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TREATABILITY STUDY IN SUPPORT OF INTRINSIC REMEDIATION FOR SITE 0T 24

at

MACDILL AIR FORCE BASE
TAMPA, FLORIDA

VOLUME II of II

January 1997

Prepared for:

AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE
TECHNOLOGY TRANSFER DIVISION
BROOKS AIR FORCE BASE
SAN ANTONIO, TEXAS

AND

6 CES/CEVR
MACDILL AIR FORCE BASE
TAMPA, FLORIDA

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TABLE OF CONTENTS
VOLUME II
APPENDICES

APPENDIX A - INFORMATION FROM CH2M HILL (1990 AND 1991A) AND ENSERCH ENVIRONMENTAL (1994A AND 1994B)

APPENDIX B - GEOLOGIC LOGS, MONITORING POINT INSTALLATION RECORDS, MONITORING POINT/WELL DEVELOPMENT AND SAMPLING RECORDS, SLUG TESTING RESULTS, AND SURVEY DATA

APPENDIX C - LABORATORY ANALYTICAL DATA

APPENDIX D - MODEL INPUT PARAMETERS AND RELATED CALCULATIONS

APPENDIX E - MODEL INPUT AND OUTPUT FILES

APPENDIX F - REMEDIAL ALTERNATIVE COST CALCULATIONS

APPENDIX A

INFORMATION FROM CH2M HILL (1990 AND 1991A) AND ENSERCH ENVIRONMENTAL (1994A AND 1994B)

TABLE 2.2
SUMMARY OF GROUND WATER LEVEL/ PRODUCT THICKNESS MEASUREMENTS
SITE OT-24
INTRINSIC REMEDIATION TS
MACDILL AFB, FLORIDA

Well Indentification	Total Reported Depth (Feet bgs)	Measured Depth (Feet)	Well Diameter (Inches)	Depth to Product (Feet BTOC)[a]					Depth to Water (Feet BTOC)					Product Thickness (Feet)					Water Elevation (Feet ngvd)	
				9/15/89	9/20/89	10/2/89	5/23/94	8/30/94	9/15/89	9/20/89	10/2/89	5/23/94	8/30/94	9/15/89	9/20/89	10/2/89	5/23/94	8/30/94	5/23/94	8/30/94
PW-1	20 1	NM[b]	5	NA[c]	NA	NA	-	-	NA	NA	NA	NM	0 6	NA	NA	NA	-	-	NM	3 79
PW-3	NR[d]	9 28	NR	NA	NA	NA	-	3.69	NA	NA	NA	8 86	5 62	NA	NA	NA	-	1 93	-0 07	3 17
PW-8	NR	6 34	NR	NA	NA	NA	-	-	NA	NA	NA	Dry	3 57	NA	NA	NA	-	-	8 41	4 84
PW-10	NR	7 8	NR	NA	NA	NA	-	-	NA	NA	NA	7	3 95	NA	NA	NA	-	-	0 92	3 97
RW-1	20 0	NM	6	NA	NA	NA	-	-	NA	NA	NA	5 48	1 85	NA	NA	NA	-	-	0 93	4 56
RW-2	20 0	NM	6	NA	NA	NA	-	1 66	NA	NA	NA	6 09	2 26	NA	NA	NA	-	0 6	0 31	4 14
OB-1	20 3		2	NA	NA	NA			NA	NA	NA			NA	NA	NA				
MD24-1	20 0	19.7	2	NA	NA	NA	-	-	NA	NA	NA	8	4 68	NA	NA	NA	-	-	0 29	3 61
MD24-2	20 0	20 11	2	NA	NA	NA	-	-	NA	NA	NA	7 12	3 23	NA	NA	NA	-	-	0 33	4 22
MD24-3	20 0	21 73	2	NA	NA	NA	-	-	NA	NA	NA	7 24	3 53	NA	NA	NA	-	-	0 39	4 1
MD24-4	20 0	20 23	2	NA	NA	NA	-	-	NA	NA	NA	7 45	3 64	NA	NA	NA	-	-	0 44	4 25
MD24-5	12 0	11.7	2	NA	NA	NA	-	-	NA	NA	NA	4 05	0	NA	NA	NA	-	-	0 25	4 3
MD24-6	12 5	25 38	2	NA	NA	NA	-	-	NA	NA	NA	3 99	0 8	NA	NA	NA	-	-	NR	NR
MD24-6A	29 0	11 76	2	NA	NA	NA	-	-	NA	NA	NA	3 71	0 3	NA	NA	NA	-	-	0 11	3 52
MD24-7	12 2	11 92	2	NA	NA	NA	-	-	NA	NA	NA	3 55	0 6	NA	NA	NA	-	-	-0 15	2 8
MD24-8	12 2	12 84	2	NA	NA	NA	-	-	NA	NA	NA	3 91	0 6	NA	NA	NA	-	-	-0 15	3 16
MD24-9	12 2	12.45	2	NA	NA	NA	-	-	NA	NA	NA	3 62	0 9	NA	NA	NA	-	-	0 4	3 12
MD24-10	12 3	12.84	2	NA	NA	NA	-	-	NA	NA	NA	3 12	0	NA	NA	NA	-	-	-0 01	3 11
MD24-10A	29 0	28 88	2	NA	NA	NA	-	-	NA	NA	NA	3 18	0	NA	NA	NA	-	-	NR	NR
P-1	5 1	NM	2	-	-	NM	NA	NA	1 52	2 29	NM	NA	NA	-	-	NM	NA	NA	NA	NA
P-2	5 1	NM	2	-	-	NM	NA	NA	1 38	2 63	NM	NA	NA	-	-	NM	NA	NA	NA	NA
P-3	6 9	NM	2	2 11	3 04	2 21	NA	NA	4 1	4 94	4 28	NA	NA	1 99	1 9	2 07	NA	NA	NA	NA
P-4	7 6	NM	2	2 33	3 32	2 49	NA	NA	4 9	5 72	5 11	NA	NA	2 57	2 4	2 62	NA	NA	NA	NA
P-5	6 4	NM	2	2 1	2 89	2 21	NA	NA	3 79	5 37	4 69	NA	NA	1 69	2 48	2 48	NA	NA	NA	NA
P-6	5 9	NM	2	1 76	2 52	1 46	NA	NA	3 37	4 93	4 58	NA	NA	1 61	2 41	3 12	NA	NA	NA	NA
P-7	5 1	NM	2	1 61	2 27	1 75	NA	NA	2 18	3 72	2 44	NA	NA	0 57	1 45	0 69	NA	NA	NA	NA
P-8	4 0	NM	2	-	-	NM	NA	NA	1 35	2 39	NM	NA	NA	-	-	NM	NA	NA	NA	NA
P-9	6 4	NM	2	-	-	NM	NA	NA	2 22	2 39	NM	NA	NA	-	-	NM	NA	NA	NA	NA
P-10	5 1	NM	2	-	-	NM	NA	NA	1 93	2 72	NM	NA	NA	-	-	NM	NA	NA	NA	NA

Source CH2M Hill, 1991b

[a] BTOC = Below top of casing
[b] NM = not measured
[c] NA = not available
[d] NR = not reported

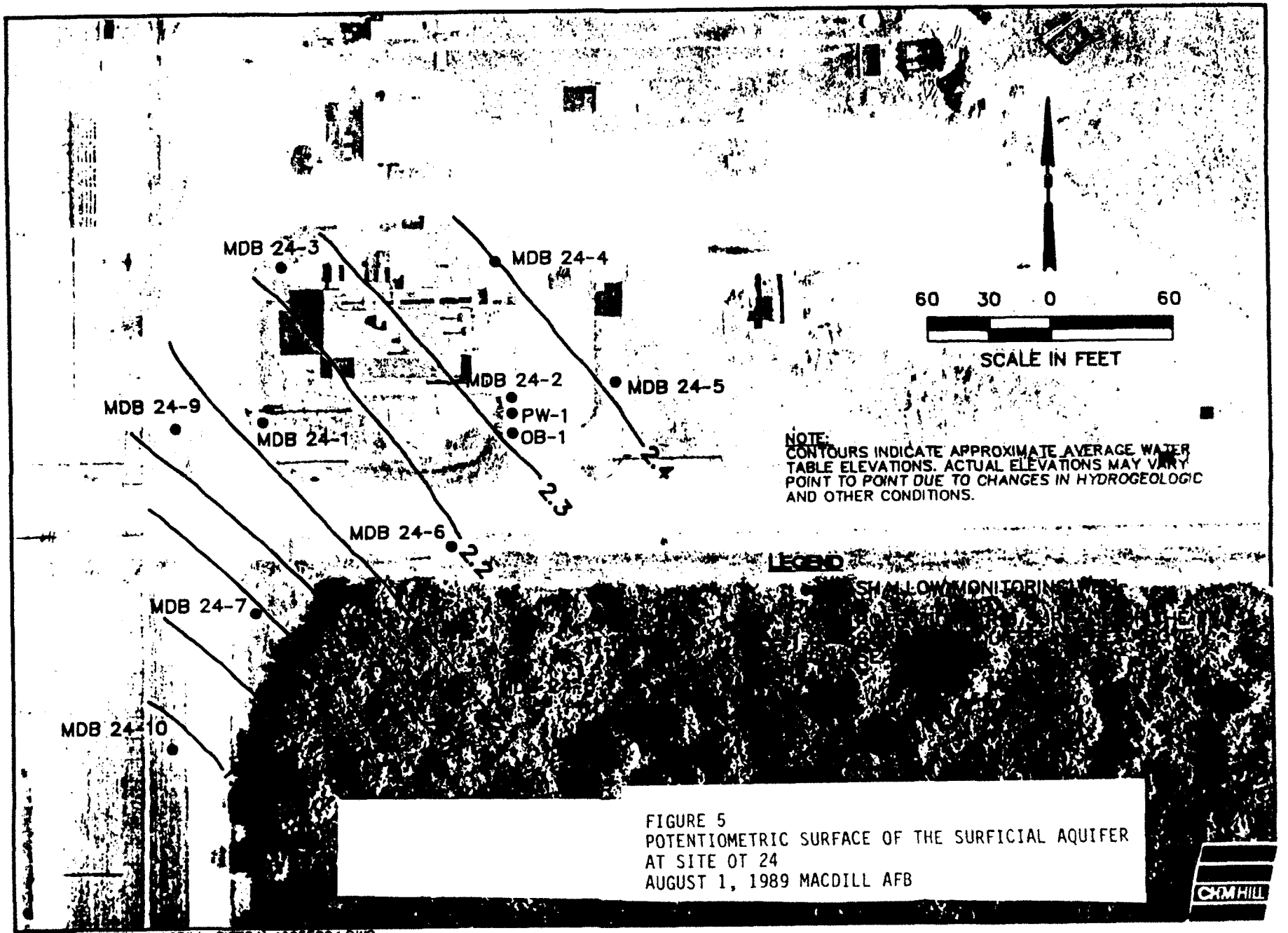


FIGURE 5
POTENTIOMETRIC SURFACE OF THE SURFICIAL AQUIFER
AT SITE OT 24
AUGUST 1, 1989 MACDILL AFB

VDM: FCR24685F0_MACDILL_SITE24\4685FC04.DWG

Table 1-3
OVA SAMPLING RESULTS FOR JUNE 1989, SITE OT 24, MACDILL AFB

SAMPLE #	A (0-1 ft)	B (1-2 ft)	C (2-3 ft)
1	>10,000	--	--
2	5500	--	--
3	5000	--	--
4	10	--	--
5	11	--	--
6	<10	--	--
7	<10	--	--
8	15	>10,000	>10,000
9	>10,000	--	--
10	>10,000	>10,000	--
11	10	10,000	--
12	<10	800	--
13	<10	--	--
14	<10	<10	--
15	<10	<10	<10
16	<10	<10	100
17	<10	<10	20
18	<10	<10	--
19	550	10,000	>10,000

Results are expressed in ppm
-- = Sample not collected

See Figure 1-4 for location of samples.

Table 1-4
SUMMARY OF SOIL AND SEDIMENT DATA FOR JUNE 1989, SITE OT 24, MACDILL AFB

LOCATION	EPA METHOD 602 µg/Kg	TOTAL METALS mg/Kg	EP TOXICITY mg/Kg	PETROLEUM HYDROCARBONS mg/Kg
SD24-3	Ethylbenzene - 2,300 Total Xylenes - 5,800	Arsenic - 0.74 Cadmium - 3.4 Chromium - 255	Cadmium - 0.0058 Chromium - 0.033 Lead - 0.049	9,790
SD24-8B	Benzene - 210 Toluene - 400 Ethylbenzene - 3,400 Total Xylenes - 18,000	Arsenic - 0.4 Lead - 6.1		3,600
SD24-10B	Benzene - 11,000 Toluene - 360,000 Ethylbenzene - 560,000 Total Xylenes - 290,000	Arsenic - 0.85 Chromium - 10 Lead - 35		22,580
SD24-12B	Total Xylenes - 610	Arsenic - 0.62 Chromium - 4 Lead - 26		344

Table 4-3
GROUNDWATER MONITORING DATA FOR DECEMBER 1988 AND APRIL 1989, SITE 24, MACDILL AFB

	VOLATILES DECEMBER 1988 µg/l	VOLATILES MAY 1989 µg/l	SEMI-VOLATILES DECEMBER 1988 µg/l	METALS DECEMBER 1988 µg/l	METALS APRIL 1989 µg/l
MD24-1	Benzene - 180 Toluene - 43 Ethylbenzene - 2	Benzene - 99 Toluene - 2	Naphthalene - 13	Lead - 2	
MD24-2	Methyl Chloride - 29 Acetone - 19 Total Xylenes - 3	Benzene - 55 Toluene - 3.8 Ethylbenzene - 4.2 Total Xylenes - 14	Naphthalene - 6 2-Methylnaphthalene - 2	Chromium - 43 Lead - 15	
MD24-3	Methylene Chloride - 12 Carbon Disulfide - 2		Bis(2-ethylhexyl) phthalate - 900	Chromium - 10 Lead - 4	
MD24-4	Methylene Chloride - 7		Bis(2-ethylhexyl) phthalate - 150	Chromium - 284 Lead - 45	Chromium unfiltered - 90 filtered - <50
Holding Tank	Methylene Chloride - 34 Acetone - 1,100,000 Benzene - 3,900 Toluene - 7,200 Ethylbenzene - 300 Total Xylenes - 2,400		2-Methylphenol - 55 4-Methylphenol - 110 Naphthalene - 190 2-Methylnaphthalene - 190 Bis(2-ethylhexyl) phthalate - 33	Lead - 6	

Table 4-4

GROUNDWATER MONITORING DATA FOR AUGUST 1989, SITE 24, MACDILL AFB

	VOLATILES µg/l	SEMI-VOLATILES µg/l	LEAD µg/l
MD24-1	Methylene Chloride - 3 1,1-Dichloroethane - 2 Benzene - 170 Ethylbenzene - 2	Naphthalene - 15	7
MD24-2	Methylene Chloride - 5 Benzene - 30 Ethylbenzene - 5 Total Xylenes - 8	Naphthalene - 3	9
MD24-3	Chloromethane - 1 Methylene Chloride - 10 Acetone - 11	Bis(2-ethylhexyl) phthalate - 3	6
MD24-4	Methylene Chloride - 13	Bis(2-ethylhexyl) phthalate - 3	6
MD24-5	Methylene Chloride - 5	Bis(2-ethylhexyl) phthalate - 2	28
MD24-6	Methylene Chloride - 7 1,1-Dichloroethane - 1 Benzene - 120	Naphthalene - 7	14
MD24-7	Methylene Chloride - 4	Bis(2-ethylhexyl) phthalate - 37	29
MD24-8	Chloromethane - 1 Methylene Chloride - 7	ND	6
MD24-9	Methylene Chloride - 9 2-Butanone - 25	ND	10
MD24-10	Methylene Chloride - 5	ND	8

Table 4-6

PUMPING TEST WATER QUALITY SUMMARY FOR SITE 24, MACDILL AFB

AUGUST 1989

CONSTITUENTS	TIME SINCE PUMPING BEGAN (HRS) 8	24	48
EPA Method 601			
Vinyl Chloride	23	19	22
1,1-Dichloroethane	25	26	23
EPA Method 602			
Benzene	820	930	930
Toluene	600	170	320
Ethylbenzene	110	45	140
Total Xylenes	180	65	125
EPA Method 610			
Naphthalene	30	N/A	28
2-Methylnaphthalene	17	N/A	9
1-Methylnaphthalene	10	N/A	5
TOC - Liquid (mg/l)	18.2	N/A	16.9
Inorganics (results in mg/l)			
Iron	4.67	N/A	4.36
Lead	<0.002	N/A	<0.002
Total Hardness as $CaCO_3$	392	N/A	390

N/A - not analyzed
Results are expressed in µg/l except were noted

Table 1
SUMMARY OF GROUNDWATER MONITORING DATA
OCTOBER 1990

	EPA Methods 601 & 602							EPA Method 602				
	MD24-1	MD24-2	MD24-3	MD24-4	MD24-5	MD24-6	MD24-6A	MD24-7	MD24-8	MD24-9	MD24-10	MD24-10A
	85818	85829	85819	85820	85821	85828	85827	85826	85825	85824	85822	85823
	10/8/90	10/8/90	10/8/90	10/8/90	10/8/90	10/8/90	10/9/90	10/8/90	10/8/90	10/8/90	10/8/90	10/8/90
Compound	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Chloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2.0	1.4	1.0 U	1.0 U	1.0 U	1.1	2.9	1.7	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene and Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene								1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert-Butyl Ether	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	13	1.0 U	6.4	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	30	37	1.0 U	1.0 U	1.0 U	6.3	33	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl Benzene	1.0 U	2.7 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylenes	1.0 U	1.4 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Volatile Aromatic Organics	32	42.5	BMDL	1.3	BMDL	20.4	35.9	8.1	BMDL	BMDL	BMDL	BMDL

U - Compound analyzed for but not detected
BMDL - Below method detection limits

10010A54.GNV

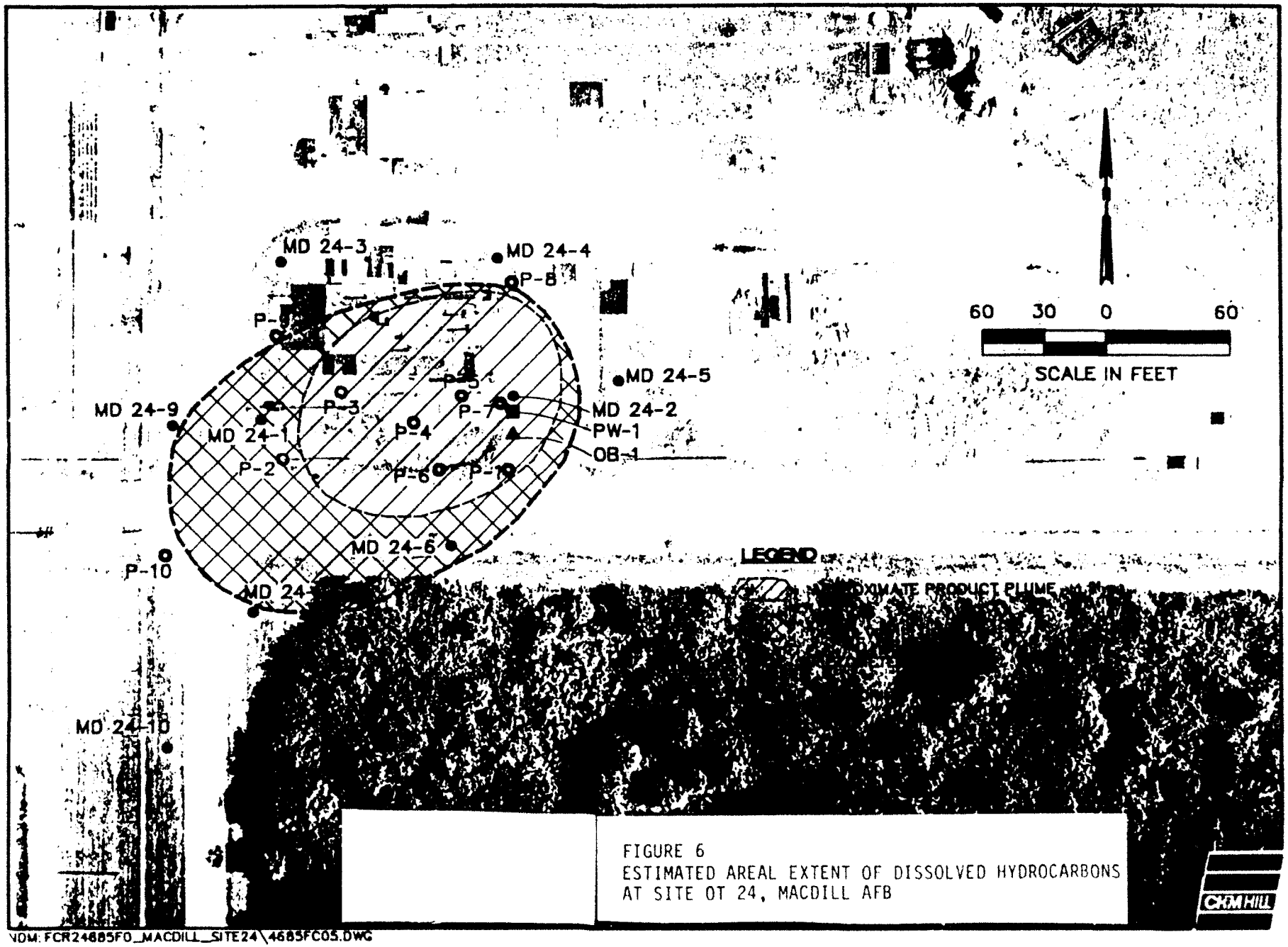


FIGURE 6
ESTIMATED AREAL EXTENT OF DISSOLVED HYDROCARBONS
AT SITE OT 24, MACDILL AFB

NDM: FCR24685F0_MACDILL_SITE24\4685FC05.DWG

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

6712 Benjamin Road • Suite 100 • Tampa, FL 33634 • (813) 885-7427 • Fax (813) 885-7049

CASE NARRATIVE: SL Project: B430998

Date: June 13, 1994

Client: Enserch Environmental

Project: MacDill AFB Site 24

Laboratory: Savannah Laboratories and Environmental Services, Inc.
Tampa Bay Division

Sixteen samples were received on May 24, 1994 and logged in as SL project B430998.

Sample '24-MW-07-01-000A' exhibited low surrogate recovery for the EPA 610 analysis due to matrix interference. Reanalysis confirmed this problem.

Additionally, the matrix spike results for the EPA 610 analysis exhibited low recoveries for benzo(a)pyrene. Although matrix spikes are for advisory purposes only, the samples were reanalyzed with similar results. The lab control samples' results for this analysis were all within acceptance limits.

No other analytical problems occurred with this set of samples.

Andre Rachmaninoff

C:\WP51\ARENSERCH.998

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

6712 Benjamin Road • Suite 100 • Tampa, FL 33634 • (813) 885-7427 • Fax (813) 885-7049

LOG NO: B4-30998

Received: 24 MAY 94

Mr. Greg New
Enserch Environmental
759 S.E. Federal Highway
Stuart, Florida 34994-2936

Project: MacDill AFB Site 24
Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED
30998-1	24-MW-06-01-000A	05-24-94
30998-2	24-MW-07-01-000A	05-24-94
30998-3	24-MW-08-01-000A	05-24-94
30998-4	24-MW-10-01-000A	05-24-94
30998-5	24-MW-05-01-000A	05-24-94

PARAMETER	30998-1	30998-2	30998-3	30998-4	30998-5
Purgeable Halocarbons (601)					
Bromodichloromethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Bromoform, ug/l	<25	<5.0	<5.0	<5.0	<5.0
Bromomethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Chloroethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
2-Chloroethylvinyl Ether, ug/l	<50	<10	<10	<10	<10
Chloroform, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Chloromethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane, ug/l	7.1	6.3	<1.0	<1.0	<1.0
1,2-Dichloroethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
cis/trans-1,2-Dichloroethylene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

6712 Benjamin Road • Suite 100 • Tampa, FL 33634 • (813) 885-7427 • Fax (813) 885-7049

LOG NO: B4-30998

Received: 24 MAY 94

Mr. Greg New
Enserch Environmental
759 S.E. Federal Highway
Stuart, Florida 34994-2936

Project: MacDill AFB Site 24
Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED
30998-1	24-MW-06-01-000A	05-24-94
30998-2	24-MW-07-01-000A	05-24-94
30998-3	24-MW-08-01-000A	05-24-94
30998-4	24-MW-10-01-000A	05-24-94
30998-5	24-MW-05-01-000A	05-24-94

PARAMETER	30998-1	30998-2	30998-3	30998-4	30998-5
trans-1,3-Dichloropropene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride (Dichloromethane), ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride, ug/l	7.6	4.0	<1.0	<1.0	<1.0
Surrogate - Bromochloromethane, ug/l	15.1	15.1	15.0	15.1	15.1
Surrogate-Expected Value, ug/l	15	15	15	15	15
Surrogate-% Recovery	100 %	100 %	100 %	100 %	100 %
Surrogate-Control Limit	46-118 %	46-118 %	46-118 %	46-118 %	46-118 %
Date Analyzed	05.31.94	05.31.94	05.31.94	05.31.94	05.31.94
Batch ID	0531Q	0531Q	0531Q	0531Q	0531Q

SL SAVANNAH LABORATORIES
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Project: MacDill AFB Site 24
Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED
30998-1	24-MW-06-01-000A	05-24-94
30998-2	24-MW-07-01-000A	05-24-94
30998-3	24-MW-08-01-000A	05-24-94
30998-4	24-MW-10-01-000A	05-24-94
30998-5	24-MW-05-01-000A	05-24-94

PARAMETER	30998-1	30998-2	30998-3	30998-4	30998-5
Purgeable Aromatics (EPA 602)					
Benzene, ug/l	160	4.2	<1.0	<1.0	<1.0
Toluene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Total Xylenes, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Total Volatile Organic Aromatics, ug/l	160	4.2	<1.0	<1.0	<1.0
Methyl-Tert-Butyl-Ether (MTBE), ug/l	<50	<10	<10	<10	<10
Surrogate - a,a,a - Trifluorotoluene, ug/l	20.0	20.0	20.0	20.0	20.0
Surrogate - Expected Value, ug/l	20	20	20	20	20
Surrogate - % Actual Recovery	100 %	100 %	100 %	100 %	100 %
Surrogate - Control Limit	77-140 %	77-140 %	77-140 %	77-140 %	77-140 %
Date Analyzed	05.31.94	05.31.94	05.31.94	05.31.94	05.31.94
Batch ID	0531Q	0531Q	0531Q	0531Q	0531Q

SL SAVANNAH LABORATORIES
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LOG NO: B4-30998

Received: 24 MAY 94

Mr. Greg New
Enserch Environmental
759 S.E. Federal Highway
Stuart, Florida 34994-2936

Project: MacDill AFB Site 24
Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED
30998-6	24-MW-09-01-000A	05-24-94
30998-7	24-MW-01-01-001A	05-23-94
30998-8	24-MW-06A-01-001A	05-23-94
30998-9	24-MW-10A-01-001A	05-23-94
30998-10	24-MW-03-01-000B	05-24-94

PARAMETER	30998-6	30998-7	30998-8	30998-9	30998-10
Purgeable Halocarbons (601)					
Bromodichloromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
2-Chloroethylvinyl Ether, ug/l	<10	<10	<10	<10	<10
Chloroform, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane, ug/l	<1.0	1.3	2.2	1.1	<1.0
1,2-Dichloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
cis/trans-1,2-Dichloroethylene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

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LOG NO: B4-30998

Received: 24 MAY 94

Mr. Greg New
Enserch Environmental
759 S.E. Federal Highway
Stuart, Florida 34994-2936

Project: MacDill AFB Site 24
Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED
30998-6	24-MW-09-01-000A	05-24-94
30998-7	24-MW-01-01-001A	05-23-94
30998-8	24-MW-06A-01-001A	05-23-94
30998-9	24-MW-10A-01-001A	05-23-94
30998-10	24-MW-03-01-000B	05-24-94

PARAMETER	30998-6	30998-7	30998-8	30998-9	30998-10
trans-1,3-Dichloropropene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride (Dichloromethane), ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride, ug/l	<1.0	<1.0	2.0	<1.0	<1.0
Surrogate - Bromochloromethane, ug/l	15.1	15.0	14.7	15.1	15.0
Surrogate-Expected Value, ug/l	15	15	15	15	15
Surrogate-% Recovery	100 %	100 %	98 %	100 %	100 %
Surrogate-Control Limit	46-118 %	46-118 %	46-118 %	46-118 %	46-118 %
Date Analyzed	05.31.94	06.01.94	06.01.94	05.31.94	06.01.94
Batch ID	0531Q	0531Q	0531Q	0531Q	0531Q

SL SAVANNAH LABORATORIES
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LOG NO: B4-30998

Received: 24 MAY 94

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Project: MacDill AFB Site 24
Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED
30998-6	24-MW-09-01-000A	05-24-94
30998-7	24-MW-01-01-001A	05-23-94
30998-8	24-MW-06A-01-001A	05-23-94
30998-9	24-MW-10A-01-001A	05-23-94
30998-10	24-MW-03-01-000B	05-24-94

PARAMETER	30998-6	30998-7	30998-8	30998-9	30998-10
Purgeable Aromatics (EPA 602)					
Benzene, ug/l	<1.0	<1.0	23	<1.0	<1.0
Toluene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Total Xylenes, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Total Volatile Organic Aromatics, ug/l	<1.0	<1.0	23	<1.0	<1.0
Methyl-Tert-Butyl-Ether (MTBE), ug/l	<10	<10	<10	<10	<10
Surrogate - a,a,a - Trifluorotoluene, ug/l	20.0	20.0	20.0	20.0	20.0
Surrogate - Expected Value, ug/l	20	20	20	20	20
Surrogate - % Actual Recovery	100 %	100 %	100 %	100 %	100 %
Surrogate - Control Limit	77-140 %	77-140 %	77-140 %	77-140 %	77-140 %
Date Analyzed	05.31.94	06.01.94	06.01.94	05.31.94	06.01.94
Batch ID	0531Q	0531Q	0531Q	0531Q	0531Q

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

6712 Benjamin Road • Suite 100 • Tampa, FL 33634 • (813) 885-7427 • Fax (813) 885-7049

CASE NARRATIVE: SL Project: B431903

Date: September 13, 1994

Client: Enserch Environmental

Project: MacDill Site 24 Task 13/Sample Period 02

Laboratory: Savannah Laboratories and Environmental Services, Inc.
Tampa Bay Division

Sixteen samples were received on August 31, 1994 and logged in as SL project B431903.

No analytical problems were encountered with this set of samples.

Andre Rachmaninoff

C:\WP51\AR\ENSERCH.903

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

6712 Benjamin Road • Suite 100 • Tampa, FL 33634 • (813) 885-7427 • Fax (813) 885-7049

LOG NO: B4-31903

Received: 31 AUG 94

Mr. Greg New
Enserch Environmental
759 S.E. Federal Highway
Stuart, Florida 34994-2936

Project: MacDill Site 24/Task 13 Sample Period 02
Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED
31903-1	24-MW1-02-002B	08-31-94
31903-2	24-MW2-02-002B	08-31-94
31903-3	24-MW3-02-002C	08-31-94
31903-4	24-MW3-QC-02-002C	08-31-94
31903-5	24-MW4-02-002B	08-31-94

PARAMETER	31903-1	31903-2	31903-3	31903-4	31903-5
Purgeable Halocarbons (601)					
Bromodichloromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
2-Chloroethylvinyl Ether, ug/l	<10	<10	<10	<10	<10
Chloroform, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
cis/trans-1,2-Dichloroethylene, ug/l	<1.0	1.7	<1.0	<1.0	<1.0
1,2-Dichloropropane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

6712 Benjamin Road • Suite 100 • Tampa, FL 33634 • (813) 885-7427 • Fax (813) 885-7049

LOG NO: B4-31903

Received: 31 AUG 94

Mr. Greg New
Enserch Environmental
759 S.E. Federal Highway
Stuart, Florida 34994-2936

Project: MacDill Site 24/Task 13 Sample Period 02
Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED
31903-1	24-MW1-02-002B	08-31-94
31903-2	24-MW2-02-002B	08-31-94
31903-3	24-MW3-02-002C	08-31-94
31903-4	24-MW3-QC-02-002C	08-31-94
31903-5	24-MW4-02-002B	08-31-94

PARAMETER	31903-1	31903-2	31903-3	31903-4	31903-5
trans-1,3-Dichloropropene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride (Dichloromethane), ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene, ug/l	<1.0	2.3	<1.0	<1.0	<1.0
Trichlorofluoromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride, ug/l	<1.0	1.2	<1.0	<1.0	<1.0
Surrogate - Bromochloromethane	12.0	14.5	12.4	13.3	11.9
Surrogate-Expected Value	15	15	15	15	15
Surrogate-% Recovery	80 %	97 %	83 %	88 %	79 %
Surrogate-Control Limit	50-136 %	50-136 %	50-136 %	50-136 %	50-136 %
Date Analyzed	09.02.94	09.02.94	09.02.94	09.02.94	09.02.94
Batch ID	0901Q	0901Q	0901Q	0901Q	0901Q

SL SAVANNAH LABORATORIES
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LOG NO: B4-31903

Received: 31 AUG 94

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Project: MacDill Site 24/Task 13 Sample Period 02
Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED
31903-1	24-MW1-02-002B	08-31-94
31903-2	24-MW2-02-002B	08-31-94
31903-3	24-MW3-02-002C	08-31-94
31903-4	24-MW3-QC-02-002C	08-31-94
31903-5	24-MW4-02-002B	08-31-94

PARAMETER	31903-1	31903-2	31903-3	31903-4	31903-5
Purgeable Aromatics (EPA 602)					
Benzene, ug/l	<1.0	38	<1.0	<1.0	<1.0
Toluene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene, ug/l	<1.0	1.4	<1.0	<1.0	<1.0
Total Xylenes, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Total Volatile Organic Aromatics, ug/l	<1.0	39.4	<1.0	<1.0	<1.0
Methyl-Tert-Butyl-Ether (MTBE), ug/l	<10	<10	<10	<10	<10
Surrogate - a,a,a - Trifluorotoluene	20.9	21.5	22.3	21.5	20.6
Surrogate - Expected Value	20	20	20	20	20
Surrogate - % Actual Recovery	104 %	108 %	112 %	101 %	103 %
Surrogate - Control Limit	77-140 %	77-140 %	77-140 %	77-140 %	77-140 %
Date Analyzed	09.02.94	09.02.94	09.02.94	09.02.94	09.02.94
Batch ID	0901Q	0901Q	0901Q	0901Q	0901Q

SL SAVANNAH LABORATORIES
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LOG NO: B4-31903

Received: 31 AUG 94

Mr. Greg New
Enserch Environmental
759 S.E. Federal Highway
Stuart, Florida 34994-2936

Project: MacDill Site 24/Task 13 Sample Period 02
Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED
31903-6	24-MW6-02-001A	08-30-94
31903-7	24-MW6A-02-001A	08-30-94
31903-8	24-MW7-02-001A	08-30-94
31903-9	24-MW8-02-002B	08-31-94
31903-10	24-MW9-02-001A	08-30-94

PARAMETER	31903-6	31903-7	31903-8	31903-9	31903-10
Purgeable Halocarbons (601)					
Bromodichloromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
2-Chloroethylvinyl Ether, ug/l	<10	<10	<10	<10	<10
Chloroform, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane, ug/l	<1.0	1.6	<1.0	<1.0	<1.0
1,2-Dichloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
cis/trans-1,2-Dichloroethylene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

6712 Benjamin Road • Suite 100 • Tampa, FL 33634 • (813) 885-7427 • Fax (813) 885-7049

LOG NO: B4-31903

Received: 31 AUG 94

Mr. Greg New
Enserch Environmental
759 S.E. Federal Highway
Stuart, Florida 34994-2936

Project: MacDill Site 24/Task 13 Sample Period 02
Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED
31903-6	24-MW6-02-001A	08-30-94
31903-7	24-MW6A-02-001A	08-30-94
31903-8	24-MW7-02-001A	08-30-94
31903-9	24-MW8-02-002B	08-31-94
31903-10	24-MW9-02-001A	08-30-94

PARAMETER	31903-6	31903-7	31903-8	31903-9	31903-10
trans-1,3-Dichloropropene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride (Dichloromethane), ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Surrogate - Bromochloromethane	13.7	12.4	10.7	12.7	11.5
Surrogate-Expected Value	15	15	15	15	15
Surrogate-% Recovery	91 %	83 %	71 %	85 %	77 %
Surrogate-Control Limit	50-136 %	50-136 %	50-136 %	50-136 %	50-136 %
Date Analyzed	09.02.94	09.02.94	09.02.94	09.02.94	09.02.94
Batch ID	0902Q	0901Q	0901Q	0901Q	0901Q

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LOG NO: B4-31903

Received: 31 AUG 94

Mr. Greg New
Enserch Environmental
759 S.E. Federal Highway
Stuart, Florida 34994-2936

Project: MacDill Site 24/Task 13 Sample Period 02
Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED
31903-6	24-MW6-02-001A	08-30-94
31903-7	24-MW6A-02-001A	08-30-94
31903-8	24-MW7-02-001A	08-30-94
31903-9	24-MW8-02-002B	08-31-94
31903-10	24-MW9-02-001A	08-30-94

PARAMETER	31903-6	31903-7	31903-8	31903-9	31903-10
Purgeable Aromatics (EPA 602)					
Benzene, ug/l	<1.0	20	<1.0	<1.0	<1.0
Toluene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Total Xylenes, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Total Volatile Organic Aromatics, ug/l	<1.0	20	<1.0	<1.0	<1.0
Methyl-Tert-Butyl-Ether (MTBE), ug/l	<10	<10	<10	<10	<10
Surrogate - a,a,a - Trifluorotoluene	20.8	19.3	19.3	19.2	19.1
Surrogate - Expected Value	20	20	20	20	20
Surrogate - % Actual Recovery	104 %	96 %	96 %	96 %	95 %
Surrogate - Control Limit	77-140 %	77-140 %	77-140 %	77-140 %	77-140 %
Date Analyzed	09.02.94	09.02.94	09.02.94	09.02.94	09.02.94
Batch ID	0902Q	0901Q	0901Q	0901Q	0901Q

APPENDIX B

GEOLOGIC LOGS,
MONITORING POINT INSTALLATION RECORDS,
MONITORING POINT/WELL DEVELOPMENT AND
SAMPLING RECORDS,
SLUG TESTING RESULTS, AND
SURVEY DATA

GEOLOGIC BORING LOG

Sheet 1 of 1

BORING NO.:	24MP-1A	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/8/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/8/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	RAIN
COMMENTS:					

Elev (ft)	Depth (ft)	Pro-file	USCS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
	1			Dark brown, fine- to medium-grained, quartz sand FILL with silt. Subangular to subrounded grains.			CONTINUOUS CORE					
▼			SP	Brown, fine- to medium-grained quartz SAND. Subangular to subrounded grains. Wet. Hydrocarbon odor at 3 feet bgs. Saturated at 4.5 feet bgs.	1	3-4			81.8			
	5			SAA with strong hydrocarbon odor and dark staining.					99.9			
	10		SW	Light brown, fine- to medium-grained SAND. Well sorted, subangular to subrounded quartz grains.					705			
	15			Bottom of hole at 12 feet bgs.								
	20											
	25											
	30											
	35											

NOTES

bgs – Below Ground Surface
GS – Ground Surface
TOC – Top of Casing
NS – Not Sampled
SAA – Same As Above

SAMPLE TYPE

D – DRIVE
C – CORE
G – GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

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GEOLOGIC BORING LOG

Sheet 1 of 1

BORING NO.:	24MP-1B	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/8/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/8/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	RAIN
COMMENTS:					

Elev (ft)	Depth (ft)	Pro-file	US CS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
	1			No Sample. FILL.			CONTINUOUS CORE					
▼	5		SP	Brown, fine- to medium-grained SAND with silt. Strong hydrocarbon odor with staining.								
	10		SW	Light brown, fine- to medium-grained quartz SAND. Well sorted. Hydrocarbon odor present.	1	8-9						
	15			Bottom of hole at 13 feet bgs.								
	20											
	25											
	30											
	35											

NOTES

bgs – Below Ground Surface
GS – Ground Surface
TOC – Top of Casing
NS – Not Sampled
SAA – Same As Above

SAMPLE TYPE

D – DRIVE
C – CORE
G – GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS
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GEOLOGIC BORING LOG

Sheet 1 of 1

BORING NO.:	24MP-1D	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/8/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/8/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	5.66
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	RAIN
COMMENTS:					

Elev (ft)	Depth (ft)	Pro-file	US CS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
	1			No Sample. FILL.			CONTINUOUS CORE					
▼	5		SP	Brown, fine- to medium-grained SAND with silt. Strong hydrocarbon odor with staining.								
			SW	Light brown, fine- to medium-grained quartz SAND. Well sorted. Hydrocarbon odor present.	1	8-9						
	10											
				Bottom of hole at 13 feet bgs.								
	15											
	20											
	25											
	30											
	35											

NOTES

bgs – Below Ground Surface
GS – Ground Surface
TOC – Top of Casing
NS – Not Sampled
SAA – Same As Above

SAMPLE TYPE

D – DRIVE
C – CORE
G – GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS
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GEOLOGIC BORING LOG

Sheet 1 of 1

BORING NO.:	24MP-1S	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/8/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/8/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	5.66
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	RAIN
COMMENTS:					

Elev (ft)	Depth (ft)	Profile	USCS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
	1			Dark brown, fine- to medium-grained, quartz sand FILL with silt. Subangular to subrounded grains.			CONTINUOUS CORE					
▼			SP	Brown, fine- to medium-grained quartz SAND. Subangular to subrounded grains. Wet. Hydrocarbon odor at 3 feet bgs. Saturated at 4.5 feet bgs.	1	3-4			81.8			
	5			SAA with strong hydrocarbon odor and dark staining.					99.9			
			SW	Light brown, fine- to medium-grained SAND. Well sorted, subangular to subrounded quartz grains.								
	10								705			
				Bottom of hole at 12 feet bgs.								
	15											
	20											
	25											
	30											
	35											

NOTES

bgs – Below Ground Surface
GS – Ground Surface
TOC – Top of Casing
NS – Not Sampled
SAA – Same As Above

SAMPLE TYPE

D – DRIVE
C – CORE
G – GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

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GEOLOGIC BORING LOG

BORING NO.:	24SS-1	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/10/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/10/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	5.56
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	WARM
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	CLEAR, SUNNY
COMMENTS:	BACKGROUND PID = 7.6 ppmv				

Elev (ft)	Depth (ft)	Profile	USCS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
	1		SP	Topsoil to 3 inches bgs. Dark brown, medium- to fine-grained, sandy,silty FILL.			CONTINUOUS CORE		7.6	7.6		
▼	5			SAA, becoming saturated at 4.5 feet bgs.	1	4-6			7.6			
			SW	White to light brown, well-sorted, fine to medium-grained quartz SAND.					7.6			
	10			Bottom of hole at 10 feet bgs.					7.6			
	15											
	20											
	25											
	30											
	35											

NOTES

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GS – Ground Surface
TOC – Top of Casing
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SAA – Same As Above

SAMPLE TYPE

D – DRIVE
C – CORE
G – GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS
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GEOLOGIC BORING LOG

Sheet 1 of 1

BORING NO.:	24SS-3	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/11/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/11/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	NM
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	COOL
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	CLEAR, SUNNY

COMMENTS: BACKGROUND PID = 7.1 ppmv

Elev (ft)	Depth (ft)	Pro-file	USCS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
▼	1		SP	Gravelly, sandy FILL to 1 foot bgs. Brown, fine- to medium-grained, silty sandy FILL. Saturated at 2 feet bgs. Woody vegetation present.			CONTINUOUS CORE					
					1	2-4			>1000			
	5		SW	Light brown, fine- to medium-grained, well-sorted SAND.					>1000			
				No sample. Sample too saturated to recover.								
	10				2	9-11			35.7			
									>1000			
				Bottom of hole at 12 feet bgs.								
	15											
	20											
	25											
	30											
	35											

NOTES

bgs – Below Ground Surface
GS – Ground Surface
TOC – Top of Casing
NS – Not Sampled
SAA – Same As Above

SAMPLE TYPE

D – DRIVE
C – CORE
G – GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

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GEOLOGIC BORING LOG

BORING NO.:	24MP-2	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/8/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/8/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	5.25
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	SUN

COMMENTS:

Elev (ft)	Depth (ft)	Pro-file	US CS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
	1			Brown topsoil to 1.5 feet bgs.			CONTINUOUS CORE					
			SP	Brown, fine-grained, silty sand FILL. Subangular to subrounded grains. Strong hydrocarbon odor and dark staining present.	1	3-4			>1000			
▼	5			Light brown, fine- to medium-grained SAND. More highly sorted. Saturated at 4.5 feet bgs.					27.2			
				SAA turning white with weaker hydrocarbon odor.					27.2			
			SW						9.0			
	10			Bottom of hole at 10 feet bgs.								
	15											
	20											
	25											
	30											
	35											

NOTES

bgs - Below Ground Surface
GS - Ground Surface
TOC - Top of Casing
NS - Not Sampled
SAA - Same As Above

SAMPLE TYPE

D - DRIVE
C - CORE
G - GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

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GEOLOGIC BORING LOG

Sheet 1 of 1

BORING NO.:	24MP-3	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/9/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/9/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	4.17
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	COOL
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	CLEAR
COMMENTS:	BACKGROUND PID = 3.5 ppmv				

Elev (ft)	Depth (ft)	Profile	US CS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
▼	1		SP	Brown topsoil to 0.5 feet bgs. Brown, fine-grained, silty sand FILL. Subangular to subrounded grains. Saturated at 3 feet bgs.			CONTINUOUS CORE					
	5				1	3-5			3.5			
			SW	Light brown, fine- to medium-grained quartz SAND. More highly sorted.					3.5			
	10								3.5			
			SP	Brown, fine- to medium -grained SAND as above.								
	15			No sample.								
			SW	White, well sorted quartz SAND as above.								
	20			No sample.								
				No sample. Too saturated to stay in sample tube.								
	25			Bottom of hole at 25 feet bgs.								
	30											
	35											

NOTES

bgs – Below Ground Surface
GS – Ground Surface
TOC – Top of Casing
NS – Not Sampled
SAA – Same As Above

SAMPLE TYPE

D – DRIVE
C – CORE
G – GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS
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GEOLOGIC BORING LOG

Sheet 1 of 1

BORING NO.:	24MP-4	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/9/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/9/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	5.42
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	COOL
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	WINDY
COMMENTS:	BACKGROUND PID = 3.5 ppmv				

Elev (ft)	Depth (ft)	Profile	USCS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
	1		SP	Brown topsoil to 3 inches bgs. Light brown, fine-grained, silty sand FILL. Subangular to subrounded grains. Six inch layer of white, sandy gravel at 1 foot bgs. Areas of grey coloring present.			CONTINUOUS CORE					
									3.5			
▼				SAA. Saturated at 4.5 feet bgs. Turning dark brown.	1	3-5			3.5	3.5		
	5								3.5			
									3.5			
			SW	Light brown, fine- to medium-grained quartz SAND. Well sorted.								
									3.5	3.5		
			SP	At 8 feet bgs, 1 foot layer of dark brown, silty SAND.								
	10		SW	White, fine-grained quartz SAND.					3.5			
				Bottom of hole at 10 feet bgs.								
	15											
	20											
	25											
	30											
	35											

NOTES

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GS - Ground Surface
TOC - Top of Casing
NS - Not Sampled
SAA - Same As Above

SAMPLE TYPE

D - DRIVE
C - CORE
G - GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

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GEOLOGIC BORING LOG

Sheet 1 of 1

BORING NO.:	24MP-5	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/8/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/8/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	5.29
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	WARM
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	SUNNY

COMMENTS: BACKGROUND PID = 3.5 ppmv

Elev (ft)	Depth (ft)	Profile	USCS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
▼	1		SP	Brown topsoil to 3 inches bgs. Light brown, fine-grained, silty sand FILL. Subangular to subrounded grains. Six inch layer of white, sandy gravel and 6 inch grey sand lens at 1.5 feet bgs.			CONTINUOUS CORE					
										3.5		
	5			SAA. Saturated at 3.5 feet bgs.	1	3-5			3.5			
									3.5			
			SW	Light brown, fine- to medium-grained quartz SAND. Well sorted.						3.5		
	10								3.5			
				No sample.								
	15		SP	Light brown, fine-grained, silty SAND. Poorly sorted.								
				Bottom of hole at 17 feet bgs.								
	20											
	25											
	30											
	35											

NOTES

bgs – Below Ground Surface
GS – Ground Surface
TOC – Top of Casing
NS – Not Sampled
SAA – Same As Above

SAMPLE TYPE

D – DRIVE
C – CORE
G – GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS
MacDill Air Force Base, Florida

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Denver, Colorado

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GEOLOGIC BORING LOG

Sheet 1 of 1

BORING NO.:	24MP-6	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/9/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/9/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	4.60
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	WARM
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	WINDY
COMMENTS	NO PID READING - LOW BATTERY				

Elev (ft)	Depth (ft)	Profile	USCS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
	1			No sample.			CONTINUOUS CORE					
			SP	Dark brown, fine-grained, silty sand FILL.								
▼				SAA. Saturated at 4.0 feet bgs. Turning light brown.	1	4-6						
	5		SW	Light brown, fine- to medium-grained quartz SAND. Well sorted.								
	10		CL	Dark grey, dense, highly plastic CLAY.								
				Bottom of hole at 12 feet bgs.								
	15											
	20											
	25											
	30											
	35											

NOTES

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TOC - Top of Casing
NS - Not Sampled
SAA - Same As Above

SAMPLE TYPE

D - DRIVE
C - CORE
G - GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

L:\45021\DRAWINGS\BORELOGS\OT-24\24MP6, 01/03/96 at 10:26

GEOLOGIC BORING LOG

Sheet 1 of 1

BORING NO.:	24MP-7	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/10/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/10/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	8.15
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	COOL
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	WINDY

COMMENTS: BACKGROUND PID = 7.6 ppmv

Elev (ft)	Depth (ft)	Pro-file	USCS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
	1			No Sample			CONTINUOUS CORE					
▼			SP	Brown, fine-grained, silty sand FILL. Subangular to subrounded grains. Saturated at 3 feet bgs.	1	2-4			7.6			
	5								7.6	7.6		
			SW	White, fine- to medium-grained quartz SAND. Well sorted.					7.6			
	10											
	15		SP	Light brown, fine- to medium -grained SAND with silt to silty SAND. Saturated.					7.8			
	20			No sample. Too saturated to stay in sample tube.	4							
				Bottom of hole at 22 feet bgs.								
	25											
	30											
	35											

NOTES

bgs – Below Ground Surface
GS – Ground Surface
TOC – Top of Casing
NS – Not Sampled
SAA – Same As Above

SAMPLE TYPE

D – DRIVE
C – CORE
G – GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

L:\45021\DRAWINGS\BORELOGS\OT-24\24MP7, 01/03/96 at 10:27

GEOLOGIC BORING LOG

BORING NO.:	24MP-8	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/10/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/10/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	4.26
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	WARM
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	CLEAR

COMMENTS: BACKGROUND PID = 7.6 ppmv

Elev (ft)	Depth (ft)	Pro-file	USCS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	MKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
▼	1			No Sample			CONTINUOUS CORE					
			SP	Two to three inches of brown topsoil. Dark brown, fine-grained, silty sand FILL. Subangular to subrounded grains. Saturated at 3 feet bgs.	1	3-5			7.6			
	5		SW	Light brown, fine-grained SAND with silt. Dark brown sand clasts present.					7.6	7.6		
				Bottom of hole at 7 feet bgs								
	10											
	15											
	20											
	25											
	30											
	35											

NOTES

bgs – Below Ground Surface
GS – Ground Surface
TOC – Top of Casing
NS – Not Sampled
SAA – Same As Above

SAMPLE TYPE

D – DRIVE
C – CORE
G – GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

L:\45021\DRAWINGS\BORELOGS\OT-24\24MP8, 01/03/96 at 10:28

GEOLOGIC BORING LOG

Sheet 1 of 1

BORING NO.:	24MP-9	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/10/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/10/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	3.84
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	CLEAR, SUNNY
COMMENTS:	NO PID READING - BATTERY LOW				

Elev (ft)	Depth (ft)	Profile	USCS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
	1			No sample. FILL			CONTINUOUS CORE					
▼			SP	Dark brown, fine-grained, silty sand FILL. Subangular to subrounded grains. Saturated at 3.5 feet bgs.	1	3-5						
	5		SW	White to light brown, fine- to medium-grained quartz SAND. Well sorted.								
				No sample.								
			SW	SAA with slight hydrocarbon odor.								
	10				2	9-11						
				Bottom of hole at 12 feet bgs.								
	15											
	20											
	25											
	30											
	35											

NOTES

bgs - Below Ground Surface
GS - Ground Surface
TOC - Top of Casing
NS - Not Sampled
SAA - Same As Above

SAMPLE TYPE

D - DRIVE
C - CORE
G - GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

L:\45021\DRAWINGS\BORELOGS\OT-24\24MP9, 01/03/96 at 10:28

GEOLOGIC BORING LOG

BORING NO.:	24MP-10	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/11/95
CLIENT:	AFCEE	RIG TYPE:	GEOPROBE	DATE CMPL.:	3/11/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	4.10
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	COOL
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	
COMMENTS:	BACKGROUND PID = 7.1 ppmv				

Elev (ft)	Depth (ft)	Pro-file	USCS	Geologic Description	Sample No.	Sample Depth (ft)	Sample Type	Penet Res	PID(ppm)	WKSPC PID(ppm)	TOTAL BTEX(ppm)	TPH (ppm)
▼	1			No sample. FILL			CONTINUOUS CORE					
			SP	Brown, fine-grained, silty sand FILL. Subangular to subrounded grains. Saturated at 2.5 feet bgs.	1	2-6			7.1	7.1		
	5		SW	White to light brown, fine- to medium-grained quartz SAND. Well sorted.					7.1			
				SAA becoming very well sorted.					7.1			
	10			Bottom of hole at 10 feet bgs.					7.1			
	15											
	20											
	25											
	30											
	35											

NOTES

bgs – Below Ground Surface
GS – Ground Surface
TOC – Top of Casing
NS – Not Sampled
SAA – Same As Above

SAMPLE TYPE

D – DRIVE
C – CORE
G – GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

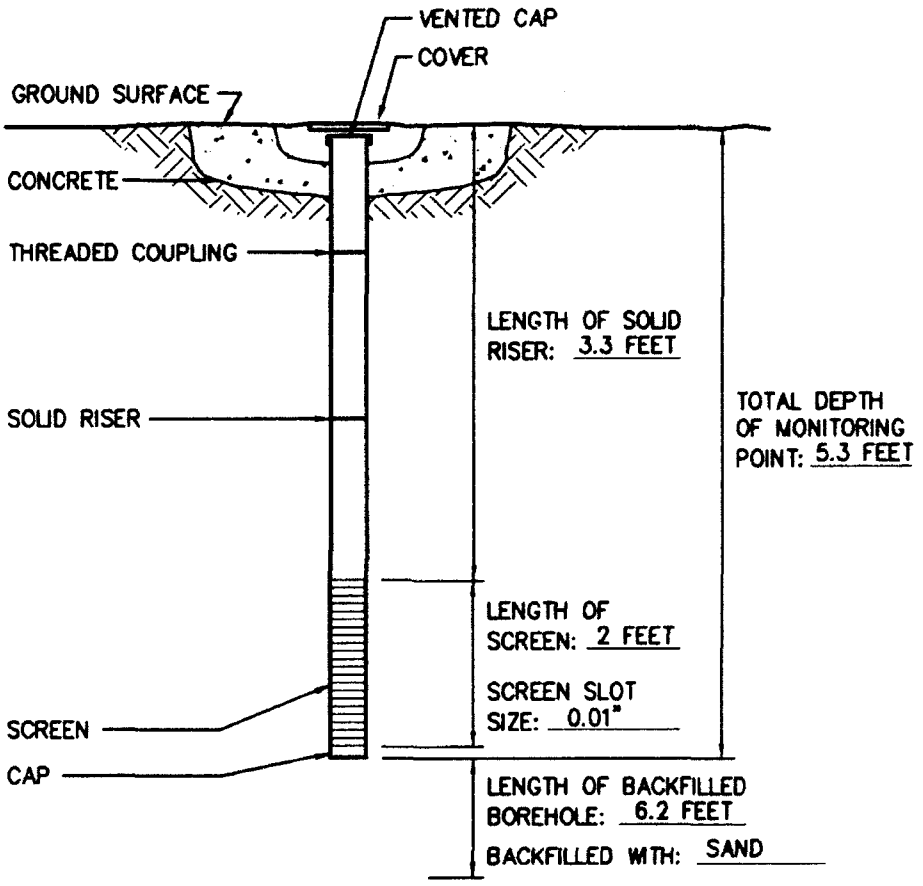
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

L:\45021\DRAWINGS\BORELOGS\OT-24\24MP10, 01/03/96 at 10:29

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-1S
JOB NUMBER 722450.21 INSTALLATION DATE 3/8/95 LOCATION SITE OT-24
DATUM ELEVATION 5.656 FEET ABOVE MSL WELL CASING ELEVATION 5.576 FEET AMSL
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH
RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

STABILIZED WATER LEVEL 3.78 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 5.30 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

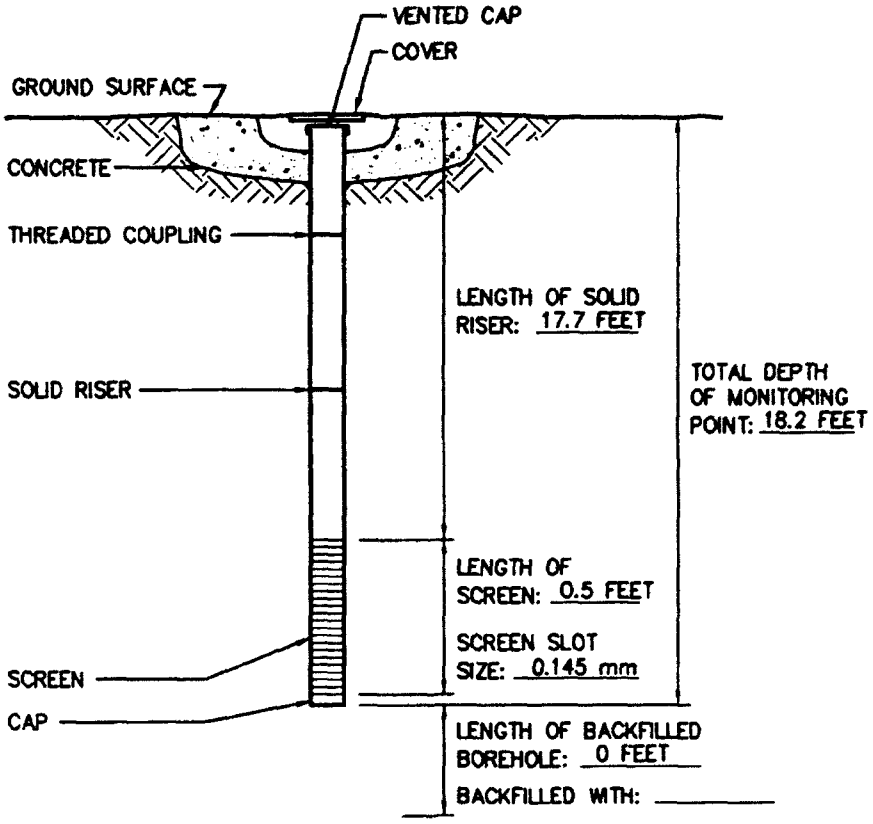
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP1S ON 4/24/95 AT 0900

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-1D
JOB NUMBER 722450.21 INSTALLATION DATE 3/8/95 LOCATION SITE OT-24
DATUM ELEVATION 5.656 FEET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE 0.01"
RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

NO WATER LEVEL MEASUREMENTS TAKEN.

MONITORING POINT INSTALLATION RECORD

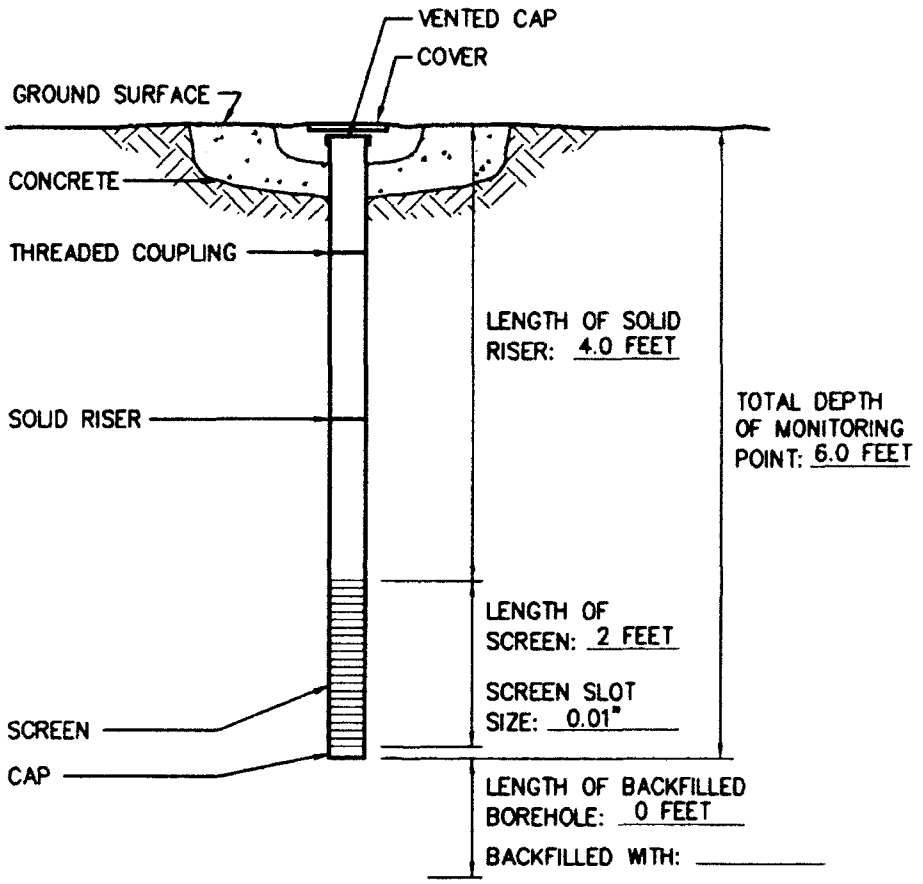
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP1D ON 4/24/95 AT 1100

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-2S
JOB NUMBER 722450.21 INSTALLATION DATE 3/8/95 LOCATION SITE OT-24
DATUM ELEVATION 5.246 FEET ABOVE MSL WELL CASING ELEVATION 4.943 FEET AMSL
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH
RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

STABILIZED WATER LEVEL 3.59 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 6.10 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

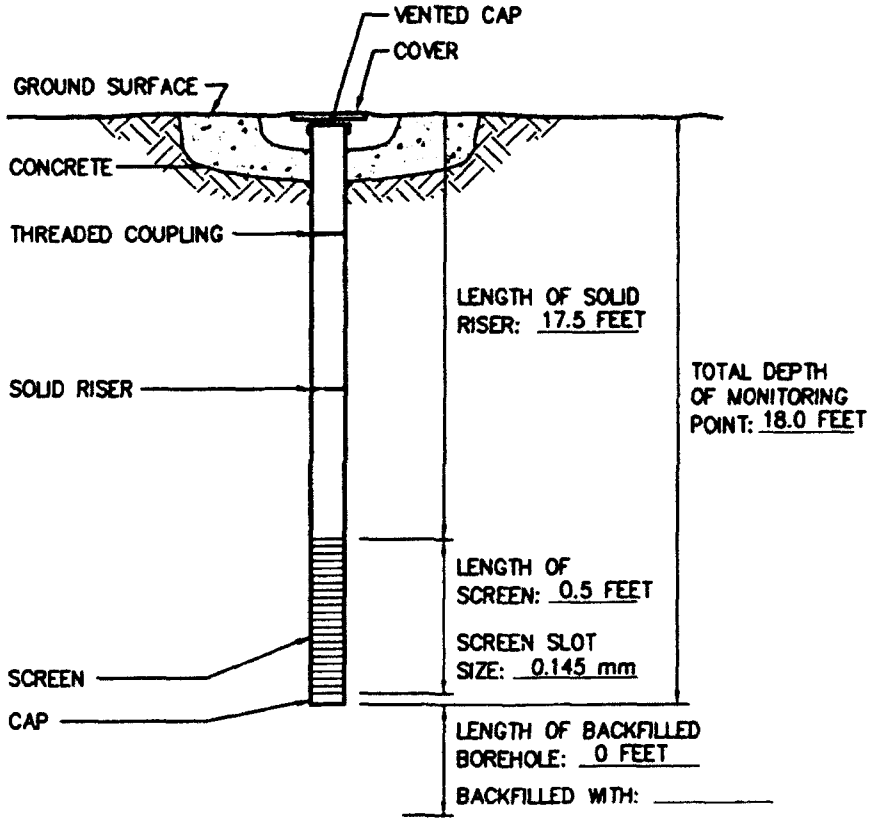
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP2S ON 4/24/95 AT 0940

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-2D
JOB NUMBER 722450.21 INSTALLATION DATE 3/8/95 LOCATION SITE OT-24
DATUM ELEVATION 5.246 FEET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE 0.01"
RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

NO WATER LEVEL MEASUREMENTS TAKEN.

MONITORING POINT INSTALLATION RECORD

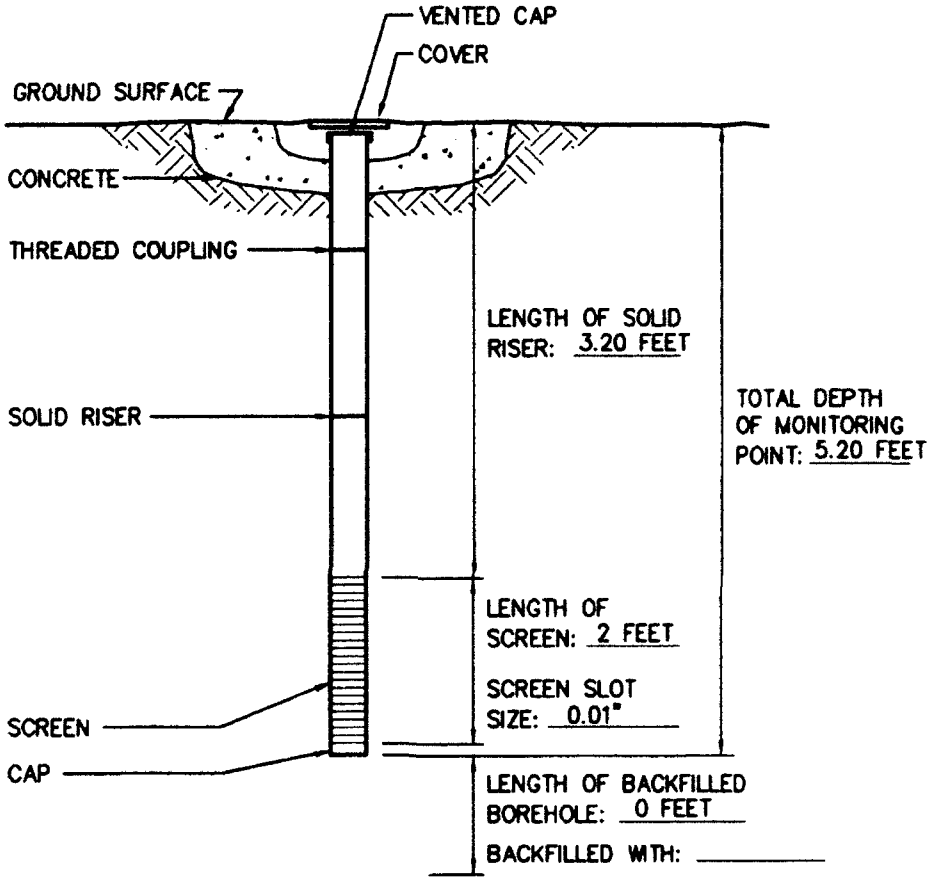
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP2D ON 4/24/95 AT 1100

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-3S
JOB NUMBER 722450.21 INSTALLATION DATE 3/9/95 LOCATION SITE OT-24
DATUM ELEVATION 4.167 FEET ABOVE MSL WELL CASING ELEVATION 3.997 FEET AMSL
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH
RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

STABILIZED WATER LEVEL 2.71 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH _____ FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

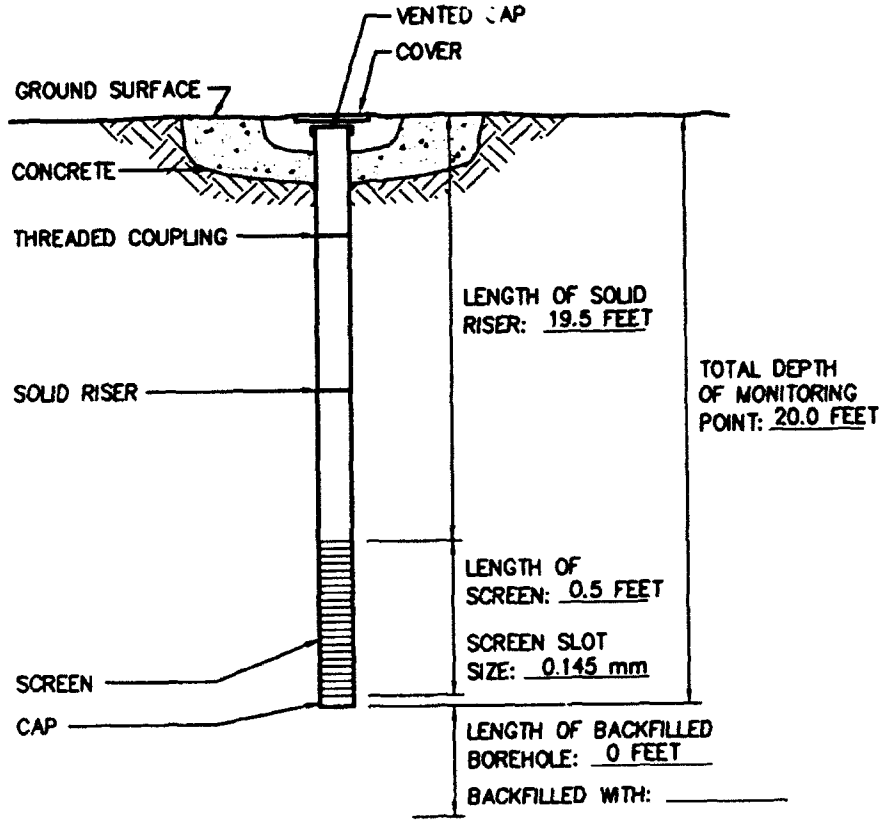
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP3S ON 4/24/95 AT 0950

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-3D
JOB NUMBER 722450.21 INSTALLATION DATE 3/9/95 LOCATION SITE OT-24
DATUM ELEVATION 4.167 FEET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE 0.01"
RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

NO WATER LEVEL MEASUREMENTS TAKEN.

MONITORING POINT INSTALLATION RECORD

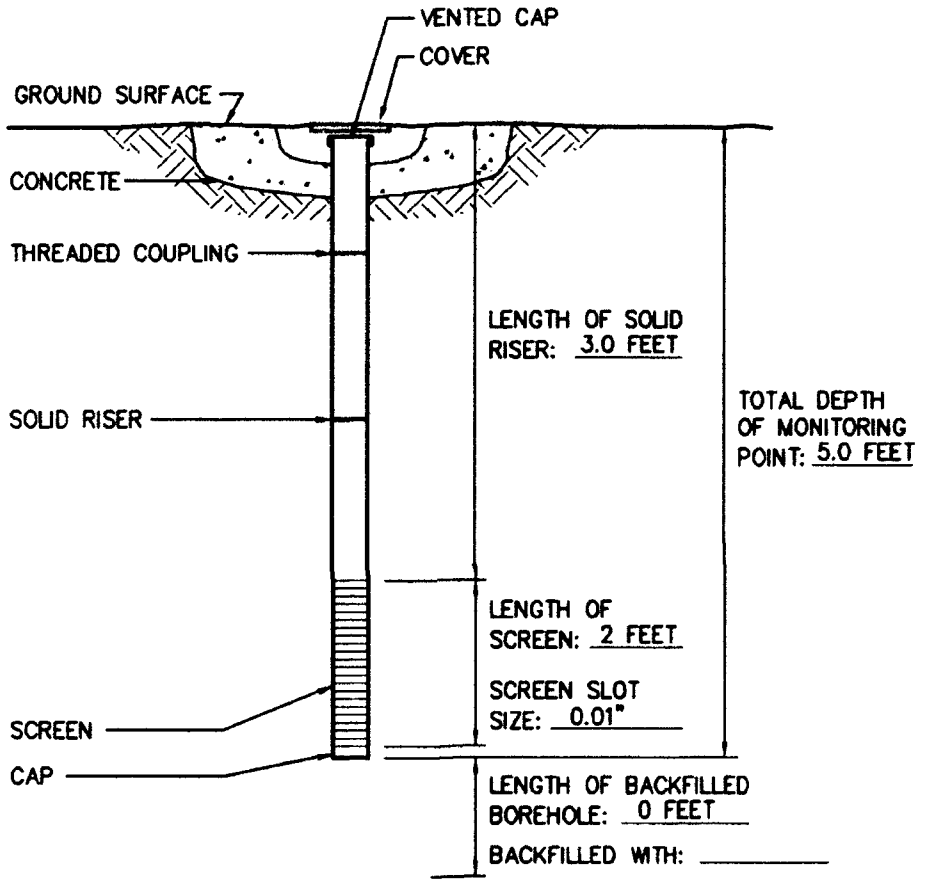
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP3D ON 4/24/95 AT 1100

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE
MONITORING POINT NUMBER 24MP-4S
JOB NUMBER 722450.21
INSTALLATION DATE 3/9/95
LOCATION SITE OT-24
DATUM ELEVATION 5.423 FEET ABOVE MSL
WELL CASING ELEVATION 5.379 FEET AMSL
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.5 INCH PVC
SLOT SIZE 0.01 INCH
RISER DIAMETER & MATERIAL 0.5 INCH PVC
BOREHOLE DIAMETER 2 INCHES
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE
ES REPRESENTATIVE KC



(NOT TO SCALE)

STABILIZED WATER LEVEL 3.51 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 4.48 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

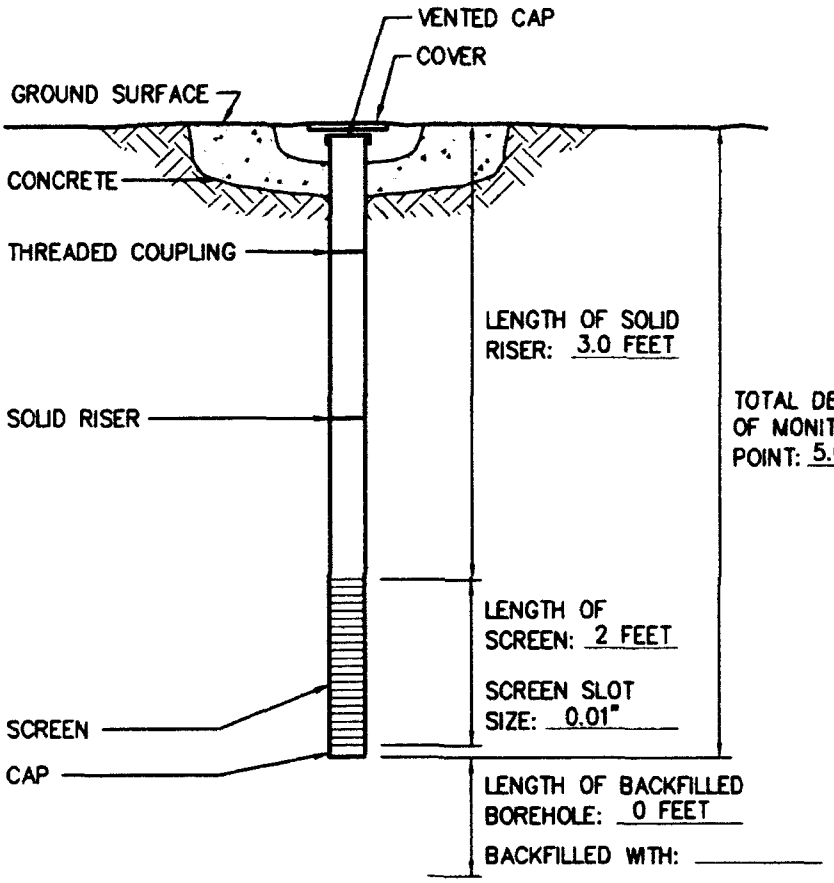
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP4S ON 4/24/95 AT 0955

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-5S
JOB NUMBER 722450.21 INSTALLATION DATE 3/9/95 LOCATION SITE OT-24
DATUM ELEVATION 5.290 FEET ABOVE MSL WELL CASING ELEVATION 5.190 FEET AMSL
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH
RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

STABILIZED WATER LEVEL 3.53 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 4.41 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

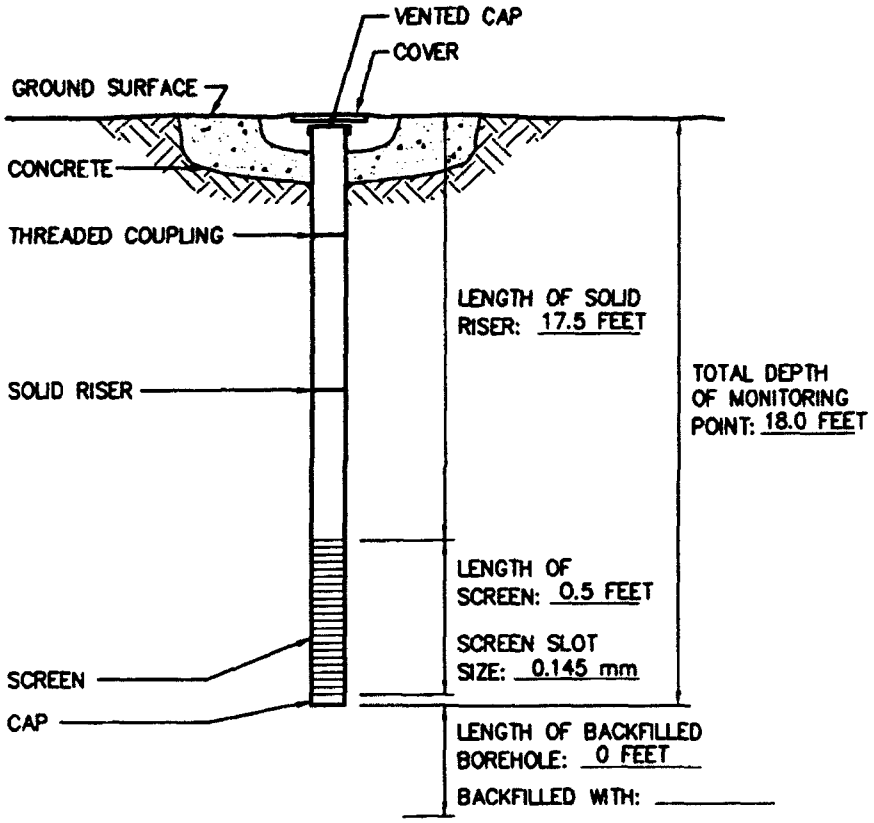
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP5S ON 4/24/95 AT 0955

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-5D
JOB NUMBER 722450.21 INSTALLATION DATE 3/9/95 LOCATION SITE OT-24
DATUM ELEVATION 5.290 FEET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE 0.01"
RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

NO WATER LEVEL MEASUREMENTS TAKEN.

MONITORING POINT INSTALLATION RECORD

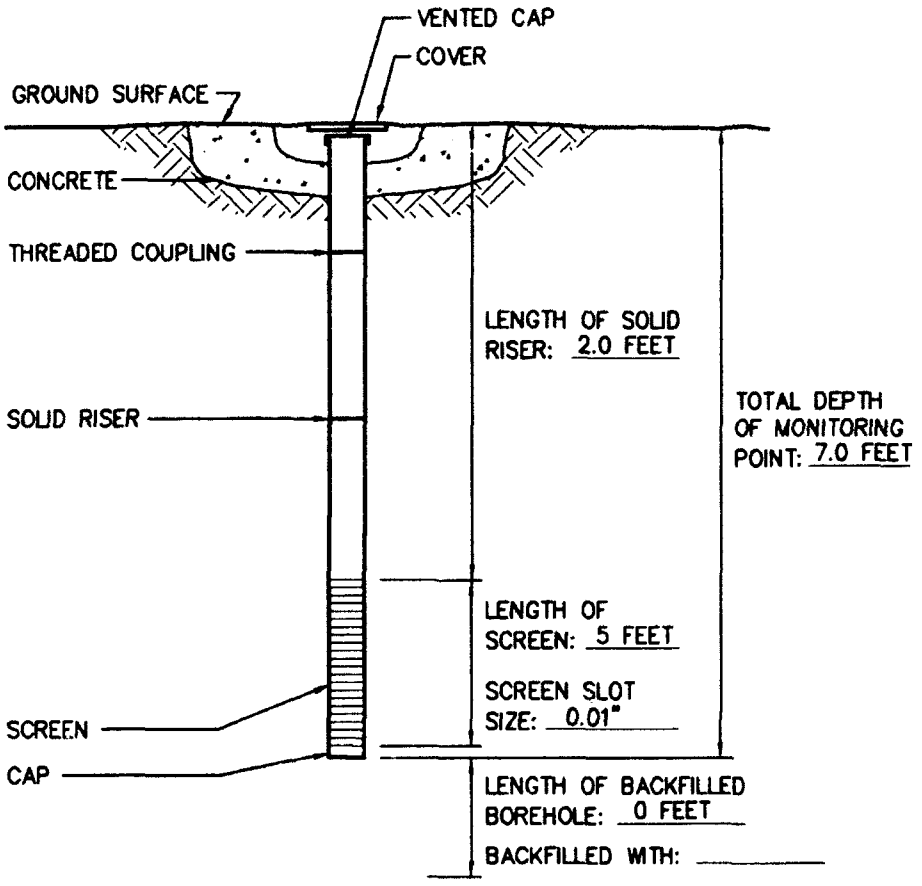
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP5D ON 4/24/95 AT 1100

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-6S
JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24
DATUM ELEVATION 4.596 FEET ABOVE MSL WELL CASING ELEVATION 4.496 FEET AMSL
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH
RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

STABILIZED WATER LEVEL 2.43 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 5.99 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

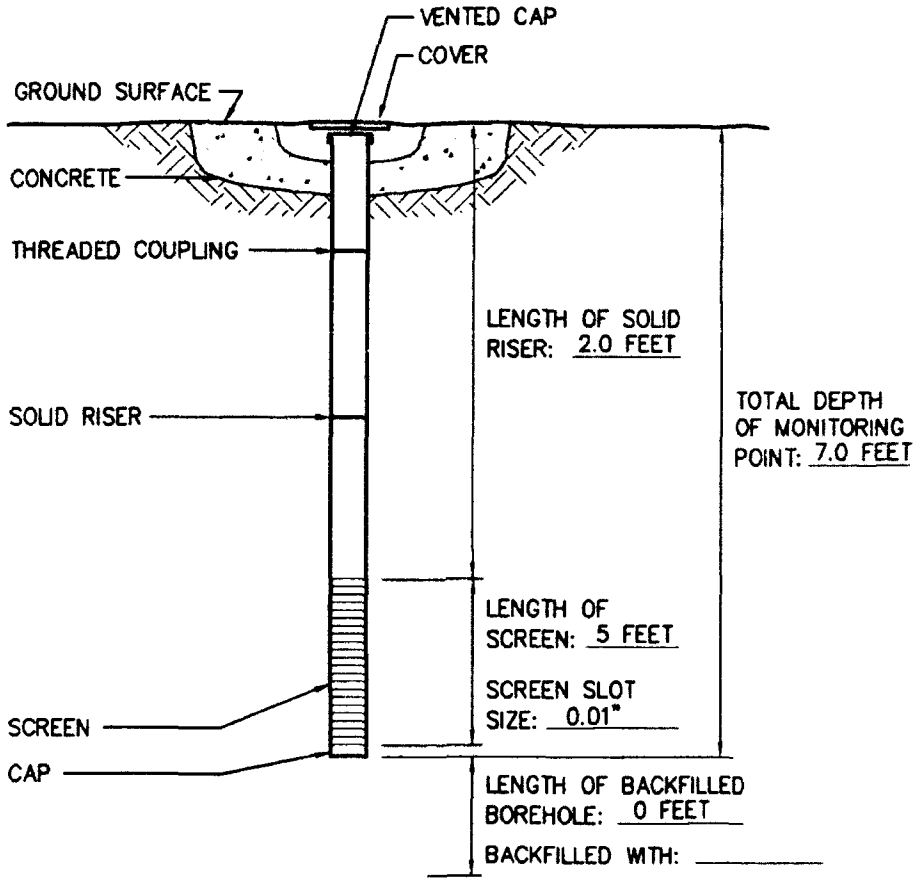
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP6S ON 4/24/95 AT 1000

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-7S
JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24
DATUM ELEVATION 4.147 FEET ABOVE MSL WELL CASING ELEVATION 4.000 FEET AMSL
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH
RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

STABILIZED WATER LEVEL 2.38 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 6.12 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

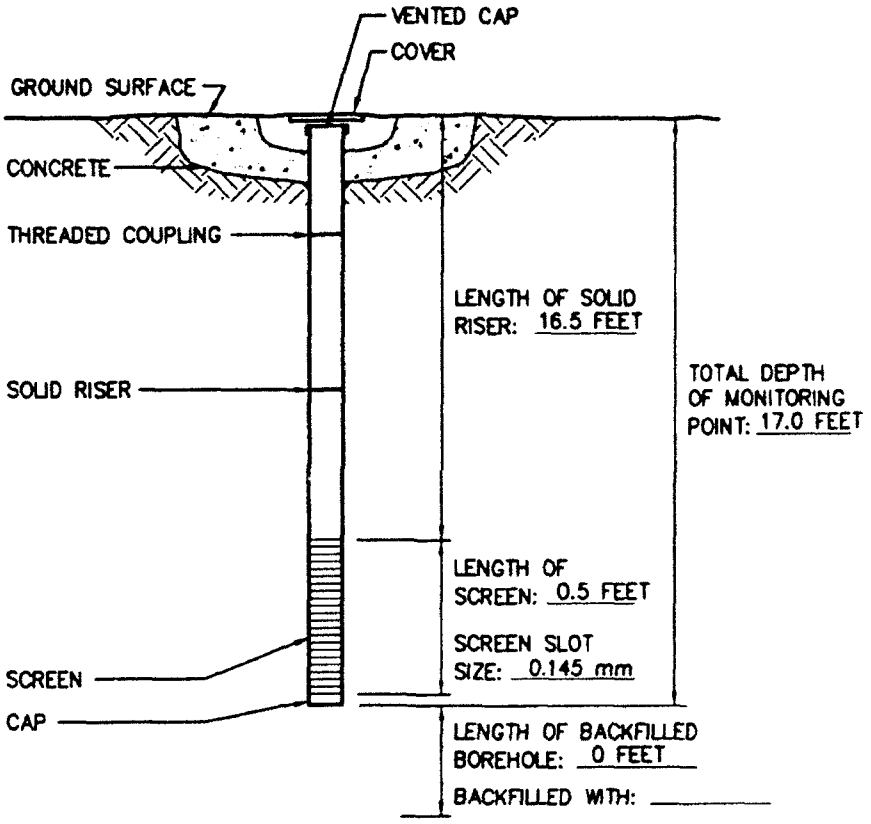
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP7S ON 4/24/95 AT 1000

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-7D
JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24
DATUM ELEVATION 4.147 FEET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE 0.01"
RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

NO WATER LEVEL MEASUREMENTS TAKEN.

MONITORING POINT INSTALLATION RECORD

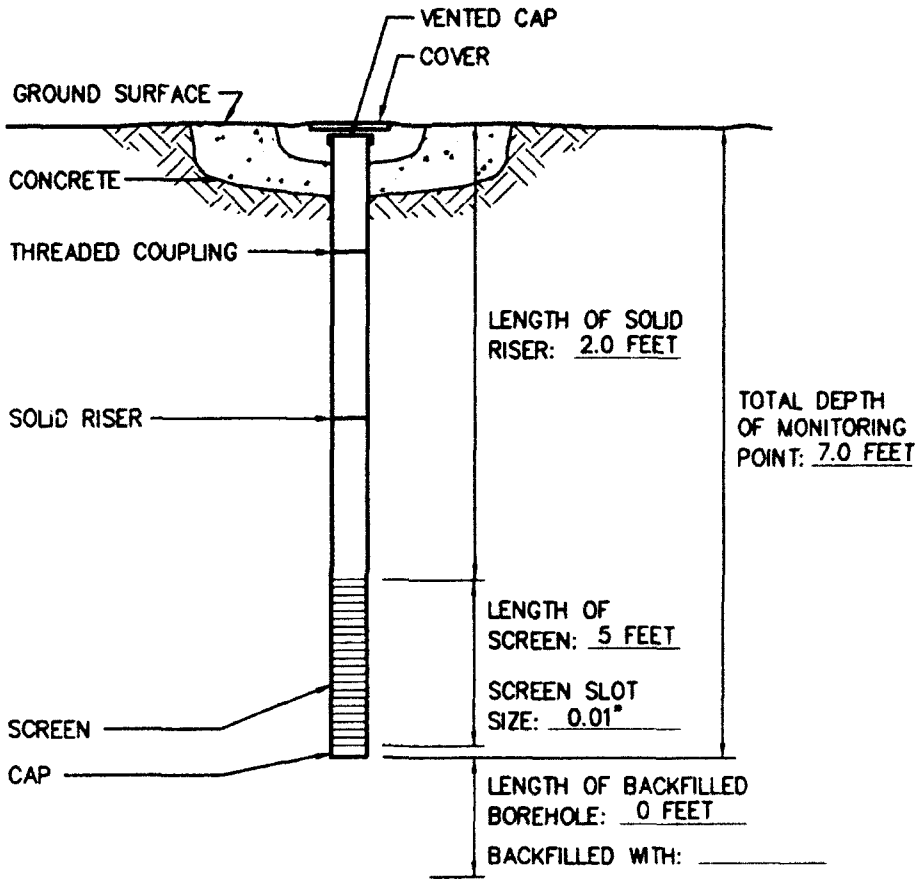
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24_24MP7D ON 4/24/95 AT 1100

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-8S
JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24
DATUM ELEVATION 4.260 FEET ABOVE MSL WELL CASING ELEVATION 4.154 FEET AMSL
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH
RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

STABILIZED WATER LEVEL 2.55 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 6.01 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

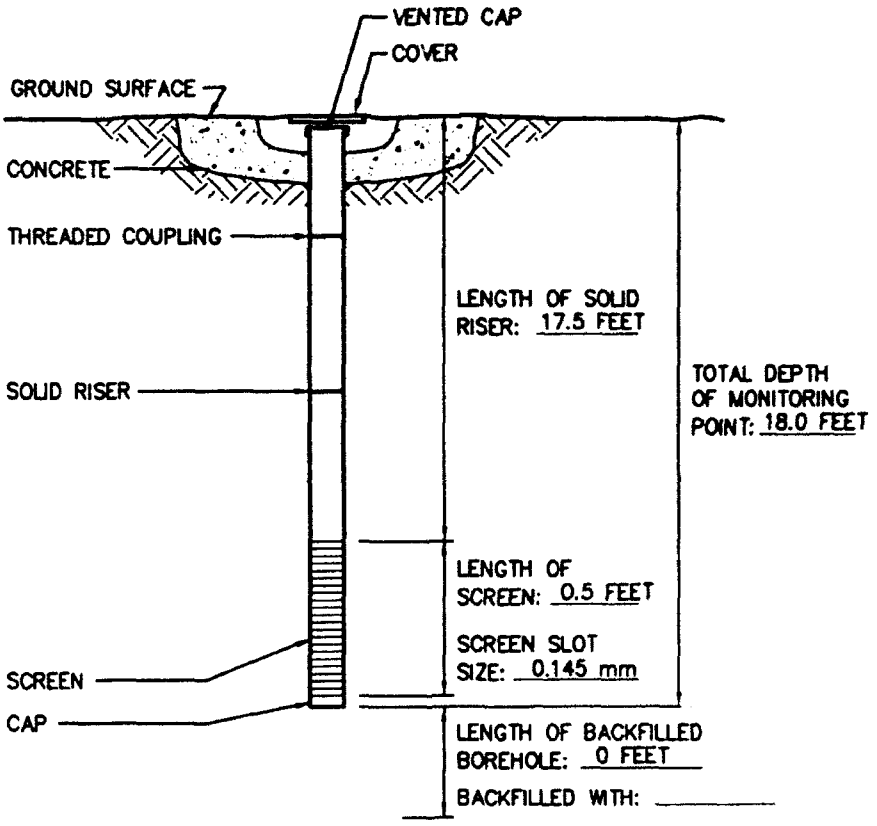
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP8S ON 4/24/95 AT 1000

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-8D
JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24
DATUM ELEVATION 4.260 FEET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE 0.01"
RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

NO WATER LEVEL MEASUREMENTS TAKEN.

