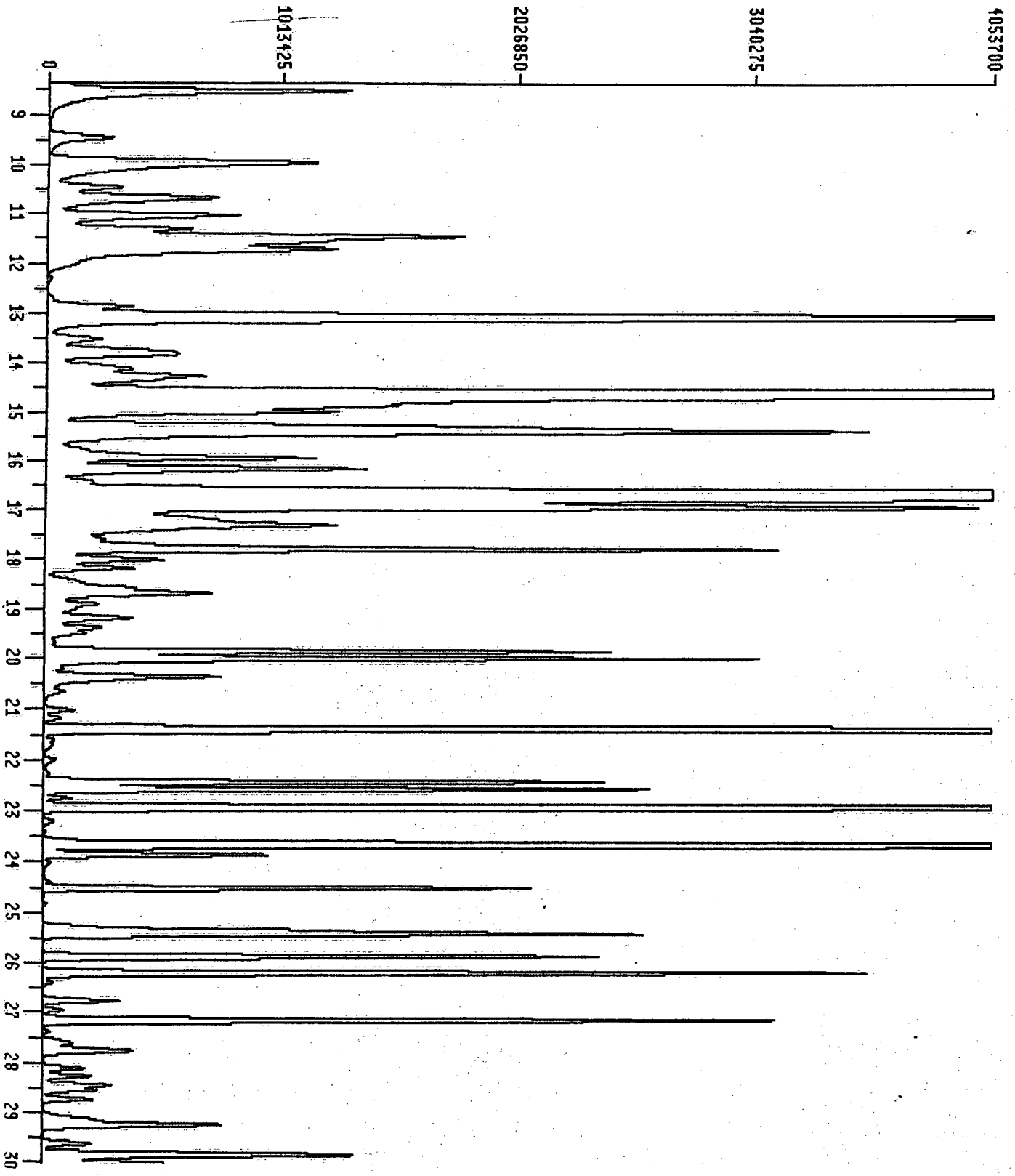
Data file: DATA:V005A20A.D
File type: GC / MS DATA FILE

Name Info: RFW WATER SAMPLE #477 COLL. 7/22/87 5.0 MLS 090813
Misc Info: + 24.0 PPB ISS 1400 EMV
Operator : T. SABATINO

Date : 26 Jul 87 10:20 pm
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A20A.D



End of plot. Time = 8.38 to 30.00 minutes Chart speed = 0.91 cm/min

Data file: DATA:V005A21A.D
File type: GC / MS DATA FILE

Name Info: RFW WATER SAMPLE #478 COLL. 7/22/87 5.0 MLS 090814
Misc Info: + 24.0 PPB ISS 1400 EMV
Operator : T. SABATINO

Date : 26 Jul 87 11:00 pm
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

Data file: DATA:V005A27A.D
File type: GC / MS DATA FILE

Name Info: VOLATILE STANDARD 26.7 PPB@ + 24.0 PPB ISS
Misc Info: 5.0 MLS 1400 EMV
Operator : T. SABATINO

Date : 27 Jul 87 6:45 am
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

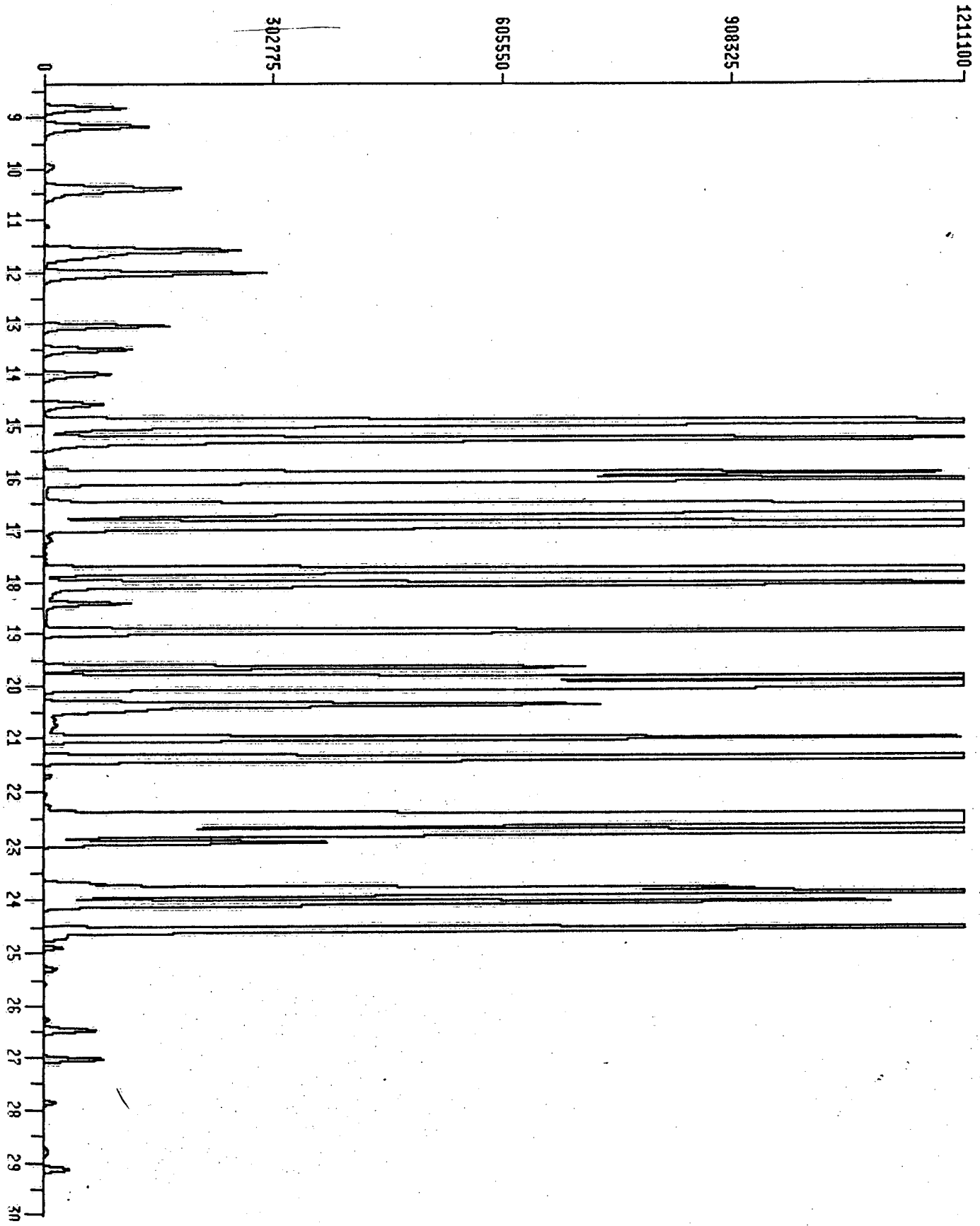
Data file: DATA:V005A28A.D
File type: GC / MS DATA FILE

Name Info: VOLATILE STANDARD 53.4 PPB@ + 24.0 PPB ISS
Misc Info: 5.0 MLS 1400 EMV
Operator : T. SABATINO