MONITORING POINT INSTALLATION RECORD

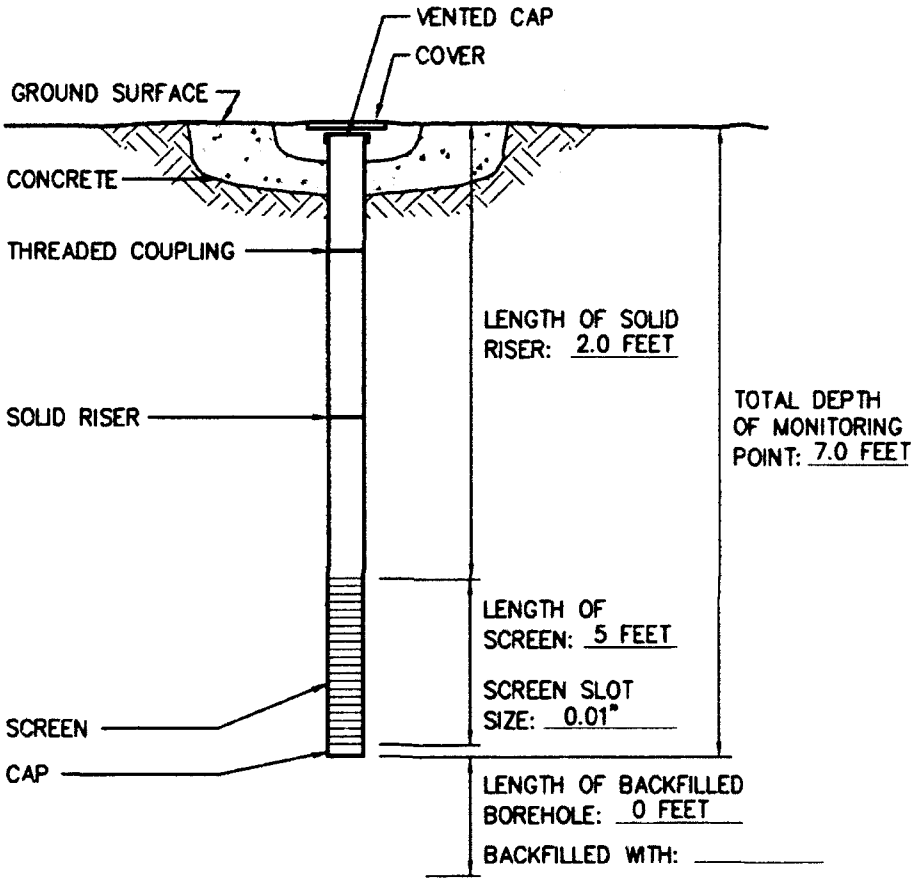
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP8D ON 4/24/95 AT 1100

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-9S
JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24
DATUM ELEVATION 3.836 FEET ABOVE MSL WELL CASING ELEVATION 3.596 FEET AMSL
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH
RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

STABILIZED WATER LEVEL 2.25 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 6.10 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

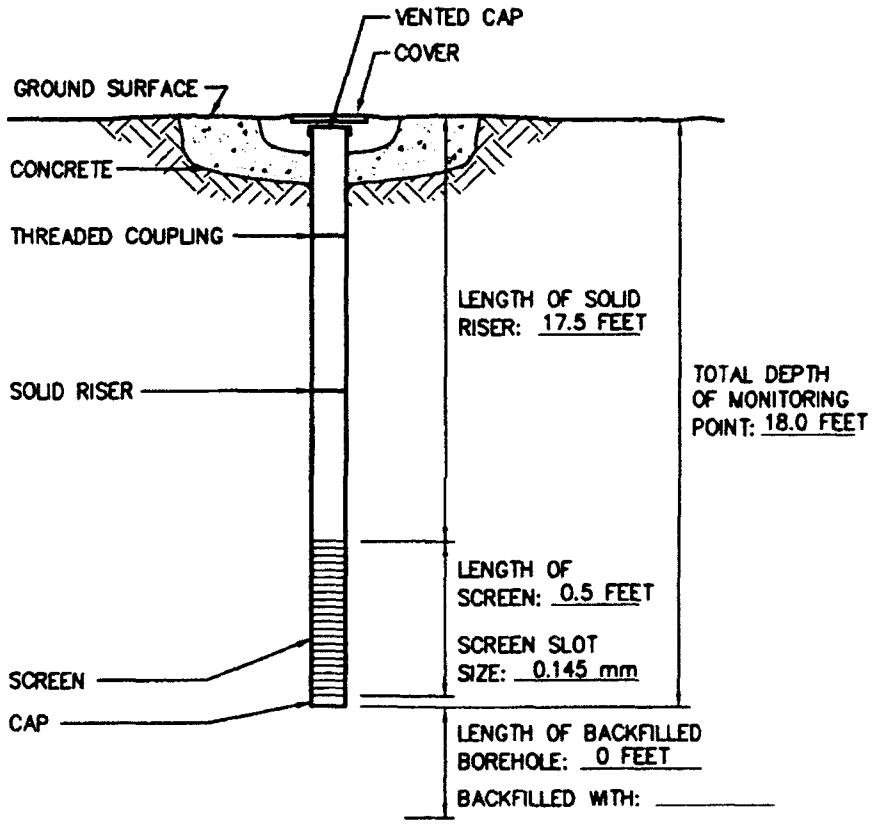
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP9S ON 4/24/95 AT 1000

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-9D
JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24
DATUM ELEVATION 3.836 FEET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE 0.01"
RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

NO WATER LEVEL MEASUREMENTS TAKEN.

MONITORING POINT INSTALLATION RECORD

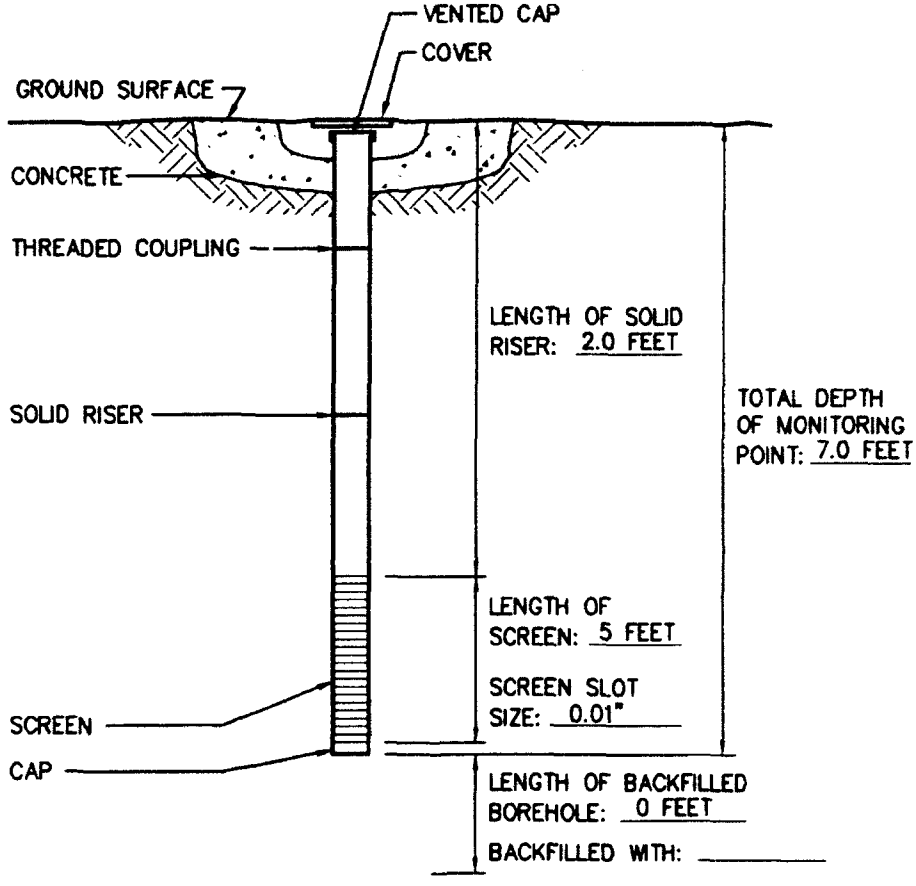
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24/24MP9D ON 4/24/95 AT 1100

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-10S
JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24
DATUM ELEVATION 4.096 FEET ABOVE MSL WELL CASING ELEVATION 4.196 FEET AMSL
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH
RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

STABILIZED WATER LEVEL 2.35 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 6.12 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

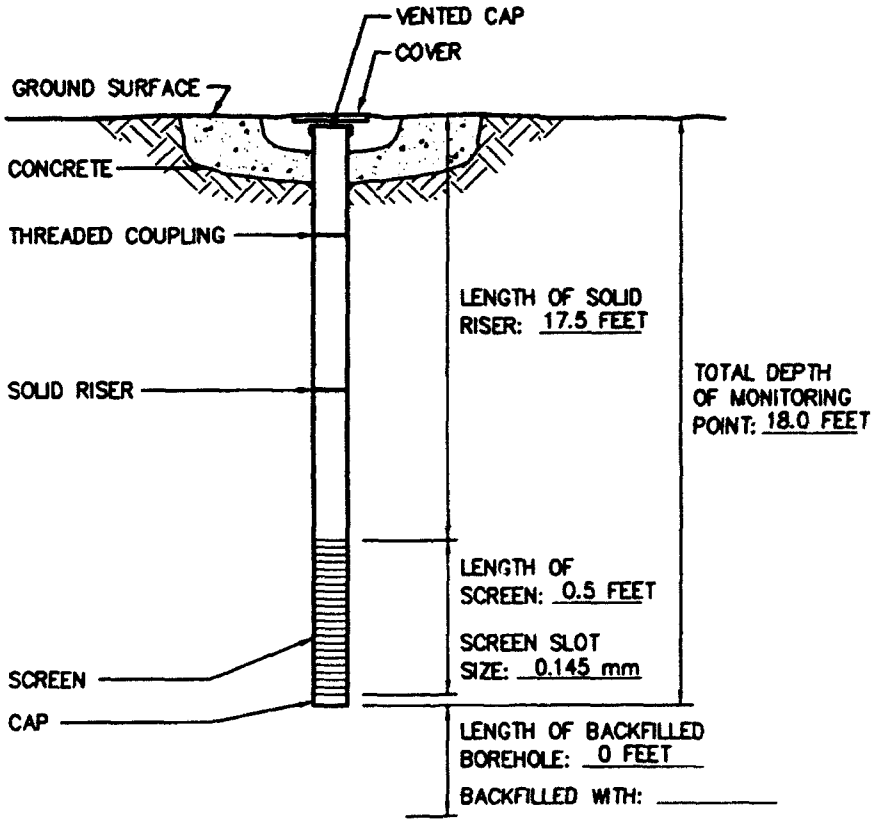
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP10S ON 4/24/95 AT 1000

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-10D
JOB NUMBER 722450.21 INSTALLATION DATE 3/11/95 LOCATION SITE OT-24
DATUM ELEVATION 4.096 FEET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT
DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE
SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE 0.01"
RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH
GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



(NOT TO SCALE)

NO WATER LEVEL MEASUREMENTS TAKEN.

MONITORING POINT INSTALLATION RECORD

Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24MP10D ON 4/24/95 AT 1100

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24PZ-1S

JOB NUMBER 722450.21 INSTALLATION DATE 3/23/95 LOCATION SITE OT-24

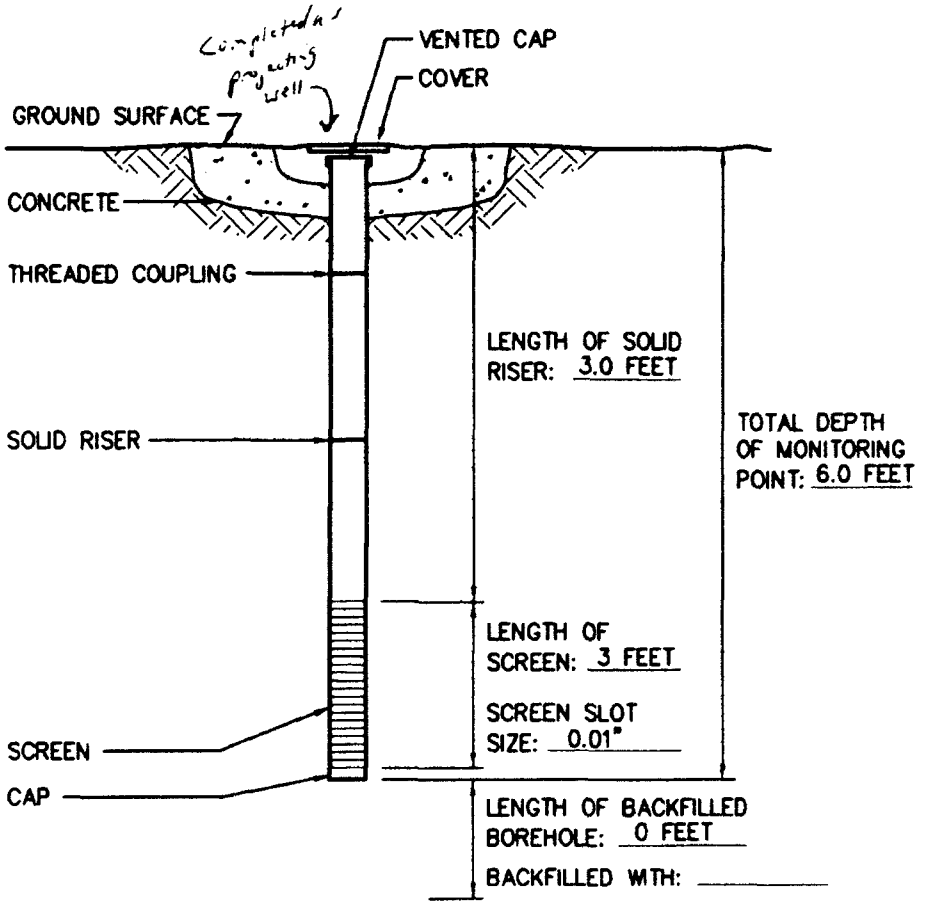
DATUM ELEVATION 6.318 FEET ABOVE MSL GROUND SURFACE ELEVATION 4.959 FEET AMSL

DATUM FOR WATER LEVEL MEASUREMENT TOP OF CASING

SCREEN DIAMETER & MATERIAL 1.5 INCH STEEL SLOT SIZE 0.01 INCH

RISER DIAMETER & MATERIAL 1.5 INCH STEEL BOREHOLE DIAMETER 1.5 INCHES

GEOPROBE CONTRACTOR HAND DRIVEN ES REPRESENTATIVE KC



(NOT TO SCALE)

STABILIZED WATER LEVEL 6.26 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 6.00 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24PZ1S ON 4/24/95 AT 1005

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FOR. BASE MONITORING POINT NUMBER 24PZ-1D

JOB NUMBER 722450.21 INSTALLATION DATE 3/23/95 LOCATION SITE OT-24

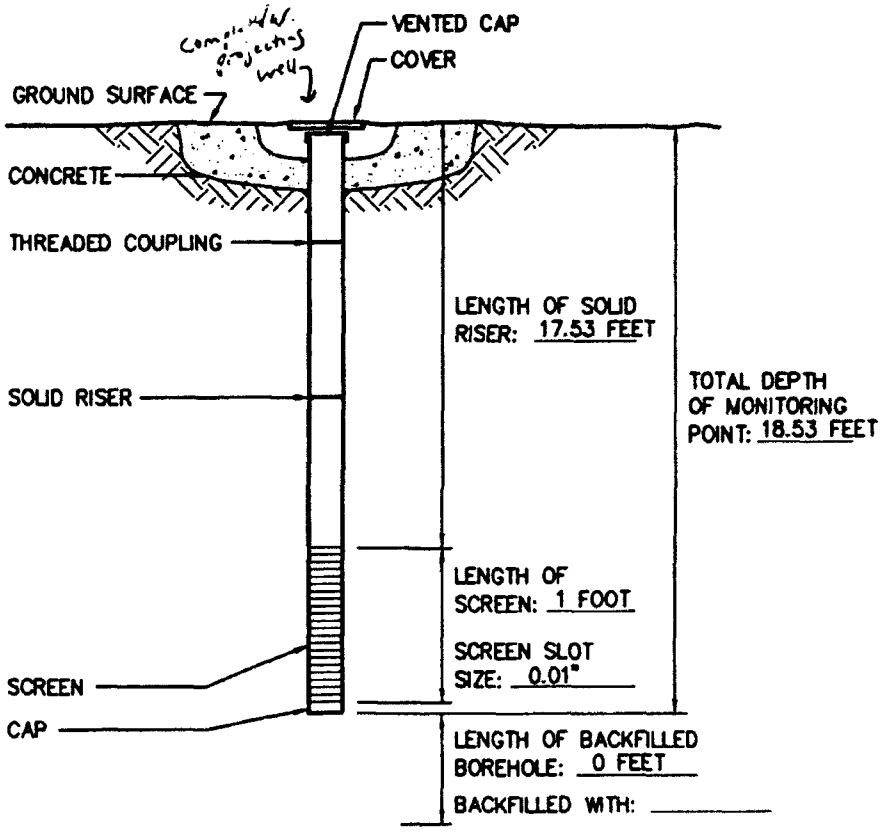
DATUM ELEVATION 5.540 FEET ABOVE MSL GROUND SURFACE ELEVATION 4.959 FEET AMSL

DATUM FOR WATER LEVEL MEASUREMENT TOP OF CASING

SCREEN DIAMETER & MATERIAL 1.0 INCH GALVANIZED STEEL SLOT SIZE 0.006"

RISER DIAMETER & MATERIAL 1.0 INCH GALVANIZED STEEL BOREHOLE DIAMETER 1.0 INCH

GEOPROBE CONTRACTOR HAND DRIVEN ES REPRESENTATIVE KC



(NOT TO SCALE)

STABILIZED WATER LEVEL 4.71 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 18.53 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

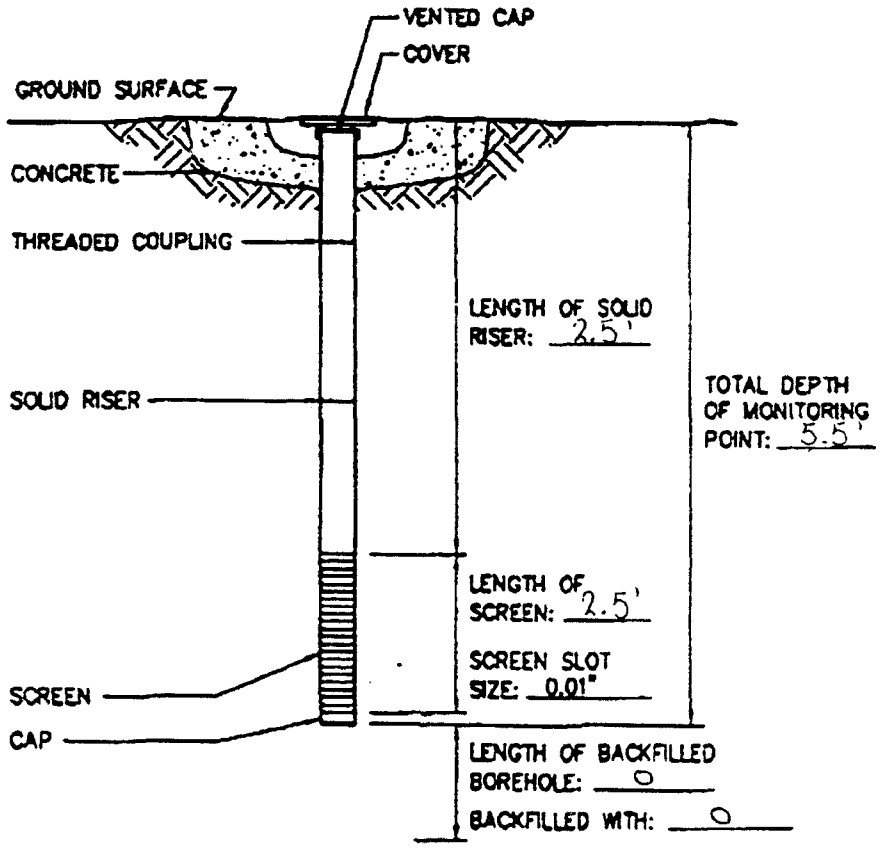
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\OT24\24PZ1D ON 4/24/95 AT 1005

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE — MONITORING POINT NUMBER 24P2-25
JOB NUMBER 722450.21 — INSTALLATION DATE 19-JUL-95 — LOCATION SITE OT 24
DATUM ELEVATION 4.16 — GROUND SURFACE ELEVATION 4.21
DATUM FOR WATER LEVEL MEASUREMENT TOC
SCREEN DIAMETER & MATERIAL 1¼" STAINLESS STEEL SCREEN — SLOT SIZE 0.01"
RISER DIAMETER & MATERIAL 1¼" GALV STEEL — BOREHOLE DIAMETER 1.66"
CONTRACTOR Parsons ES — ES REPRESENTATIVE Bob Servillo



(NOT TO SCALE)

STABILIZED WATER LEVEL 1.60 FEET BELOW DATUM. (8/11/95)

TOTAL MONITORING POINT DEPTH 5.5 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

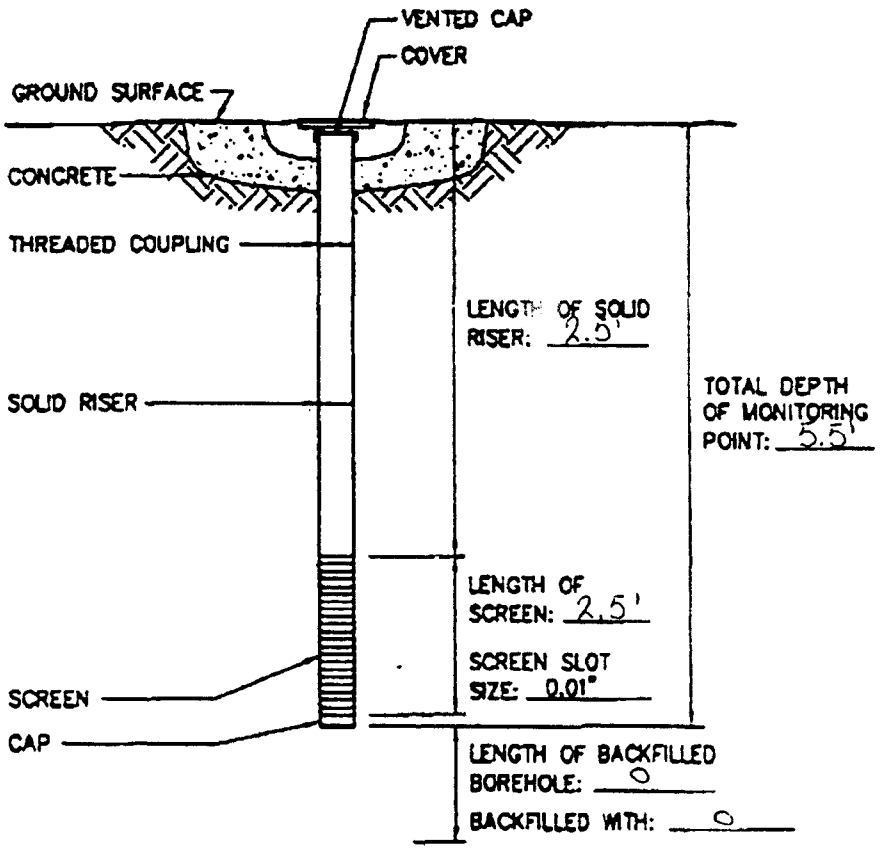
SITE OT 24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

ENGINEERING-SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\94DN1528 @ 6:45

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE — MONITORING POINT NUMBER 24P2-35
JOB NUMBER 722450.21 — INSTALLATION DATE 19-Jul-95 — LOCATION SITE 6T 24
DATUM ELEVATION 3.75 — GROUND SURFACE ELEVATION 3.73
DATUM FOR WATER LEVEL MEASUREMENT TOC
SCREEN DIAMETER & MATERIAL 1¼" STAINLESS STEEL SCREEN — SLOT SIZE 0.01"
RISER DIAMETER & MATERIAL 1¼" GALV STEEL — BOREHOLE DIAMETER 1.66"
CONTRACTOR PARSONS ES — ES REPRESENTATIVE Rob Sorrillo



(NOT TO SCALE)

STABILIZED WATER LEVEL 1.47 FEET BELOW DATUM. (8/11/95)

TOTAL MONITORING POINT DEPTH 5.5' FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

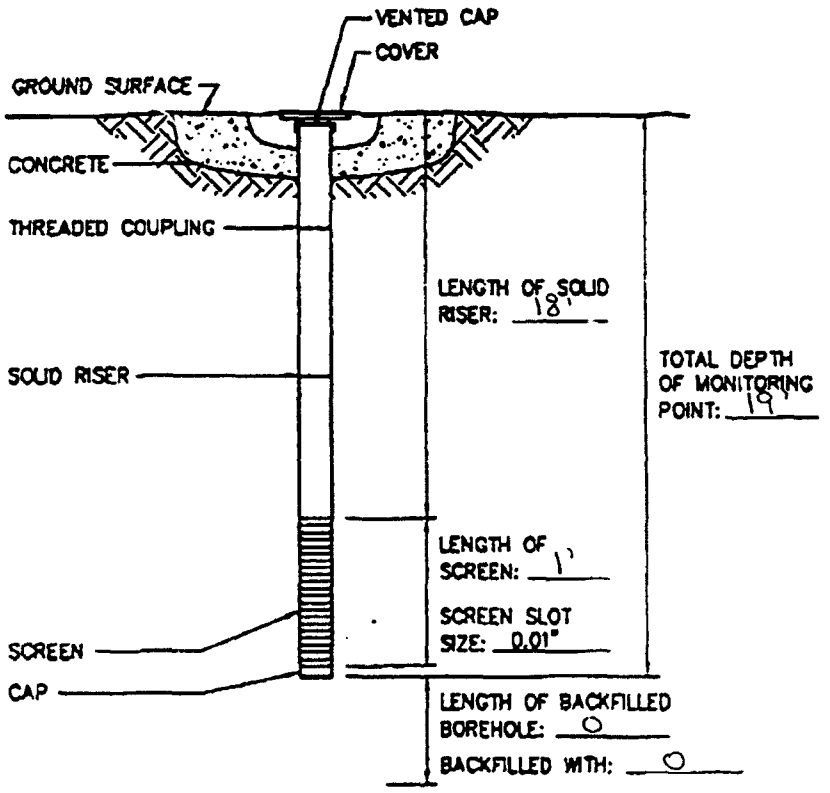
SITE 6T 24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

ENGINEERING-SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELINST\94DN1528 @ 6:45

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE — MONITORING POINT NUMBER 24P2-3D
JOB NUMBER 722450.21 — INSTALLATION DATE 20-JUL-95 — LOCATION SITE OT 24
DATUM ELEVATION 3.82 — GROUND SURFACE ELEVATION 3.75
DATUM FOR WATER LEVEL MEASUREMENT TOC
SCREEN DIAMETER & MATERIAL 1" STAINLESS STEEL SCREEN — SLOT SIZE 0.006"
RISER DIAMETER & MATERIAL 1" SCH STEEL — BOREHOLE DIAMETER 1.25"
CONTRACTOR PARSONS ES — ES REPRESENTATIVE Bob Sorrillo



(NOT TO SCALE)

STABILIZED WATER LEVEL — FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 19' FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

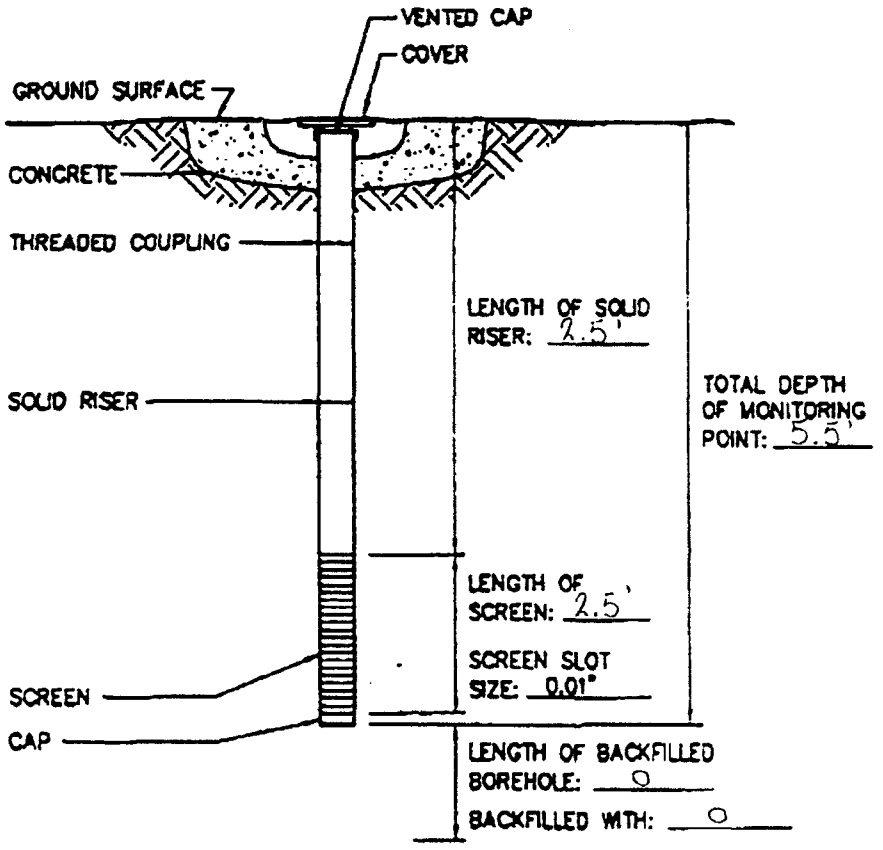
SITE OT 24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

ENGINEERING-SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\940N1528 @ 6:45

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24P2-45
JOB NUMBER 722450.21 INSTALLATION DATE 19-JUL-95 LOCATION SITE 07 24
DATUM ELEVATION 4.43 GROUND SURFACE ELEVATION 4.96
DATUM FOR WATER LEVEL MEASUREMENT TOC
SCREEN DIAMETER & MATERIAL 1¼" STAINLESS STEEL SCREEN SLOT SIZE 0.01"
RISER DIAMETER & MATERIAL 1¼" GALV STEEL BOREHOLE DIAMETER 1.66"
CONTRACTOR PARSONS ES ES REPRESENTATIVE BOB SURVILLO



(NOT TO SCALE)

STABILIZED WATER LEVEL 1.79 FEET BELOW DATUM. (7/11/95)

TOTAL MONITORING POINT DEPTH 5.5' FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

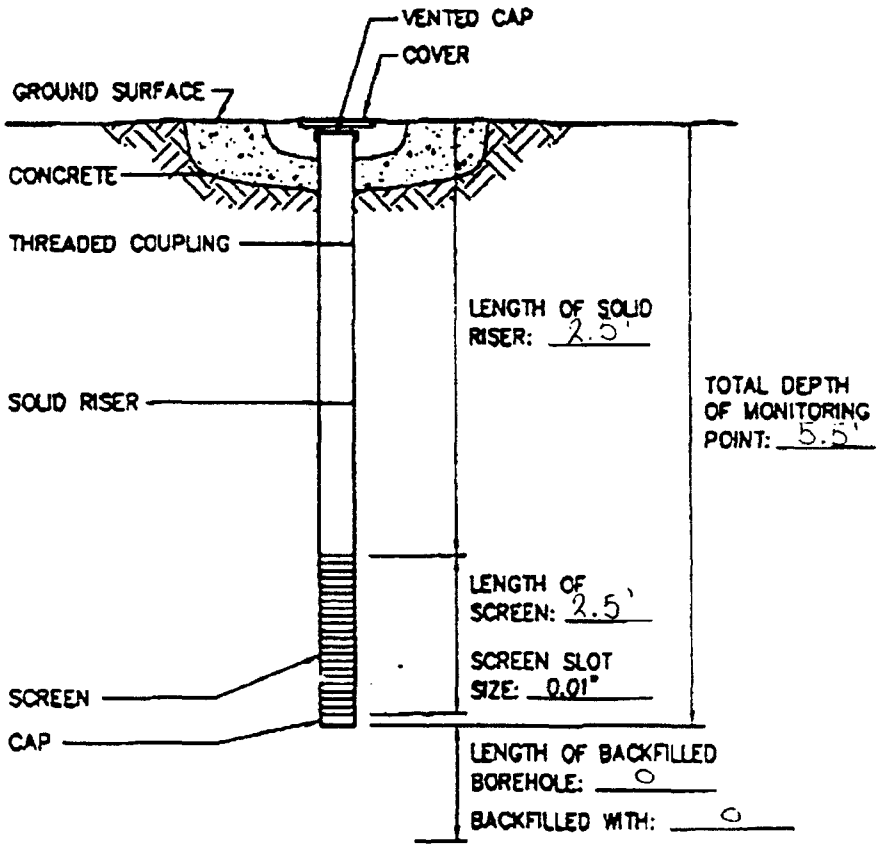
SITE 07 24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

ENGINEERING-SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\940N1528 @ 6:45

MONITORING POINT INSTALLATION RECORD

JOB NAME MACDILL AIR FORCE BASE — MONITORING POINT NUMBER 24P2-55
JOB NUMBER 722450.21 — INSTALLATION DATE 19-JUL-95 — LOCATION SITE OT 24
DATUM ELEVATION 4.40 — GROUND SURFACE ELEVATION 4.53
DATUM FOR WATER LEVEL MEASUREMENT TOC
SCREEN DIAMETER & MATERIAL 1¼" STAINLESS STEEL SCREEN — SLOT SIZE 0.01"
RISER DIAMETER & MATERIAL 1¼" GALV STEEL — BOREHOLE DIAMETER 1¼" 1.66"
CONTRACTOR Parsons ES — ES REPRESENTATIVE Bob Sorvillo



(NOT TO SCALE)

STABILIZED WATER LEVEL 2.16 FEET BELOW DATUM. (8/10/95)

TOTAL MONITORING POINT DEPTH 5.5 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

SITE OT 24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

ENGINEERING-SCIENCE, INC.
Denver, Colorado

M:\45021\DRAWINGS\WELLINST\94DN1528 @ 6:45

MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21 Job Name: MacDill AFB
Location Site OT-24 By KC /MV Date 3/14/95
Well Number 24MP - 1D Measurement Datum TOC

Pre-Development Information Time (Start): 11:55

Water Level: Total Depth of Well

Water Characteristics

Color sandy muddy Clear (Cloudy)
Odor: None Weak (Moderate) Strong
Any Films or Immiscible Material slight sheen
pH Temperature(°F (°C) 25.4°C
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed ≈ 2 gal DO 0.47 mg/L

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information Time (Finish): 12:35

Water Level: Total Depth of Well

Approximate Volume Removed:

Water Characteristics

Color (Clear) Cloudy
Odor: None (Weak) Moderate Strong
Any Films or Immiscible Material
pH Temperature(°F °C) 25.6°C
Specific Conductance(µS/cm)

Comments:

Monitoring Point Type Shallow (/) Deep

MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21 Job Name: MacDill AFB
Location Site OT-24 By KC /MV Date 3/14/96
Well Number 24 MP - 1 S Measurement Datum TOC

Pre-Development Information Time (Start): 12:37

Water Level: Total Depth of Well:

Water Characteristics

Color DARK BROWN Clear Cloudy (No light passing through)
Odor: None Weak Moderate (Strong) (sulfurous)
Any Films or Immiscible Material Sheen
pH _____ Temperature(°F °C) _____
Specific Conductance(µS/cm) _____

sandy, muddy

Interim Water Characteristics

Gallons Removed

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information Time (Finish): 1410

Water Level: Total Depth of Well

Approximate Volume Removed:

Water Characteristics

Color _____ Clear Cloudy
Odor: None Weak Moderate Strong
Any Films or Immiscible Material _____
pH _____ Temperature(°F °C) _____
Specific Conductance(µS/cm) _____

Comments:

Monitoring Point Type (Shallow) / Deep

Left well undeveloped see field notes

MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21 Job Name: MacDill AFB
Location Site OT-24 By KC/MV Date 3/14/95
Well Number MP-25 Measurement Datum TOC

Pre-Development Information Time (Start): 10:50

Water Level: Total Depth of Well:

Water Characteristics

Color DARK Brown Clear Cloudy (no light passing thru)
Odor: None Weak Moderate Strong (sulfurous)
Any Films or Immiscible Material Sheen
pH Temperature(°F °C) 25.5
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed ≈4 gal D.O. 0.06 mg/L

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information Time (Finish): 11:45

Water Level: Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color Brown Clear Cloudy (very little light passing thru)
Odor: None Weak Moderate Strong
Any Films or Immiscible Material
pH Temperature(°F °C) 25.4
Specific Conductance(µS/cm)

Comments:

Monitoring Point Type Shallow / Deep

MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21 Job Name: MacDill AFB
Location Site OT-24 By KC /MV Date 3/14/95
Well Number 24 MP - 2D Measurement Datum TOC

Pre-Development Information Time (Start): 10:00

Water Level: Total Depth of Well:

Water Characteristics

Color dirty & sandy Clear Cloudy
Odor: None (Weak) Moderate Strong (sulfurous)
Any Films or Immiscible Material
pH Temperature(°F (°C) 25.1
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed ≈ 1.5 gal D.O. 0.40 mg/L

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information Time (Finish): 10:50

Water Level: Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color (Clear) Cloudy
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material
pH Temperature(°F (°C) 25.1
Specific Conductance(µS/cm)

Comments:

Monitoring Point Type Shallow / (Deep)

MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21 Job Name: MacDill AFB
Location Site OT-24 By KC/MV Date 3/14/95
Well Number 24MP-3D Measurement Datum TOC

Pre-Development Information Time (Start): 1427

Water Level: Total Depth of Well:

Water Characteristics

Color Sandy Clear ~~Cloudy~~
Odor: None ~~Weak~~ Moderate Strong
Any Films or Immiscible Material
pH Temperature(°F ~~°C~~) 25.9
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed ≈ 1 gal

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information Time (Finish): 1445

Water Level: Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color Sandy Clear ~~Cloudy~~
Odor: None Weak Moderate Strong
Any Films or Immiscible Material
pH Temperature(°F °C) 26.8°C
Specific Conductance(µS/cm)

Comments:

Monitoring Point Type Shallow / Deep

DO stabilized @ 0.55 mg/L

MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21 Job Name: MacDill AFB
Location Site OT-24 By KC/MV Date 3/14/95
Well Number 4MP-3S Measurement Datum TOC

Pre-Development Information Time (Start): 1450

Water Level: Total Depth of Well:

Water Characteristics

Color DARK BROWN Clear Cloudy
Odor: None Weak (Moderate) Strong
Any Films or Immiscible Material
pH Temperature(°F (°C) 24.9
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed ≈ 4 gal

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information Time (Finish): 1521

Water Level: Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color (Clear) Cloudy
Odor: None Weak Moderate Strong
Any Films or Immiscible Material
pH Temperature(°F (°C) 22.2
Specific Conductance(µS/cm)

Comments:

Monitoring Point Type (Shallow) / Deep

D.O. stabilized @ 0.27 mg/L

MONITORING POINT DEVELOPMENT RECORD

Page 1 of 1

Job Number: 722450.21
Location Site OT-24
Well Number 24-MP-05

Job Name: MacDill AFB
By KC /MV
Date 3/15/95
Measurement Datum TOC

Pre-Development Information

Time (Start): 08:45

Water Level:

Total Depth of Well:

Water Characteristics

Color DARK BROWN
Clear (Cloudy) - muddy
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material none.
pH
Temperature(°F °C) 20.6
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information

Time (Finish): 10:45

Water Level:

Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color Clear
(Clear) Cloudy
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material Slight Sheen
pH
Temperature(°F °C) 23.8
Specific Conductance(µS/cm)

Comments:

Monitoring Point Type (Shallow) / Deep

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MONITORING POINT DEVELOPMENT RECORD

Page 1 of 1

Job Number: 722450.21
Location Site OT-24
Well Number 24 MP - 5D

Job Name: MacDill AFB
By KC /MV
Date 3/14/95
Measurement Datum TOC

Pre-Development Information

Time (Start): 0800

Water Level:

Total Depth of Well:

Water Characteristics

Color yellow
Clear Cloudy
Odor: None (Weak) Moderate Strong
Any Films or Immiscible Material yes
pH _____ Temperature(°F (°C) 24.0
Specific Conductance(µS/cm) _____

Interim Water Characteristics

Gallons Removed ~6 gal.

D.O. 0.35 mg/L (salinity for calib. of D.O. probe may not be correct @ 0.2)

pH

Temperature (°F (°C) 24.0

Specific Conductance(µS/cm)

Post-Development Information

Time (Finish):

Water Level:

Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color _____
Clear Cloudy
Odor: None Weak Moderate Strong
Any Films or Immiscible Material _____
pH _____ Temperature(°F °C) _____
Specific Conductance(µS/cm) _____

Comments:

Monitoring Point Type Shallow / Deep

MONITORING POINT DEVELOPMENT RECORD

Page__ of__

Job Number: 722450.21 Job Name: MacDill AFB
Location Site OT-24 By KC /MV Date 3/14/96
Well Number 24MP-5S Measurement Datum TOC

Pre-Development Information Time (Start):

Water Level: Total Depth of Well:

Water Characteristics

Color_____ Clear Cloudy
Odor: None Weak Moderate Strong
Any Films or Immiscible Material_____
pH_____ Temperature(^{o}F ^{o}C) _____
Specific Conductance(µS/cm)_____

Interim Water Characteristics

Gallons Removed ≈ 2 gal

pH

Temperature (^{o}F ^{o}C) 23.3°C

Specific Conductance(µS/cm)

Post-Development Information Time (Finish):

Water Level: Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color_____ Clear Cloudy
Odor: None Weak Moderate Strong
Any Films or Immiscible Material_____
pH_____ Temperature(^{o}F ^{o}C) _____
Specific Conductance(µS/cm)_____

Comments:

Monitoring Point Type Shallow / Deep

MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21
Location Site OT-24
Well Number 24 MP - 65

Job Name: MacDill AFB
By KC /MV
Date 3/15/95
Measurement Datum TOC

Pre-Development Information

Time (Start): 07:50

Water Level:

Total Depth of Well:

Water Characteristics

Color Brown, muddy
Clear (Cloudy) — very
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material none
pH
Temperature(°F °C) 20.2
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed ~2 Gallons

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information

Time (Finish): 08:15

Water Level:

Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color Light Brown
Clear (Cloudy)
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material no
pH
Temperature(°F °C) 20.6
Specific Conductance(µS/cm)

Comments:

Monitoring Point Type Shallow / Deep

D.O. STABILIZED AT 0.11 mg/L

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MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21 Job Name: MacDill AFB
Location Site OT-24 By KC /MV Date 3/14/95
Well Number 24MP-7D Measurement Datum TOC

Pre-Development Information Time (Start): 1635

Water Level: Total Depth of Well:

Water Characteristics

Color "light" sandy Clear (Cloudy)
Odor: None (Weak) Moderate Strong
Any Films or Immiscible Material
pH Temperature(°F (°C) 24.2°C
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed ≈ 1.5 gal

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information Time (Finish): 1710

Water Level: Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color (Clear) Cloudy
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material
pH Temperature(°F (°C) 23.4
Specific Conductance(µS/cm)

Comments:

Monitoring Point Type Shallow / (Deep)

D.O. stabilized @ 0.70 mg/L

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MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21
Location Site OT-24
Well Number 24MP-75

Job Name: MacDill AFB
By KC /MV
Date 3/14/95
Measurement Datum TOC

Pre-Development Information

Time (Start): 1711

Water Level:

Total Depth of Well:

Water Characteristics

Color Brown, sandy
Clear Cloudy (No light passing thru)
Odor: None (Weak) Moderate Strong
Any Films or Immiscible Material
pH
Temperature(°F (°C) 21.2
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed ≈ 2 gal

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information

Time (Finish):

Water Level:

Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color sandy
Clear (Cloudy)
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material
pH
Temperature(°F (°C) 19.4
Specific Conductance(µS/cm)

Comments:

Monitoring Point Type Shallow / Deep

D.O. stabilized @ 0.16 mg/L

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MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21
Location Site OT-24
Well Number 24MP-8D

Job Name: MacDill AFB
By KC/MV
Date 3/14/95
Measurement Datum TOC

Pre-Development Information

Time (Start): 1530

Water Level:

Total Depth of Well:

Water Characteristics

Color Muddy, sandy
Odor: None Weak ~~Moderate~~ Strong
Clear Cloudy (N. light passing through)
Any Films or Immiscible Material
pH Temperature(°F (°C) 23.8
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed ≈ 1.5 gal

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information

Time (Finish): 1550

Water Level:

Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color Sandy
Odor: None Weak Moderate Strong
Clear Cloudy
Any Films or Immiscible Material
pH Temperature(°F (°C) 24.2
Specific Conductance(µS/cm)

Comments:

Monitoring Point Type Shallow (Deep)

D.O. stabilized @ 0.27 mg/L

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MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21
Location Site OT-24
Well Number 24MP-85

Job Name: MacDill AFB
By KC /MV
Date 3/14/95
Measurement Datum TOC

Pre-Development Information

Time (Start): 1555

Water Level:

Total Depth of Well:

Water Characteristics

Color Dark Brown, muddy
Clear ~~Cloudy~~
Odor: None Weak (Moderate) Strong
Any Films or Immiscible Material
pH Temperature(°F (°C) 23.6
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed ≈ 2.5 gal

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information

Time (Finish): 1615

Water Level:

Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color
Clear (Cloudy)
Odor: None Weak Moderate Strong
Any Films or Immiscible Material
pH Temperature(°F (°C) 22.1
Specific Conductance(µS/cm)

Comments:

Monitoring Point Type (Shallow / Deep)

D.O. stabilized @ 0.09 mg/L

MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21 Job Name: MacDill AFB
Location Site OT-24 By KC /MV Date 3/3/95
Well Number 24 MP 9 D Measurement Datum TOC

Pre-Development Information Time (Start): 16:30

Water Level: Total Depth of Well

Water Characteristics

Color light Brown Clear (Cloudy)
Odor: None Weak (Moderate) Strong
Any Films or Immiscible Material None
pH _____ Temperature(°F °C) _____
Specific Conductance(µS/cm) _____

Interim Water Characteristics

Gallons Removed approximately 2 gallons

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information Time (Finish): 17:00

Water Level: Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color Light Clear (Clear) Cloudy
Odor: None (Weak) Moderate Strong
Any Films or Immiscible Material Slight Clear
pH _____ Temperature(°F °C) 23.4
Specific Conductance(µS/cm) _____

Comments:

Monitoring Point Type Shallow / (Deep)

D.O. stabilized At 0.46 mg/l

MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21
Location Site OT-24
Well Number 24 MP-95

Job Name: MacDill AFB
By KC /MV
Date 2/3/95
Measurement Datum TOC

Pre-Development Information

Time (Start): 12:00

Water Level:

Total Depth of Well:

Water Characteristics

Color Dark Brown
Clear (Cloudy)
Odor: None Weak (Moderate) Strong
Any Films or Immiscible Material A.T.n
pH _____ Temperature(°F °C) _____
Specific Conductance(µS/cm) _____

Interim Water Characteristics

Gallons Removed approximately 2 gallons

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information

Time (Finish): [redacted] 17:30

Water Level:

Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color Light Brown / Clear
(Clear) Cloudy
Odor: None Weak (Moderate) Strong
Any Films or Immiscible Material Sheen present
pH _____ Temperature(°F °C) 20.7°C
Specific Conductance(µS/cm) _____

Comments:

Monitoring Point Type Shallow / Deep

DO Stabilized @ 0.23 mg/l

MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21 Job Name: MacDill AFB
Location Site OT-24 By KC /MV Date 3/3/95
Well Number 24MP-10D Measurement Datum TOC

Pre-Development Information Time (Start): 2:00 (14:00)

Water Level: Total Depth of Well:

Water Characteristics

Color light Brown Clear (Cloudy)
Odor: None (Weak) Moderate Strong
Any Films or Immiscible Material no
pH _____ Temperature(^{O}F ^{O}C) _____
Specific Conductance(µS/cm) _____

Interim Water Characteristics

Gallons Removed approximately 2 gallons

pH

Temperature (^{O}F ^{O}C)

Specific Conductance(µS/cm)

Post-Development Information Time (Finish): 2:30

Water Level: Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color Clear (Clear) Cloudy
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material no
pH _____ Temperature(^{O}F ^{O}C) 23.2
Specific Conductance(µS/cm) _____

Comments:

Monitoring Point Type Shallow / (Deep)

DO stabilized at 0.23 mg/l

MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21 Job Name: MacDill AFB
Location Site OT-24 By KC /MV Date 3/13/95
Well Number 24-MP-105 Measurement Datum TOC

Pre-Development Information Time (Start): 2:30

Water Level: Total Depth of Well:

Water Characteristics

Color Dark Brown Clear (Cloudy)
Odor: None (Weak) Moderate Strong
Any Films or Immiscible Material no
pH Temperature(°F °C)
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed approximately 2 gall

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information Time (Finish): 3:30

Water Level: Total Depth of Well:

Approximate Volume Removed:

Water Characteristics

Color Light Brown/Clear (Clear) Cloudy
Odor: None (Weak) Moderate Strong
Any Films or Immiscible Material no
pH Temperature(°F °C) 20.3
Specific Conductance(µS/cm)

Comments:

Monitoring Point Type (Shallow) / Deep

D.O. Stabilized at 0.28 mg/l

MONITORING POINT DEVELOPMENT RECORD

Page 1 of 1

Job Number: 722450.21
Location Site OT-24
Well Number ~~2 Comp~~ 2422-10

Job Name: MacDill AFB
By KC /MV
Date 3/23/95
Measurement Datum TOC

Pre-Development Information

Time (Start): 5:30

Water Level: 4.10 bgs

Total Depth of Well: 18.50 bgs

Water Characteristics

Color light Brown Clear Cloudy
Odor: None Weak Moderate Strong
Any Films or Immiscible Material
pH Temperature(°F °C)
Specific Conductance(µS/cm)

Interim Water Characteristics

Gallons Removed

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information

Time (Finish): ~~6:00~~ 6:50

Water Level:

Total Depth of Well:

Approximate Volume Removed: 6 gallons

Water Characteristics

Color Clear / yellow Clear Cloudy
Odor: None / Weak Moderate Strong
Any Films or Immiscible Material no
pH Temperature(°F °C)
Specific Conductance(µS/cm)

Comments: Fast pump rate, developed by volume

Monitoring Point Type Shallow / Deep

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MONITORING POINT DEVELOPMENT RECORD

Job Number: 722450.21 Job Name: MacDill AFB
Location: Site OT-24 By: KC/MV Date: 3/23/95
Well Number: 24 PZ-15 Measurement Datum: TOC

Pre-Development Information Time (Start): 16:10

Water Level: Total Depth of Well:

Water Characteristics

Color: dark Brown Clear Cloudy muddy
Odor: None Weak Moderate Strong
Any Films or Immiscible Material: no
pH: Temperature(°F °C):
Specific Conductance(µS/cm):

Interim Water Characteristics

Gallons Removed

pH

Temperature (°F °C)

Specific Conductance(µS/cm)

Post-Development Information Time (Finish):

Water Level: Total Depth of Well:

Approximate Volume Removed: 6 gallons

Water Characteristics

Color: Clear/yellow Clear Cloudy
Odor: None Weak Moderate Strong
Any Films or Immiscible Material: no
pH: Temperature(°F °C):
Specific Conductance(µS/cm):

Comments: developed by volume, fast pump rate

Monitoring Point Type Shallow / Deep

MONITORING POINT DEVELOPMENT RECORD Page__ of__

Job Number: 722450.21 Job Name: MacDill Air Force Base
Location _____ By _____ Date 7-20-95
Well Number 24P2-2 Measurement Datum TOC

Pre-Development Information Time (Start): 1810

Water Level: 0.1 Total Depth of Well: 5.5

Water Characteristics

Color Black Clear (Cloudy)
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material None
pH 6.60 Temperature °F (°C) 27.1
Specific Conductance(µS/cm) 12.66
DO = 1.19

Interim Water Characteristics

Gallons Removed 6

pH 6.38

Temperature °F (°C) 28.2

Specific Conductance(µS/cm) 11.42

DO=1.30

Post-Development Information Time (Finish): 1902

Water Level: 0.1 Total Depth of Well: 5.5

Approximate Volume Removed: 8

Water Characteristics

Color Light Brown (Clear) Cloudy
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material None
pH 6.41 Temperature °F (°C) 28.0
Specific Conductance(µS/cm) 12.16
DO = 1.41

Comments:

FIGURE 3.7

MONITORING POINT DEVELOPEMENT RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

MONITORING POINT DEVELOPMENT RECORD Page__ of__

Job Number: 722450.21 Job Name: MacDill Air Force Base
Location _____ By _____ Date 7-21-95
Well Number 24P2-30 Measurement Datum TOC

Pre-Development Information

Time (Start): 0730

Water Level: 0.0

Total Depth of Well:

Water Characteristics

Color Black Clear (Cloudy)
Odor: None (Weak) Moderate Strong
Any Films or Immiscible Material None
pH 6.78 Temperature (°F) (°C) 26.7
Specific Conductance(µS/cm) 11.36
DO = 4.17

Interim Water Characteristics

Gallons Removed 2

pH 6.82

Temperature (°F) (°C) 26.5

Specific Conductance(µS/cm) 15.12

DO = 2.63

Post-Development Information

Time (Finish): 0900

Water Level: 0.0

Total Depth of Well: 19.

Approximate Volume Removed: 5

Water Characteristics

Color Light Brown (Clear) Cloudy
Odor: None (Weak) Moderate Strong
Any Films or Immiscible Material None
pH 6.77 Temperature (°F °C) 27.4
Specific Conductance(µS/cm) 13.91

Comments: WELL/PIEZO GOES DRY DURING DEVELOPING.

FIGURE 3.7

MONITORING POINT DEVELOPEMENT RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

MONITORING POINT DEVELOPMENT RECORD Page__ of__

Job Number: 722450.21 Job Name: MacDill Air Force Base
Location _____ By _____ Date 7-20-95
Well Number 24P2-35 Measurement Datum TOC

Pre-Development Information Time (Start): 1330

Water Level: 0.0 Total Depth of Well: 5.5

Water Characteristics

Color Brown Clear (Cloudy)
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material NONE
pH 6.74 Temperature(°F (°C) 27.1
Specific Conductance(µS/cm) 5.01
DO = 1.23

Interim Water Characteristics

Gallons Removed 5

pH 6.97

Temperature (°F (°C) 28.4

Specific Conductance(µS/cm) 4.15
DO = 1.79

Post-Development Information Time (Finish): 1435

Water Level: 0.0 Total Depth of Well: 5.5

Approximate Volume Removed: 9

Water Characteristics

Color Light Brown (Clear) Cloudy
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material NONE
pH 7.08 Temperature(°F (°C) 28.1
Specific Conductance(µS/cm) 12.5
DO = 1.54

Comments:

FIGURE 3.7

MONITORING POINT DEVELOPEMENT RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

MONITORING POINT DEVELOPMENT RECORD Page__ of__

Job Number: 722450.21 Job Name: MacDill Air Force Base
Location By Date 7-20-95
Well Number 24P2-45 Measurement Datum TOC

Pre-Development Information Time (Start): 1710

Water Level: 0.30 Total Depth of Well: 5.5

Water Characteristics

Color Black Clear (Cloudy)
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material NONE
pH 7.16 Temperature °F (°C) 22.6
Specific Conductance(µS/cm) 15.99
DO = 0.68

Interim Water Characteristics

Gallons Removed 4

pH 6.74

Temperature °F (°C) 27.9

Specific Conductance(µS/cm) 15.92
DO = 0.89

Post-Development Information Time (Finish): 1800

Water Level: 0.30 Total Depth of Well: 5.5

Approximate Volume Removed: 8

Water Characteristics

Color Light Brown (Clear) Cloudy
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material NONE
pH 6.64 Temperature °F (°C) 28.2
Specific Conductance(µS/cm) 14.89
DO = 0.83

Comments:

FIGURE 3.7

MONITORING POINT DEVELOPEMENT RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

MONITORING POINT DEVELOPMENT RECORD Page__ of__

Job Number: 722450.21 Job Name: MacDill Air Force Base
Location _____ By _____ Date 7-20-95
Well Number 24PZ-55 Measurement Datum TOC

Pre-Development Information

Time (Start): 1445

Water Level: 0.3 Total Depth of Well: 5.5

Water Characteristics

Color Black Clear (Cloudy)
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material NONE
pH 6.48 Temperature °F (°C) 29.3
Specific Conductance(µS/cm) 13.46
DO = 0.46

Interim Water Characteristics

Gallons Removed 6

pH 6.38

Temperature (°F (°C) 28.3

Specific Conductance(µS/cm) 9.89

DO = 1.07

Post-Development Information

Time (Finish): 1640

Water Level: 0.3 Total Depth of Well: 5.5

Approximate Volume Removed: 13

Water Characteristics

Color Light Brown (Clear) Cloudy
Odor: (None) Weak Moderate Strong
Any Films or Immiscible Material NONE
pH 6.40 Temperature °F (°C) 28.4
Specific Conductance(µS/cm) 16.08
DO = 0.90

Comments:

FIGURE 3.7

MONITORING POINT DEVELOPEMENT RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL _____
(number)

REASON FOR SAMPLING: [ ] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/24/95 19 1445 a.m./p.m.
SAMPLE COLLECTED BY: MV & KC of ES
WEATHER: _____
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [ ] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe): _____

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH _____ FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: _____
Odor: _____
Other Comments: _____

4 [x] WELL EVACUATION:
Method: _____
Volume Removed: _____
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: _____
Other comments: _____

Ground Water Sampling Record - Monitoring Well No. [illegible] (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 24.9 ° C	Measured with: Orion Instrument	
pH: 6.94	Measured with: _____	
Conductivity: 9[illegible] µS/c	Measured with: _____	
Dissolved Oxygen: 6.54 mg/l	Measured with: Orion Instrument	
Redox Potential: -56.8 mV	Measured with: _____	
Salinity: _____	Measured with: _____	
Nitrate: _____	Measured with: _____	
Sulfate: _____	Measured with: _____	
Ferrous Iron: _____	Measured with: _____	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 1- [illegible]
2 - [illegible]

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL: MW 24 - 2
(number)

REASON FOR SAMPLING: [4 Regular Sampling; [ ] Special Sampling,
DATE AND TIME OF SAMPLING: 3/29/95, 1995 0915 am p m
SAMPLE COLLECTED BY: MD KC of LS
WEATHER: Sunny ~80°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [4 UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH N.P. FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH _____ FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear / Light Yellow
Odor: Musty - Mildew
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 2.5 Gallons
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: Musty - Mildew → Slight
Other comments:

Ground Water Sampling Record - Monitoring Well No. [illegible] (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	25.4 ° C	Measured with:	Orion Instrument
pH:	6.27	Measured with:	
Conductivity:	13340	Measured with:	
Dissolved Oxygen:	0.06	Measured with:	Orion Instrument
Redox Potential:	-82.5	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 1-[illegible]
2 - TEFX, VOC, TOH

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers. _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MD24 - MW 2
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/31, 1995 16:00 a.m./p.m.
SAMPLE COLLECTED BY: MV/KC of ES Denver
WEATHER: Cloudy
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[X] LOCKED: [ ] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH ND FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NM FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear
Odor: weak
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic
Volume Removed: ~ 2 gallons
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: weak
Other comments: some particulates Present

MW24-2

Ground Water Sampling Record - Monitoring Well No. ~~MW 2~~ (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of:_____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe:_____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: ____° __C___	Measured with: Orion Instrument
pH: _____	Measured with:_____
Conductivity: _____	Measured with:_____
Dissolved Oxygen: _____	Measured with: Orion Instrument
Redox Potential: _____	Measured with:_____
Salinity: _____	Measured with:_____
Nitrate: _____	Measured with:_____
Sulfate: _____	Measured with:_____
Ferrous Iron: _____	Measured with:_____

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): ~~2~~ 1-TEH
1-TEH (MS/MSD)

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] *Filtration:* Method_____ *Containers:*_____
Method_____ Containers:_____
Method_____ Containers:_____

[ ] Preservatives added:

Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS:_____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MD24 - 3
(number)

REASON FOR SAMPLING: [ ] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/24/95, 19 1400 a.m./p.m.
SAMPLE COLLECTED BY: ~~MV/KC~~ of ES
WEATHER:
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 6.37 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear Yellow
Odor: No
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic
Volume Removed: 2500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: No
Other comments:

Ground Water Sampling Record - Monitoring Well No. MD-4 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	9.5.2 ° C	Measured with:	Orion Instrument
pH:	6.70	Measured with:	
Conductivity:	1.12 K/O	Measured with:	
Dissolved Oxygen:	0.02	Measured with:	Orion Instrument
Redox Potential:	-97.2	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): 1 - Poly Amber, 1L
2 - BTEX, TTH, VOC

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MW 24-4

REASON FOR SAMPLING: [ ] Regular Sampling; [ ] Special Sampling; MW 24-41 (number) (Dup)
DATE AND TIME OF SAMPLING: 3/28, 19[illegible] a.m./p.m.
SAMPLE COLLECTED BY: ~~MV~~ KC of ES [illegible]
WEATHER: [illegible]
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [√] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH ~~[illegible]~~ NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 6.61 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear / Yellow
Odor: Not Noticeable
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 2500 ml
Observations: Water (slightly - very) cloudy
Water ~~level~~ (rose - fell - no change)
Water odors: no
Other comments:

Ground Water Sampling Record - Monitoring Well No. MD29-2 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	24.0 ° C	Measured with:	Orion Instrument
pH:	6.59	Measured with:	
Conductivity:	134 MC µS/cm	Measured with:	
Dissolved Oxygen:	0.00	Measured with:	Orion Instrument
Redox Potential:	-24.7	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): (P.E.) 8 1 Liter
1 - METH, ANIONS, HACH (2)
2 - BTEX, VOC, 40 ml

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[x] Container Sides Labeled
[ ] Container Lids Taped
[x] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL _____
(number)

REASON FOR SAMPLING: [ ] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/24, 1995 ~2:40 a.m./p.m.
SAMPLE COLLECTED BY: MV / KC of ES
WEATHER: _____
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe): _____

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 3.05 → 3.13 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear, colorless
Odor: slight
Other Comments: _____

4 [x] WELL EVACUATION:
Method: Bailer/Pump
Volume Removed: 3 gal
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: slight
Other comments: _____

Ground Water Sampling Record - Monitoring Well No. MO24-C (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	23.7 ° C	Measured with:	Orion Instrument
pH:	7.06	Measured with:	
Conductivity:	45 x 10 µs/cm	Measured with:	
Dissolved Oxygen:	0.13	Measured with:	Orion Instrument
Redox Potential:	-244.4	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): 1 - 40cc clear Hcl, Nalgene, Plastic, Preserved
2 - 125 ml plastic, unpreserved

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] *Filtration:* Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL ~~24MW-6~~ MW24-6
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/15, 1995 15:15 a.m./p.m.
SAMPLE COLLECTED BY: MV / KC / CP of ES Denver
WEATHER: Partly Cloudy ~ 75°F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: FAIR - Rusted and covered w/ants
INNER PVC CASING CONDITION IS: good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 2.98 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic Pump
Volume Removed: 2000 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: no significant odor
Other comments: lots of ants

Ground Water Sampling Record - Monitoring Well No. 24MD b (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	23.2 ° C	Measured with:	Orion Instrument
pH:	6.76	Measured with:	
Conductivity:	241 x 10 µS/s	Measured with:	
*Dissolved Oxygen:	2.20 mg/l	Measured with:	Orion Instrument
Redox Potential:		Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): 1-250 ml unpreserved, Alkalinity
1-125 ml unpreserved Anions
2-40 ml BTEX } preserved
2-40 ml TVH }

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: dissolved oxygen not calibrated
Samples taken after conditions stabilized
and packed in ICE.

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MD-24-6
(number)

REASON FOR SAMPLING: [✓] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/22/, 1995 0900 a.m./p.m.
SAMPLE COLLECTED BY: MW/KC of ES Denver
WEATHER: Sunny - 80° F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [✓] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: FAIR
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH ND FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe
WATER DEPTH 3.00 → Final 3.42 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear
Odor: Slight
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic
Volume Removed: 2000 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell) - no change)
Water odors: Slight
Other comments:

Ground Water Sampling Record - Monitoring Well No. MD296 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	24.6 ° C	Measured with:	Orion Instrument
pH:	6.53	Measured with:	
Conductivit	235 x10	Measured with:	
Dissolved Oxygen:	Broke	Measured with:	Orion Instrument
Redox Potential:	-51.5	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): _____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING.

[x] Container Sides Labeled
[ ] Container Lids Taped
[x] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MW24-MW6 MW26-TEH Dup
(number)

REASON FOR SAMPLING: [X] Regular Sampling, [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/31, 1995 15:30 a.m./p.m.
SAMPLE COLLECTED BY: MV/RC of ES Denver
WEATHER: Sun Cloudy 80°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH ND FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NM FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear
Odor: moderate
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic
Volume Removed: ~2 gallons
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: moderate
Other comments:

Ground Water Sampling Record - Monitoring Well No MDX4 - MW 6 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: ____° __C___	Measured with: Orion Instrument
pH: _____	Measured with: _____
Conductivity: _____	Measured with: _____
Dissolved Oxygen: _____	Measured with: Orion Instrument
Redox Potential: _____	Measured with: _____
Salinity: _____	Measured with: _____
Nitrate: _____	Measured with: _____
Sulfate: _____	Measured with: _____
Ferrous Iron: _____	Measured with: _____

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 2 - BTEX
1 - TEH
1 - TEH Dup (2E)

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] *Filtration:* *Method*_____ *Containers:*_____
Method_____ Containers:_____
Method_____ Containers:_____

[ ] Preservatives added:

Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MD 24 - mw 6A
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/31/95 19 15:40 a.m./p.m.
SAMPLE COLLECTED BY: MV/RC of ES Denver
WEATHER: Cloudy 80°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NM FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear
Odor: None
Other Comments:

4 [x] WELL EVACUATION:
Method:
Volume Removed:
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors:
Other comments:

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MO 24-6A
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: ~~3/14~~ 3/15/ 1995 1120 a.m./p.m.
SAMPLE COLLECTED BY: MV/KC/JF of ES Denver
WEATHER: Partly Sunny
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: FAIR - RUSTED
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 2.66 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic Pump
Volume Removed: 2000 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: moderate HC odor
Other comments: red particulate material present, could be rust?

Ground Water Sampling Record - Monitoring Well No. MW24-6A (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of:_____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe:_____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 23.3 ° C		Measured with: Orion Instrument
pH: 7.49		Measured with:
Conductivity: 74 x10 µS/s		Measured with:
Dissolved Oxygen: 0.28 mg/l		Measured with: Orion Instrument
Redox Potential:		Measured with:
Salinity:		Measured with:
Nitrate:		Measured with:
Sulfate:		Measured with:
Ferrous Iron:		Measured with:
Other:		

7 [ ] SAMPLE CONTAINERS (material, number, size): 1-250 ml - unpreserved Alkalinity
1-125 ml - unpreserved Anions
2-40 ml BTEX } preserved bottles
2-40 ml TUH }

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

[ ] Preservatives added:

Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: D.O. not calibrated, samples taken after conditions stabilized, samples packed in ICE

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MW 24-6A
(number)

REASON FOR SAMPLING: [x] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/22, 1995 0830 a.m./~~p.m.~~
SAMPLE COLLECTED BY: MW / KC of ES Nemours
WEATHER: Sunny - 90°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [x] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Fair
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 2.70 - 2.75 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear
Odor: Moderate Sulfide
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic pump
Volume Removed: 2500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell) no change)
Water odors: moderate
Other comments:

Ground Water Sampling Record - Monitoring Well No. MD29 - ~~Rover~~ A (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: _____ ° C	Measured with: Orion Instrument
pH: _____	Measured with: _____
Conductivity: _____	Measured with: _____
Dissolved Oxygen: _____	Measured with: Orion Instrument
Redox Potential: _____	Measured with: _____
Salinity: _____	Measured with: _____
Nitrate: _____	Measured with: _____
Sulfate: _____	Measured with: _____
Ferrous Iron: _____	Measured with: _____

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 2 - BTEX

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

Ground Water Sampling Record - Monitoring Well No. MW24-6A (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	22.1 ° C	Measured with:	Orion Instrument
pH:	6.48	Measured with:	
Conductivity:	77x10 µS/cm	Measured with:	
Dissolved Oxygen:	Broke	Measured with:	Orion Instrument
Redox Potential:	-95.9 mv	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): HACH DUP

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MW-24-7
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/23/95, 19__ 1105 a.m./p.m.
SAMPLE COLLECTED BY: MV / KC of ES Denver
WEATHER: HOT - Sunny - 90°s
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Fair (Rusted)
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH N/A FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 2.48 - 2.66 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Cloudy
Odor: Slight
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 2500 mL
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: slight - none
Other comments:

Ground Water Sampling Record - Monitoring Well No. _____ (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	23.3 ° C	Measured with:	Orion Instrument
pH:	6.90	Measured with:	
Conductivity:	0.3	Measured with:	
Dissolved Oxygen:	2.23	Measured with:	Orion Instrument
Redox Potential:	-34.9	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): _____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MD 24-8
(number)

REASON FOR SAMPLING: [4 Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/22/95, 1995 1115 a.m./p.m.
SAMPLE COLLECTED BY: MW / KC of ES Denver
WEATHER: Sunny 80°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [4 UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Fair
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 2.80' → 2.85' FINAL FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: clear
Odor: slight
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 2 Sec Vol
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: Slight
Other comments: ~~Purged~~ limited recharge of vegetation cover ~~three~~ Through 1 cavity

Ground Water Sampling Record - Monitoring Well No. MW24 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of:_____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe:_____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	22.1 ° C	Measured with:	Orion Instrument
pH:	6.61	Measured with:	
Conductivity:	5146 µS/cm	Measured with:	
Dissolved Oxygen:	0.14 mg/L	Measured with:	Orion Instrument
Redox Potential:	-117.9 mV	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): 4W Amber Bottle (2) TWM (2), Methanol Vial (2), Hexane

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

[ ] Preservatives added:

Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

9 [ ] CONTAINER HANDLING:

[x] Container Sides Labeled
[ ] Container Lids Taped
[x] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS:_____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MD 24-9
(number)

REASON FOR SAMPLING: [✓] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/20, 1995 10:05 a.m./p.m.
SAMPLE COLLECTED BY: MV / KC / JF of ES Denver
WEATHER:
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [✓] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS:
INNER PVC CASING CONDITION IS:
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH Not Present FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 7.61 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic pump
Volume Removed: 2500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell) - no change)
Water odors: no
Other comments:

Ground Water Sampling Record - Monitoring Well No. MW2-9 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB, [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	24.9 ° C	Measured with:	Orion Instrument
pH:	7.66	Measured with:	"
Conductivity:	90 x 10 µS/cm	Measured with:	Eclech
Dissolved Oxygen:	0.30 mg/l	Measured with:	~~Orion Instrument~~ "
Redox Potential:	-76.0 mV	Measured with:	"
Salinity:	_____	Measured with:	_____
Nitrate:	_____	Measured with:	_____
Sulfate:	_____	Measured with:	_____
Ferrous Iron:	_____	Measured with:	_____
Other:	_____		

7 [ ] SAMPLE CONTAINERS (material, number, size): 1- 125ml Amber, 2 x 40ml BTEX, 2 x 40 ml TUH, 2 x 40 ml VOC, 1 x 50ml methane, 1 x 250 ml Metals grab

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method TUH Containers: _____
Method BTEX Containers: _____
Method VOC Containers: _____
Method METHAN Containers: _____

9 [ ] CONTAINER HANDLING:

[x] Container Sides Labeled
[ ] Container Lids Taped
[x] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL [illegible]
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: [illegible], 19[illegible] a.m./p.m.
SAMPLE COLLECTED BY: MV / KC of ES [illegible]
WEATHER: [illegible]
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: [illegible]
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH [illegible] FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 2.05' - 2.11 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear
Odor: none - Slight
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic pump
Volume Removed: 2.500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: None
Other comments:

Ground Water Sampling Record - Monitoring Well No. _____ (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	22.3 ° C	Measured with:	Orion Instrument
pH:	6.1.7	Measured with:	
Conductivity:	110 x/c	Measured with:	
Dissolved Oxygen:	0.07	Measured with:	Orion Instrument
Redox Potential:	-123.6 mV	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): _____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site ~~49~~ 24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MD 24-10
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/31, 1995 16:20 a.m./p.m.
SAMPLE COLLECTED BY: ~~MV/KO~~ of ES
WEATHER: cloudy 80°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NM FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear
Odor: none weak
Other Comments:

4 [x] WELL EVACUATION:
Method: peristalic
Volume Removed: ~ 2 gallons
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: ~~to~~ none
Other comments:

Ground Water Sampling Record - Monitoring Well No. MW-18 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: _____ ° C		Measured with:	Orion Instrument
pH: _____		Measured with:	
Conductivity: _____		Measured with:	
Dissolved Oxygen: _____		Measured with:	Orion Instrument
Redox Potential: _____		Measured with:	
Salinity: _____		Measured with:	
Nitrate: _____		Measured with:	
Sulfate: _____		Measured with:	
Ferrous Iron: _____		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 2 - BTEX
1 - HACH VOA for Sulfide COD

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MO-11A
(number)

REASON FOR SAMPLING: [x] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/21/95, 19__ [illegible] a.m./p.m.
SAMPLE COLLECTED BY: MV / KC of ES Denver
WEATHER: Sunny, Cool
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [ ] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Fair
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH DP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe
WATER DEPTH 2.15 --> 3.25 Cnd FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear
Odor: Slight
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 2 Gal
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: Slight
Other comments:

Ground Water Sampling Record - Monitoring Well No. [illegible] (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of:_____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe:_____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 24 ° C	Measured with:	Orion Instrument
pH: 7.65	Measured with:	
Conductivity: 1411 x10	Measured with:	
Dissolved Oxygen: 7.0 mg	Measured with:	Orion Instrument
Redox Potential: ~~[illegible]~~ 183	Measured with:	
Salinity:	Measured with:	
Nitrate:	Measured with:	
Sulfate:	Measured with:	
Ferrous Iron:	Measured with:	

Other:_____

7 [ ] SAMPLE CONTAINERS (material, number, size):_____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

[ ] Preservatives added:

Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS:_____

SAMPLING LOCATION MacDill AFB Site ~~26~~ 24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MD24 - MW10A
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/31, 1995 1610 a.m./p.m.
SAMPLE COLLECTED BY: ~~MATKO~~ of ES Denver
WEATHER: Cloudy ~80°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NM FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear
Odor: weak
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic
Volume Removed: ~ 2 gallons
Observations: Water (~~slightly~~ - very) cloudy
Water level (rose - fell - no change)
Water odors: none
Other comments:

Ground Water Sampling Record - Monitoring Well No. MW-10A (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	° C	Measured with:	Orion Instrument
pH:		Measured with:	
Conductivity:		Measured with:	
Dissolved Oxygen:		Measured with:	Orion Instrument
Redox Potential:		Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 2 - BTEX
1 - ~~HCl~~ HACL HOA for Sulfate Nodo

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24 MW - 11D
(number)

REASON FOR SAMPLING: [✓] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/23, 1995 1510 a.m./p.m.
SAMPLE COLLECTED BY: MV / KC of ES Denver
WEATHER: Sunny - 60's
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [✓] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH - FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH n/a FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear (yellow -> milky white)
Odor: Hydrogen Sulfide
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 2 cc cont
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: Hydrogen Sulfide
Other comments:

Ground Water Sampling Record - Monitoring Well No. 24-MP-1D (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	25.6 ° C	Measured with:	Orion Instrument
pH:	6.49	Measured with:	
Conductivity:	116 x10	Measured with:	
Dissolved Oxygen:	0.39 mg/L	Measured with:	Orion Instrument
Redox Potential:	-91.4	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): 1 - HACH GASES, METHANE, Anions
2 - BTEX, ~~VFA~~, VOC, TVH

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[x] Container Sides Labeled
[ ] Container Lids Taped
[x] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL DW MP - 15
(number)

REASON FOR SAMPLING: [✓] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/29, 1995 0840 a.m./p.m.
SAMPLE COLLECTED BY: MW/KC of ES
WEATHER: Sunny - Excel
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [✓] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Excel
INNER PVC CASING CONDITION IS: Excel
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH N/A FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 3.64 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Dark Brown
Odor: Hydrocarbon
Other Comments: Steel pump riser

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 1000 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: Hydrocarbon
Other comments: New pump rate

Ground Water Sampling Record - Monitoring Well No. 24-MW1S (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 24.6 ° C	Measured with:	Orion Instrument
pH: 6.16	Measured with:	
Conductivity: 58.0 mS/cm	Measured with:	
Dissolved Oxygen: 0.14 mg/L	Measured with:	Orion Instrument
Redox Potential: -45.1 mV	Measured with:	
Salinity:	Measured with:	
Nitrate:	Measured with:	
Sulfate:	Measured with:	
Ferrous Iron:	Measured with:	
Other:		

7 [ ] SAMPLE CONTAINERS (material, number, size): 1 - Amber methanol HCl
3 - BTEX, VOC, TVH

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24 MW-2D
(number)

REASON FOR SAMPLING: [x] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/23, 1995 1125 a.m./p.m.
SAMPLE COLLECTED BY: MV/KC of ES
WEATHER: Sunny - Cool
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [x] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH ~~N/A~~ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 6.05 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear - Cloudy
Odor: moderate to strong
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 1500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: Strong - Sulfuric
Other comments:

Ground Water Sampling Record - Monitoring Well No. 24-MP-D (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 26.0 ° C	Measured with:	Orion Instrument
pH: 6.43	Measured with:	
Conductivity: 1402 µs/cm	Measured with:	
Dissolved Oxygen: 0.20 mg/l	Measured with:	Orion Instrument
Redox Potential: -79.5	Measured with:	
Salinity:	Measured with:	
Nitrate:	Measured with:	
Sulfate:	Measured with:	
Ferrous Iron:	Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 1 Amber 2 BTEX
2 TOH 1 methane 3 VOC,
1 Hach glass

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MW-25
(number)

REASON FOR SAMPLING: [✓] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/23, 1995 1410 a.m./p.m.
SAMPLE COLLECTED BY: MV / KC of ES Denver
WEATHER: Sunny - 80°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [✓] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: new
INNER PVC CASING CONDITION IS: new
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH — FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 3.14 — FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: brown
Odor: strong
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 2500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: strong
Other comments:

Ground Water Sampling Record - Monitoring Well No. 24-MP-1 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	24.2 ° C	Measured with:	Orion Instrument
pH:	5.61	Measured with:	
Conductivity:	33,510 µS/cm	Measured with:	
Dissolved Oxygen:	0.06 mg/L	Measured with:	Orion Instrument
Redox Potential:	-211.9	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): 2 - 5T ≡ <, VOC, TVH, 1 - Anion, methane, Hach grab

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method METHANE Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[X] Container Sides Labeled
[ ] Container Lids Taped
[X] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24MP-25
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/31/95, 1995 15:15 a.m./p.m.
SAMPLE COLLECTED BY: MV KC of ES Denver
WEATHER: Cloudy 80°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: New
INNER PVC CASING CONDITION IS: New
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NM FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Brown
Odor: Strong H.C.
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: Approx 2 gallons
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: moderate
Other comments:

Ground Water Sampling Record - Monitoring Well No. 24-MP-25 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: _____ ° C	Measured with:	Orion Instrument
pH: _____	Measured with:	_____
Conductivity: _____	Measured with:	_____
Dissolved Oxygen: _____	Measured with:	Orion Instrument
Redox Potential: _____	Measured with:	_____
Salinity: _____	Measured with:	_____
Nitrate: _____	Measured with:	_____
Sulfate: _____	Measured with:	_____
Ferrous Iron: _____	Measured with:	_____

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 1-TeH

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24MP-~~24~~3D
(number)

REASON FOR SAMPLING: [✓] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/20, 1995 13:20 a.m./p.m.
SAMPLE COLLECTED BY: MV/KC of ES Denver
WEATHER: Sunny - 80°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [✓] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: New
INNER PVC CASING CONDITION IS: New
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NM / NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NM FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic Pump
Volume Removed: 2000 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: Slight
Other comments: murky white color

Ground Water Sampling Record - Monitoring Well No. 24 MP-3D (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	25.2 ° C	Measured with:	Orion Instrument
pH:	6.84	Measured with:	
Conductivity:	165x10	Measured with:	
Dissolved Oxygen:	0.26	Measured with:	Orion Instrument
Redox Potential:		Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 1-250 ml Alkalinity, 1-125 ml Anion, 2x40 ml BTEX, 2 x 40 ml TVH, 2 x 40 ml VOC, 3 1 x 50 ml Methane, 1-250 Hach grab

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[X] Preservatives added:

Method _____ Containers: BTEX
Method _____ Containers: TVH
Method _____ Containers: VOC
Method _____ Containers: METHANE

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24 MP-35
(number)

REASON FOR SAMPLING: [ ] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/20, 1995 11:25 a.m./p.m.
SAMPLE COLLECTED BY: MW/KC of ES Denver
WEATHER: Sunny - 80°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [ ] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: New
INNER PVC CASING CONDITION IS: New
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH — FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 2.30 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic pump
Volume Removed: 2500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: slight Sulfuric
Other comments:

Ground Water Sampling Record - Monitoring Well No. 24MP35 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	23.5 ° C	Measured with:	Orion Instrument
pH:	7.02	Measured with:	
Conductivity:	49 x10 µS/cm	Measured with:	
Dissolved Oxygen:	0.08 mg/l	Measured with:	Orion Instrument
Redox Potential:	-238.3 mV ✓	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): 1- 250ml Alkalinity, 1-125ml Anion, 2 x 40 ml BTEX, 2 x 40 ml TVH, 2x 40 ml VOC, 1 - 50 ml METHANE, 1 250 HACH grab.

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: BTEX
Method _____ Containers: TVH
Method _____ Containers: METHANE
Method _____ Containers: VOC

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24-MW-95
(number)

REASON FOR SAMPLING: [√] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/24, 1995 1150 a.m./p.m.
SAMPLE COLLECTED BY: MRTKO of ES Denver
WEATHER: sunny - 50
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [√] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: new
INNER PVC CASING CONDITION IS: new
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 3.42 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Brown / Cloudy
Odor: NP
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: ~2500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: no
Other comments:

Ground Water Sampling Record - Monitoring Well No 24-MP-115 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 20 ° C	Measured with:	Orion Instrument
pH: 6.84	Measured with:	
Conductivity: 1681	Measured with:	
Dissolved Oxygen: 0.32	Measured with:	Orion Instrument
Redox Potential: 97.4	Measured with:	
Salinity:	Measured with:	
Nitrate:	Measured with:	
Sulfate:	Measured with:	
Ferrous Iron:	Measured with:	
Other:		

7 [ ] SAMPLE CONTAINERS (material, number, size): 1 - PLSTC, HNO3, Glass
2 - BTEX, VOC; TOH

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995 3/20/95

GROUND WATER SAMPLING RECORD - MONITORING WELL 24MP-5D
(number)

REASON FOR SAMPLING: [✓] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/20/95, 1995 0920 a.m./p.m.
SAMPLE COLLECTED BY: MV / KC / JE of ES
WEATHER: Sunny 75 - 80 °F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [✓] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: NEW
INNER PVC CASING CONDITION IS: NEW
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH Not measured FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic pump
Volume Removed: 1500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: ~~not~~ none noticable
Other comments:

Ground Water Sampling Record - Monitoring Well No. 21MP-SP (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of:_____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe:_____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: _____° C	Measured with: Orion Instrument
pH: _____	Measured with:_____
Conductivity: _____	Measured with:_____
Dissolved Oxygen: _____	Measured with: Orion Instrument
Redox Potential: _____	Measured with:_____
Salinity: _____	Measured with:_____
Nitrate: _____	Measured with:_____
Sulfate: _____	Measured with:_____
Ferrous Iron: _____	Measured with:_____

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size):_____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

[ ] Preservatives added:

Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS:_____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24 MW 52
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/24/, 1995 ____ a.m./p.m.
SAMPLE COLLECTED BY: ~~MV~~ KC ____ of ES ____
WEATHER: ____
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe): ____

Check-off
1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H_2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NM FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: ____
Odor: ____
Other Comments: ____

4 [x] WELL EVACUATION:
Method: ____
Volume Removed: ____
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: ____
Other comments: ____

Ground Water Sampling Record - Monitoring Well No. 29-mp-D (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	24.1 ° C	Measured with:	Orion Instrument
pH:	6.65	Measured with:	
Conductivity:	159x10	Measured with:	
Dissolved Oxygen:		Measured with:	Orion Instrument
Redox Potential:	-60.4	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): 1-metals Amber HDPE
2 - BTEX, VOC TVH

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

[ ] Preservatives added:

Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995 3/20/95

GROUND WATER SAMPLING RECORD - MONITORING WELL 24 MP-55
(number)

REASON FOR SAMPLING: [✓] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/20, 1995 0850 a.m./p.m.
SAMPLE COLLECTED BY: MV / KC / SF of ES Dewar
WEATHER: Sunny ~75-80°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [✓] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: NEW
INNER PVC CASING CONDITION IS: NEW
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 3.48 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic Pump
Volume Removed: 2000 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - ~~no change~~)
Water odors: slight
Other comments: Brown Color initially

Ground Water Sampling Record - Monitoring Well No. 24MP 55 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	20.6 ° C	Measured with:	Orion Instrument
pH:	6.86	Measured with:	
Conductivity:	78x10 µs/cm	Measured with:	
Dissolved Oxygen:	1.31 mg/L	Measured with:	Orion Instrument
Redox Potential:	-186.5 mV	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): 1-250 ml unpres. Alkalinity + 1-125 ml Anions; 2-40ml BTEX; 2-40ml TVH; 2-40ml VOC; 1-50ml Methane

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] *Filtration:* Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[x] Preservatives added:

Method TVH Containers: _____
Method BTEX Containers: _____
Method VOC Containers: _____
Method METHANE Containers: _____

9 [ ] CONTAINER HANDLING:

[x] Container Sides Labeled
[ ] Container Lids Taped
[x] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: IF Purge waters have not entirely been stabilized after 15 minutes samples will be taken

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24MP-6S
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/24, 1995 2110 a.m./p.m.
SAMPLE COLLECTED BY: MV / KC of ES Parsons
WEATHER: Partly Cloudy - 80°
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NM FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: clear / yellow
Odor: none
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 2.500
Observations: Water (slightly) - very) cloudy
Water level (rose - fell - no change)
Water odors: none
Other comments:

Ground Water Sampling Record - Monitoring Well No. MP-5 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 21.4 ° C	Measured with:	Orion Instrument
pH: 6.82	Measured with:	
Conductivity: 83 x 10 µs/cm	Measured with:	
Dissolved Oxygen: 0.11 mg/l	Measured with:	Orion Instrument
Redox Potential: -139.8 mV	Measured with:	
Salinity:	Measured with:	
Nitrate:	Measured with:	
Sulfate:	Measured with:	
Ferrous Iron:	Measured with:	
Other:		

7 [ ] SAMPLE CONTAINERS (material, number, size): 1- TAC methanol, 1 x H, Nitric
2- BTEX, TVH, TAC

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24 MP-70
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/16, 1995 07:45 a.m./p.m.
SAMPLE COLLECTED BY: MP/KC/JE of ES Denver
WEATHER: Partly Cloudy ~65°F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: New
INNER PVC CASING CONDITION IS: New
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT — not surveyed yet
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH not measured FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic pump
Volume Removed: 2000 ml
Observations: Water (slightly - very) cloudy — milky white
Water level (rose - fell - no change)
Water odors: no noticable odor
Other comments: Sheen present in water

Ground Water Sampling Record - Monitoring Well No. 24MP-7D (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	22.3 ° C	Measured with:	Orion Instrument
pH:	6.10	Measured with:	
Conductivity:	360 x 10 µS/s	Measured with:	
*Dissolved Oxygen:	0.35 mg/l	Measured with:	Orion Instrument
Redox Potential:		Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): 1-250 ml unpreserved Alkalinity
1-125 ml unpreserved Anions
2- 40 ml BTEX } preserved
2 - 40 ml TVH }

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: *D.O. not calibrated; Samples taken after pH, conductivity, and D.O. had stabilized. Samples shipped on ice. Conductivity had probe cap left on

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL MMP-7D
(number)

REASON FOR SAMPLING: [x] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/21, 1995 0930 a.m./p.m.
SAMPLE COLLECTED BY: MW/KC of ES Denver
WEATHER: Sunny - 60's
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [x] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: New
INNER PVC CASING CONDITION IS: New
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NM FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear
Odor: Slight Sulfur odor
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic Pump
Volume Removed: Approx. 1 gal
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: slight
Other comments: Clear - Calm

Ground Water Sampling Record - Monitoring Well No. 24-MP (TD) (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of:_____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe:_____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 21.2 ° C	Measured with: ~~Orion Instrument~~ YSI	
pH: 6.73	Measured with:	
Conductivity: 36.3 mS	Measured with:	
Dissolved Oxygen: 6.52	Measured with: ~~Orion Instrument~~ YSI	
Redox Potential: -229	Measured with:	
Salinity:	Measured with:	
Nitrate:	Measured with:	
Sulfate:	Measured with:	
Ferrous Iron:	Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size):_____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

[ ] Preservatives added:

Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS:_____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24 MP-7S
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/16, 1995 08:45 a.m./p.m.
SAMPLE COLLECTED BY: MV/KC/CF of ES Denver
WEATHER: Partly Cloudy ~ 70° F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: New
INNER PVC CASING CONDITION IS: New
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT not surveyed yet
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off
1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 1.92 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic pump
Volume Removed: 2500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: moderate odor -- Sulfuric Smell
Other comments: no significant sheen

Ground Water Sampling Record - Monitoring Well No. 24MP-75 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	21.0 ° C	Measured with:	Orion Instrument
pH:	6.67	Measured with:	
Conductivity:	98x10 µS/cm	Measured with:	
*Dissolved Oxygen:	.09 mg/L	Measured with:	Orion Instrument
Redox Potential:		Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 1- 2[illegible] ml unpreserved Alkalinity
1- 125 ml unpreserved Anion
2- 40 ml BTEX } preserved
2 - 40 ml TVH }

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: *Dissolved Oxygen not calibrated, Samples taken after d.o., pH, and conductivity had stabilized; Samples packed in ICE

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24 MW-75
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/21/95, 19 95 _____ a.m./p.m.
SAMPLE COLLECTED BY: MV / KC of ES
WEATHER: Sunny - 80 ° F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: New
INNER PVC CASING CONDITION IS: New
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 2.41 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Cloudy, brown
Odor: Slight
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 2 gallons
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: Slight
Other comments:

Ground Water Sampling Record - Monitoring Well No. 24-mp-15 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	21 ° C	Measured with:	Orion Instrument
pH:		Measured with:	
Conductivity:	9.2 x 10	Measured with:	
Dissolved Oxygen:		Measured with:	Orion Instrument
Redox Potential:		Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): _____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24MP-85D
(number)

REASON FOR SAMPLING: [4 Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/20, 1995 13:25 a.m./pm
SAMPLE COLLECTED BY: MV/KC of ES Denver
WEATHER: Sunny - 80° F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: new
INNER PVC CASING CONDITION IS: new
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NM FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic Pump
Volume Removed: 2500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: none
Other comments:

Ground Water Sampling Record - Monitoring Well No. 24 mP 88 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	25.0 ° C	Measured with:	Orion Instrument
pH:	6.65	Measured with:	
Conductivity:	169 x 10	Measured with:	
Dissolved Oxygen:	0.19	Measured with:	Orion Instrument
Redox Potential:		Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 1 - 250 ml Alkalinity, 1 - 250 ml Anion, 2 x 40 ml BTEX, 2 x 40 ml TVH, 2 x 40 ml VOC, 1 x 50 ml Methane, 2 - 250 ml Jack Grab (DUP)

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

H Preservatives added:

Method _____ Containers: BTEX
Method _____ Containers: TVH
Method _____ Containers: VOC
Method _____ Containers: Methane

9 [ ] CONTAINER HANDLING:

H Container Sides Labeled
[ ] Container Lids Taped
H Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24MP-85
(number)

REASON FOR SAMPLING: [ ] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: _____, 19___ _____ a.m./p.m.
SAMPLE COLLECTED BY: MV / KC of ES
WEATHER: _____
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [ ] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: _____
INNER PVC CASING CONDITION IS: _____
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe): _____

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH _____ FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: _____
Odor: _____
Other Comments: _____

4 [x] WELL EVACUATION:
Method: _____
Volume Removed: _____
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: _____
Other comments: _____

Ground Water Sampling Record - Monitoring Well No. 24MP-8J (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of:_____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe:_____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 23.0 ° C	Measured with: Orion Instrument	
pH: 7.06	Measured with:	
Conductivity: 23x10	Measured with:	
Dissolved Oxygen: 0.18	Measured with: Orion Instrument	
Redox Potential:	Measured with:	
Salinity:	Measured with:	
Nitrate:	Measured with:	
Sulfate:	Measured with:	
Ferrous Iron:	Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size):_____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

[ ] Preservatives added:

Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS:_____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL OT MP-9D
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/15, 1995 14.00 a.m. ~~p.m.~~
SAMPLE COLLECTED BY: MV/KC/TP of ES Dennis
WEATHER: Partly Sunny ~75°F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: NEW
INNER PVC CASING CONDITION IS: NEW
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH not measured FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic pump
Volume Removed: 2000 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: moderate odor
Other comments:

Ground Water Sampling Record - Monitoring Well No. 24MP-9D (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of:_____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe:_____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	23.9 ° C	Measured with:	Orion Instrument
pH:	6.56	Measured with:	
Conductivity:	148 x10 µs/s	Measured with:	
Dissolved Oxygen:	0.56 mg/l	Measured with:	Orion Instrument
Redox Potential:		Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 1-250 ml unpreserved Alkaline
** 1-125 ml unpreserved Anions
2- 40ml BTEX } preserved
2 - 40 ml TVH }

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

[ ] Preservatives added:

Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: * d.O. Not Calibrated
Samples taken after water conditions were stabilized packed in ICE
** Anion Sample taken after pumping had stopped and been restarted ⇒ we forget it.