Date : 27 Jul 87 7:37 am
Instrment: MS_5970
Inlet : GC

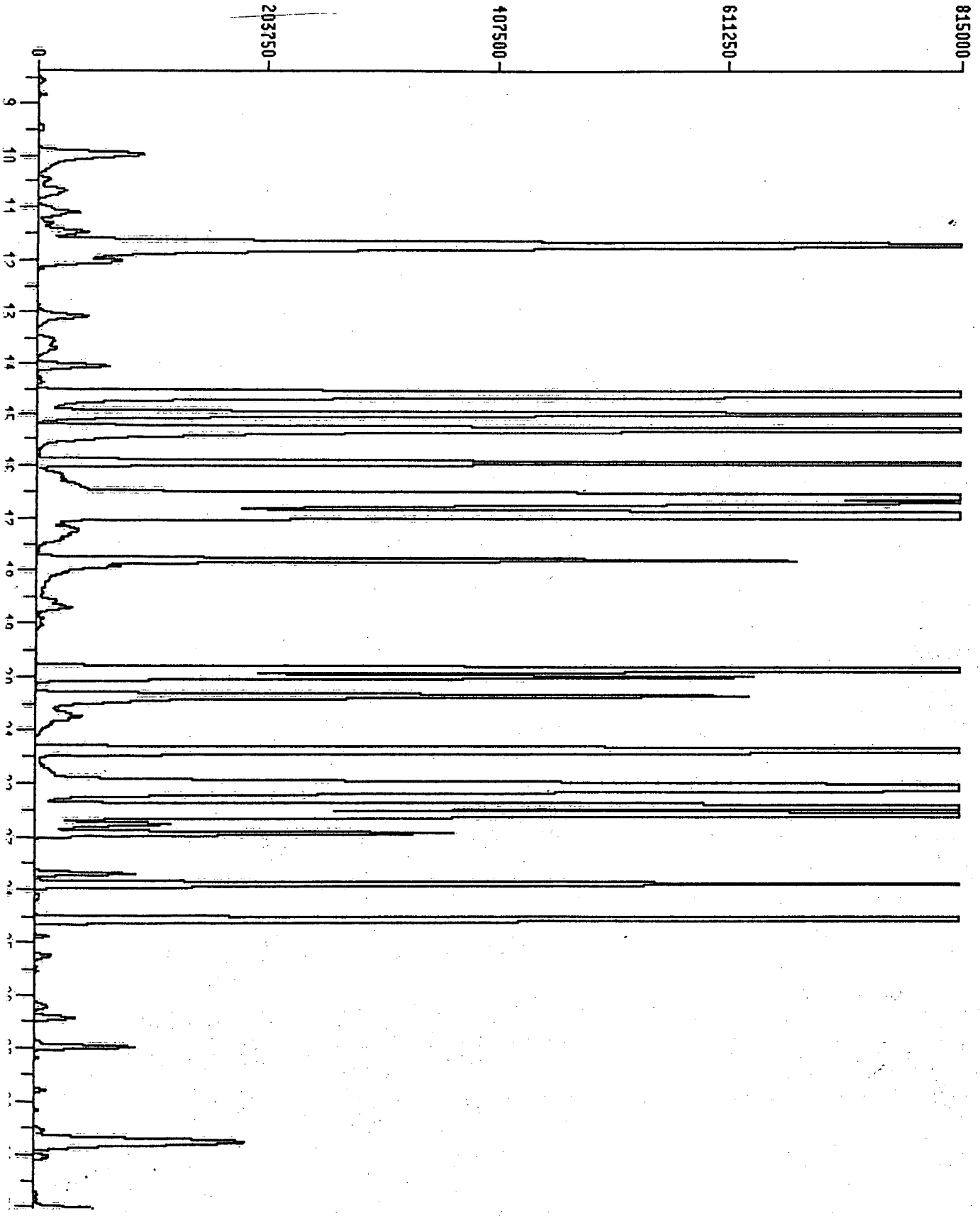
Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A27A.D



End of plot Time = 8.39 to 30.00 minutes Chart speed = 0.92 cm/min

1: TIC of DATA:V005A21A.D



End of plot. Time = 9.38 to 38.88 minutes. Chart area = 9.88 minutes

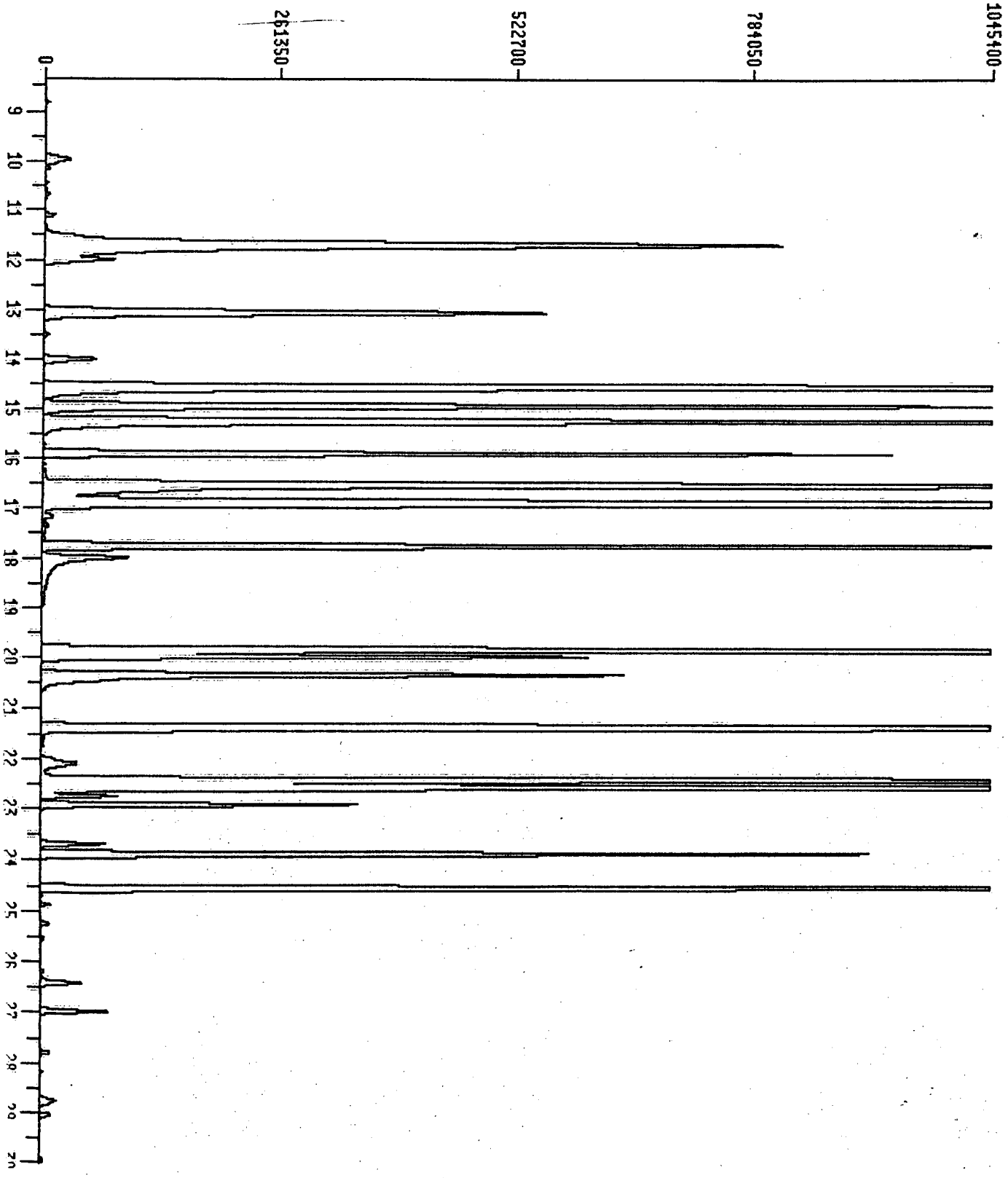
Data file: DATA:V005A22A.D
File type: GC / MS DATA FILE

Name Info: RFW WATER SAMPLE #479 COLL. 7/22/87 5.0 MLS 090815
Misc Info: + 24.0 PPB ISS 1400 EMV
Operator : T. SABATINO

Date : 26 Jul 87 11:43 pm
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A22A.D



End of plot. Time = 8.38 to 30.01 minutes Chart speed = 0.91 cm/min

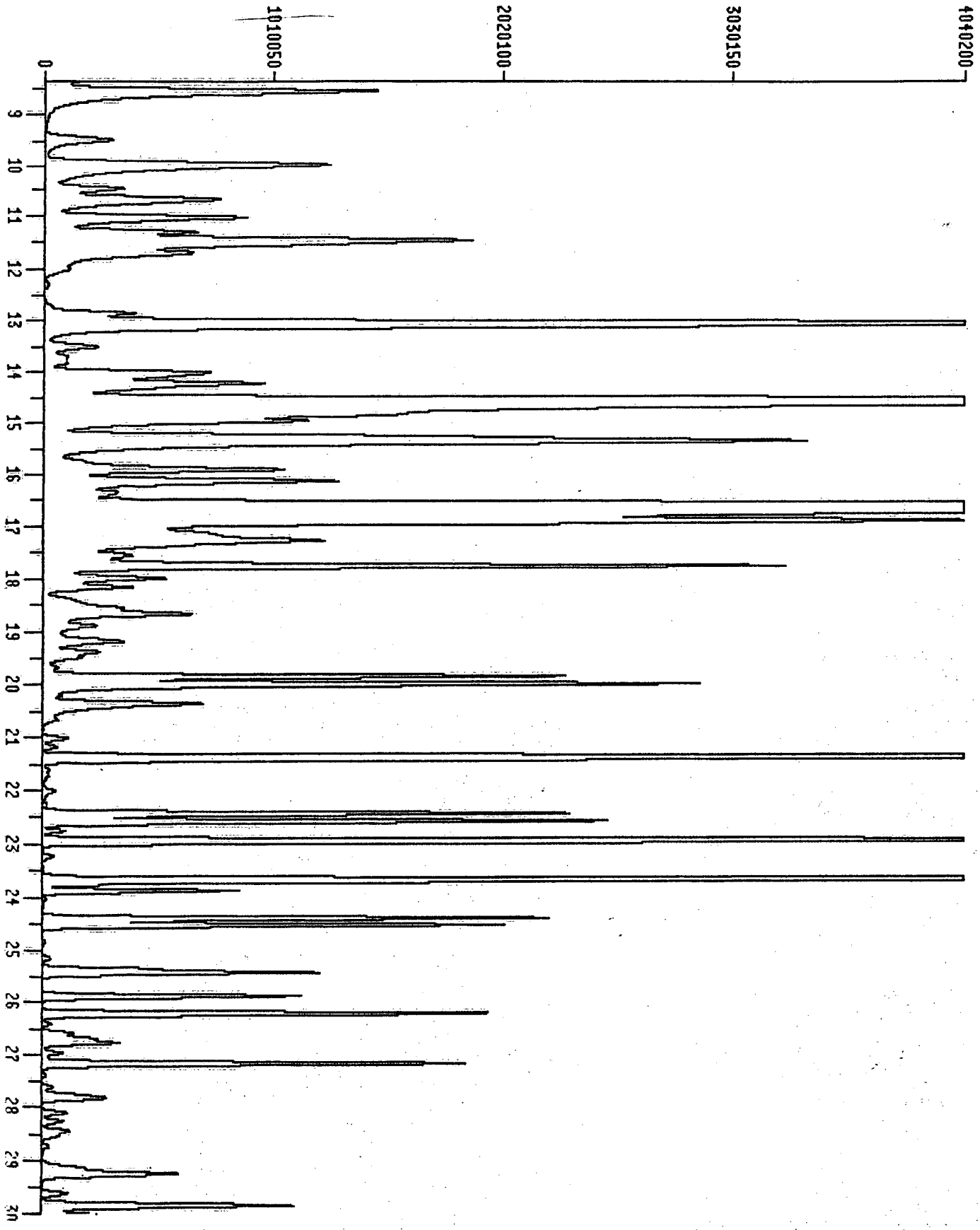
Data file: DATA:V005A23A.D
File type: GC / MS DATA FILE

Name Info: RFW WATER SAMPLE #480 COLL. 7/22/87 5.0 MLS 090816
Misc Info: + 24.0 PPB ISS 1400 EMV
Operator : T. SABATINO

Date : 27 Jul 87 12:25 am
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A23A.D



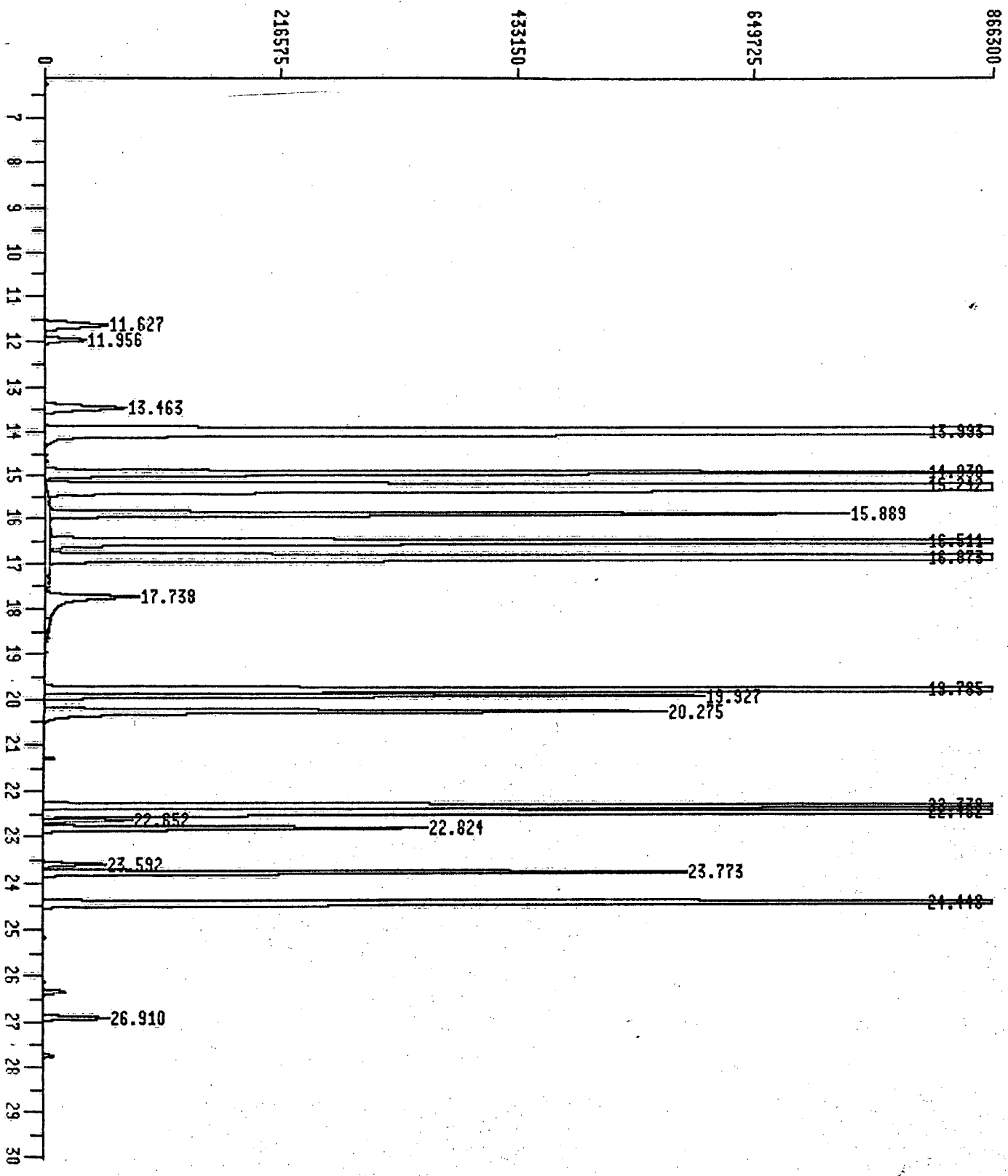
Data file: DATA:V005A32A.D
File type: GC / MS DATA FILE

Name Info: RFW WATER 481 COLL. 7/22/87 5.0 MLS + 24.0 PPB ISS 090817
Misc Info: 1400 EMV
Operator : T. SABATINO

Date : 28 Jul 87 4:02 pm
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A32A.D



End of plot. Time = 6.13 to 30.01 minutes Chart speed = 0.83 cm/min

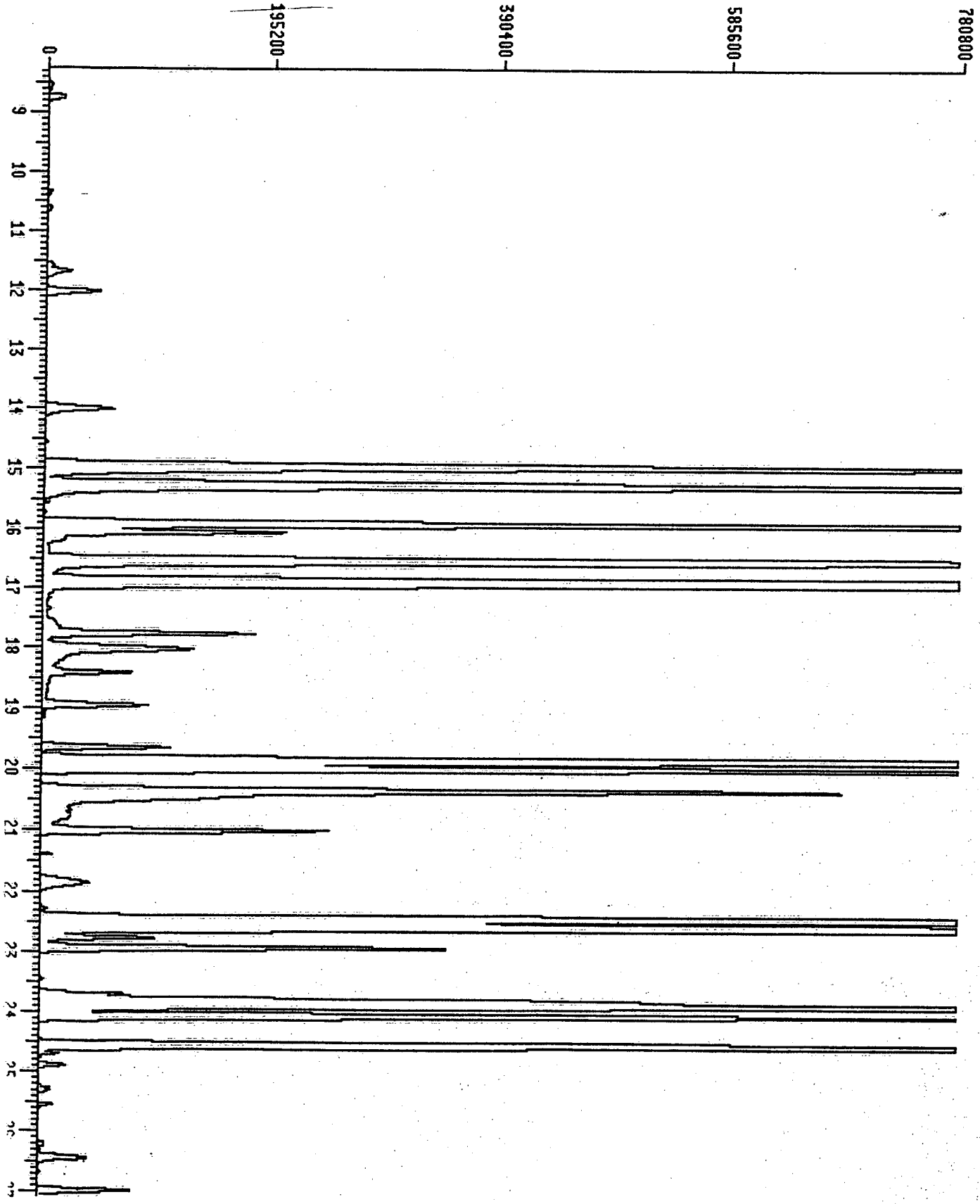
Data file: DATA:V005A15A.D
File type: GC / MS DATA FILE

Name Info: WATER BLANK 7/26/87 5.0 MLS + 24.0 PPB ISS
Misc Info: 1400 EMV
Operator : T. SABATINO

Date : 26 Jul 87 6:58 pm
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A15A.D