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24 224' - 91
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/21, 19 95 1130 a.m./p.m.
SAMPLE COLLECTED BY: MV / KC of ES Dan
WEATHER: Sunny 80°F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Well
INNER PVC CASING CONDITION IS: ~~Fair~~ Well
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NA FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NA FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Milky white
Odor: slight
Other Comments:

4 [x] WELL EVACUATION:
Method: ~~Bail~~ Bailer
Volume Removed:
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: None
Other comments:

Ground Water Sampling Record - Monitoring Well No 24-mp-11 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	22.5 ° C	Measured with:	Orion Instrument
pH:	6.84	Measured with:	
Conductivity:	57x10 µs/cm	Measured with:	
Dissolved Oxygen:	0.05 mg/l	Measured with:	Orion Instrument
Redox Potential:	-31.8	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): _____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24 MP- 95
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/15, 1995 1425 a.m./p.m.
SAMPLE COLLECTED BY: MP/KC/DD of ES Denver
WEATHER: Partly Sunny, ~75°F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: New
INNER PVC CASING CONDITION IS: New
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT not surveyed
[X] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 1.95 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method:
Volume Removed: 7000 ml
Observations: Water (slightly - very) cloudy ~ Almost Clear
Water level (rose - fell - no change)
Water odors: moderate H.C. odor
Other comments:

Ground Water Sampling Record - Monitoring Well No. 24-MW-95 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 21.5 ° C	Measured with:	Orion Instrument
pH: 6.98	Measured with:	
Conductivity: 66 x 10 µS/s	Measured with:	
Dissolved Oxygen: 0.05 mg/l	Measured with:	Orion Instrument
Redox Potential: _____	Measured with:	
Salinity: _____	Measured with:	
Nitrate: _____	Measured with:	
Sulfate: _____	Measured with:	
Ferrous Iron: _____	Measured with:	
Other: _____		

7 [ ] SAMPLE CONTAINERS (material, number, size): 1-250 ml unpreserved Alkaline
** 1-125 ml unpreserved Anions
2-40 ml BTEX } preserved
2-40 ml TVH }

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: * Dissolved oxygen not calibrated, Samples packed in ice, and TAKEN when conditions have stabilized.
** After Sample taken after Pumping had stopped and then started, we forgot to fill it.

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24MP-10D
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/15, 1995 11:10 a.m./p.m.
SAMPLE COLLECTED BY: MV/KC/JF of ES Denver
WEATHER: Partly cloudy, slight wind, ~70°F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Excellent (new)
INNER PVC CASING CONDITION IS: NEW
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, ~~and Acetone~~
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH not measured FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic ~~Pump~~ Pump
Volume Removed: 1500 mL
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: no ~~odor~~ ~~petroleum~~ ~~odor~~ odor
Other comments:

Ground Water Sampling Record - Monitoring Well No. 2400-10D (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 23.8 ° C	Measured with:	Orion Instrument
pH: ~~7.00~~ 7.29	Measured with:	
Conductivity: 95x10 µS/cm	Measured with:	
* Dissolved Oxygen: 0.26 mg/l	Measured with:	Orion Instrument
Redox Potential: _____	Measured with:	
~~Salinity:~~ _____	Measured with:	
Nitrate: _____	Measured with:	
Sulfate: _____	Measured with:	
Ferrous Iron: _____	Measured with:	
Other: _____		

7 [ ] SAMPLE CONTAINERS (material, number, size): 1 - 250 ml unpreserved Alkalinity
1 - 125 ml unpreserved, Anions
2 - 40 ml preserved, BTEX
2 - 40ml preserved, TVH

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: * DO meter not calibrated to zero Standard)
Salinity unknown
Sampled after probes ~~Stabilized~~ Stabilized

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24MP-10D
(number)

REASON FOR SAMPLING: [x] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/23, 1995 1150 a.m./p.m.
SAMPLE COLLECTED BY: MV / KC of ES Denver
WEATHER: Sunny - 60's
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [ ] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH N/A FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH N/A FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Cloudy Brown
Odor: Slight Sulfuric
Other Comments:

4 [x] WELL EVACUATION:
Method: Bailer
Volume Removed: 3500 mls
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: Slight Sulfuric
Other comments:

Ground Water Sampling Record - Monitoring Well No. 24-MP-1(R-1) (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	24.1 ° C	Measured with:	Orion Instrument
pH:	6.67	Measured with:	
Conductivity:	9240 µS/cm	Measured with:	
Dissolved Oxygen:	0.01 mg/l	Measured with:	Orion Instrument
Redox Potential:	-81.6	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 2 VOC, 1 METHANE, 1 HACH

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[X] Container Sides Labeled
[ ] Container Lids Taped
[X] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24MP-10S
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/15, 1995 12:00 a.m./p.m.
SAMPLE COLLECTED BY: MV/KC/JF of ES Denver
WEATHER: Partly Cloudy, ~70°F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: NEW
INNER PVC CASING CONDITION IS: NEW
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH _____ FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 2.37 FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance:
Odor:
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic pump
Volume Removed:
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: none
Other comments:

Ground Water Sampling Record - Monitoring Well No. 24MW10S (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of:_____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe:_____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	22.2 ° C	Measured with:	Orion Instrument
pH:	7.57	Measured with:	
Conductivity:	45x10 ~~uS/cm~~	Measured with:	
Dissolved Oxygen:	2.2 mg/l	Measured with:	Orion Instrument
Redox Potential:		Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): 1-250 ml unpreserved Alkalinity
1-125 ml acid preserved Anions
2-40 ml preserved BTEX
2-40 ml preserved TVH

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

[ ] Preservatives added:

Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____
Method_____ Containers:_____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: * DO not Stabilized
Samples after probes stabilized, rinsed w/ DI

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24 MP - 12 S
(number)

REASON FOR SAMPLING: [4] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/23, 1995 1110 a.m./p.m.
SAMPLE COLLECTED BY: ~~MV~~ / KC of ES
WEATHER: Sunny ~ 60's
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [ ] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: Good
INNER PVC CASING CONDITION IS: Good
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH 2.42' FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Cloudy Brown
Odor: moderate
Other Comments:

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 2500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: Moderate
Other comments:

Ground Water Sampling Record - Monitoring Well No. 24-mp[illegible] (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp:	22.3 ° C	Measured with:	Orion Instrument
pH:	6.53	Measured with:	
Conductivity:	48.x10 uS/cm	Measured with:	
Dissolved Oxygen:	6.14 mg/l	Measured with:	Orion Instrument
Redox Potential:	~116.5 mV	Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): #4 [illegible] - 8 oz. METHANOL VOC (2), HACH (2) - 8 oz.

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24/2-1D
(number)

REASON FOR SAMPLING: [✓] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/24, 19 95 1115 a.m./p.m.
SAMPLE COLLECTED BY: MV/KC of ES Denver
WEATHER: Partly Cloudy ~ 60°F
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[ ] LOCKED: [✓] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: New
INNER PVC CASING CONDITION IS: New
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH NM FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Cloudy, light Brown
Odor: none
Other Comments: —

4 [x] WELL EVACUATION:
Method: Peristaltic
Volume Removed: 2500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: none
Other comments:

Ground Water Sampling Record - Monitoring Well No. 13-10 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB: [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 22.0° C	Measured with: Orion Instrument	
pH: 6.82	Measured with: _____	
Conductivity: 114 ±10 MS/cm	Measured with: _____	
Dissolved Oxygen: 0.13 mg/l	Measured with: Orion Instrument	
Redox Potential: -169.0 mV	Measured with: _____	
Salinity: _____	Measured with: _____	
Nitrate: _____	Measured with: _____	
Sulfate: _____	Measured with: _____	
Ferrous Iron: _____	Measured with: _____	

Other: _____

7 [ ] SAMPLE CONTAINERS (material, number, size): 1- METHANE, HACH, AMBERS
2- BTEX, VOC, TUV

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[✓] Container Sides Labeled
[ ] Container Lids Taped
[✓] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB Site OT-24
SAMPLING DATE(S) March 1995

GROUND WATER SAMPLING RECORD - MONITORING WELL 24MP2-15
(number)

REASON FOR SAMPLING: [✓] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 3/24, 1995 12:30 (pm)
SAMPLE COLLECTED BY: MV/KC of ES Denver
WEATHER: Partly Cloudy ~80
DATUM FOR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing

MONITORING WELL CONDITION:
[LOCKED: [✓] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: New
INNER PVC CASING CONDITION IS: new
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe):

Check-off

1 [x] EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
Items Cleaned (List): All Equipment used in sampling

2 [x] PRODUCT DEPTH NP FT. BELOW DATUM
Measured with: Oil/ Water Interface Probe

WATER DEPTH _____ FT. BELOW DATUM
Measured with: Water Level Probe

3 [x] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Clear / yellow
Odor: Slight
Other Comments:

4 [x] WELL EVACUATION:
Method: peristaltic
Volume Removed: 2500 ml
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: slight
Other comments:

Ground Water Sampling Record - Monitoring Well No. 29-B2-15 (Cont'd)

5 [x] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[x] Pump, type: Peristaltic Pump
[ ] Other, describe: _____

Sample obtained is [x] GRAB; [ ] COMPOSITE SAMPLE

6 [x] ON-SITE MEASUREMENTS:

Temp: 20.7° C	Measured with:	Orion Instrument
pH: 6.75	Measured with:	
Conductivity: 70 x 10 µS/cm	Measured with:	
Dissolved Oxygen: 0.79 mg/l	Measured with:	Orion Instrument
Redox Potential: -154.3	Measured with:	
Salinity:	Measured with:	
Nitrate:	Measured with:	
Sulfate:	Measured with:	
Ferrous Iron:	Measured with:	
Other:		

7 [ ] SAMPLE CONTAINERS (material, number, size): 1 - Methanol, Hcl -, Amber
2 - BTEX, VOC, TVH

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[x] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS: _____

SAMPLING LOCATION MacDill AFB
SAMPLING DATE(S) 7-21-95

GROUND WATER SAMPLING RECORD - MONITORING WELL 24P2-15
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 7-21, 1995 1330 a.m./(p.m.)
SAMPLE COLLECTED BY: _____ of _____
WEATHER: Hot, overcast, 90°, Breezy 5-10 mph
DATUM FOR WATER DEPTH MEASUREMENT (Describe): TOC

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: _____
INNER PVC CASING CONDITION IS: _____
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe): _____

Check-off

1 [X] EQUIPMENT CLEANED BEFORE USE WITH _____
Items Cleaned (List): _____

2 [X] PRODUCT DEPTH NA FT. BELOW DATUM
Measured with: _____

WATER DEPTH 2.70 FT. BELOW DATUM
Measured with: _____

3 [X] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Light Brown
Odor: None
Other Comments: _____

4 [X] WELL EVACUATION:
Method: Peristaltic Pump
Volume Removed: 4 GAL
Observations: Water (slight) - very) cloudy
Water level (rose - fell - no change)
Water odors: None
Other comments: _____

FIGURE 3.8

GROUND WATER SAMPLING RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

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Page 1 of 2

M:\45021\GRAPHICS\35ONG021 at 9:35

Ground Water Sampling Record - Monitoring Well No. 24P2-15 (Cont'd)

5 [X] **SAMPLE EXTRACTION METHOD:**

[ ] Bailer made of: _____
[ ] Pump, type: _____
[X] Other, describe: Peristaltic Pump

Sample obtained is [X] GRAB; [ ] COMPOSITE SAMPLE

6 [X] **ON-SITE MEASUREMENTS:**

Temp:	26.7 ° C	Measured with:	YSI 55
pH:	6.83	Measured with:	ORION 250A
Conductivity:	10.55	Measured with:	ESTECH
Dissolved Oxygen:	1.25	Measured with:	YSI 55
Redox Potential:	16.2 %	Measured with:	YSS 55
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:	0.2 ppm	Measured with:	CHEMETS KIT
Other:			

7 [ ] **SAMPLE CONTAINERS** (material, number, size): _____

8 [ ] **ON-SITE SAMPLE TREATMENT:**

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [X] **CONTAINER HANDLING:**

[X] Container Sides Labeled
[X] Container Lids Taped
[X] Containers Placed in Ice Chest

10 [X] OTHER COMMENTS: 24P2-15 at 1330

FIGURE 3.8
(Continued)
GROUND WATER SAMPLING RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

SAMPLING LOCATION MacDill AFB
SAMPLING DATE(S) 7-21-95

GROUND WATER SAMPLING RECORD - MONITORING WELL 24P2-25
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 7-21, 1995 1230 a.m./p.m.
SAMPLE COLLECTED BY: _____ of _____
WEATHER: Hot, overcast, 90° Breezy 5-10 mph
DATUM FOR WATER DEPTH MEASUREMENT (Describe): TOC

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: _____
INNER PVC CASING CONDITION IS: _____
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe): _____

Check-off
1 [X] EQUIPMENT CLEANED BEFORE USE WITH _____
Items Cleaned (List): _____

2 [X] PRODUCT DEPTH NA FT. BELOW DATUM
Measured with: _____

WATER DEPTH 0.35 FT. BELOW DATUM
Measured with: _____

3 [X] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: _____
Odor: _____
Other Comments: _____

4 [X] WELL EVACUATION:
Method: Peristaltic Pump
Volume Removed: 4 Gal
Observations: Water (slightly, very) cloudy
Water level (rose - fell - no change)
Water odors: None
Other comments: _____

FIGURE 3.8

GROUND WATER SAMPLING RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

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Page 1 of 2

Ground Water Sampling Record - Monitoring Well No. 24P2-25 (Cont'd)

5 [X] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of:
[ ] Pump, type:
[X] Other, describe: PERISTALTIC PUMP

Sample obtained is [X] GRAB; [ ] COMPOSITE SAMPLE

6 [X] ON-SITE MEASUREMENTS:

Temp:	29.9 °C	Measured with:	YSI 55
pH:	7.03	Measured with:	ORION 250A
Conductivity:	8.12	Measured with:	HATCH
Dissolved Oxygen:	1.21	Measured with:	YSI 55
Redox Potential:	15.9	Measured with:	YSI 55
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:	0.3 ppm	Measured with:	CHEMETS KIT

Other:

7 [ ] SAMPLE CONTAINERS (material, number, size):

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method Containers:
Method Containers:
Method Containers:

[ ] Preservatives added:

Method Containers:
Method Containers:
Method Containers:
Method Containers:

9 [X] CONTAINER HANDLING:

[X] Container Sides Labeled
[X] Container Lids Taped
[X] Containers Placed in Ice Chest

10 [X] OTHER COMMENTS:
24P2-25 @ 1230
24P2-28 @ 1235 DUP

FIGURE 3.8
(Continued)
GROUND WATER SAMPLING RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

SAMPLING LOCATION MacDill AFB
SAMPLING DATE(S) 7-21-95

GROUND WATER SAMPLING RECORD - MONITORING WELL 24P2-3D
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 7-21, 1995 1400 a.m./(p.m.)
SAMPLE COLLECTED BY: _____ of _____
WEATHER: Mar. overcast 90° Breezy 5-10 mph
DATUM FOR WATER DEPTH MEASUREMENT (Describe): TOC

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS / IS NOT) APPARENT
STEEL CASING CONDITION IS: _____
INNER PVC CASING CONDITION IS: _____
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe): _____

Check-off
1 [X] EQUIPMENT CLEANED BEFORE USE WITH _____
Items Cleaned (List): _____

2 [X] PRODUCT DEPTH NA FT. BELOW DATUM
Measured with: _____

WATER DEPTH 0 FT. BELOW DATUM
Measured with: _____

3 [X] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Light Brown
Odor: None
Other Comments: _____

4 [X] WELL EVACUATION:
Method: Peristaltic Pump
Volume Removed: 3.5 Gal
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: None
Other comments: _____

FIGURE 3.8

GROUND WATER SAMPLING RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

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Page 1 of 2

Ground Water Sampling Record - Monitoring Well No. 24P2-30 (Cont'd)

5 [ ] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[ ] Pump, type: _____
[ ] Other, describe: _____

Sample obtained is [ ] GRAB; [ ] COMPOSITE SAMPLE

6 [ ] ON-SITE MEASUREMENTS:

Temp:	°	Measured with:	
pH:		Measured with:	
Conductivity:		Measured with:	
Dissolved Oxygen:		Measured with:	
Redox Potential:		Measured with:	
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:		Measured with:	
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): _____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [ ] CONTAINER HANDLING:

[ ] Container Sides Labeled
[ ] Container Lids Taped
[ ] Containers Placed in Ice Chest

10 [ ] OTHER COMMENTS _____

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Page 2 of 2

FIGURE 3.8
(Continued)
GROUND WATER
SAMPLING RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

SAMPLING LOCATION MacDill AFB
SAMPLING DATE(S) 7-21-95

GROUND WATER SAMPLING RECORD - MONITORING WELL 24 PZ-35
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling:
DATE AND TIME OF SAMPLING: 7-21, 1995 0915 (a.m./p.m.)
SAMPLE COLLECTED BY: _____ of _____
WEATHER: Hot overcast 90°Breezy 5-10 mph
DATUM FOR WATER DEPTH MEASUREMENT (Describe): TOC

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS - IS NOT) APPARENT
STEEL CASING CONDITION IS: _____
INNER PVC CASING CONDITION IS: _____
WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe): _____

Check-off
1 [X] EQUIPMENT CLEANED BEFORE USE WITH _____
Items Cleaned (List): _____

2 [X] PRODUCT DEPTH NA FT. BELOW DATUM
Measured with: _____

WATER DEPTH 0 FT. BELOW DATUM
Measured with: _____

3 [X] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Dark Brown
Odor: None
Other Comments: _____

4 [X] WELL EVACUATION:
Method: Peristaltic Pump
Volume Removed: 5 Gal
Observations: Water (slightly - very) cloudy
Water level (rose - fell - no change)
Water odors: None
Other comments: _____

FIGURE 3.8

GROUND WATER SAMPLING RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

Ground Water Sampling Record - Monitoring Well No. 24P2-35 (Cont'd)

5 [X] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[ ] Pump, type: _____
[X] Other, describe: Peristaltic Pump

Sample obtained is [X] GRAB; [ ] COMPOSITE SAMPLE

6 [X] ON-SITE MEASUREMENTS:

Temp:	28.0 °C	Measured with:	YSI 55
pH:	7.26	Measured with:	Orion 250A
Conductivity:	13.80	Measured with:	Eaton
Dissolved Oxygen:	1.54	Measured with:	YSI 55
Redox Potential:	19.5%	Measured with:	YSI 55
Salinity:	_____	Measured with:	_____
Nitrate:	_____	Measured with:	_____
Sulfate:	_____	Measured with:	_____
Ferrous Iron:	0.2 ppm	Measured with:	Chemets Kit
Other:	_____		

7 [ ] SAMPLE CONTAINERS (material, number, size): _____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [X] CONTAINER HANDLING:

[X] Container Sides Labeled
[X] Container Lids Taped
[X] Containers Placed in Ice Chest

10 [X] OTHER COMMENTS:
24P2-35 at 0915
24P2-35D1 at 0935
24P2-35D2 at 0940

FIGURE 3.8
(Continued)
GROUND WATER SAMPLING RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

SAMPLING LOCATION MacDill AFB
SAMPLING DATE(S) 7-21-95

GROUND WATER SAMPLING RECORD - MONITORING WELL 24P2-45
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 7-21, 1995 1115 a.m./p.m.
SAMPLE COLLECTED BY: _____ of _____
WEATHER: Hot overcast 90° Breezy 5-10 mph
DATUM FOR WATER DEPTH MEASUREMENT (Describe): TOC

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS) IS NOT) APPARENT
STEEL CASING CONDITION IS: _____
INNER PVC CASING CONDITION IS: _____
WATER DEPTH MEASUREMENT DATUM (IS (IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe): _____

Check-off

1 [X] EQUIPMENT CLEANED BEFORE USE WITH _____
Items Cleaned (List): _____

2 [X] PRODUCT DEPTH ND FT. BELOW DATUM
Measured with: _____

WATER DEPTH 0.5 FT. BELOW DATUM
Measured with: _____

3 [X] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Light Brown
Odor: None
Other Comments: _____

4 [X] WELL EVACUATION:
Method: Peristaltic Pump
Volume Removed: 4 Gal
Observations: Water (slightly) very) cloudy
Water level (rose - fell - no change)
Water odors: None
Other comments: _____

FIGURE 3.8

GROUND WATER SAMPLING RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

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Page 1 of 2

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Ground Water Sampling Record - Monitoring Well No. 24P2-45 (Cont'd)

5 [X] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[ ] Pump, type: _____
[X] Other, describe: Peristaltic Pump

Sample obtained is [X] GRAB; [ ] COMPOSITE SAMPLE

6 [X] ON-SITE MEASUREMENTS:

Temp:	29.2 • C	Measured with:	YSI 55
pH:	7.23	Measured with:	Orion 250A
Conductivity:	2.46	Measured with:	Extech
Dissolved Oxygen:	1.2	Measured with:	YSI 55
Redox Potential:	16.5 Y	Measured with:	YSI 55
Salinity:	_____	Measured with:	_____
Nitrate:	_____	Measured with:	_____
Sulfate:	_____	Measured with:	_____
Ferrous Iron:	0.2 ppm	Measured with:	Chemets Vac
Other:	_____		

7 [ ] SAMPLE CONTAINERS (material, number, size): _____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration: Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:

Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [X] CONTAINER HANDLING:

[X] Container Sides Labeled
[X] Container Lids Taped
[X] Containers Placed in Ice Chest

10 [X] OTHER COMMENTS:
24P2-Fol @ 1050
24P2-45 @ 1115

FIGURE 3.8
(Continued)
GROUND WATER SAMPLING RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

SAMPLING LOCATION MacDill AFB
SAMPLING DATE(S) 7-21-95

GROUND WATER SAMPLING RECORD - MONITORING WELL 2LP2-55
(number)

REASON FOR SAMPLING: [X] Regular Sampling; [ ] Special Sampling;
DATE AND TIME OF SAMPLING: 7-21, 1995 1030 a.m./p.m.
SAMPLE COLLECTED BY: _____ of _____
WEATHER: Hot overcast 90° Breezy 5-10 mph
DATUM FOR WATER DEPTH MEASUREMENT (Describe): TOC

MONITORING WELL CONDITION:
[ ] LOCKED: [X] UNLOCKED
WELL NUMBER (IS) IS NOT) APPARENT
STEEL CASING CONDITION IS: _____
INNER PVC CASING CONDITION IS: _____
WATER DEPTH MEASUREMENT DATUM (IS (IS NOT) APPARENT
[ ] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
[ ] MONITORING WELL REQUIRED REPAIR (describe): _____

Check-off:
1 [X] EQUIPMENT CLEANED BEFORE USE WITH _____
Items Cleaned (List): _____

2 [X] PRODUCT DEPTH ND FT. BELOW DATUM
Measured with: _____

WATER DEPTH 0.95 FT. BELOW DATUM
Measured with: _____

3 [X] WATER-CONDITION BEFORE WELL EVACUATION (Describe):
Appearance: Light Brown
Odor: None
Other Comments: _____

4 [X] WELL EVACUATION:
Method: Peristaltic Pump
Volume Removed: 4 GAL
Observations: Water (slightly very) cloudy
Water level (rose - fell no change)
Water odors: None
Other comments: _____

FIGURE 3.8

GROUND WATER SAMPLING RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

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Page 1 of 2

Ground Water Sampling Record - Monitoring Well No. 24P2-55 (Cont'd)

5 [X] SAMPLE EXTRACTION METHOD:

[ ] Bailer made of: _____
[ ] Pump, type: _____
[X] Other, describe: Peristaltic Pump

Sample obtained is [X] GRAB; [ ] COMPOSITE SAMPLE

6 [X] ON-SITE MEASUREMENTS:

Temp:	30.25 °	Measured with:	YSI 55
pH:	7.03	Measured with:	Orion 250A
Conductivity:	11.80	Measured with:	Estech
Dissolved Oxygen:	4.5	Measured with:	YSI 55
Redox Potential:	59.7	Measured with:	YSI 55
Salinity:		Measured with:	
Nitrate:		Measured with:	
Sulfate:		Measured with:	
Ferrous Iron:	0.4 ppm	Measured with:	Chemets Kit
Other:			

7 [ ] SAMPLE CONTAINERS (material, number, size): _____

8 [ ] ON-SITE SAMPLE TREATMENT:

[ ] Filtration:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

[ ] Preservatives added:
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____
Method _____ Containers: _____

9 [X] CONTAINER HANDLING:

[X] Container Sides Labeled
[X] Container Lids Taped
[X] Containers Placed in Ice Chest

10 [X] OTHER COMMENTS: _____

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FIGURE 3.8
(Continued)
GROUND WATER
SAMPLING RECORD

Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.
Denver, Colorado

residual = observed - calculated
weighted residual = residual * weight

Weighted Residual Statistics:

Number of residuals	188
Number of estimated parameters	2
Degrees of freedom	186
Residual mean	0.00537
Residual standard deviation	0.01387
Residual variance	0.0001925

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.2	1.952	1.9152	0.036794	1
0.23	1.91	1.8782	0.031771	1
0.27	1.867	1.83	0.036966	1
0.3	1.817	1.7947	0.022299	1
0.33	1.774	1.7601	0.013949	1
0.37	1.732	1.7149	0.017112	1
0.4	1.69	1.6818	0.0082212	1
0.43	1.656	1.6493	0.0066916	1
0.47	1.614	1.607	0.0070124	1
0.5	1.58	1.576	0.0040388	1
0.53	1.546	1.5455	0.00046611	1
0.57	1.513	1.5059	0.0071241	1
0.6	1.479	1.4768	0.0021983	1
0.63	1.445	1.4483	-0.0032889	1
0.67	1.411	1.4111	-0.00012622	1
0.7	1.377	1.3839	-0.0068814	1
0.73	1.344	1.3572	-0.013163	1
0.77	1.318	1.3223	-0.0043381	1
0.8	1.293	1.2968	-0.0038075	1
0.83	1.259	1.2718	-0.01277	1
0.87	1.234	1.2391	-0.0051366	1
0.9	1.208	1.2152	-0.0072124	1
0.93	1.183	1.1918	-0.0087501	1
0.97	1.158	1.1612	-0.0031701	1
1	1.132	1.1388	-0.0067512	1
1.03	1.099	1.1168	-0.017765	1
1.07	1.082	1.0881	-0.0061093	1
1.1	1.056	1.0671	-0.011101	1
1.13	1.031	1.0465	-0.015498	1
1.17	1.014	1.0196	-0.0056454	1
1.2	0.989	0.99996	-0.010959	1
1.23	0.963	0.98065	-0.017653	1
1.27	0.946	0.95549	-0.0094893	1
1.3	0.921	0.93704	-0.016042	1
1.33	0.904	0.91895	-0.01495	1
1.37	0.887	0.89537	-0.0083699	1
1.4	0.862	0.87808	-0.016083	1
1.43	0.845	0.86113	-0.01613	1
1.47	0.828	0.83903	-0.011033	1
1.5	0.803	0.82283	-0.019834	1
1.53	0.794	0.80695	-0.012947	1
1.57	0.777	0.78624	-0.0092413	1
1.6	0.761	0.77106	-0.010061	1
1.63	0.744	0.75617	-0.012174	1

1.67	0.727	0.73677	-0.009771	1
1.7	0.71	0.72255	-0.012546	1
1.73	0.693	0.7086	-0.015596	1
1.77	0.676	0.69041	-0.014413	1
1.8	0.659	0.67708	-0.018083	1
1.83	0.651	0.66401	-0.013011	1
1.87	0.642	0.64697	-0.0049725	1
1.9	0.625	0.63448	-0.0094813	1
1.93	0.608	0.62223	-0.014231	1
1.97	0.6	0.60626	-0.006265	1
2	0.583	0.59456	-0.01156	1
2.03	0.575	0.58308	-0.0080805	1
2.07	0.566	0.56812	-0.0021188	1
2.1	0.549	0.55715	-0.00815	1
2.13	0.541	0.54639	-0.005393	1
2.17	0.524	0.53237	-0.0083727	1
2.2	0.507	0.52209	-0.015094	1
2.23	0.499	0.51201	-0.013014	1
2.27	0.499	0.49888	0.00012416	1
2.3	0.482	0.48924	-0.007244	1
2.33	0.465	0.4798	-0.014798	1
2.37	0.456	0.46749	-0.011487	1
2.4	0.448	0.45846	-0.010461	1
2.43	0.448	0.44961	-0.0016091	1
2.47	0.431	0.43807	-0.0070723	1
2.5	0.431	0.42961	0.0013856	1
2.53	0.406	0.42132	-0.01532	1
2.57	0.406	0.41051	-0.0045088	1
2.6	0.397	0.40258	-0.005583	1
2.63	0.389	0.39481	-0.0058103	1
2.67	0.38	0.38468	-0.0046796	1
2.7	0.38	0.37725	0.0027475	1
2.73	0.363	0.36997	-0.0069688	1
2.77	0.363	0.36048	0.0025245	1
2.8	0.347	0.35352	-0.0065158	1
2.83	0.347	0.34669	0.00030962	1
2.87	0.338	0.33779	0.00020559	1
2.9	0.33	0.33127	-0.0012726	1
2.93	0.321	0.32488	-0.0038766	1
2.97	0.321	0.31654	0.0044596	1
3	0.313	0.31043	0.0025711	1
3.03	0.304	0.30444	-0.00043538	1
3.07	0.304	0.29662	0.0073763	1
3.1	0.296	0.2909	0.0051033	1
3.13	0.287	0.28528	0.0017197	1
3.17	0.279	0.27796	0.0010399	1
3.2	0.279	0.27259	0.0064065	1
3.23	0.27	0.26733	0.0026695	1
3.27	0.262	0.26047	0.0015292	1
3.3	0.262	0.25544	0.0065581	1
3.33	0.254	0.25051	0.00349	1
3.37	0.254	0.24408	0.009918	1
3.4	0.245	0.23937	0.0056305	1
3.43	0.245	0.23475	0.010252	1
3.47	0.237	0.22872	0.0082756	1
3.5	0.228	0.22431	0.0036917	1
3.53	0.228	0.21998	0.0080224	1
3.57	0.22	0.21433	0.005667	1
3.6	0.211	0.21019	0.00080514	1
3.63	0.211	0.20614	0.0048634	1

3.67	0.203	0.20085	0.0021528	1
3.7	0.203	0.19697	0.0060306	1
3.73	0.203	0.19317	0.0098335	1
3.77	0.194	0.18821	0.0057901	1
3.8	0.194	0.18458	0.0094239	1
3.83	0.194	0.18101	0.012988	1
3.87	0.186	0.17637	0.0096323	1
3.9	0.178	0.17296	0.0050374	1
3.93	0.178	0.16962	0.0083769	1
3.97	0.169	0.16527	0.0037293	1
4	0.169	0.16208	0.0069203	1
4.03	0.169	0.15895	0.01005	1
4.07	0.169	0.15487	0.014128	1
4.1	0.161	0.15188	0.0091183	1
4.13	0.161	0.14895	0.012051	1
4.17	0.161	0.14513	0.015873	1
4.2	0.152	0.14233	0.0096747	1
4.23	0.152	0.13958	0.012423	1
4.27	0.152	0.136	0.016004	1
4.3	0.152	0.13337	0.01863	1
4.33	0.144	0.1308	0.013205	1
4.37	0.135	0.12744	0.007561	1
4.4	0.135	0.12498	0.010021	1
4.43	0.135	0.12257	0.012434	1
4.47	0.135	0.11942	0.015579	1
4.5	0.135	0.11711	0.017885	1
4.53	0.127	0.11485	0.012146	1
4.57	0.127	0.11191	0.015093	1
4.6	0.127	0.10975	0.017254	1
4.63	0.127	0.10763	0.019373	1
4.67	0.118	0.10487	0.013135	1
4.7	0.118	0.10284	0.015159	1
4.73	0.118	0.10086	0.017145	1
4.77	0.11	0.098267	0.011733	1
4.8	0.11	0.09637	0.01363	1
4.83	0.11	0.094509	0.015491	1
4.87	0.11	0.092084	0.017916	1
4.9	0.11	0.090306	0.019694	1
4.93	0.11	0.088563	0.021437	1
4.97	0.101	0.08629	0.01471	1
5	0.101	0.084624	0.016376	1
5.03	0.101	0.082991	0.018009	1
5.07	0.101	0.080861	0.020139	1
5.1	0.093	0.0793	0.0137	1
5.13	0.093	0.077769	0.015231	1
5.17	0.093	0.075773	0.017227	1
5.2	0.093	0.07431	0.01869	1
5.23	0.093	0.072876	0.020124	1
5.27	0.085	0.071006	0.013994	1
5.3	0.085	0.069635	0.015365	1
5.33	0.085	0.06829	0.01671	1
5.37	0.085	0.066538	0.018462	1
5.4	0.085	0.065253	0.019747	1
5.43	0.085	0.063993	0.021007	1
5.47	0.076	0.062351	0.013649	1
5.5	0.076	0.061147	0.014853	1
5.53	0.076	0.059967	0.016033	1
5.57	0.076	0.058428	0.017572	1
5.6	0.076	0.0573	0.0187	1
5.63	0.076	0.056194	0.019806	1

5.67	0.076	0.054752	0.021248	1
5.7	0.068	0.053695	0.014305	1
5.73	0.068	0.052658	0.015342	1
5.77	0.068	0.051307	0.016693	1
5.8	0.068	0.050316	0.017684	1
5.83	0.068	0.049345	0.018655	1
5.87	0.068	0.048079	0.019921	1
5.9	0.068	0.04715	0.02085	1
5.93	0.068	0.04624	0.02176	1
5.97	0.068	0.045054	0.022946	1
6	0.068	0.044184	0.023816	1
6.03	0.059	0.043331	0.015669	1
6.07	0.068	0.042219	0.025781	1
6.1	0.059	0.041404	0.017596	1
6.13	0.059	0.040604	0.018396	1
6.17	0.059	0.039562	0.019438	1
6.2	0.059	0.038799	0.020201	1
6.23	0.059	0.038049	0.020951	1
6.27	0.059	0.037073	0.021927	1
6.3	0.059	0.036357	0.022643	1
6.33	0.059	0.035655	0.023345	1
6.37	0.059	0.03474	0.02426	1
6.4	0.051	0.03407	0.01693	1
6.43	0.051	0.033412	0.017588	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	4.8114E-003 ft/min
y0 =	2.1810E+000 ft

<<

residual = observed - calculated
weighted residual = residual * weight

Weighted Residual Statistics:

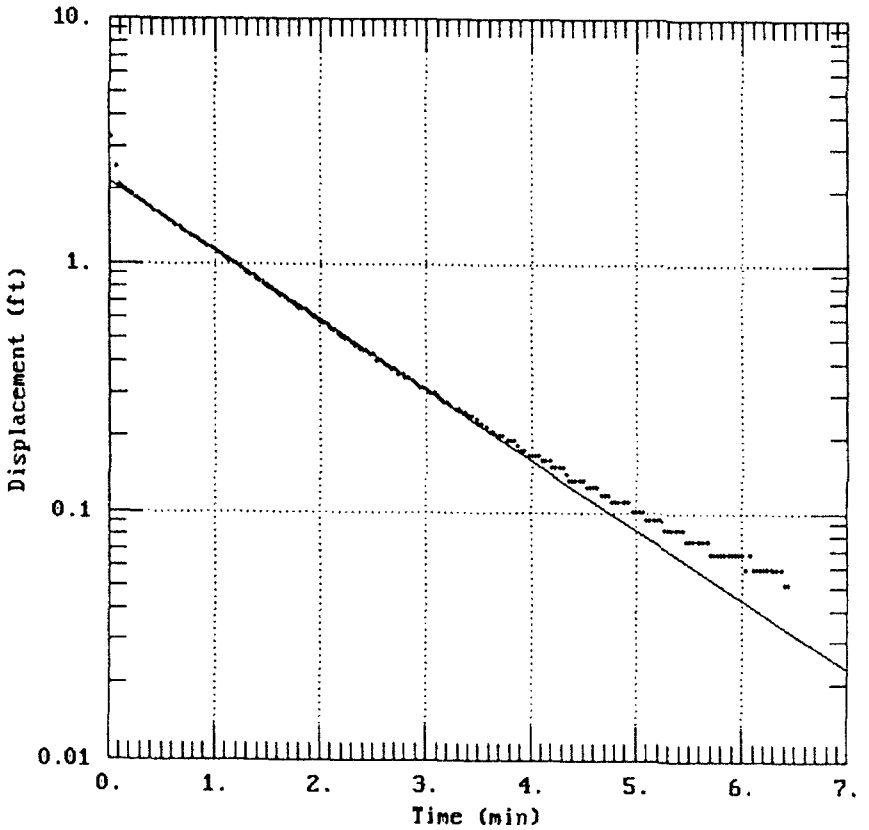
Number of residuals	42
Number of estimated parameters	2
Degrees of freedom	40
Residual mean	0.01407
Residual standard deviation	0.05893
Residual variance	0.003473

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.13	2.121	1.9802	0.14084	1
0.17	1.918	1.8231	0.094857	1
0.2	1.749	1.7136	0.035394	1
0.23	1.597	1.6107	-0.01365	1
0.27	1.47	1.4829	-0.012933	1
0.3	1.352	1.3938	-0.041837	1
0.33	1.251	1.3101	-0.059093	1
0.37	1.158	1.2062	-0.048209	1
0.4	1.073	1.1337	-0.060738	1
0.43	0.997	1.0656	-0.068622	1
0.47	0.921	0.98112	-0.060123	1
0.5	0.862	0.92218	-0.060176	1
0.53	0.803	0.86677	-0.06377	1
0.57	0.752	0.79804	-0.046039	1
0.6	0.702	0.75009	-0.048092	1
0.63	0.659	0.70503	-0.046025	1
0.67	0.617	0.64912	-0.03212	1
0.7	0.583	0.61012	-0.02712	1
0.73	0.549	0.57346	-0.024463	1
0.77	0.516	0.52799	-0.01199	1
0.8	0.482	0.49627	-0.014268	1
0.83	0.457	0.46645	-0.0094515	1
0.87	0.44	0.42946	0.010536	1
0.9	0.414	0.40366	0.010339	1
0.93	0.397	0.37941	0.017591	1
0.97	0.372	0.34932	0.022677	1
1	0.355	0.32834	0.026664	1
1.03	0.338	0.30861	0.029391	1
1.07	0.33	0.28414	0.045863	1
1.1	0.304	0.26707	0.036934	1
1.13	0.296	0.25102	0.04498	1
1.17	0.279	0.23112	0.047884	1
1.2	0.271	0.21723	0.05377	1
1.23	0.271	0.20418	0.066822	1
1.27	0.262	0.18799	0.074012	1
1.3	0.245	0.17669	0.068307	1
1.33	0.245	0.16608	0.078923	1
1.37	0.237	0.15291	0.084092	1
1.4	0.228	0.14372	0.084279	1
1.43	0.22	0.13509	0.084914	1
1.47	0.211	0.12437	0.086625	1
1.5	0.211	0.1169	0.094098	1

CLIENT: AFCEE	COMPANY: PARSONS ENGINEERING SCIENCE
LOCATION: MACDILL AIR FORCE BASE	PROJECT: 722450.21050

RISING HEAD SLUG TEST MD24-MW10A



DATA SET:
OT10AR1.AQT
12/05/95

AQUIFER MODEL:
Unconfined

SOLUTION METHOD:
Bouwer-Rice

TEST DATA:
H0= 3.262 ft
r_c= 0.08333 ft
r_w= 0.25 ft
L = 5. ft
b = 26.5 ft
H = 26.5 ft

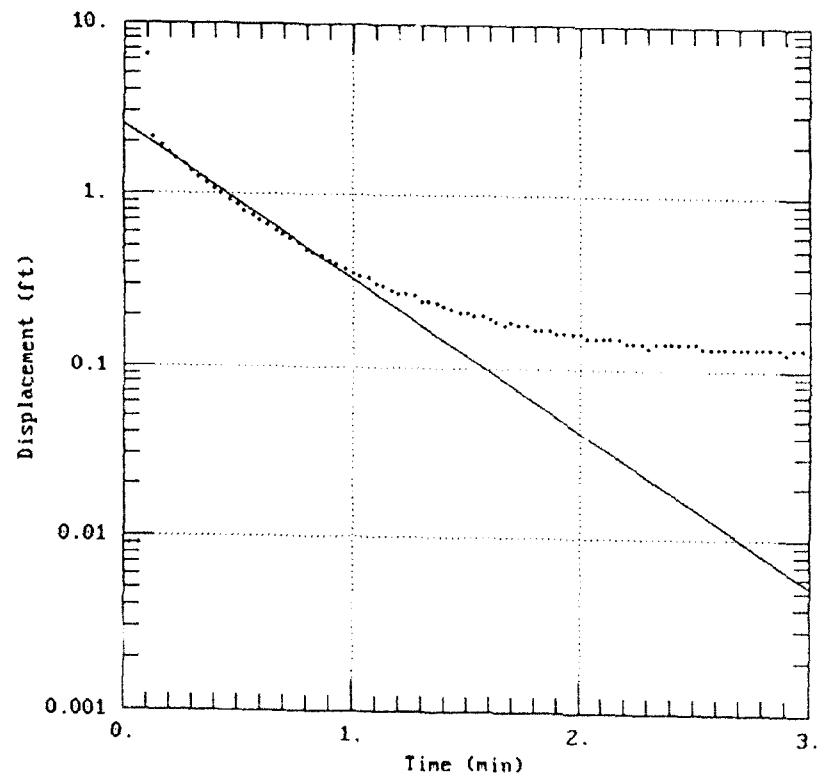
PARAMETER ESTIMATES:
K = 0.004811 ft/min
y0 = 2.181 ft

AQTESOLV

<<

CLIENT: AFCEE	COMPANY: PARSONS ENGINEERING SCIENCE
LOCATION: MACDILL AIR FORCE BASE	PROJECT: 722450.21050

RISING HEAD SLUG TEST MD24-MW4



DATA SET:
OT244R2.AQT
12/05/95

AQUIFER MODEL:
Unconfined
SOLUTION METHOD:
Bouwer-Rice

TEST DATA:
H0= 6.464 ft
r_c= 0.08333 ft
r_w= 0.3333 ft
L = 10. ft
b = 26. ft
H = 17.48 ft

PARAMETER ESTIMATES:
K = 0.009805 ft/min
y0 = 2.59 ft

AQTESOLV

<<

MacDill Air Force Base
Site 24 Coodinate Data

April 4, 1995

Point	Identification	North	East	Elevation
1	NVZR 13	1280120.4750	485499.2540	6.44
2	NVZR 14 AZ MK	1279899.9680	484902.3800	5.69
3	SET H/T	1279773.7806	484807.9739	5.65
4	SET H/T	1279571.8301	484748.0510	6.00
5	SET H/T	1279608.1830	484614.3683	4.18
6	SET H/T	1279900.6182	484596.4411	5.88
7	CK.IN	1279899.9340	484902.4512	5.88
8	CK.IN	1279773.7732	484808.0364	5.84
100	0 SET	1280120.4811	485499.2704	6.46
101	0 SET	1279899.9464	484902.3639	5.72
102	0 SET	1279773.7909	484807.9770	5.71
103	0 SET	1279571.8182	484748.0945	6.07
104	0 SET	1279608.1870	484614.3680	4.32
105	0 SET	1279900.6182	484596.4370	6.02
200	MD 24-3	1279875.9536	484638.6314	8.23
201	Ground Shot	1279875.9174	484639.1526	5.15
202	Building.	1279864.5428	484663.1942	6.08
203	Building.	1279864.5502	484733.9619	5.77
204	Building.	1279856.0298	484734.5623	5.86
205	Building.	1279855.8815	484754.7661	5.63
206	MD 24-4	1279878.9429	484743.3868	8.51
207	Ground Shot	1279879.5252	484743.7377	5.62
208	24MP-4S	1279857.9828	484852.3484	5.38
209	Ground Shot	1279856.8388	484852.0624	5.42
210	Building.	1279850.1052	484818.3598	5.66
211	Building.	1279850.4123	484806.1610	5.65
212	MD 24-5	1279818.8316	484801.6616	4.89
213	Ground Shot	1279818.5261	484800.2598	5.11
214	Building.1121 W.Corner.	1279818.5587	484754.8929	5.57
215	MD 24-2	1279811.1229	484752.0674	8.03
216	Ground Shot	1279811.6357	484752.4000	5.57
217	OB-1	1279803.8401	484752.1021	4.99
218	Ground Shot	1279801.7997	484751.9364	5.49
219	PW EAST Ground Shot	1279802.8852	484729.5117	5.81
220	24MP-15-1D	1279794.7348	484712.3817	5.58
221	Ground Shot	1279796.0309	484713.1116	5.66
222	PW WEST Ground Shot	1279793.5242	484689.6954	5.51
223	24MP-2S-2D	1279782.4939	484683.8101	4.94
224	Ground Shot	1279783.5399	484684.3627	5.25
225	24SS-1 Ground Shot	1279797.3406	484657.7907	5.56

Prepared by: **Landmark Engineering & Surveying Corporation**

For: **PARSONS ENGINEERING SCIENCE, INC.**

MacDill Air Force Base
Site 24 Coodinate Data

April 4, 1995

Point	Identification	North	East	Elevation
226	MD 24-1	1279799.5076	484629.3807	8.88
227	Ground Shot	1279800.0073	484629.6563	5.25
228	24SS-2 Ground Shot	1279733.5106	484661.7299	-3.43
229	24MP-9S-9D	1279731.6126	484668.8283	3.60
230	Ground Shot	1279730.5784	484669.5368	3.84
231	MD 24-6A	1279743.3054	484718.2382	4.70
232	Ground Shot	1279741.7084	484720.4505	4.92
233	MD 24-6	1279740.4868	484722.5782	4.40
234	24MP-6S	1280097.2143	485064.7488	4.50
235	Ground Shot	1280097.3281	485063.0030	4.60
236	24MP-10S-10D	1279729.8381	484796.1090	4.20
237	Ground Shot	1279728.7192	484795.9779	4.10
238	MD 24-8	1279663.2231	484767.7001	4.36
239	Ground Shot	1279663.2064	484768.7444	4.59
240	24PZ-1D	1279591.4822	484694.8935	5.54
241	Ground Shot	1279591.9355	484694.1700	4.96
242	24PZ-1S	1279592.7636	484693.2163	6.32
243	24MD-10	1279634.0551	484584.9636	3.71
244	Ground Shot	1279637.6726	484585.3720	3.90
245	MD 24-10A	1279641.9951	484585.4691	3.66
246	24MP-3S-3D	1279726.2513	484585.6749	4.00
247	Ground Shot	1279725.6334	484585.7678	4.17
248	MD 24-7	1279708.0375	484626.3789	4.13
249	Ground Shot	1279707.6767	484625.0329	4.10
250	MD 24-9	1279796.2125	484587.7808	4.53
251	Ground Shot	1279795.5025	484587.1212	4.17
252	Building.1121 W.Corner.	1279833.6899	484663.2003	6.01
253	24MP-5S-5D	1279851.2005	484594.7399	5.19
254	Ground Shot	1279851.4422	484595.8417	5.29
255	24MP-8S-8D	1279740.8298	484465.8387	4.15
256	Ground Shot	1279739.4371	484465.5132	4.26
257	24MP-7S-7D	1279685.6697	484489.9964	4.00
258	Ground Shot	1279684.0918	484489.0432	4.15

Prepared by: **Landmark Engineering & Surveying Corporation**

For: **PARSONS ENGINEERING SCIENCE, INC.**

LANDMARK
ENGINEERING & SURVEYING CORPORATION
1911 US Hwy. 301 N., 200 Bldg., Tampa, Florida 33619 (813) 621-7841

8/15/95

MacDill Air Force Base
Additional (August 1995) Data

Point	Identification	North	East	Elevation
4	TP H/T	1279571.8301	484748.0510	6.00
5	TP H/T	1279608.1830	484614.3683	4.18
6	TP H/T	1279900.6182	484596.4411	5.88
243	TP H/T	1279634.0600	484584.9600	6.00
245	TP H/T	1279641.9900	484585.4700	6.00
300	CK.BS.	1279571.8313	484748.0464	6.10
301	24PZ-3D	1279461.2865	484621.4605	3.82
302	24PZ-3D GS.	1279462.2917	484620.6656	3.75
303	24PZ-3S	1279458.8950	484621.4788	3.75
304	24PZ-3S GS.	1279458.8885	484620.4210	3.73
305	24PZ-5S	1279287.8874	484588.3585	4.40
306	24PZ-5S GS.	1279287.5561	484589.7581	4.53
307	24PZ-2S	1279507.4800	484542.4984	4.16
308	24PZ-2S GS.	1279507.3713	484544.1971	4.21
309	24PZ-4S	1279353.5830	484444.3158	4.43
310	24PZ-4S GS.	1279353.5659	484443.1560	4.46

Prepared by: **Landmark Engineering Surveying Corporation**

For: **PARSONS ENGINEERING SCIENCE, INC.**

APPENDIX C

LABORATORY ANALYTICAL DATA

MANTECH

Ref: 95-DK16/vg

June 7, 1995

Dr. Don Kampbell
R.S. Kerr Environmental Research Lab
U.S. Environmental Protection Agency
P.O. Box 1198
Ada, OK 74820

THRU: S.A. Vandegrift for SAV

Dear Don:

This report contains the results of my GC/MSD analysis of one floating product sample (OT-24) from Patrick AFB for quantitation of benzene, toluene, ethylbenzene, p-Xylene, m-Xylene, o-Xylene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2,3-trimethylbenzene, 1,2,4,5-tetramethylbenzene, 1,2,3,5-tetramethylbenzene and 1,2,3,4-tetramethylbenzene performed under Service Request #SF-1-131. I also observed that naphthalene and methylated naphthalene species were abundant in this sample and have provided semiquantitative information for naphthalene, 1-methylnaphthalene and 2-methylnaphthalene.

The analytical method was a modification of RSKSOP-124. Cool (38°C) on-column injection (0.5 µl) was used with electronic pressure control set for a constant flow of 0.9 ml/min. A 30M X 0.25 mm Restek Stabilwax (Crossbonded Carbowax-PEG, 0.5 µm film) capillary GC column with 9 inch long X 0.53 mm ID uncoated capillary precolumn was used. Quantitation was based on calibration curves (0.05-50 µg/ml) of selected target ions (1 to 3 ions, total area) for each compound. Semiquantitation of naphthalene compounds was based on area ratios using 50 ug/ml standards. Complete reports detailing the acquisition method and calibration curves have been recorded. The sample was diluted 1/25 with methylene chloride and analyzed by GC/MSD on June 2, 1995.

If I can be of further assistance, please feel free to contact me.

Sincerely,

David A. Kovacs

xc: R.L. Cosby
J.L. Seeley
G.B. Smith

ManTech Environmental Research Services Corporation
R.S. Kerr Environmental Research Laboratory, P.O. Box 1198, 919 Kerr Research Drive
Ada, Oklahoma 74821-1198 405-436-8660 FAX 405-436-8501

405 436 8703 P.03
USEPA RSKERL-ADA SSB/SPB
JUN-30-1995 08:39
TOTAL P.03

Compound	Amount (mg/L)	Compound	Amount (mg/L)
Benzene	4.93E+00	1,2,3-Trimethylbenzene	5.85E+02
Toluene	ND	1,2,4,5-tetramethylbenzene	6.98E+02
Ethylbenzene	2.45E+00	1,2,3,5-tetramethylbenzene	1.88E+03
p-Xylene	6.10E+00	1,2,3,4-tetramethylbenzene	1.40E+03
m-Xylene	7.23E+00	Naphthalene	8.45E+02
o-Xylene	4.68E+00	1-methylnaphthalene	2.38E+03
1,3,5-Trimethylbenzene	2.43E+02	2-methylnaphthalene	1.75E+03
1,2,4-Trimethylbenzene	5.40E+02		

MANTECH

Ref: 95/JAD21

April 20, 1995

Dr. Don Kampbell
R.S. Kerr Environmental Research Lab
U.S. Environmental Protection Agency
P.O. Box 1198
Ada, OK 74820

THRU: S.A. Vandegrift SV

+ MacDill AFB

Dear Don:

MacDill data also included

As requested in Service Request # SF-1-123, headspace GC/MS analysis of 90 Patrick AFB water samples for chlorinated VOAs (TCE, PCE, DCE's, and vinyl chloride) was completed. The samples were received on March 28 & April 6, 1995 and analyzed on April 6-11, 1995. RSKSOP-148 (Determination of Volatile Organic Compounds in Water by Automated Headspace Gas Chromatography/Mass Spectrometry (Saturn II Ion Trap Detector) was used for this analysis.

An internal standard calibration method was established for 6 chlorinated compounds. The standard curves were prepared from 1.0 to 5000 ppb. The lower calibration limits were 1.0 ppb.

A dilution corrected quantitation report for the samples, lab duplicates, field duplicates, QC standards and lab blanks is presented in tables 1-4.

If you should have any questions, please feel free to contact me.

Sincerely,

John Allen Daniel

John Allen Daniel

xc: R.L. Cosby
G.B. Smith
D.D. Fine
J.L. Seeley

ManTech Environmental Research Services Corporation

R.S. Kerr Environmental Research Laboratory, P.O. Box 1198, 919 Kerr Research Drive
Ada, Oklahoma 74821-1198 405-436-8660 FAX 405-436-8501

Table 1. Quantitation Report for S.R. # SF-1-123 from Patrick AFB.

Concentration = ppb

Compound	24MP-1D	24MP-1S	24MP-1S Lab Dup	24MP-1S Field Rep	24MP-2D	24MP-2S	24MP-3D	24MP-3S	24MP-4S	24MP-5D
VINYL CHLORIDE	ND	20.7	20.2	20.8	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
T-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C-1,2-DICHLOROETHENE	1.1	6.8	6.5	6.2	---	ND	---	ND	ND	ND
TRICHLOROETHENE	ND	---	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	1.1	1.0	1.0	ND	ND	ND	ND	ND	ND

	24MP-5S	24MP-6S	24MP-7D	24MP-7D Lab Dup	24MP-7S	24MP-8D	24MP-8S	24MP-9D	24MP-9S	24MP-10D
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
T-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	1.8	ND	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

	24MP-10D Lab Dup	24MP-10S	24PZ-1D	24PZ-1S	24PZ-1S Field Rep	MD24-1	MD24-2	MD24-3	MD24-4	MD24-5
VINYL CHLORIDE	ND	ND	1.0	2.8	2.6	---	3.4	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
T-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C-1,2-DICHLOROETHENE	ND	ND	---	1.0	---	---	1.4	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND	2.6	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

	MD24-6A	MD24-6	MD24-7	MD24-7 Field Rep	MD24-7 Field Dup	MD24-8	MD24-9	MD24-9 Lab Dup	MD24-10	MD24-10A
VINYL CHLORIDE	16.4	---	1.2	1.5	1.6	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
T-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C-1,2-DICHLOROETHENE	ND	---	ND	ND	ND	ND	ND	ND	---	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = None Detected --- = Below Calibration Limit(1.0 ppb) Dup = Duplicate Rep = Replicate

Table 2. Quantitation Report for S.R. # SF-1-123 from Patrick AFB.

Concentration = ppb

Compound	MD24-41	MW32-1	MW32-3	MD32-MW7	56MP-1S	56MP-2S	56MP-3D	56MP-3S	56MP-4S 1/5 Dil	56MP-4S Field Rep
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
T-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C-1,2-DICHLOROETHENE	---	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Compound	56MP-5D	56MP-5S	56MP-6D	56MP-6D Lab Dup	56MP-6S	56MP-7D	56MP-7S	56MP-8S	56MP-10S	56MP-15D
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
T-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MD32-MW10 JPH 5/18/95

Compound	MD56-MW1	MD56-MW4	~~56MP-MW10~~	~~56MP-MW10 Lab Dup~~	56-MW1	MW56-2	MW56-5	MW56-5 Lab Dup	MW56-6	MW56-6 Field Rep
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
T-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Compound	MW56-7	MW56-8	MW56-9	MW56-10	MW56-11	MW56-12	75MP-2S	75MP-3D	75MP-4S	75MP-5D
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
T-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = None Detected --- = Below Calibration Limit(1.0 ppb) Rep = Replicate Dup = Duplicate Dil = Dilution

Table 3. Quantitation Report for S.R. # SF-1-123 from Patrick AFB.

Concentration = ppb

Compound	75MP-5D Field Rep	75MP-6D	75MP-7D	75MP-7D Lab Dup	75MP-7S	75MP-8D	75MP-8S	75MP-8S Field Dup	75MP-9D	75MP-9S
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
T-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Compound	MD75-MW2	MD75-MW3	MD75-MW4	MD75-MW4 Lab Dup	MD75-MW4 Field Rep	MD75-MW5	MD75-MW6	MD75-MW7	MD75-MW8	MD75-MW9
	ND									
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
T-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE		ND	ND	ND	ND	ND	ND	ND	ND	ND

Compound	MD75-MW10	MD75-MW11	MD75-MW12	MD75-MW13	MD75-MW14	MD75-MW14 Lab Dup	MD75-MW14 Field Rep	MD75-MW15	MD75-MW16	Trip Blank
VINYL CHLORIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
T-1,2-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C-1,2-DICHLOROETHENE	ND	ND	ND	ND	1.0	1.1	1.0	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

	QC0406A 20 ppb	QC0406B 200 ppb	QC0406C 20 ppb	QC0406D 200 ppb	QC0406E 20 ppb	QC0406F 200 ppb	QC0406G 20 ppb	QC0406H 200 ppb	QC0408A 20 ppb	QC0408B 200 ppb
VINYL CHLORIDE	20.8	196	20.7	198	18.9	197	19.6	189	19.9	195
1,1-DICHLOROETHENE	20.3	199	19.9	197	18.4	198	18.7	196	19.1	196
T-1,2-DICHLOROETHENE	19.4	185	19.5	180	18.2	186	19.0	187	18.7	192
C-1,2-DICHLOROETHENE	19.2	196	20.2	196	19.5	187	20.4	198	20.8	201
TRICHLOROETHENE	21.2	210	22.1	210	19.9	214	21.1	208	21.3	213
TETRACHLOROETHENE	19.9	195	19.0	197	18.8	193	18.8	194	18.2	190

ND = None Detected --- = Below Calibation Limit(1.0 ppb) QC = Quality Control Std Dup = Duplicate Rep = Replicate

Table 4. Quantitation Report for S.R. # SF−1−123 from Patrick AFB.

Concentration = ppb

Compound	QC0408C 20 ppb	QC0408D 200 ppb	QC0408E 20 ppb	QC0408F 200 ppb	QC0410A 20 ppb	QC0410B 200 ppb	QC0410C 20 ppb	QC0410D 200 ppb	QC0410E 20 ppb	BL0406A
VINYL CHLORIDE	20.9	198	21.0	188	21	191	19.2	194	20.9	ND
1,1−DICHLOROETHENE	18.7	200	19.7	196	19.8	189	19.1	200	20.0	ND
T−1,2−DICHLOROETHENE	19.0	189	19.2	181	18.6	181	19.6	192	19.1	ND
C−1,2−DICHLOROETHENE	19.8	203	19.0	193	19.2	194	19.9	199	19.3	ND
TRICHLOROETHENE	20.4	214	20.8	206	21.3	203	20.6	212	21.8	ND
TETRACHLOROETHENE	19.0	196	18.7	186	19.3	187	19.5	198	19.9	ND

Compound	BL0406B	BL0408A	BL0410A
VINYL CHLORIDE	ND	ND	ND
1,1−DICHLOROETHENE	ND	ND	ND
T−1,2−DICHLOROETHENE	ND	ND	ND
C−1,2−DICHLOROETHENE	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND

QC = Quality Control Std BL = Blank ND = None Detected

MANTECH

Ref: 95-JH29/vg

May 9, 1995

Dr. Don Kampbell
R.S. Kerr Environmental Research Lab
U.S. Environmental Protection Agency
P.O. Box 1198
Ada, OK 74820

THRU: S.A. Vandegrift

Dear Don:

Find attached results for methane and ethylene on ~~Patrick~~ MacDill AFB samples as per Service Request #SF-1-123. Samples were received on 3/27, 3/28, and 4/6 and analyzed on 3/27, 3/28, 3/30, 4/3, 4/4, 4/7, 4/10, and 4/11/95. Samples were prepared and calculations were done as per RSKSOP-175. Analysis was performed as per RSKSOP-147.

If you have any questions, please feel free to see me.

Sincerely,

Jeff Hickerson

Jeff Hickerson

xc: R.L. Cosby
J.L. Seeley
G.B. Smith

SF-1-123 DATA

ANALYZED 3/27/95

SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
2S	12.846	ND
* FIELD DUP	14.150	ND
3D	2.570	ND
3M	12.437	ND
3S	15.534	ND
86-16DD	0.074	ND
9D	9.839	ND
9S	5.822	ND
12D	0.882	ND
12S	12.339	ND
26D	3.756	ND
26S	9.009	ND
86-18D	6.116	ND

ANALYZED 3/28/95

SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
86-21-MWD	0.749	ND
86MW-10D	1.598	ND
* FIELD DUP	1.560	ND
86MW-18S	3.379	ND
* LAB DUP	3.178	ND
86-18DD	0.068	ND
86-MW4D	5.095	ND
86-MW4S	11.630	ND
* LAB DUP	10.594	ND
86-21-MWS	9.857	ND

ANALYZED 3/30/95

SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
24PZ-1S	4.177	ND
24MP-2S	9.887	ND
24MP-3D	0.182	ND
MD32-3	0.137	ND
MD24-4	0.266	ND
* LAB DUP	0.261	ND
MW56-6	6.324	ND
56-MP-6S	0.245	ND
24MP-7S	0.045	ND
56MP-7D	0.067	ND
MW56-8	2.298	ND
24MP-8D	0.068	ND
MD24-9	0.146	ND
24MP-1S	2.501	BLQ

SF-1-123 DATA

ANALYZED 3/30/95 SAMPLE	METHANE	ETHYLENE
24MP-1D	1.788	ND
24MP-2D	0.145	ND
MP24-4	0.288	ND
* LAB DUP	0.271	ND

ANALYZED 4/3/95 SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
24PZ-1D	0.137	ND
MD56-MW9	0.739	ND
56MP-4S	8.968	ND
56MP-5D	0.568	ND
56MP-5S	13.574	ND
56MP-6D	0.086	ND
56MP-8S	0.032	ND
56MP-10S	2.288	ND
* LAB DUP	2.081	ND
56MP-15D	0.548	ND
MD24-1	0.573	ND
MD24-2	1.311	ND
MD24-3	0.242	ND
MD24-5	0.217	ND
MD24-6	0.610	ND
MD24-6A	2.335	0.001
MD24-7	0.429	ND

ANALYZED 4/4/95 SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
MD24-7 FIELD DUP	0.048	ND
MD24-8	0.578	ND
MD24-10	0.249	ND
MD24-10A	0.749	ND
24MP-3S	0.970	ND
24MP-5D	0.075	ND
24MP-5S	0.065	ND
24MP-6S	1.045	ND
24MP-7D	0.033	ND
* LAB DUP	0.032	ND
24MP-8S	0.125	ND
24MP-9D	0.053	ND
24MP-9S	3.270	ND
24MP-10	0.696	ND
24MP-10D	0.060	ND
MW56-1	0.442	ND
MW56-2	0.492	ND

SF-1-123 DATA

ANALYZED 4/4/95 SAMPLE	METHANE	ETHYLENE
MW56-10	3.711	ND
* LAB DUP	3.513	ND
MW56-12	0.014	ND

ANALYZED 4/7/95 SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
56MW-1	0.087	ND
MW56-5	0.136	ND
MW56-7	7.953	ND
MW56-11	5.279	ND
56MP-1S	0.161	ND
56MP-2S	0.030	ND
56MP-3D	1.069	ND
56MP-3S	0.092	ND
56MP-7D	0.035	ND
MD32-MW7	4.749	ND
* LAB DUP	4.545	ND

ANALYZED 4/10/95 SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
MD56-MW4	0.034	ND
MW32-1	2.634	ND
MD75-MW2	0.271	ND
MD75-MW3	0.038	ND
MD75-MW4	1.890	BLQ
MD75-MW5	0.035	ND
MD75-MW9	2.245	ND
MD75-MW6	2.466	ND
*LAB DUP	2.351	ND
MD75-MW7	0.641	ND
MD75-MW8	8.962	ND
MD75-MW10	5.394	ND
MD75-MW11	0.986	ND
MD75-MW12	7.310	ND
MD75-MW13	1.227	ND
MD75-MW14	15.439	ND
MD75-MW15	0.050	ND
MD75-MW16	6.039	ND
75MP-2S	6.550	0.001
* LAB DUP	6.215	ND

SF-1-123 DATA

ANALYZED 4/11/95

SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
75MP-3D	1.777	ND
* FIELD DUP	0.036	ND
75MP-4S	14.469	0.001
75MP-5D	7.361	ND
75MP-6D	8.613	ND
75MP-7D	0.437	ND
75MP-8D	0.038	ND
75MP-8S	0.042	ND
* LAB DUP	0.041	ND
75MP-9D	0.072	ND
75MP-9S	0.132	ND
75MP-28S	0.043	ND

STANDARDS

SAMPLE	METHANE	ETHYLENE
10 PPM CH4	9.71	ND
100 PPM CH4	100.03	ND
1000 PPM CH4	1044.51	ND
1% CH4	1.01	ND
10% CH4	9.63	ND
20% CH4	20.18	ND
10 PPM C2H4	ND	9.95
100 PPM C2H4	ND	100.00
1000 PPM C2H4	ND	999.62

LOWER LIMIT OF QUANTITATION

METHANE	ETHYLENE
0.001	0.003

UNITS FOR THE SAMPLES ARE mg/L.

UNITS FOR THE STANDARDS CORRESPOND TO THE UNITS IN THE SAMPLE COLUMN.

ND DENOTES NONE DETECTED.
BLQ DENOTES BELOW LIMIT OF QUANTITATION.

Note
I would round off the reported values to two significant digits. Don Campbell

Evergreen Analytical Sample Log Sheet

Project # 95-0861

Date(s) Sampled: 03/15,16/95 COC

Date Due: 03/22/95

Date Received: 03/17/95 1000

Holding Time(s): 3/17,18-NO_2,NO_3,3/2
BTEX,TVH,3/29,30-A

Client Project I.D. 722450.21020/MacDILL AFB

Rush STANDARD-LST
2-OTHERS

Client: Parsons Engineering Science, Inc.

Address: 1700 Broadway Suite 900
Denver, CO 80290

Contact: TODD WIEDEMEIER

Client P.O. 722450.21020

Phone #831-8100 **Fax #**831-8208

Shipping Charges N/A

E.A. Cooler # 383

Airbill # FEDEX 9581826192

Custody Seal Intact? N/A
Cooler ___ Bottles ___
COC Present Y
Sample Tags Present? Y
Sample Tags Listed? Y
Sample(s) Sealed? Y

Special Invoicing/Billing

Special Instructions ***PLUS CHLOROBENZENE, TMB & TEMB. ANALYZE AN MS/MSD AND DUPLICATE ON THIS CLIENT's SAMPLES.**

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
3					
X04288A/B	24MP-10D	*BTEX	W	40V	2
X04289A/B	24MP-10S	*BTEX	W	40V	2
X04290A/B	MD24-6A	*BTEX	W	40V	2
X04291A/B	MD24-6	*BTEX	W	40V	2
X04292A/B	24MP-9D	*BTEX	W	40V	2
X04293A/B	24MP-9S	*BTEX	W	40V	2
X04297A/B	24MP-7D	*BTEX	W	40V	2
X04298A/B	24MP-7S	*BTEX	W	40V	2
X04299A/B	75MP-1S	*BTEX	W	40V	2
X04300A/B	75MP-1D	*BTEX	W	40V	2
X04294A/B	FIELD BLANK	*BTEX,TVH	W	40V	2
X04296A/B	TRIP BLANK	*BTEX,TVH	W	40V	2
X04288C/D	24MP-10D	TVH	W	40V	2
X04289C/D	24MP-10S	TVH	W	40V	2
X04290C/D	MD24-6A	TVH	W	40V	2
X04291C/D	MD24-6	TVH	W	40V	2
X04292C/D	24MP-9D	TVH	W	40V	2

R=Sample to be returned

Route To GC/MS ___ GC 3 Metals ___ Wet Chem 2 SxPrep ___ Acctg ___
SxRec C QA/QC C Sales C File Orig

Custodian/Date: 03/17

Evergreen

CASE NARRATIVE

Evergreen Analytical Laboratory (EAL) Project #: 95-0861

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt
On March 17, 1995, 12 water samples were received in good condition at Evergreen Analytical Laboratory. The chain of custody requested BTEX, TVH, anions and alkalinity analyses be performed on the trip and field blanks, however, due to lack of sample, only the BTEX and TVH analyses could be performed. Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and PES sample identifications.

BTEX, Water Matrix, Method 602
Sample MD24-6A was analyzed at a 10x dilution due to the concentration of benzene in the sample. The reporting limit was increased accordingly. There were no quality control anomalies to report.

Total Volatile Hydrocarbon (TVH)
There were no quality control anomalies to report.

Sulfate, Chloride, Nitrite and Nitrate, Water Matrix, Method E300.0
There were no quality control anomalies to report.

Alkalinity, Water Matrix, Method E310.1
There were no quality control anomalies to report.

P. McClellan

Patricia A. McClellan, Project Manager

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
4293C/D	24MP-9S	TVH	W	40V	2
X04297C/D	24MP-7D	TVH	W	40V	2
X04298C/D	24MP-7S	TVH	W	40V	2
X04299C/D	75MP-1S	TVH	W	40V	2
X04300C/D	75MP-1D	TVH	W	40V	2
X04288E	24MP-10D	ALKALINITY	W	250P	B6
X04289E	24MP-10S	ALKALINITY	W	250P	B6
X04290E	MD24-6A	ALKALINITY	W	250P	B6
X04291E	MD24-6	ALKALINITY	W	250P	B6
X04292E	24MP-9D	ALKALINITY	W	250P	B6
X04293E	24MP-9S	ALKALINITY	W	250P	B6
X04297E	24MP-7D	ALKALINITY	W	250P	B6
X04298E	24MP-7S	ALKALINITY	W	250P	B6
X04299E	75MP-1S	ALKALINITY	W	250P	B6
X04300E	75MP-1D	ALKALINITY	W	250P	B6
X04288F	24MP-10D	Cl^-, SO_4, NO_2NO_3	W	250P	B6
X04289F	24MP-10S	Cl^-, SO_4, NO_2NO_3	W	250P	B6
4290F	MD24-6A	Cl^-, SO_4, NO_2NO_3	W	250P	B6
X04291F	MD24-6	Cl^-, SO_4, NO_2NO_3	W	250P	B6
X04292F	24MP-9D	Cl^-, SO_4, NO_2NO_3	W	250P	B6
X04293F	24MP-9S	Cl^-, SO_4, NO_2NO_3	W	250P	B6
X04297F	24MP-7D	Cl^-, SO_4, NO_2NO_3	W	250P	B6
X04298F	24MP-7S	Cl^-, SO_4, NO_2NO_3	W	250P	B6
X04299F	75MP-1S	Cl^-, SO_4, NO_2NO_3	W	250P	B6
X04300F	75MP-1D	Cl^-, SO_4, NO_2NO_3	W	250P	B6

Project # 95-0861

R=Sample to be returned

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY PARSONS ENGINEERING SCIENCE
ADDRESS 1700 S. BROADWAY Suite 900
CITY DENVER STATE CO ZIP 80290
PHONE# 303 831-8100 FAX # 303 831-8208 FAX RESULTS (Y) / N

CLIENT CONTACT (print) TODD WIEDEMEIER
PROJECT I.D. MacDill AFB
EAL QUOTE # 72245.2102 P.O.#
TURNAROUND REQUIRED* ~~30 days~~ 10 d
*expedited turnaround subject to additional fee

Sampler Name:
(signature) [signature]
(print) JEFF FETKENHOUR

Evergreen Analytical Cooler No. 383
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle) & TMB & Tetra-Mb	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity	Cl⁻, SO₄⁻², NO₂⁻, NO₃⁻						EAL Sample No.
24MP-10D	3/15/95	1130	6	X									X		X				X	X						04288
24MP-10S	3/15/95	1153	6	X									X		X				X	X						89
MD24-6A	3/15/95	1320	6	X									X		X				X	X						90
MD24-6	3/15/95	1515	6	X									X		X				X	X						91
24MP-9D	3/15/95	1400	6	X									X		X				X	X						92
24MP-9S	3/15/95	1445	6	X									X		X				X	X						93
FIELD BLANK	3/15/95	1450	1	DI H₂O									X		X				X	X						94
~~MD24-6 DUP~~																										~~95~~ # not used
TRIP BLANK			1										X		X				X	X						96
24MP-7D	3/16/95	0800	6	X									X		X				X	X						97
HT:													40V		40V				250P	125P						Location B-6
DD:																										Container Size

EAL use only
Do not write in shaded area

EAL Project # 0861
Custodian

Instructions: All samples placed in ice
Please analyze trip blank & field blank for BTEX, TVH, Alkalinity, Anions
All groundwater samples preliminary - Please relinquish ASAP.

Relinquished by (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	3/16/95						

CHAIN OF CUSTODY / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY PARSONS ENGINEERING SCIENCE
ADDRESS 1700 S. BROADWAY, SUITE 900
CITY DENVER STATE CO ZIP 80290
PHONE # 303 831-8100 FAX # 303 831-8208

CLIENT CONTACT (print) TODD WIEDEMEIER
PROJECT I.D. MacDill AFD
EAL. QUOTE # 72450.21020 P.O.#
FAX RESULTS (Y) ~~N~~
TURNAROUND REQUIRED* ~~24 hour~~
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Jeff Fetkenhour
(print) JEFF FETKENHOUR

Evergreen Analytical Cooler No. 383
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle) MTBE 7m8	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity	Cl, SO4, NO2, NO3	EAL Sample No.
24MP-7S	3/16/95	0845	6	X									X		X				X	X		04298
75MP-1S	3/16/95	1440	6	X									X		X				X	X		↓ 99
75MP-1D	3/16/95	1530	6	X									X		X				X	X		04300
													You		You			250P	125P			
HT:																						Location B-6
DD:																						Container Size

EAL use only
Do not write in shaded area

EAL Project # 0861
Custodian

Instructions: All samples placed in ice
All groundwater samples preliminary - Please analyze ASAP

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Jeff Fetkenhour	3/16/95 1700	FED EX		FED EX			

Evergreen Analytical Sample Receipt/Check-in Record

Date & Time Rec'd: 3-17-95 1130 Shipped Via: H.D.
(Airbill # if applicable)

Client : Parsons ES

Client Project ID(s): 722450207

EAL Project #(s): 95- 0861 EAL Cooler(s): Y (N)

Cooler#	client								
Ice packs	(Y)	N	Y	N	Y	N	Y	N	Y	N
Temperature °C	chilled								

	Y	N	N/A
1. Custody seal(s) present:		X	
Seals on cooler intact			
Seals on bottle intact			
2. Chain of Custody present:	X		
3. Containers broken or leaking: (Comment on COC if Y)		X	
4. Containers labeled:	X		
5. COC agrees w/ bottles received: (Comment on COC if N)	X		
6. COC agrees w/ labels: (Comment on COC if N)	X		
7. Headspace in VOA vials-waters only (comment on COC if Y)			X
8. VOA samples preserved:			X
9. pH measured on metals, cyanide or phenolics*:			X
List discrepancies			
*Non-EAL provided containers only, water samples only.			
10. Metal samples present:			X
Total _____ , Dissolved _____			
D or PD to be filtered:			
T,TR,D,PD to be Preserved:			
11. Short holding times:		X	
Specify parameters			
12. Multi-phase sample(s) present:		X	
13. COC signed w/ date/time:	X		

Comments: _____

(Additional comments on back)

Custodian Signature/Date: 3-17-95

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY: PARSONS ENGINEERING SCIENCE
ADDRESS: 1700 S. BROADWAY Suite 900
CITY: DENVER STATE: CO ZIP: 80290
PHONE#: 303 831-8100 FAX #: 303 831-8208
FAX RESULTS: (Y) / N

CLIENT CONTACT (print): TODD WIEDEMEIER
PROJECT I.D.: MacDill AFB
EAL. QUOTE #: 722450.2102 P.O.#:
TURNAROUND REQUIRED*: ~~30 days~~ 10 7
*expedited turnaround subject to additional fee

Sampler Name:
(signature): JGFetkenhour
(print): JEFF FETKENHOUR

Evergreen Analytical Cooler No.: 383
Cooler Received:

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 82 3/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle) & TMB & 1,2-DCA	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity	Cl, SO4, NO3, NO2						EAL Sample No.
24MP-10D	3/15/95	1130	6	X										X		X				X	X					
24MP-10S	3/15/95	1153	6	X										X		X				X	X					
MD24-6A	3/15/95	1320	6	X										X		X				X	X					
MD24-6	3/15/95	1515	6	X										X		X				X	X					
24MP-9D	3/15/95	1400	6	X										X		X				X	X					
24MP-9S	3/15/95	1445	6	X										X		X				X	X					
FIELD BLANK	3/15/95	1450	1	DI H2O										X		X				X	X					
~~MD24-6 JG7~~																										
TRIP BLANK			1											X		X				X	X					
24MP-7D	3/16/95	0800	6	X										X		X				X	X					
HT:																										Location
DD:																										Container Size

EAL use only
Do not write in shaded area

EAL
Project #:
Custodian:

Instructions: All samples placed in ice 3/16/95 Insufficient sample volume to
Please analyze trip blank & field blank for BTEX, TVH, Alkalinity, Anions Analyze trip + field blank for all
All groundwater samples preliminary - Please analyze ASAP. parameters. pm

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
JGFetkenhour	3/16/95 1600	FED EX		FED EX			3-17-95 1000

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY PARSONS ENGINEERING SCIENCE
ADDRESS 1700 S BROADWAY, SUITE 900
CITY DENVER STATE CO ZIP 80290
PHONE # 303 831-8100 FAX # 303 831-8208 FAX RESULTS (Y) ~~N~~ 67

CLIENT CONTACT (print) TODD WIEDEMEIER
PROJECT I.D. MacDill AFB
EAL. QUOTE # 722450.21020 P.O.#
TURNAROUND REQUIRED* ~~30 days~~ 67
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Jeff Fetkenhour
(print) JEFF FETKENHOUR

Evergreen Analytical Cooler No. 383
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE 7741 + 7741 MS	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Al Ca Fe K Mg Na Si	Cl, SO4, NO3, NO2						EAL Sample No.
24MP-7S	3/16/95	0845	6	X										X		X				X	X					
7SMP-1S	3/16/95	1440	6	X										X		X				X	X					
7SMP-1D	3/16/95	1530	6	X										X		X				X	X					
HT:																										Location
DD:																										Container Size

EAL use only
Do not write in shaded area

EAL
Project #
Custodian

Instructions: All samples placed in ice
All groundwater samples preliminary - Please analyze ASAP

Relinquished by (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[illegible]	3/16/95	FEDEX		FEDEX		[illegible]	[illegible]

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: MD24-6		
Lab Sample Number	: X04291	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/21/95	Lab File No.	: BX2032118
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylene	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	1.0	J	4.0

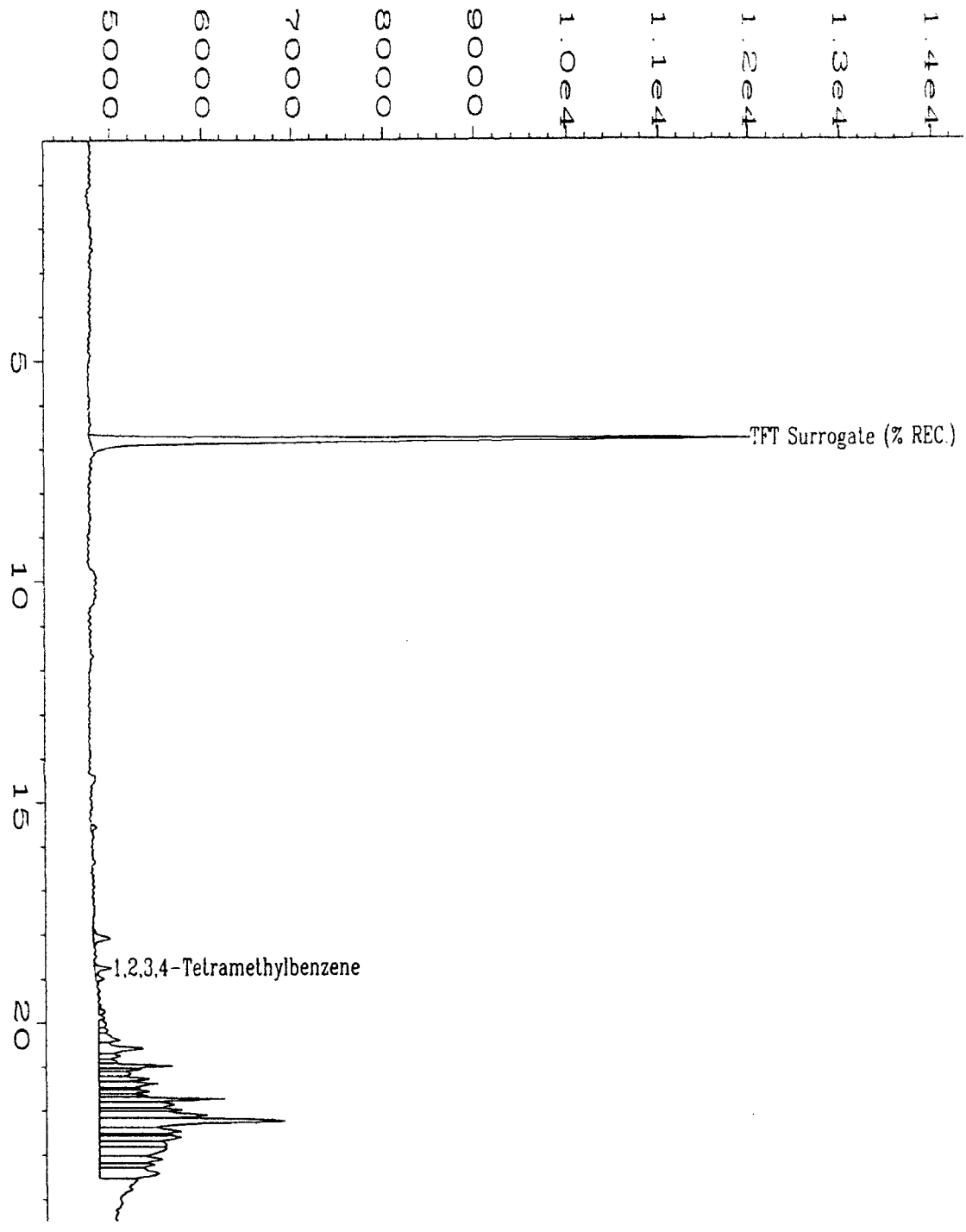
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
α,α,α-Trifluorotoluene : 90%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

P.M. Clelle
Approved



Data File Name : C:\HPCHEM\2\DATA\BX20321\018R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04291 DF=1
Run Time Bar Code:
Acquired on : 21 Mar 95 10:59 PM
Report Created on: 21 Mar 95 11:24 PM
Last Recalib on : 21 Mar 95 03:32 PM
Multiplier : 1
Sample Info : Project#: 95-0861 Client#: ~~24MP~~-6 Water

Page Number : 1
Vial Number : 18
Injection Number : 1
Sequence Line : 9
Instrument Method: BX20321
Analysis Method : BX20321.MTH
Sample Amount : 0
ISTD Amount :

MDAU

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: MD24-6A		
Lab Sample Number	: X04290	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/21/95	Lab File No.	: BX2032117
		Method Blank No.	: MB032195

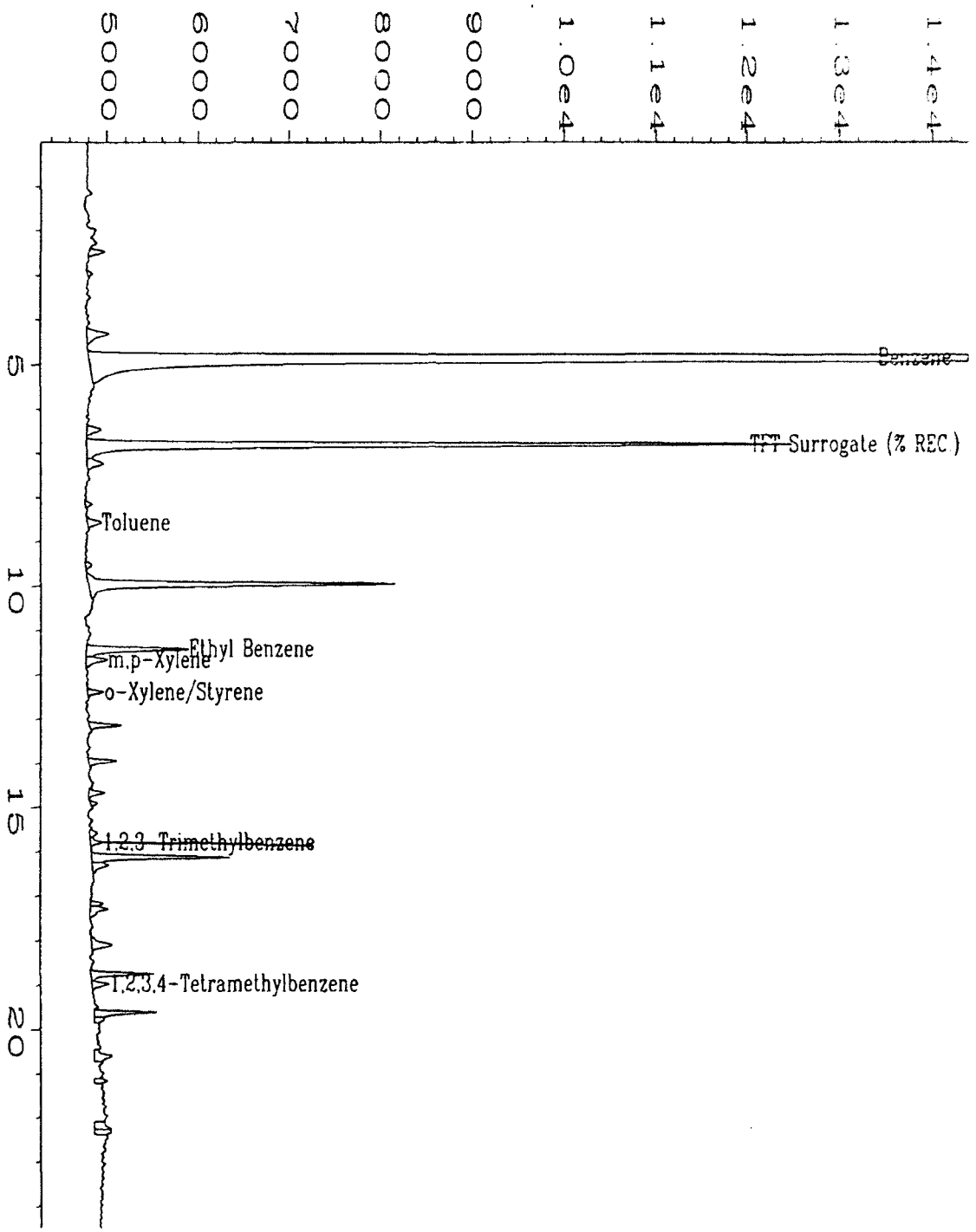
Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		**	**
Toluene	108-88-3	0.9	J	4.0
Ethyl Benzene	100-41-4	4.9		4.0
Total Xylene	1330-20-7	1.1	J	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	3.2	J	4.0

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
** = See BX2032212 for noted values, df = 10, 03/22/95.
Surrogate Recovery:
α,α,α-Trifluorotoluene : 99%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20321\017R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04290 DF=1
Run Time Bar Code:
Acquired on : 21 Mar 95 10:13 PM
Report Created on: 21 Mar 95 10:38 PM
Last Recalib on : 21 Mar 95 03:32 PM
Multiplier : 1
Sample Info : Project#: 95-0861 Client#: ~~24MP~~-6A Water