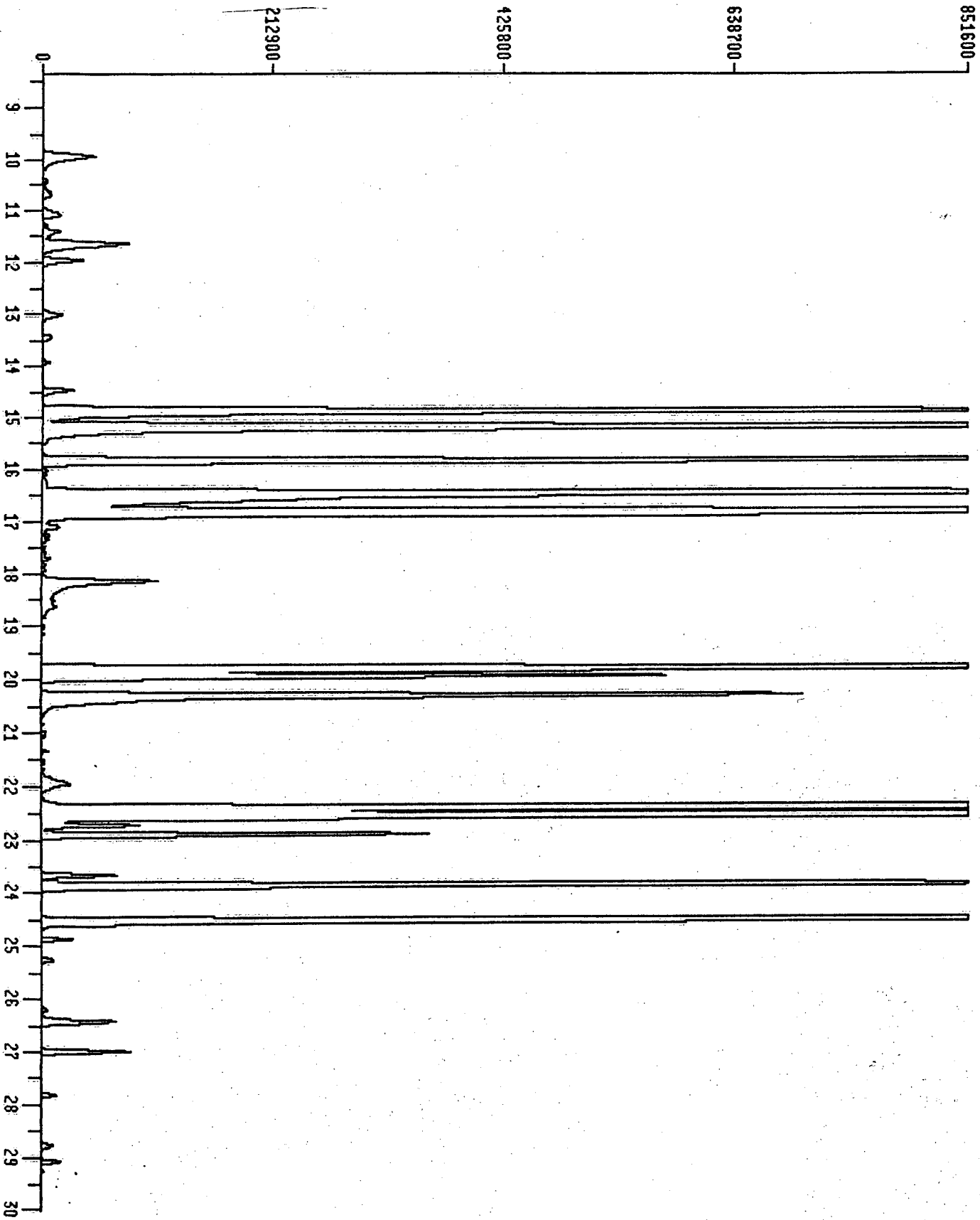
Data file: DATA:V005A25A.D
File type: GC / MS DATA FILE

Name Info: BLANK WATER 7/27/87 5.0 MLS + 24.0 PPB ISS
Misc Info: 1400 EMV
Operator : T. SABATINO

Date : 27 Jul 87 2:37 am
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A25A.D



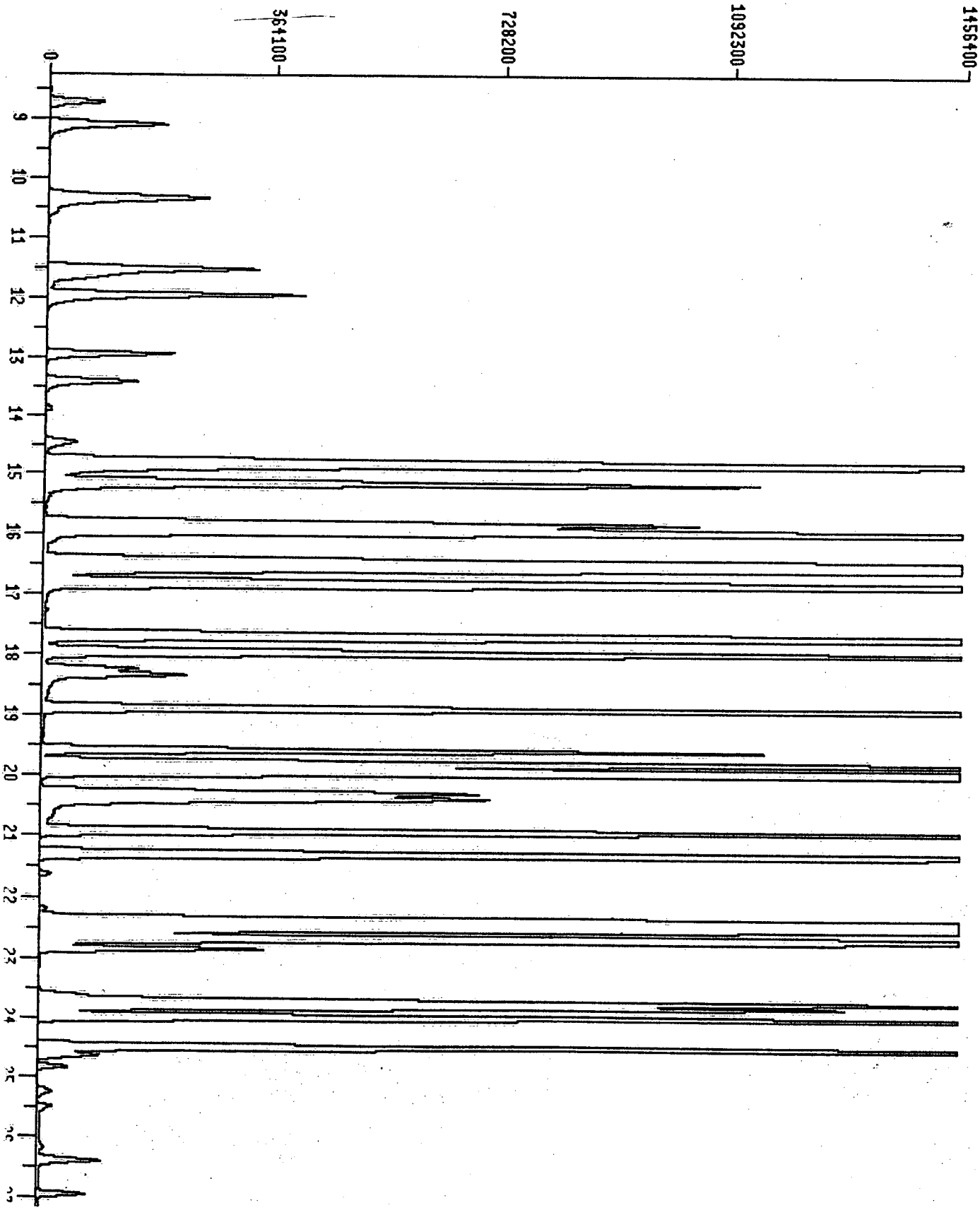
Data file: DATA:V005A14A.D
File type: GC / MS DATA FILE

Name Info: VOLATILE STANDARD 40.0 PPB@ + 24.0 PPB ISS
Misc Info: 5.0 MLS 1400 EMV
Operator : T. SABATINO

Date : 26 Jul 87 6:20 pm
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A14A.D