Page Number : 1
Vial Number : 17
Injection Number : 1
Sequence Line : 9
Instrument Method: BX2032 .MT
Analysis Method : BX20321.MT
Sample Amount : 0
ISTD Amount :

Dm 4/13/95

MD24
pm 4/18/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

Client Sample Number	: MD24-6A	Client Project No.	: 722450.21020 MacDill
Lab Sample Number	: X04290	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 10.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/22/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032212
		Method Blank No.	: MB032295

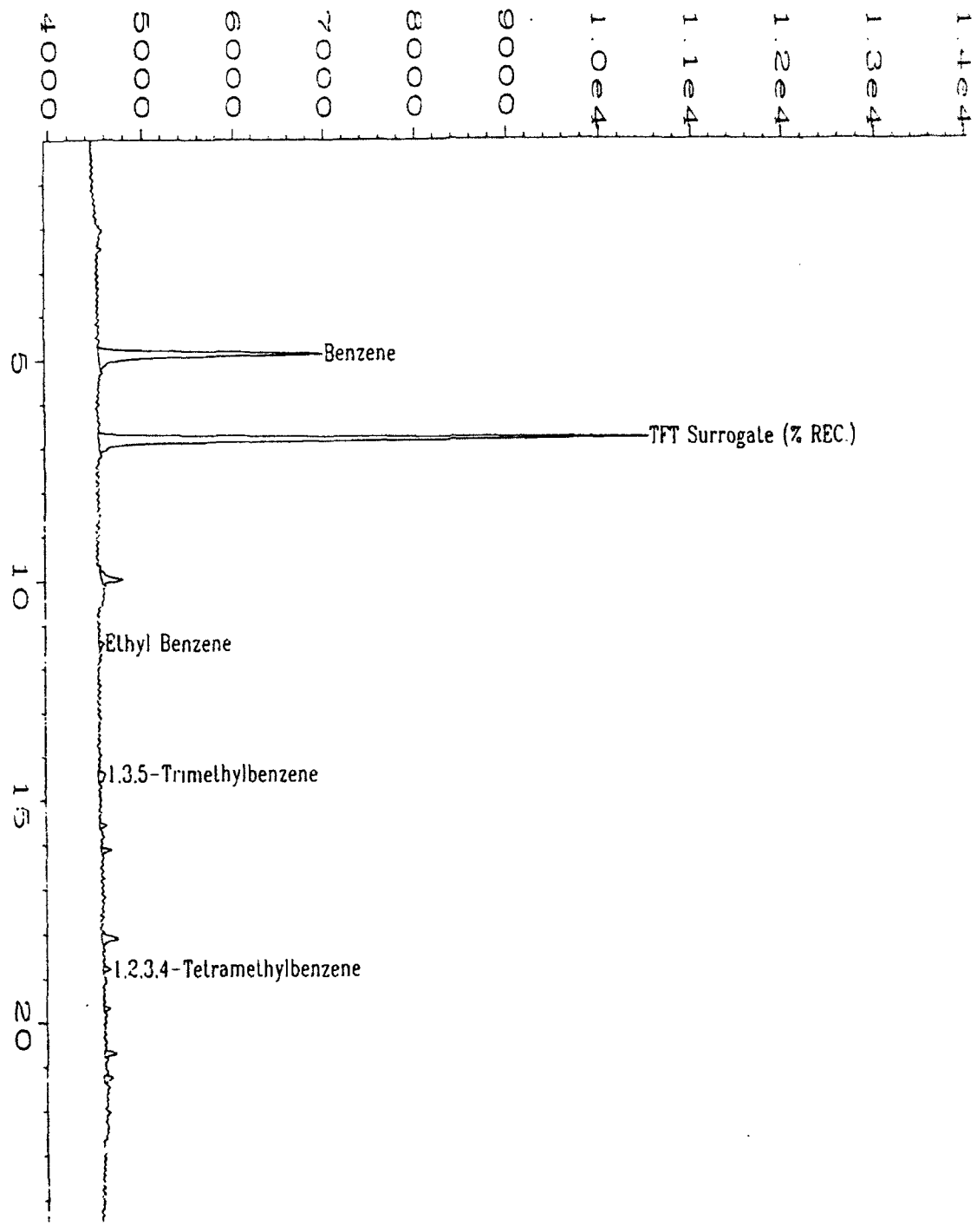
Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	170	40
Toluene	108-88-3	**	**
Ethyl Benzene	100-41-4	**	**
Total Xylene	1330-20-7	**	**
Chlorobenzene	108-90-7	**	**
1,3,5-trimethylbenzene	108-67-8	**	**
1,2,4-trimethylbenzene	95-63-6	**	**
1,2,3-trimethylbenzene	526-73-8	**	**
1,2,3,4-tetramethylbenzene	488-23-3	**	**

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
** = See BX2032117 for noted values, df = 1, 03/21/95.
Surrogate Recovery:
α,α,α-Trifluorotoluene : 87%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20322\012R0701.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04290 DF=10
Run Time Bar Code:
Acquired on : 22 Mar 95 07:26 PM
Report Created on: 22 Mar 95 07:51 PM
Last Recalib on . 22 Mar 95 04:04 PM
Multiplier : 10
Sample Info : Project#: 95-0861 Client#: MD24-6A Water

Page Number : 1
Vial Number : 12
Injection Number : 1
Sequence Line : 7
Instrument Method: BX2032[illegible]MT
Analysis Method : BX203[illegible]MT
Sample Amount : 0
ISTD Amount :

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-7S		
Lab Sample Number	: X04298	Lab Project No.	: 95-0861
Date Sampled	: 3/16/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032126
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3	3.1	J	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylene	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

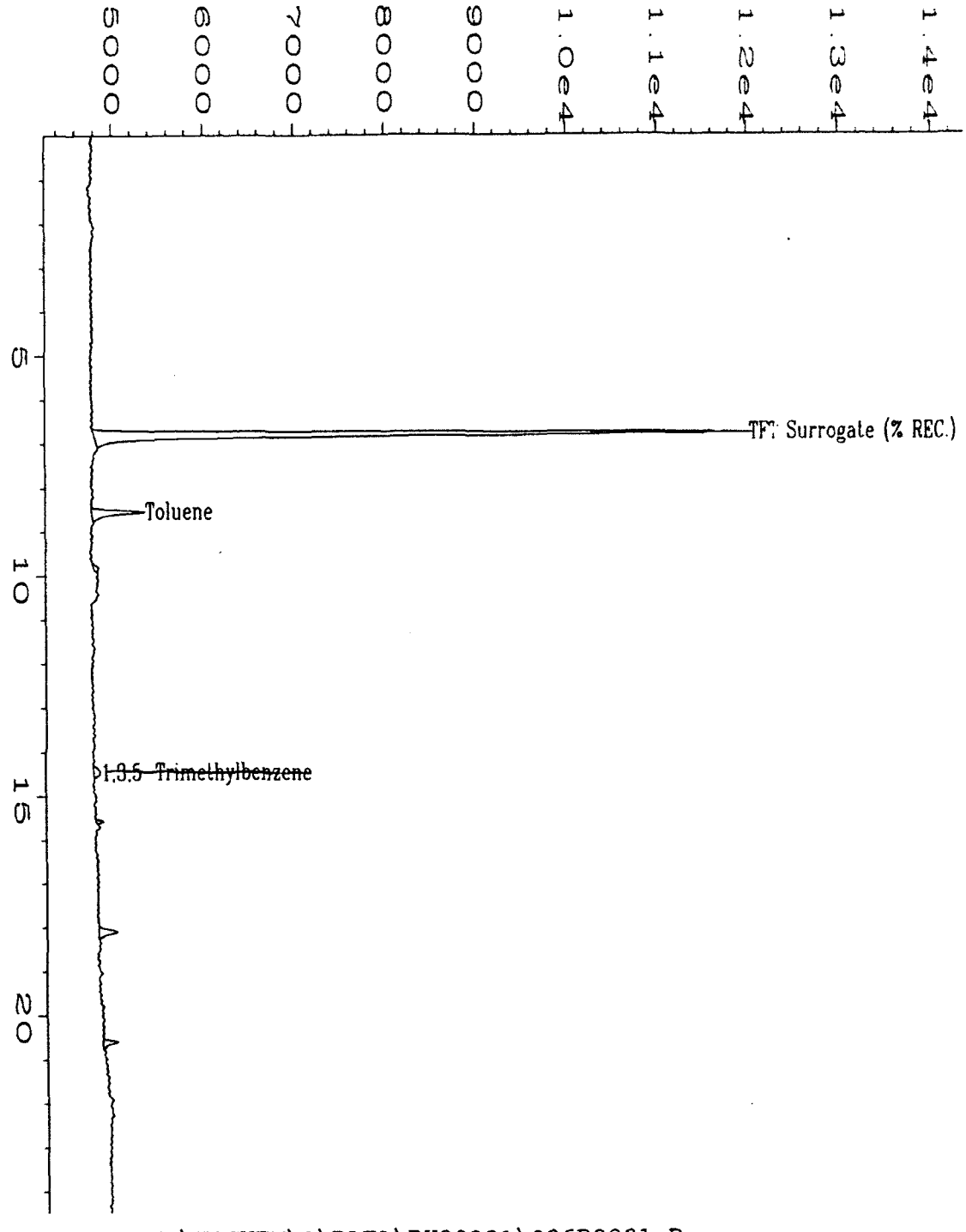
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
α,α,α-Trifluorotoluene : 93%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20321\026R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04298 DF=1
Run Time Bar Code:
Acquired on : 22 Mar 95 05:10 AM
Report Created on: 22 Mar 95 05:35 AM
Last Recalib on : 21 Mar 95 03:32 PM
Multiplier : 1
Sample Info : Project#: 95-0861 Client#: 24MP-7S Water

Page Number : 1
Vial Number : 26
Injection Number : 1
Sequence Line : 9
Instrument Method: BX20321..MT
Analysis Method : BX20321.MT
Sample Amount : 0
ISTD Amount :

4/5/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-7D		
Lab Sample Number	: X04297	Lab Project No.	: 95-0861
Date Sampled	: 3/16/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032125
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

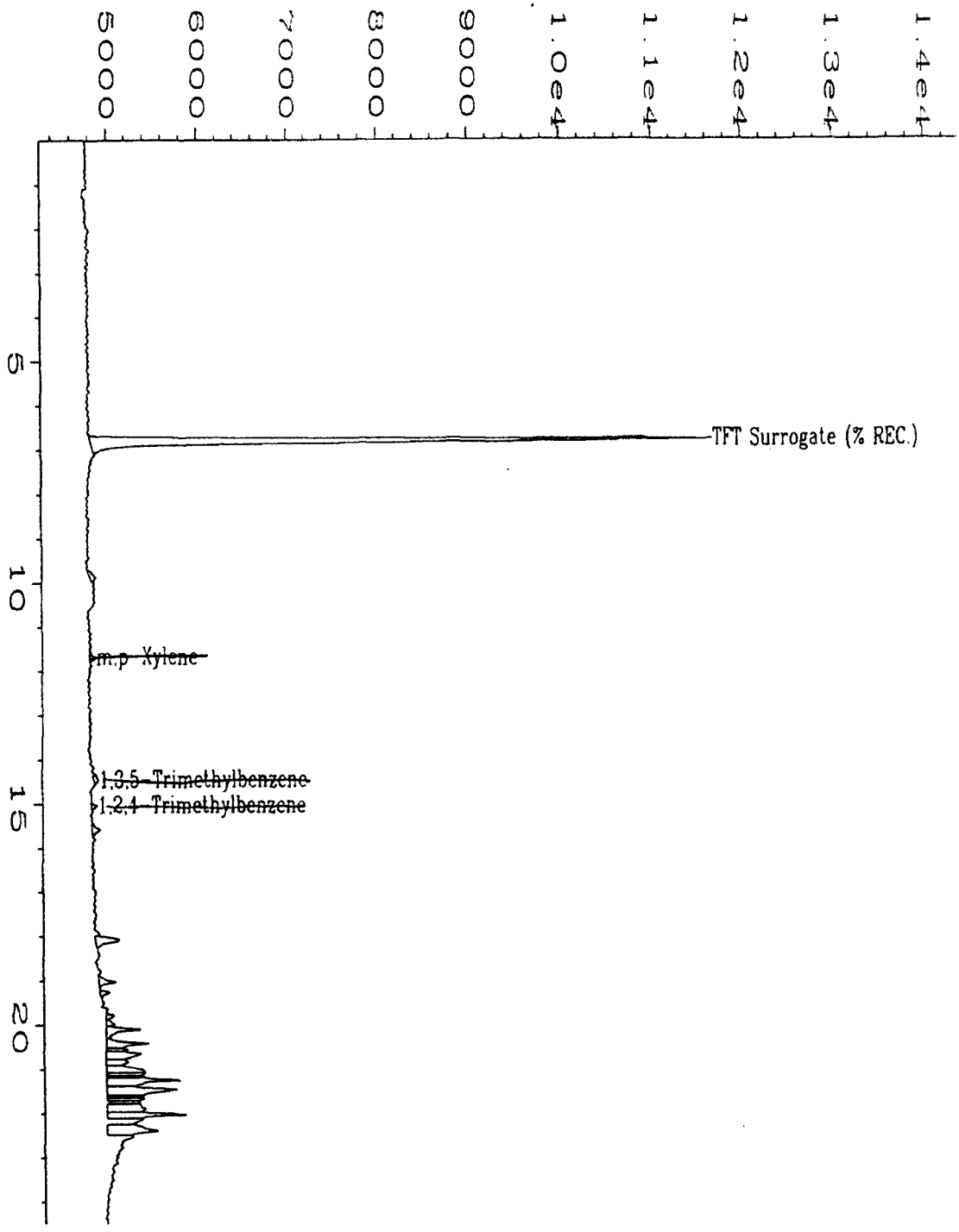
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
α,α,α-Trifluorotoluene : 86%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20321\025R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04297 DF=1
Run Time Bar Code:
Acquired on : 22 Mar 95 04:24 AM
Report Created on: 22 Mar 95 04:49 AM
Last Recalib on : 21 Mar 95 03:32 PM
Multiplier : 1
Sample Info : Project#: 95-0861 Client#: 24MP-7D Water

Page Number : 1
Vial Number : 25
Injection Number : 1
Sequence Line : 9
Instrument Method: BX2032.
Analysis Method : BX20321.MT
Sample Amount : 0
ISTD Amount :

DM 4/13/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

Client Sample Number	: 24MP-9S	Client Project No.	: 722450.21020 MacDill
Lab Sample Number	: X04293	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032124
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2	3.0	J	4.0
Toluene	108-88-3	4.5		4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylene	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6	0.4	J	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	16		4.0

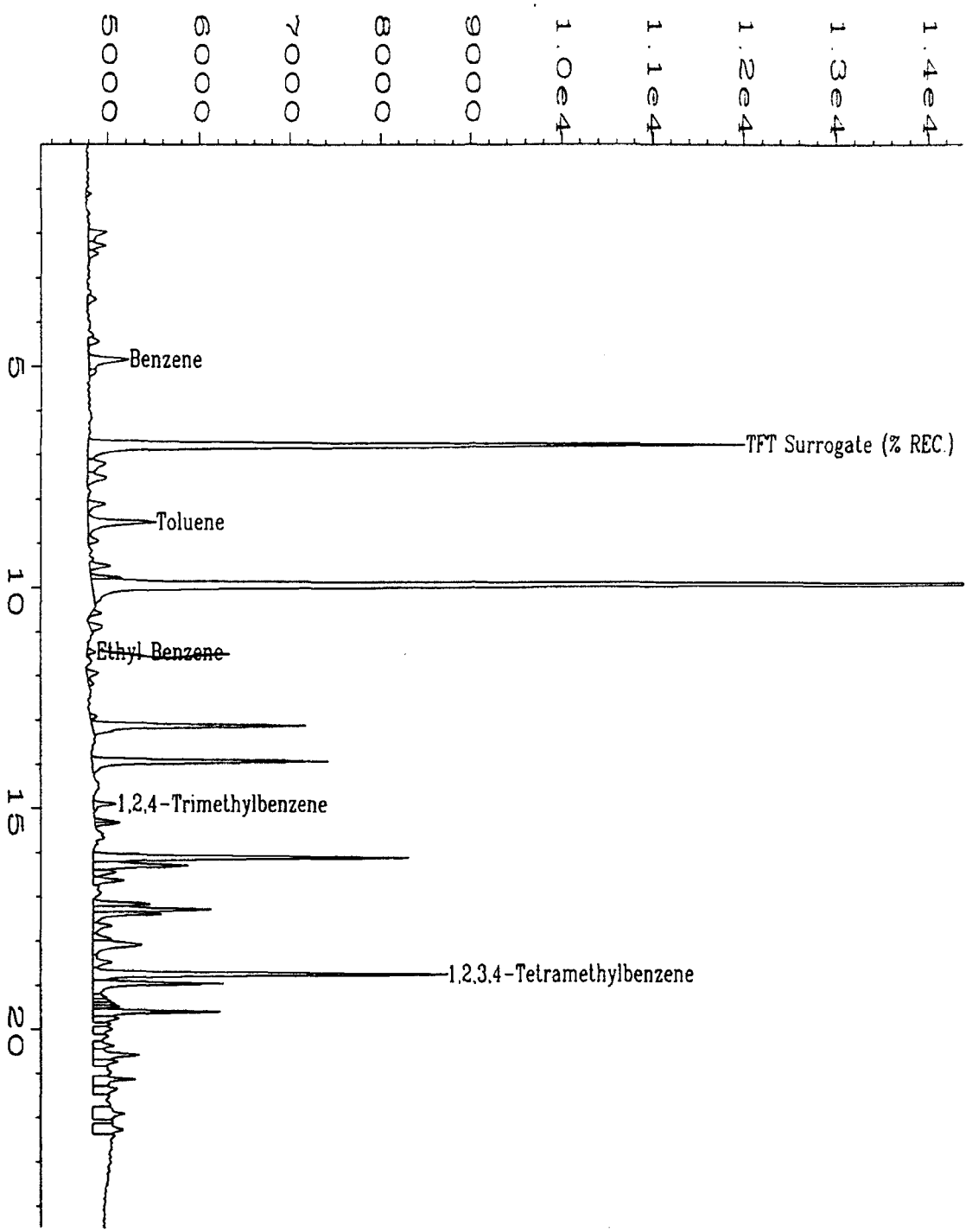
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
α,α,α-Trifluorotoluene : 91%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20321\024R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 24
Sample Name	: X04293 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 22 Mar 95 03:37 AM	Instrument Method	: BX20321 .M
Report Created on	: 22 Mar 95 04:02 AM	Analysis Method	: BX20321.MTH
Last Recalib on	: 21 Mar 95 03:32 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0861 Client#: 24MP-9S Water		

cm 4/18/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

Client Sample Number	: 24MP-9D	Client Project No.	: 722450.21020 MacDill
Lab Sample Number	: X04292	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032122
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

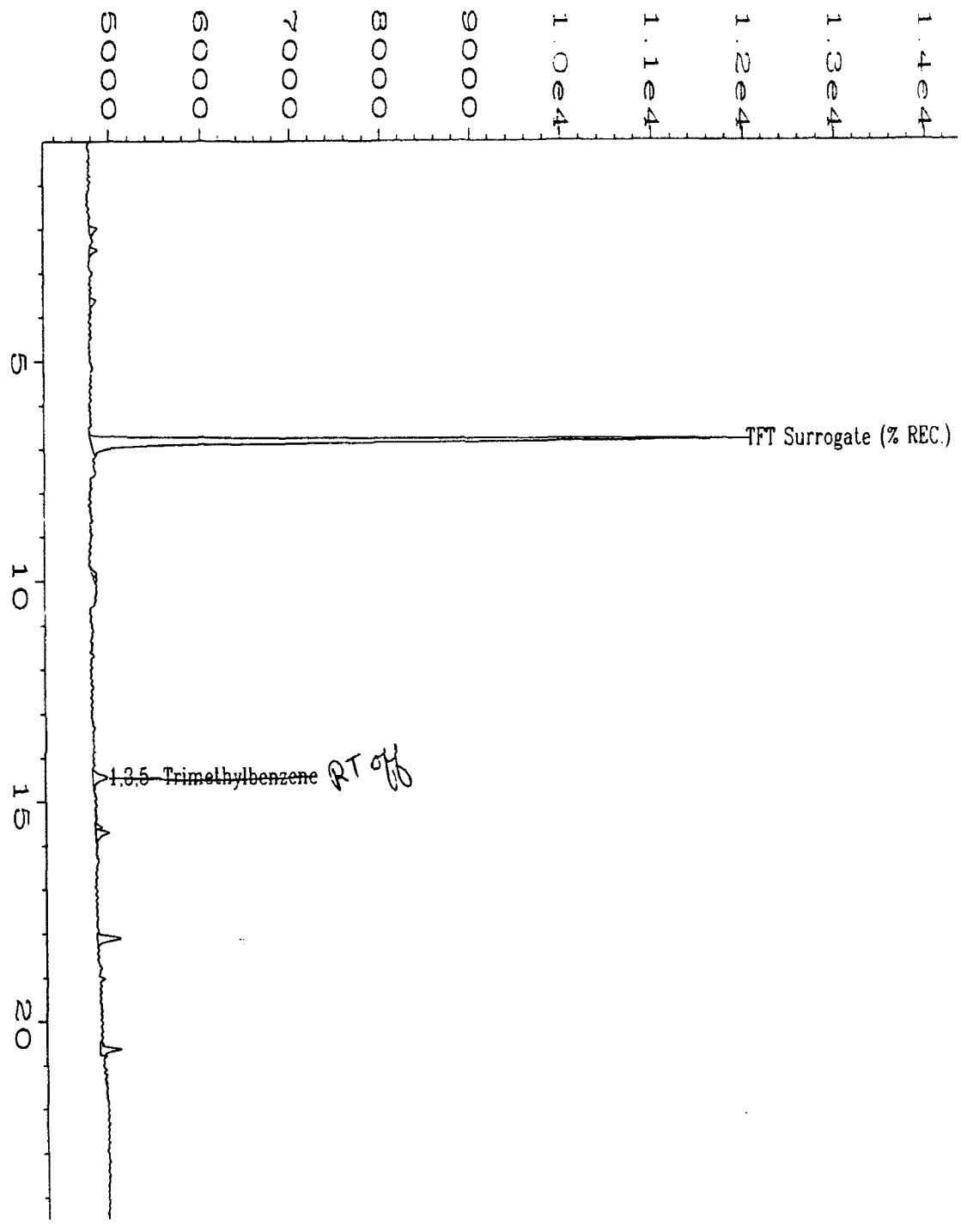
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
α,α,α-Trifluorotoluene : 92%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cox
Analyst

P. McClellan
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20321\022R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 22
Sample Name	: X04292 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 22 Mar 95 02:03 AM	Instrument Method	: BX2032[illegible].MT
Report Created on	: 22 Mar 95 02:28 AM	Analysis Method	: BX20321.MT
Last Recalib on	: 21 Mar 95 03:32 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0861 Client#: 24MP-9D Water		

cm 4/3/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-9D		
Lab Sample Number	: X04292DUP	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032123
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

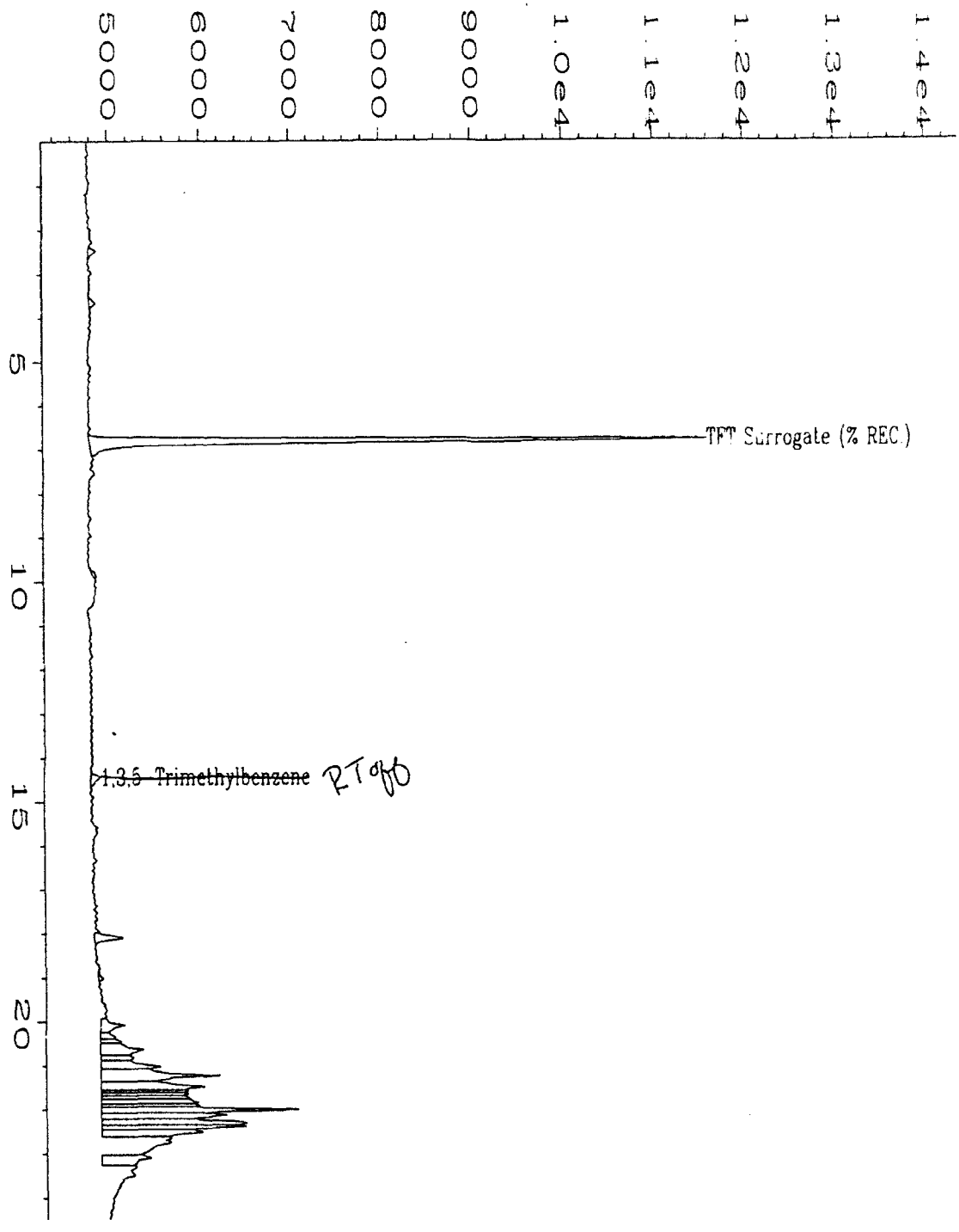
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
α,α,α-Trifluorotoluene : 89%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

P McClelland
Approved



Data File Name : C:\HPCHEM\2\DATA\BX20321\023R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04292DUP DF=1
Run Time Bar Code:
Acquired on : 22 Mar 95 02:51 AM
Report Created on: 22 Mar 95 03:16 AM
Last Recalib on : 21 Mar 95 03:32 PM
Multiplier : 1
Sample Info : Project#: 95-0861 Client#: 24MP-9D Water

Page Number : 1
Vial Number : 23
Injection Number : 1
Sequence Line : 9
Instrument Method: BX2032 .MT
Analysis Method : BX20321.MT
Sample Amount : 0
ISTD Amount :

Dm 4/13/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-10S		
Lab Sample Number	: X04289	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/21/95	Lab File No.	: BX2032116
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3	22		4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylene	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

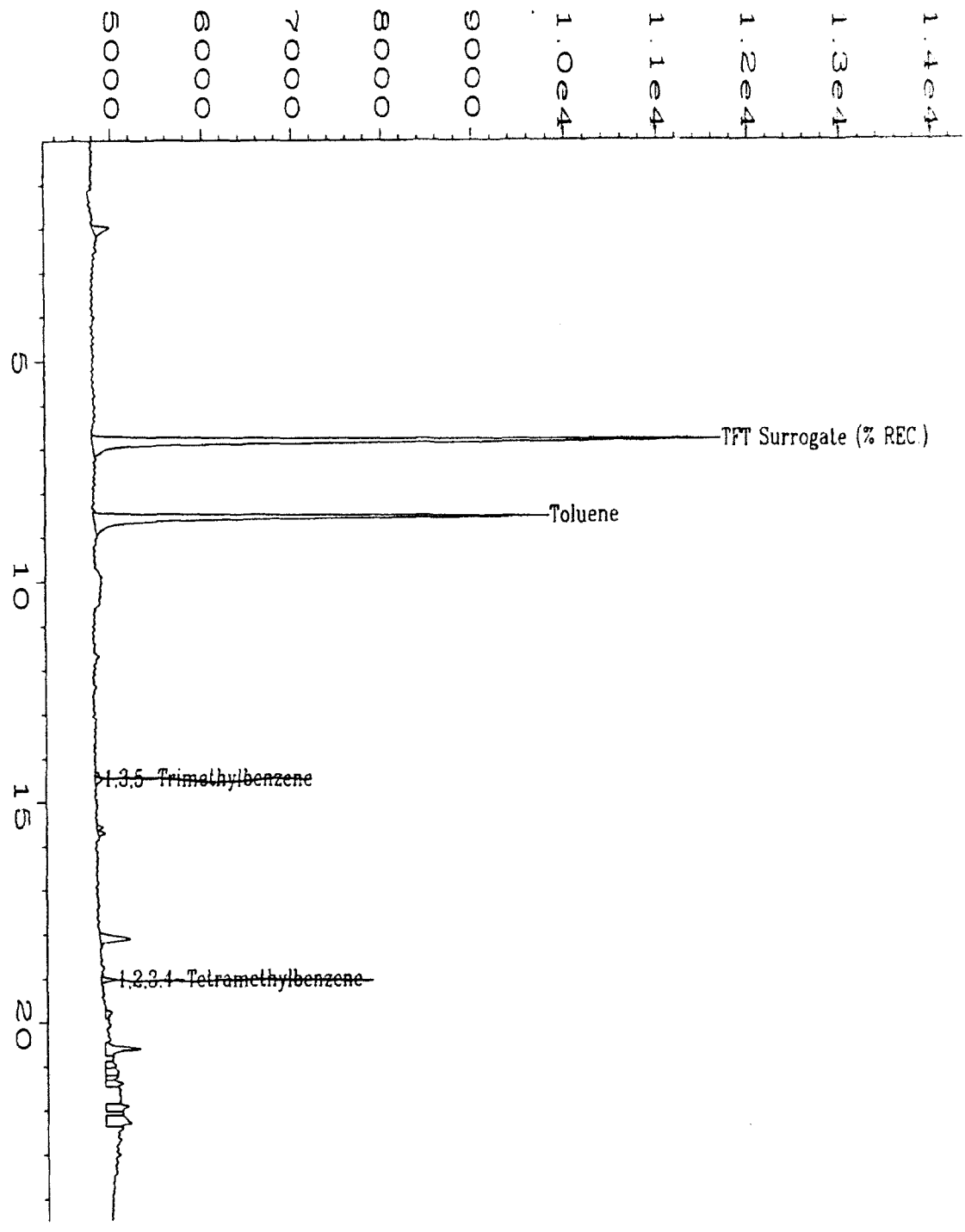
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
α,α,α-Trifluorotoluene : 90%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20321\016R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 16
Sample Name	: X04289 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 21 Mar 95 09:27 PM	Instrument Method	: BX203[illegible]
Report Created on	: 21 Mar 95 09:52 PM	Analysis Method	: BX2032[illegible]
Last Recalib on	: 21 Mar 95 03:32 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0861 Client#: 24MW-10S Water		

4/13/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-10D		
Lab Sample Number	: X04288	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/21/95	Lab File No.	: BX2032114
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

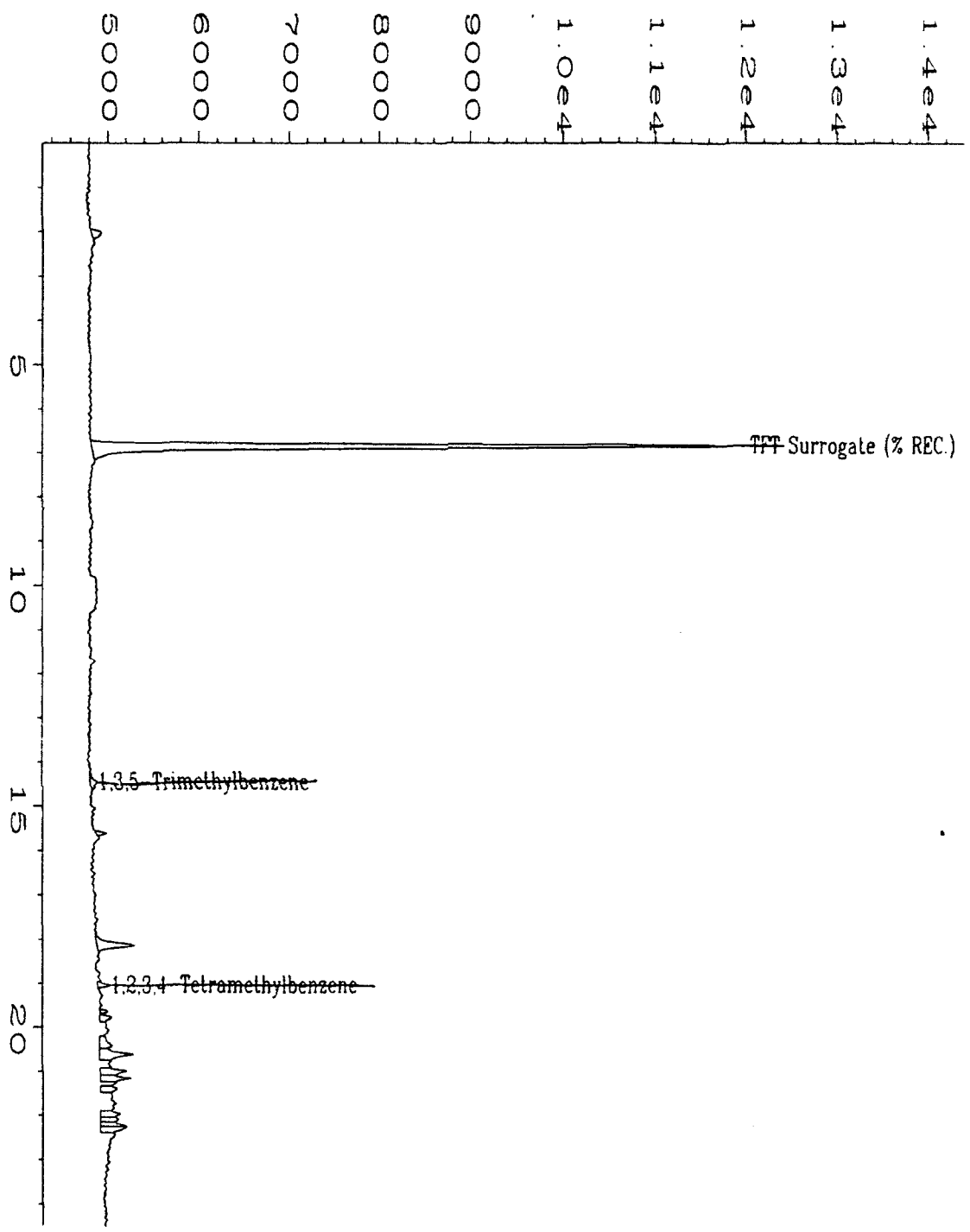
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
α,α,α-Trifluorotoluene : 97%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20321\014R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 14
Sample Name	: X04288 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 21 Mar 95 07:54 PM	Instrument Method	: BX20321 H
Report Created on	: 21 Mar 95 08:19 PM	Analysis Method	: BX20321.MTH
Last Recalib on	: 21 Mar 95 03:32 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0861 Client#: 24MP-10D Water		

pm 4/13/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-10D		
Lab Sample Number	: X04288DUP	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/21/95	Lab File No.	: BX2032115
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

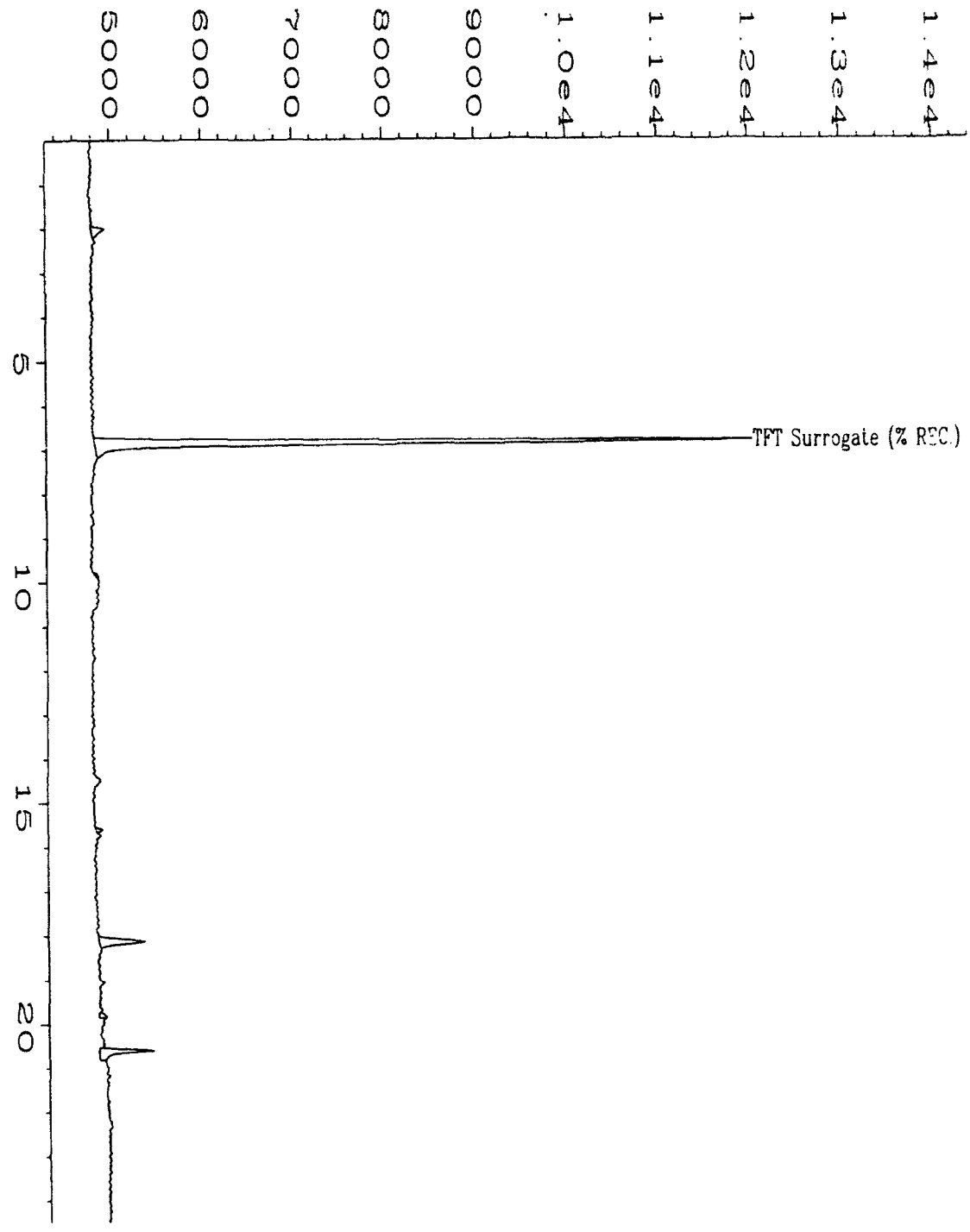
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
α,α,α-Trifluorotoluene : 94%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20321\015R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 15
Sample Name	: X04288DUP DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 21 Mar 95 08:41 PM	Instrument Method	: BX2032 TI
Report Created on	: 21 Mar 95 09:06 PM	Analysis Method	: BX20321.MTI
Last Recalib on	: 21 Mar 95 03:32 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0861 Client#: 24MP-10D Water		

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS
TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 24MP-10D	Client Project No.	: 722450.21020 MACDI
Lab Sample No.	: X04288	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	EPA Method No.	: 5030/8015 Mod
Date Received	: 3/17/95	Matrix	: Water
Date Prepared	: 3/20/95	Method Blank	: MB032095
Date Analyzed	: 3/20/95		

Compound	Spike Added (mg/L)	Sample Concentration (mg/L)	MS Concentration (mg/L)	MS %REC	QC Limits %REC
Gasoline	5.00	0.00	5.18	104	60-140

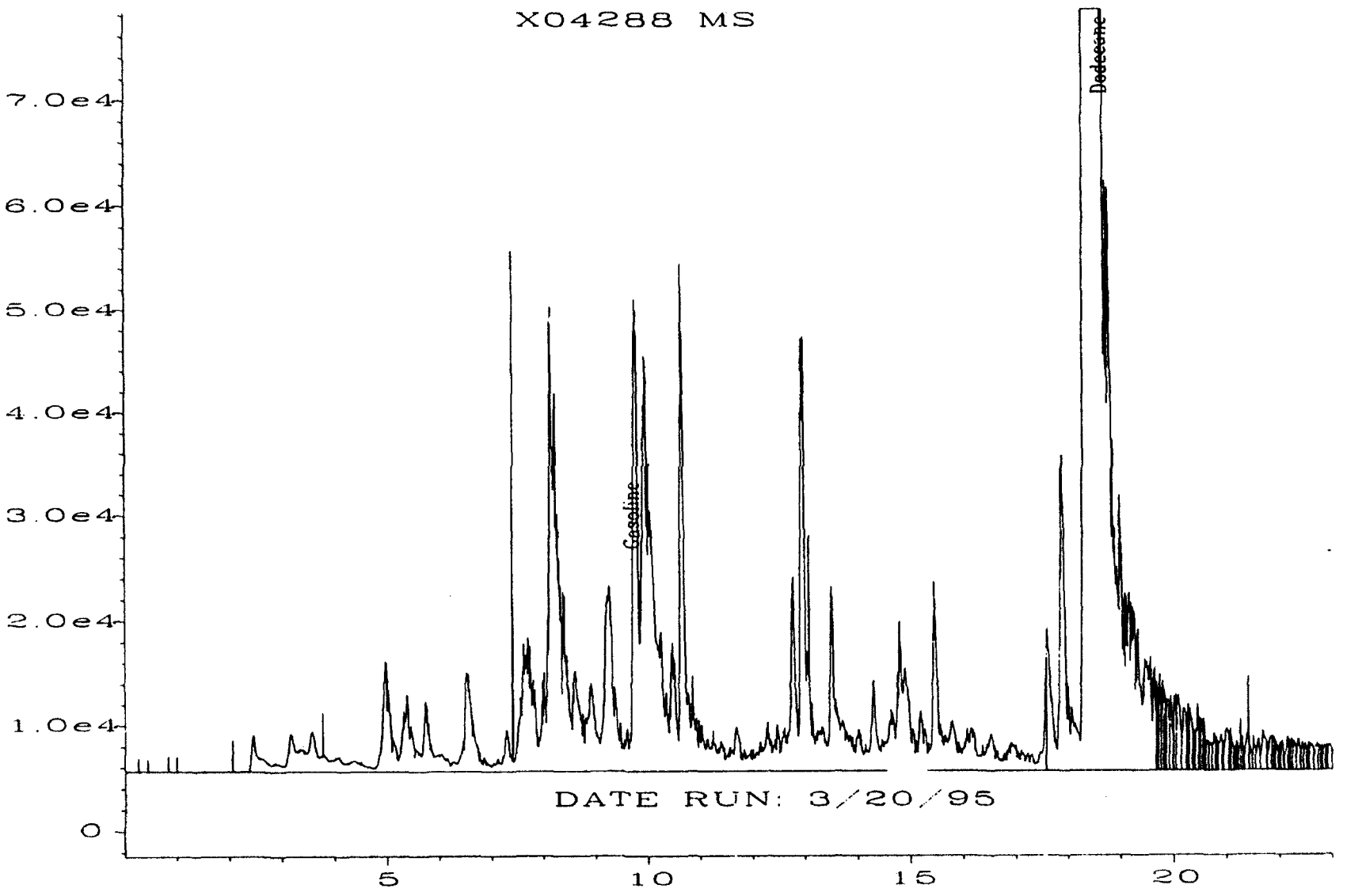
Compound	Spike Added (mg/L)	MSD Concentration (mg/L)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Gasoline	5.00	5.64	113	8.5	50	60-140

* = Values outside of QC limits.

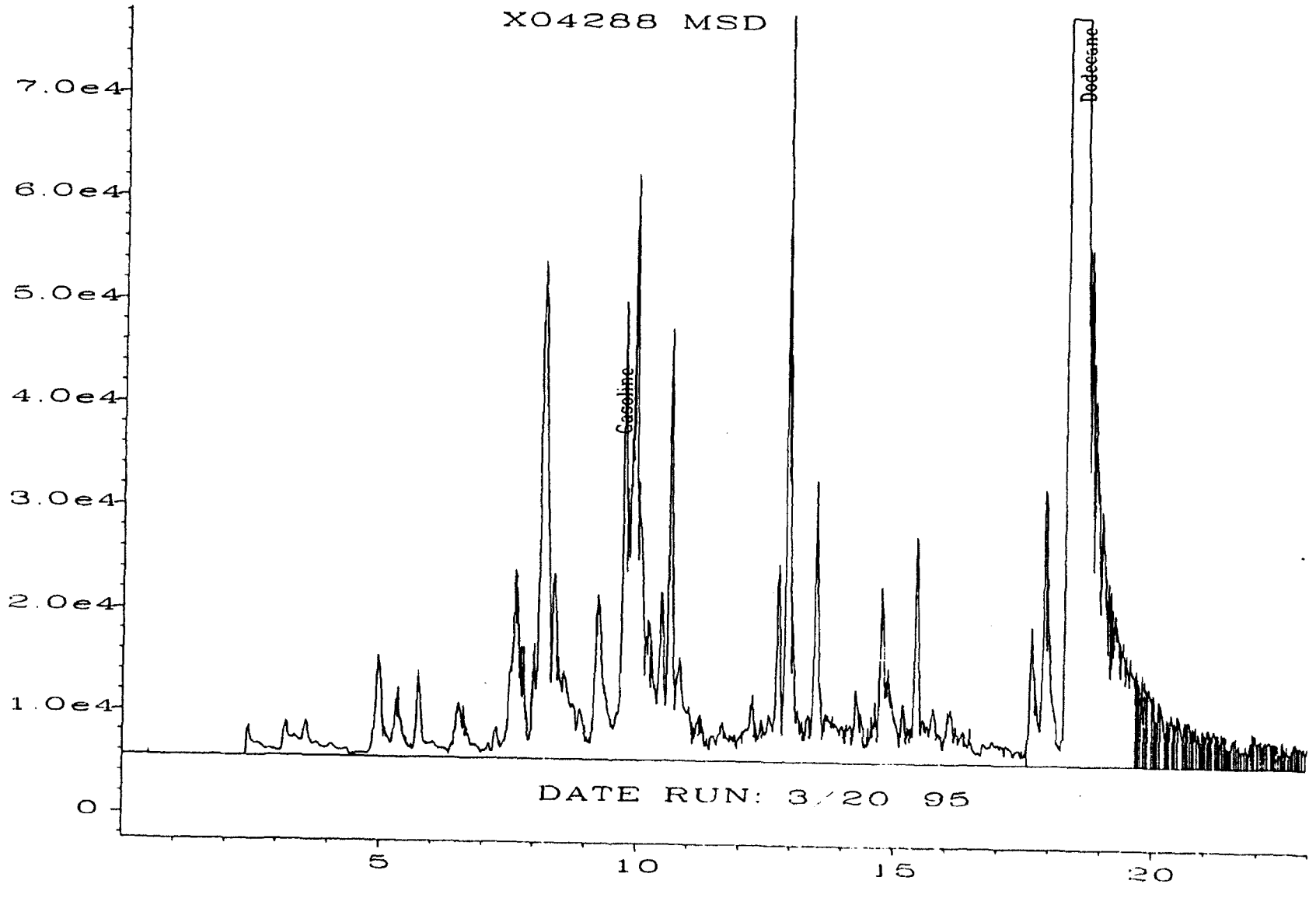
RPD: 0 out of (1) outside limits.

Spike Recovery: 0 out of (2) outside limits.

Comments: NA = Not analyzed/not applicable.



Sig. 1 in C:\HPCHEM\1\DATA\TVH0320 011F0101.D



Sig. 1 in C:\HPCHEM\1\DATA\TVH0320\012F0101.D

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

BTEX Water Matrix Spike/Matrix Spike Duplicate Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample No.	: MD24-6		
Lab Sample No.	: X04291	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	EPA Method No.	: 602
Date Received	: 3/17/95	Matrix	: Water
Date Prepared	: 3/21/95	Lab File Number(s)	: BX2032119,20
Date Analyzed	: 3/21/95	Method Blank	: MB032195

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Benzene	20	0.0	17.1	85.5	65-121
Toluene	20	0.0	17.1	85.5	69-117
Ethyl Benzene	20	0.0	17.5	87.5	68-118
m/p-Xylene	40	0.0	35.1	87.8	66-116
o-Xylene	20	0.0	17.1	85.5	73-117
Chlorobenzene	20	0.0	17.1	85.5	65-1[illegible]
1,3,5-TMB	20	0.0	16.4	82.0	65-1[illegible]
1,2,4-TMB	20	0.0	16.5	82.5	65-121
1,2,3-TMB	20	0.0	17.0	85.0	65-121
1,2,3,4-TeMB	20	1.0	18.2	86.0	65-121

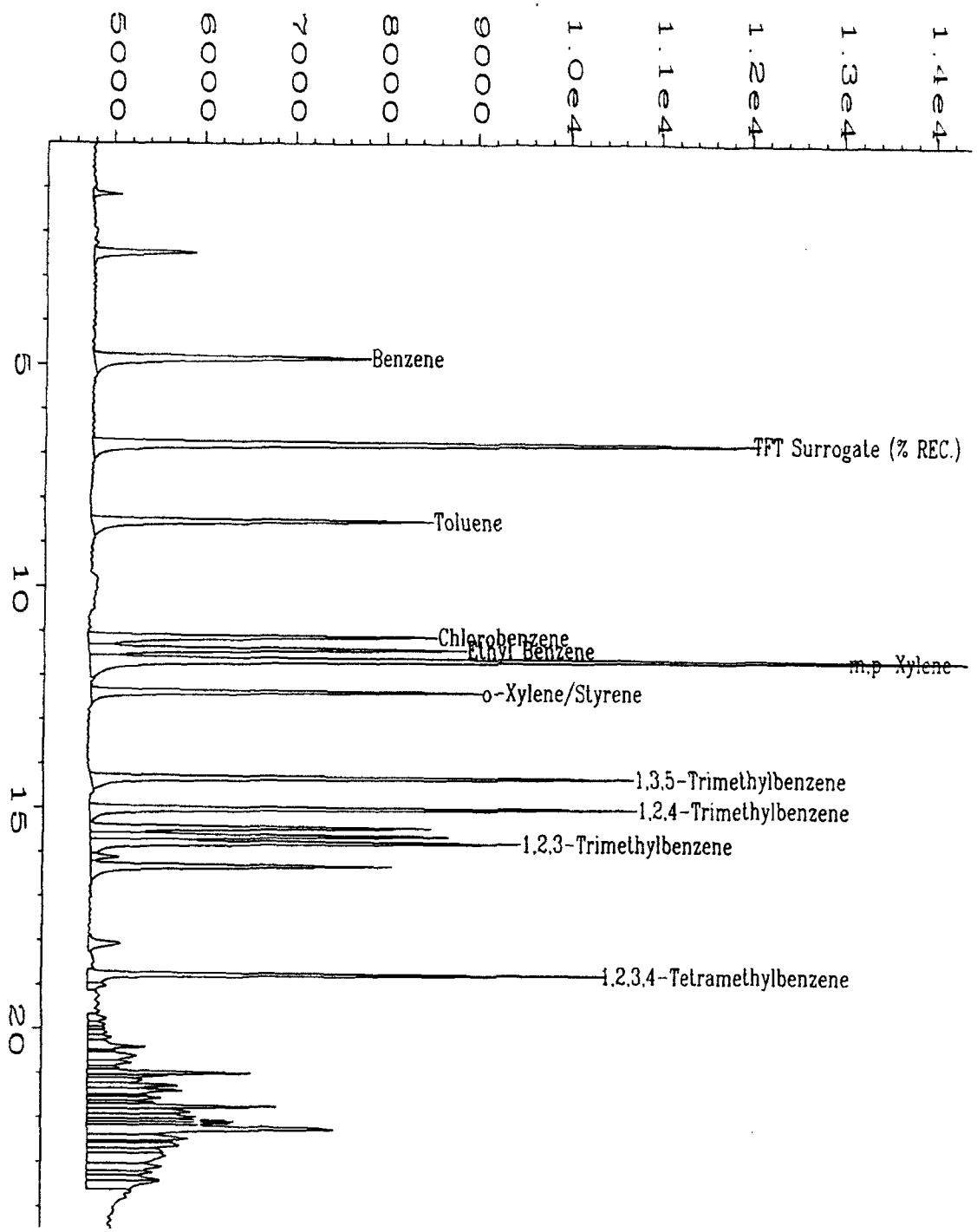
Compound	Spike Added (ug/L)	MSD Concentration (ug/L)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Benzene	20	16.6	83.0	3.0	17.4	65-121
Toluene	20	17.3	86.5	1.2	15.8	69-117
Ethyl Benzene	20	17.1	85.5	2.3	11.9	68-118
m/p-Xylene	40	34.4	86.0	2.0	15.4	66-116
o-Xylene	20	16.9	84.5	1.2	13.2	73-117
Chlorobenzene	20	16.9	84.5	1.2	17.4	65-121
1,3,5-TMB	20	16.8	84.0	2.4	17.4	65-121
1,2,4-TMB	20	16.7	83.5	1.2	17.4	65-121
1,2,3-TMB	20	16.2	81.0	4.8	17.4	65-121
1,2,3,4-TeMB	20	16.1	75.5	13.0	17.4	65-121

* = Values outside of QC limits.

RPD: 0 out of (10) outside limits.

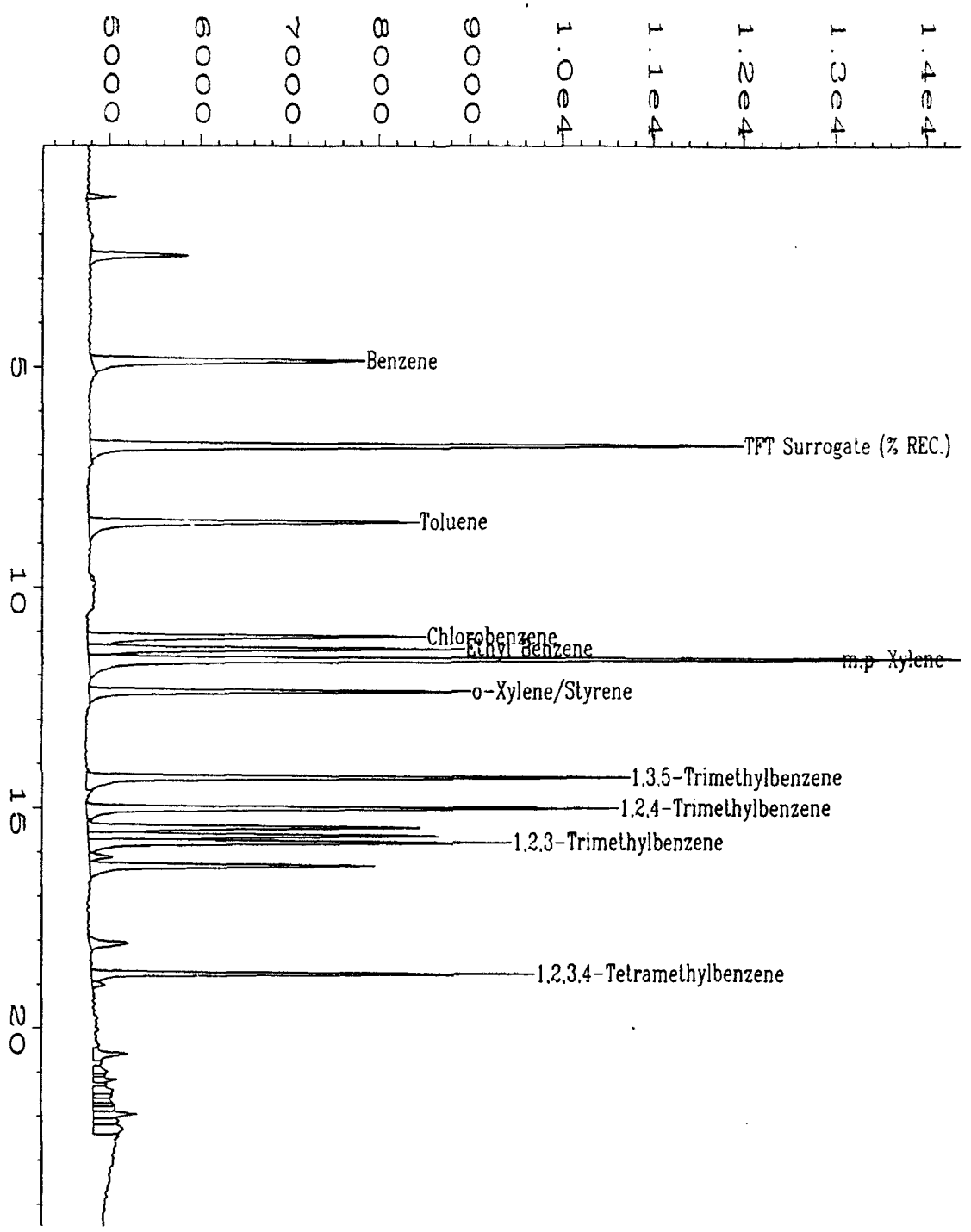
Spike Recovery: 0 out of (20) outside limits.

Comments: CJC



Data File Name	: C:\HPCHEM\2\DATA\BX20321\019R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 19
Sample Name	: X04291MS DF=1	Injection Number	: 1
n Time Bar Code:		Sequence Line	: 9
quired on	: 21 Mar 95 11:44 PM	Instrument Method	: BX20321.MTH
Report Created on	: 22 Mar 95 00:09 AM	Analysis Method	: BX20321.MTH
Last Recalib on	: 21 Mar 95 03:32 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0861 Client#: ~~24MP~~-6 Water		

MDJ4



Data File Name	: C:\HPCHEM\2\DATA\BX20321\020R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 20
Sample Name	: X04291MSD DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 22 Mar 95 00:31 AM	Instrument Method	: BX20321.MTH
Report Created on	: 22 Mar 95 00:56 AM	Analysis Method	: BX20321.MTH
Last Recalib on	: 21 Mar 95 03:32 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0861 Client#: ~~24MP~~-6 Water		

m024

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: Field Blank		
Lab Sample Number	: X04294	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032129
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

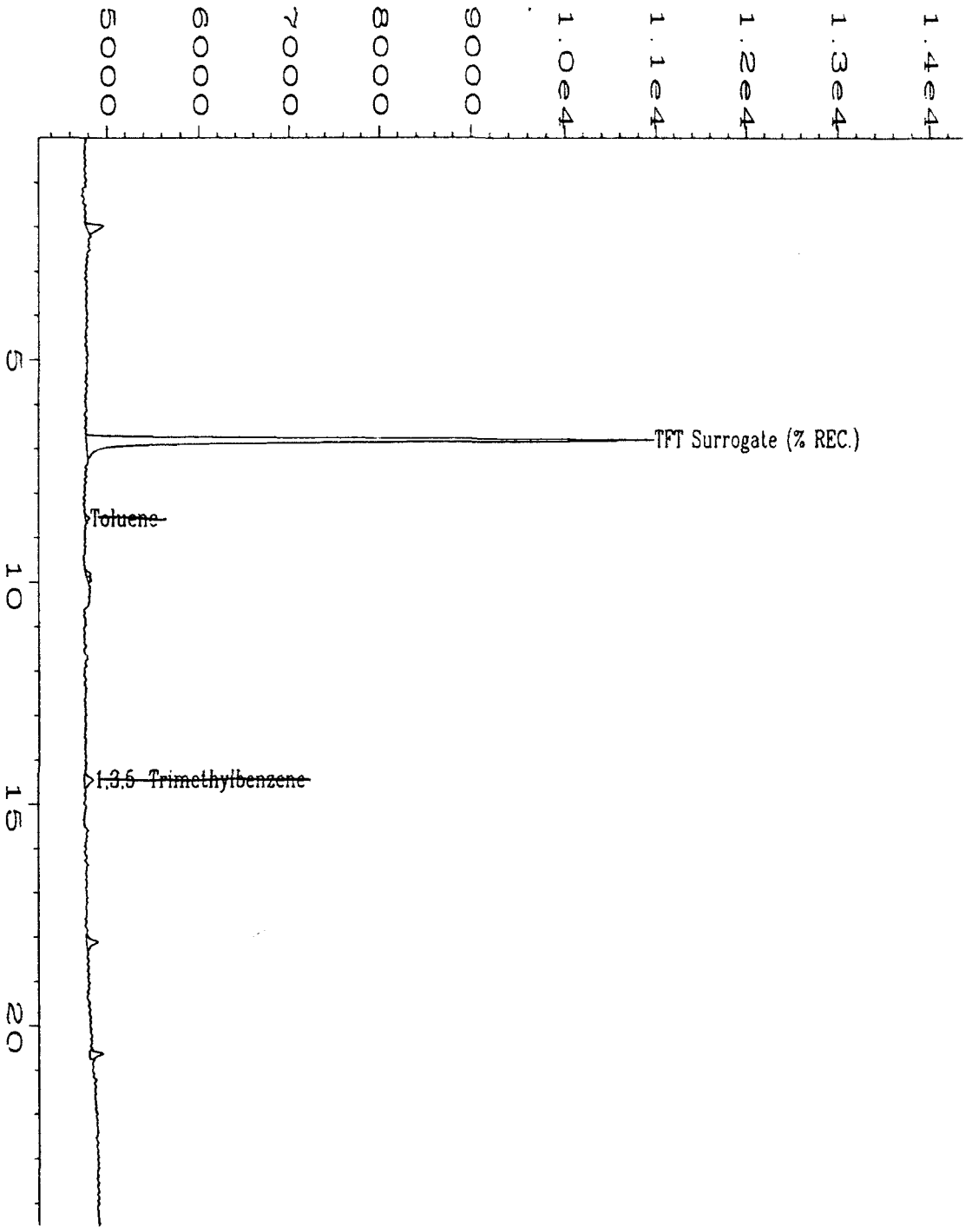
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
α,α,α-Trifluorotoluene : 81%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20321\029R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04294 DF=1
Run Time Bar Code:
Acquired on : 22 Mar 95 07:31 AM
Report Created on: 22 Mar 95 07:56 AM
Last Recalib on : 21 Mar 95 03:32 PM
Multiplier : 1
Sample Info : Project#: 95-0861 Client#: Field Blank Water

Page Number : 1
Vial Number : 29
Injection Number : 1
Sequence Line : 9
Instrument Method: BX2032. M
Analysis Method : BX20321.MT
Sample Amount : 0
ISTD Amount :

pm 4/13/95

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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: Trip Blank		
Lab Sample Number	: X04296	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032130
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

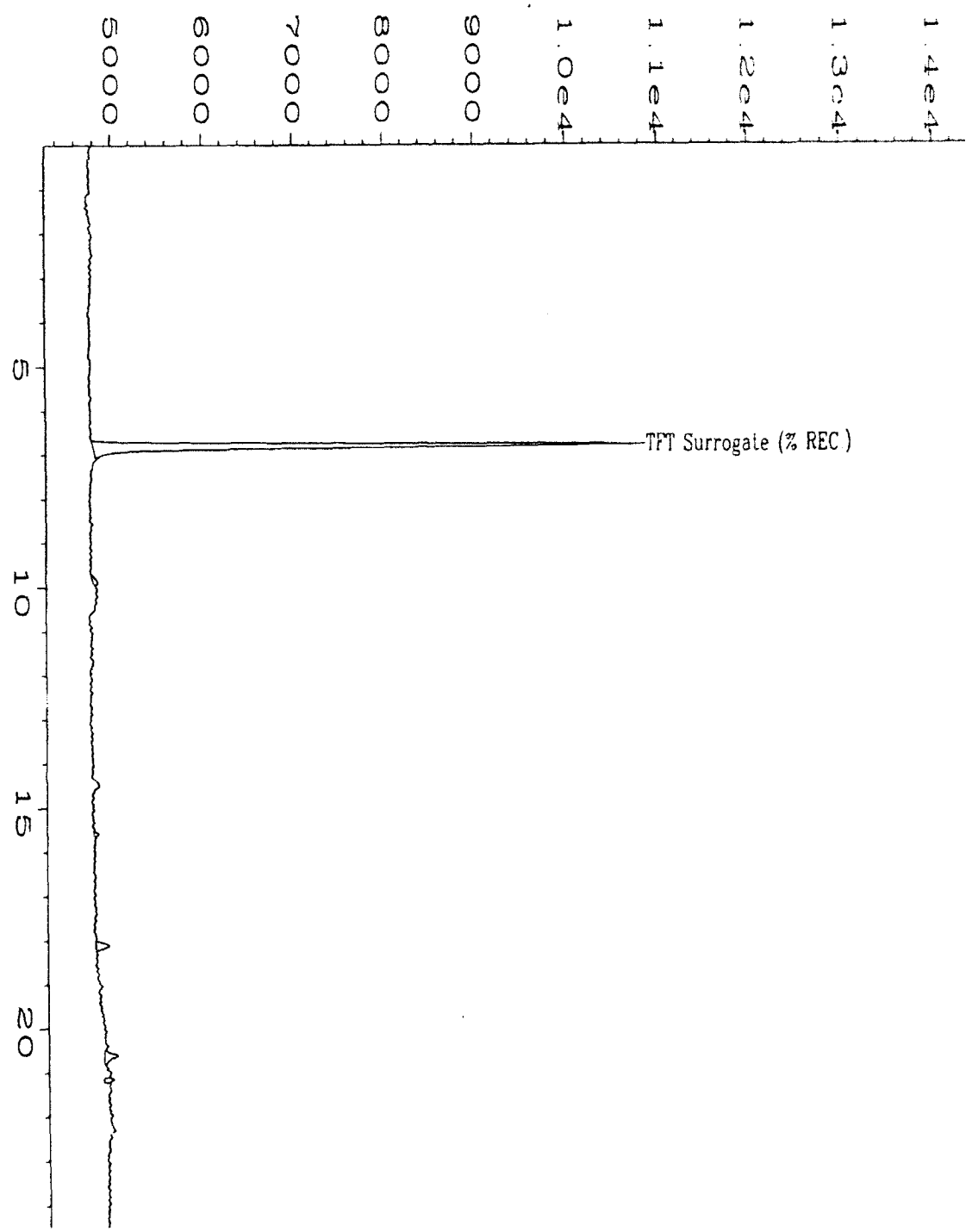
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
α,α,α-Trifluorotoluene : 78%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

P. McClellan
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20321\030R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 30
Sample Name	: X04296 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 22 Mar 95 08:16 AM	Instrument Method	: BX20321...M
Report Created on	: 22 Mar 95 08:41 AM	Analysis Method	: BX20321.MTH
Last Recalib on	: 21 Mar 95 03:32 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0861 Client#: Trip Blank Water		

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(303) 425-6021

BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020 MacDill
Method Blank Number	: MB032195		
Date Extracted/Prepared	: 3/21/95	Lab Project No.	: 95-0861
Date Analyzed	: 3/21/95	Dilution Factor	: 1.00
		Method	: 602
		Matrix	: Water
		Lab File No.	: BX2032111

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

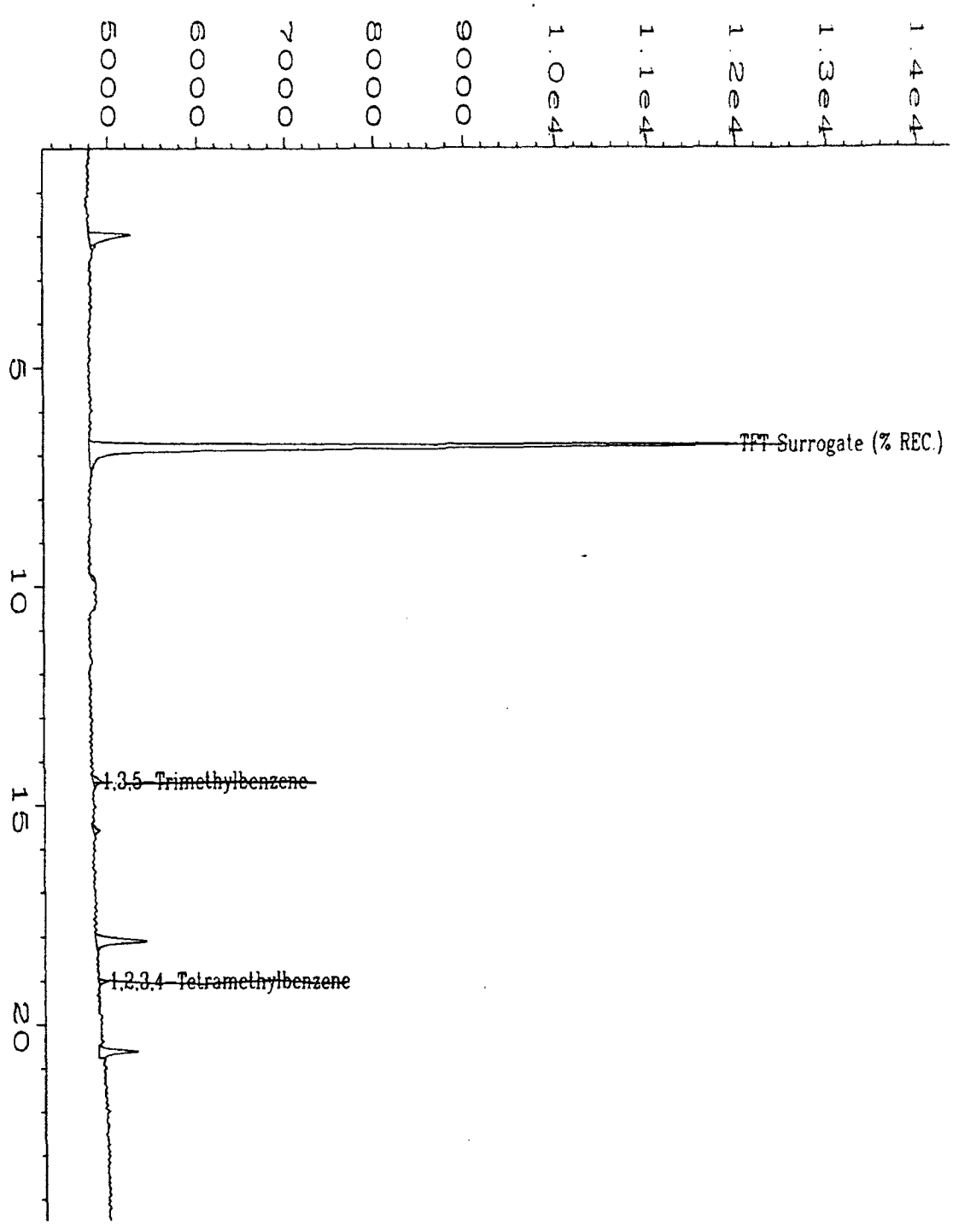
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak

Surrogate Recovery:
α,α,α-Trifluorotoluene : 102%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

P. McClellan
Approved



Data File Name : C:\HPCHEM\2\DATA\BX20321\011R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : MB032195-WATER
Run Time Bar Code:
Acquired on : 21 Mar 95 05:32 PM
Report Created on: 21 Mar 95 05:57 PM
Last Recalib on : 21 Mar 95 03:32 PM
Multiplier : 1

Page Number : 1
Vial Number : 11
Injection Number : 1
Sequence Line : 9
Instrument Method: BX20321.MTH
Analysis Method : BX20321.MTH
Sample Amount : 0
ISTD Amount :

pm 4/13/95

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4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020
			MacDill
Method Blank Number	: MB032295	Lab Project No.	: 95-0861
Date Extracted/Prepared	: 3/22/95	Dilution Factor	: 1.00
Date Analyzed	: 3/22/95	Method	: 602
		Matrix	: Water
		Lab File No.	: BX2032210

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

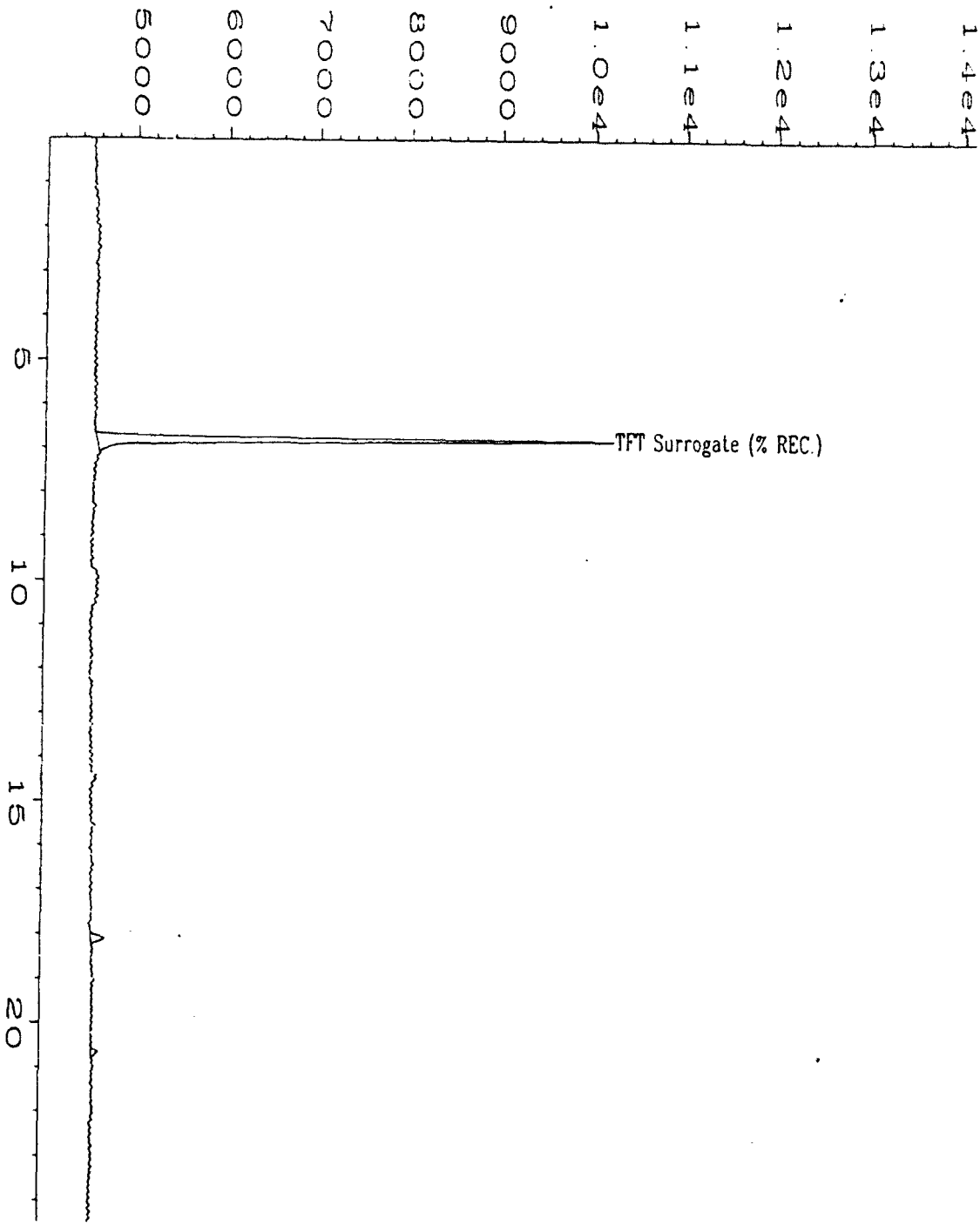
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak

Surrogate Recovery:
α,α,α-Trifluorotoluene : 81%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20322\010R0701.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 10
Sample Name	: MB032295-WATER	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 22 Mar 95 05:57 PM	Instrument Method	: BX2032[illegible]TH
Report Created on	: 22 Mar 95 06:22 PM	Analysis Method	: BX20322.MTH
Last Recalib on	: 22 Mar 95 04:04 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Laboratory Control Sample (LCS)

		Client Project No.	: 722450.21020
LCS Number	: LCS032195		MacDill
Date Extracted/Prepared	: 3/21/95	Lab Project No.	: 95-0861
Date Analyzed	: 3/21/95	Dilution Factor	: 1.00
		Method	: 602
		Matrix	: Water
		Lab File No.	: BX2032112

Compound Name	Cas Number	LCS Concentration ug/L	QC Limit ug/L
Benzene	71-43-2	37	23-44
Toluene	108-88-3	36	26-43
Ethyl Benzene	100-41-4	36	26-48
m,p-Xylene	NA	37	25-47
o-Xylene	95-47-6	35	26-48
Chlorobenzene	108-90-7	36	28-46
1,3,5-trimethylbenzene	108-67-8	37	24-47
1,2,4-trimethylbenzene	95-63-6	30	23-46
1,2,3-trimethylbenzene	526-73-8	35	29-49
1,2,3,4-tetramethylbenzene	488-23-3	34	NA

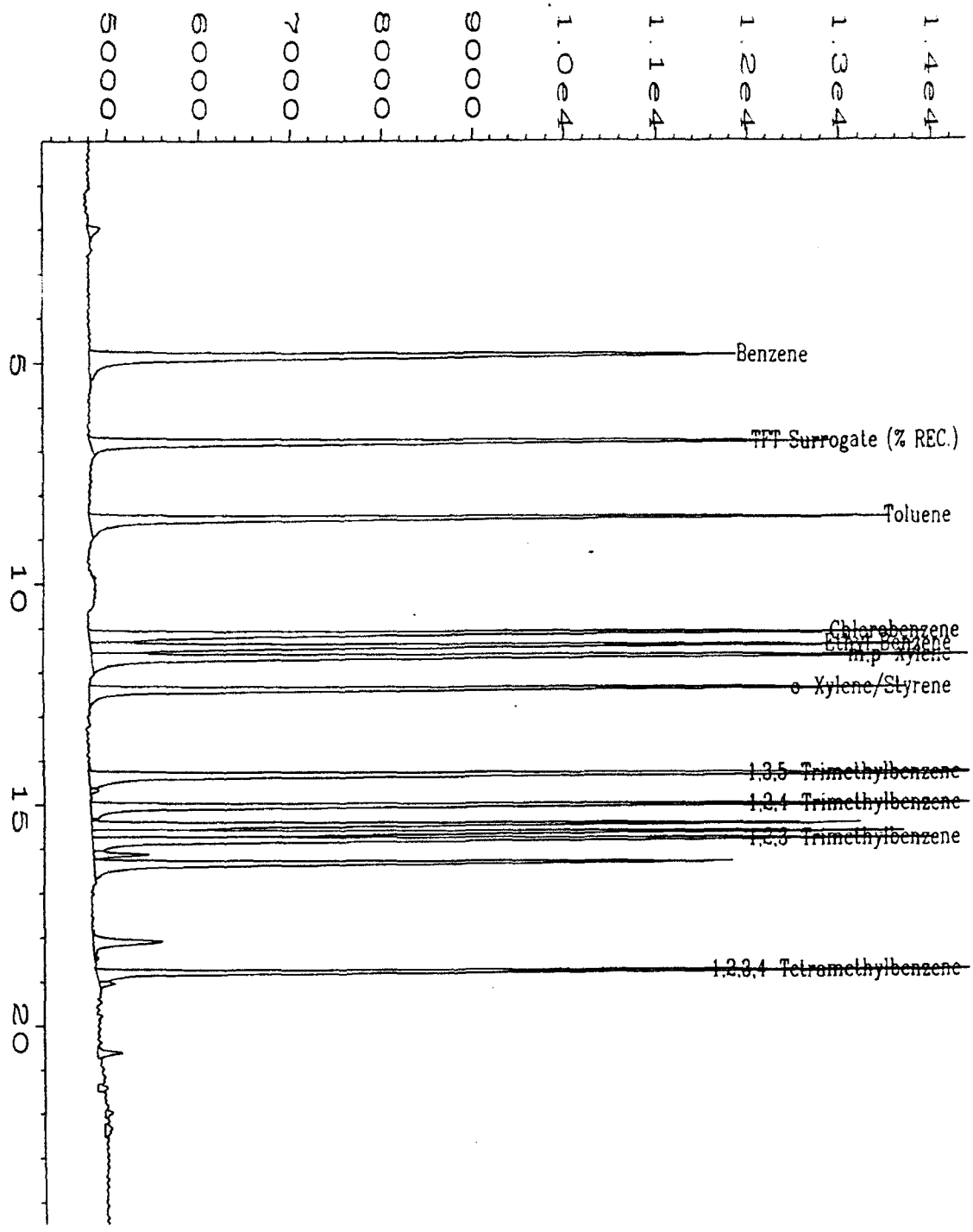
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
α,α,α-Trifluorotoluene : 101%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20321\012R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 12
Sample Name	: LCS032195	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 21 Mar 95 06:19 PM	Instrument Method	: BX20321 .H
Report Created on	: 21 Mar 95 06:44 PM	Analysis Method	: BX20321.MTH
Last Recalib on	: 21 Mar 95 03:32 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

External Standard Report

Data File Name : C:\HPCHEM\2\DATA\BX20321\010R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : 1.0 ppb BTEX MIX
Run Time Bar Code:
Acquired on : 21 Mar 95 04:44 PM
Report Created on: 22 Mar 95 08:57 AM
Last Recalib on : 22 Mar 95 08:53 AM
Multiplier : 1

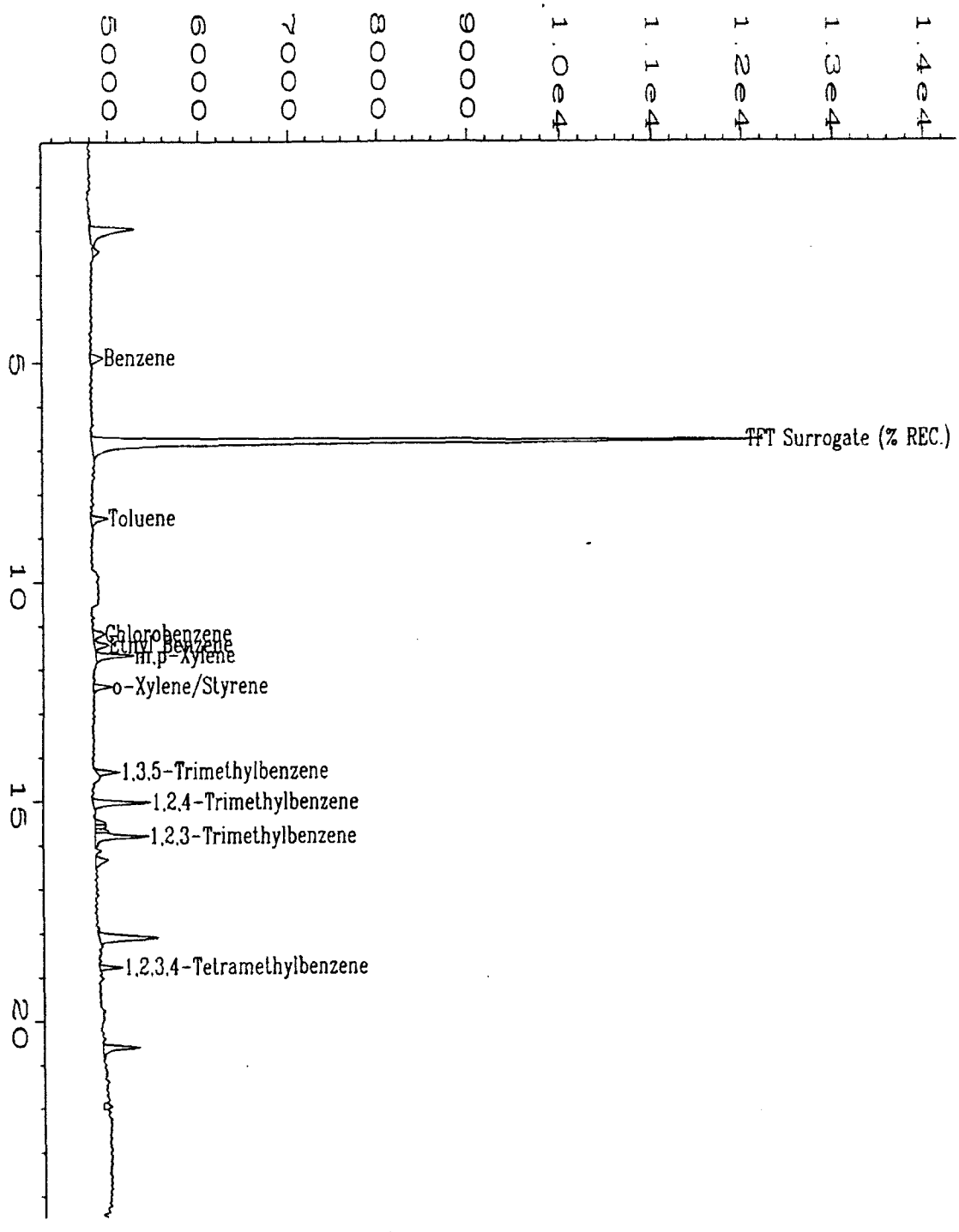
Page Number : 1
Vial Number : 10
Injection Number : 1
Sequence Line : 9
Instrument Method: BX20321.MTH
Analysis Method : BX20321.MTH
Sample Amount : 0
ISTD Amount :

Sig. 2 in C:\HPCHEM\2\DATA\BX20321\010R0901.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
2.472	562	VV	0.093	1	0.898	
4.890	1177	PV	0.110	1	2.727	Benzene
6.805	48550	PV	0.100	1-R	94.975	TFT Surrogate (% REC.)
8.553	1297	PV	0.089	1	2.663	Toluene
11.183	1029	BV	0.099	1	2.691	Chlorobenzene
11.440	1070	VV	0.095	1	1.471	Ethyl Benzene
11.675	2403	VV	0.085	1	0.493	m,p-Xylene
12.389	1070	BV	0.076	1	1.698	o-Xylene/Styrene
14.330	1247	PV	0.073	1	0.439	1,3,5-Trimethylbenzene
15.030	3592	PV	0.084	1	1.226	1,2,4-Trimethylbenzene
15.240	* not found *			1		
15.488	484	BV	0.068	1	1.358	
15.797	3755	VV	0.089	1	0.580	1,2,3-Trimethylbenzene
16.331	1098	VV	0.101	1	13.315	
18.769	1068	PV	0.062	1	1.525	1,2,3,4-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
3	6.760	6.805	0.045

Not all calibrated peaks were found



Data File Name : C:\HPCHEM\2\DATA\BX20321\010R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : 1.0 ppb BTEX MIX
Run Time Bar Code:
Acquired on : 21 Mar 95 04:44 PM
Report Created on: 21 Mar 95 05:09 PM
Last Recalib on : 21 Mar 95 03:32 PM
Multiplier : 1
Sample Info : STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); + 1,2,3 & 1,2,4-Trimethylbenzene

Page Number : 1
Vial Number : 10
Injection Number : 1
Sequence Line : 9
Instrument Method: BX20321 H
Analysis Method : BX20321.MTH
Sample Amount : 0
ISTD Amount :

External Standard Report

Data File Name : C:\HPCHEM\2\DATA\BX20322\008R0701.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : 1.0 ppb BTEX MIX
Run Time Bar Code:
Acquired on : 22 Mar 95 04:24 PM
Report Created on: 23 Mar 95 08:56 AM
Last Recalib on : 22 MAR 95 04:04 PM
Multiplier : 1
Sample Info : STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); + 1,2,3 & 1,2,4-Trimethylbenzene

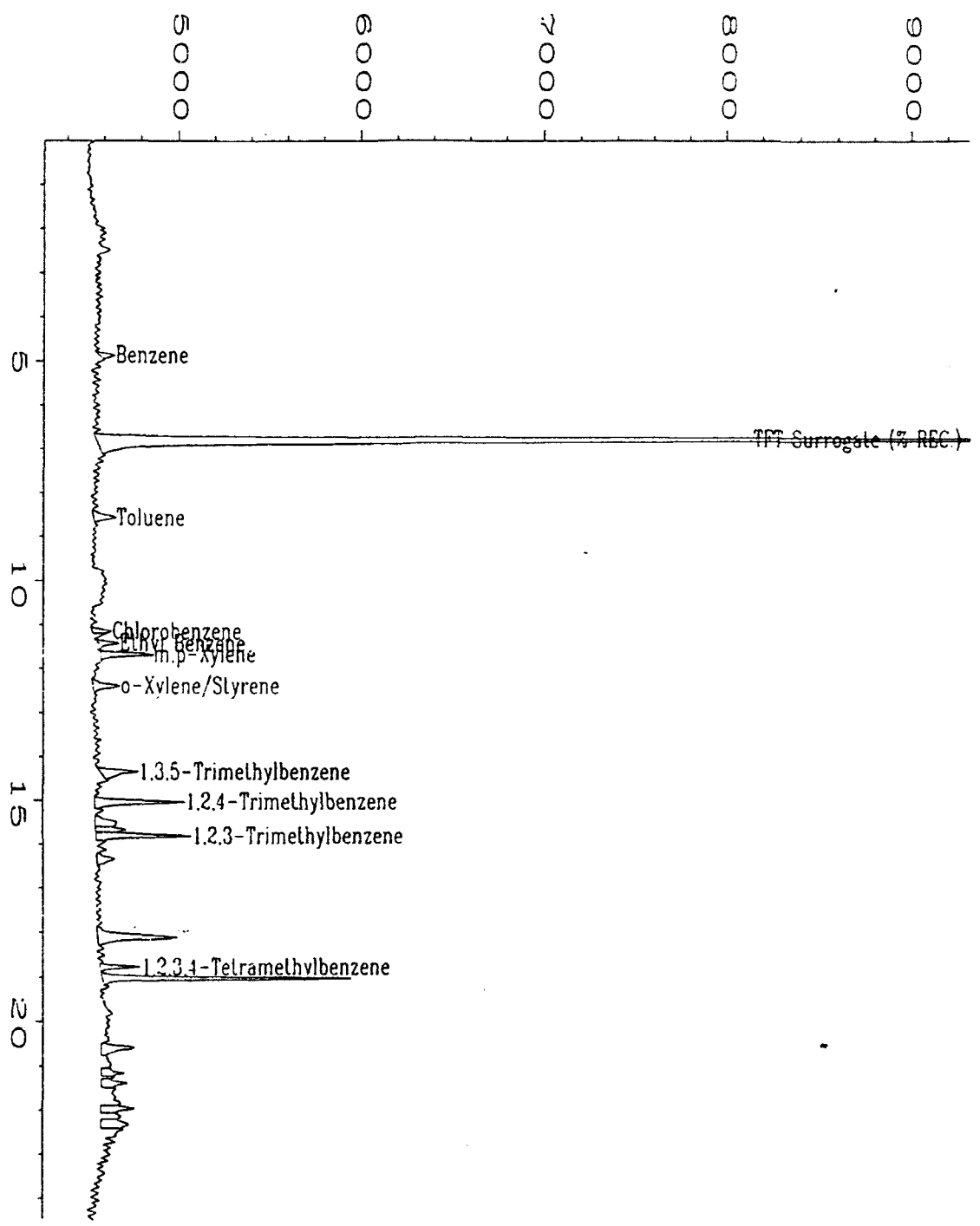
Page Number : 1
Vial Number : 8
Injection Number : 1
Sequence Line : 7
Instrument Method: BX20322.MTH
Analysis Method : BX20322.MTH
Sample Amount : 0
ISTD Amount :