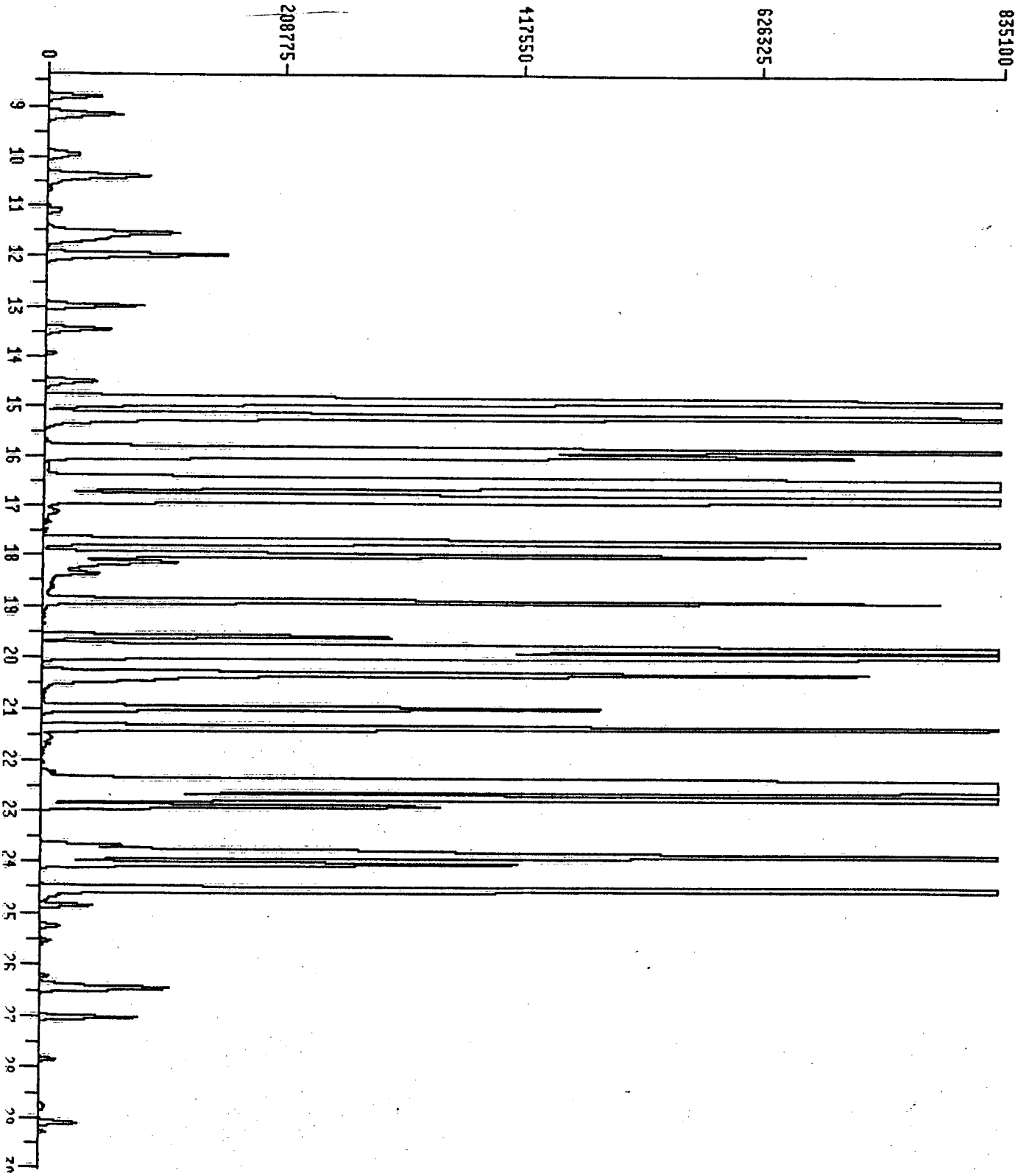
Data file: DATA:V005A26A.D
File type: GC / MS DATA FILE

Name Info: VOLATILE STANDARD 13.3 PPB@ + 24.0 PPB ISS
Misc Info: 5.0 MLS 1400 EMV
Operator : T. SABATINO

Date : 27 Jul 87 5:38 am
Instrment: MS_5970
Inlet : GC

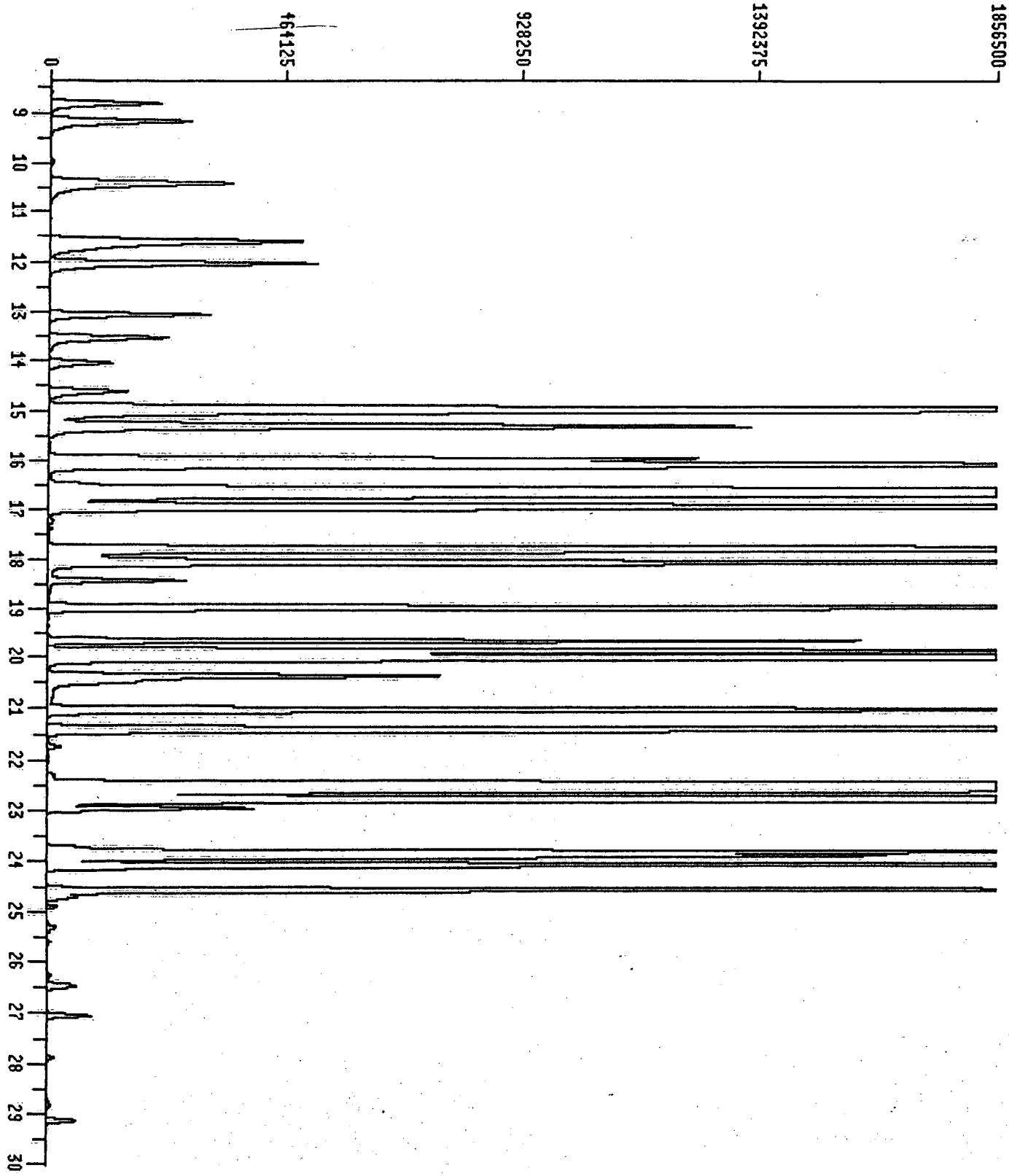
Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A26A.D



End of plot. Time = 8.38 to 30.02 minutes Chart speed = 0.91 cm/min

1: TIC of DATA:V005A28A.D



End of plot. Time = 8.38 to 30.01 minutes Chart speed = 0.91 cm/min

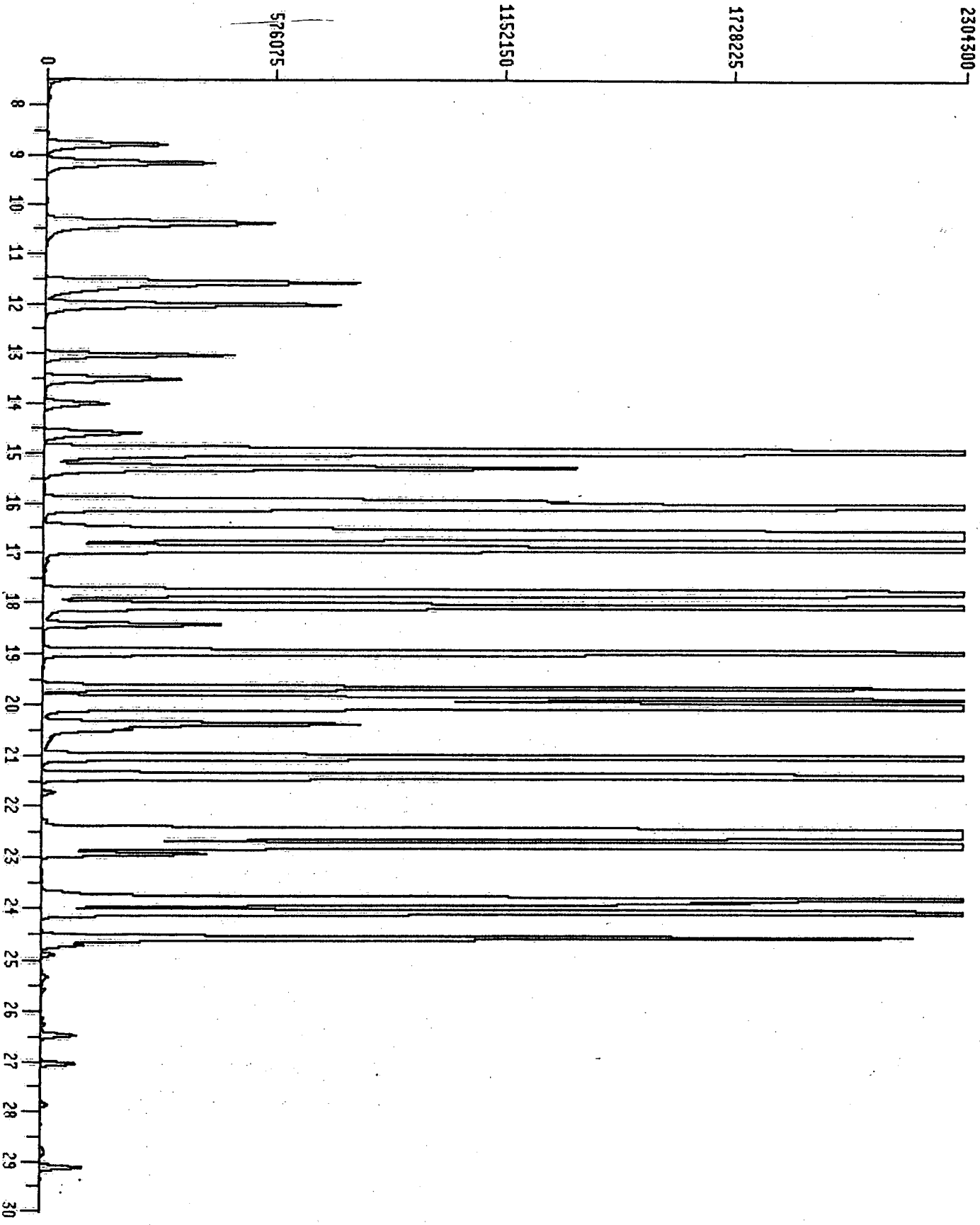
Data file: DATA:V005A29A.D
File type: GC / MS DATA FILE

Name Info: VOLATILE STANDARD 80.0 PPB@ + 24.0 PPB ISS
Misc Info: 5.0 MLS 1400 EMV
Operator : T. SABATINO

Date : 27 Jul 87 9:19 am
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1

1: TIC of DATA:V005A29A.D



APPENDIX IV: 4-BROMOFLUOROBENZENE MASS SPECTRA AND TUNING FORMS

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. RFW #5/131 Contractor CAL TECHNOL Contract No. _____

Instrument ID 5790B Date 7-26-87 Time _____

Lab ID V005A14A.D Data Release Authorized By: T. Sabatino

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	25.6
75	30.0 - 60.0% of the base peak	53.6
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	6.4
173	Less than 1.0% of the base peak	< 1.0
174	Greater than 50.0% of the base peak	68.3
175	5.0 - 9.0% of mass 174	5.1 (7.5)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	71.5 (105)[1]
177	5.0 - 9.0% of mass 176	4.8 (6.7)[2]

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	V005A14A.D	7-26-87	
	V005A15A.D	"	
	V005A16A.D	"	
	V005A17A.D	"	
	V005A18A.D	"	
	V005A19A.D	"	
	V005A20A.D	"	
	V005A21A.D	"	
	V005A22A.D	"	
	V005A23A.D	"	
	V005A24A.D	"	
	V005A25A.D	"	
	V005A26A.D	"	
	V005A27A.D	"	
	V005A28A.D	"	
	V005A29A.D	"	

4/84

FORM V

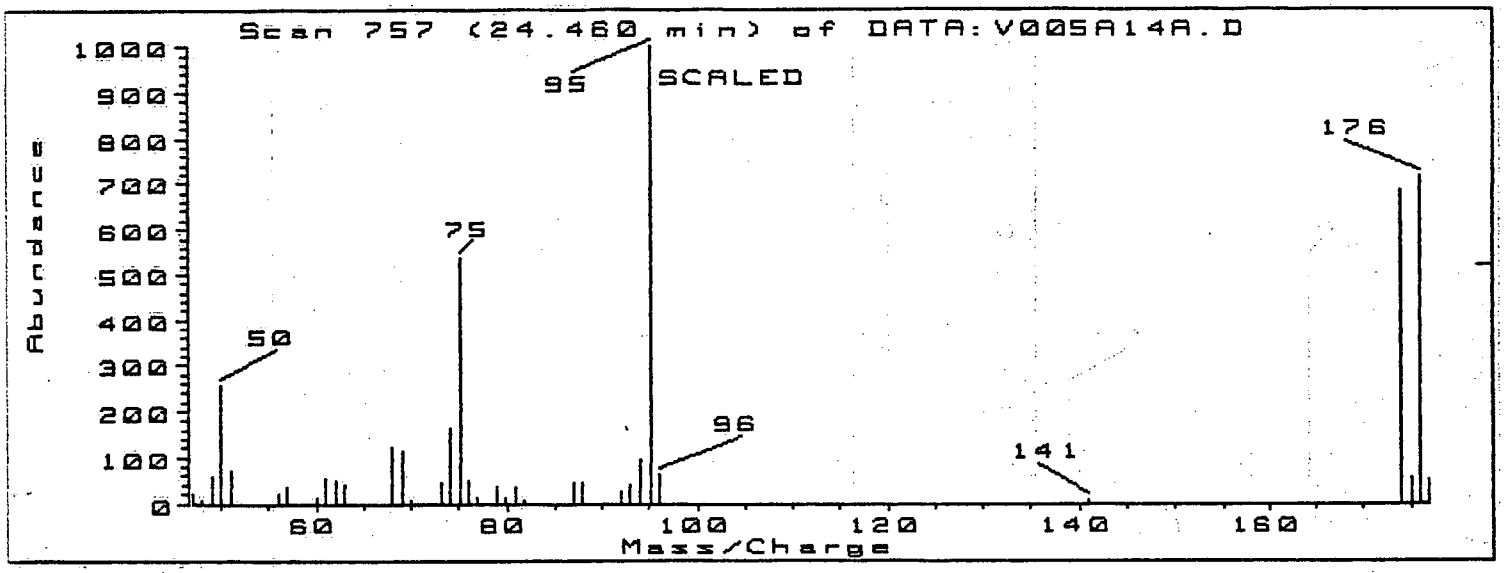
Form V. BFB Tuning and Mass Calibration.

Data file: DATA:V005A14A.D
File type: GC / MS DATA FILE

Name Info: VOLATILE STANDARD 40.0 PPB@ + 24.0 PPB ISS
Misc Info: 5.0 MLS 1400 EMV
Operator : T. SABATINO

Date : 26 Jul 87 6:20 pm
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1



Scan 757 (24.460 min) of DATA:V005A14A.D
VOLATILE STANDARD 40.0 PPB@ + 24.0 PPB ISS

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
46.95	19	62.05	50	76.95	10	94.05	95
48.05	9	63.05	38	78.85	35	95.05	1000
49.05	57	68.05	121	79.95	10	96.05	64
50.05	256	69.05	111	80.95	36	141.00	7
51.05	70	70.05	8	81.85	9	173.90	683
56.05	20	73.05	46	86.95	44	175.00	51
56.95	33	74.05	165	87.95	46	176.00	715
60.05	13	75.05	536	91.95	24	177.00	48
61.05	52	76.05	48	92.95	40		

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. RFW TS/131 Contractor CAL TECHNOL Contract No. _____

Instrument ID 5970B Date 7-28-87 Time 4:36

Lab ID V005A33A.D Data Release Authorized By: T. Sobolewski

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	25.4
75	30.0 - 60.0% of the base peak	54.1
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	6.5
173	Less than 1.0% of the base peak	<1.0
174	Greater than 50.0% of the base peak	65.0
175	5.0 - 9.0% of mass 174	5.2 (8.0)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	65.9 (101)[1]
177	5.0 - 9.0% of mass 176	4.5 (6.8)[2]

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	V005A31A.D	7-28-87	
	V005A32A.D	"	
	V005A33A.D	"	
	V005A34A.D	"	

4/84

FORM V

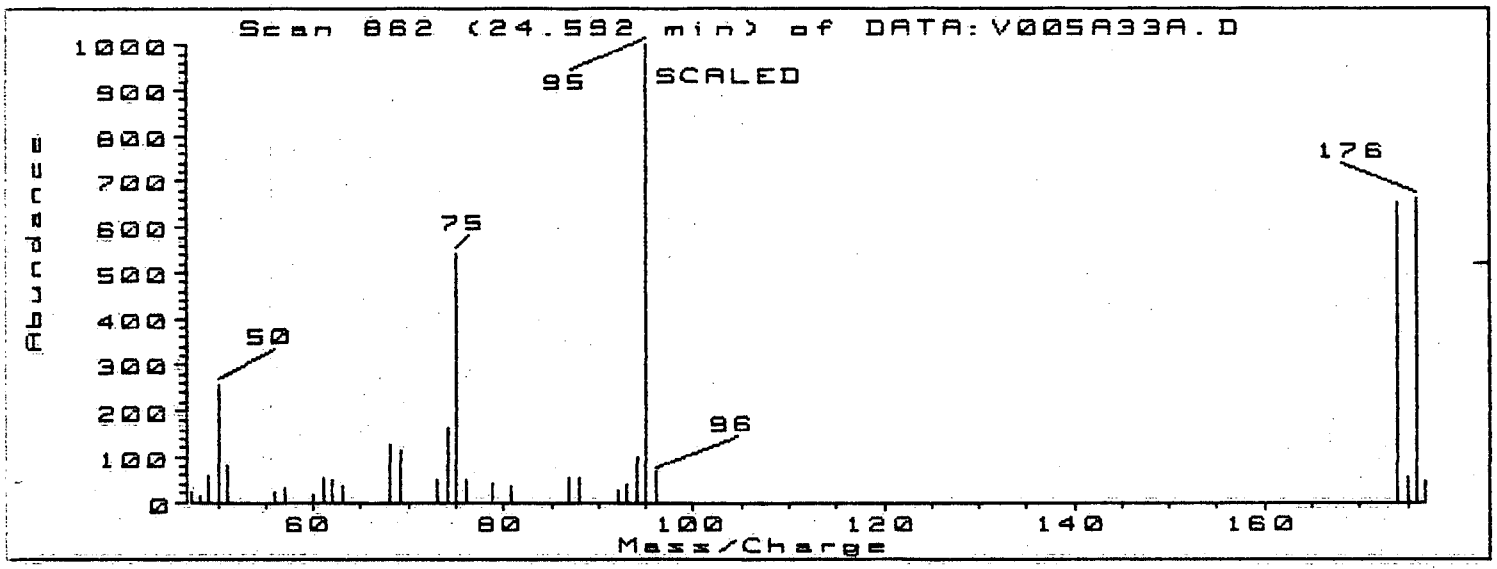
Form V. BFB Tuning and Mass Calibration.

Data file: DATA:V005A33A.D
File type: GC / MS DATA FILE

Name Info: VOLATILE STANDARD 53.4 PPB@ + 24.0 PPB ISS PPB ISS
Misc Info: 5.0 MLS 1400 EMV
Operator : T. SABATINO

Date : 28 Jul 87 4:36 pm
Instrment: MS_5970
Inlet : GC

Sequence index : 0
Als bottle num : 0
Replicate num : 1



Scan 862 (24.592 min) of DATA:V005A33A.D
VOLATILE STANDARD 53.4 PPB@ + 24.0 PPB ISS PPB ISS

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
47.05	22	61.05	53	76.05	47	94.05	98
47.95	11	62.05	49	78.85	39	95.05	1000
49.05	57	63.05	36	80.85	35	96.05	65
50.05	254	68.05	129	86.95	53	173.90	650
51.05	81	69.05	114	87.95	51	175.00	52
55.95	23	73.05	49	91.95	25	176.00	659
56.95	32	74.05	165	92.95	39	177.00	45
60.05	14	75.05	541				

APPENDIX V: CHAIN OF CUSTODY FORMS

C.A.L. Technologies, Inc.