Sig. 2 in C:\HPCHEM\2\DATA\BX20322\008R0701.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
2.452	* not found *			1		
4.860	438	PV	0.067	1	1.864	Benzene
6.789	39381	PV	0.099	1-R	87.650	TFT Surrogate (% REC.)
8.562	933	PV	0.094	1	1.820	Toluene
11.144	534	BV	0.069	1	1.698	Chlorobenzene
11.428	529	PV	0.064	1	0.289	Ethyl Benzene
11.672	1477	BV	0.077	1	-2.219	m,p-Xylene
12.389	1035	BV	0.093	1	1.133	o-Xylene/Styrene
14.332	1481	BV	0.103	1	-0.0133	1,3,5-Trimethylbenzene
15.022	2932	BV	0.083	1	1.035	1,2,4-Trimethylbenzene
15.240	* not found *			1		
15.484	1180	PV	0.154	1	4.187	
15.799	2933	VV	0.079	1	0.0762	1,2,3-Trimethylbenzene
16.330	794	VV	0.105	1	10.218	
18.764	948	VV	0.059	1	0.600	1,2,3,4-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
3	6.750	6.789	0.039

Not all calibrated peaks were found



Data File Name	: C:\HPCHEM\2\DATA\BX20322\008R0701.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 8
Sample Name	: 1.0 ppb BTEX MIX	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 22 Mar 95 04:24 PM	Instrument Method	: BX20322 .MH
Report Created on	: 22 Mar 95 04:50 PM	Analysis Method	: BX20322 .MH
Last Recalib on	: 22 Mar 95 04:04 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); + 1,2,3 & 1,2,4-Trimethylbenzene		

EVERGREEN ANALYTICAL, INC.
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TOTAL VOLATILE HYDROCARBONS (TVH)

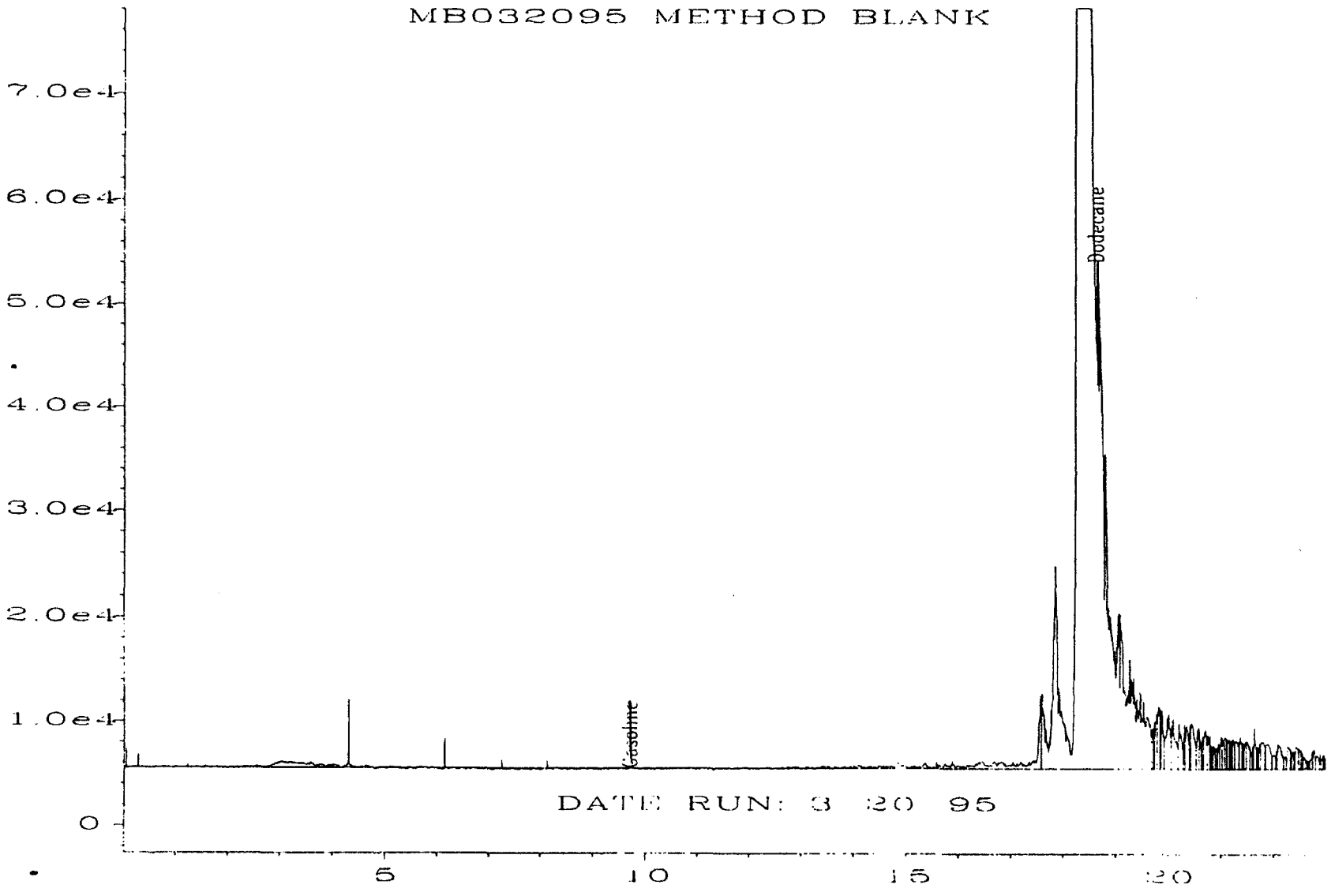
Date Sampled	: 3/15,16/95	Client Project Number	: 722450.21020/MACDILL AFB
Date Received	: 3/17/95	Lab Project Number	: 95-0861
Date Prepared	: 3/20/95	Matrix	: Water
Date Analyzed	: 3/20,21/95	Method Number	: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH mg/L	MDL mg/L
MB032095	METHOD BLANK	100%	U	0.1
X04288	24MP-10D	114%	U	0.1
X04289	24MP-10S	103%	U	0.1
X04290	MD24-6A	116%	0.7	0.1
X04291	MD24-6	121%	U	0.1
X04291 DUP	MD24-6	98%	U	0.1
X04292	24MP-9D	124%	0.3	0.1
X04293	24MP-9S	121%	0.6	0.1
X04294	FIELD BLANK	123%	U	0.1
X04296	TRIP BLANK	128%	U	0.1
X04297	24MP-7D	106%	U	0.1
X04298	24MP-7S	113%	U	0.1
X04299	75MP-1S	120%	U	0.1
X04300	75MP-1D	124%	U	0.1

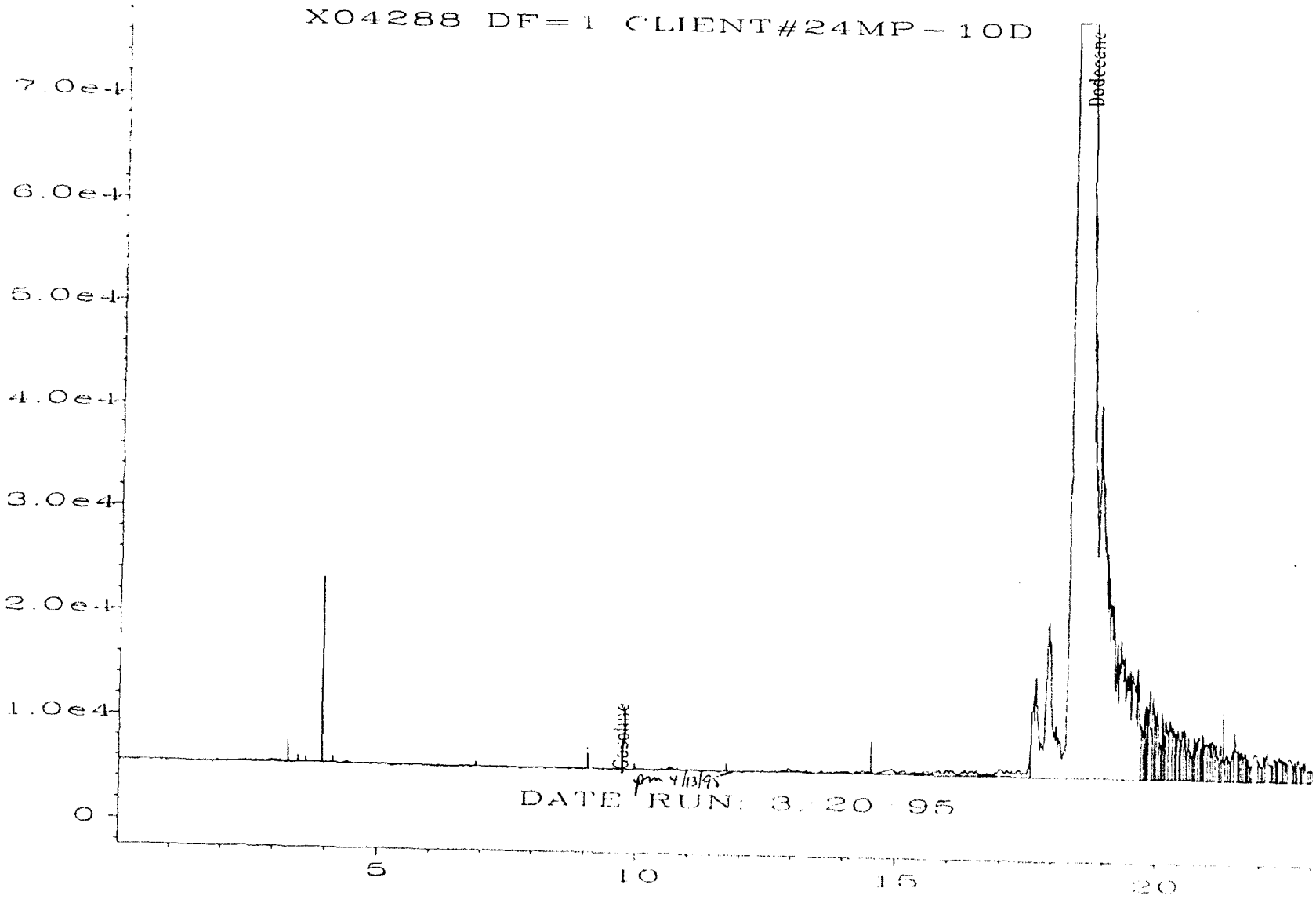
QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
MDL = Method Detection Limit

Analyst

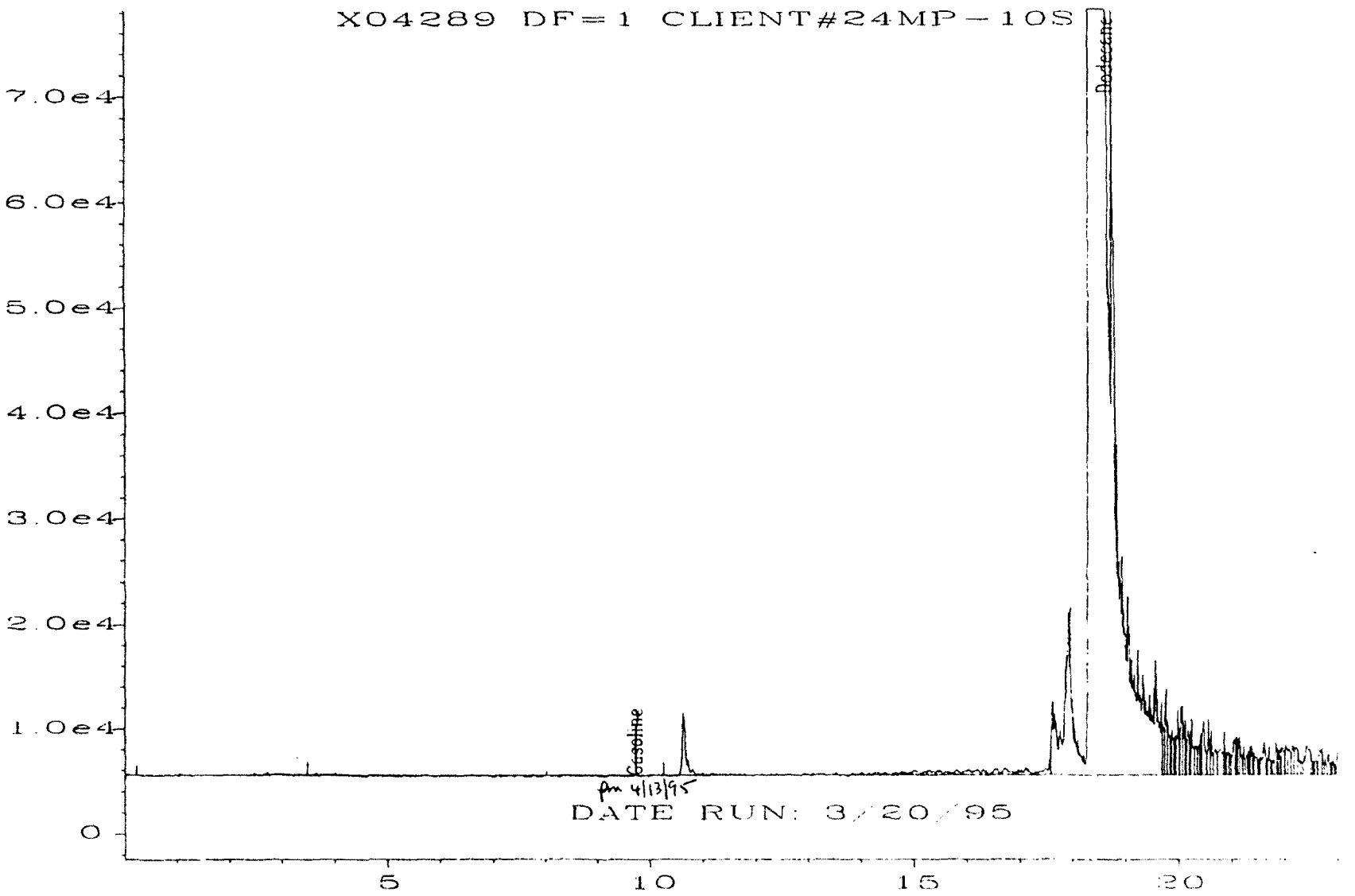
Approved



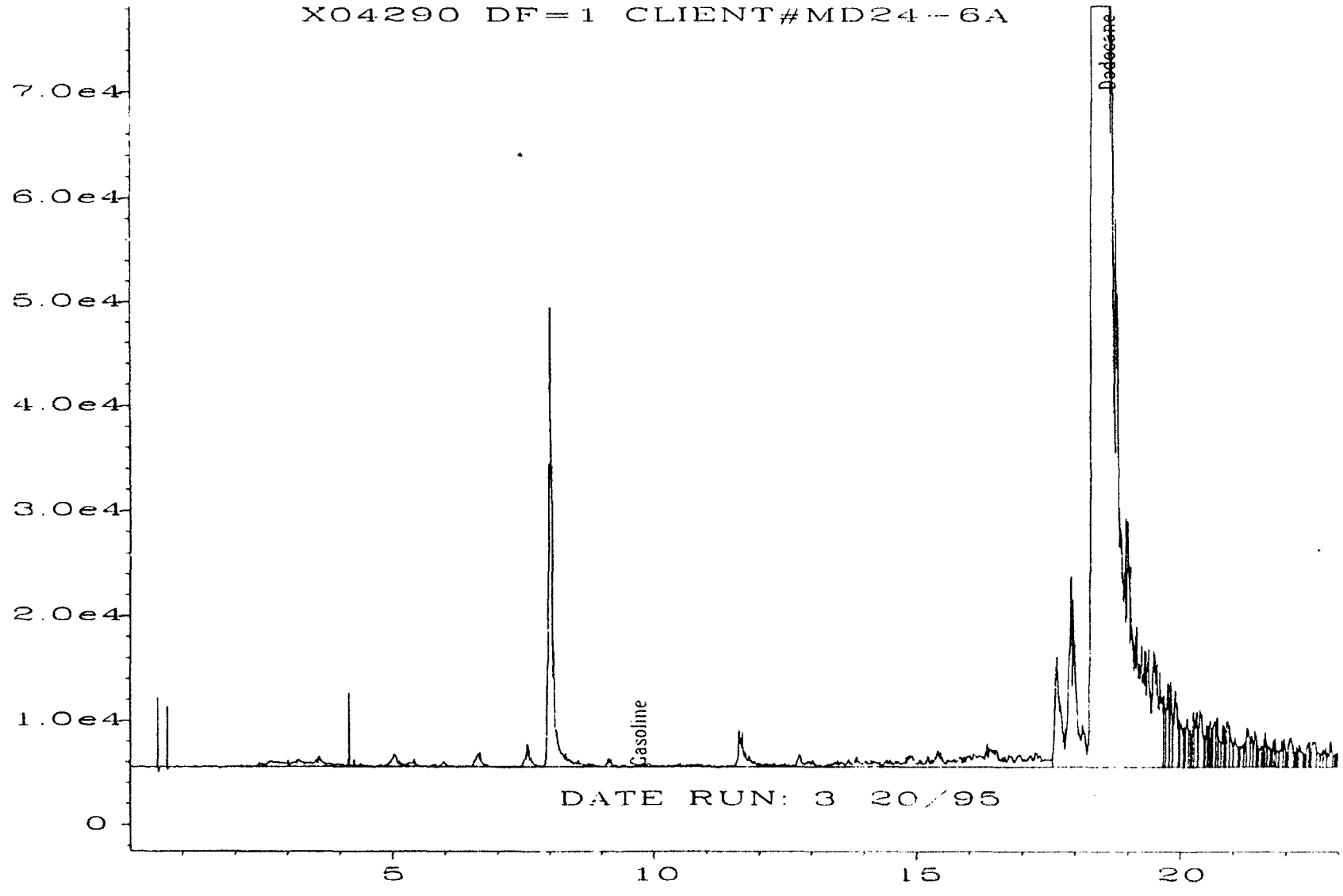
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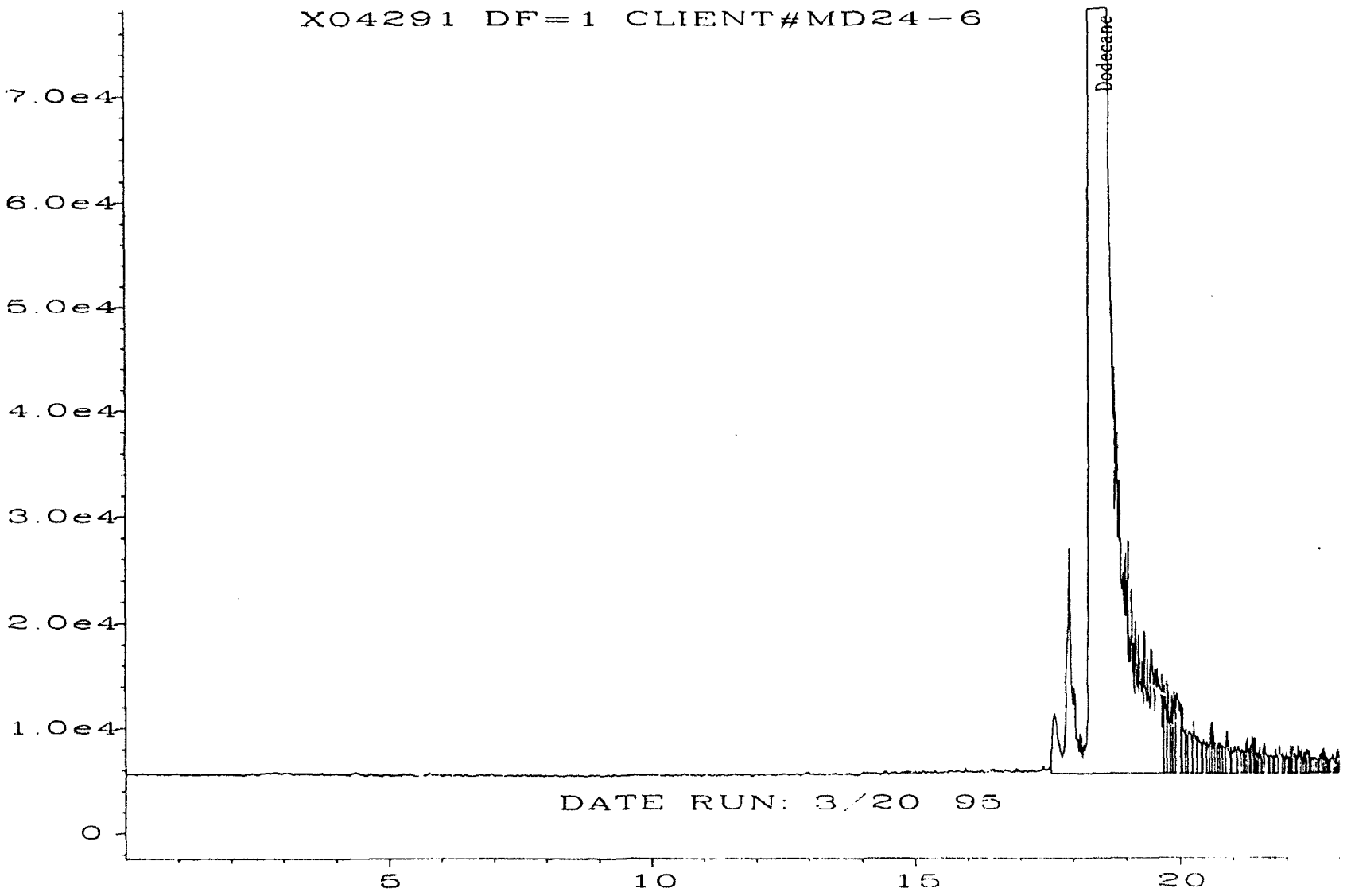
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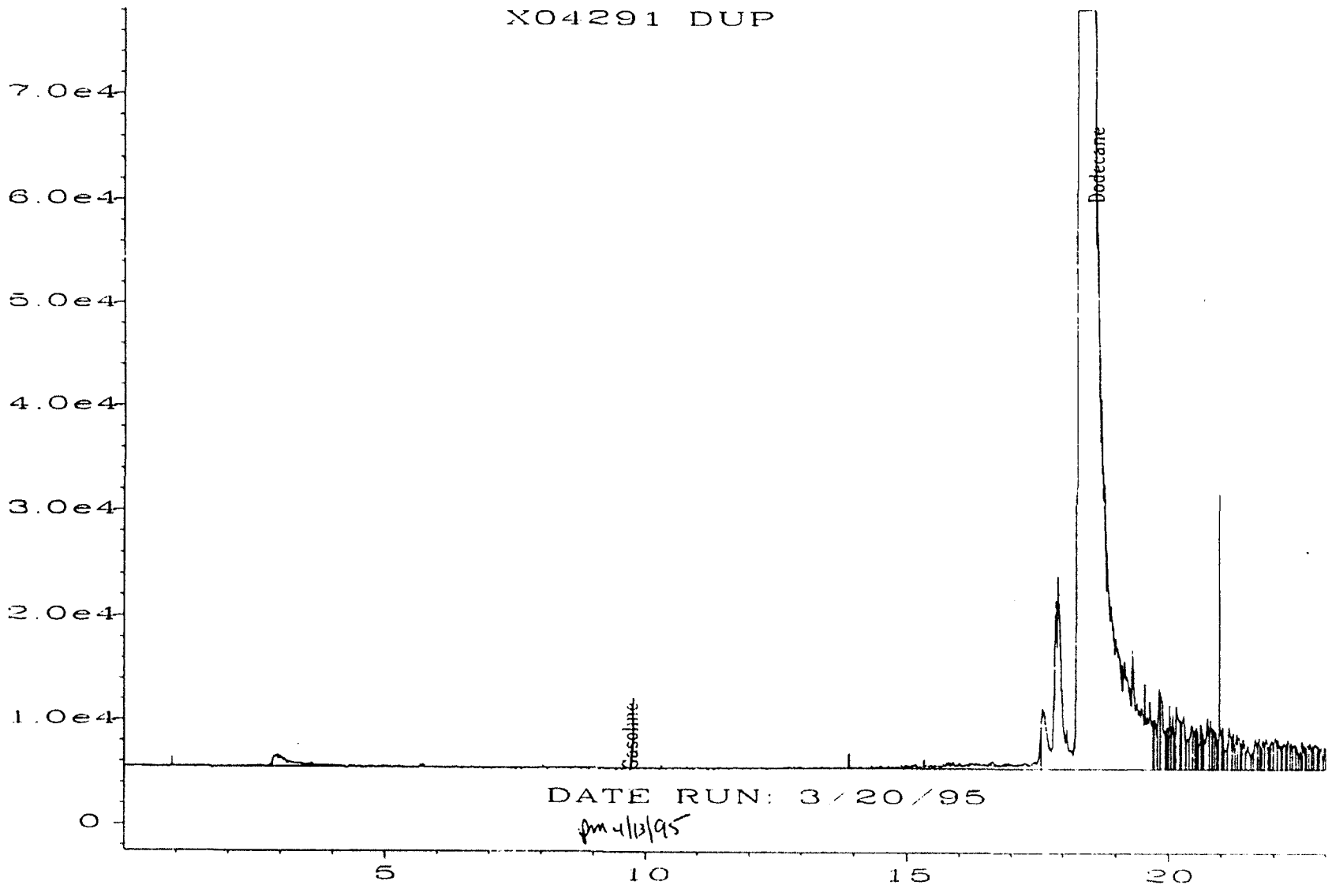
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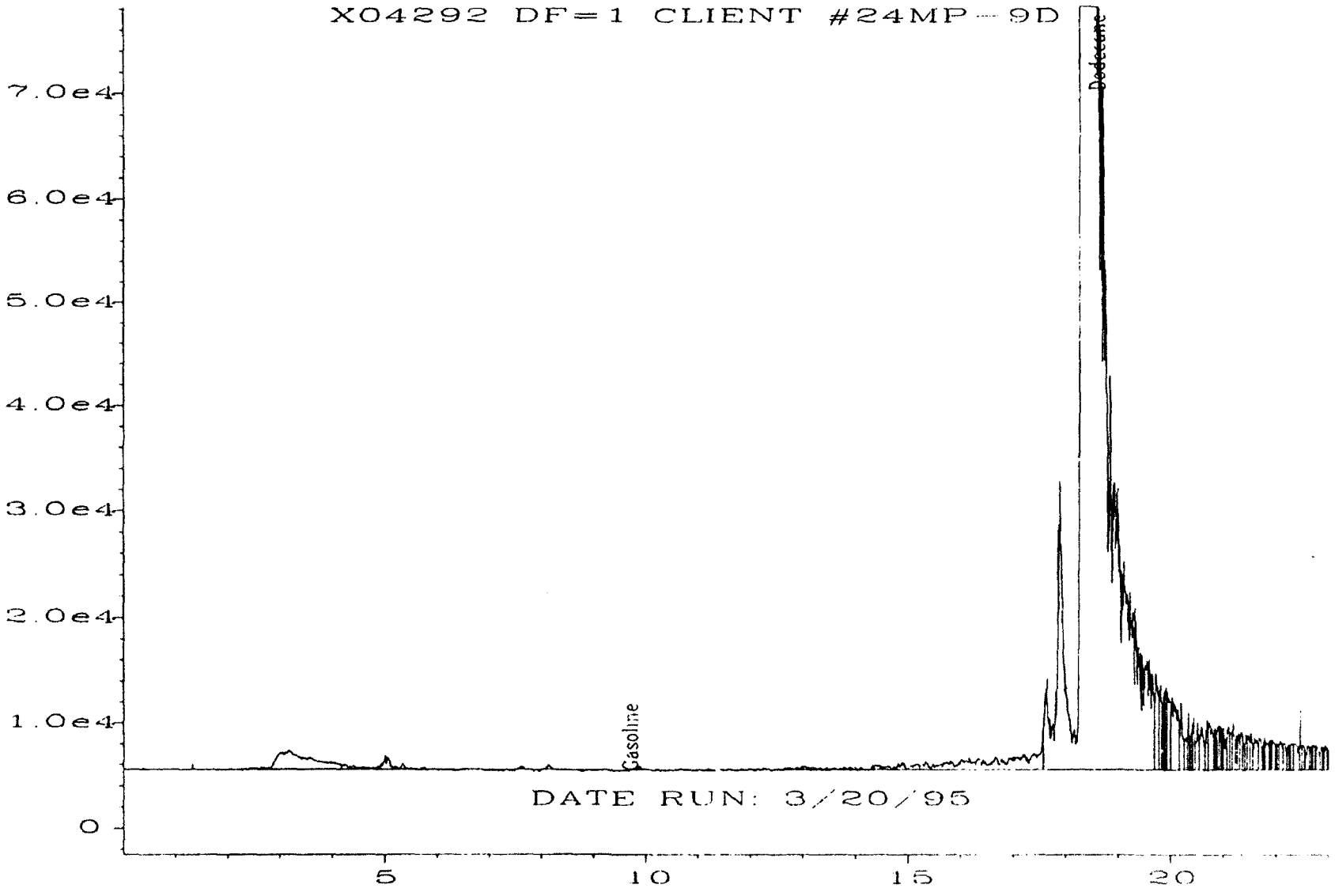
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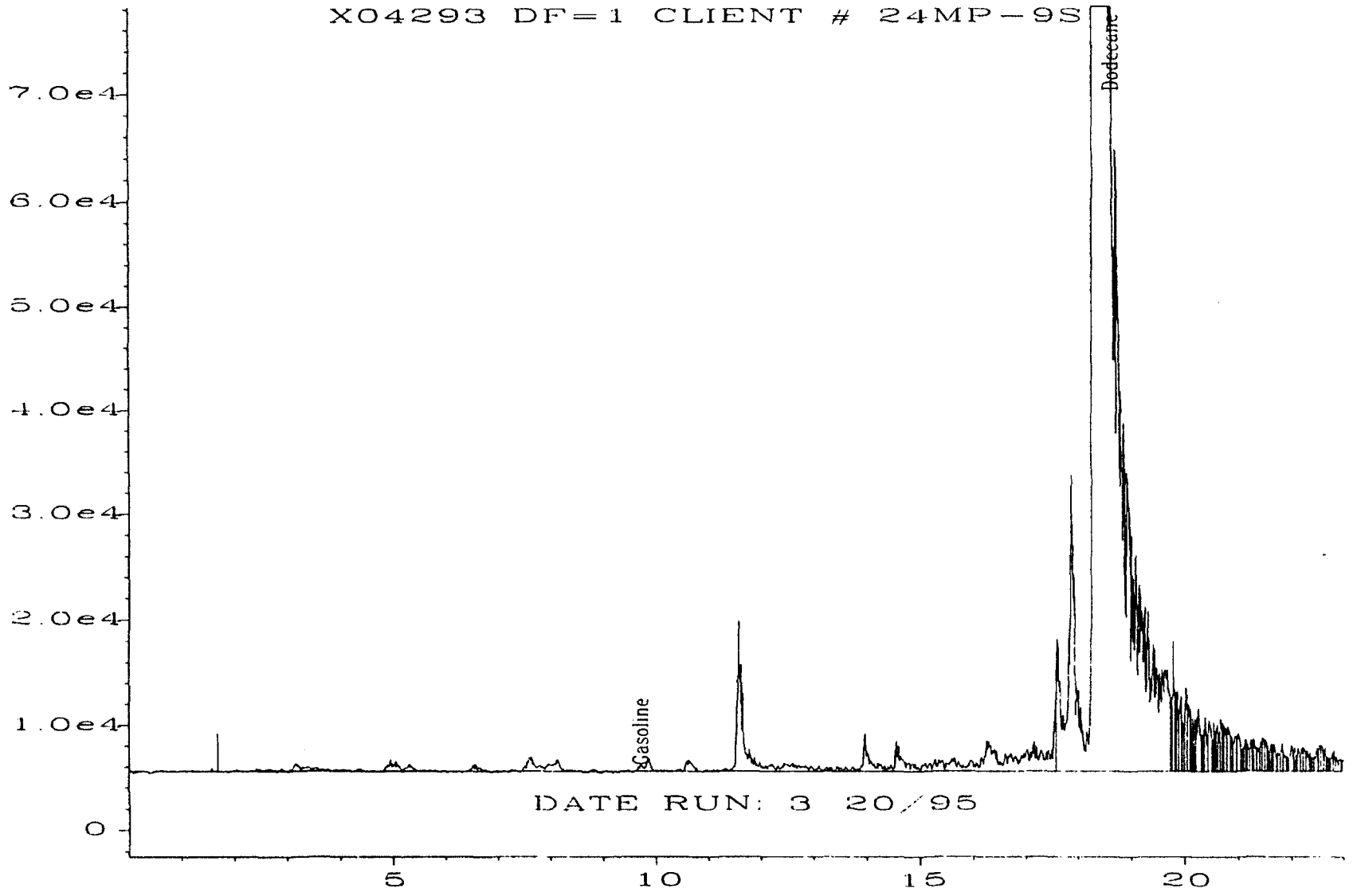
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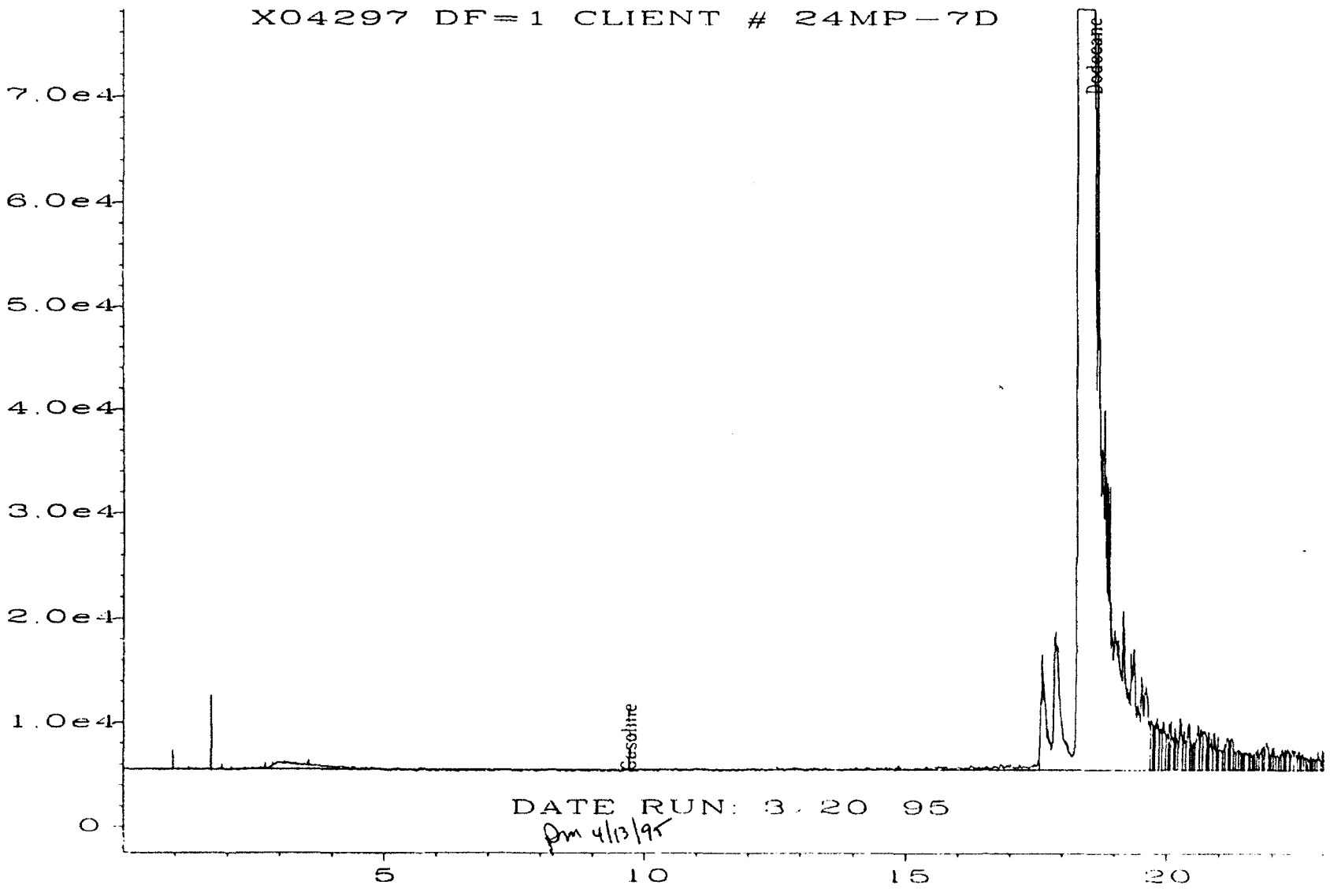
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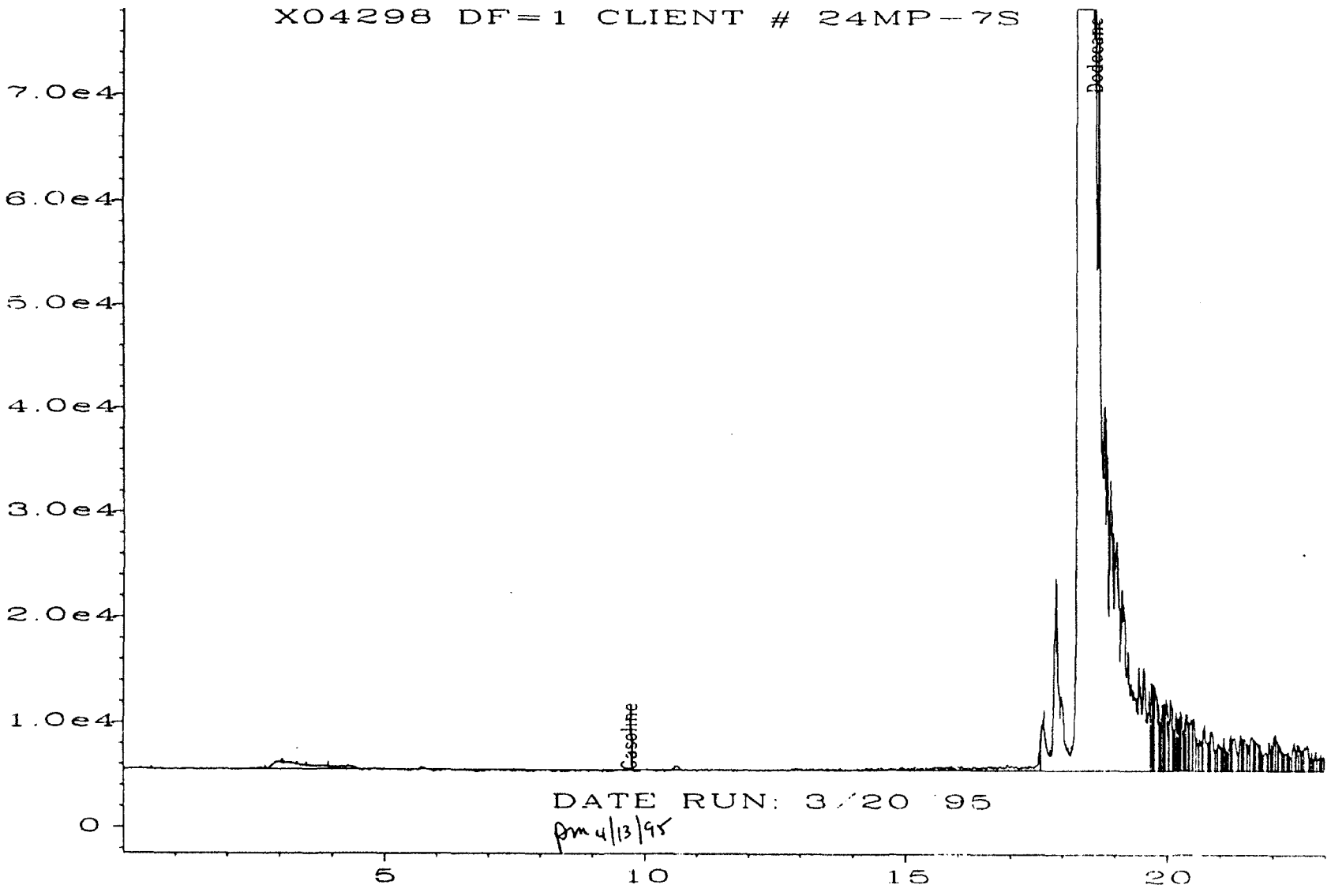
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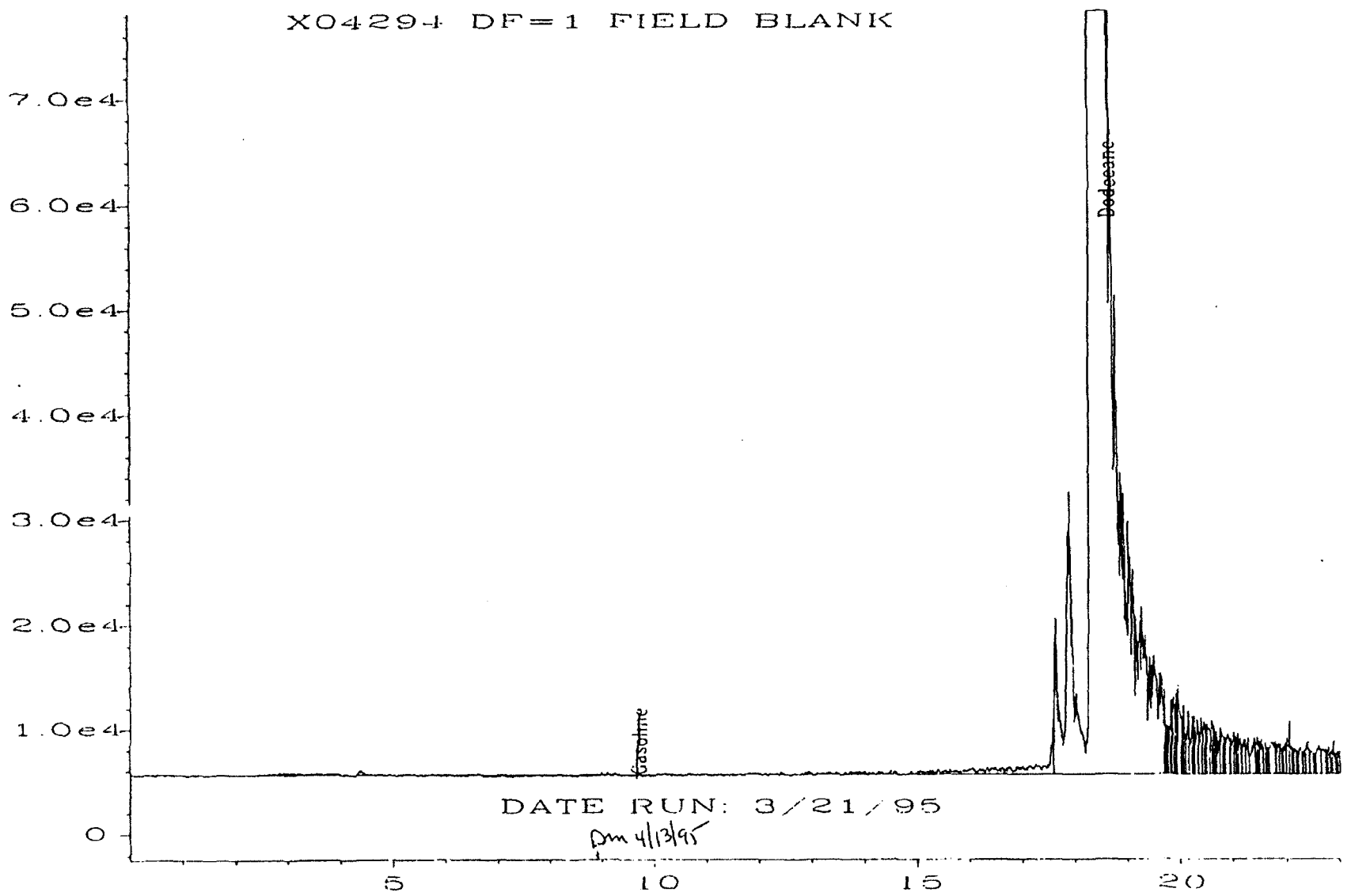
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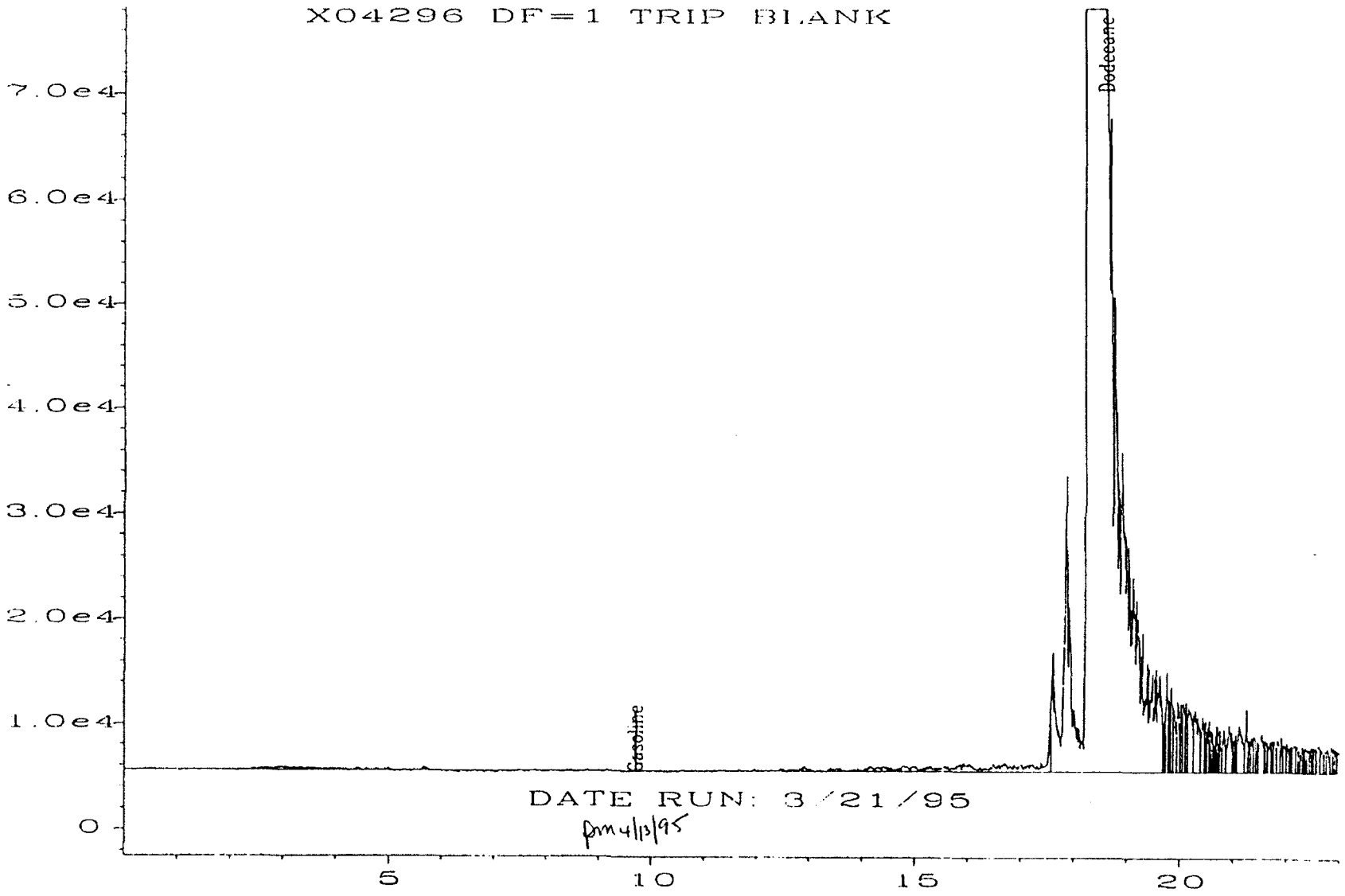
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Sig. 1 in C:\HPCHEM\1\DATA\TVH0320\023F0101.D



Sig. 1 in C:\HPCHEM\1\DATA\TVH0320\02-1F0101.D

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH)
Laboratory Control Sample (LCS)

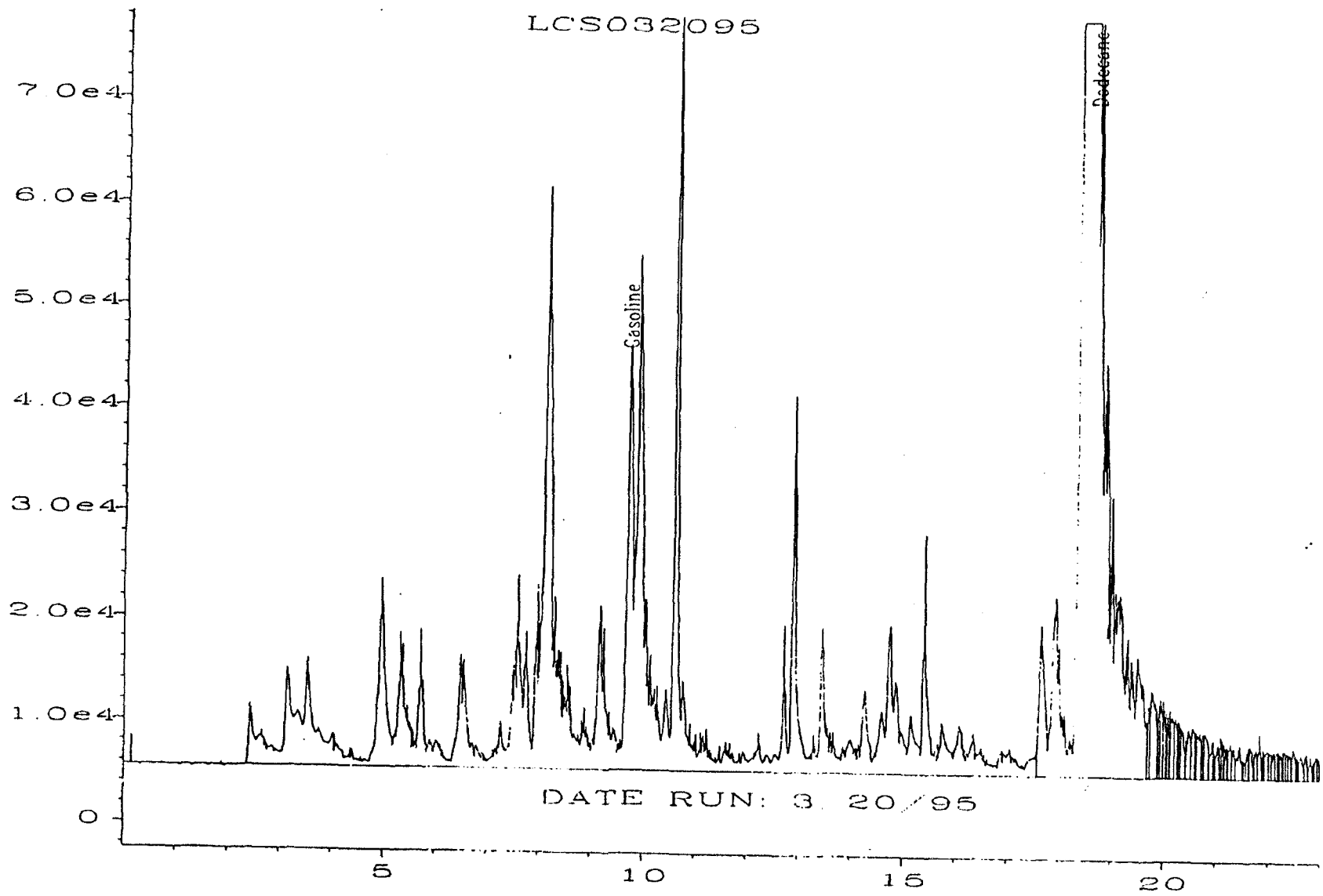
LCS Number	: LCS032095	Client Project Number	: 722450.21020/MACDILL AFB
Date Prepared	: 3/20/95	Lab Project Number	: 95-0861
Date Analyzed	: 3/20/95	Matrix	: WATER
Sequence Number	: TVH9	Method Number	: 5030/8015 MOD

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	QC Limit mg/L
Gasoline	5.00	5.39	3.5-6.5

QUALIFIERS
U = TEH analyzed for but not detected.
B = TEH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

Approved



Sig. 1 in C:\HPCHEM\1\DATA\TVH0320\009F0101.D

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled : 3/15,16/95
Date Received : 3/16/95
Date Prepared : 3/17/95
Date Analyzed : 3/17/95

Client Project ID. : 722450.21020 /Mac Dill AFB
Lab Project No. : 95-0861
Method : EPA 300.0
Matrix : Water
Detection Limit : 0.25 (mg/L)

Evergreen Sample #	Client Sample ID	Sulfate (mg/L)
X04288	24MP-10D	5.78
X04289	24MP-10S	3.64
X04290	MD24-6A	7.34
X04291	MD24-6	6.38
X04292	24MP-9D	12.1
X04293	24MP-9S	1.91
X04297	24MP-7D	79.2
X04298	24MP-7S	76.0
X04299	75MP-1S	35.8
X04300	75MP-1D	15.1
X04300 Dup	75MP-1D Dup	14.7
Method Blank 3-17-95		<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04300	75MP-1D Matrix Spike	10.0	15.2	25.7	105
X04300	75MP-1D Matrix Spike Dup	10.0	15.2	25.3	102
	MS/MSD RPD				3.09
X04300/X04300 Dup RPD					2.68

Analyst

Approved

0851tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled	: 3/15,16/95	Client Project ID.	: 722450.21020 /Mac Dill AFB
Date Received	: 3/16/95	Lab Project No.	: 95-0861
Date Prepared	: 3/17/95	Method	: EPA 300.0
Date Analyzed	: 3/17/95	Matrix	: Water
		Detection Limit	: 0.25 (mg/L)

Evergreen Sample #	Client Sample ID	Chloride (mg/L)
X04288	24MP-10D	144
X04289	24MP-10S	4.18
X04290	MD24-6A	16.8
X04291	MD24-6	637
X04292	24MP-9D	329
X04293	24MP-9S	12.1
X04297	24MP-7D	1130
X04298	24MP-7S	115
X04299	75MP-1S	13.4
X04300	75MP-1D	9.75
X04300 Dup	75MP-1D Dup	9.62
Method Blank 3-17-95		<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04300	75MP-1D Matrix Spike	10.0	9.75	20.1	104
X04300	75MP-1D Matrix Spike Dup	10.0	9.75	20.0	102
	MS/MSD RPD				1.36
X04300/X04300 Dup RPD					1.34

Debra L. Byers
Analyst

Approved

0861tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled	: 3/15,16/95	Client Project ID.	: 722450.21020 /Mac Dill AFB
Date Received	: 3/16/95	Lab Project No.	: 95-0861
Date Prepared	: 3/17/95	Method	: EPA 300.0
Date Analyzed	: 3/17/95	Matrix	: Water
		Detection Limit	: 0.076 (mg/L)

Evergreen Sample #	Client Sample ID	Nitrite-N (mg/L)
X04288	24MP-10D	<0.076
X04289	24MP-10S	<0.076
X04290	MD24-6A	<0.076
X04291	MD24-6	<0.760*
X04292	24MP-9D	<0.760*
X04293	24MP-9S	<0.076
X04297	24MP-7D	<7.60*
X04298	24MP-7S	<0.760*
X04299	75MP-1S	<0.076
X04300	75MP-1D	<0.076
X04300 Dup	75MP-1D Dup	<0.076
Method Blank 3-17-95		<0.076

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04300	75MP-1D Matrix Spike	10.0	<0.250	9.86	98.6
X04300	75MP-1D Matrix Spike Dup	10.0	<0.250	9.05	90.5
	MS/MSD RPD				8.57
X04300/X04300 Dup RPD					NC

* = Increased detection limit due to matrix interference.
** = Quality assurance results reported as Nitrite (NO_2).
NC = Not Calculated because sample and/or duplication results below detection limit.

Analyst

Approved

0861tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled	: 3/15,16/95	Client Project ID.	: 722450.21020 /Mac Dill AFB
Date Received	: 3/16/95	Lab Project No.	: 95-0861
Date Prepared	: 3/17/95	Method	: EPA 300.0
Date Analyzed	: 3/17/95	Matrix	: Water
		Detection Limit	: 0.056 (mg/L)

Evergreen Sample #	Client Sample ID	Nitrate-N (mg/L)
X04288	24MP-10D	<0.056
X04289	24MP-10S	<0.056
X04290	MD24-6A	<0.056
X04291	MD24-6	2.46
X04292	24MP-9D	<0.056
X04293	24MP-9S	<0.056
X04297	24MP-7D	<0.056
X04298	24MP-7S	<0.056
X04299	75MP-1S	<0.056
X04300	75MP-1D	<0.056
X04300 Dup	75MP-1D Dup	<0.056
Method Blank 3-17-95		<0.056

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04300	75MP-1D Matrix Spike	10.0	<0.250	9.63	96.3
X04300	75MP-1D Matrix Spike Dup	10.0	<0.250	9.42	94.2
	MS/MSD RPD				2.20
X04300/X04300 Dup RPD					NC

** = Quality assurance results reported as Nitrate (NO_3).
NC = Not Calculated because sample and/or duplication results below detection limit.

Analyst

Approved

0861tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Miscellaneous Analyses

Date Sampled	: 3/15,16/95	Client Project ID.	: 722450.21020 MacDill AFB
Date Received	: 3/17/95	Lab Project No.	: 95-0861
Date Prepared	: 3/18/95	Detection Limit	: 5.00 $mgCaCO_3/L$
Date Analyzed	: 3/18/95	Method	: EPA 310.1

Evergreen Sample #	Client Sample ID	Matrix	Total Alkalinity ($mgCaCO_3/L$)
X04288	24MP-10D	Water	227
X04289	24MP-10S	Water	187
X04290	MD24-6A	Water	309
X04291	MD24-6	Water	173
X04292	24MP-9D	Water	205
X04293	24MP-9S	Water	271
X04297	24MP-7D	Water	200
X04298	24MP-7S	Water	244
X04299	75MP-1S	Water	74.2
X04299 Duplicate	75MP-1S Duplicate	Water	73.7
X04300	75MP-1D	Water	<5.00
Method Blank 3/18/95			<5.00

Quality Assurance

	True Value ($mgCaCO_3/L$)	Result ($mgCaCO_3/L$)	% Recovery
APG Reference Minerals Lot #13862	11.8	10.3	87.3
X04299/X04299 Dup RPD			0.680

Analyst

Approved

0861JJ.4

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH)

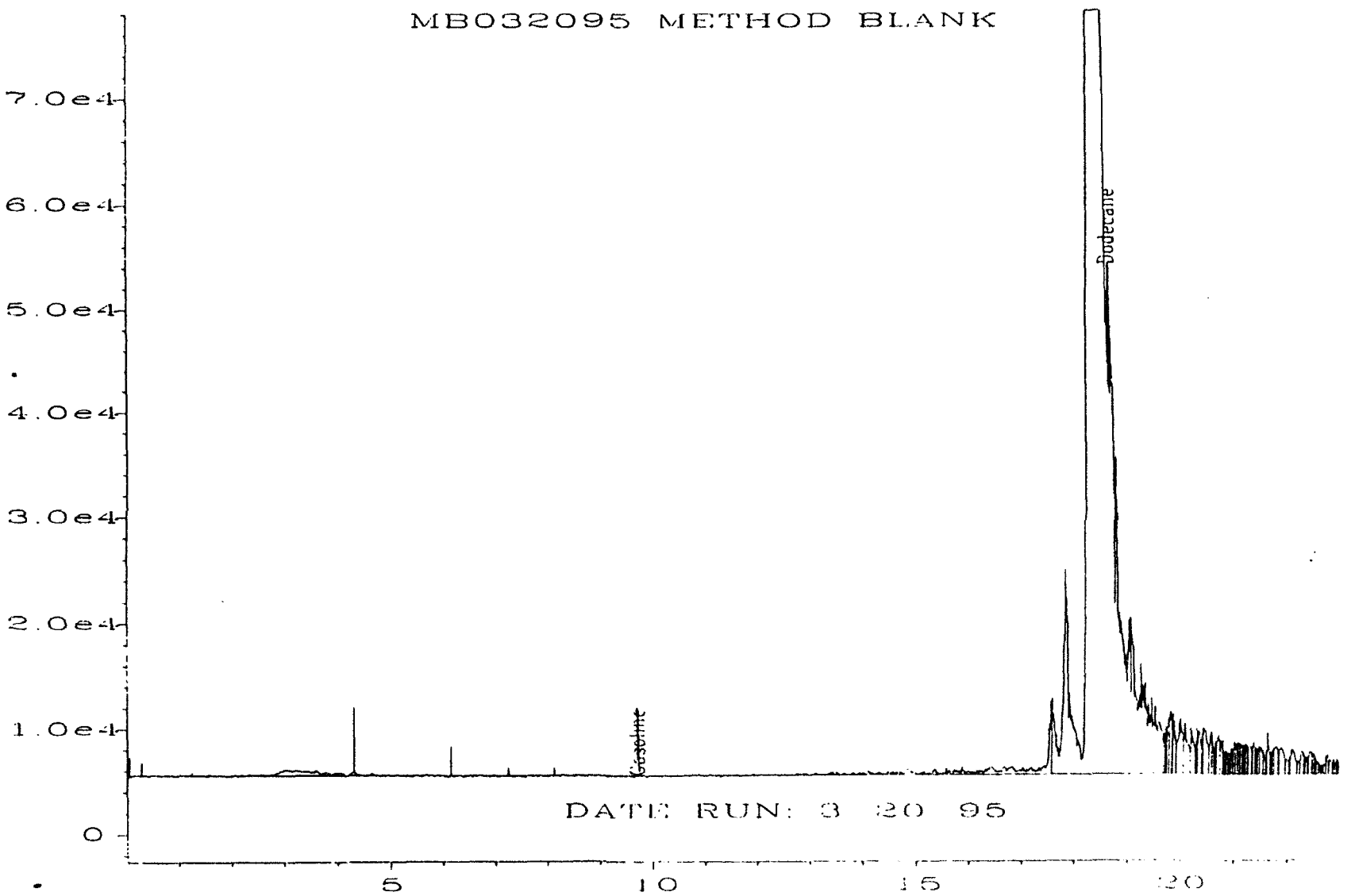
Date Sampled	: 3/15,16/95	Client Project Number	: 722450.21020/MACDILL AFB
Date Received	: 3/17/95	Lab Project Number	: 95-0861
Date Prepared	: 3/20/95	Matrix	: Water
Date Analyzed	: 3/20,21/95	Method Number	: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH mg/L	MDL mg/L
MB032095	METHOD BLANK	100%	U	0.1
X04288	24MP-10D	114%	U	0.1
X04289	24MP-10S	103%	U	0.1
X04290	MD24-6A	116%	0.7	0.1
X04291	MD24-6	121%	U	0.1
X04291 DUP	MD24-6	98%	U	0.1
X04292	24MP-9D	124%	0.3	0.1
X04293	24MP-9S	121%	0.6	0.1
X04294	FIELD BLANK	123%	U	0.1
X04296	TRIP BLANK	128%	U	0.1
X04297	24MP-7D	106%	U	0.1
X04298	24MP-7S	113%	U	0.1
X04299	75MP-1S	120%	U	0.1
X04300	75MP-1D	124%	U	0.1

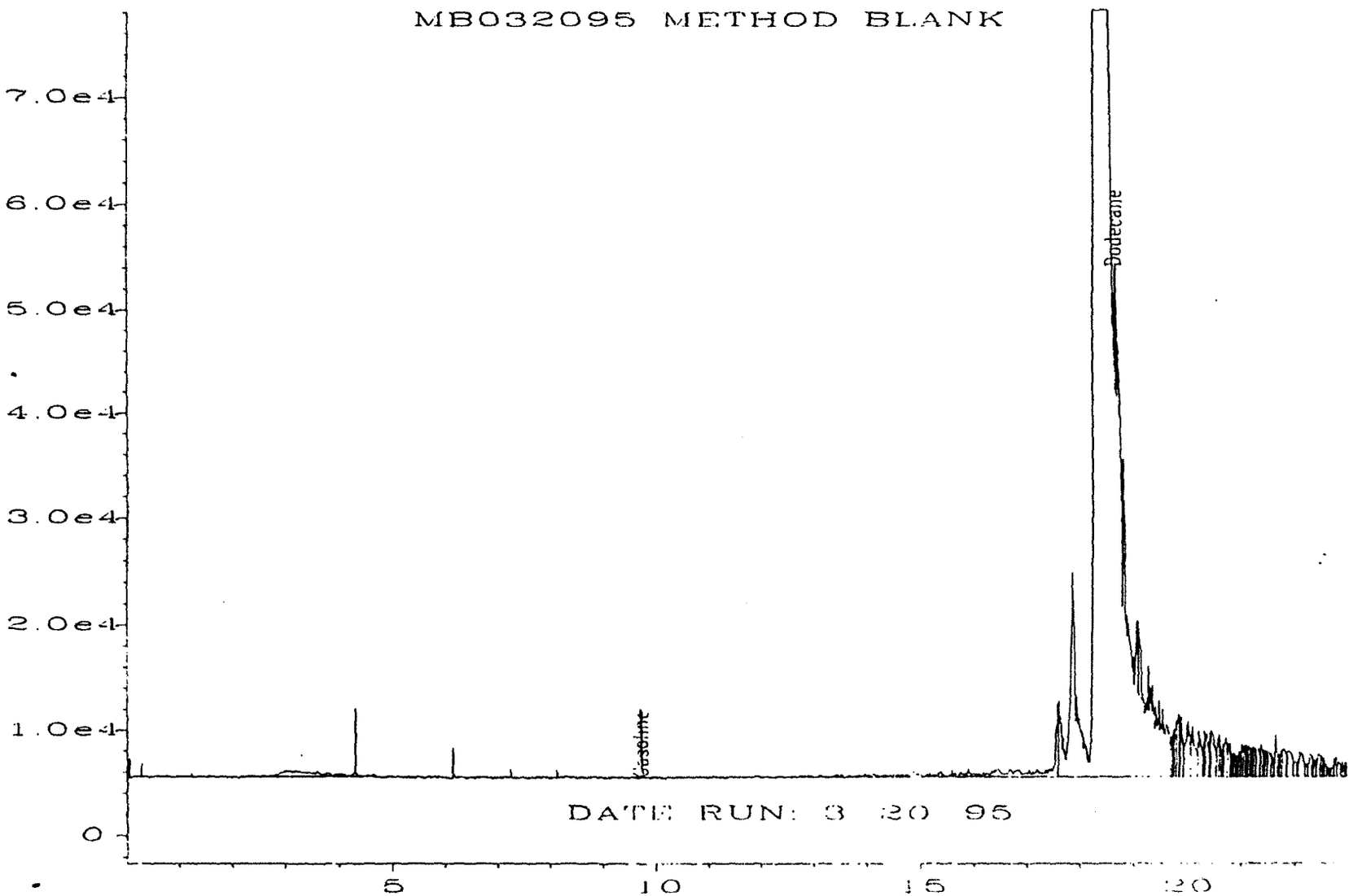
QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
MDL = Method Detection Limit

Analyst

Approved



Sig. 1 in C:\HPCHEM\1\DATA\TVH0320\003F0101.D



Sig. 1 in C:\HPCHEM\1\DATA\TVH0320\003F0101.D

Evergreen

CASE NARRATIVE

Evergreen Analytical Laboratory Project (EAL) #: 95-0820

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt

On March 14, 1995, 14 soil and one rinseate blank were received in good condition at Evergreen Analytical Laboratory (EAL). Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and PES sample identifications.

BTEX, Soil Matrix, Method SW8020

The following PES samples were analyzed at a dilution due to target analytes in the sample, the reporting levels were increased accordingly; 24 MP-1A(3'-4'), 24 MP-2(3'-4'), 24 SS-2(4'-6'), 75SS-1(7-9), and 75SS-2(9-11) at a dilution factor of 5. Sample 75SS-1(3-5) was analyzed at DF = 5 and DF = 125, and 75SS-2(3-5) at DF = 250 and DF = 1250.

The matrix spike sample exhibited surrogate recoveries for the tri- and tetra-methylbenzenes below the EAL control limit, and the matrix spike duplicate sample did not purge. Please see the Laboratory Control Spike (LCS) sample for acceptable spiked sample recovery.

BTEX, Water Matrix, Method 602

The Trip Blank was analyzed with no anomalies to report.

Total Volatile Hydrocarbon (TVH), Soil Matrix, Method 8015M

The relative percent difference (RPD) between the laboratory duplicate samples were not within the control limit of 30% due to sample inhomogeneity. There were no other quality control anomalies to report.

Total Extractable Hydrocarbon (TEH), Soil Matrix, Method 8015M

The surrogate recovery for 75SS-2(3-5) was outside the control limits due to the concentration of analyte in the sample. All other quality control was within limits.

Total Organic Carbon in Soil (TOC)

TOC was analyzed by Huffman Laboratories of Golden, Colorado. TOC was determined by analyzing for total carbon (TC) and inorganic (carbonate) carbon (CC), then calculating the difference as TOC. The report from Huffman is included.

P. McClellan

Patricia A. McClellan, Project Manager

Evergreen Analytical Sample Log Sheet

Project # 95-0820

Date(s) Sampled: 03/08,09,10,13/95 COC

Date Due: 03/17/95

ate Received: 03/14/95 1000

Holding Time(s): 03/22,23,27-BTEX, TEPH,TVPH

Client Project I.D. 722450.21020/MAC DILL

Rush STANDARD

Client: PARSONS ENGINEERING SCIENCE, INC.

Address: 1700 BROADWAY, SUITE 900
DENVER, CO 80290

Contact: TODD WIEDEMEIER

Client P.O. _____

Phone #831-8100 **Fax #**831-8208

Shipping Charges N/A

E.A. Cooler # 604

Airbill # FED EX 9581826236

Custody Seal Intact? N/A
Cooler ___ Bottles ___
COC Present Y
Sample Tags Present? Y
Sample Tags Listed? Y
Sample(s) Sealed? Y

Special Invoicing/Billing _____

Special Instructions * PLUS CHLOROBENZENE, TMB & TEMB. REPORT SOILS ON A DRY WEIGHT BASIS. **ANALYZE AN MS/MSD AND LAB DUPLICATE FOR THIS CLIENT.**

Lab ID #	Client ID#	Analysis		Mtx	Btl	Loc
)4173A/B	24 MP-1A(3'-4')	* BTEX	8020	S	2WM	2
X04174A/B	24 MP-1B(8'-9')	* BTEX		S	2WM	2
X04175A/B	24 MP-2 (3'-4')	* BTEX		S	2WM	2
X04176A/B	24 MP-3 (3-5)	* BTEX		S	2WM	2
X04177A/B	24 MP-4 (3-5)	* BTEX		S	2WM	2
X04178A/B	24 MP-5 (3-5)	* BTEX		S	2WM	2
X04179A/B	24 MP-6 (4-6)	* BTEX		S	2WM	2
X04181A/B	24SS-1 (4-6)	* BTEX		S	2WM	2
X04182A/B	24SS-2 (4-6)	* BTEX		S	2WM	2
X04183A/B	75SS-1 (3-5)	* BTEX		S	2WM	2
X04184A/B	75SS-1 (7-9)	* BTEX	(% moisture) ✓	S	2WM	2
X04185A/B	75SS-2 (3-5)	* BTEX		S	2WM	2
X04186A/B	75SS-2 (9-11)	* BTEX		S	2WM	2
X04187A	TRIP BLANK	* BTEX	✓	W	40V	2

R=Sample to be returned

Route GC/MS ___ GC 4 Metals ___ Wet Chem 1 SxPrep 1 Acctg 1

To SxRec C QA/QC C Sales C File Orig

ge 1 of 1 Page(s)

Custodian/Date: JW 3/14/95
fm 3/15/95

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04173C	24 MP-1A(3'-4')	TVH MSCIS GASCOMP	S	2WM	2
X04174C	24 MP-1B(3'-9')	TVH	S	2WM	2
X04175C	24 MP-2 (3'-4')	TVH	S	2WM	2
X04176C	24 MP-3 (3-5)	TVH	S	2WM	2
X04177C	24 MP-4 (3-5)	TVH	S	2WM	2
X04178C	24 MP-5 (3-5)	TVH	S	2WM	2
X04179C	24 MP-6 (4-6)	TVH	S	2WM	2
X04181C	24SS-1 (4-6)	TVH	S	2WM	2
X04182C	24SS-2 (4-6)	TVH	S	2WM	2
X04183C	75SS-1 (3-5)	TVH 2 duplicates ms/msd (17)	S	2WM	2
X04184C	75SS-1 (7-9)	TVH	S	2WM	2
X04185C	75SS-2 (3-5)	TVH	S	2WM	2
X04186C	75SS-2 (9-11)	TVH	S	2WM	2
X04173D	24 MP-1A(3'-4')	TEH	S	2WM	B2
X04174D	24 MP-1B(8'-9')	TEH (% MOISTURE)	S	2WM	B2
X04175D	24 MP-2(3'-4')	TEH MSCIS JPS	S	2WM	B2
X04176D	24 MP-3 (3-5)	TEH	S	2WM	B2
X04177D	24 MP-4 (3-5)	TEH	S	2WM	B2
X04178D	24 MP-5 (3-5)	TEH	S	2WM	B2
X04179D	24 MP-6 (4-6)	TEH	S	2WM	B2
X04181D	24SS-1 (4-6)	TEH 12 samples 1 duplicate	S	2WM	B2
X04182D	24SS-2(4-6)	TEH	S	2WM	B2
X04183D	75SS-1 (3-5)	TEH ms/msd	S	2WM	B2
X04184D	75SS-1 (7-9)	TEH	S	2WM	B2
X04185D	75SS-2(3-5)	TEH	S	2WM	B2
X04186D	75SS-2(9-11)	TEH	S	2WM	B2
X04173E	24 MP-1A(3'-4')	% MOISTURE	S	2WM	B2
X04175E	24 MP-2(3'-4')	% MOISTURE	S	2WM	B2
X04176E	24 MP-3 (3-5)	% MOISTURE	S	2WM	B2
X04177E	24 MP-4 (3-5)	% MOISTURE	S	2WM	B2
X04178E	24 MP-5 (3-5)	% MOISTURE	S	2WM	B2
X04179E	24 MP-6 (4-6)	% MOISTURE	S	2WM	B2
X04181E	24SS-1 (4-6)	% MOISTURE	S	2WM	B2
X04182E	24SS-2(4-6)	% MOISTURE	S	2WM	B2
X04183E	75SS-1 (3-5)	% MOISTURE	S	2WM	B2
X04184E	75SS-1 (7-9)	% MOISTURE	S	2WM	B2

R=Sample to be returned

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04185E	75SS-2(3-5)	% MOISTURE	S	2WM	B2
X04186E	75SS-2(9-11)	% MOISTURE	S	2WM	B2
X04176D	24 MP-3 (3-5)	TOC	S	2WM	OUT
X04177D	24 MP-4 (3-4)	TOC	S	2WM	OUT
X04179D	24 MP-6 (4-6)	TOC	S	2WM	OUT
X04180A	24 MP-16 (4-6)	TOC(% MOISTURE)	S	2WM	OUT

Project # 95-0820

R=Sample to be returned

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Engineering Science
ADDRESS 1700 Broadway Ste 900
CITY Denver STATE CO ZIP 80290
PHONE# 831-8100 FAX # FAX RESULTS Y / N

CLIENT CONTACT (print) Weidemeier
PROJECT I.D. 722450.27020
EAL. QUOTE # P.O.#
TURNAROUND REQUIRED*
*expedited turnaround subject to additional fee

Sample. Name:
(signature)
(print) Kyle Cannon
Evergreen Analytical Cooler No. 604
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Moisture	TOC							EAL Sample No.
24MP-1A (3'-4')	3-8-95	1105	5		X									X		X	X			X							X04173
24MP-1B (8'-9')	3-8-95	1200	5		X									X		X	X			X	Wrong sized container received						74
24MP-2 (3'-4')	3-8-95	1605	5		X									X		X	X			X							75
24MP-3 (3-5)	3-9-95	0900	6		X									X		X	X			X	X						76
24MP-4 (3-5')	3-9-95	1040	6		X									X		X	X			X	X						77
24MP-5 (3-5')	3-9-95	1630	5		X									X		X	X			X							78
24MP-6 (4-6)	3-9-95	1615	6		X									X		X	X			X	X						79
24MP-16 (4-6)	3-9-95	1615	1		X									X							X	WM					80
~~24MP-7~~ 24S-1 (MS)	3-10-95	0800	5		X									X		X	X			X							81
~~24MP-8~~ 24SS-2 (MSD)	3-10-95	0900	5		X								2w	X	2w	X	X	2w	4w	X								82
HT:																											Location 2,B2
DD:																											Container Size

EAL use only
Do not write in shaded area

EAL Project # 0820
Custodian

Instructions:
packed ice

(Relinquished by) (Signature) Date/Time (Received by) (Signature) Date/Time (Relinquished by) (Signature)

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons ES
ADDRESS 1700 Broadway Ste 900
CITY Denver STATE CO ZIP 80290
PHONE# 831-8100 FAX # _____ FAX RESULTS Y / N

CLIENT CONTACT (print) WEIDEMEIER
PROJECT I.D. 722450.21020
EAL. QUOTE # _____ P.O.# _____
TURNAROUND REQUIRED* _____
*expedited turnaround subject to additional fee

Sampler Name (signature) _____
(print) Kyle Cannon
Evergreen Analytical Cooler No. 604
Cooler Received _____

Please **PRINT** all information:

EAL use only
Do not write in shaded area

EAL Project # 0820
Custodian _____

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil/Solid (circle)	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Moisture	TOC	EAL Sample No.
7555-1(3-5')	3-13-95	0830	5		X									X		X	X			X		X04183
7555-1(7-9)	3-13-95	1000	5		X									X		X	X			X		84
7555-2(3-5')	3-13-95	1215	5		X									X		X	X			X		85
7555-2(9-11')	3-13-95	1245	5		X									X		X	X			X		86
trip blank																						87
HT:																						Location
DD:																						Container Size

Instructions:
Packed in Ice

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	3/13/95		3/13/95 1500				

Evergreen Analytical Sample Receipt/Check-in Record

Date & Time Rec'd: 3/14/95 1000 Shipped Via: Fedex 9521626[illegible]
(Airbill # if applicable)

Client : Parsons ES

Client Project ID(s): 722450.27020

EAL Project #(s): 95- 0520 EAL Cooler(s): (Y) N

Cooler#	1										
Ice packs	(Y)	N	Y	N	Y	N	Y	N	Y	N	5
Temperature °C	16°										

	Y	N	N/A
1. Custody seal(s) present:	✓	✓	✓
Seals on cooler intact	✓		✓
Seals on bottle intact		✓	
2. Chain of Custody present:	✓		
3. Containers broken or leaking: (Comment on COC if Y)		✓	
4. Containers labeled:	✓		
5. COC agrees w/ bottles received: (Comment on COC if N)	✓		
6. COC agrees w/ labels: (Comment on COC if N)	✓		
7. Headspace in VOA vials-waters only (comment on COC if Y)			✓
8. VOA samples preserved:			✓
9. pH measured on metals, cyanide or phenolics*:			✓
List discrepancies			
*Non-EAL provided containers only, water samples only.			
10. Metal samples present:			✓
Total _____ , Dissolved _____			
D or PD to be filtered:			
T,TR,D,PD to be Preserved:			
11. Short holding times:		✓	
Specify parameters			
12. Multi-phase sample(s) present:		✓	
13. COC signed w/ date/time:	✓		

Comments:

(Additional comments on back)
Custodian Signature/Date: Trina Woods 3/14/95

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COMPANY Engineering Science
ADDRESS 1700 Broadway Ste 900
CITY Denver STATE CO ZIP 80290
PHONE# 831-8100 FAX # FAX RESULTS Y / N

CLIENT CONTACT (print) Weidemeier
PROJECT I.D. 922450.27020
EAL. QUOTE # P.O.#
TURNAROUND REQUIRED*
*expedited turnaround subject to additional fee

Sampler Name: (signature) (print) Kyle Cannon

Evergreen Analytical Cooler No. 604
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil (Solid)	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Moisture	TOC	EAL Sample No.
24MP-1A (3'-4')	3-8-95	1100	5		X									X		X	X			X		
24MP-1B (8'-9')	3-8-95	1200	5		X									X		X	X			X		
24MP-2 (3-4')	3-8-95	1600	5		X									X		X	X			X		
24MP-3 (3-5')	3-9-95	0900	6		X									X		X	X			X	X	
24MP-4 (3-5')	3-9-95	1200	6		X									X		X	X			X	X	
24MP-5 (3-5')	3-9-95	1630	5		X									X		X	X			X		
24MP-6 (4-6)	3-9-95	1615	6		X									X		X	X			X	X	
24MP-16 (4-6)	3-9-95	1615	1		X																X	
~~245-1~~ 245-1 (dup)	3-10-95	0800	5		X									X		X	X			X		
~~245-2~~ 245-2 (dup)	3-10-95	0900	5		X									X		X	X			X		
HT:																						Location
DD:																						Container Size

EAL use only
Do not write in shaded area

EAL
Project #
Custodian

Instructions: Moisture container not recd for sample 24MP-1B (8'-9') AB Black 3/14/95
packed in ice

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	3/14/95 1330		3/13/95 1300	FED EX	3/13/95 1100		3/14/95

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COMPANY Parsons ES
ADDRESS 1700 Broadway Ste 900
CITY Denver STATE CO ZIP 80290
PHONE# 831-8100 FAX # FAX RESULTS Y / N

CLIENT CONTACT (print) WEIDEMEIER
PROJECT I.D. 722450.21020
EAL. QUOTE # P.O.#
TURNAROUND REQUIRED*
*expedited turnaround subject to additional fee

Sampler Name (signature)
(print) Kyle Cannon

Evergreen Analytical Cooler No. 604
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Moisture	TOC	EAL use only Do not write in shaded area: EAL Sample No.
7555-1(3-5')	3-13-95	0830	5		X									X		X	X			X		
7555-1(7-9')	3-13-95	1000	5		X									X		X	X			X		
7555-2(3-5')	3-13-95	1215	5		X									X		X	X			X		
7555-2(9-11')	3-13-95	1245	5		X									X		X	X			X		
HT:																						Location
DD:																						Container Size

EAL Project #
Custodian

Instructions:
Packed in Ice

Relinquished by (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

Client Sample Number	: 24MP-1A(3'-4')	Client Project No.	: 722450.21020 MacDill
Lab Sample Number	: X04173	Lab Project No.	: 95-0820
Date Sampled	: 3/8/95	Dilution Factor	: 5.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/18/95	Matrix	: Soil
Date Analyzed	: 3/18/95	Lab File No.	: BX2031811
Methanol Extract?	: No	Method Blank No.	: MB031895

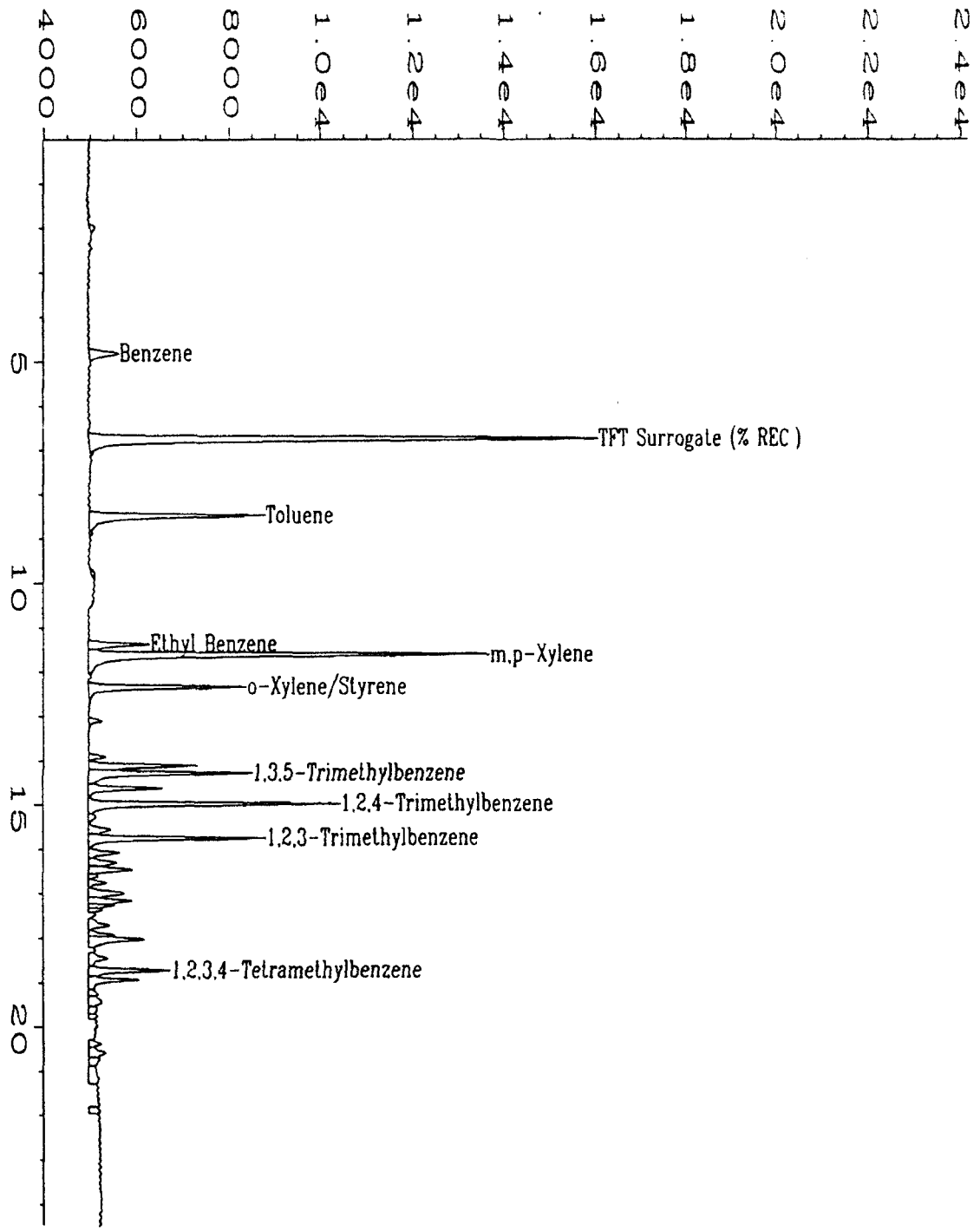
Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2	14	J	22
Toluene	108-88-3	63		22
Ethyl Benzene	100-41-4	23		22
Total Xylene	1330-20-7	160		22
Chlorobenzene	108-90-7		U	22
1,3,5-trimethylbenzene	108-67-8	37		22
1,2,4-trimethylbenzene	95-63-6	59		22
1,2,3-trimethylbenzene	526-73-8	40		22
1,2,3,4-tetramethylbenzene	488-23-3	20		22

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample results & PQLs are reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 88%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20318\011R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 11
Sample Name	: X04173 DF=5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 18 Mar 95 11:24 PM	Instrument Method	: BX2031
Report Created on	: 19 Mar 95 01:34 PM	Analysis Method	: BX20318.MT
Last Recalib on	: 18 MAR 95 11:33 PM	Sample Amount	: 0
Multiplier	: 5	ISTD Amount	:
Sample Info	: Project#: 95-0820 Client#: 24MP-1A(3'-4') Soil		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-1B(8-9')		
Lab Sample Number	: X04174	Lab Project No.	: 95-0820
Date Sampled	: 3/8/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/18/95	Lab File No.	: BX2031722
Methanol Extract?	: No	Method Blank No.	: MB031795

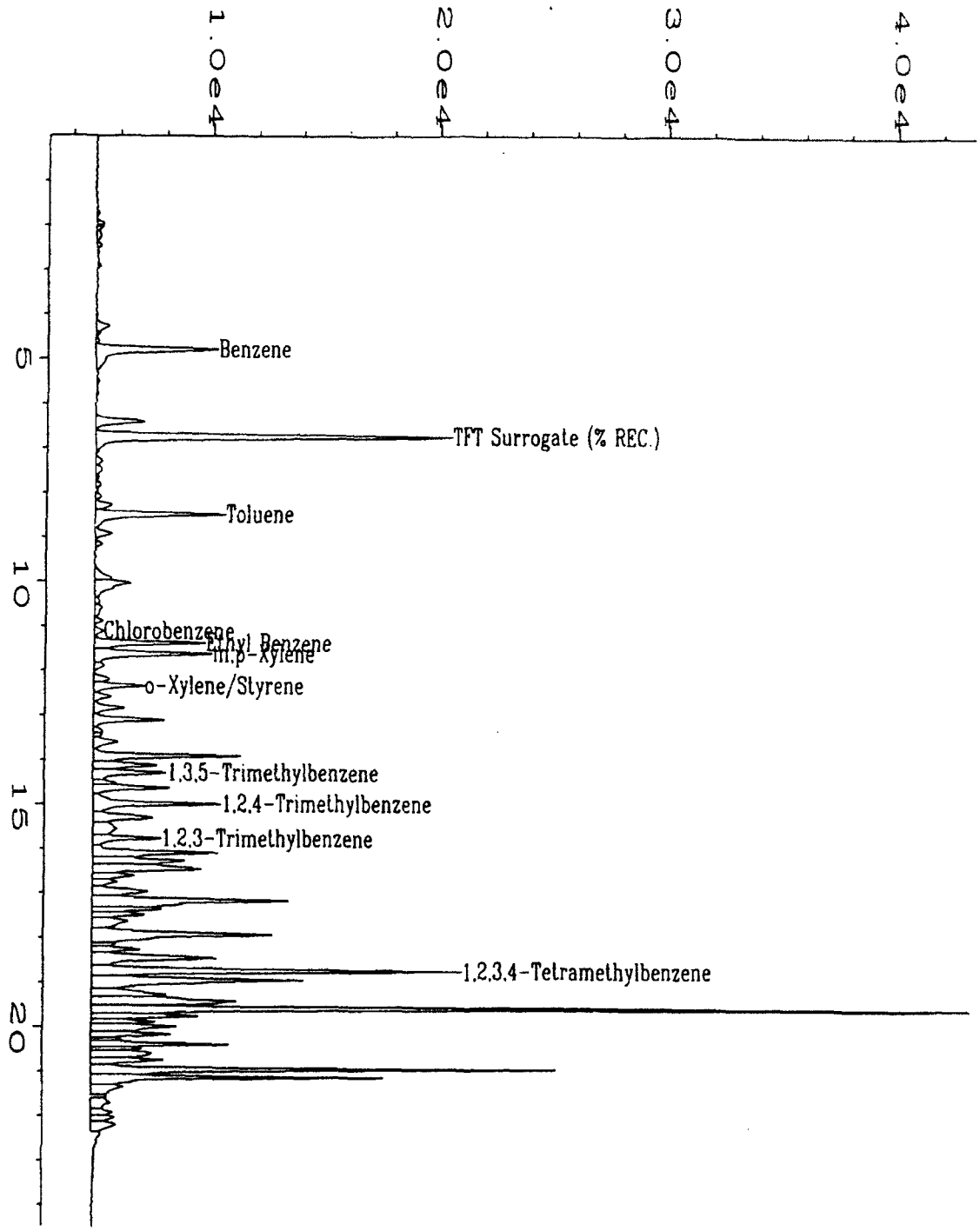
Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2	17		4.8
Toluene	108-88-3	14		4.8
Ethyl Benzene	100-41-4	12		4.8
Total Xylene	1330-20-7	16		4.8
Chlorobenzene	108-90-7	1.2	J	4.8
1,3,5-trimethylbenzene	108-67-8	5.9		4.8
1,2,4-trimethylbenzene	95-63-6	6.4		4.8
1,2,3-trimethylbenzene	526-73-8	3.4	J	4.8
1,2,3,4-tetramethylbenzene	488-23-3	38		4.8

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample results & PQLs are reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 82%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20317\022R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 22
Sample Name	: X04174 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 18 Mar 95 02:51 AM	Instrument Method	: BX203.
Report Created on	: 18 Mar 95 02:33 PM	Analysis Method	: BX20317.MT
Last Recalib on	: 18 MAR 95 01:39 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-1B(8-9')		
Lab Sample Number	: X04174DUP	Lab Project No.	: 95-0820
Date Sampled	: 3/8/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/18/95	Lab File No.	: BX2031723
Methanol Extract?	: No	Method Blank No.	: MB031795

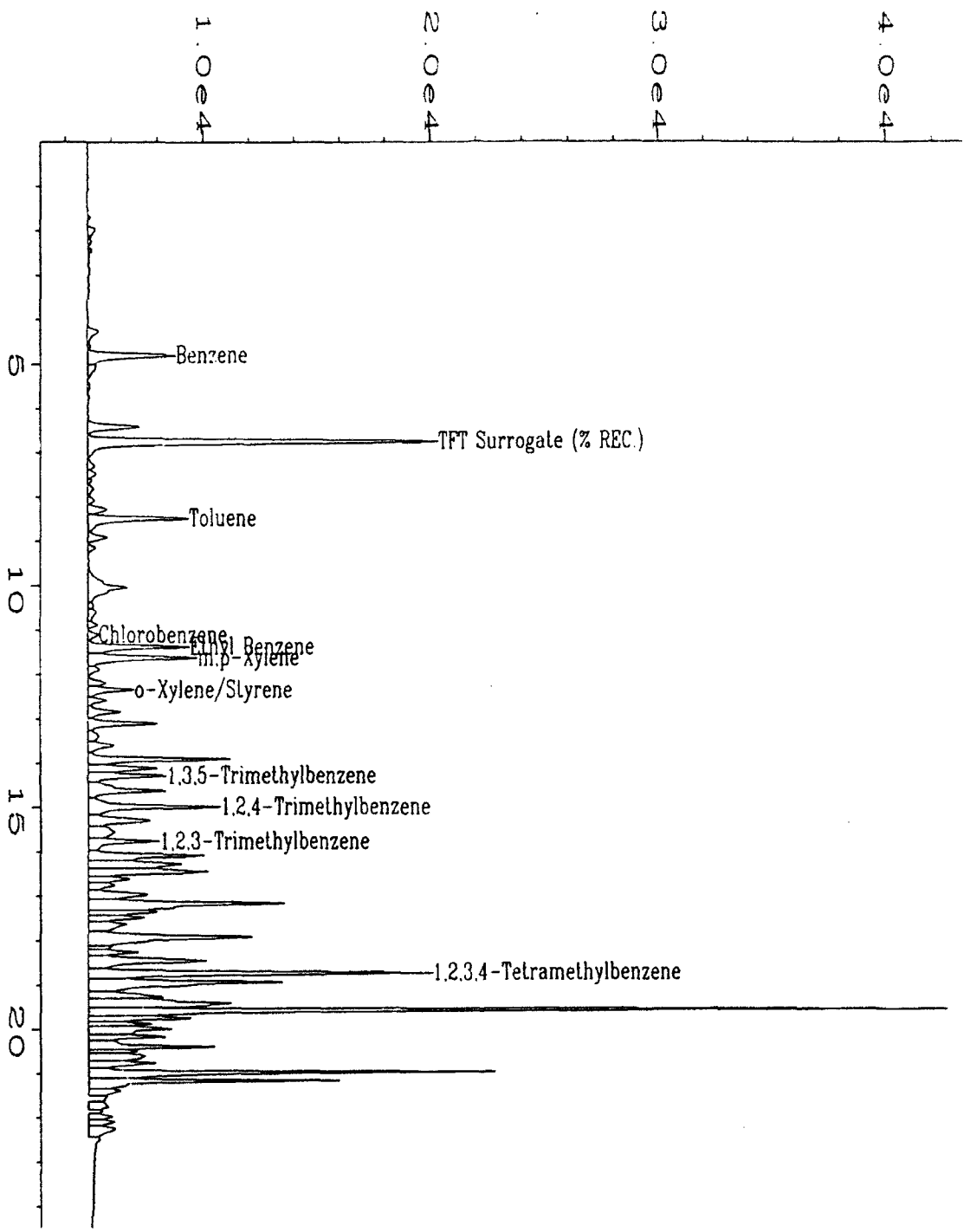
Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2	12		4.8
Toluene	108-88-3	12		4.8
Ethyl Benzene	100-41-4	11		4.8
Total Xylene	1330-20-7	16		4.8
Chlorobenzene	108-90-7	1.4	J	4.8
1,3,5-trimethylbenzene	108-67-8	6.1		4.8
1,2,4-trimethylbenzene	95-63-6	6.7		4.8
1,2,3-trimethylbenzene	526-73-8	3.6	J	4.8
1,2,3,4-tetramethylbenzene	488-23-3	37		4.8

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample results & PQLs are reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 82%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20317\023R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 23
Sample Name	: X04174DUP DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 18 Mar 95 03:35 AM	Instrument Method	: BX2031 T
Report Created on	: 18 Mar 95 02:34 PM	Analysis Method	: BX20317.MT
Last Recalib on	: 18 MAR 95 01:39 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-2(3'-4')		MacDill
Lab Sample Number	: X04175	Lab Project No.	: 95-0820
Date Sampled	: 3/8/95	Dilution Factor	: 5.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/18/95	Matrix	: Soil
Date Analyzed	: 3/19/95	Lab File No.	: BX2031812
Methanol Extract?	: No	Method Blank No.	: MB031895

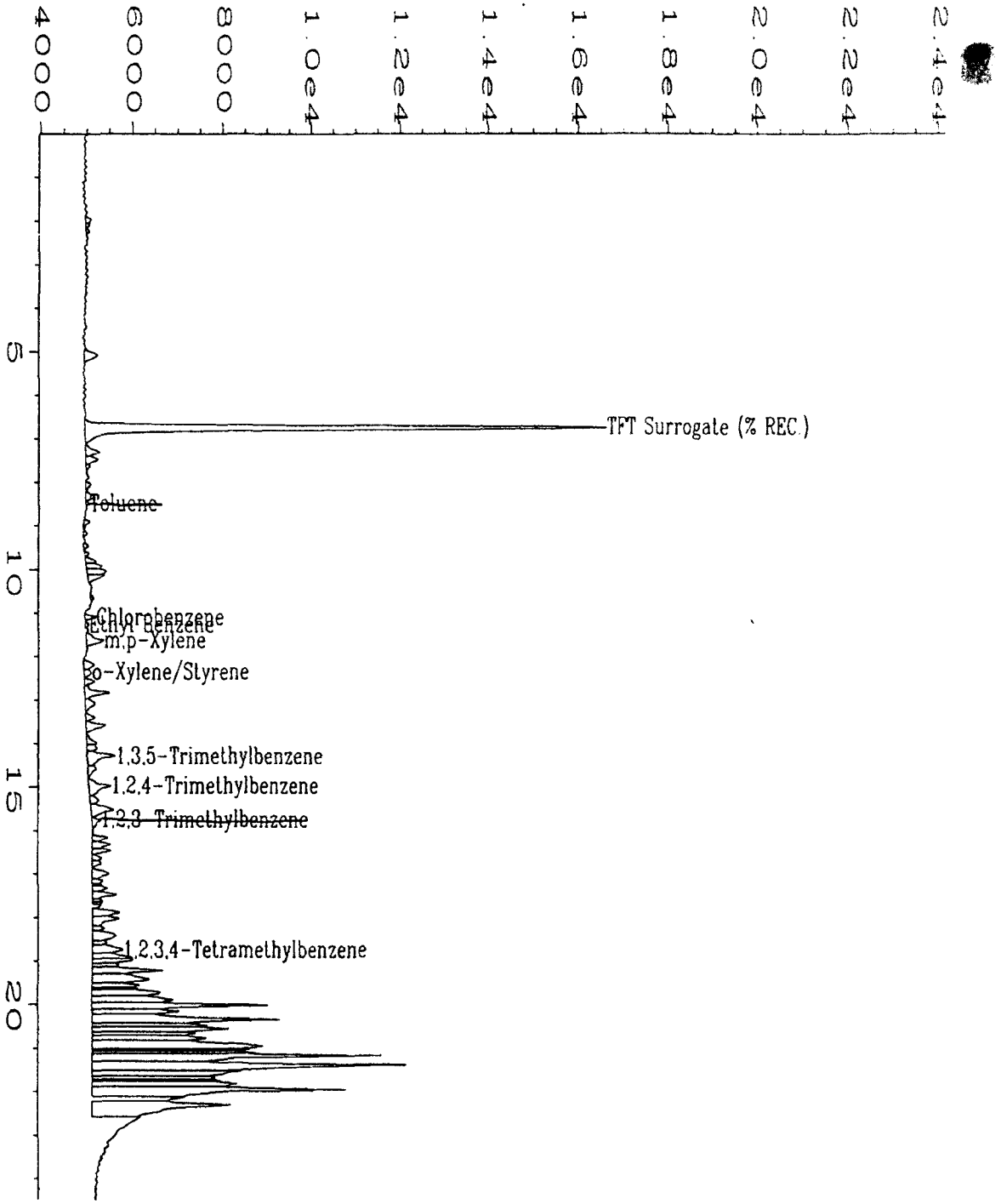
Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	24
Toluene	108-88-3		U	24
Ethyl Benzene	100-41-4		U	24
Total Xylene	1330-20-7	13	J	24
Chlorobenzene	108-90-7	4.2	J	24
1,3,5-trimethylbenzene	108-67-8	9.5	J	24
1,2,4-trimethylbenzene	95-63-6	6.0	J	24
1,2,3-trimethylbenzene	526-73-8		U	24
1,2,3,4-tetramethylbenzene	488-23-3	11	J	24

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample results & PQLs are reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 96%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20318\012R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04175 DF=5
Run Time Bar Code:
Acquired on : 19 Mar 95 00:09 AM
Report Created on: 19 Mar 95 01:34 PM
Last Recalib on : 18 MAR 95 11:33 PM
Multiplier : 5
Sample Info : Project#: 95-0820 Client#: 24MP-3(3'-4') Soil

Page Number : 1
Vial Number : 12
Injection Number : 1
Sequence Line : 8
Instrument Method: BX2031c .M
Analysis Method : BX203 .8.MT
Sample Amount : 0
ISTD Amount :

pm 4/13/95

pm 4/13/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

Client Sample Number	: 24MP-3(3-5)	Client Project No.	: 722450.21020 MacDill
Lab Sample Number	: X04176	Lab Project No.	: 95-0820
Date Sampled	: 3/9/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/18/95	Matrix	: Soil
Date Analyzed	: 3/19/95	Lab File No.	: BX2031813
Methanol Extract?	: No	Method Blank No.	: MB031895

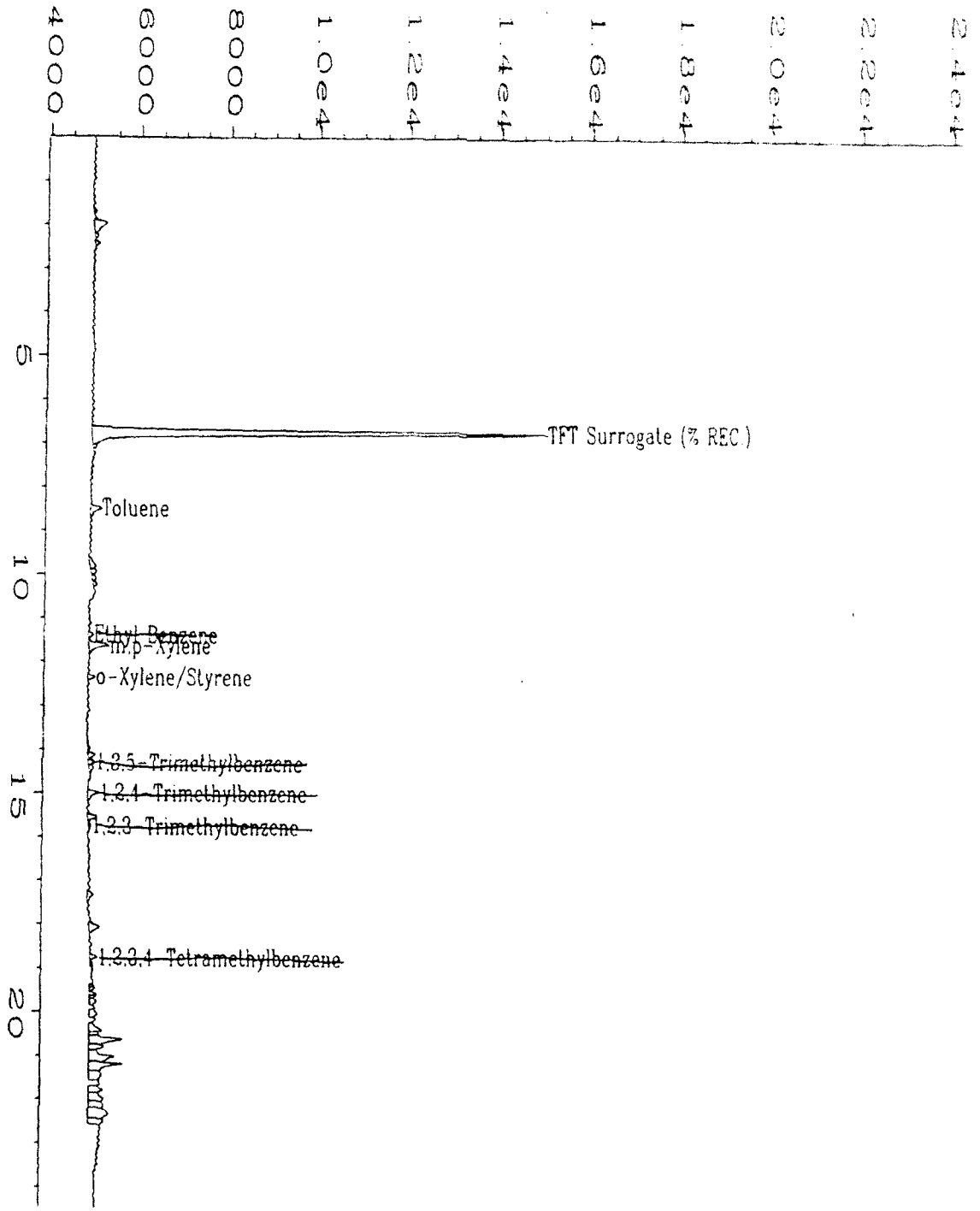
Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	4.7
Toluene	108-88-3	1.1	J	4.7
Ethyl Benzene	100-41-4		U	4.7
Total Xylene	1330-20-7	2.2	J	4.7
Chlorobenzene	108-90-7		U	4.7
1,3,5-trimethylbenzene	108-67-8		U	4.7
1,2,4-trimethylbenzene	95-63-6		U	4.7
1,2,3-trimethylbenzene	526-73-8		U	4.7
1,2,3,4-tetramethylbenzene	488-23-3		U	4.7

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample results & PQLs are reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 81%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20318\013R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04176 DF=1
Run Time Bar Code:
Acquired on : 19 Mar 95 00:53 AM
Report Created on: 19 Mar 95 01:35 PM
Last Recalib on : 18 MAR 95 11:33 PM
Multiplier : 1
Sample Info : Project#: 95-0820 Client#: 24MP-3(3-5) Soil

Page Number : 1
Vial Number : 13
Injection Number : 1
Sequence Line : 8
Instrument Method: BX2031 MT
Analysis Method : BX20318.MT
Sample Amount : 0
ISTD Amount :

Sm 4/11/95

EVERGREEN ANALYTICAL, INC.
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(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-4(3-5)		
Lab Sample Number	: X04177	Lab Project No.	: 95-0820
Date Sampled	: 3/9/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/18/95	Lab File No.	: BX2031726
Methanol Extract?	: No	Method Blank No.	: MB031795

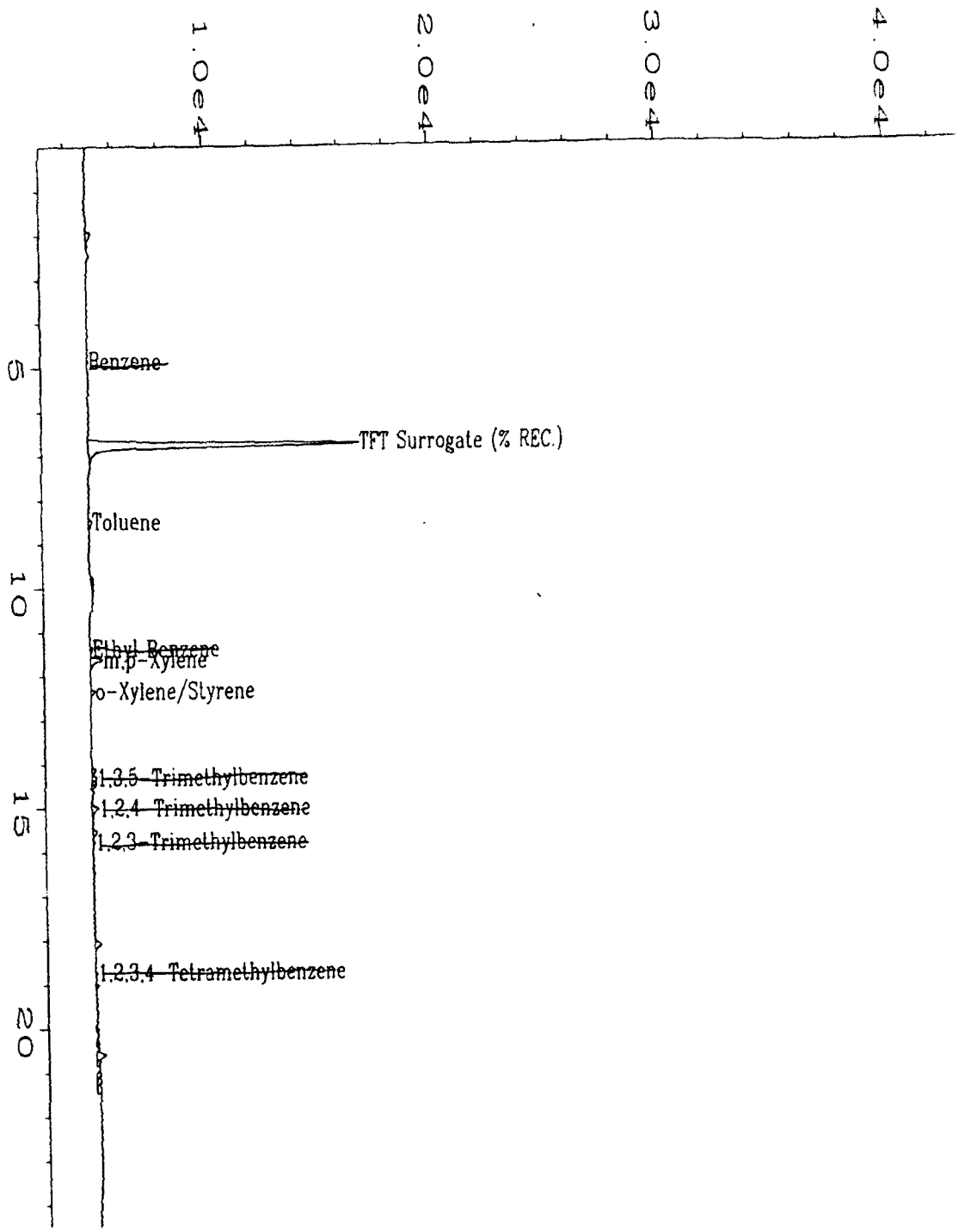
Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	4.7
Toluene	108-88-3	0.5	J	4.7
Ethyl Benzene	100-41-4		U	4.7
Total Xylene	1330-20-7	1.1	J	4.7
Chlorobenzene	108-90-7		U	4.7
1,3,5-trimethylbenzene	108-67-8		U	4.7
1,2,4-trimethylbenzene	95-63-6		U	4.7
1,2,3-trimethylbenzene	526-73-8		U	4.7
1,2,3,4-tetramethylbenzene	488-23-3		U	4.7

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample results & PQLs are reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 64%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20317\026R0801.D	Page Number	: 1
Operator	: C.J. Cook	Vial Number	: 26
Instrument	: BTEX2	Injection Number	: 1
Sample Name	: X04177 DF=1	Sequence Line	: 8
Run Time Bar Code:		Instrument Method	: BX203 MT
Acquired on	: 18 Mar 95 05:45 AM	Analysis Method	: BX203...MT
Report Created on	: 18 Mar 95 02:36 PM	Sample Amount	: 0
Last Recalib on	: 18 MAR 95 01:39 PM	ISTD Amount	:
Multiplier	: 1		

pm 4/19/95

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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-5(3-5)		
Lab Sample Number	: X04178	Lab Project No.	: 95-0820
Date Sampled	: 3/9/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/18/95	Lab File No.	: BX2031727
Methanol Extract?	: No	Method Blank No.	: MB031795

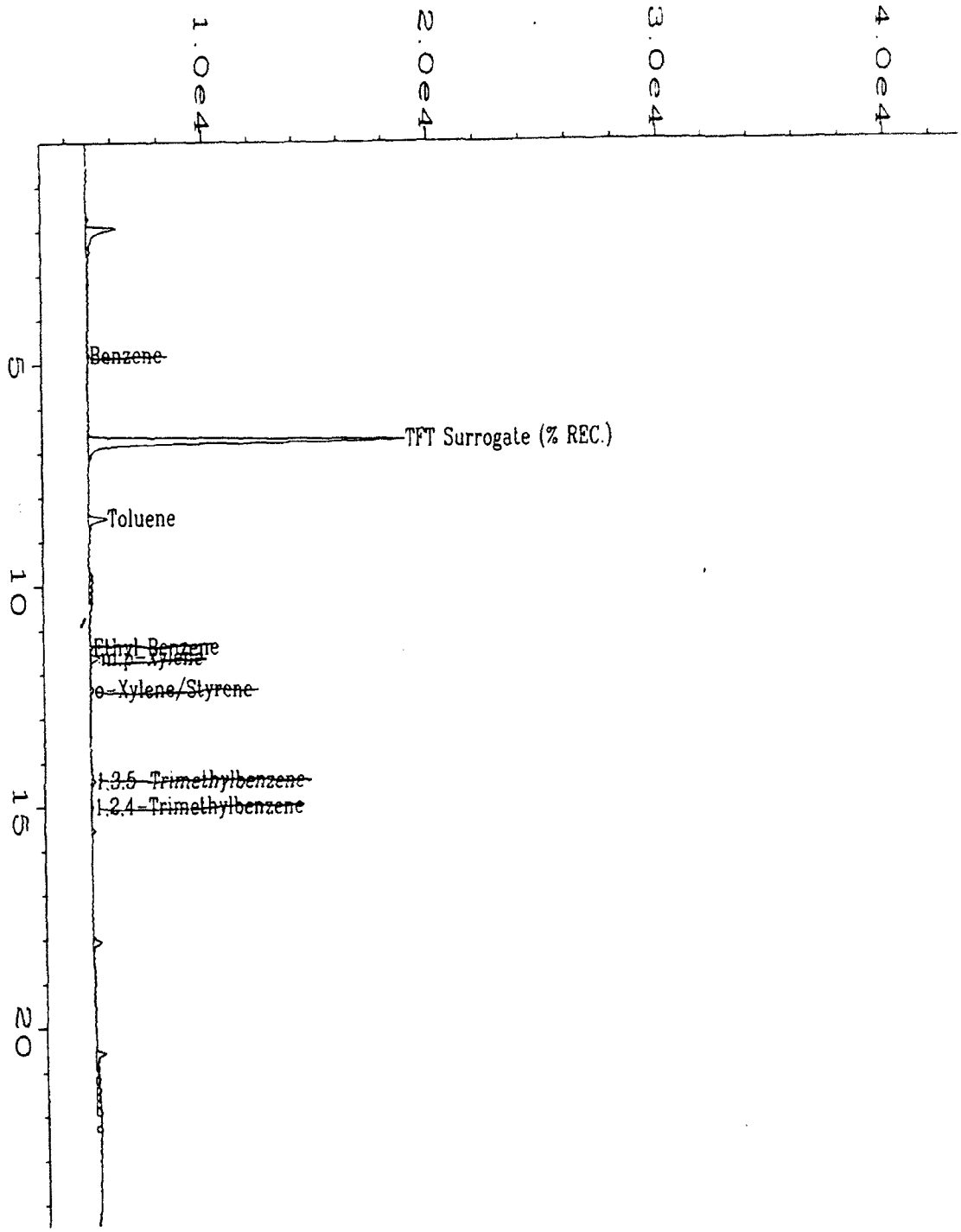
Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	4.8
Toluene	108-88-3	2.3	J	4.8
Ethyl Benzene	100-41-4		U	4.8
Total Xylene	1330-20-7		U	4.8
Chlorobenzene	108-90-7		U	4.8
1,3,5-trimethylbenzene	108-67-8		U	4.8
1,2,4-trimethylbenzene	95-63-6		U	4.8
1,2,3-trimethylbenzene	526-73-8		U	4.8
1,2,3,4-tetramethylbenzene	488-23-3		U	4.8

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = *Sample results & PQLs are reported on a dry weight basis.*
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 74%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cline
Approved



Data File Name : C:\HPCHEM\2\DATA\BX20317\027R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04178 DF=1
Run Time Bar Code:
Acquired on : 18 Mar 95 06:29 AM
Report Created on: 18 Mar 95 02:36 PM
Last Recalib on : 18 MAR 95 01:39 PM
Multiplier : 1

Page Number : 1
Vial Number : 27
Injection Number : 1
Sequence Line : 8
Instrument Method: BX2031
Analysis Method : BX2031
Sample Amount : 0
ISTD Amount :

pm 4/11/95

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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-6(4-6)		
Lab Sample Number	: X04179	Lab Project No.	: 95-0820
Date Sampled	: 3/9/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/18/95	Matrix	: Soil
Date Analyzed	: 3/19/95	Lab File No.	: BX2031815
Methanol Extract?	: No	Method Blank No.	: MB031895

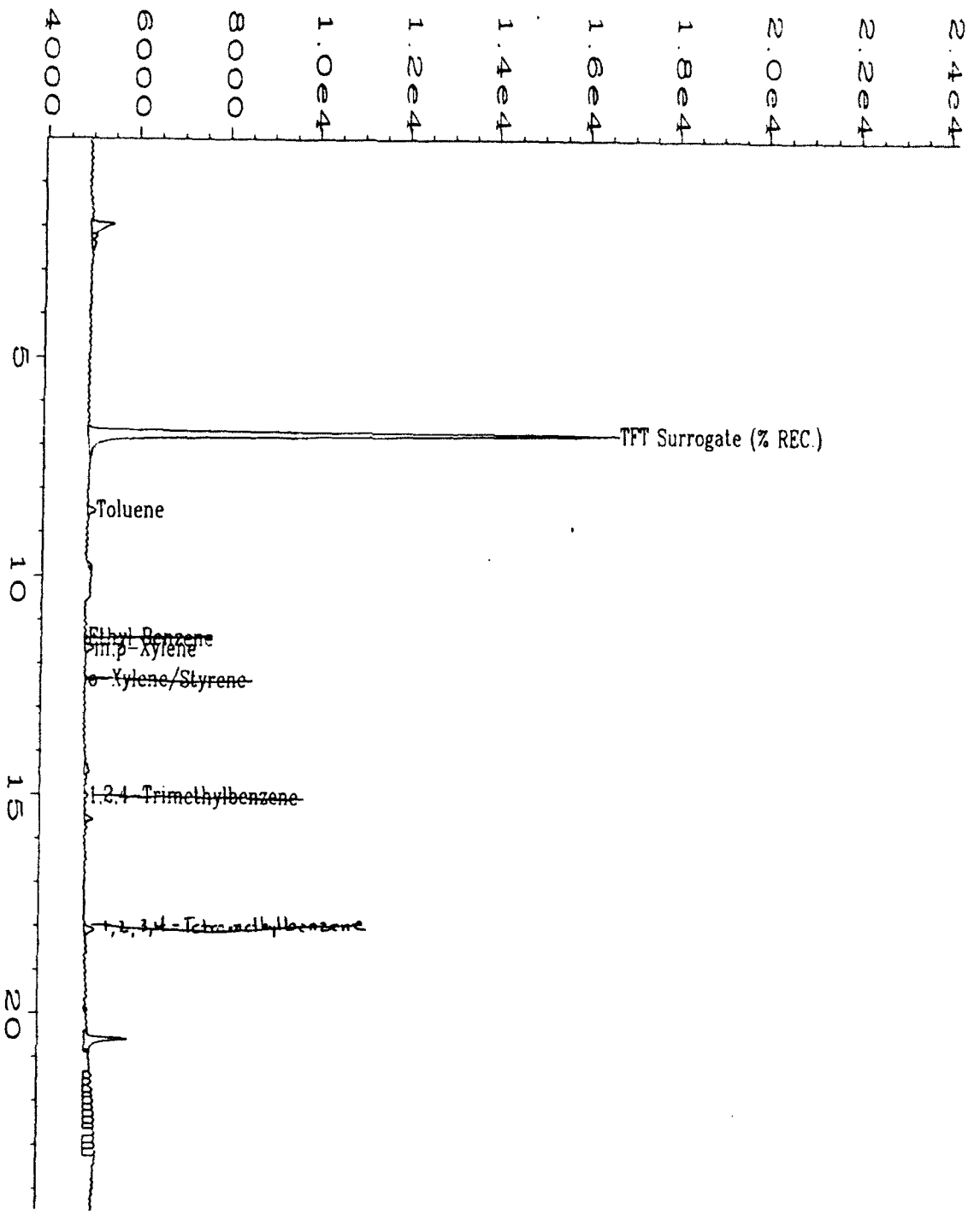
Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	4.9
Toluene	108-88-3	0.8	J	4.9
Ethyl Benzene	100-41-4		U	4.9
Total Xylene	1330-20-7		U	4.9
Chlorobenzene	108-90-7		U	4.9
1,3,5-trimethylbenzene	108-67-8		U	4.9
1,2,4-trimethylbenzene	95-63-6		U	4.9
1,2,3-trimethylbenzene	526-73-8		U	4.9
1,2,3,4-tetramethylbenzene	488-23-3		U	4.9

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample results & PQLs are reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 96%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cori
Approved



Data File Name : C:\HPCHEM\2\DATA\BX20318\015R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04179 DF=1
Run Time Bar Code:
Acquired on : 19 Mar 95 02:23 AM
Report Created on: 19 Mar 95 01:35 PM
Last Recalib on : 18 MAR 95 11:33 PM
Multiplier : 1
Sample Info : Project#: 95-0820 Client#: 24MP-6(4-6) Soil

Page Number : 1
Vial Number : 15
Injection Number : 1
Sequence Line : 8
Instrument Method: BX203 .MT
Analysis Method : BX20318.MT
Sample Amount : 0
ISTD Amount :

pm 4/4/95

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BTEX Data Report

Client Sample Number	: 24SS-1(4-6)	Client Project No.	: 722450.21020 MacDill
Lab Sample Number	: X04181	Lab Project No.	: 95-0820
Date Sampled	: 3/10/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/18/95	Lab File No.	: BX2031729
Methanol Extract?	: No	Method Blank No.	: MB031795

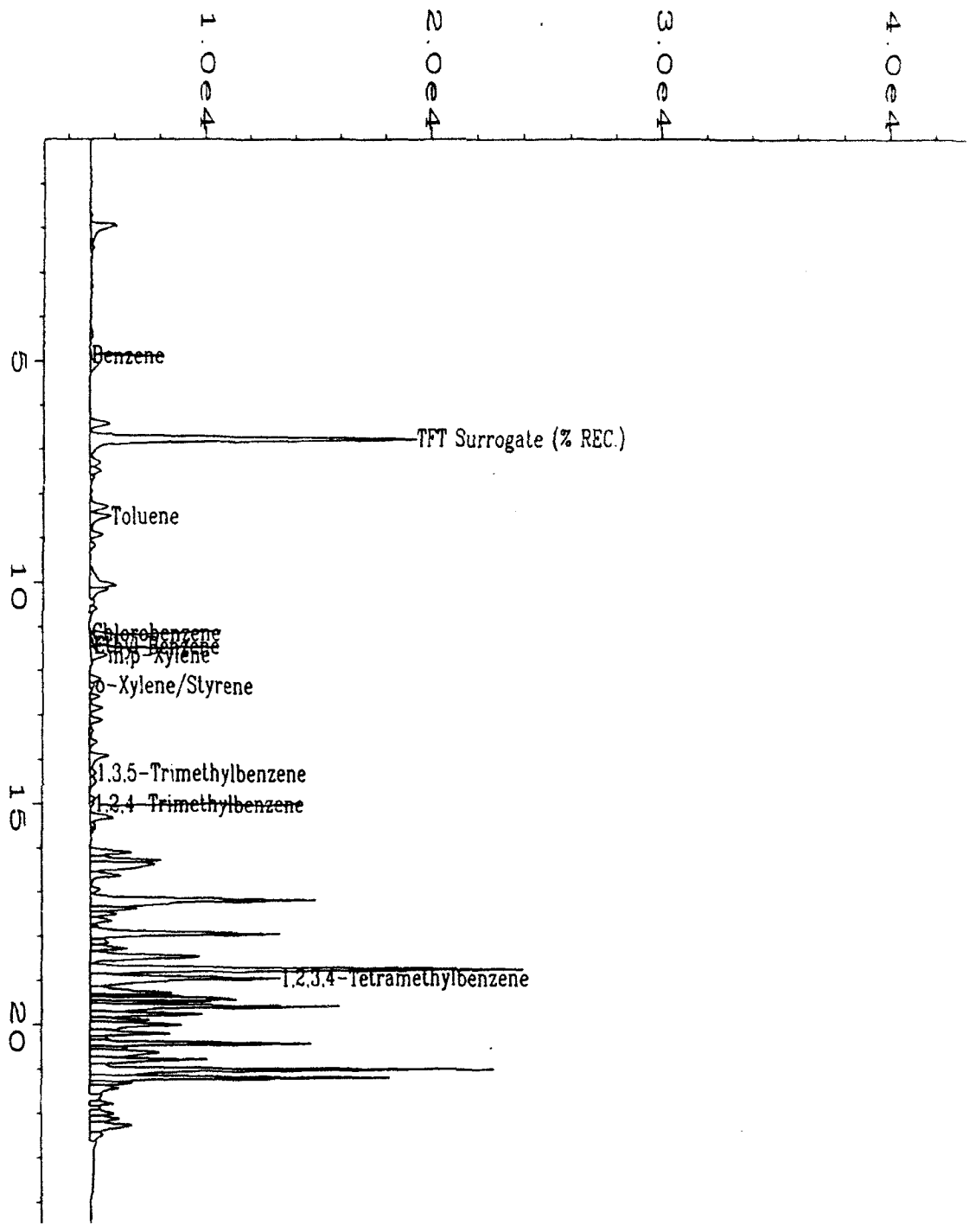
Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	4.8
Toluene	108-88-3	2.9	J	4.8
Ethyl Benzene	100-41-4		U	4.8
Total Xylene	1330-20-7	2.6	J	4.8
Chlorobenzene	108-90-7		U	4.8
1,3,5-trimethylbenzene	108-67-8	0.5	J	4.8
1,2,4-trimethylbenzene	95-63-6		U	4.8
1,2,3-trimethylbenzene	526-73-8		U	4.8
1,2,3,4-tetramethylbenzene	488-23-3	42		4.8

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample results & PQLs are reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 76%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20317\029R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 29
Sample Name	: X04181 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 18 Mar 95 07:56 AM	Instrument Method	: BX203 M
Report Created on	: 18 Mar 95 02:37 PM	Analysis Method	: BX203 .M
Last Recalib on	: 18 MAR 95 01:39 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 4/11/95

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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24SS-2(4-6)		
Lab Sample Number	: X04182	Lab Project No.	: 95-0820
Date Sampled	: 3/10/95	Dilution Factor	: 5.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/18/95	Matrix	: Soil
Date Analyzed	: 3/19/95	Lab File No.	: BX2031820
Methanol Extract?	: No	Method Blank No.	: MB031895

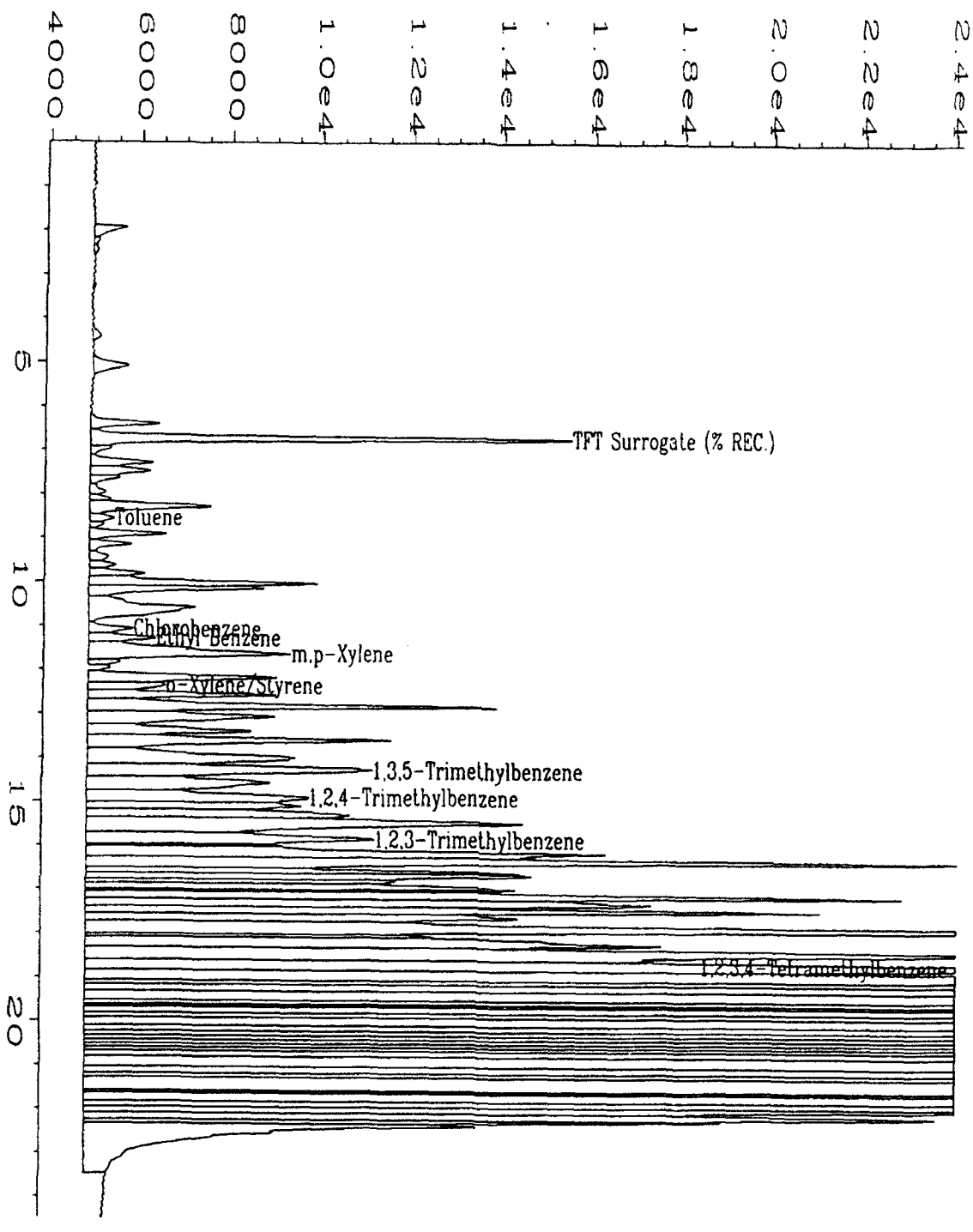
Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	23
Toluene	108-88-3	12	J	23
Ethyl Benzene	100-41-4	37		23
Total Xylene	1330-20-7	170		23
Chlorobenzene	108-90-7	27		23
1,3,5-*trimethylbenzene*	108-67-8	150		23
1,2,4-trimethylbenzene	95-63-6	140		23
1,2,3-trimethylbenzene	526-73-8	200		23
1,2,3,4-tetramethylbenzene	488-23-3	850	E	23

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample results & PQLs are reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 91%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20318\020R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04182 DF=5
Run Time Bar Code:
Acquired on : 19 Mar 95 06:04 AM
Report Created on: 19 Mar 95 01:37 PM
Last Recalib on : 18 MAR 95 11:33 PM
Multiplier : 5
Sample Info : Project#: 95-0820 Client#: 24SS-2(4-6) Soil

Page Number : 1
Vial Number : 20
Injection Number : 1
Sequence Line : 8
Instrument Method: BX2031[illegible]
Analysis Method : BX20318.MTH
Sample Amount : 0
ISTD Amount :

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TOTAL VOLATILE HYDROCARBONS
TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 24 MP-1A(3'-4')	**Client Project No.**	: 722450.21020/MAC DI
Lab Sample No.	: X04173	**Lab Project No.**	: 95-0820
Date Sampled	: 3/8/95	**EPA Method No.**	: 5030/8015 Mod
Date Received	: 3/14/95	**Matrix**	: Water
Date Prepared	: 3/16/95,3/17/95	**Method Blank**	: MB031695
Date Analyzed	: 3/16/95,3/17/95		

Compound	Spike Added (mg/L)	Sample Concentration (mg/L)	MS Concentration (mg/L)	MS %REC	QC Limits %REC
Gasoline	5.00	0.00	6.51	130	60-140

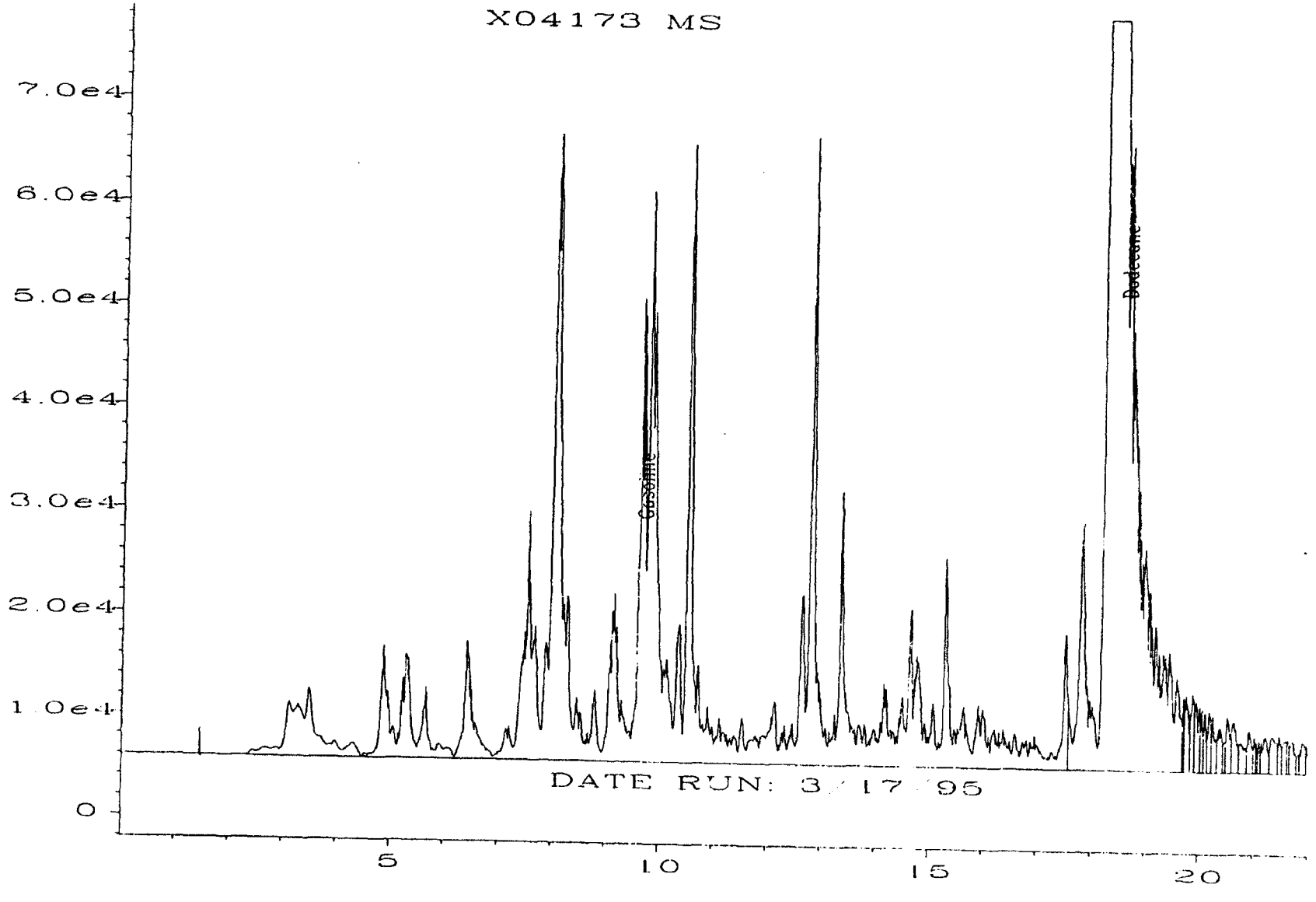
Compound	Spike Added (mg/L)	MSD Concentration (mg/L)	MSD %REC	RPD	QC Limits RPD	QC Limits %REC
Gasoline	5.00	6.01	120	8.0	50	60-140

* = Values outside of QC limits.

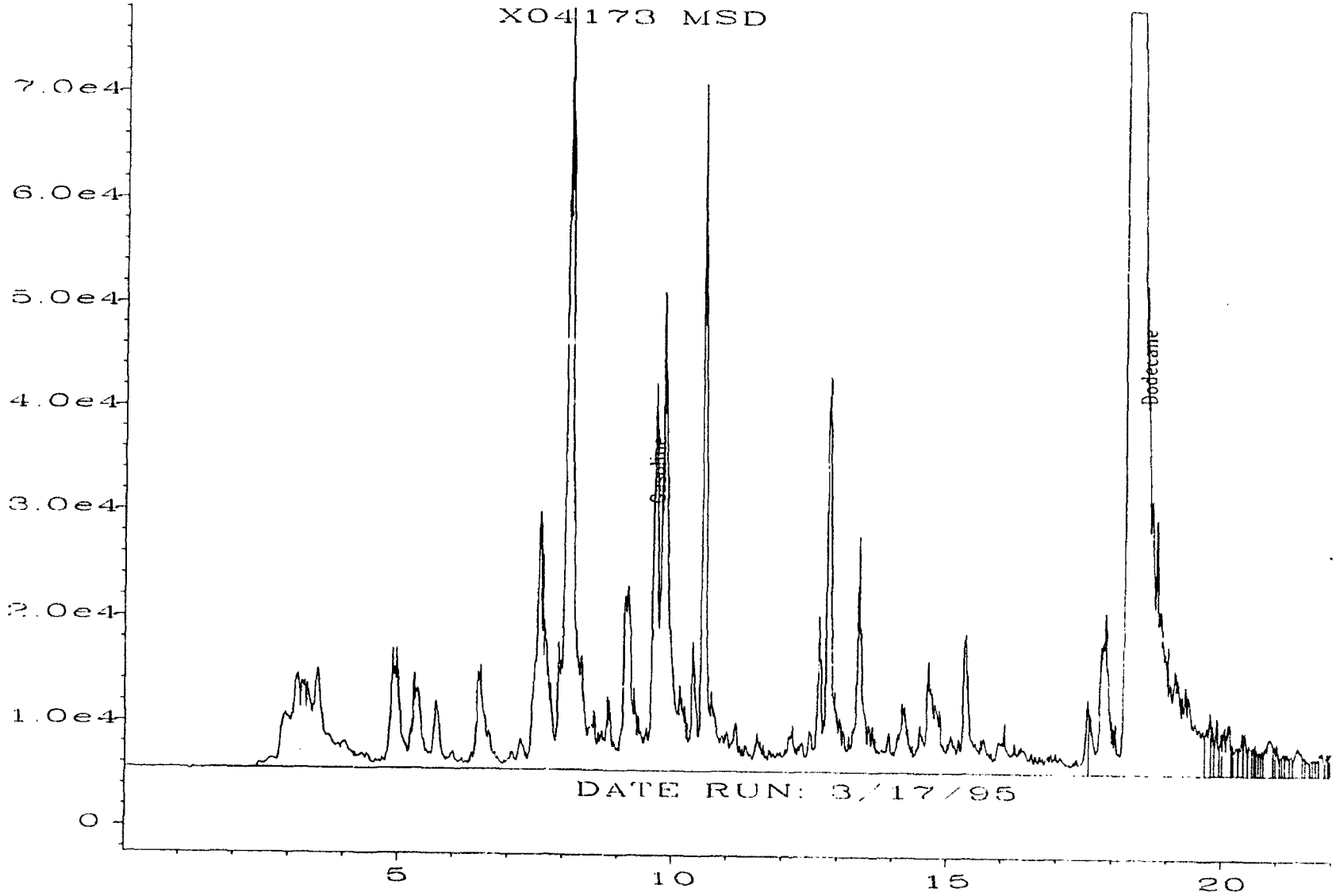
RPD: 0 out of (1) outside limits.

Spike Recovery: 0 out of (2) outside limits.

Comments: NA = Not analyzed/not applicable.



Sig. 1 in C:\HPCHEM\1\DATA\TVH0316 033F0101.D



Sig. 1 in C:\HPCHEM\1\DATA\TVH0316\035F0101.D

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TOTAL EXTRACTABLE HYDROCARBONS
TEH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 24MP-7(2-4)	**Client Project No.**	: 722450.21020/MAC E
Lab Sample No.	: X04163	**Lab Project No.**	: 95-0819
Date Sampled	: 3/10/95	**EPA Method No.**	: 3500/MOD.8015
Date Received	: 3/14/95	**Matrix**	: SOIL
Date Prepared	: 3/17/95	**Method Blank**	: SB031795
Date Analyzed	: 3/18/95		

Compound	Spike Added (ug/mL)	Sample Concentration (ug/mL)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Jet Fuel	1000	0	910	91	60-140

Compound	Spike Added (ug/mL)	MSD Concentration (ug/mL)	MSD %REC	RPD	QC Limits RPD	QC Limits %REC
Jet Fuel	1000	930	93	2.2	50	60-140

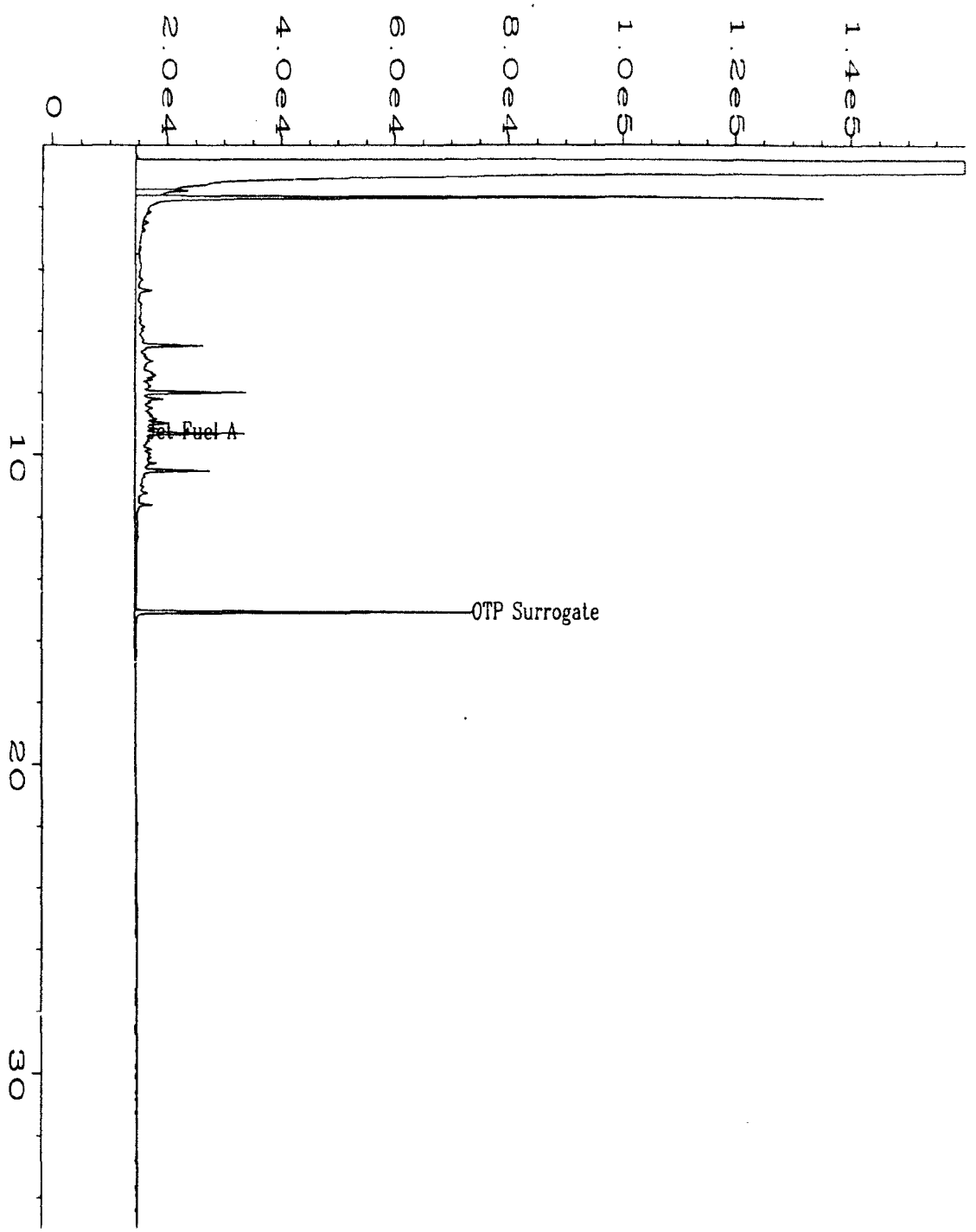
* = Values outside of QC limits.

RPD: 0 out of (1) outside limits.

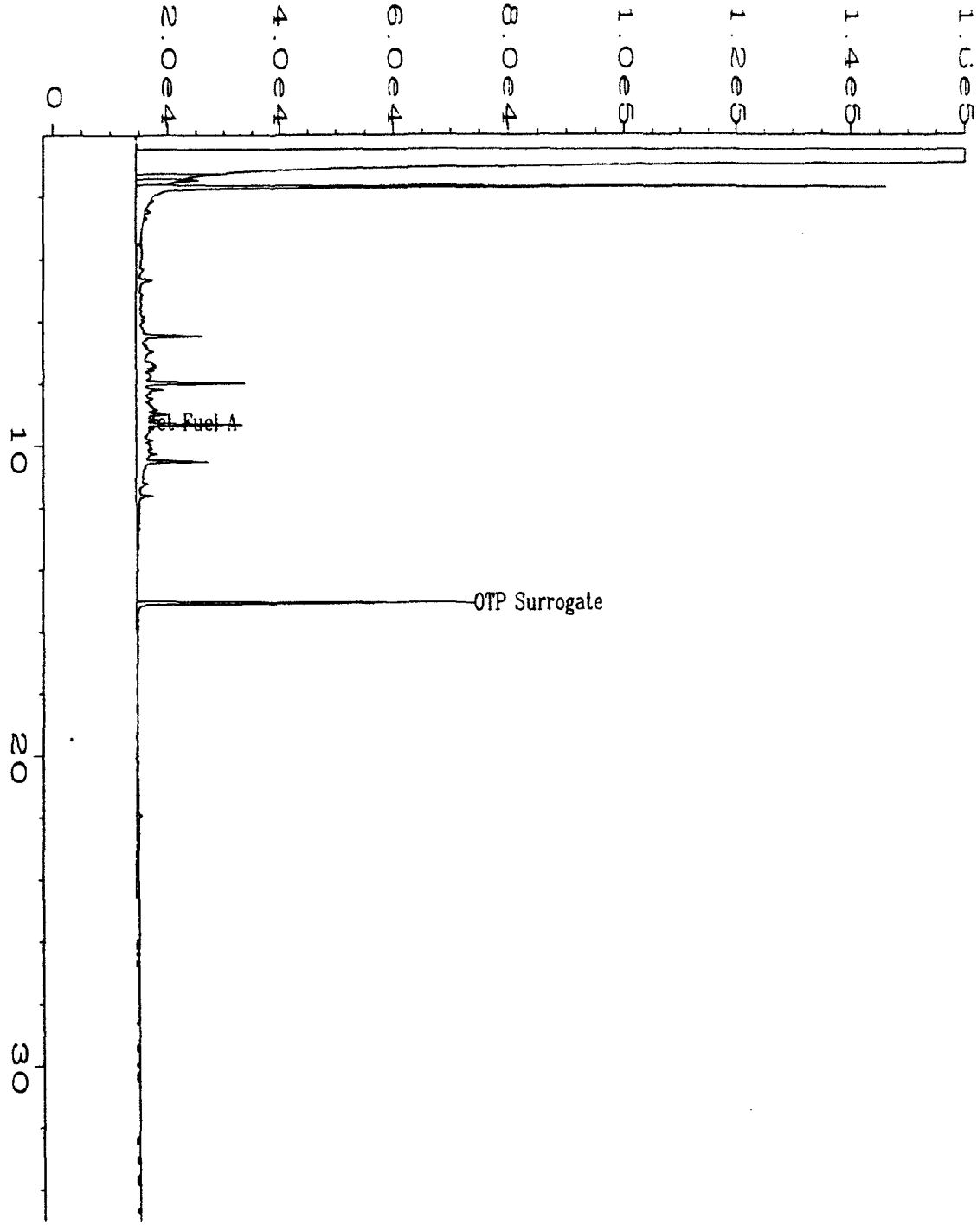
Spike Recovery: 0 out of (1) outside limits.

Comments: NA = Not analyzed/not applicable.

Values reported in ug/mL in the liquid extract.



Data File Name	: C:\HPCHEM\2\DATA\TEH0317\043R0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 43
Sample Name	: X04163 MSD	Injection Number	: 1
n Time Bar Code:		Sequence Line	: 1
equired on	: 19 Mar 95 00:04 AM	Instrument Method	: FID1BASE.MTH
Report Created on	: 11 Apr 95 12:24 PM	Analysis Method	: JET0317.MTH
Last Recalib on	: 21 MAR 95 09:48 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



Data File Name	: C:\HPCHEM\2\DATA\TEH0317\042R0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 42
Sample Name	: X01463 MS	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 18 Mar 95 11:14 PM	Instrument Method	: FID1BASE.M
Report Created on	: 11 Apr 95 12:24 PM	Analysis Method	: JET0317.MT
Last Recalib on	: 21 MAR 95 09:48 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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BTEX Water Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 24MP-6(4-6)	Client Project No.	: 722450.21020 MacDill
Lab Sample No.	: X04179	Lab Project No.	: 95-0820
Date Sampled	: 3/9/95	EPA Method No.	: 8020
Date Received	: 3/14/95	Matrix	: Soil
Date Prepared	: 3/18/95	Lab File Number(s)	: BX2031816
Date Analyzed	: 3/19/95	Method Blank	: MB031895

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Benzene	20.0	0.0	15	74	65-121
Toluene	20.0	0.8	15	69	69-117
Ethyl Benzene	20.0	0.0	14	71	68-118
m,p-Xylene	40.0	0.0	29	72	66-116
o-Xylene	20.0	0.0	14	70	73-117
Chlorobenzene	20.0	0.0	14	70	65-121
1,3,5-TMB	20.0	0.0	13	63*	65-121
1,2,4-TMB	20.0	0.0	12	60*	65-121
1,2,3-TMB	20.0	0.0	11	54*	65-121
1,2,3,4-TeMB	20.0	0.0	7.5	38*	65-121

Compound	Spike Added (ug/L)	MSD Concentration (ug/L)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Benzene	20.0	NA	NA	NA	17.4	65-121
Toluene	20.0	NA	NA	NA	15.8	69-117
Ethyl Benzene	20.0	NA	NA	NA	11.9	68-118
m,p-Xylene	40.0	NA	NA	NA	15.4	66-116
o-Xylene	20.0	NA	NA	NA	13.2	73-117
Chlorobenzene	20.0	NA	NA	NA	17.4	65-121
1,3,5-TMB	20.0	NA	NA	NA	17.4	65-121
1,2,4-TMB	20.0	NA	NA	NA	17.4	65-121
1,2,3-TMB	20.0	NA	NA	NA	17.4	65-121
1,2,3,4-TeMB	20.0	NA	NA	NA	17.4	65-121

* = Values outside of QC limits. see LCS 031895.

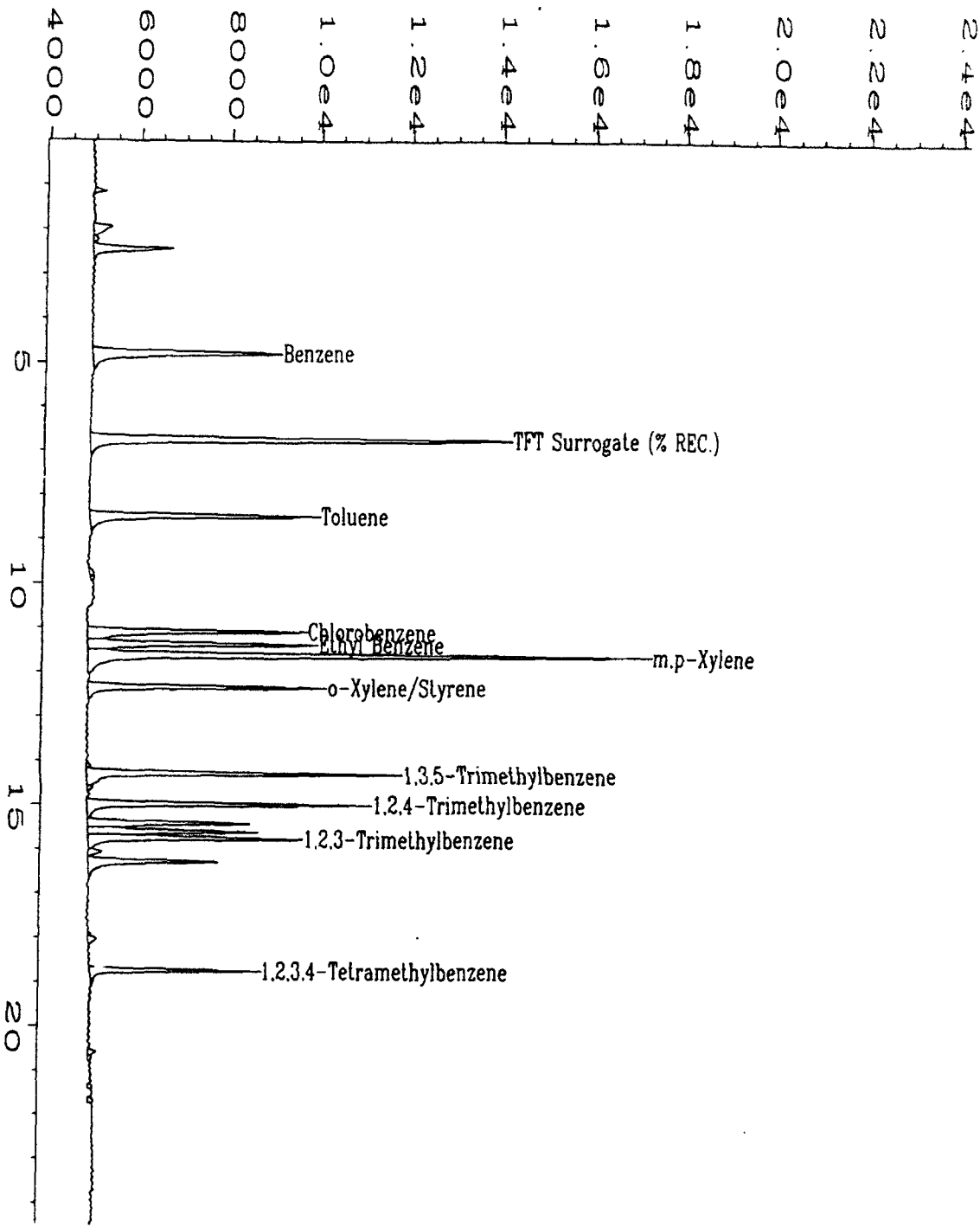
RPD: NA out of (10) outside limits.

Spike Recovery: 4 out of (10) outside limits.

Comments: MSD on this sample did not purge.

Analyst

K. Lone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20318\016R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 16
Sample Name	: X04179MS DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 19 Mar 95 03:07 AM	Instrument Method	: BX20318.M
Report Created on	: 19 Mar 95 01:36 PM	Analysis Method	: BX20318.MT
Last Recalib on	: 18 MAR 95 11:33 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0820 Client#: 24MP-6(4-6) Soil		

EVERGREEN ANALYTICAL, INC.
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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: Trip Blank		
Lab Sample Number	: X04187	Lab Project No.	: 95-0820
Date Sampled	: 3/8/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Water
Date Analyzed	: 3/18/95	Lab File No.	: BX2031720
Methanol Extract?	: No	Method Blank No.	: MB031795

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

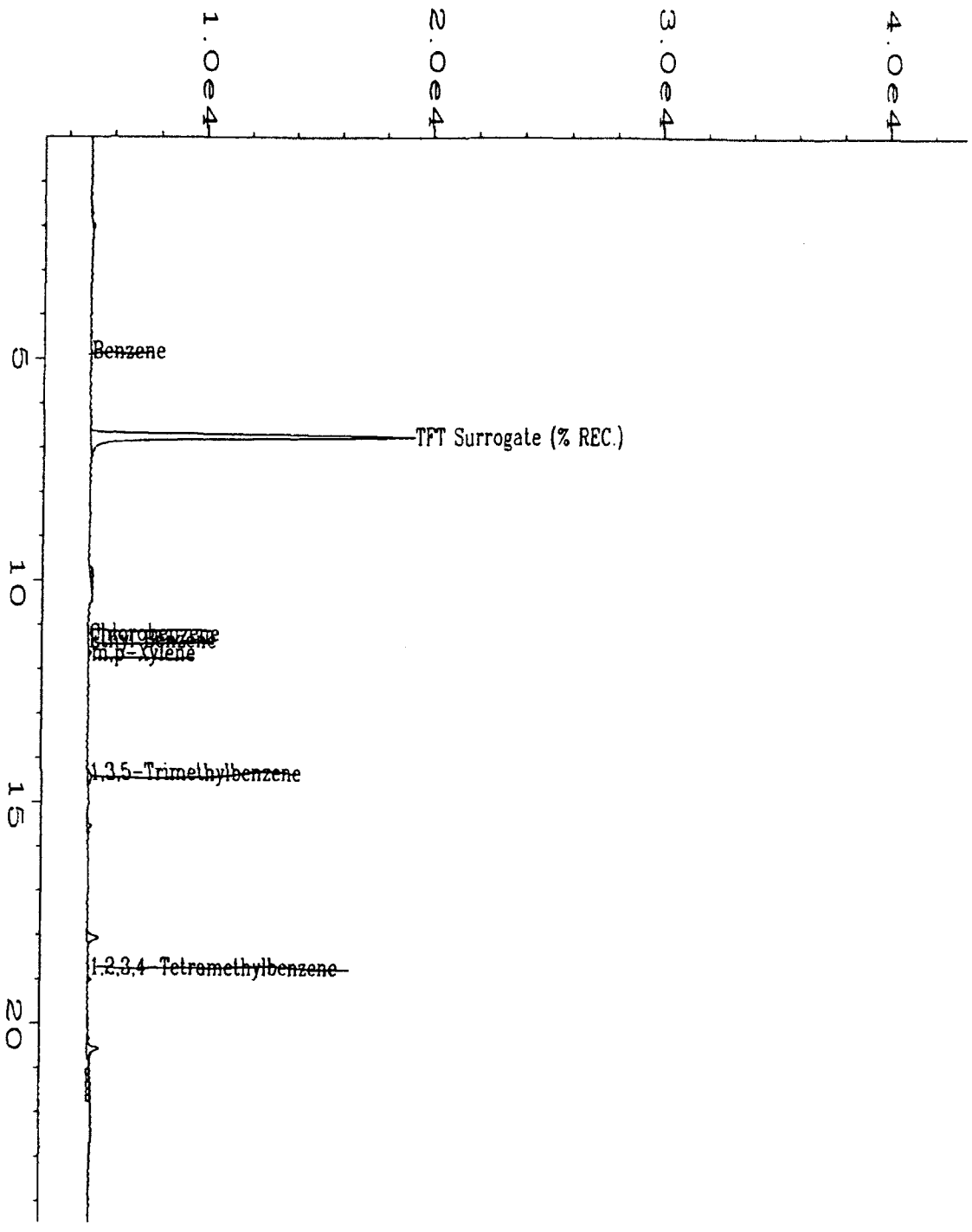
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
a,a,a,-Trifluorotoluene : 74%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20317\020R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 20
Sample Name	: X04187 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 18 Mar 95 01:25 AM	Instrument Method	: BX20317.MTH
Report Created on	: 18 Mar 95 02:31 PM	Analysis Method	: BX20317.MTH
Last Recalib on	: 18 MAR 95 01:39 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

jm 4/11/95

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BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020 MacDill
Method Blank Number	: MB031795		
Date Extracted/Prepared	: 3/17/95	Lab Project No.	: 95-0820
Date Analyzed	: 3/17/94	Dilution Factor	: 1.00
		Method	: 8020
		Matrix	: Water
		Lab File No.	: BX2031709

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

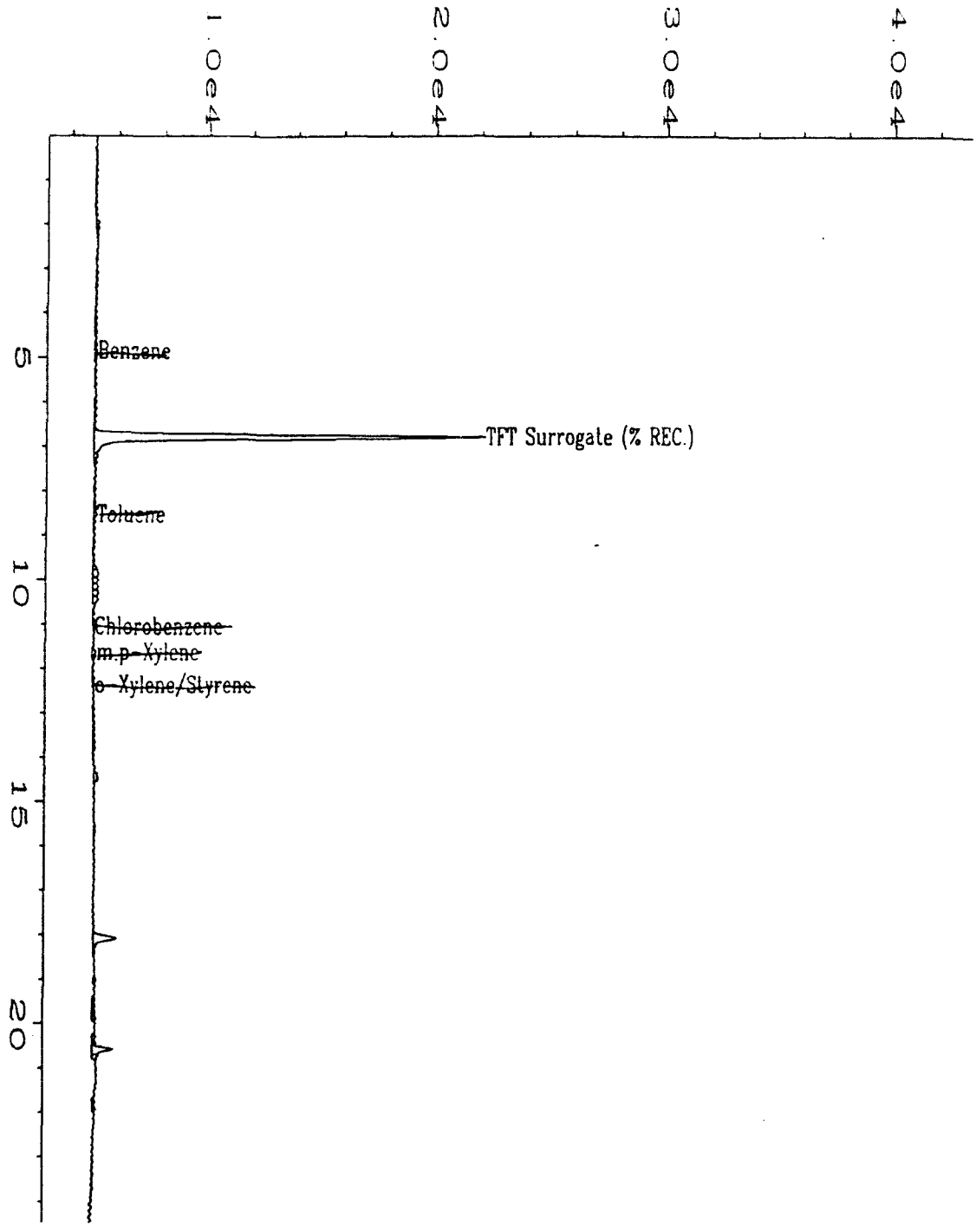
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
a,a,a,-Trifluorotoluene : 90%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20317\009R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 9
Sample Name	: MB031795-WATER	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 17 Mar 95 05:27 PM	Instrument Method	: BX20317.MTH
Report Created on	: 17 Mar 95 05:52 PM	Analysis Method	: BX20317.MTH
Last Recalib on	: 17 Mar 95 04:23 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

4/11/95

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BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020 MacDill
Method Blank Number	: MB031895		
Date Extracted/Prepared	: 3/18/95	Lab Project No.	: 95-0820
Date Analyzed	: 3/19/94	Dilution Factor	: 1.00
		Method	: 8020
		Matrix	: Water
		Lab File No.	: BX2031822

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

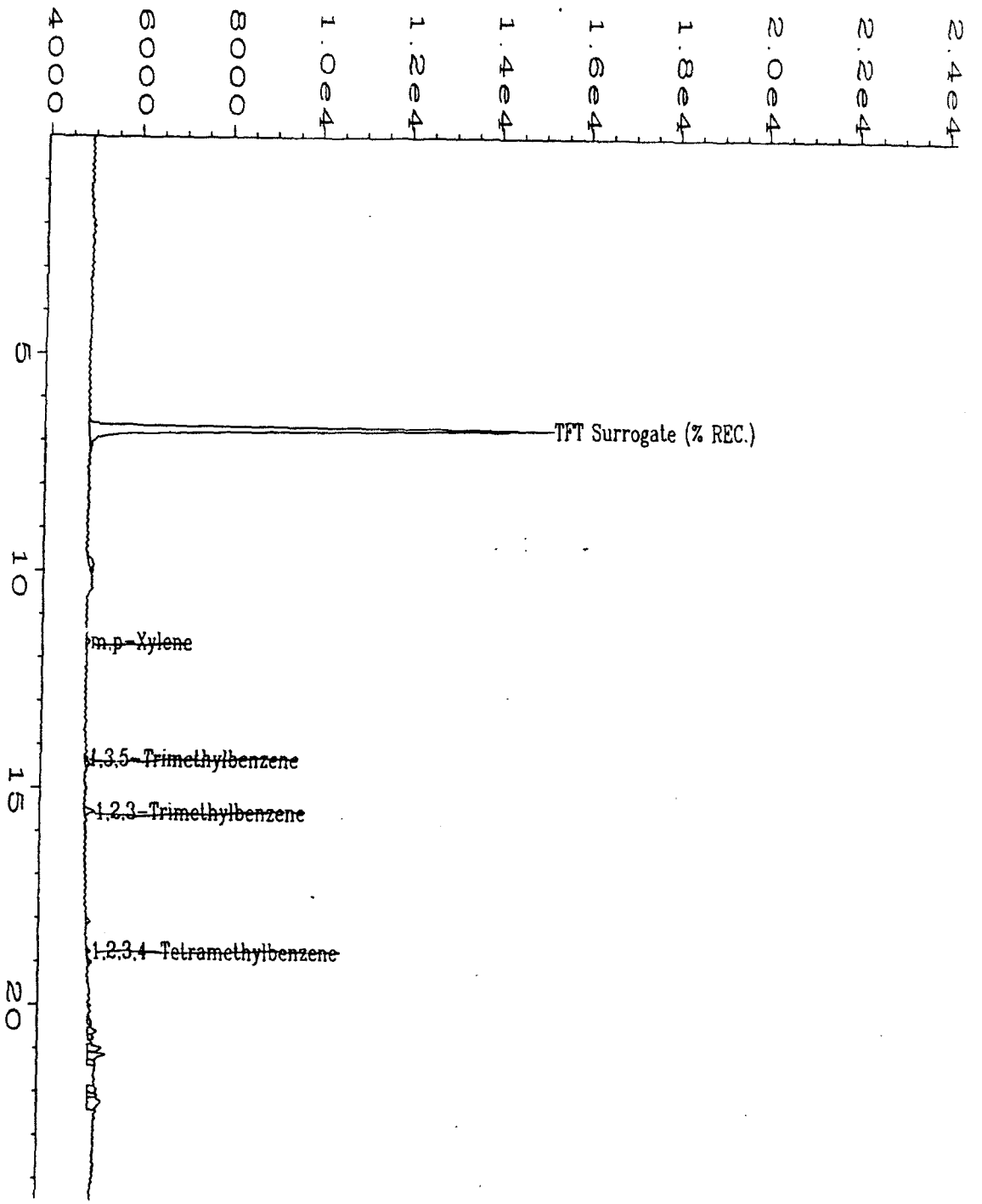
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
a,a,a,-Trifluorotoluene : 81%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20318\022R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 22
Sample Name	: MB031895-WATER	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 19 Mar 95 07:33 AM	Instrument Method	: BX20318 H
Report Created on	: 19 Mar 95 01:38 PM	Analysis Method	: BX20318.MTH
Last Recalib on	: 18 MAR 95 11:33 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020
			MacDill
Method Blank Number	: MB031995		
Date Extracted/Prepared	: 3/19/95	Lab Project No.	: 95-0820
Date Analyzed	: 3/20/94	Dilution Factor	: 1.00
		Method	: 8020
		Matrix	: Water
		Lab File No.	: BX2031914

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

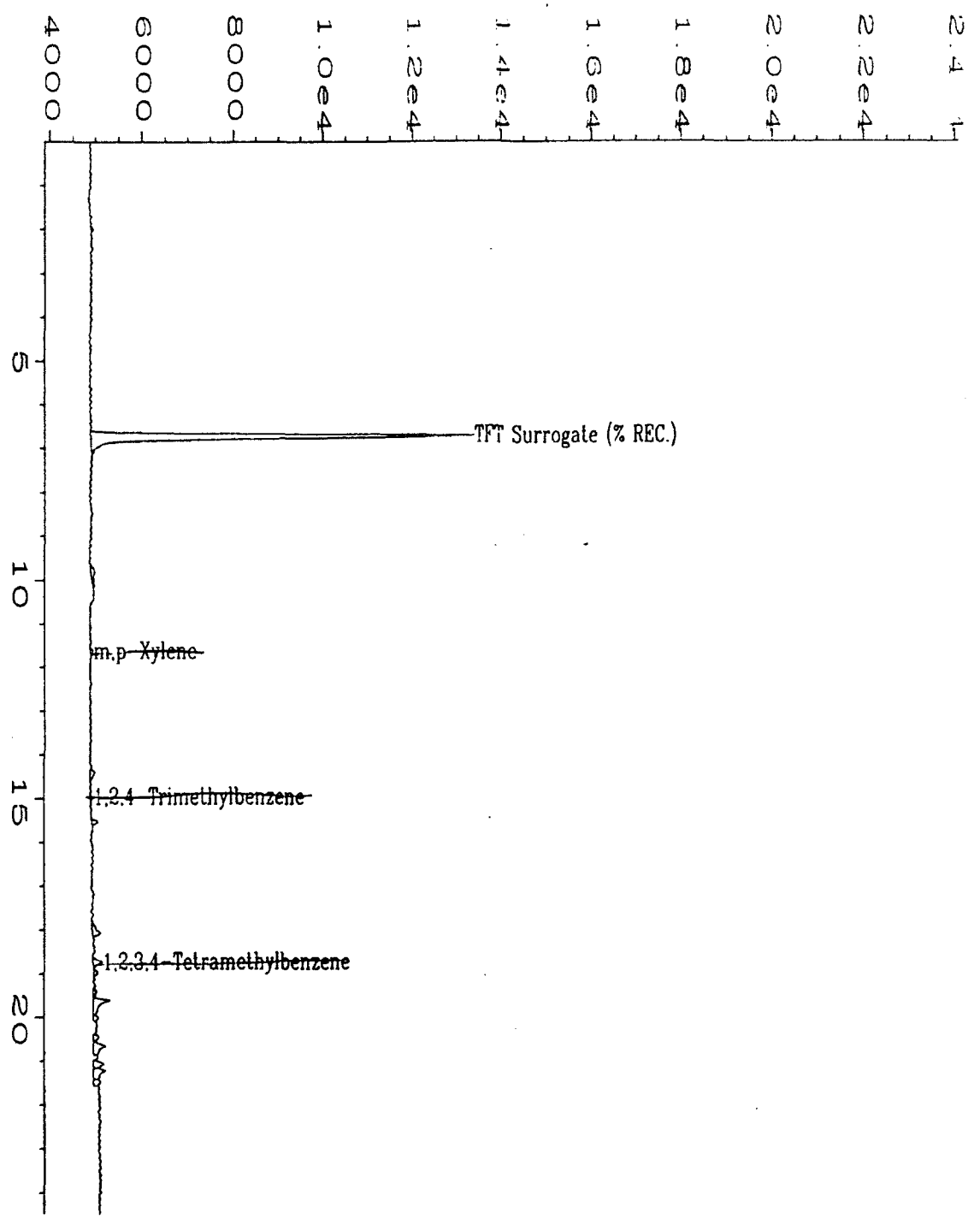
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
a,a,a,-Trifluorotoluene : 88%
QC Reporting Limits : 70%-131%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20319\014R1101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 14
Sample Name	: MEB031995	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 11
Acquired on	: 20 Mar 95 01:30 AM	Instrument Method	: BX20319...TH
Report Created on	: 20 Mar 95 01:55 AM	Analysis Method	: BX20319.MTH
Last Recalib on	: 19 Mar 95 10:59 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Dm 4/11/95

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4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020
			MacDill
Method Blank Number	: MEB032095		
Date Extracted/Prepared	: 3/20/95	Lab Project No.	: 95-0820
Date Analyzed	: 3/20/94	Dilution Factor	: 1.00
		Method	: 8020
		Matrix	: MeOH
		Lab File No.	: BX2032013

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4
Toluene	108-88-3	U	4
Ethyl Benzene	100-41-4	U	4
Total Xylene	1330-20-7	U	4
Chlorobenzene	108-90-7	U	4
1,3,5-trimethylbenzene	108-67-8	U	4
1,2,4-trimethylbenzene	95-63-6	U	4
1,2,3-trimethylbenzene	526-73-8	U	4
1,2,3,4-tetramethylbenzene	488-23-3	U	4

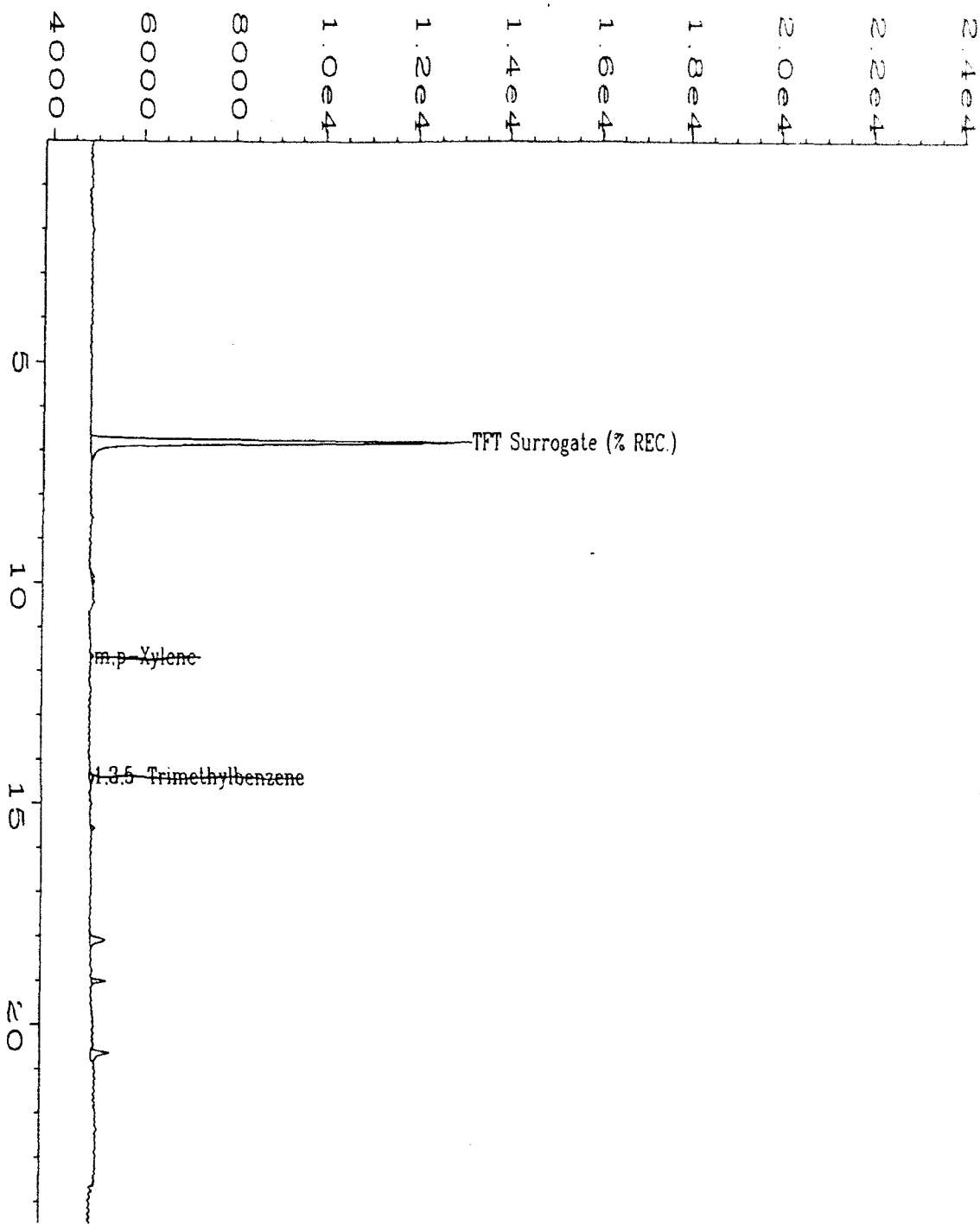
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
a,a,a,-Trifluorotoluene : 103%
QC Reporting Limits : 70%-131%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20320\013R1001.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 13
Sample Name	: MEB032095	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 20 Mar 95 09:53 PM	Instrument Method	: BX20320....
Report Created on	: 20 Mar 95 10:19 PM	Analysis Method	: BX20320.MTH
Last Recalib on	: 20 Mar 95 06:26 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020
			MacDill
Method Blank Number	: MB032095	Lab Project No.	: 95-0820
Date Extracted/Prepared	: 3/20/95	Dilution Factor	: 1.00
Date Analyzed	: 3/20/94	Method	: 8020
		Matrix	: Water
		Lab File No.	: BX2032011

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

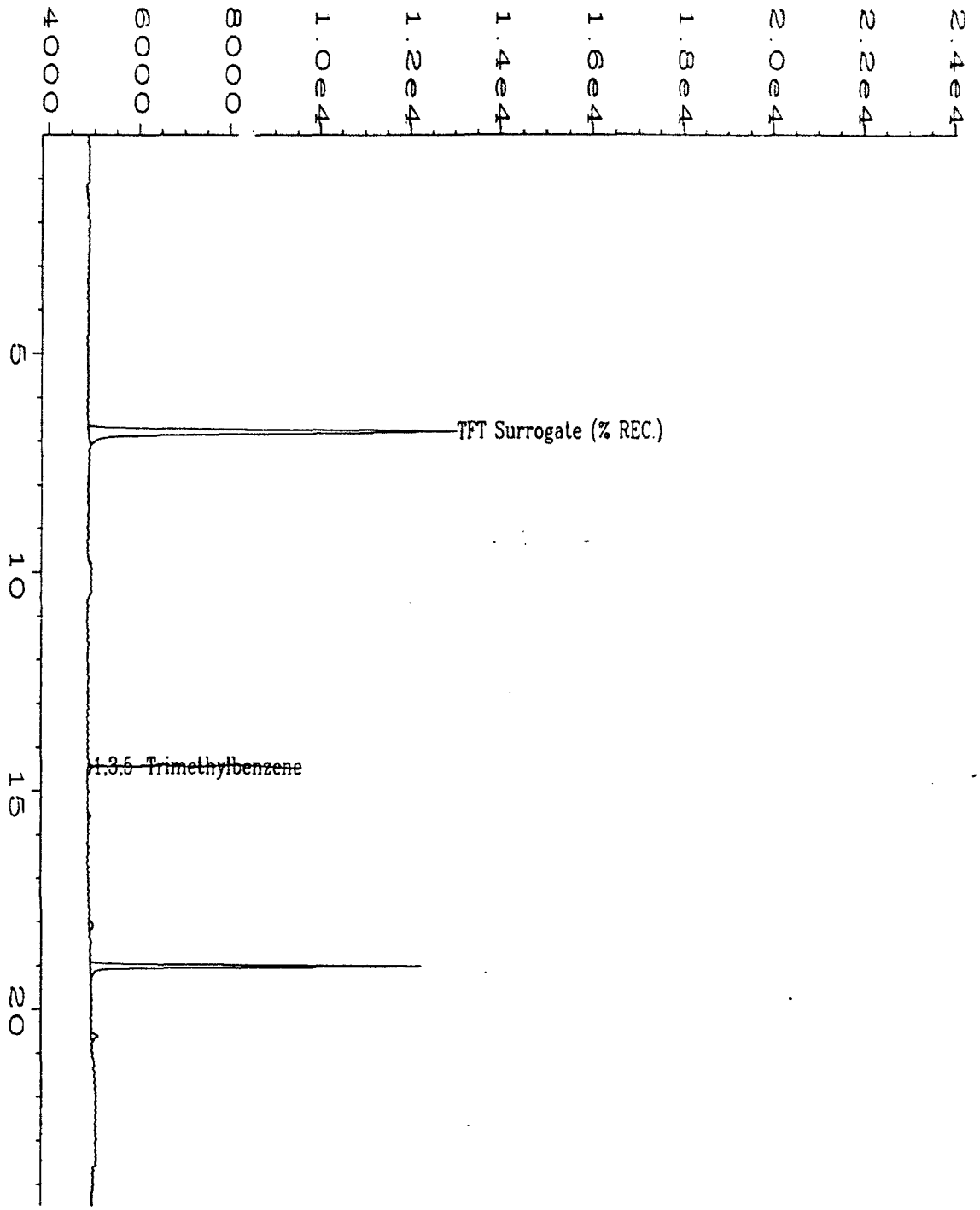
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