ANALYTICAL LABORATORIES
19 Ross Street
Somerville, New Jersey 08876
(201) 725-6927
N.J. LAB. ID No. 18193

Verbal PO # 22254 (T. Perretti)

CHAIN OF CUSTODY RECORD

PROJECT NO: TS/131
DATE: 7/24/87
COMPANY: Ray F. Weston Inc
FACILITY/SITE: 1090 King Georges Post Road
ADDRESS: Edison, New Jersey 08837
ATTN: Teresa Perretti

	STA NO	MATRIX CODE	TIME	COMP	GRAB	STATION LOCATION	NO OF CONT.	VOAs + Xylene	REMARKS
473		4				Weston # 090809	2		Verbals by 7/29/87, PM Hard Copy by 7/31/87, PM
474		4				" 090810	2		
475		4				" 090811	2		
476		4				" 090812	2		
477		4				" 090813	2		
478		4				" 090814	2		
479		4				" 090815	2		
480		4				" 090816	2		
481		4				" 090817	2		

MATRIX CODE
1. AIR 2. SOIL 3. SLUDGE 4. WATER 5. MISC. SOLID 6. MISC. LIQUID

SAMPLED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE) DATE / TIME
RECEIVED BY: (SIGNATURE) DATE / TIME
RELINQUISHED BY: (SIGNATURE) DATE / TIME
RECEIVED BY: (SIGNATURE) DATE / TIME
RELINQUISHED BY: (SIGNATURE) DATE / TIME
RECEIVED BY: (SIGNATURE) DATE / TIME
RELINQUISHED BY: (SIGNATURE) DATE / TIME
RECEIVED FOR LABORATORY BY: (SIGNATURE) Karen Olsen DATE / TIME 7/24/87
REMARKS: all bottles intact

Lab

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY – REGION II
Environmental Services Division
EDISON, NEW JERSEY 08817

Name of Unit and Address: USEPA PAULA CAMMARATA
TUTU WELL SITE VIRGIN ISLANDS ST THOMAS

	Sample Number	Number of Containers	Description of Samples ALL WATER
473	090807	3	2x VOA VIALS 40ML / 1x TOC VIAL 80ML
474	090810	3	" "
475	090811	3	" "
476	090812	3	" "
477	090813	3	" "
478	090814	3	" "
479	090815	3	" "
480	090816	3	" "
481	090817	3	" "

Person Assuming Responsibility for Sample: MICHAEL MENTZEL [signature] Time 1000 Date 7/22/87

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody
	[signature]	Anibal Diaz	1000	7/24/87	Delivery to Labs
All Above VOA	Anibal Diaz	Ray McAllen CAL Technologies Inc	12:25	7/24/87	

Page No.

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name: TUTU WELLSITE

Collector(s): MM Affiliation: TAT

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
Niskin Net Seine Trawl Bucket
Trowel Cream Dipper
Automatic
Other: TAP

LDMS CODE

DATA BASE CODE

STA. TYPE CODE

SUBSTRATE TYPE (Circle): Aqueous Sediment Sludge Oil Biological
Solvent Extract Other ( )

BOD — Seed Supplied ☐ Yes ☐ No Source:

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
POA Vial	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
Teflon Cap	Other (Specify):	Top	Effluent-Cl
Foil Cap		Middle	Effluent-Non Cl
Other		Bottom	Sludge
	SMO PREPARED	Truck	Ambient
Preservation		Drum	Lake
Acid		Tank	Stream
Solvent		Other	Pond
Chemical			Ocean
Wet Ice		Wells	Estuary
Dry Ice		Monitoring	
Ambient		Production	
Other		Drinking	
		Private	

Sample Location Description:

V I HOUSING AUTHORITY WELL
NOT USED FOR 6 MONTHS
RUN 10 MIN

Remarks:

2X 40 ML VOA VIAL
1X TOC VIAL

HNU = 12 HEADSPACE

Samples to: Bact | Bio | Chem ☒ | Other

Station No.

Sample Depth (Ft.)/Fac. Loc. Code

Lab Number: 090814

Type of Sample: Grab ☒ Composite: Time Space

Collection (Ending) Date: Yr 87 Mo 07 Day 22

Ending Time (24 Hr): 1110

Beginning Date: Yr 87 Mo 07 Day 22

Beginning Time (24 Hr): 1104

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity(‰)

Sample Split ☐ Yes ☐ No

If Yes With Whom?

Receipt ☐ Yes ☐ No

Form: FTB RPO-11-82-2

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name: TUTU WELL SITE

Collector(s): MM Affiliation: TAT

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
Niskin Net Seine Trawl Bucket
Trowel Cream Dipper
Automatic
Other: TAP

LDMS CODE
DATA BASE CODE
STA. TYPE CODE

SUBSTRATE TYPE (Circle): Aqueous Sediment Sludge Oil Biological
Solvent Extract Other ( )

BOD — Seed Supplied ☐ Yes ☐ No Source:

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
POA Vial	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
Teflon Cap	Other (Specify):	Top	Effluent-Cl
Foil Cap		Middle	Effluent-Non Cl
Other	SMO PREPARED	Bottom	Sludge
Preservation		Truck	Ambient
Acid		Drum	Lake
Solvent		Tank	Stream
Chemical		Other	Pond
Wet Ice		Wells	Ocean
Dry Ice		Monitoring	Estuary
Ambient		Production	
Other		Drinking	
		Private	

Sample Location Description:

FOUKWINDS PARKING LOT WELL

DUPLICATE

Remarks:

HNU = 1-2 PPM

2X VOA VIALS FOR VOA ANALYSIS
1X TOC VIAL FOR TOC ANALYSIS

Samples to: Bact | Bio | Chem (X) | Other

Station No.

Sample Depth (Ft.)/Fac. Loc. Code

Lab Number: 090812

Type of Sample: Grab (X) Composite: Time Space

Collection (Ending) Date: Yr 87 Mo 07 Day 22

Ending Time (24 Hr): 0838

Beginning Date: Yr 87 Mo 07 Day 22

Beginning Time (24 Hr): 0935

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity(‰)

Sample Split ☐ Yes ☐ No

If Yes With Whom?

Receipt ☐ Yes ☐ No

Form: FTB RPD-11-82-2

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name: TUTU WELL SITE

Collector(s): MM Affiliation: TAT

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
Niskin Net Seine Trawl Bucket
Trowel Cream Dipper
Automatic
Other: TAP

LDMS CODE

DATA BASE CODE

STA. TYPE CODE

SUBSTRATE TYPE (Circle): Aqueous Sediment Sludge Oil Biological Solvent Extract Other ( )

BOD — Seed Supplied ☐ Yes ☐ No Source:

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	**Cleaning Procedure**	**Landfill**	**Industrial**
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
VOA Vial	**Solvent Rinse:**	Depth:	Drum
~~Cubitainer~~	Acetone	Other:	Waste Pile
Acetate Core	Hexane		**Municipal Treatment**
Paper Cap	Methylene Chloride	**Storage Tank**	Influent
Teflon Cap	Other (Specify):	Top	Effluent-Cl
Foil Cap		Middle	Effluent-Non Cl
Other	SMO PREPARED	Bottom	Sludge
		Truck	Ambient
Preservation		Drum	Lake
Acid		Tank	Stream
Solvent		Other	Pond
Chemical			Ocean
Wet Ice		**Wells**	Estuary
Dry Ice		Monitoring	
Ambient		Production	
Other		Drinking	
		Private	

Sample Location Description:

FOUR WINDS SHOPPING CENTER PARKING LOT

Remarks:

HNU = 1-2 ppm

2 x VOA VIALS FOR VOA ANALYSIS
1 x TOC VIAL FOR TOC ANALYSIS

Samples to: Bact | Bio | Chem (X) | Other

Station No.

Sample Depth (Ft.)/Fac. Loc. Code

Lab Number: 090811

Type of Sample: Grab (X) | Composite: Time | Space

Collection (Ending) Date: Yr 07 Mo 07 Day 12

Ending Time (24 Hr): 0932

Beginning Date: Yr 07 Mo 07 Day 12

Beginning Time (24 Hr): 0930

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity(‰)

Sample Split ☐ Yes ☐ No

If Yes With Whom?

Receipt ☐ Yes ☐ No

Form: FTB RPD-11-82-2

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name: TVTV WELLSITE

Collector(s): MM Affiliation: TAT

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
Niskin Net Seine Trawl Bucket
Trowel Cream Dipper
Automatic
Other: TAP

LDMS CODE
DATA BASE CODE
STA. TYPE CODE

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
Solvent Extract Other ( )

BOD — Seed Supplied ☐ Yes ☐ No Source:

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
POA Vial	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
Teflon Cap	Other (Specify):	Top	Effluent-Cl
Foil Cap		Middle	Effluent-Non Cl
Other		Bottom	Sludge
	SMO PREPARED	Truck	Ambient
Preservation		Drum	Lake
Acid		Tank	Stream
Solvent		Other	Pond
Chemical			Ocean
Wet Ice		Wells	Estuary
Dry Ice		Monitoring	
Ambient		Production	
Other		Drinking	
		Private	

Sample Location Description:

GENE COLLIN WELL

Remarks:

2X VOA VIAL
1X TOC VIAL
HNU = <1 HEADSPACE

Samples to: Bact | Bio | ~~Chem~~ | Other

Station No.

Sample Depth (Ft.)/Fac. Loc. Code

Lab Number: 090815

Type of Sample: Grab ☒ Composite: Time | Space

Collection (Ending) Date: Yr 87 Mo 07 Day 23

Ending Time (24 Hr): 1130

Beginning Date: Yr 87 Mo 07 Day 22

Beginning Time (24 Hr)

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity(‰)

Sample Split ☐ Yes ☐ No

If Yes With Whom?