Surrogate Recovery:
a,a,a,-Trifluorotoluene : 102%
QC Reporting Limits : 70%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20320\011R1001.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 11
Sample Name	: MB032095-WATER	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 20 Mar 95 08:20 PM	Instrument Method	: BX20320.MTH
Report Created on	: 20 Mar 95 08:45 PM	Analysis Method	: BX20320.MTH
Last Recalib on	: 20 Mar 95 06:26 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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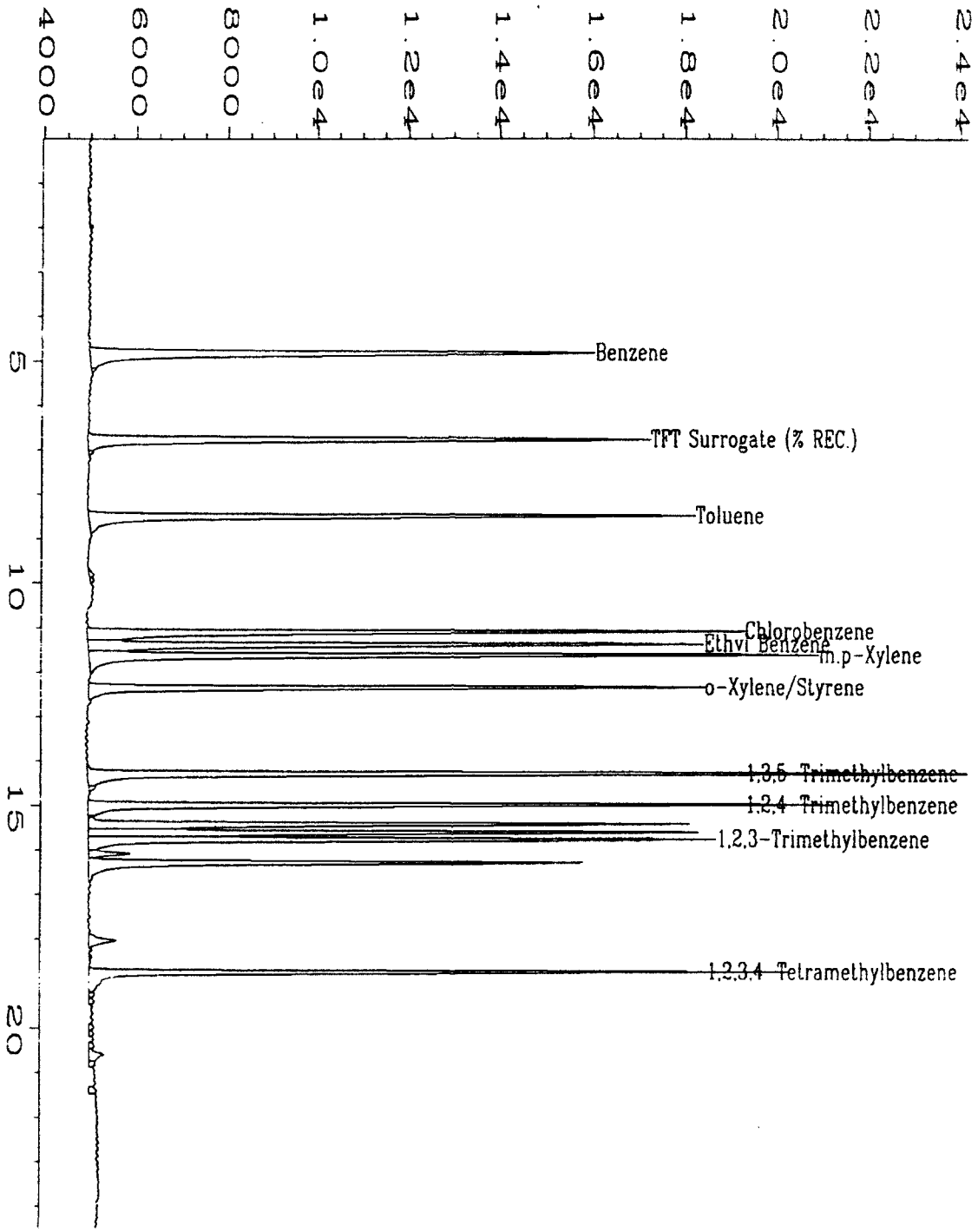
BTEX Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS031895	Dilution Factor	: 1.00
Date Extracted/Prepared	: 3/18/95	Method	: 602
Date Analyzed	: 3/18/95	Matrix	: Water
Spike Amount (ug/L)	: 40.0	Lab File No.	: BX20318010

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	36.0	90.0%	37.5%-110.0%
Toluene	108-88-3	34.7	86.8%	65.0%-107.5%
Ethyl Benzene	100-41-4	35.5	88.8%	65.0%-120.0%
m,p-Xylene	NA	36.2	90.5%	62.5%-117.5%
o-Xylene	95-47-6	34.1	85.3%	65.0%-120.0%
Chlorobenzene	108-90-7	35.2	88.0%	70.0%-115.0%
1,3,5-trimethylbenzene	108-67-8	35.9	89.8%	60.0%-117.5%
1,2,4-trimethylbenzene	95-63-6	30.5	76.3%	57.5%-115.0%
1,2,3-trimethylbenzene	526-73-8	34.3	85.8%	72.5%-122.5%
1,2,3,4-tetramethylbenzene	488-23-3	34.6	86.5%	50.0%-150%
Surrogate Recovery (α,α,α-Trifluorotoluene):		95%	70%-130% (QC limits)	

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
NA = Not available/Not analyzed

K Cone
Analyst



Data File Name	: C:\HPCHEM\2\DATA\BX20318\010R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 10
Sample Name	: LCS031895	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 18 Mar 95 10:39 PM	Instrument Method	: BX20318
Report Created on	: 04 Apr 95 04:19 AM	Analysis Method	: BX20318.MTH
Last Recalib on	: 18 MAR 95 11:33 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

External Standard Report

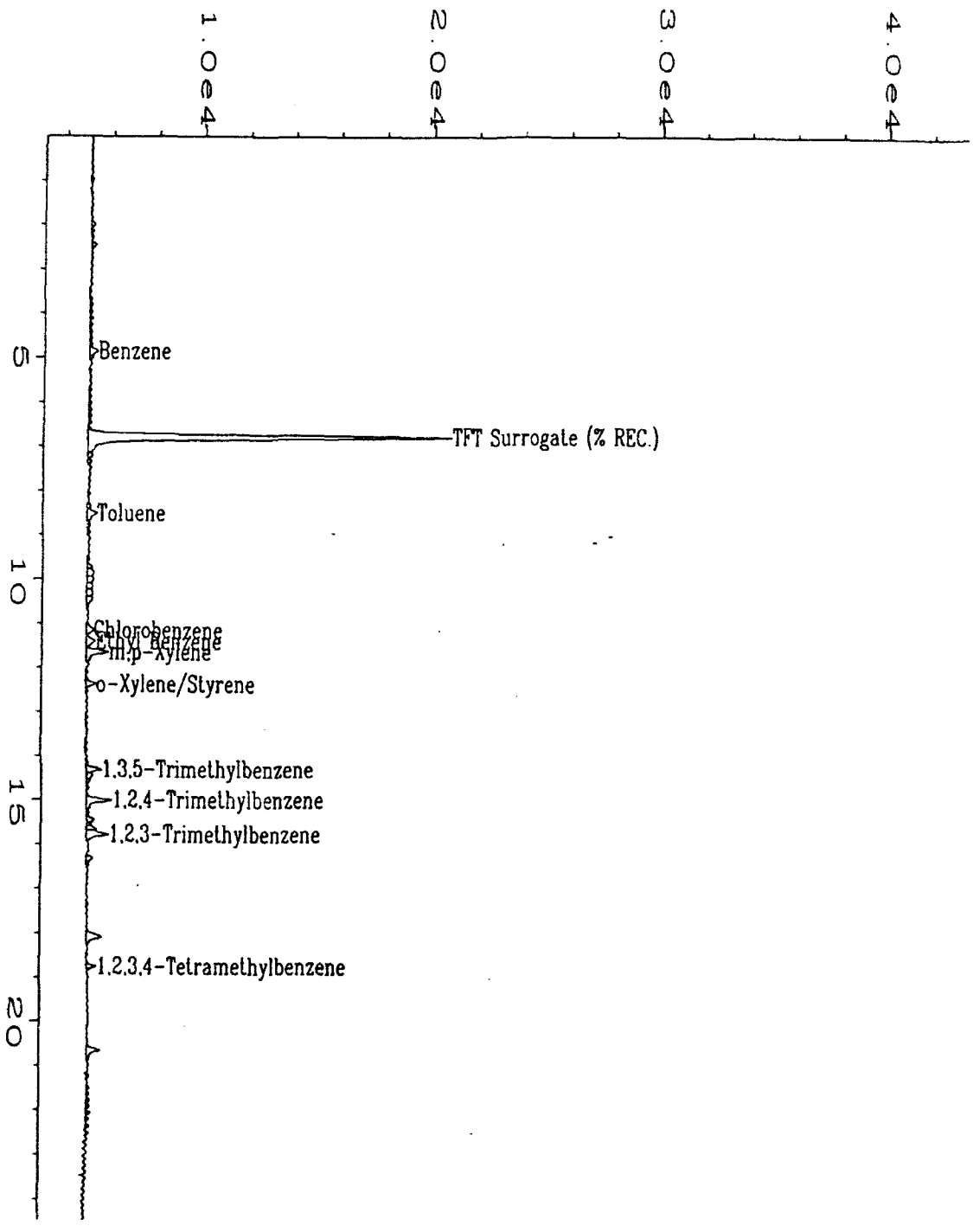
Data File Name : C:\HPCHEM\2\DATA\BX20317\008R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : 1.0 ppb BTEX MIX
Run Time Bar Code:
Acquired on : 17 Mar 95 04:43 PM
Report Created on: 18 Mar 95 02:05 PM
Last Recalib on : 18 MAR 95 01:39 PM
Multiplier : 1

Page Number : 1
Vial Number : 8
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20317.MTH
Analysis Method : BX20317.MTH
Sample Amount : 0
ISTD Amount :

Sig. 2 in C:\HPCHEM\2\DATA\BX20317\008R0801.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
2.466	1156	PV	0.076	1	0.497	
4.867	2629	VV	0.095	1	2.632	Benzene
6.789	108107	VV	0.105	1-R	81.851	TFT Surrogate (% REC.)
8.526	3772	VV	0.118	1	2.374	Toluene
11.158	2728	VV	0.119	1	2.707	Chlorobenzene
11.410	3157	VV	0.113	1	1.591	Ethyl Benzene
11.654	6815	VV	0.104	1	1.054	m,p-Xylene
12.379	2809	PV	0.094	1	1.931	o-Xylene/Styrene
14.316	3508	VV	0.074	1	0.778	1,3,5-Trimethylbenzene
15.007	7245	VV	0.090	1	0.801	1,2,4-Trimethylbenzene
15.455	1974	VV	0.091	1	1.830	
15.569	803	VV	0.060	1	0.735	
15.781	6531	VV	0.093	1	-1.117	1,2,3-Trimethylbenzene
16.325	1656	VV	0.082	1	0.832	
18.759	1996	VV	0.069	1	0.576	1,2,3,4-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
3	6.804	6.789	-0.015



)ata File Name	: C:\HPCHEM\2\DATA\BX20317\008R0801.D		
)perator	: C.J. Cook	Page Number	: 1
nstrument	: BTEX2	Vial Number	: 8
:ample Name	: 1.0 ppb BTEX MIX	Injection Number	: 1
.un Time Bar Code:		Sequence Line	: 8
.cquired on	: 17 Mar 95 04:43 PM	Instrument Method	: BX20317.MTH
eport Created on	: 17 Mar 95 05:08 PM	Analysis Method	: BX20317.MTH
ast Recalib on	: 17 Mar 95 04:23 PM	Sample Amount	: 0
ultiplier	: 1	ISTD Amount	:
ample Info	: STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); + 1,2,3 & 1,2,4-Trimethylbenzene		

External Standard Report

Data File Name : C:\HPCHEM\2\DATA\BX20318\018R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : 1.0 ppb BTEX MIX
Run Time Bar Code:
Acquired on : 19 Mar 95 04:36 AM
Report Created on: 19 Mar 95 01:36 PM
Last Recalib on : 18 MAR 95 11:33 PM
Multiplier : 1
Sample Info : STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); + 1,2,3 & 1,2,4-Trimethylbenzene

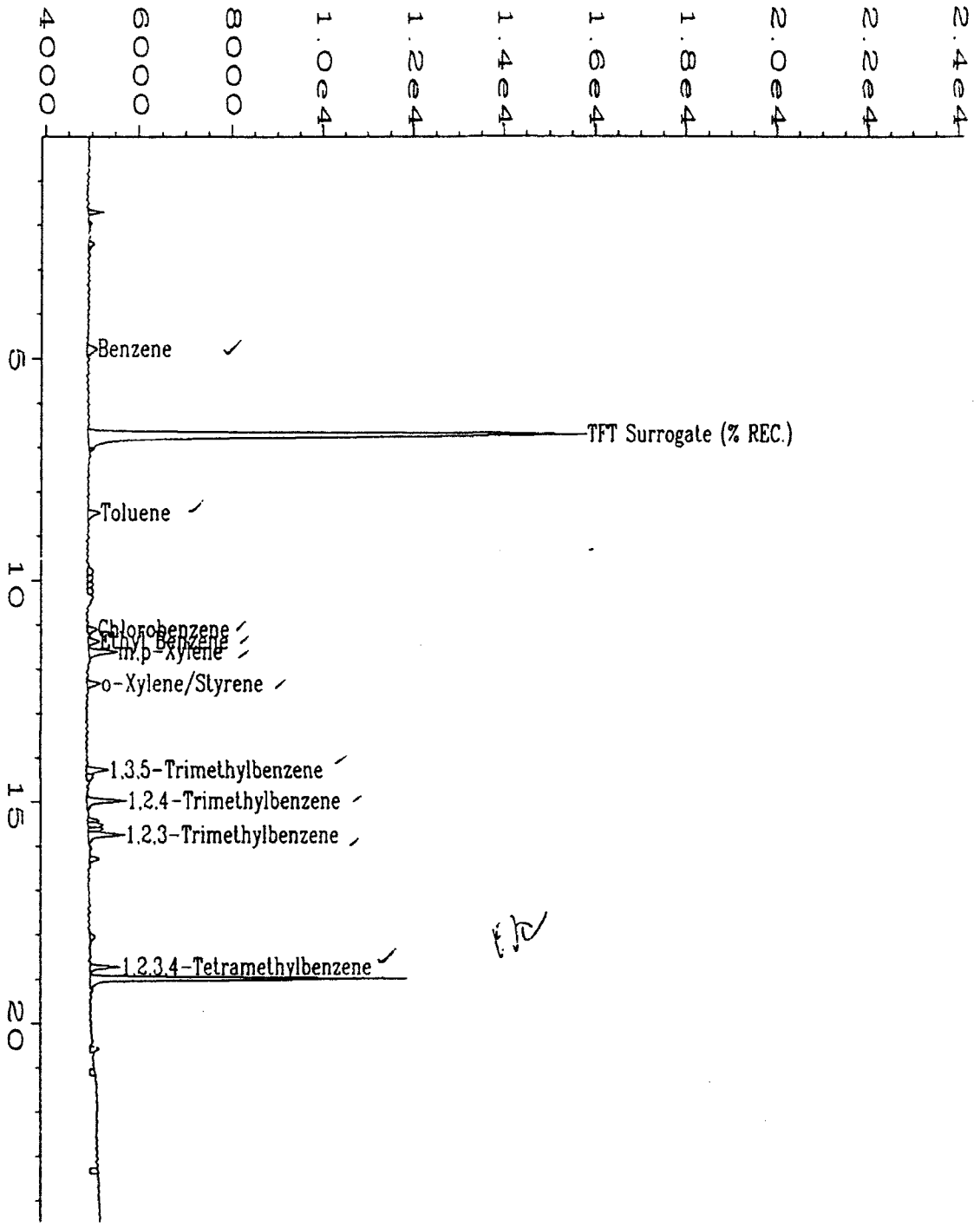
Page Number : 1
Vial Number : 18
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20318.MTH
Analysis Method : BX20318.MTH
Sample Amount : 0
ISTD Amount :

Sig. 2 in C:\HPCHEM\2\DATA\BX20318\018R0801.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
2.418	985	PV	0.100	1	0.909	
4.776	2000	VV	0.114	1	2.263	Benzene
6.713	75070	PV	0.101	1-R	87.562	TFT Surrogate (% REC.)
8.469	1891	VV	0.090	1	1.678	Toluene
11.099	1318	PV	0.088	1	2.299	Chlorobenzene
11.368	1533	VV	0.094	1	1.121	Ethyl Benzene
11.602	3867	VV	0.091	1	0.0462	m,p-Xylene
12.323	1681	BV	0.082	1	1.330	o-Xylene/Styrene
14.273	2648	VV	0.077	1	0.423	1,3,5-Trimethylbenzene
14.967	4818	PV	0.079	1	1.263	1,2,4-Trimethylbenzene
15.240	* not found *			1		
15.418	1124	VV	0.058	1	2.046	
15.739	4645	VV	0.083	1	-0.240	1,2,3-Trimethylbenzene
16.089	* not found *			1		
18.722	2932	PV	0.064	1	0.282	1,2,3,4-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
3	6.750	6.713	-0.037

Not all calibrated peaks were found



Data File Name	: C:\HPCHEM\2\DATA\BX20318\018R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 18
Sample Name	: 1.0 ppb BTEX MIX	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 19 Mar 95 04:36 AM	Instrument Method	: BX20318
Report Created on	: 19 Mar 95 01:36 PM	Analysis Method	: BX20318.MTH
Last Recalib on	: 18 MAR 95 11:33 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); + 1,2,3 & 1,2,4-Trimethylbenzene		

External Standard Report

Data File Name : C:\HPCHEM\2\DATA\BX20320\010R1001.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : 1.0 ppb BTEX MIX
Run Time Bar Code:
Acquired on : 20 Mar 95 07:34 PM
Report Created on: 20 Mar 95 07:59 PM
Last Recalib on : 20 Mar 95 06:26 PM
Multiplier : 1
Sample Info : STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); + 1,2,3 & 1,2,4-Trimethylbenzene

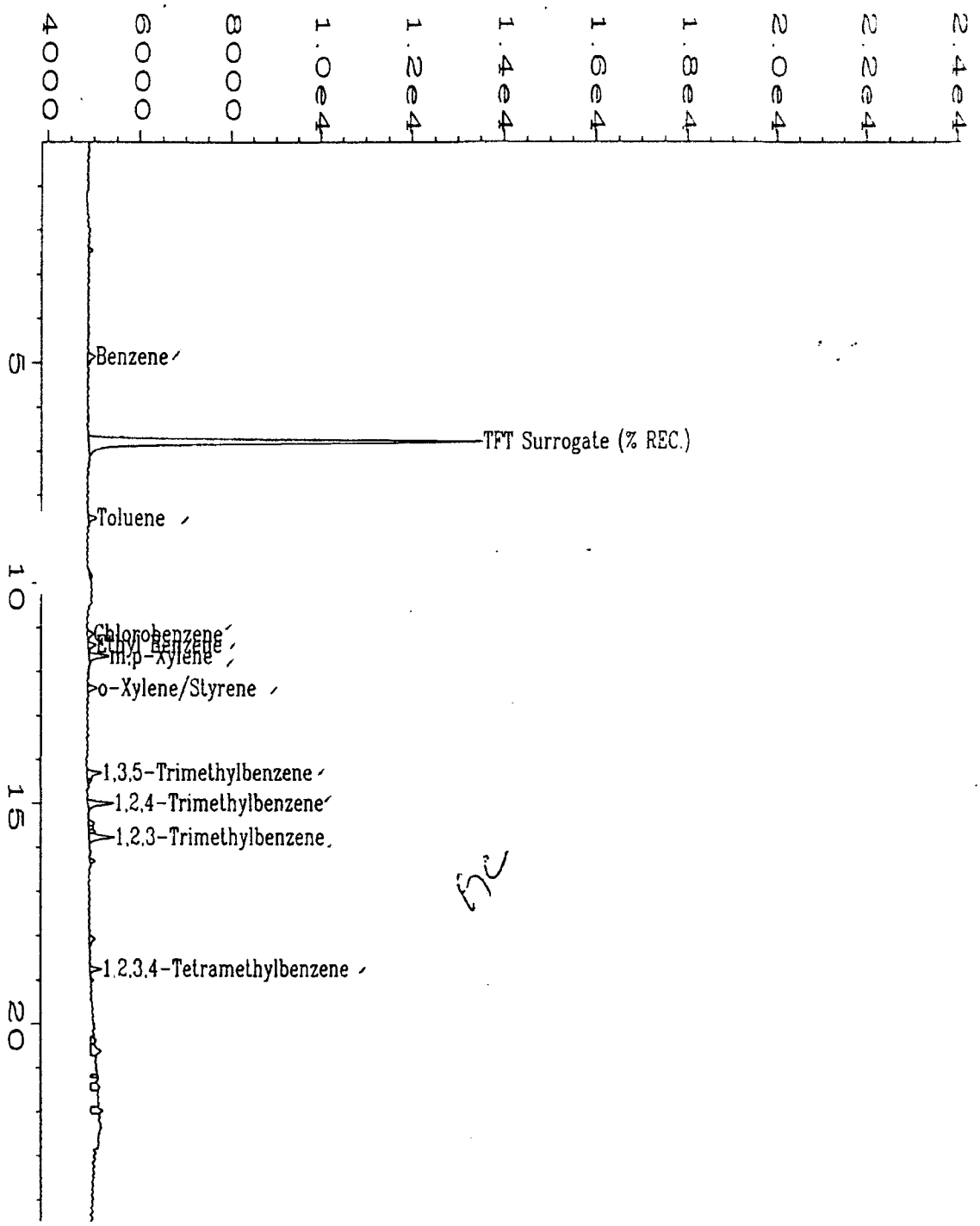
Page Number : 1
Vial Number : 10
Injection Number : 1
Sequence Line : 10
Instrument Method: BX20320.MTH
Analysis Method : BX20320.MTH
Sample Amount : 0
ISTD Amount :

Sig. 2 in C:\HPCHEM\2\DATA\BX20320\010R1001.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
2.462	464	PV	0.060	1	1.993	
4.856	1454	VV	0.115	1	3.235	Benzene
6.775	56877	PV	0.092	1-R	107.892	TFT Surrogate (% REC.)
8.514	1060	PV	0.083	1	2.186	Toluene
11.146	1048	PV	0.101	1	3.007	Chlorobenzene
11.395	1128	VV	0.091	1	1.756	Ethyl Benzene
11.648	2569	VV	0.086	1	0.893	m,p-Xylene
12.369	1256	BV	0.080	1	2.110	o-Xylene/Styrene
14.303	2019	PV	0.097	1	1.387	1,3,5-Trimethylbenzene
14.995	3170	PV	0.082	1	1.181	1,2,4-Trimethylbenzene
15.240	* not found *			1		
15.444	724	BV	0.074	1	2.086	
15.771	3314	VV	0.086	1	0.119	1,2,3-Trimethylbenzene
16.089	* not found *			1		
18.751	1242	PV	0.075	1	1.846	1,2,4,5-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
3	6.750	6.775	0.025

Not all calibrated peaks were found



Data File Name	: C:\HPCHEM\2\DATA\BX20320\010R1001.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 10
Sample Name	: 1.0 ppb BTEX MIX	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 20 Mar 95 07:34 PM	Instrument Method	: BX20320.. .H
Report Created on	: 20 Mar 95 07:59 PM	Analysis Method	: BX20320.MTH
Last Recalibration	: 20 Mar 95 06:26 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); + 1,2,3 & 1,2,4-Trimethylbenzene		

EVERGREEN ANALYTICAL, INC.
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(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH)

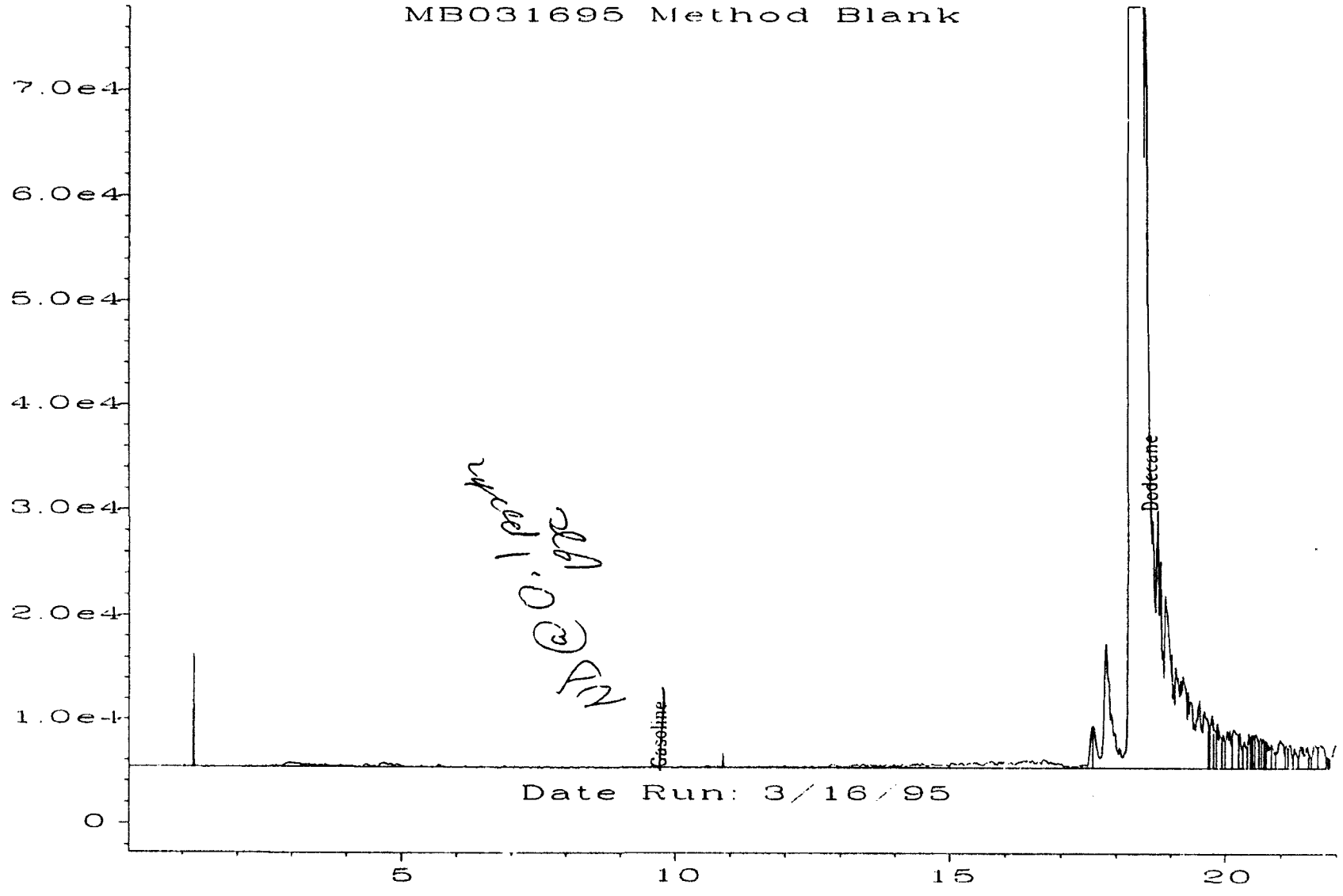
Date Sampled	: 3/8,9,10,13/95	Client Project Number	: 722450.21020/MAC DILL
Date Received	: 3/14/95	Lab Project Number	: 95-0820
Date Prepared	: 3/16,17,22,24/95	Matrix	: Soil
Date Analyzed	: 3/16,17,22,24/95	Method Number	: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH* mg/Kg	RL* mg/Kg
MB031695	METHOD BLANK	100%	U	0.10
MB032295	METHOD BLANK	100%	U	0.10
MB032395	METHOD BLANK	90%	U	0.10
X04173	24 MP-1A(3'-4')	116%	U	0.11
X04174	24 MP-1B(8'-9')	118%	1.1	0.12
X04175	24 MP-2(3'-4')	115%	U	0.12
X04176	24 MP-3 (3-5)	112%	0.36	0.12
X04177	24-MP-4 (3-5)	115%	U	0.12
X04178	24 MP-5 (3-5)	113%	U	0.12
X04179	24 MP-6 (4-6)	114%	U	0.12
X04181	24SS-1 (4-6)	120%	4.7	0.1
X04182	24SS-2 (4-6)	118%	3.0	0.1
X04183	75SS-1 (3-5)	108%	230	6.0
X04183 DUP	75SS-1 (3-5)	113%	590	6.0
X04184	75SS-1 (7-9)	101%	0.36	0.12
X04185	75SS-2 (3-5)	128%	4800E	5.7
X04186	75SS-2 (9-11)	101%	U	0.12
X04186 DUP	75SS-2 (9-11)	116%	0.41	0.12

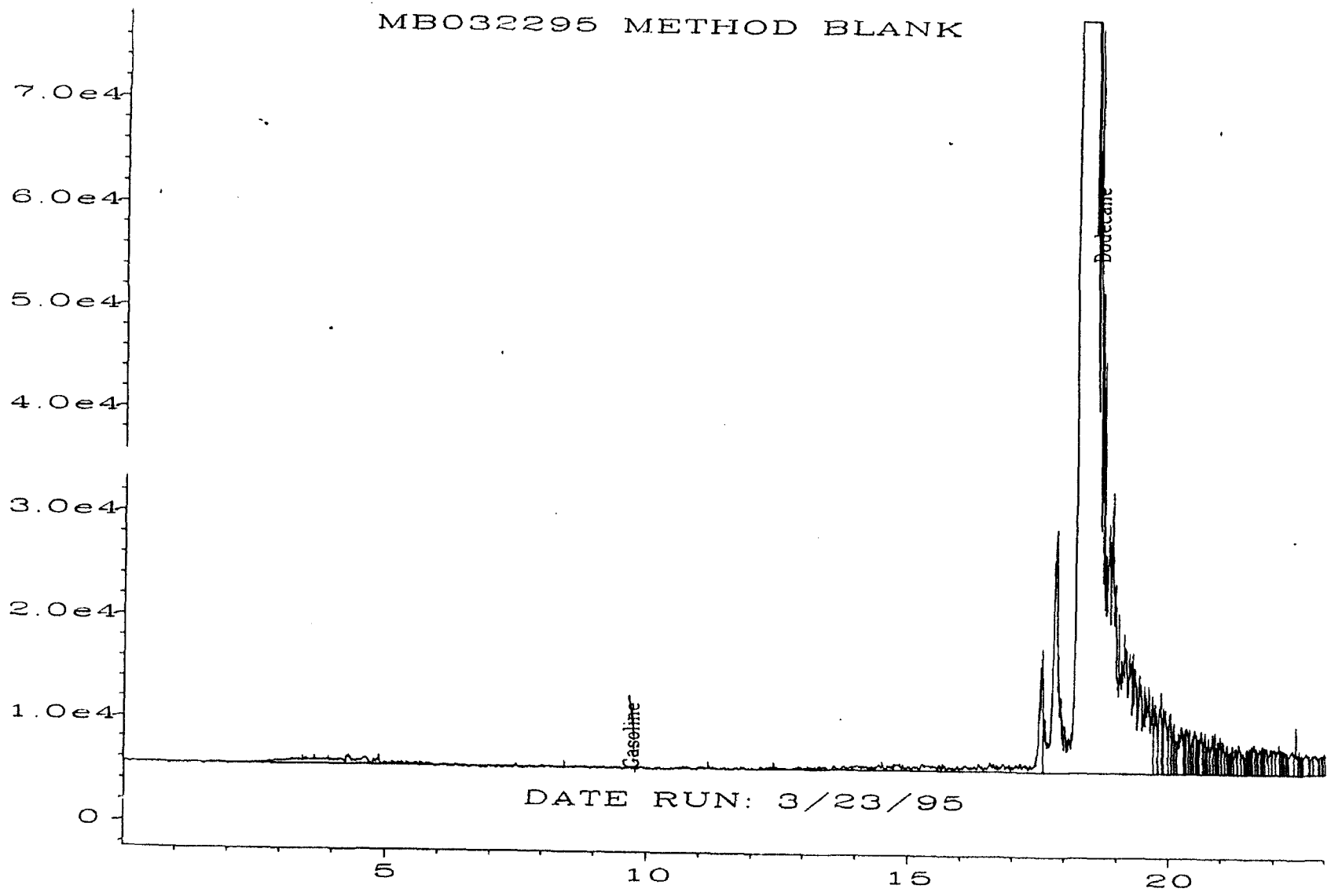
QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
RL = Reporting Limit
* = Based on dry weight.

Analyst

Approved

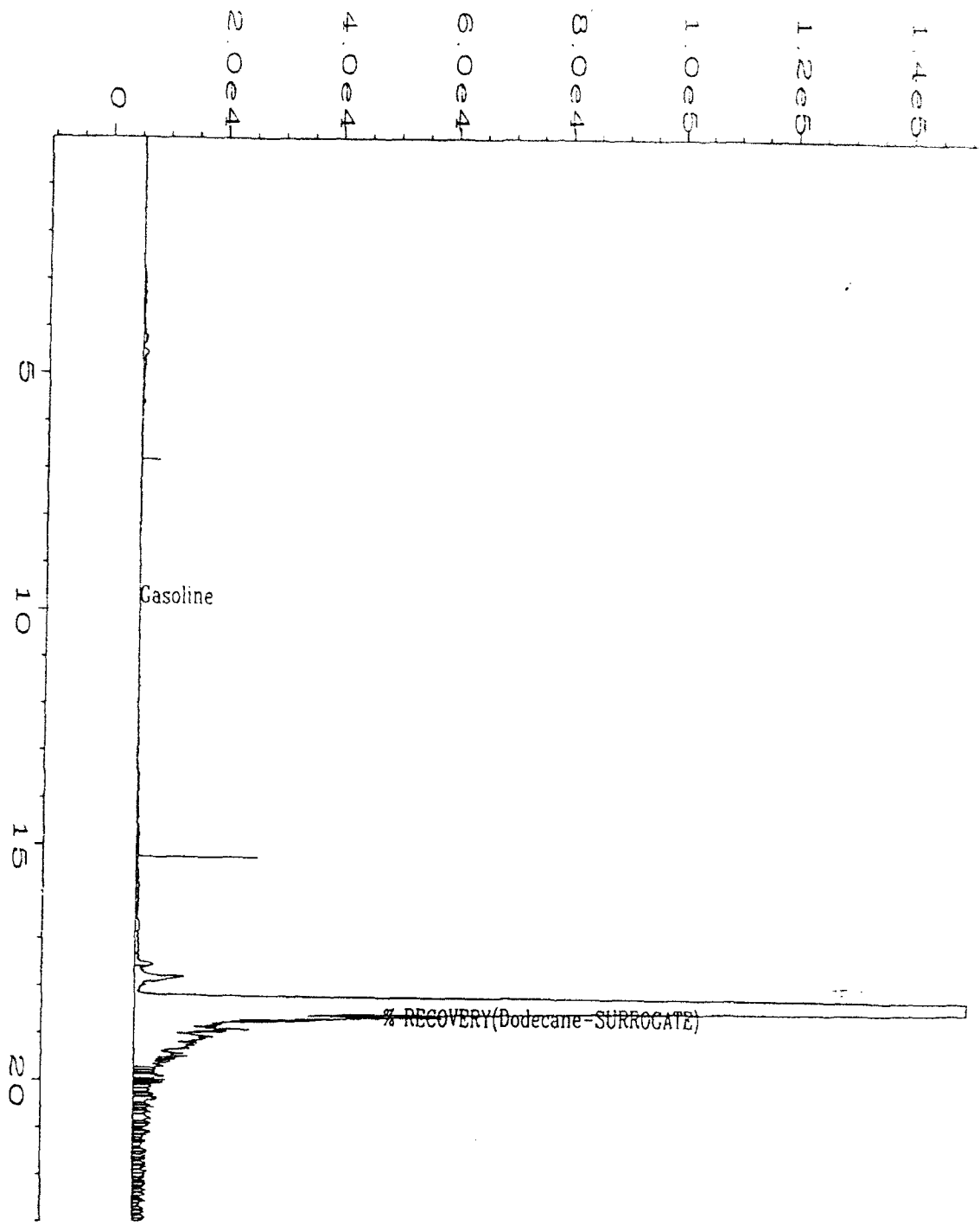


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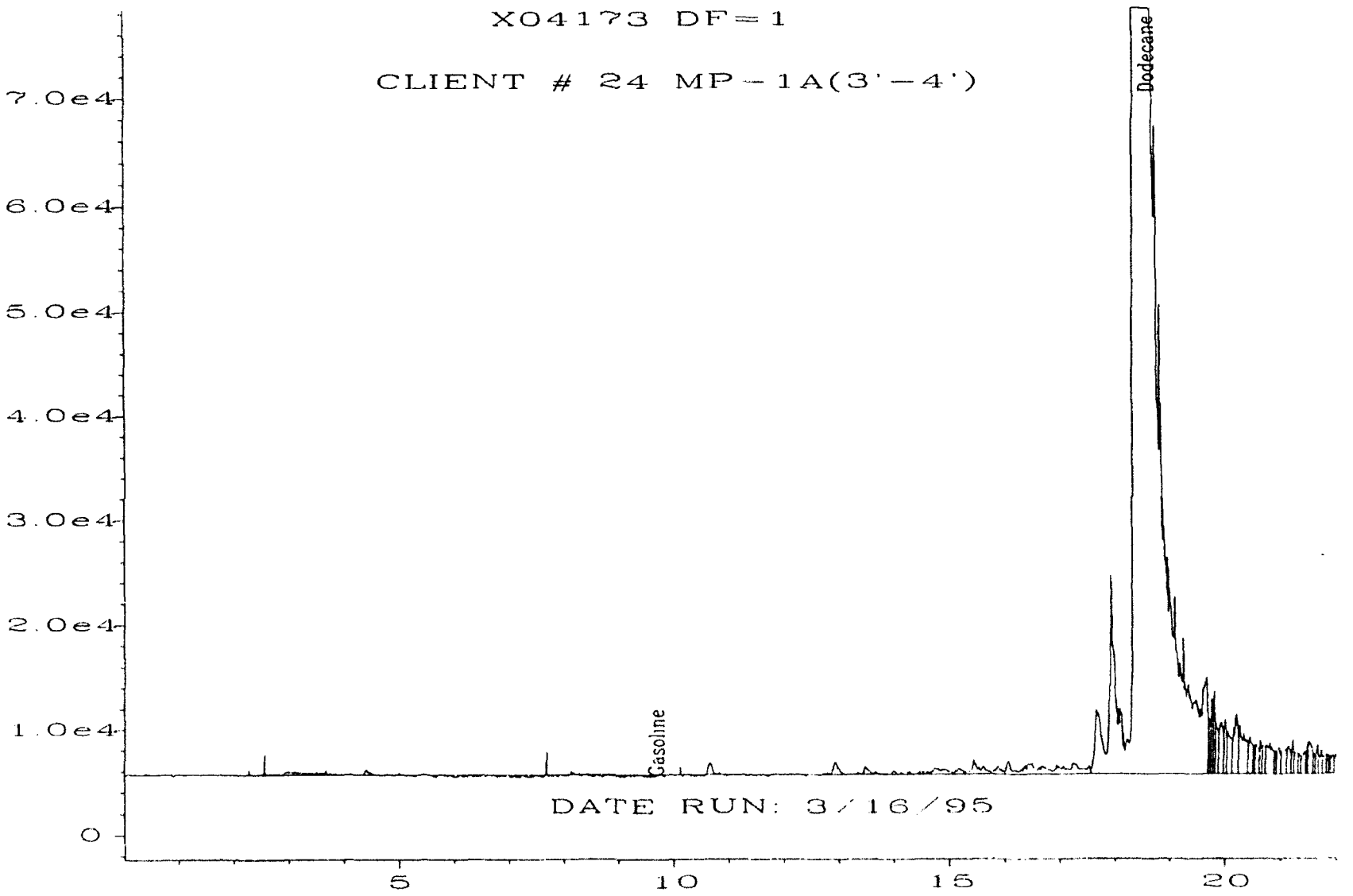


Sig. 1 in C:\HPCHEM\1\DATA\TVH0322\024F0101.D

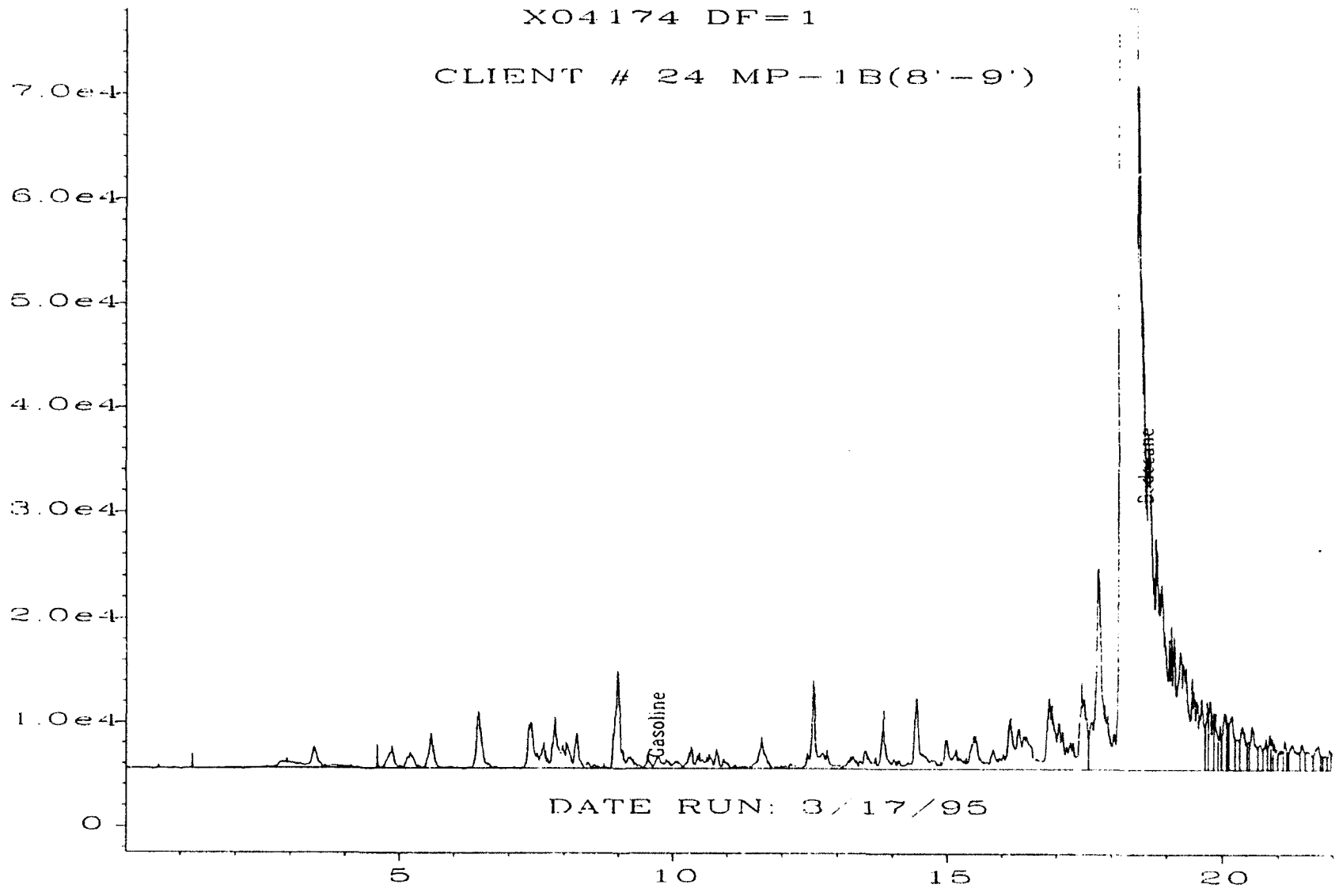
jm 3/30/95



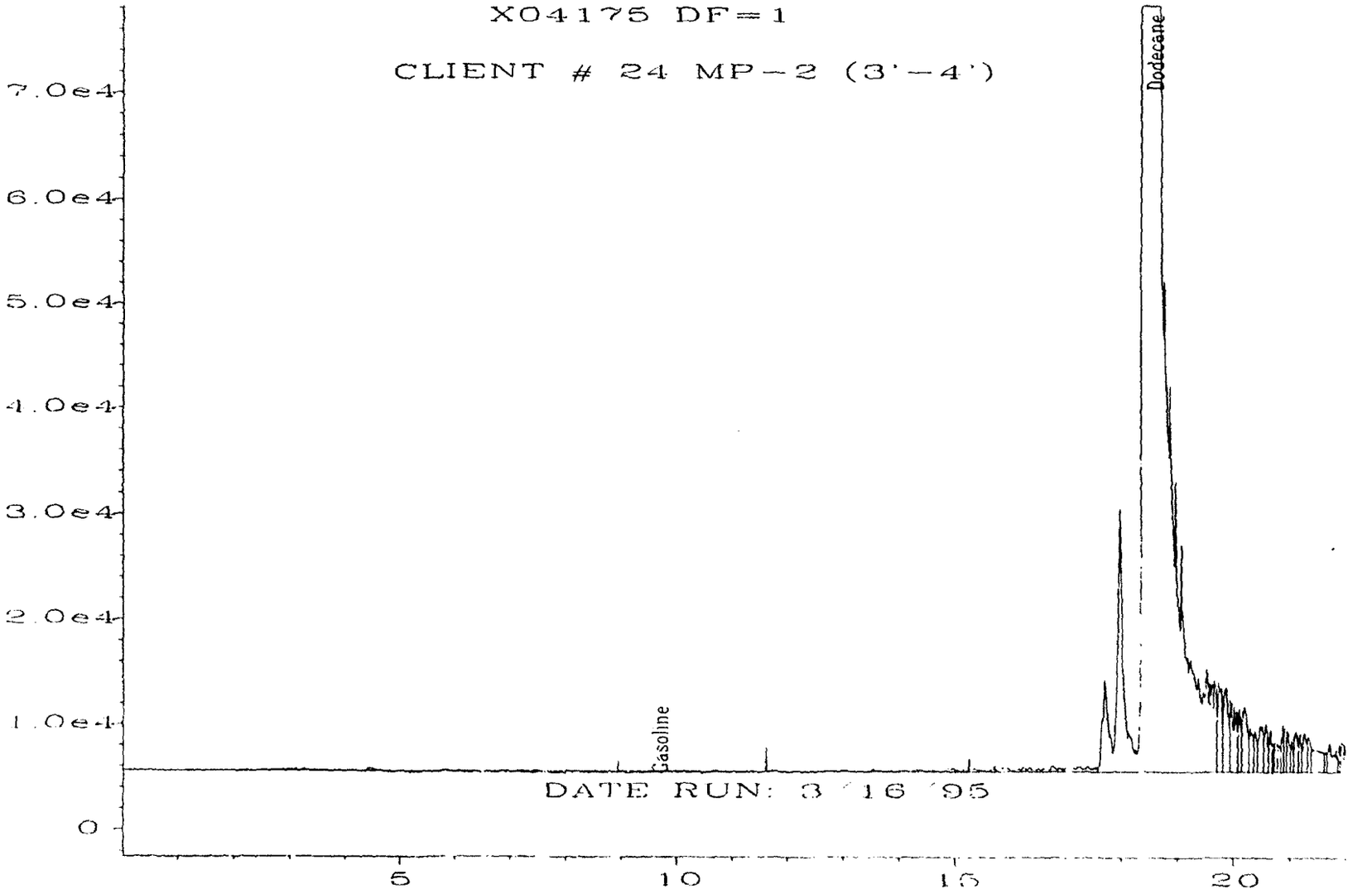
ata File Name	: C:\HPCHEM\1\DATA\tvh0323\001F0101.D		
perator	: Dawn N. Guildner	Page Number	: 1
strument	: TVH	Vial Number	: 1
mple Name	: MB032395	Injection Number	: 1
n Time Bar Code	:	Sequence Line	: 1
quired on	: 23 Mar 95 05:56 PM	Instrument Method	: TVH0323.MT..
port Created on	: 23 Mar 95 06:20 PM	Analysis Method	: TVH0323.MTH
st Recalib on	: 23 MAR 95 12:18 PM	Sample Amount	: 0
ltiplier	: 1	ISTD Amount	:



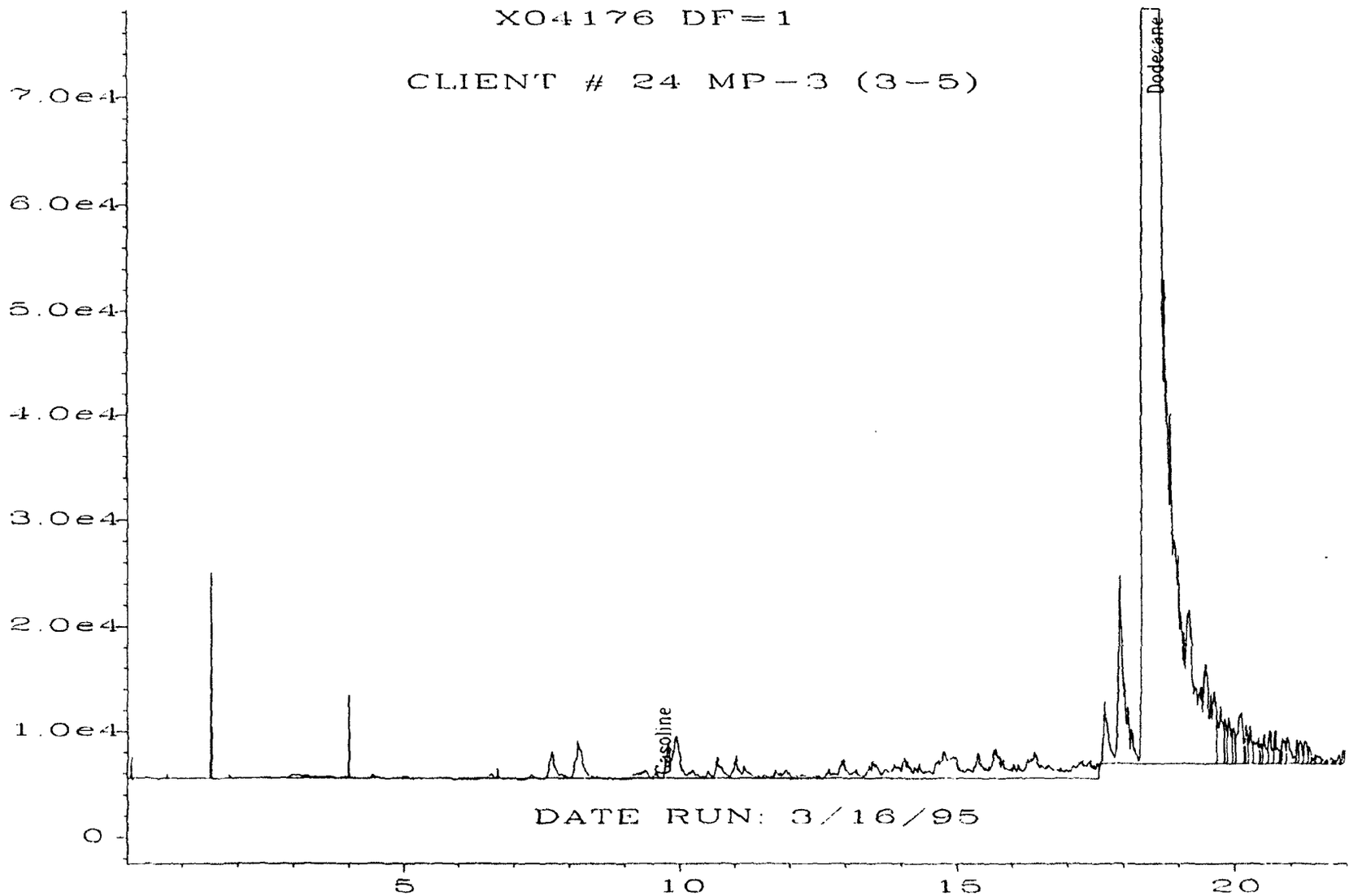
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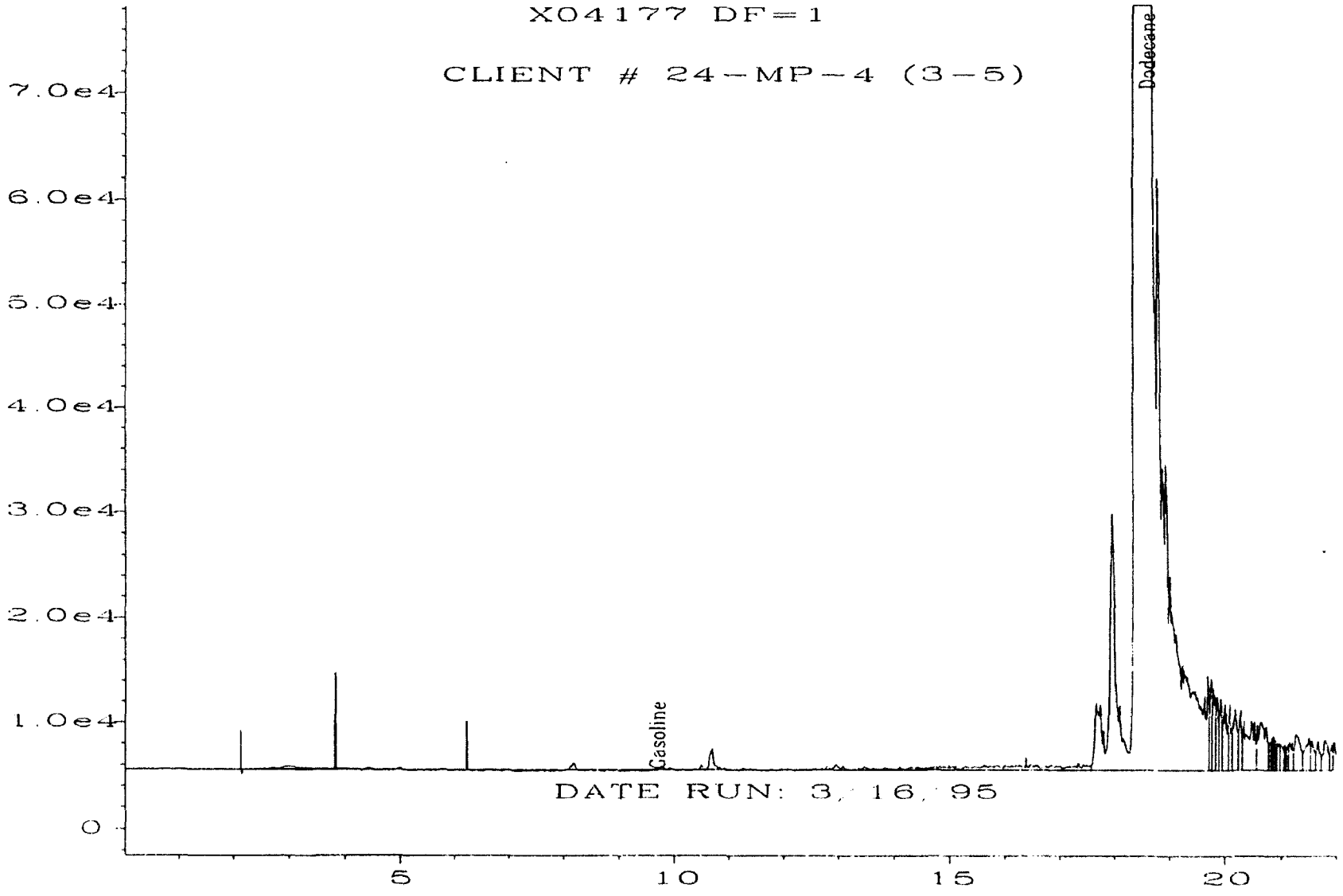
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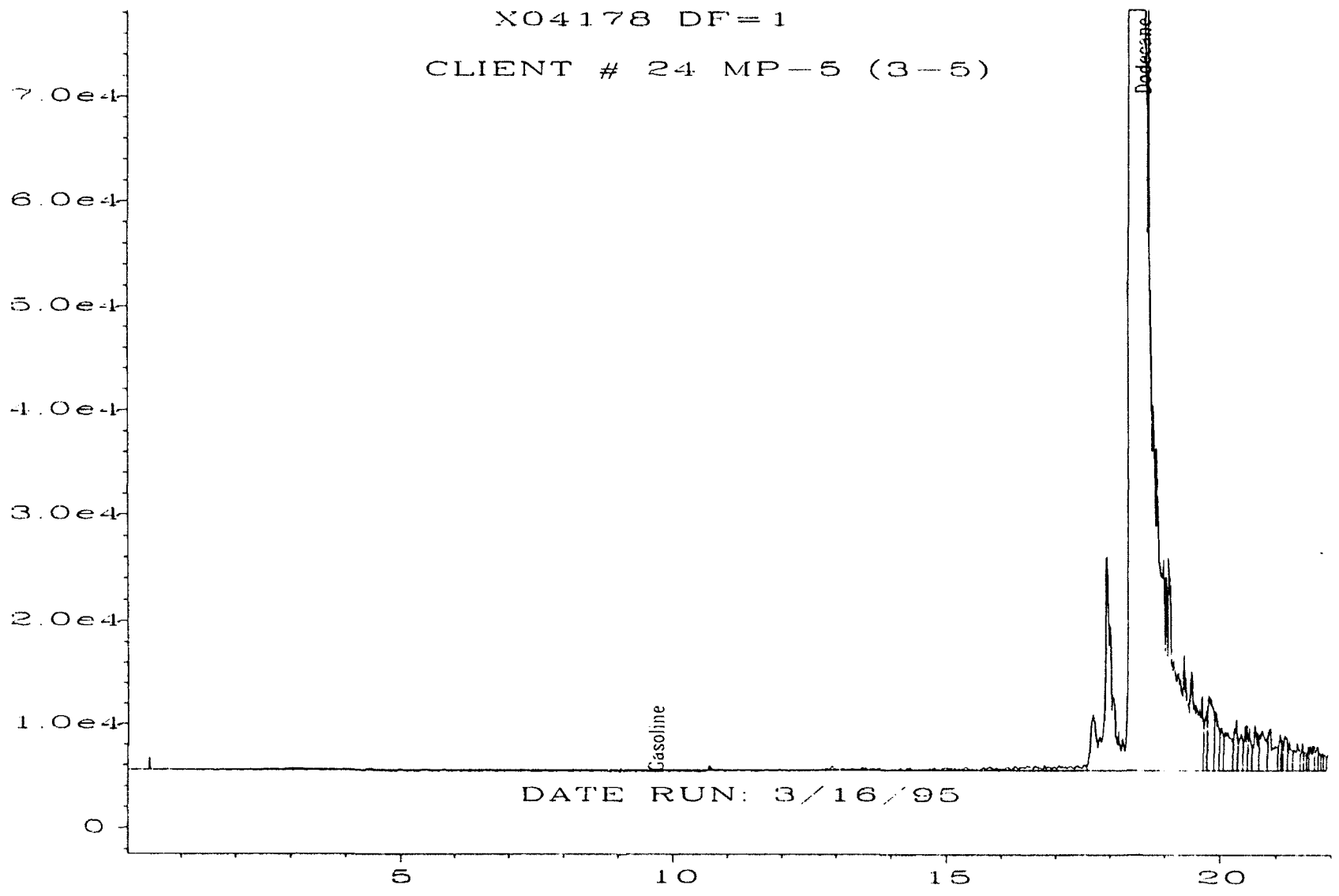
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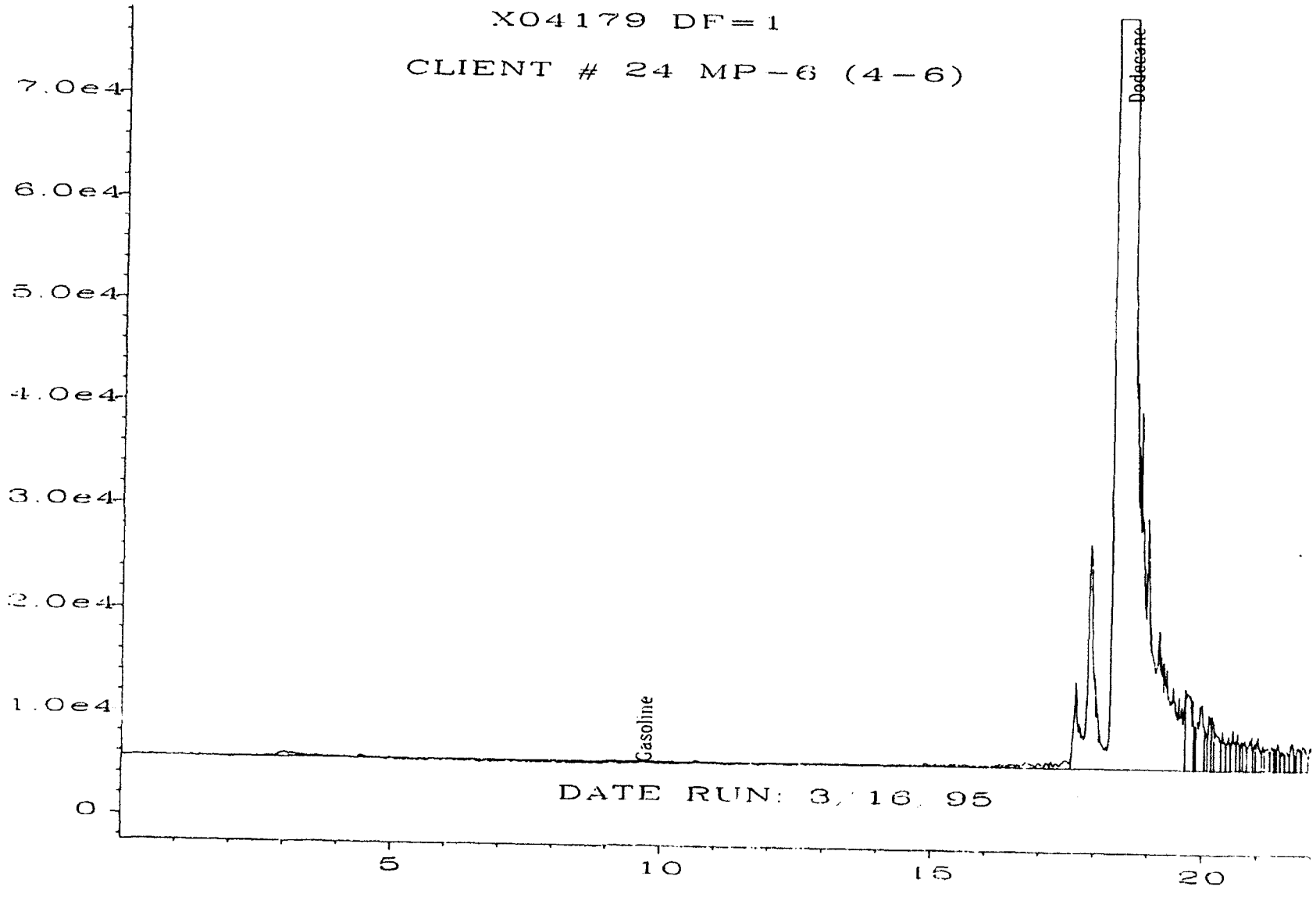
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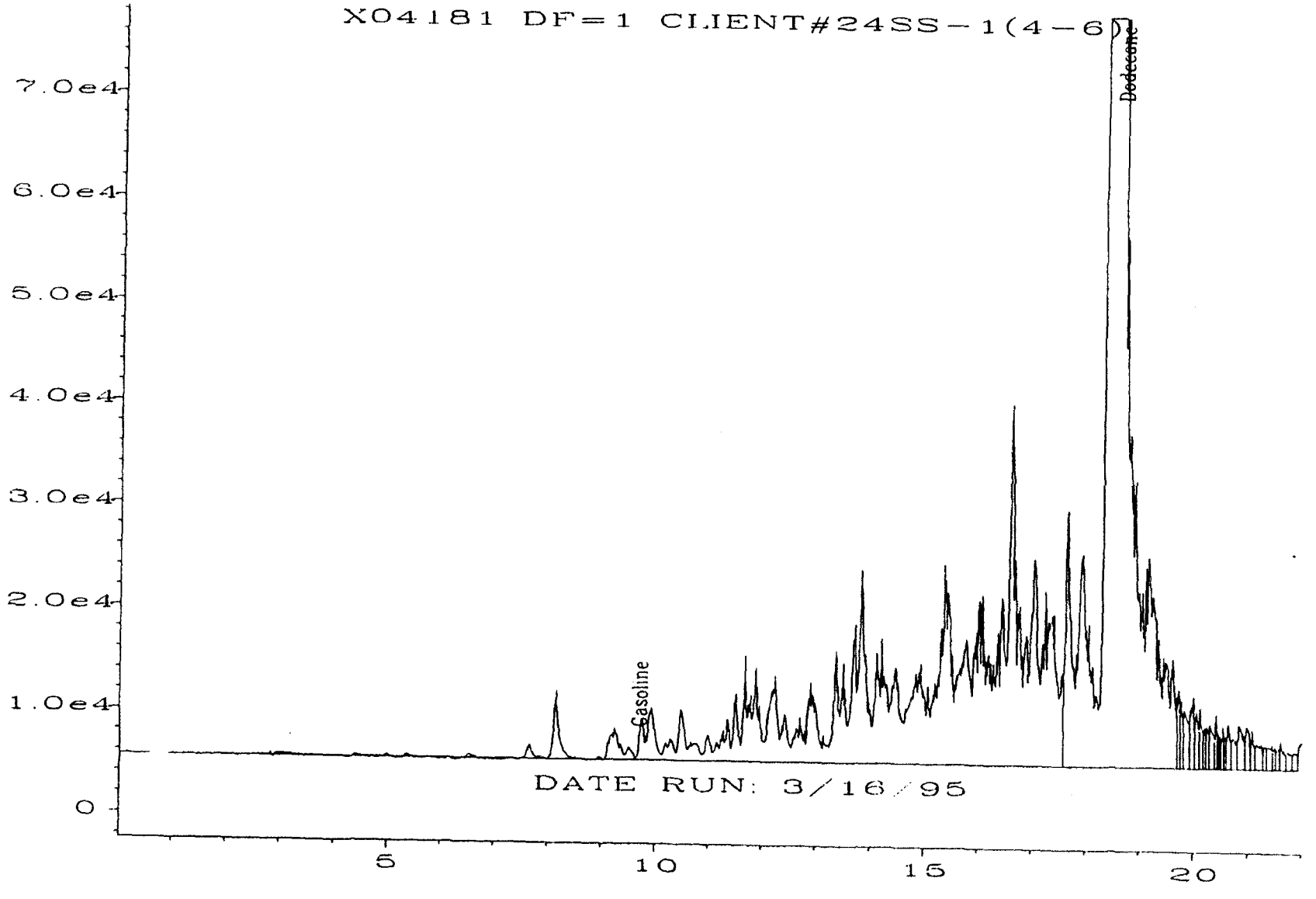
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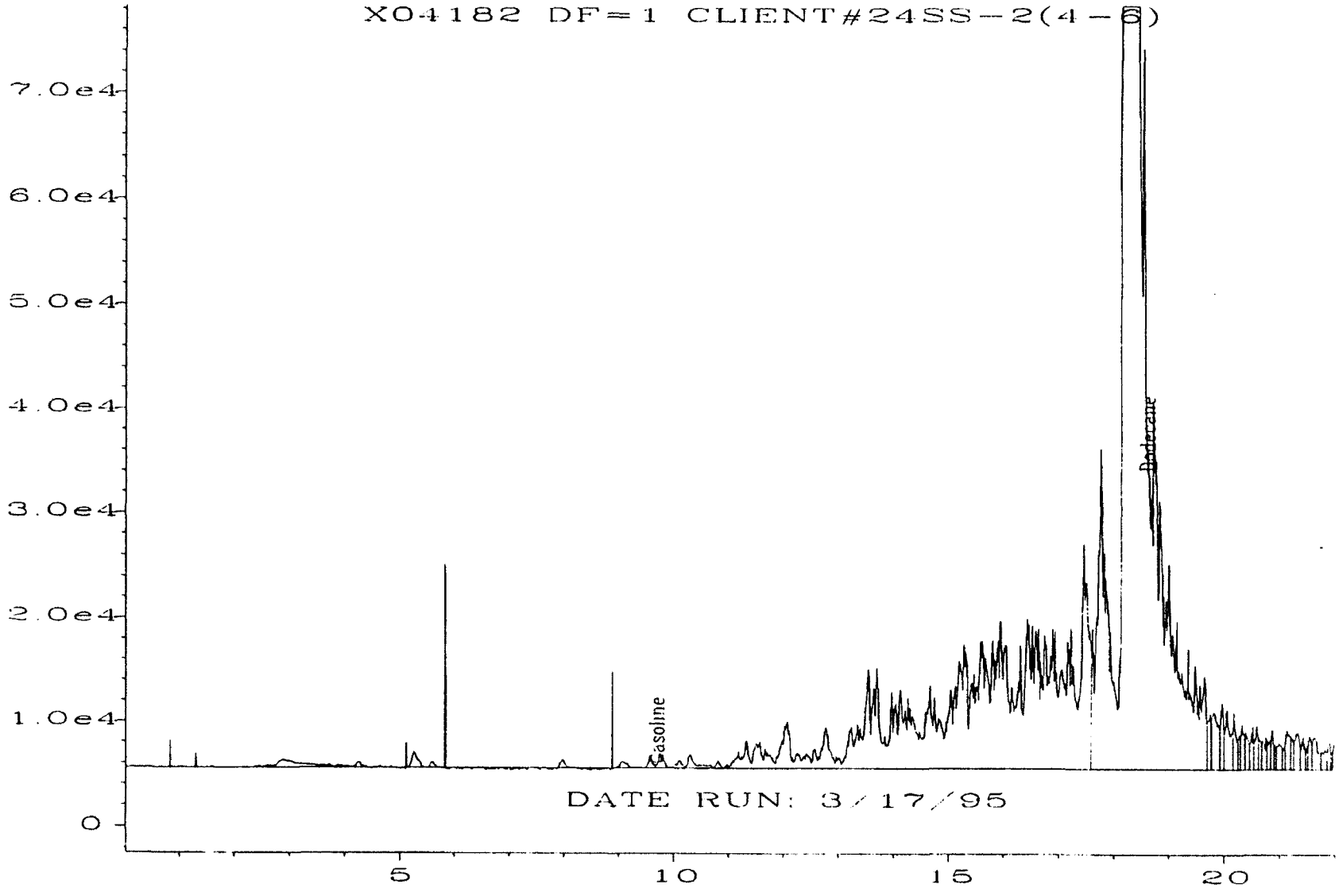
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Sig. 1 in C:\HPCHEM\1\DATA\TVH0316 018F0101.D



Sig. 1 in C:\HPCHEM\1\DATA\TVH0316\019F0101.D



Sig. 1 in C:\HPCHEM\1\DATA\TVH0316\029F0101.D

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(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH)
Laboratory Control Sample (LCS)

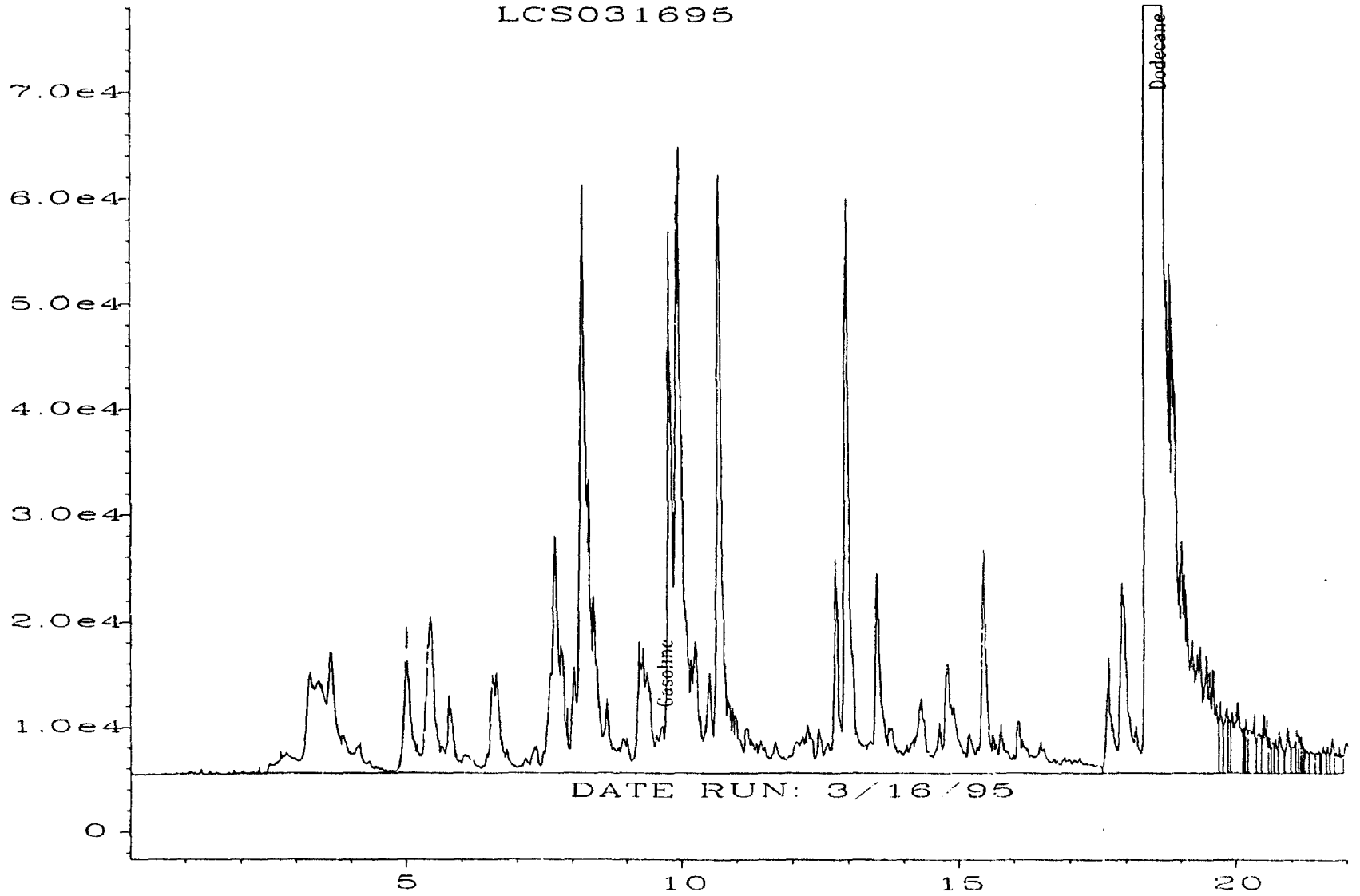
LCS Number	: LCS031695	Client Project Number	: 722450.21020/MACDILL AFB
Date Prepared	: 3/16/95	Lab Project Number	: 95-0820
Date Analyzed	: 3/16/95	Matrix	: SOIL
Sequence Number	: TVH12	Method Number	: 5030/8015 MOD.

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/L	QC Limit mg/L
Gasoline	5.00	6.21	3.5-6.5

QUALIFIERS
U = TEH analyzed for but not detected.
B = TEH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

Approved



Sig. 1 in C:\HPCHEM\1\DATA\TVH0316\012F0101.D

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH)
Laboratory Control Sample (LCS)

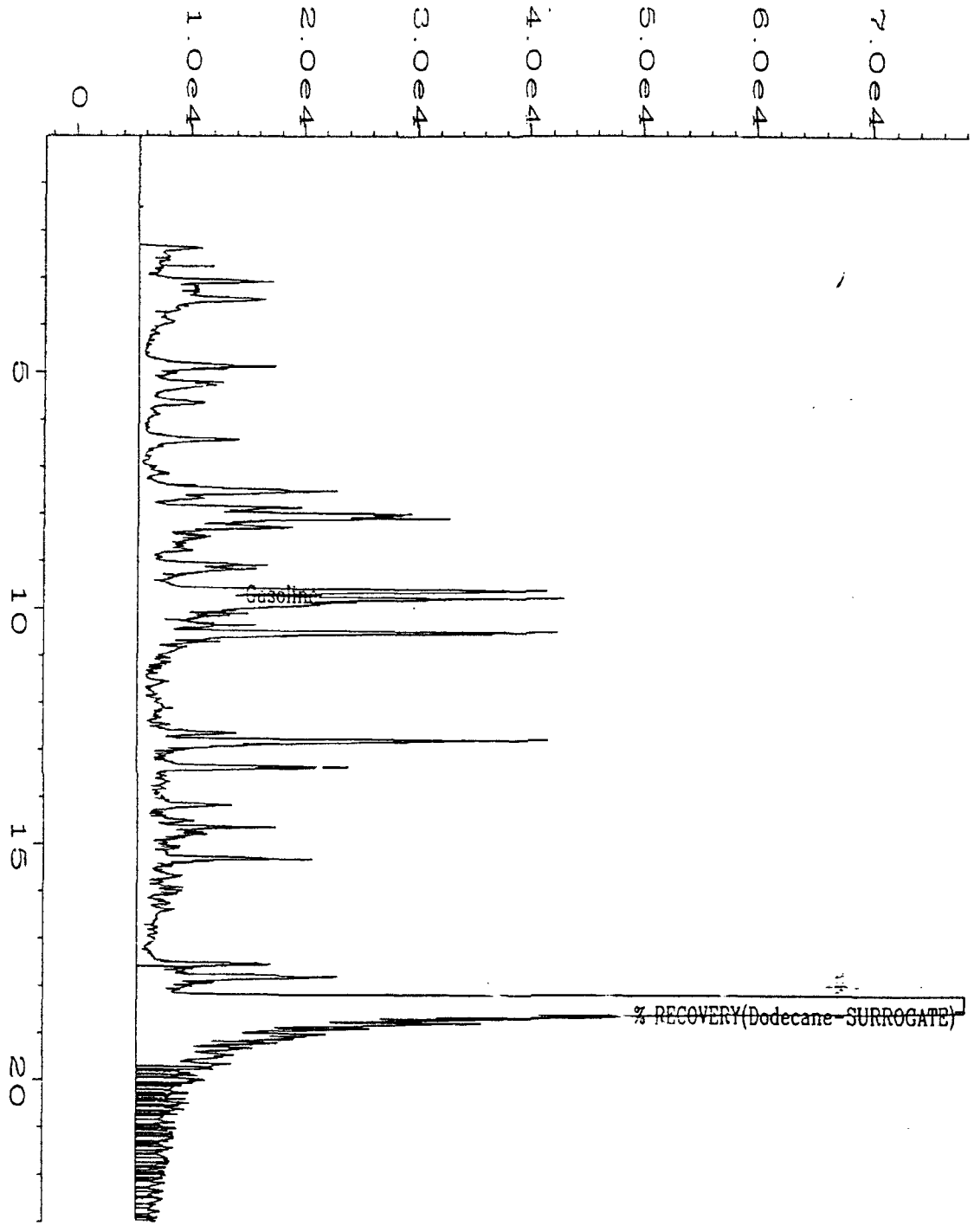
LCS Number	: LCS032395	Client Project Number	: 722450.21020/MACDILL AFB
Date Prepared	: 3/23/95	Lab Project Number	: 95-0820
Date Analyzed	: 3/23/95	Matrix	: SOIL
Sequence Number	: TVH3	Method Number	: 5030/8015 MOD.