Receipt ☐ Yes ☐ No

Form: FTB RPD-11-82-2

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name: TUTU WELLSITE

Collector(s): MM Affiliation: TAT

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
Niskin Net Seine Trawl Bucket
Trowel Cream Dipper
Automatic
Other _____

LDMS CODE _____

DATA BASE CODE _____

STA. TYPE CODE _____

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
Solvent Extract Other ( )

BOD — Seed Supplied ☐ Yes ☐ No Source:

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
POA Vial	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
Teflon Cap	Other (Specify):	Top	Effluent-Cl
Foil Cap		Middle	Effluent-Non Cl
Other	SMO PREPARED	Bottom	Sludge
		Truck	Ambient
Preservation		Drum	Lake
Acid		Tank	Stream
Solvent		Other	Pond
Chemical			Ocean
Wet Ice		Wells	Estuary
Dry Ice		Monitoring	
Ambient		Production	
Other		Drinking	
		Private	

Sample Location Description:

TILLETT WELL

TILLETT GARDENS
2X VOA VIALS FOR VOA ANALYSIS

Remarks: 1X TOC VIAL FOR TOC ANALYSIS.
SURFACE SAMPLE COLLECTED
BY DIPPING VIAL DOWN WELL ON
A STRING. PUMP HAS NOT
BEEN RUN FOR ~1 WEEK

Samples to: Bact | Bio | Chem ☒ | Other

Station No.

Sample Depth (Ft.)/Fac. Loc. Code

Lab Number: 090813

Type of Sample: Grab ☒ Composite: Time Space

Collection (Ending) Date: Yr 87 Mo 07 Day 22

Ending Time (24 Hr): 1020

Beginning Date: Yr 87 Mo 07 Day 22

Beginning Time (24 Hr): 1015

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity(‰)

Sample Split ☐ Yes ☐ No

If Yes With Whom?

Receipt ☐ Yes ☐ No

Form: FTB RPD-11-82-2

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name: JUTU WELL SITE

Collector(s): MM Affiliation: TAT

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
Niskin Net Seine Trawl Bucket
Trowel Cream Dipper
Automatic
Other: TAP

LDMS CODE

DATA BASE CODE

STA. TYPE CODE

SUBSTRATE TYPE (Circle) (Aqueous) Sediment Sludge Oil Biological
Solvent Extract Other ( )

BOD — Seed Supplied ☐ Yes ☐ No Source:

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
(VOA Vial)	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
Teflon Cap	Other (Specify):	Top	Effluent-Cl
Foil Cap		Middle	Effluent-Non Cl
Other	SMO PREPARED	Bottom	Sludge
		Truck	Ambient
Preservation		Drum	Lake
Acid		Tank	Stream
Solvent		Other	Pond
Chemical			Ocean
(Wet Ice)		Wells	Estuary
Dry Ice		Monitoring	
Ambient		Production	
Other		(Drinking)	
		Private	

Sample Location Description:

'BAKERY WELL'
HAETHMAN

Remarks:

il-Na = 1ppm in 8oz Sample Headspace

2X VOA VIALS FOR VOA ANALYSIS
1X TOC VIAL FOR TOC ANALYSIS

Samples to:

Bact	Bio	Chem	Other
		X	

Station No.

Sample Depth (Ft.)/Fac. Loc. Code

Lab Number: 090810

Type of Sample

Grab	Composite	
	Time	Space
X		

Collection (Ending) Date

Yr	Mo	Day
87	07	22

Ending Time (24 Hr): 0915

Beginning Date

Yr	Mo	Day
87	07	22

Beginning Time (24 Hr): 0910

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity(‰)

Sample Split

☐ Yes ☐ No

If Yes With Whom?

Receipt ☐ Yes ☐ No

Form: FTB RPD-11-82-2

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name: TUTU WELLSITE

Collector(s): MM Affiliation: TA

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
Niskin Net Seine Trawl Bucket
Trowel Cream Dipper
Automatic
Other: TAP

LDMS CODE

DATA BASE CODE

STA. TYPE CODE

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
Solvent Extract Other ( )

BOD — Seed Supplied ☐ Yes ☐ No Source:

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
POA Vial	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
Teflon Cap	Other (Specify):	Top	Effluent-Cl
Foil Cap	SMO PREPARED	Middle	Effluent-Non Cl
Other		Bottom	Sludge
		Truck	Ambient
Preservation		Drum	Lake
Acid		Tank	Stream
Solvent		Other	Pond
Chemical			Ocean
Wet Ice		Wells	Estuary
Dry Ice		Monitoring	
Ambient		Production	
Other		Drinking	
		Private	

Sample Location Description:

SAMPLE BLANK
FROM DCCA

2XVOA VIALS
1XTOC VIALS

Remarks:

Samples to: Bact | Bio | Chem | Other

Station No.

Sample Depth (Ft.)/Fac. Loc. Code

Lab Number: 090817

Type of Sample: Grab | Composite (Time | Space)

Collection (Ending) Date: Yr 87 Mo 07 Day 22

Ending Time (24 Hr): 1530

Beginning Date: Yr 87 Mo 07 Day 22

Beginning Time (24 Hr): 1525

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity(‰)

Sample Split ☐ Yes ☐ No

If Yes With Whom?

Receipt ☐ Yes ☐ No

Form: FTB RPD-11-82-2

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name TUTU WELL SITE VI

Collector(s) MMTAT Affiliation

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
Niskin Net Seine Trawl Bucket
Trowel Cream Dipper
Automatic
Other TAP

LDMS CODE
DATA BASE CODE
STA. TYPE CODE

SUBSTRATE TYPE (Circle) Aqueous Sediment Sludge Oil Biological
Solvent Extract Other ( )

BOD — Seed Supplied ☐ Yes ☐ No Source:

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	Cleaning Procedure	Landfill	Industrial
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
POA Vial	Solvent Rinse:	Depth:	Drum
Cubitainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		Municipal Treatment
Paper Cap	Methylene Chloride	Storage Tank	Influent
Teflon Cap	Other (Specify):	Top	Effluent-Cl
Foil Cap		Middle	Effluent-Non Cl
Other	SMO	Bottom	Sludge
	PREPARED	Truck	Ambient
Preservation		Drum	Lake
Acid		Tank	Stream
Solvent		Other	Pond
Chemical			Ocean
Wet Ice		Wells	Estuary
Dry Ice		Monitoring	
Ambient		Production	
Other		Drinking	
		Private	

Sample Location Description:

'CHRUSHER WELL'

HACKMAN

Remarks:

HNU = 50ppm HEADSPACE ABOVE 8 oz SAMPLE

2 X VOA VIAL FOR VOA ANALYSIS
1 X TOC VIAL FOR TOC ANALYSIS

Samples to:

Bact	Bio	Chem	Other
		X	

Station No.

Sample Depth (Ft.)/Fac. Loc. Code

Lab Number 090809

Type of Sample

Grab	Composite	
X	Time	Space

Collection (Ending) Date

Yr	Mo	Day
87	07	22

Ending Time (24 Hr) 0907

Beginning Date

Yr	Mo	Day
87	07	22

Beginning Time (24 Hr) 0900

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity(‰)

Sample Split

☐ Yes ☐ No

If Yes With Whom?

Receipt ☐ Yes ☐ No

Form: FTB RPD-11-82-2

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY - Region II, Edison, New Jersey

ENVIRONMENTAL SERVICES DIVISION

Project Name: TUTU WELLSITE

Collector(s): MM Affiliation: TAT

SAMPLING METHOD (Circle)

Kemmerer Dredge Ponar Manual
Niskin Net Seine Trawl Bucket
Trowel Cream Dipper
Automatic
Other: TAP

LDMS CODE _____

DATA BASE CODE _____

STA. TYPE CODE _____

SUBSTRATE TYPE (Circle): Aqueous Sediment Sludge Oil Biological Solvent Extract Other ( )

BOD — Seed Supplied ☐ Yes ☐ No Source:

Sample Preparation (Circle)		Sample Source Type (Circle)	
Container	**Cleaning Procedure**	**Landfill**	**Industrial**
Glass Jar	Detergent Wash	Leachate	Effluent
Plastic Jar	Water Rinse	Drum	Process Stream
Metal	Acid Rinse	Test Well	Holding Pond
POA Vial	**Solvent Rinse:**	Depth:	Drum
Cubitainer	Acetone	Other:	Waste Pile
Acetate Core	Hexane		**Municipal Treatment**
Paper Cap	Methylene Chloride	**Storage Tank**	Influent
Teflon Cap	Other (Specify):	Top	Effluent-Cl
Foil Cap	SMO PREPARED	Middle	Effluent-Non Cl
Other		Bottom	Sludge
Preservation		**Truck**	Ambient
Acid		Drum	Lake
Solvent		Tank	Stream
Chemical		Other	Pond
Wet Ice			Ocean
Dry Ice		**Wells**	Estuary
Ambient		Monitoring	
Other		Production	
		Drinking	
		Private	

Sample Location Description:

TILLETTWELL

2X VOA 40ML
1 X TOC

Remarks:

SAMPLE DEPTH 90 FT PUMPED
55 GAL. THEN TOOK SAMPLE
HNU HEADSPACE = 10-15 PPM

Samples to: Bact | Bio | Chem ✓ | Other

Station No.

Sample Depth (Ft.)/Fac. Loc. Code

Lab Number: 090816

Type of Sample: Grab ✓ | Composite: Time | Space

Collection (Ending) Date: Yr 87 Mo 07 Day 22

Ending Time (24 Hr): 1500

Beginning Date: Yr 87 Mo 07 Day 22

Beginning Time (24 Hr): 1458

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity(‰)

Sample Split ☐ Yes ☐ No

If Yes With Whom?

Receipt ☐ Yes ☐ No

Form: FTB RPD-11-82-2