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	QC Limit mg/L
Gasoline	5.00	3.92	3.5-6.5

QUALIFIERS
U = TEH analyzed for but not detected.
B = TEH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

Approved



Data File Name	: C:\HPCHEM\1\DATA\tvh0323\003F0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TVH	Vial Number	: 3
Sample Name	: LCS032395	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 23 Mar 95 07:20 PM	Instrument Method	: TVH0323.MTH
Report Created on	: 23 Mar 95 07:44 PM	Analysis Method	: TVH0323.MTH
Last Recalib on	: 23 MAR 95 12:18 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH)
Jet Fuel Boiling Range

Date Sampled : 3/8,9,10,13/95
Date Received : 3/14/95
Date Prepared : 3/15,17/95
Date Analyzed : 3/18-20,22/95

Client Project Number 722450.21020/MAC DILL

Lab Project Number : 95-0820
Matrix : SOIL
Method Number : 3500/MOD.8015

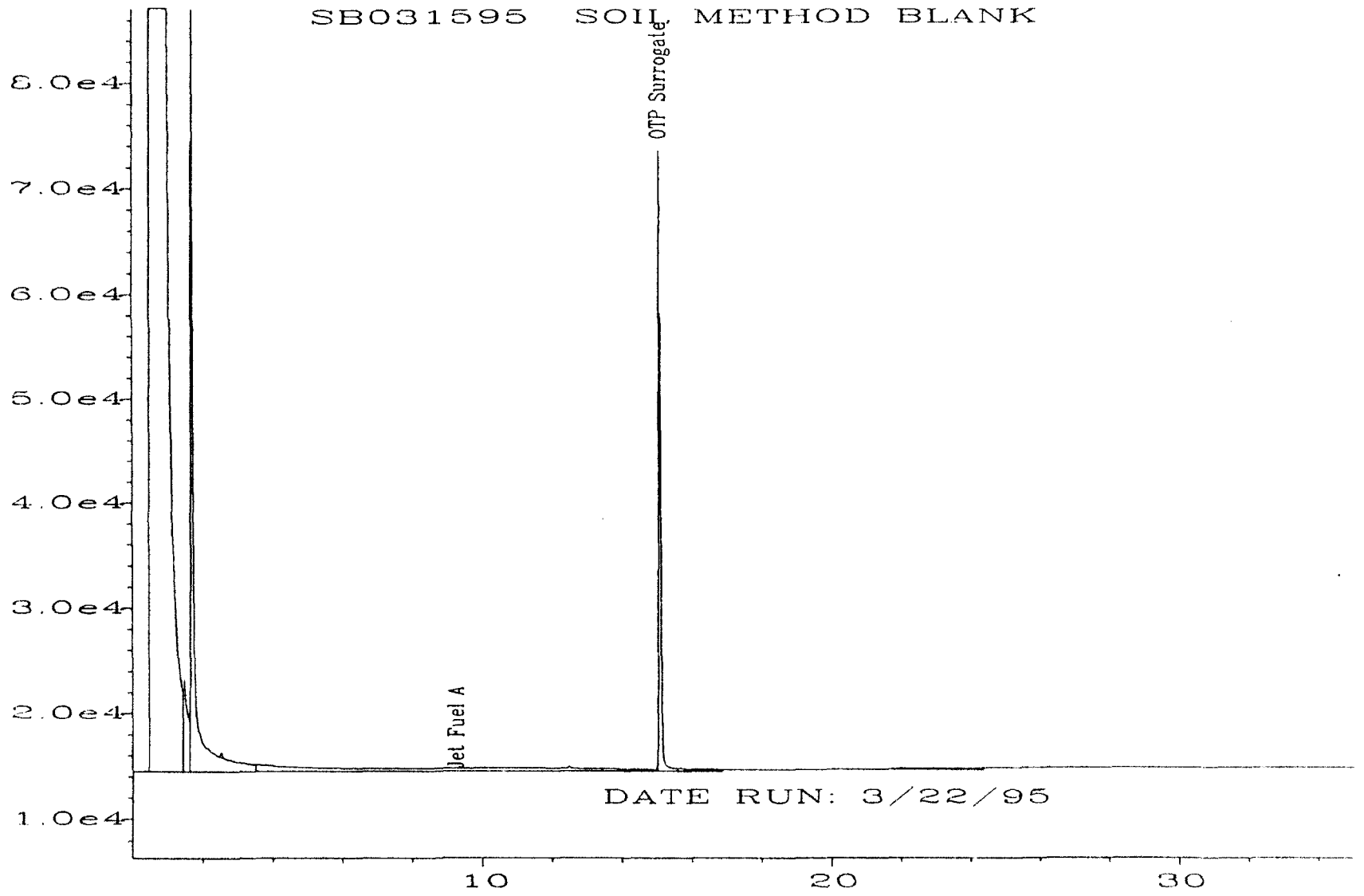
Evergreen Sample #	Client Sample #	Surrogate Recovery	TEH * mg/Kg	MDL mg/Kg
SB031595	SOIL METHOD BLANK	81%	U	10
SB031795	SOIL METHOD BLANK	77%	U	10
X04173	24 MP-1A(3'-4')	87%	U	11
X04174	24 MP-1B(8'-9')	84%	140	12
X04175	24 MP-2 (3'-4')	89%	11	11
X04176	24 MP-3 (3-5)	85%	U	11
X04177	24 MP-4 (3-5)	85%	U	11
X04178	24 MP-5 (3-5)	85%	U	12
X04179	24 MP-6 (4-6)	83%	U	12
X04181	24SS-1 (4-6)	90%	210	12
X04182	24SS-2(4-6)	80%	32	12
X04183	75SS-1 (3-5)	79%	13	12
X04185	75SS-2(3-5)	**	15000	550
X04186	75SS-2(9-11)	78%	16	12
X04186 DUP	75SS-2(9-11)	86%	U	12

** = Unable to separate surrogate from analyte.
* = Sample and MDL values are reported on a dry weight basis.

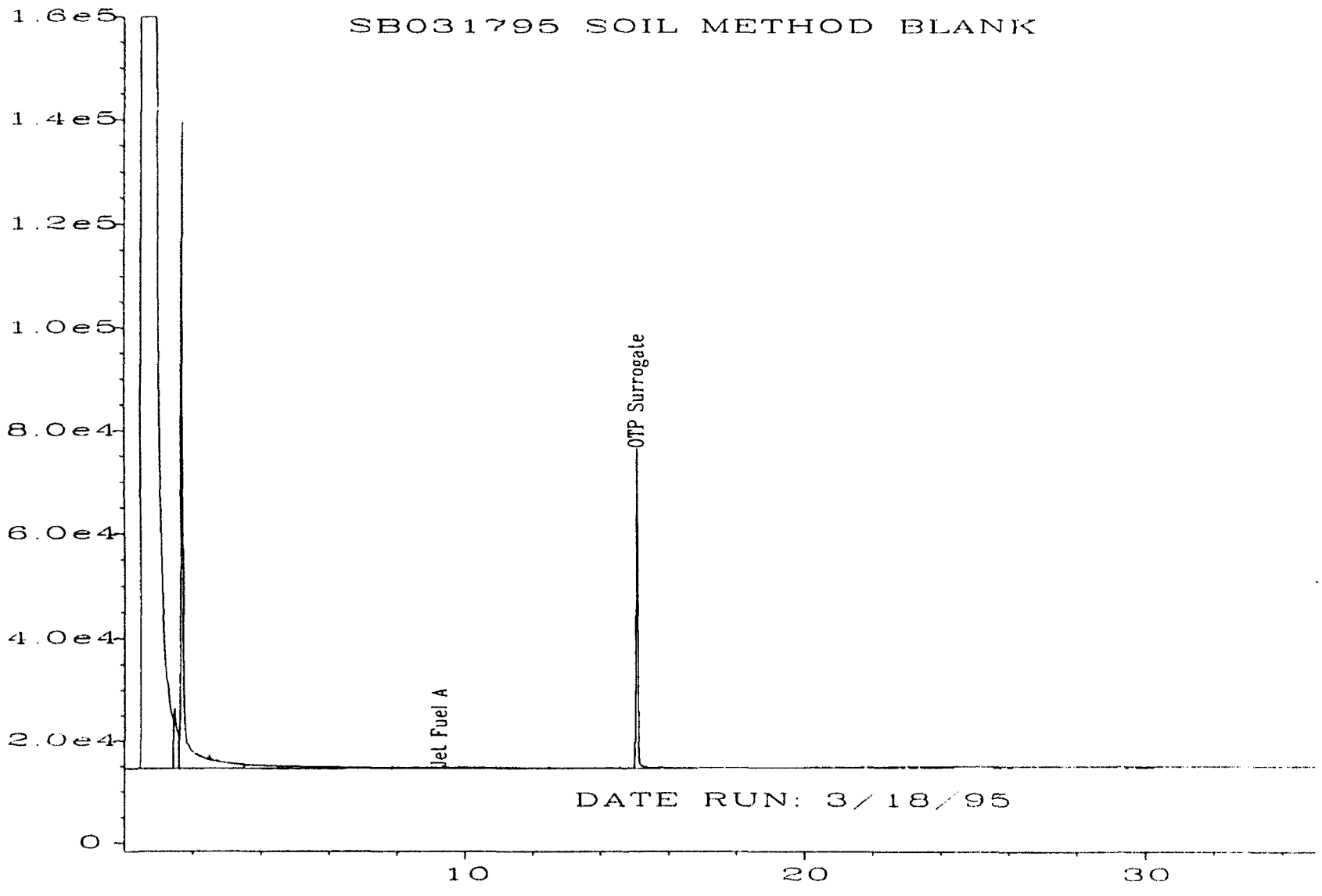
QUALIFIERS
U = TEH analyzed for but not detected.
B = TEH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
MDL = Method Detection Limit

Analyst

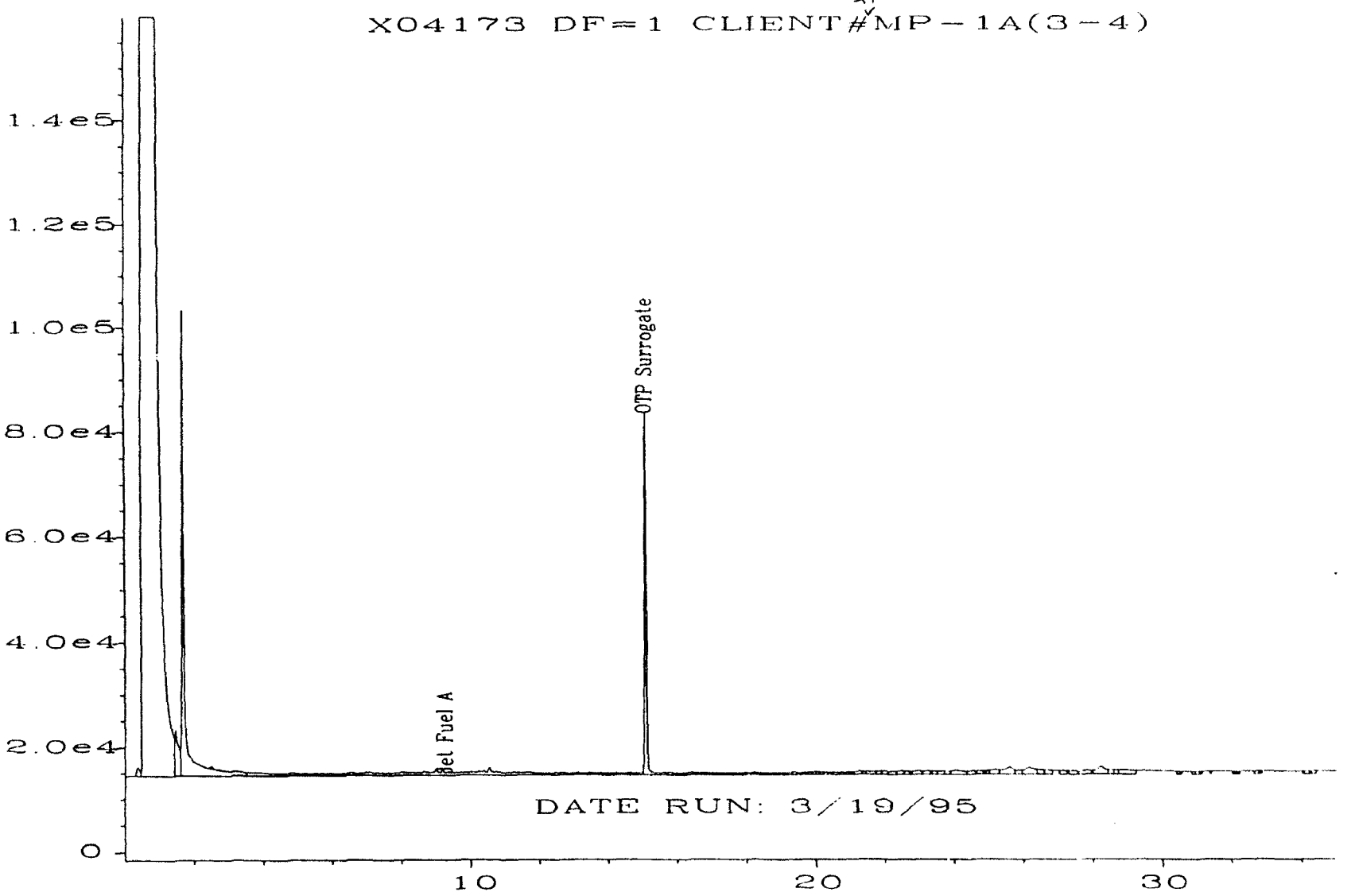
Approved



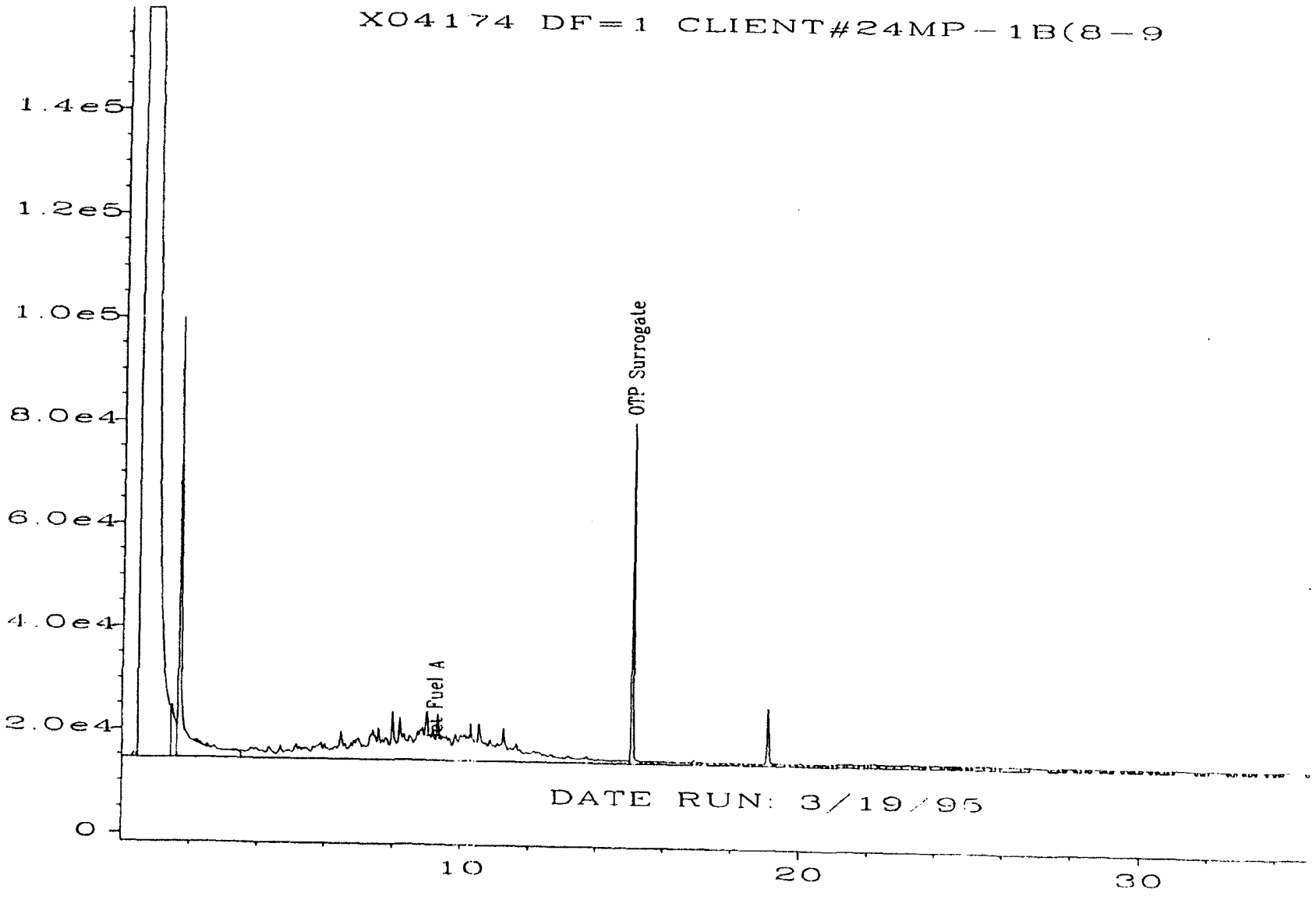
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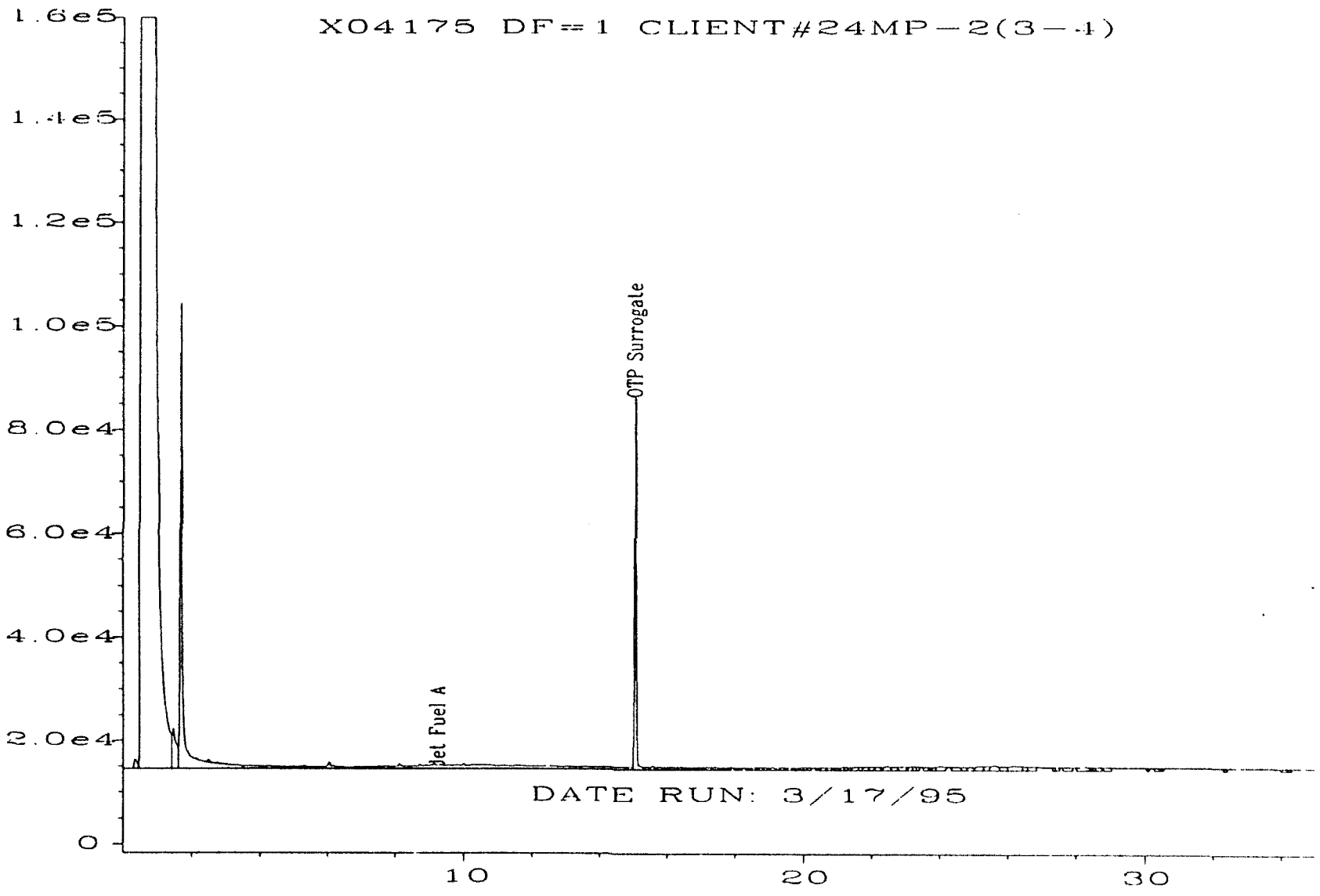
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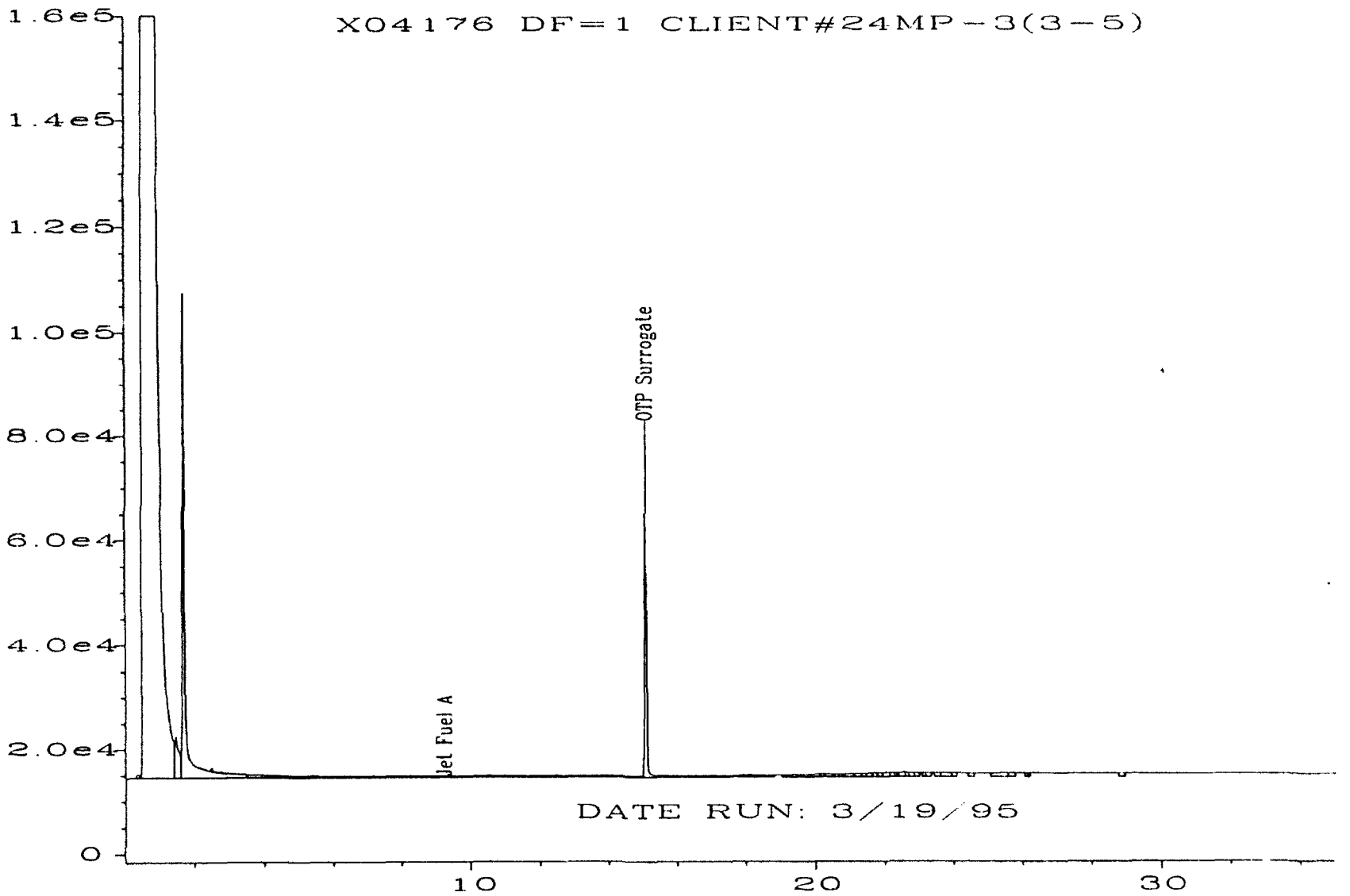
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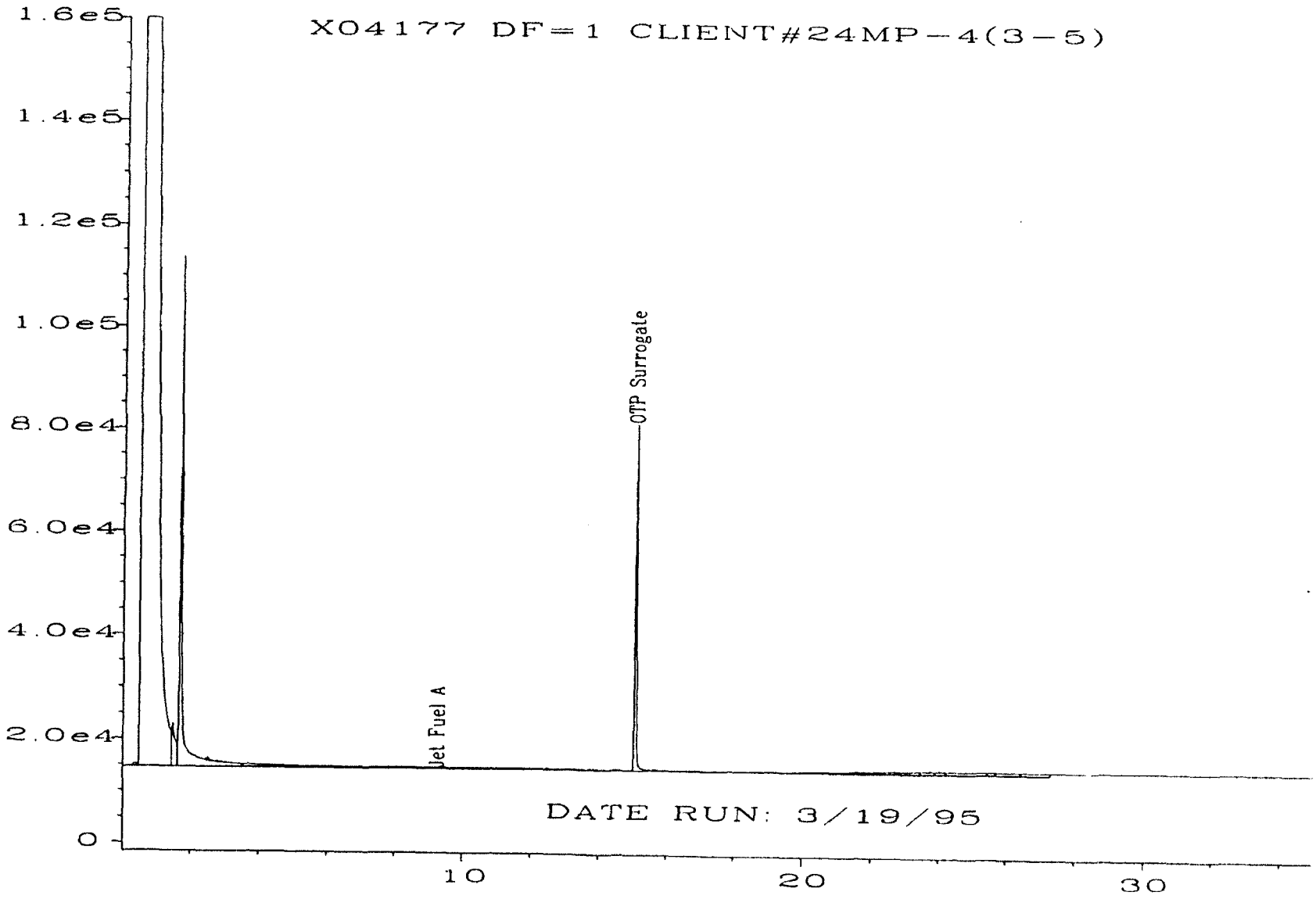
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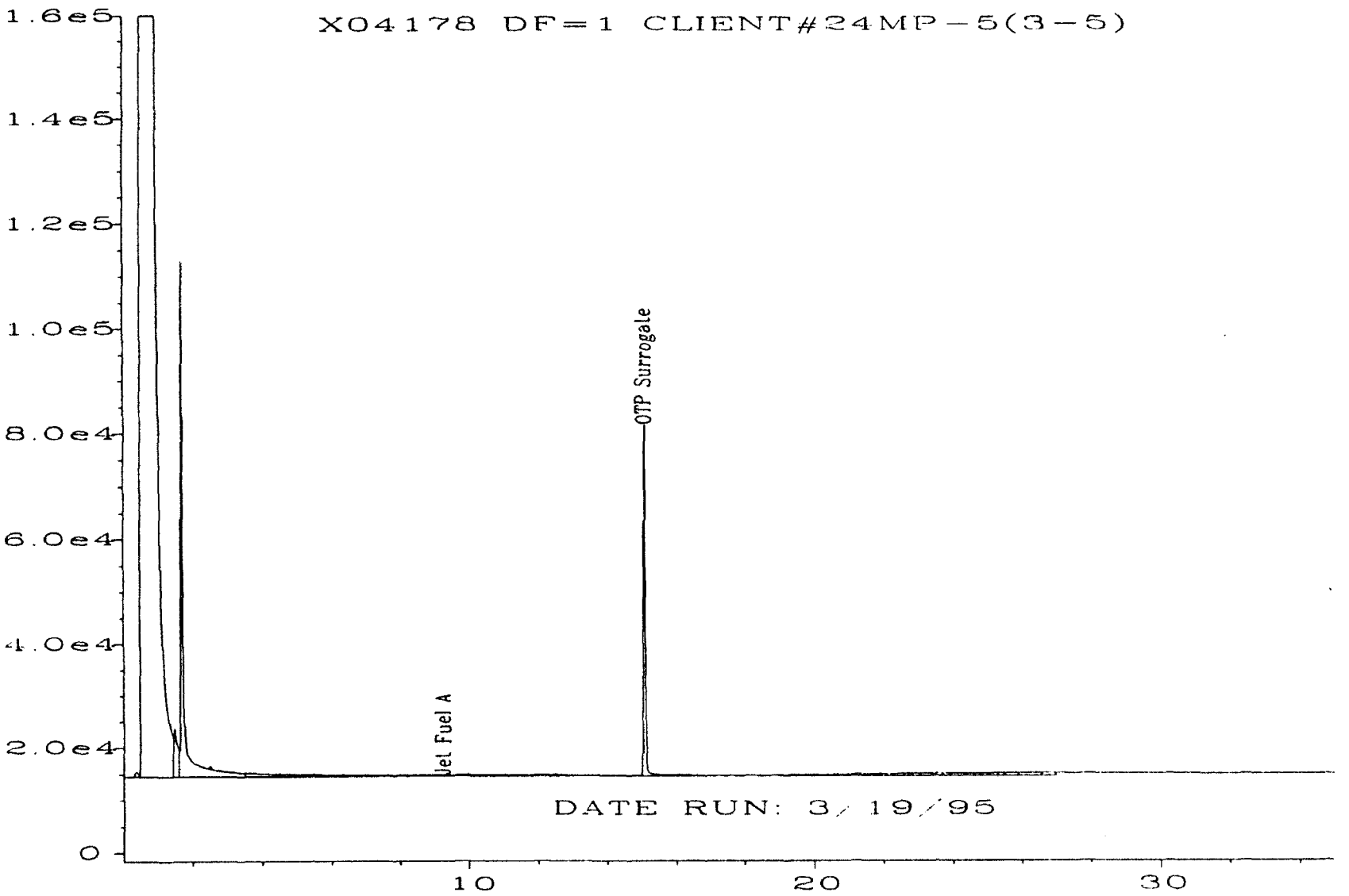
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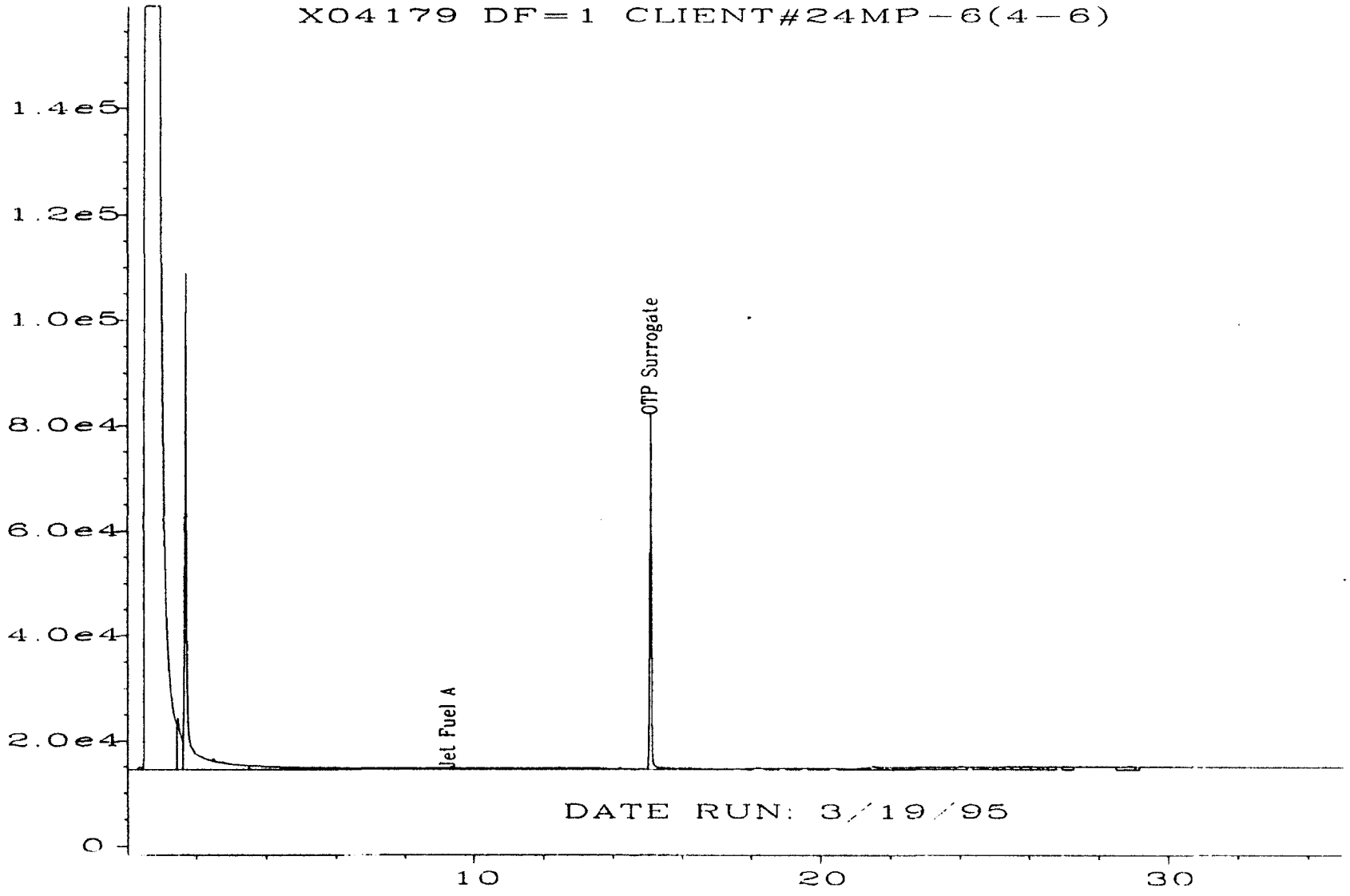
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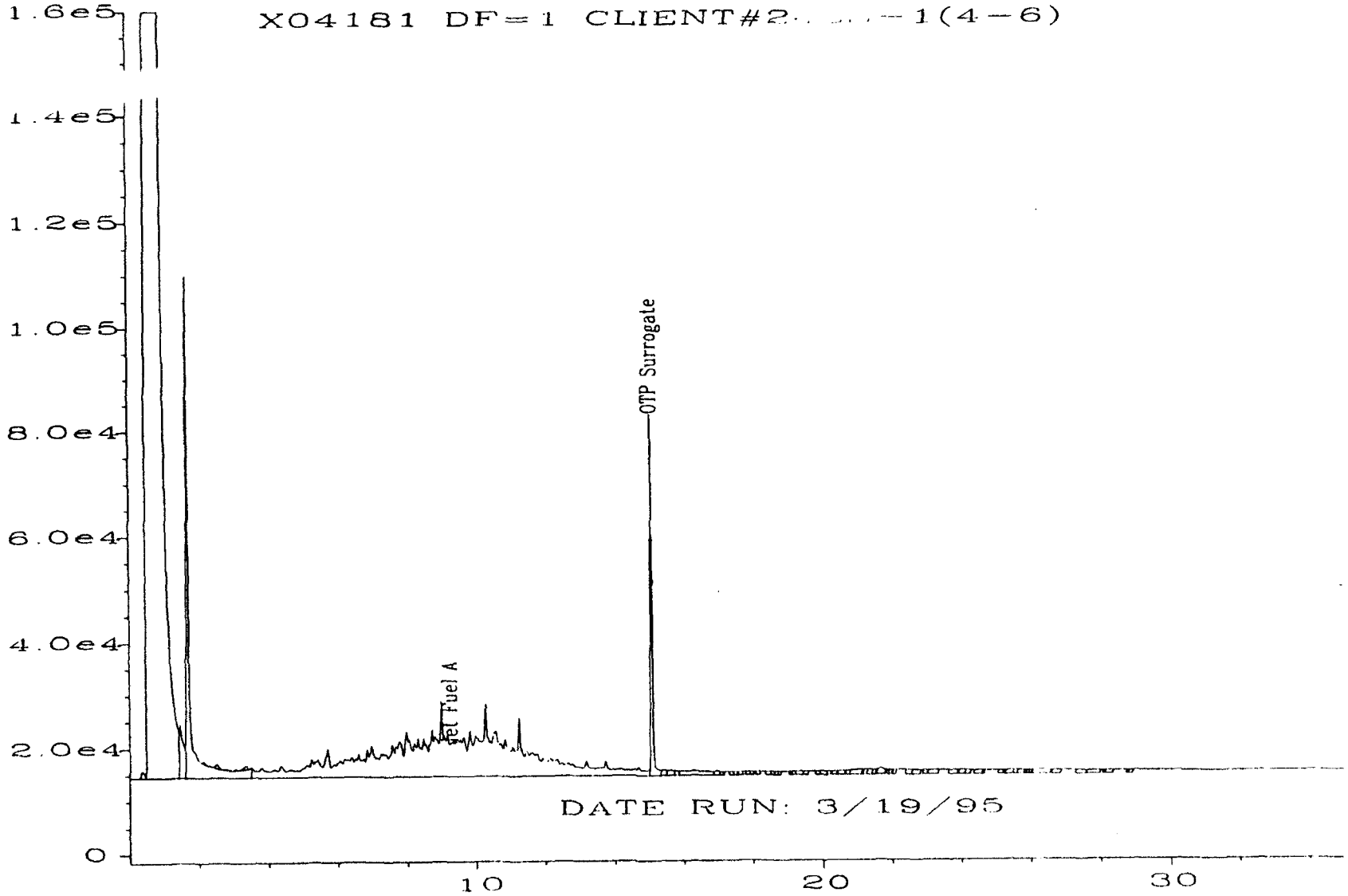
Sig. 2 in C:\HPCHEM\2\DATA\TEH0317\057R0101.D



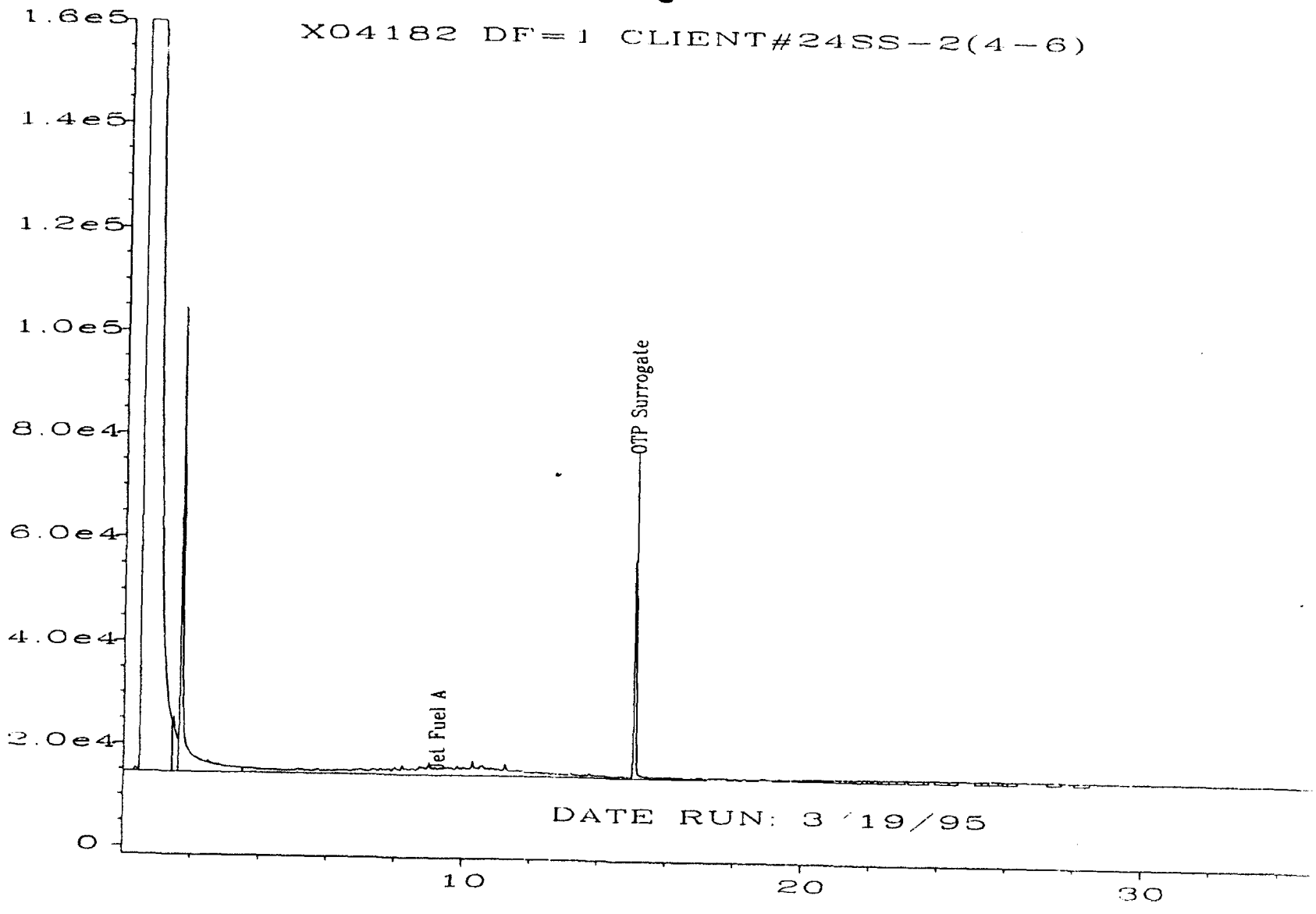
Sig. 2 in C:\HPCHEM\2\DATA\TEH0317\059R0101.D



Sig. 2 in C:\HPCHEM\2\DATA\TEH0317\060R0101.D



Sig. 2 in C:\HPCHEM\2\DATA\TEH0317\061R0101.D



Sig 2 in C:\HPCHEM 2\DATA\TEH0317\062R0101.D

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH)
Laboratory Control Sample (LCS)

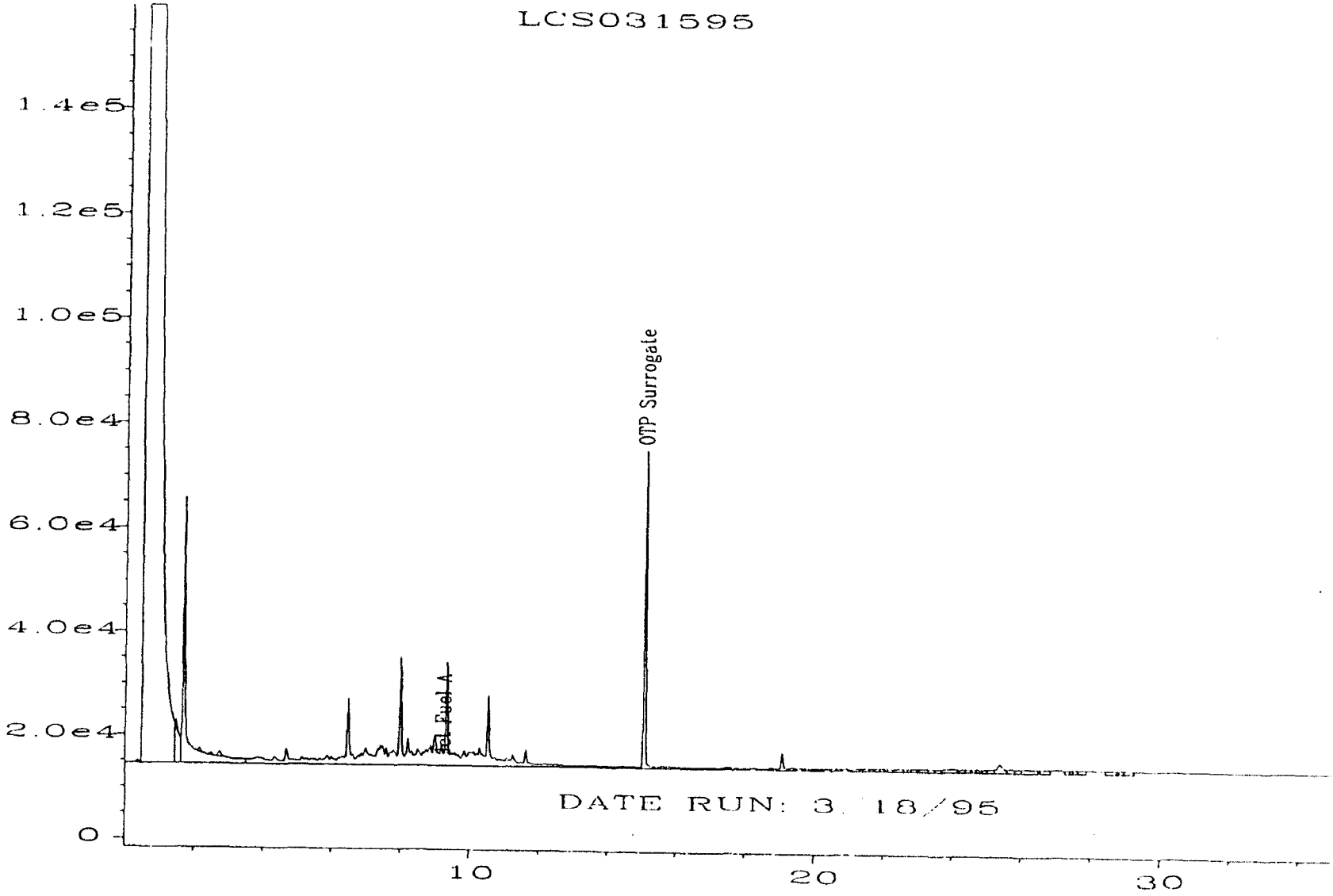
LCS Number	: LCS031595	Client Project Number	: 722450.21020/MAC DILL
Date Prepared	: 3/15/95	Lab Project Number	: 95-0820
Date Analyzed	: 3/18/95	Matrix	: SOIL
Sequence Number	: TEH21	Method Number	: 3500/Mod. 8015

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/Kg	QC Limit mg/Kg
JET FUEL	1000	960	750-1750

QUALIFIERS
U = TEH analyzed for but not detected.
B = TEH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

Approved



Sig. 2 in C:\HPCHEM\2\DATA\TEH0317\021R0101.D

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Miscellaneous Analyses

Date Sampled : 3/8-13/95
Date Received : 3/14/95
Date Prepared : 3/15/95
Date Analyzed : 3/15/95

Client Project ID. : 722450.21020
Lab Project No. : 95-0820
Matrix : Soil
Method : EPA 160.3

Evergreen Sample #	Client Sample ID	Moisture (%)
X04173	24MP-1A (3'-4')	10.1
X04174	24MP-1B (8'-9')	16.8
X04175	24MP-2 (3'-4')	16.1
X04176	24MP-3 (3-5)	14.6
X04177	24MP-4 (3-5)	14.8
X04178	24MP-5 (3-5)	17.5
X04179	24MP-6 (4-6)	17.6
X04181	24SS-1 (4-6)	16.0
X04182	24SS-2 (4-6)	13.7
X04183	75SS-1 (3-5)	16.7
X04185	75SS-2 (3-5)	11.3
X04186	75SS-2 (9-11)	18.0

Analyst

Approved

0820tm.4

HUFFMAN
LABORATORIES, INC.
Quality Analytical Services Since 1936
4630 Indiana Street • Golden, CO 80403

NON-CLP ANALYSIS RESULTS

Date: 03/24/95
Lab Name: Huffman Labs — Client: Evergreen Analytical
Contact: Sue Zeller — Contact: Patty McClellan
Sample Matrix: soil — Huffman Lab #: 143595

Client Smp#	Lab ID #	Element/ Compound	Dilution Factor	Results	Units	Prep Date	Analysis Date	Sample Size (g)	Method #	Instrument ID
75SS-4 (3-4)	14359501	TC	NA	<0.05	%	NA	03/23/95	2.195	Leco CR12	#7
75SS-4 (3-4)	14359501	TC	NA	<0.05	%	NA	03/23/95	2.067	Leco CR12	#7
75SS-6 (3-5)	14359502	TC	NA	<0.05	%	NA	03/23/95	2.154	Leco CR12	#7
75MP-7 (4-6)	14359503	TC	NA	<0.05	%	NA	03/23/95	3.332	Leco CR12	#7
75MP-17 (4-6)	14359504	TC	NA	<0.05	%	NA	03/23/95	2.888	Leco CR12	#7
24MP-7 (2-4)	14359505	TC	NA	<0.05	%	NA	03/23/95	3.555	Leco CR12	#7
24MP-3 (3-5)	14359506	TC	NA	0.21	%	NA	03/23/95	3.331	Leco CR12	#7
24MP-4 (3-5)	14359507	TC	NA	0.13	%	NA	03/23/95	2.908	Leco CR12	#7
24MP-6 (4-6)	14359508	TC	NA	2.21	%	NA	03/23/95	3.093	Leco CR12	#7
24MP-16 (4-6)	14359509	TC	NA	0.73	%	NA	03/23/95	3.394	Leco CR12	#7
75SS-4 (3-4)	14359501	CC	NA	<0.02	%	NA	03/21/95	0.111	COU-02	"tower"
75SS-4 (3-4)	14359501	CC	NA	<0.02	%	NA	03/21/95	0.259	COU-02	"tower"
75SS-6 (3-5)	14359502	CC	NA	<0.02	%	NA	03/21/95	0.185	COU-02	"tower"
75MP-7 (4-6)	14359503	CC	NA	<0.02	%	NA	03/21/95	0.248	COU-02	"tower"
75MP-17 (4-6)	14359504	CC	NA	<0.02	%	NA	03/21/95	0.221	COU-02	"tower"
24MP-7 (2-4)	14359505	CC	NA	<0.02	%	NA	03/21/95	0.127	COU-02	"tower"
24MP-3 (3-5)	14359506	CC	NA	<0.02	%	NA	03/21/95	0.130	COU-02	"tower"
24MP-4 (3-5)	14359507	CC	NA	<0.02	%	NA	03/21/95	0.128	COU-02	"tower"
24MP-6 (4-6)	14359508	CC	NA	<0.02	%	NA	03/21/95	0.138	COU-02	"tower"
24MP-16 (4-6)	14359509	CC	NA	<0.02	%	NA	03/21/95	0.165	COU-02	"tower"
		% moisture		result						
75SS-4 (3-4)	14359501	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
75SS-4 (3-4)	14359501	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
)871 75SS-6 (3-5)	14359502	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
75MP-7 (4-6)	14359503	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
75MP-17 (4-6)	14359504	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
)819 24MP-7 (2-4)	14359505	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
24MP-3 (3-5)	14359506	TOC	NA	0.21 0.35	%	NA	NA	NA	by calc	NA
)820 24MP-4 (3-5)	14359507	TOC	NA	0.13 0.15	%	NA	NA	NA	by calc	NA
24MP-6 (4-6)	14359508	TOC	NA	2.21 2.68	%	NA	NA	NA	by calc	NA
24MP-16 (4-6)	14359509	TOC	NA	0.73 0.87	%	NA	NA	NA	by calc	NA

Samples analyzed and results reported on an as received basis.
Soil samples are not homogeneous.
Values reported below Detection Limits are for reference only.
TC detection limit = 0.05%
CC detection limit = 0.02%
TOC detection limit = 0.05%

umbers to the left above represent the last four digits of the EAL project
nber under which the samples were analyzed.
e original report and quality control results are filed with EAL project 95-0819.

Evergreen

CASE NARRATIVE

Evergreen Analytical Project (EAL) #: 95-0819

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt
On March 13, 1995, eight soil samples and one Rinseate Blank were received in good condition at Evergreen Analytical Laboratory. Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and PES sample identifications.

BTEX, Chlorobenzene, 1,3,5-trimethylbenzene (TMB), 1,2,4-TMB, 1,2,3-TMB, and 1,2,3,4-Tetramethylbenzene (TEMB), hereafter referred to as BTEX.

BTEX, Soil Matrix, Method SW8020
There were no quality control anomalies to report.

PES sample number 24MP-8(2-4) and 24MW-6(2-4) were analyzed at a dilution due to the inability to purge at DF=1. The reporting limits were raised accordingly.

Total Volatile Hydrocarbon (TVH), Soil Matrix, Method 8015M
There were no quality control anomalies to report.

Total Extractable Hydrocarbons, (TEH), Soil Matrix, Method 8015M, JET-A.
There were no laboratory duplicates, matrix spike or matrix spike duplicate samples analyzed with this batch due to insufficient sample volume. There were no other quality control anomalies to report.

Total Organic Carbon in Soil
Total Organic Carbon (TOC) in Soil was analyzed by Huffman Research, Inc. of Golden, Colorado. TOC was determined by analyzing for total carbon (TC) and inorganic (carbonate) carbon (CC), then calculating the difference as TOC. The report from Huffman is included.

Patricia A. McClellan, Project Manager

Evergreen Analytical Sample Log Sheet

Project # 95-0819

Date(s) Sampled: 03/10,11/95 COC **Date Due:** 03/17/95

Date Received: 03/14/95 1000 **Holding Time(s):** 03/24,25-BTEX,TVH

Client Project I.D. 722450.21020/MAC DILL **Rush** STANDARD

Client: Parsons Engineering Science, Inc. **Shipping Charges** N/A

Address: 1700 Broadway Suite 900 **E.A. Cooler #** 422

Denver, CO 80290 **Airbill #** 9581826225 FEDEX

Contact: TODD WIEDEMEIER **Custody Seal Intact?** Y

Cooler X Bottles ___

Client P.O. _____ **COC Present** Y

Sample Tags Present? Y

Phone #831-8100 **Fax #**831-8208 **Sample Tags Listed?** Y

Sample(s) Sealed? Y

Special Invoicing/Billing_____

Special Instructions **REPORT SOILS ON A DRY WEIGHT BASIS. $PLUS TMB, TEMB AND CHLOROBENZENE. ANALYZE AN MS/MSD AND LAB DUPLICATE ON THIS CLIENT'S SAMPLES.**

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04163A/B	24MP-7(2-4)	$BTEX 8020	S	2WM	2
X 4164A/B	24MP-8(2-4)	$BTEX 8020	S	2WM	2
X04165A/B	24MP-9(3-5)	$BTEX 8020	S	2WM	2
X04166A/B	24MP-9(9-11)	$BTEX 8020	S	2WM	2
X04167A/B	24MP-10(2-4)	$BTEX 8020	S	2WM	2
X04168A/B	24MW-6(2-4)	$BTEX 8020	S	2WM	2
X04169A/B	24MW-6(9-11)	$BTEX 8020	S	2WM	2
X04170A/B	175MP-1(3-5)	$BTEX 8020	S	2WM	2
X04171A/B	RINSATE BLANK	$BTEX 8020	W	40V	2
X04172A/B	TRIP BLANK	$BTEX 8020	W	40V	2
X04163C	24MP-7(2-4)	TVH	S	2WM	2
X04164C	24MP-8(2-4)	TVH	S	2WM	2
X04165C	24MP-9(3-5)	TVH	S	2WM	2
X04166C	24MP-9(9-11)	TVH	S	2WM	2
X04167C	24MP-10(2-4)	TVH	S	2WM	2
X04168C	24MW-6(2-4)	TVH	S	2WM	2
X04169C	24MW-6(9-11)	TVH	S	2WM	2
X04170C	175MP-1(3-5)	TVH	S	2WM	2

R=Sample to be returned

Route To GC/MS ___ GC 4 Metals ___ Wet Chem 1 SxPrep 1 Acctg 1

SxRec C QA/QC C Sales C File Orig

Custodian/Date: 3/14 3/15

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04163D	24MP-7(2-4)	TEH	S	2WM	B2
X04164D	24MP-8(2-4)	TEH	S	2WM	B2
X04165D	24MP-9(3-5)	TEH	S	2WM	B2
X04166D	24MP-9(9-11)	TEH	S	2WM	B2
X04167D	24MP-10(2-4)	TEH	S	2WM	B2
X04168D	24MW-6(2-4)	TEH	S	2WM	B2
X04169D	24MW-6(9-11)	TEH	S	2WM	B2
X04170D	175MP-1(3-5)	TEH	S	2WM	B2
X04163F	24MP-7(2-4)	% MOISTURE	S	4WM	B2
X04164E	24MP-8(2-4)	% MOISTURE	S	4WM	B2
X04165E	24MP-9(3-5)	% MOISTURE	S	4WM	B2
X04166E	24MP-9(9-11)	% MOISTURE	S	4WM	B2
X04167E	24MP-10(2-4)	% MOISTURE	S	4WM	B2
X04168E	24MW-6(2-4)	% MOISTURE	S	4WM	B2
X04169E	24MW-6(9-11)	% MOISTURE	S	4WM	B2
X04170E	175MP-1(3-5)	% MOISTURE	S	4WM	B2
X04163E	24MP-7(2-4)	TOC	S	2WM	OUT

Project # 95-0819

R=Sample to be returned

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

Page 1 of 1

COMPANY Parsons ES
ADDRESS 1700 Broadway Ste 900
CITY Denver STATE CO ZIP 80290
PHONE# 831-3100 FAX # FAX RESULTS Y / N

CLIENT CONTACT (print) Todd Wellman
PROJECT I.D. 722410.21020 / RMACOCC AFB
EAL. QUOTE # P.O.#
TURNAROUND REQUIRED*
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Kyle L Cannon
(print) Kyle L. Cannon
Evergreen Analytical Cooler No. 422
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water (Drinking/Discharge/Ground) (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: BTEX 8020/602 (circle)/MTBE	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline) C	TEPH 8015mod. (Diesel) D	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	ICE	Moisture	EAL Sample No.
24MP-7 (2-4)	3-10-95	0915	6		X		X	X	X	X		dup	X	X	X04163
24MP-8 (2-4)	3-10-95	1100	5		X		X		X	X				X	64
24MP-9 (3-5)	3-10-95	1600	5		X		X		X	X				X	65
24MP-9 (9-11)	3-10-95	1700	5		X		X		X	X				X	66
24MP-10 (2-4)	3-11-95	0900	5		X		X		X	X				X	67
24MW-6 (2-4)	3-11-95	0930	5		X		X		X	X				X	68
24MW-6 (9-11)	3-11-95	1030	5		X		X		X	X				X	69
25MP-1 (3-5)	3-11-95	1415	5		X		X	dup	X	X	dup		40 ml	X	70
Rinsate Blank	3-11-95	1400	1	X			X	40 ml							71
Trip Blank								40 ml							72
HT:															Location 2, B2
DD:															Container Size

EAL use only
Do not write in shaded area

EAL Project # 0819
Custodian

Instructions:

Relinquished by (Signature) | Date/Time | Received by (Signature) | Date/Time | Relinquished by (Signature)

Evergreen Analytical Sample Receipt/Check-in Record

Date & Time Rec'd: 3/14/95 10:00 Shipped Via: FedEx 958126000
(Airbill # if applicable)

Client : PARSONS.ES

Client Project ID(s): 722450.21020 | MAC DILL AFB

EAL Project #(s): 95- 0819 EAL Cooler(s): Y N

Cooler#	1/22									
Ice packs	(Y)	N	Y	N	Y	N	Y	N	Y	N
Temperature °C	2									

	Y	N	N/A
1. Custody seal(s) present:	✓	✓	✓
Seals on cooler intact	✓		
Seals on bottle intact			✓
2. Chain of Custody present:	✓		
3. Containers broken or leaking: (Comment on COC if Y)		✓	
4. Containers labeled:	✓		
5. COC agrees w/ bottles received: (Comment on COC if N)	✓		
6. COC agrees w/ labels: (Comment on COC if N)	✓		
7. Headspace in VOA vials-waters only (comment on COC if Y)			✓
8. VOA samples preserved:			✓
9. pH measured on metals, cyanide or phenolics*:			✓
List discrepancies			
*Non-EAL provided containers only, water samples only.			
10. Metal samples present:			✓
Total _____ , Dissolved _____			
D or PD to be filtered:			
T,TR,D,PD to be Preserved:			
11. Short holding times:		✓	
Specify parameters			
12. Multi-phase sample(s) present:		✓	
13. COC signed w/ date/time:	✓		

Comments:

(Additional comments on back)
Custodian Signature/Date: Trina Woods 3/14/95

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons ES
ADDRESS 1700 Broadway Ste 700
CITY Denver STATE CO ZIP 80290
PHONE# 831-8100 FAX # FAX RESULTS Y / N

CLIENT CONTACT (print) Todd Wellemeier
PROJECT I.D. 722450.21020 / NAVOLKE AFB
EAL QUOTE # P.O.#
TURNAROUND REQUIRED*
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Kyle L Cannon
(print) Kyle L. Cannon
Evergreen Analytical Cooler No. 422
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water/Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	TOC	Moisture							EAL Sample No.
24MP-7(2-4)	3-10-95	0915	6		X									X	*	X	X			X	X						
24MP-8(2-4)	3-10-95	1400	5		X									X		X	X				X						
24MP-9(3-5)	3-10-95	1600	5		X									X		X	X				X						
24MP-9(9-11)	3-10-95	1700	5		X									X		X	X				X						
24MP-10(2-4)	3-11-95	0900	5		X									X		X	X				X						
24MW-6(2-4)	3-11-95	0930	5		X									X		X	X				X						
24MW-6(9-11)	3-11-95	1030	5		X									X		X	X				X						
175MP-1(3-5)	3-11-95	1415	5		X									X		X	X				X						
Rinsate Blank	3-11-95	1400	1	X										X													
HT:																											Location
DD:																											Container Size

EAL use only
Do not write in shaded area

EAL
Project #
Custodian

Instructions:

Relinquished by (Signature) | Date/Time | Received by (Signature) | Date/Time | Relinquished by (Signature) | Date/Time | Received by (Signature) | Date/Time

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

Client Sample Number	: 24MP-7(2-4)	Client Project No.	: 722450.21020 MacDill
Lab Sample Number	: X04163	Lab Project No.	: 95-0819
Date Sampled	: 3/10/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/16/95	Matrix	: Soil
Date Analyzed	: 3/16/95	Lab File No.	: BX2031614
Methanol Extract?	: No	Method Blank No.	: MB031695

Compound Name	Cas Number	Sample Concentration* ug/kg	PQL* ug/kg
Benzene	71-43-2	U	4.8
Toluene	108-88-3	U	4.8
Ethyl Benzene	100-41-4	U	4.8
Total Xylene	1330-20-7	U	4.8
Chlorobenzene	108-90-7	U	4.8
1,3,5-trimethylbenzene	108-67-8	U	4.8
1,2,4-trimethylbenzene	95-63-6	U	4.8
1,2,3-trimethylbenzene	526-73-8	U	4.8
1,2,3,4-tetramethylbenzene	488-23-3	U	4.3

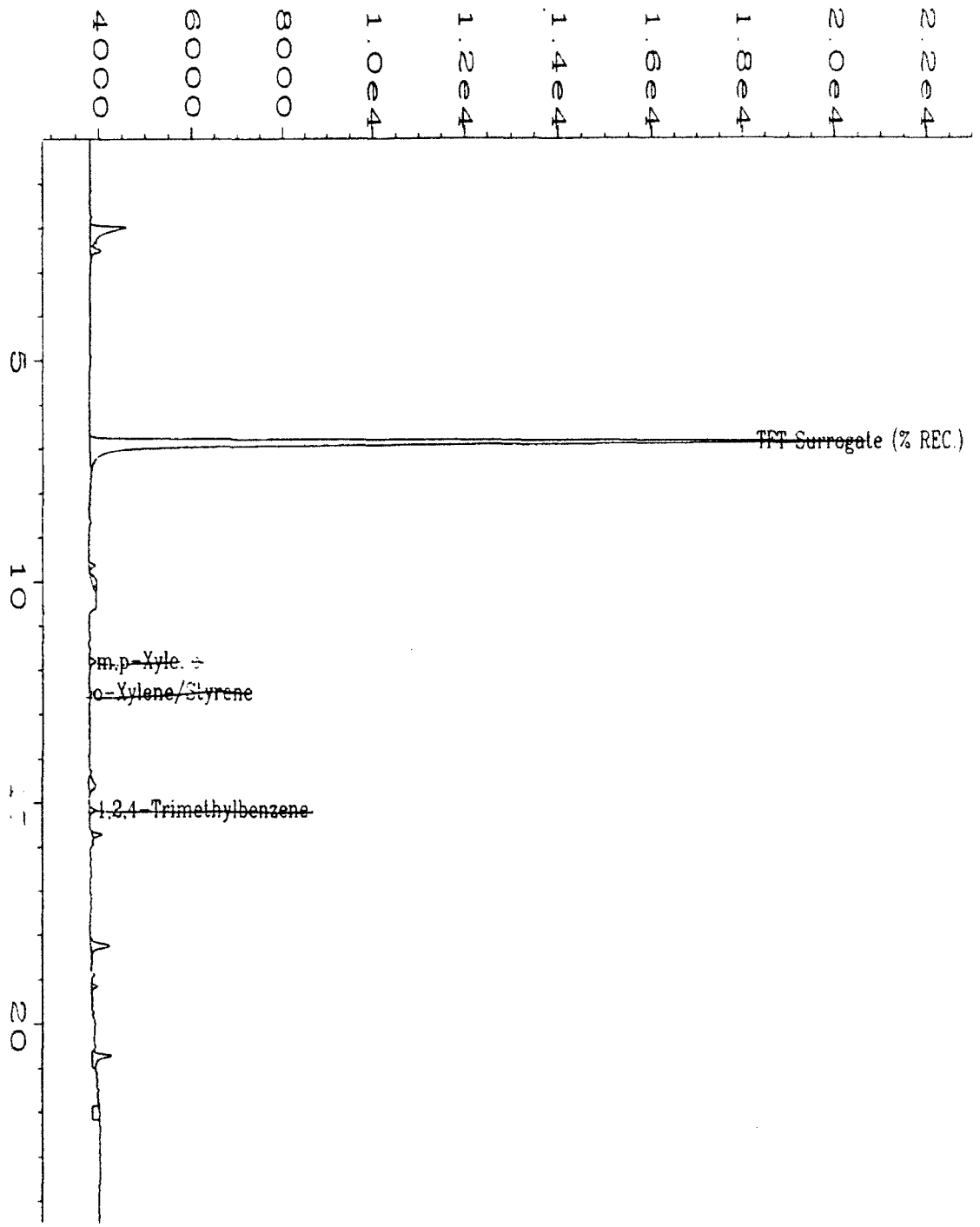
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 90%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cone
Approved

24 MP-7 (2-4)



ata File Name : C:\HPCHEM\2\DATA\BX20316\014R0401.D
Operator : C.J. Cook
Instrument : BTEX2
mple Name : X04163 DF=1
n Time Ba: Code:
quired on : 16 Mar 95 07:26 PM
port Creat d on: 17 Mar 95 11:31 AM
st Recalib on : 17 MAR 95 10:55 AM
ltiplier : 1

Page Number : 1
Vial Number : 14
Injection Number : 1
Sequence Line : 4
Instrument Method: BX2031
Analysis Method : BX20316.M
Sample Amount : 0
ISTD Amount :

3/28/9

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-8(2-4)		
Lab Sample Number	: X04164	Lab Project No.	: 95-0819
Date Sampled	: 3/10/95	Dilution Factor	: 5.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/17/95	Lab File No.	: BX203i713
Methanol Extract?	: No	Method Blank No.	: MB031795

Compound Name	Cas Number	Sample Concentration* ug/kg	PQL* ug/kg
Benzene	71-43-2	U	25
Toluene	108-88-3	U	25
Ethyl Benzene	100-41-4	U	25
Total Xylene	1330-20-7	U	25
Chlorobenzene	108-90-7	U	25
1,3,5-trimethylbenzene	108-67-8	U	25
1,2,4-trimethylbenzene	95-63-6	U	25
1,2,3-trimethylbenzene	526-73-8	U	25
1,2,3,4-tetramethylbenzene	488-23-3	U	25

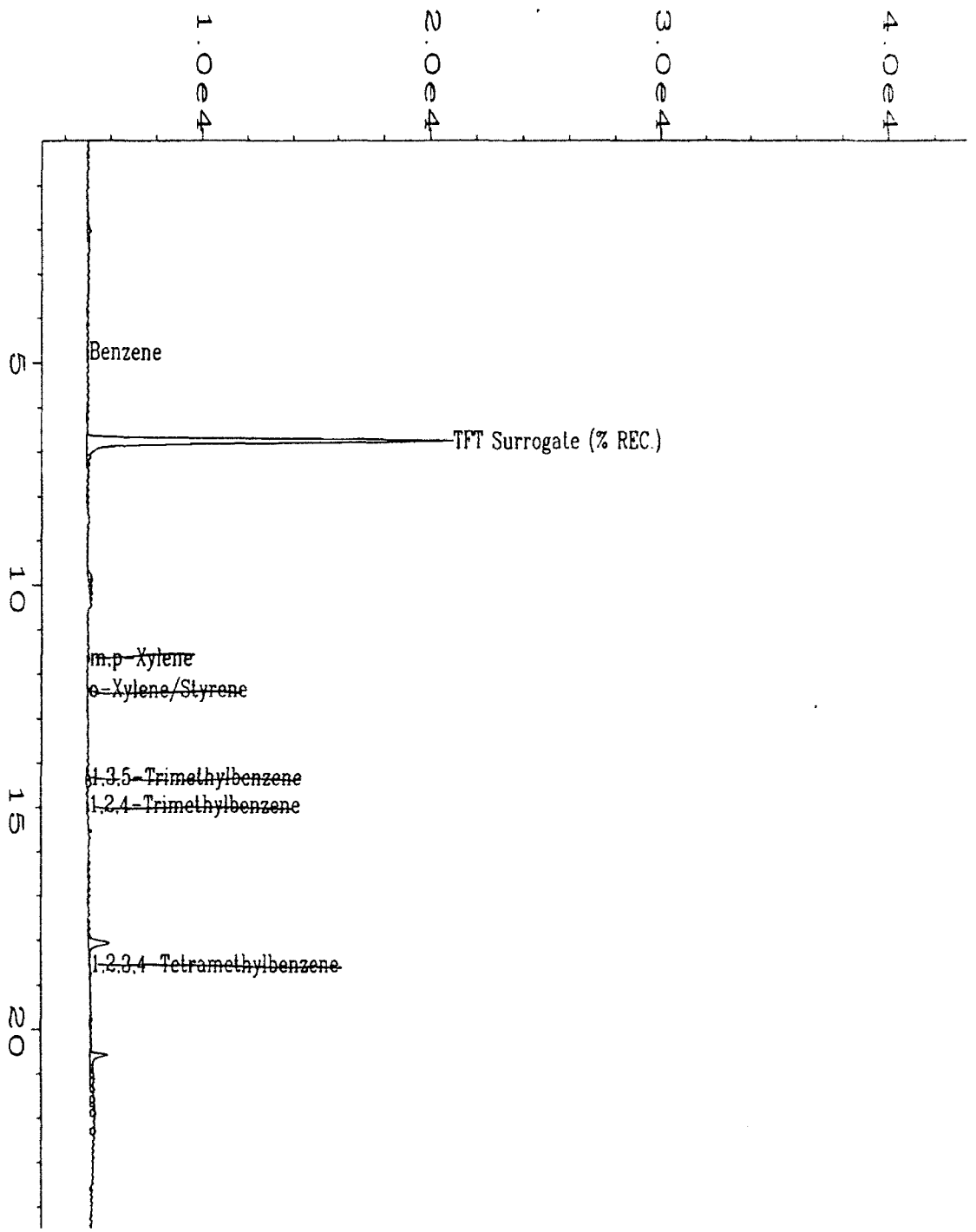
Note: Sample run at DF = 5 due to inability to purge at DF = 1.
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample reported on a dry weight basis. MDL = 2.5 ug/kg.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 85%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved

24MP-8(2-4)



Data File Name	: C:\HPCHEM\2\DATA\BX20317\013R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 13
Sample Name	: X04164 DF=5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 17 Mar 95 08:22 PM	Instrument Method	: BX2031 IT
Report Created on	: 17 Mar 95 08:47 PM	Analysis Method	: BX20317.MT
Last Recalib on	: 17 Mar 95 04:23 PM	Sample Amount	: 0
Multiplier	: 5	ISTD Amount	:
Sample Info	: Project#: 95-0819 Client#: 24MP-8(2-4) Soil		

pm 3/28/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-9(3-5)		
Lab Sample Number	: X04165	Lab Project No.	: 95-0819
Date Sampled	: 3/10/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/1_ 95	Matrix	: Soil
Date Analyzed	: 3/17/95	Lab File No.	: BX2031622
Methanol Extract?	: No	Method Blank No.	: MB031695

Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	4.9
Toluene	108-88-3	2.5	J	4.9
Ethyl Benzene	100-41-4	0.6	J	4.9
Total Xylene	1330-20-7		U	4.9
Chlorobenzene	108-90-7		U	4.9
1,3,5-trimethylbenzene	108-67-8		U	4.9
1,2,4-trimethylbenzene	95-63-6		U	4.9
1,2,3-trimethylbenzene	526-73-8		U	4.9
1,2,3,4-tetramethylbenzene	488-23-3	1.1	J	4.9

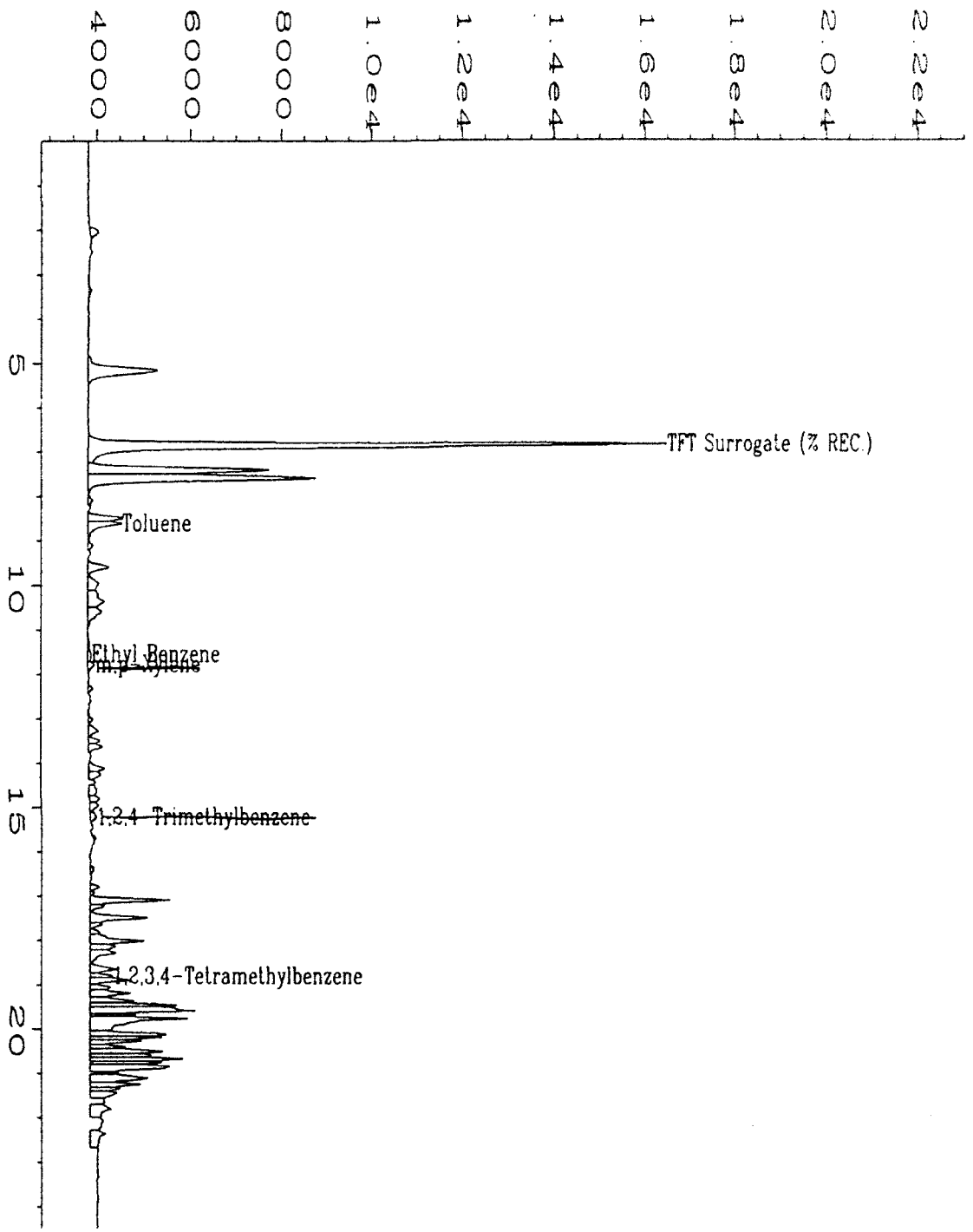
Note: Total Xylene consist of three isomers two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 68%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved

24MP-9(3-5)



Data File Name	: C:\HPCHEM\2\DATA\BX20316\022R0401.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 22
Sample Name	: X04165 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 17 Mar 95 01:18 AM	Instrument Method	: BX20316
Report Created on	: 17 Mar 95 11:56 AM	Analysis Method	: BX20316.MTH
Last Recalib on	: 17 MAR 95 10:55 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 3/28/95

Client # 24MP-9(3-5)

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-9(9-11)		
Lab Sample Number	: X04166	Lab Project No.	: 95-0819
Date Sampled	: 3/10/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/16/95	Matrix	: Soil
Date Analyzed	: 3/17/95	Lab File No.	: BX2031623
Methanol Extract?	: No	Method Blank No.	: MB031695

Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2	7.2		4.9
Toluene	108-88-3	1.0	J	4.9
Ethyl Benzene	100-41-4		U	4.9
Total Xylene	1330-20-7		U	4.9
Chlorobenzene	108-90-7		U	4.9
1,3,5-trimethylbenzene	108-67-8		U	4.9
1,2,4-trimethylbenzene	95-63-6		U	4.9
1,2,3-trimethylbenzene	526-73-8		U	4.9
1,2,3,4-tetramethylbenzene	488-23-3	1.1	J	4.9

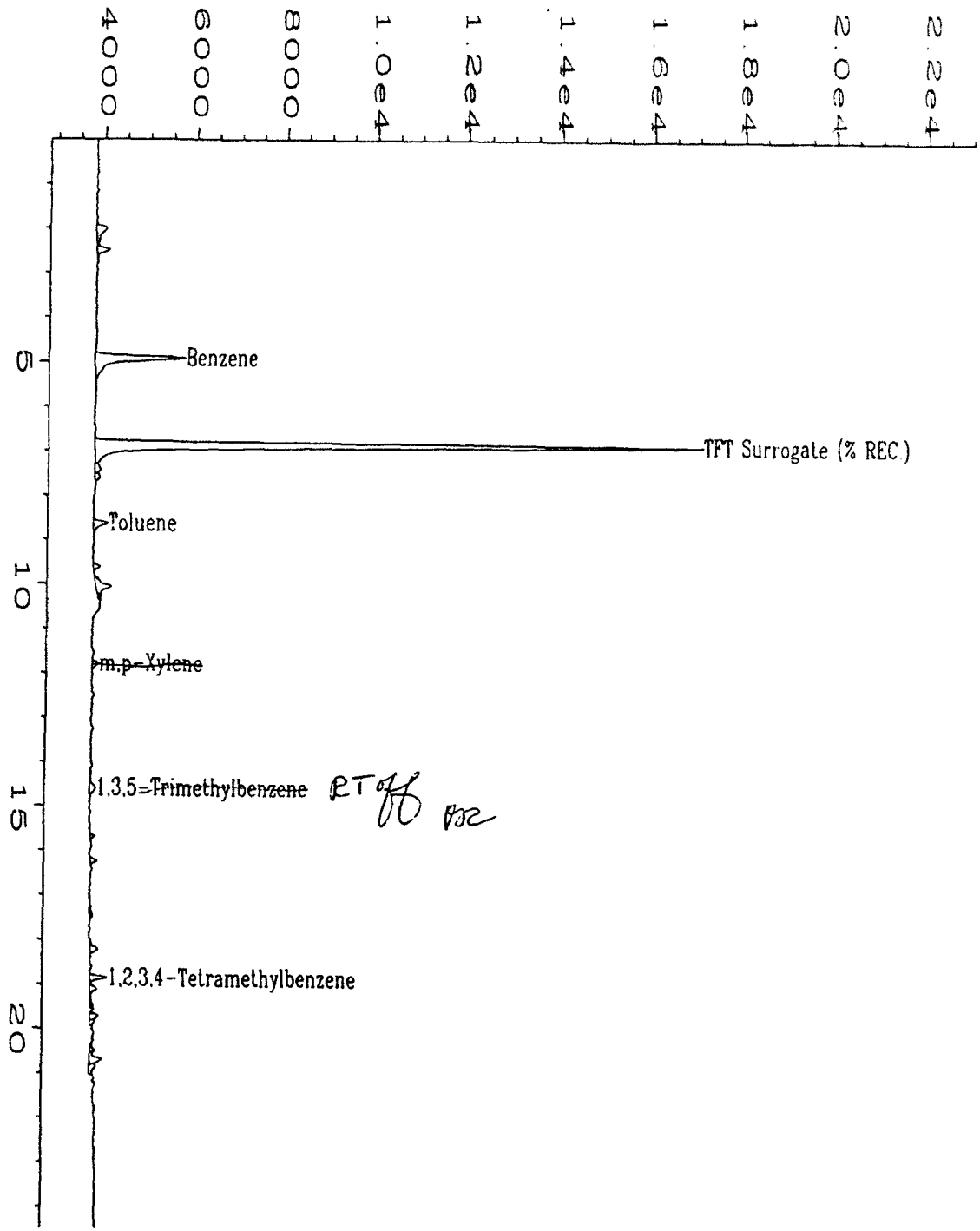
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 71%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cone
Approved

24MP-9(9-11)



RT off 032

Data File Name	: C:\HPCHEM\2\DATA\BX20316\023R0401.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 23
Sample Name	: X04166 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 17 Mar 95 02:02 AM	Instrument Method	: BX2031 .T
Report Created on	: 17 Mar 95 11:56 AM	Analysis Method	: BX20316.MT
Last Recalib on	: 17 MAR 95 10:55 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Am 3/25/95

Client # 24MP-9(9-11)

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-10(2-4)		
Lab Sample Number	: X04167	Lab Project No.	: 95-0819
Date Sampled	: 3/11/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/17/95	Lab File No.	: BX2031714
Methanol Extract?	: No	Method Blank No.	: MB031795

Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	4.8
Toluene	108-88-3		U	4.8
Ethyl Benzene	100-41-4		U	4.8
Total Xylene	1330-20-7	2.4	J	4.8
Chlorobenzene	108-90-7		U	4.8
1,3,5-trimethylbenzene	108-67-8		U	4.8
1,2,4-trimethylbenzene	95-63-6		U	4.8
1,2,3-trimethylbenzene	526-73-8		U	4.8
1,2,3,4-tetramethylbenzene	488-23-3		U	4.8

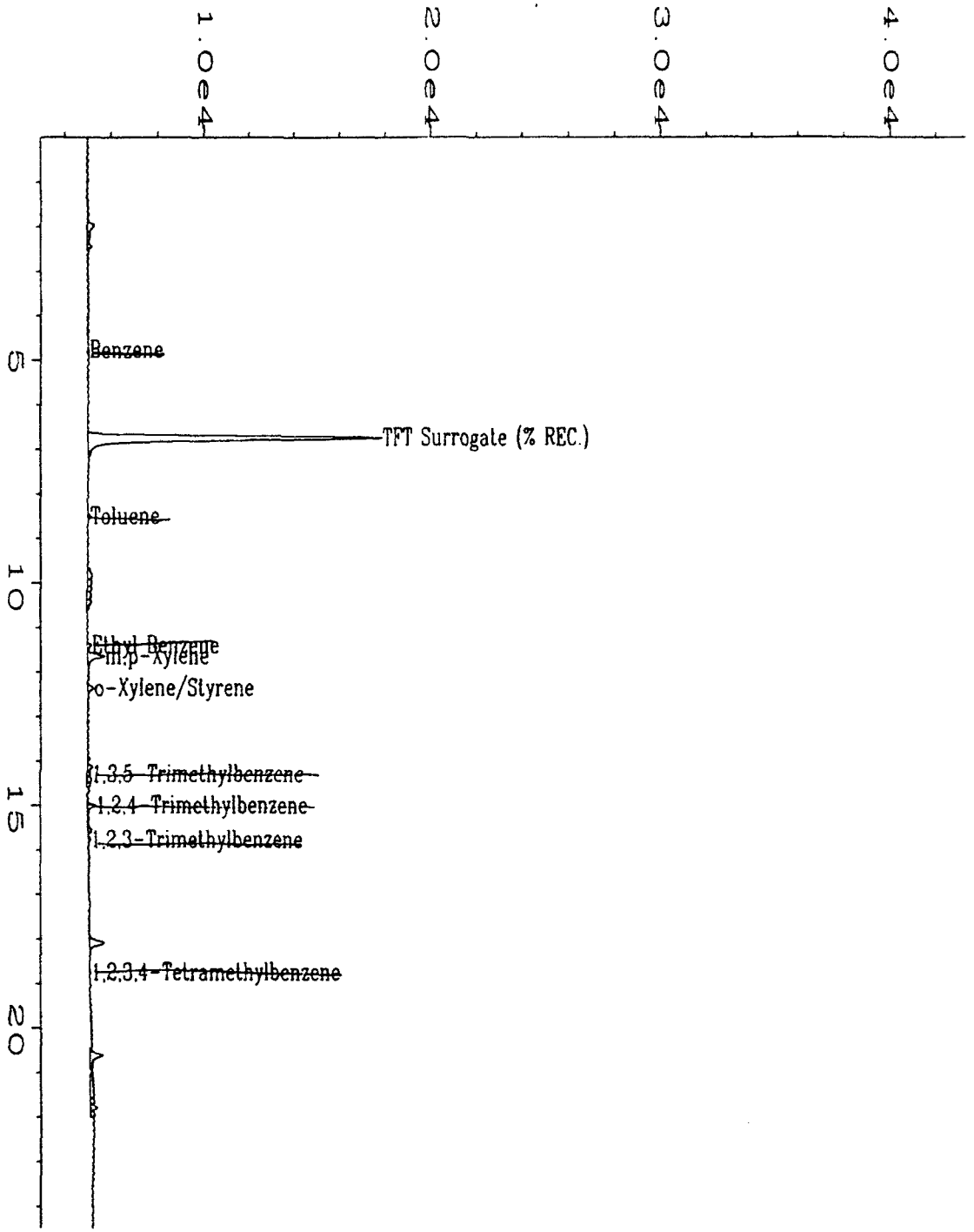
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 68%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved

24MP-10(2-4)



Data File Name	: C:\HPCHEM\2\DATA\BX20317\014R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 14
Sample Name	: X04167 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 17 Mar 95 09:05 PM	Instrument Method	: BX2031 .T
Report Created on	: 17 Mar 95 09:30 PM	Analysis Method	: BX20317.MT
Last Recalib on	: 17 Mar 95 04:23 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0819 Client#: 24MP-10(2-4) Soil		

Dm 3/28/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MP-10(2-4)		
Lab Sample Number	: X04167DUP	Lab Project No.	: 95-0819
Date Sampled	: 3/11/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/17/95	Lab File No.	: BX2031715
Methanol Extract?	: No	Method Blank No.	: MB031795

Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	4.8
Toluene	108-88-3		U	4.8
Ethyl Benzene	100-41-4	0.6	J	4.8
Total Xylene	1330-20-7	2.2	J	4.8
Chlorobenzene	108-90-7		U	4.8
1,3,5-trimethylbenzene	108-67-8		U	4.8
1,2,4-trimethylbenzene	95-63-6		U	4.8
1,2,3-trimethylbenzene	526-73-8		U	4.8
1,2,3,4-tetramethylbenzene	488-23-3		U	4.8

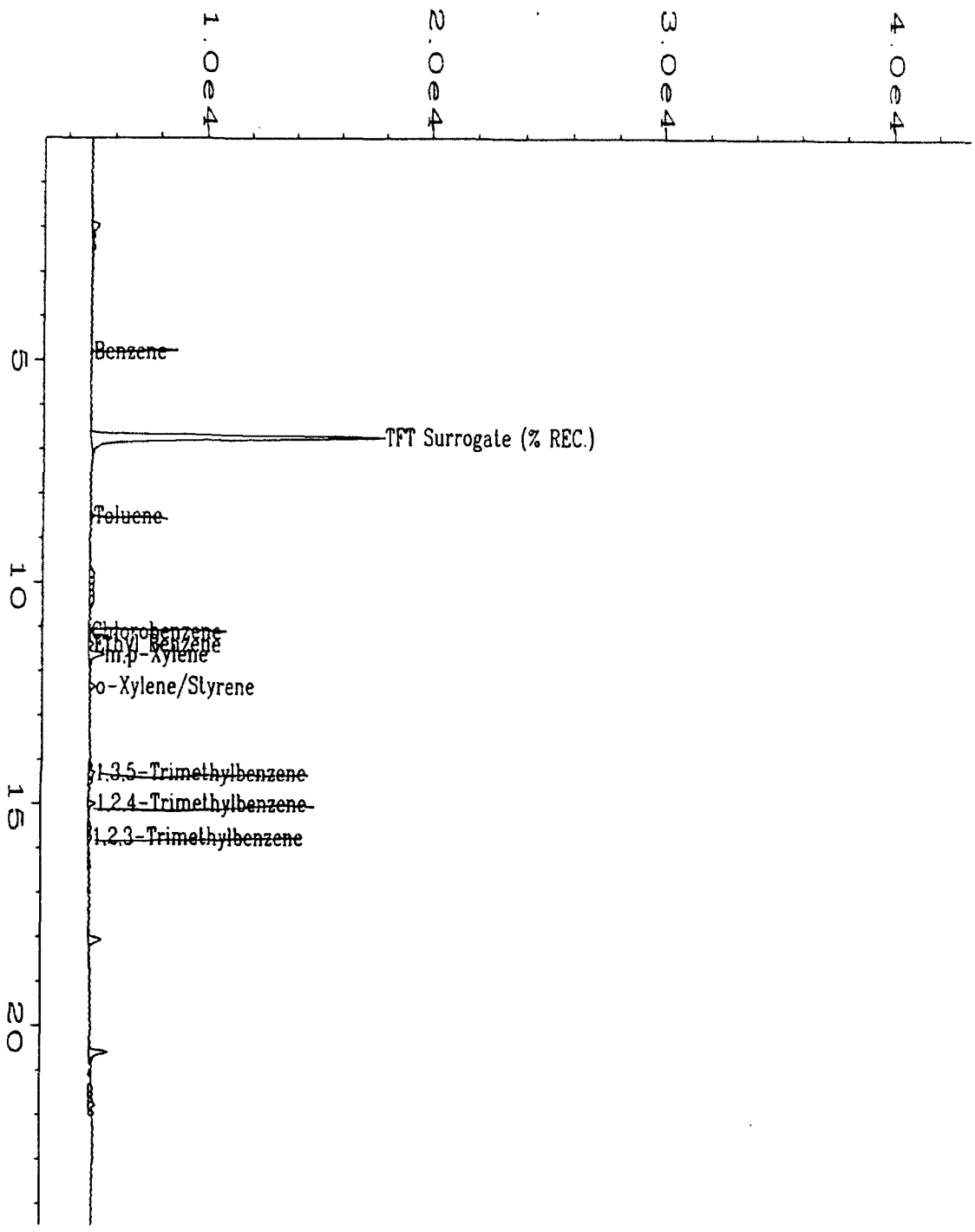
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 69%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cone
Approved

24MP-10(2-4) DUP



Data File Name	: C:\HPCHEM\2\DATA\BX20317\015R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 15
Sample Name	: X04167DUP DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 17 Mar 95 09:48 PM	Instrument Method	: BX2031 TH
Report Created on	: 17 Mar 95 10:13 PM	Analysis Method	: BX20317.MTH
Last Recalib on	: 17 Mar 95 04:23 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0819 Client#: 24MP-10(2-4) Soil		

pm 3/28/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: 24MW-6(2-4)		
Lab Sample Number	: X04168	Lab Project No.	: 95-0819
Date Sampled	: 3/11/95	Dilution Factor	: 5.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/17/95	Lab File No.	: BX2031718
Methanol Extract?	: No	Method Blank No.	: MB031795

Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	25
Toluene	108-88-3	3.8	J	25
Ethyl Benzene	100-41-4		U	25
Total Xylene	1330-20-7		U	25
Chlorobenzene	108-90-7		U	25
1,3,5-trimethylbenzene	108-67-8		U	25
1,2,4-trimethylbenzene	95-63-6		U	25
1,2,3-trimethylbenzene	526-73-8		U	25
1,2,3,4-tetramethylbenzene	488-23-3	3.2	J	25

Note: Sample run at DF = 5 due to inability to purge at DF = 1.
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample reported on a dry weight basis. MDL = 2.5 ug/kg.

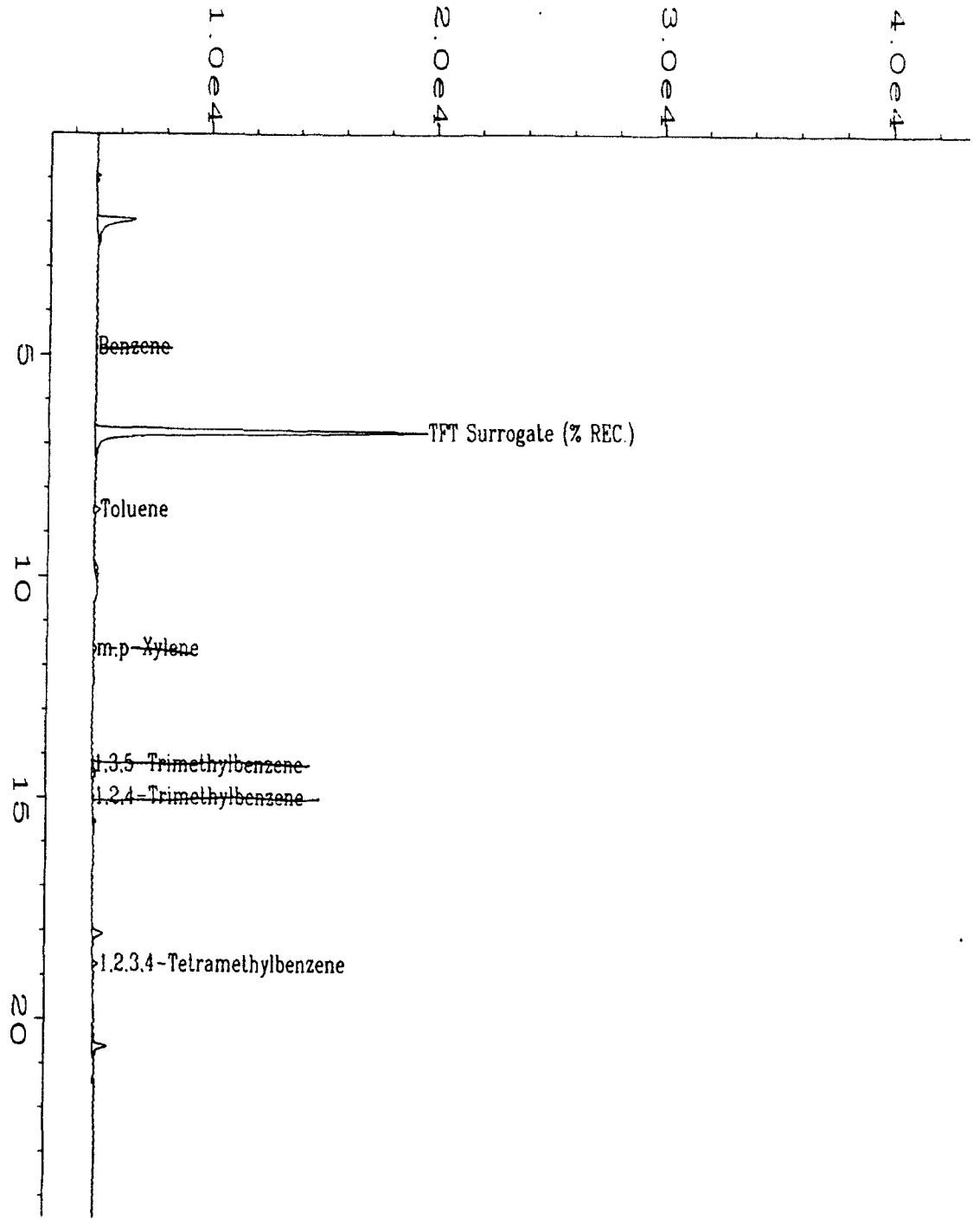
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 78%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved

24 MW-6(2-4)



Data File Name : C:\HPCHEM\2\DATA\BX20317\018R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04168 DF=5
Run Time Bar Code:
Acquired on : 17 Mar 95 11:58 PM
Report Created on: 18 Mar 95 02:29 PM
Last Recalib on : 18 MAR 95 01:39 PM
Multiplier : 1

Page Number : 1
Vial Number : 18
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20317 H
Analysis Method : BX20317.MTH
Sample Amount : 0
ISTD Amount :
Client # 24 MW-6(2-4)

pm 3/28/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

Client Sample Number	: 24MW-6(9-11)	Client Project No.	: 722450.21020 MacDill
Lab Sample Number	: X04169	Lab Project No.	: 95-0819
Date Sampled	: 3/11/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/16/95	Matrix	: Soil
Date Analyzed	: 3/17/95	Lab File No.	: BX2031626
Methanol Extract?	: No	Method Blank No.	: MB031695

Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	4.9
Toluene	108-88-3		U	4.9
Ethyl Benzene	100-41-4		U	4.9
Total Xylene	1330-20-7		U	4.9
Chlorobenzene	108-90-7		U	4.9
1,3,5-trimethylbenzene	108-67-8		U	4.9
1,2,4-trimethylbenzene	95-63-6		U	4.9
1,2,3-trimethylbenzene	526-73-8		U	4.9
1,2,3,4-tetramethylbenzene	488-23-3	1.0	J	4.9

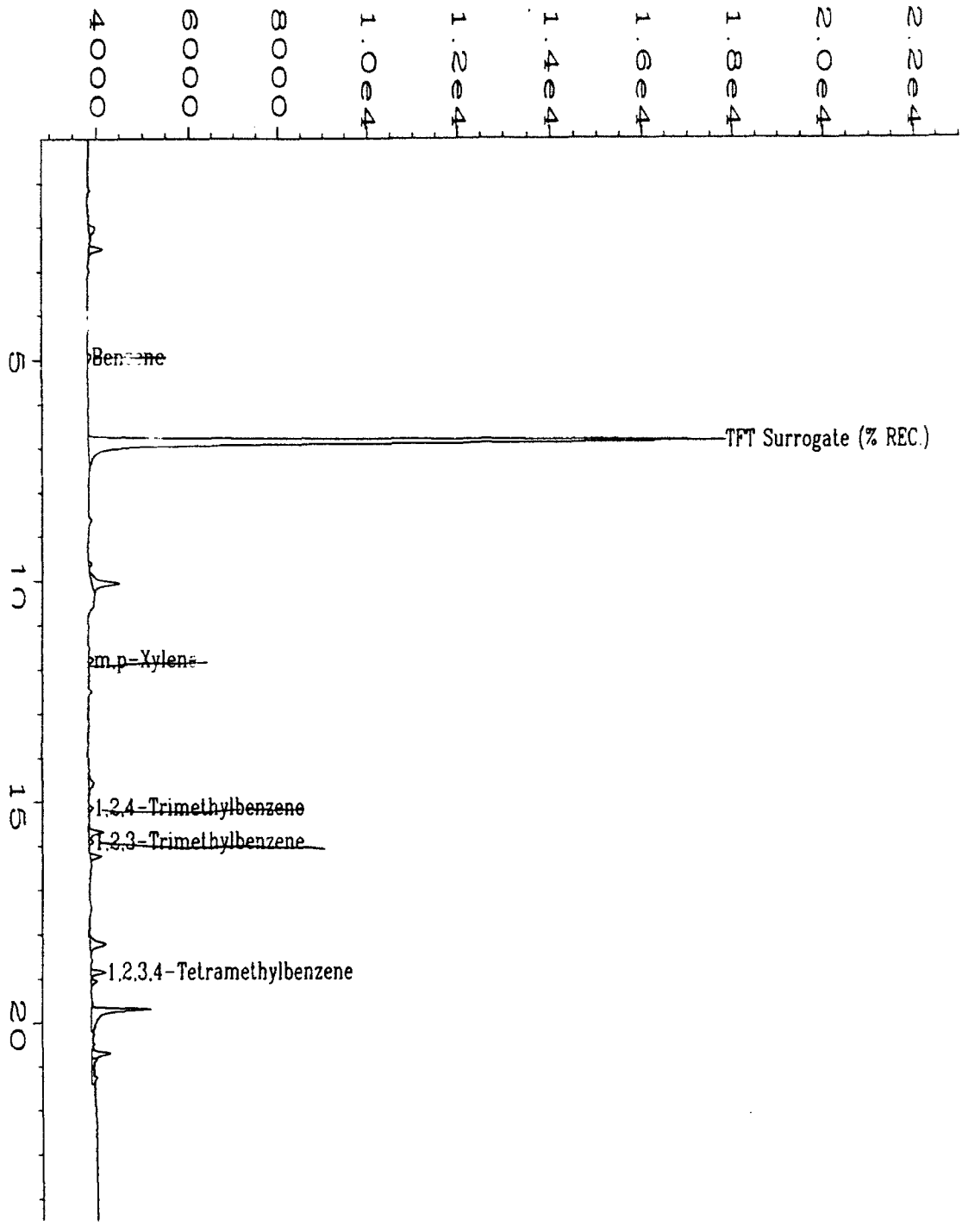
Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Sample reported on a dry weight basis.
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 74%
QC Reporting Limits : 64%-130%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved

24MW-6(9-11)



ata File Name : C:\HPCHEM\2\DATA\BX20316\026R0401.D
erator : C.J. Cook
strument : BTEX2
mple Name : X04169 DF=1
n Time Bar ode:
quired on : 17 Mar 95 04:15 AM
eport Create on: 17 Mar 95 11:57 AM
ast Recalib . : 17 MAR 95 10:55 AM
ultiplier : 1

Page Number : 1
Vial Number : 26
Injection Number : 1
Sequence Line : 4
Instrument Method: BX2031 .TE
Analysis Method : BX20316.MTH
Sample Amount : 0
ISTD Amount :

pm = 25/95

Client # 24 MW-6(9-11)

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS
TEH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 24MP-7(2-4)	**Client Project No.**	: 722450.21020/MAC DI
Lab Sample No.	: X04163	**Lab Project No.**	: 95-0819
Date Sampled	: 3/10/95	**EPA Method No.**	: 3500/MOD.8015
Date Received	: 3/14/95	**Matrix**	: SOIL
Date Prepared	: 3/17/95	**Method Blank**	: SB031795
Date Analyzed	: 3/18/95		

Compound	Spike Added (ug/mL)	Sample Concentration (ug/mL)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Jet Fuel	1000	0	910	91	60-140

Compound	Spike Added (ug/mL)	MSD Concentration (ug/mL)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Jet Fuel	1000	930	93	2.2	50	60-140

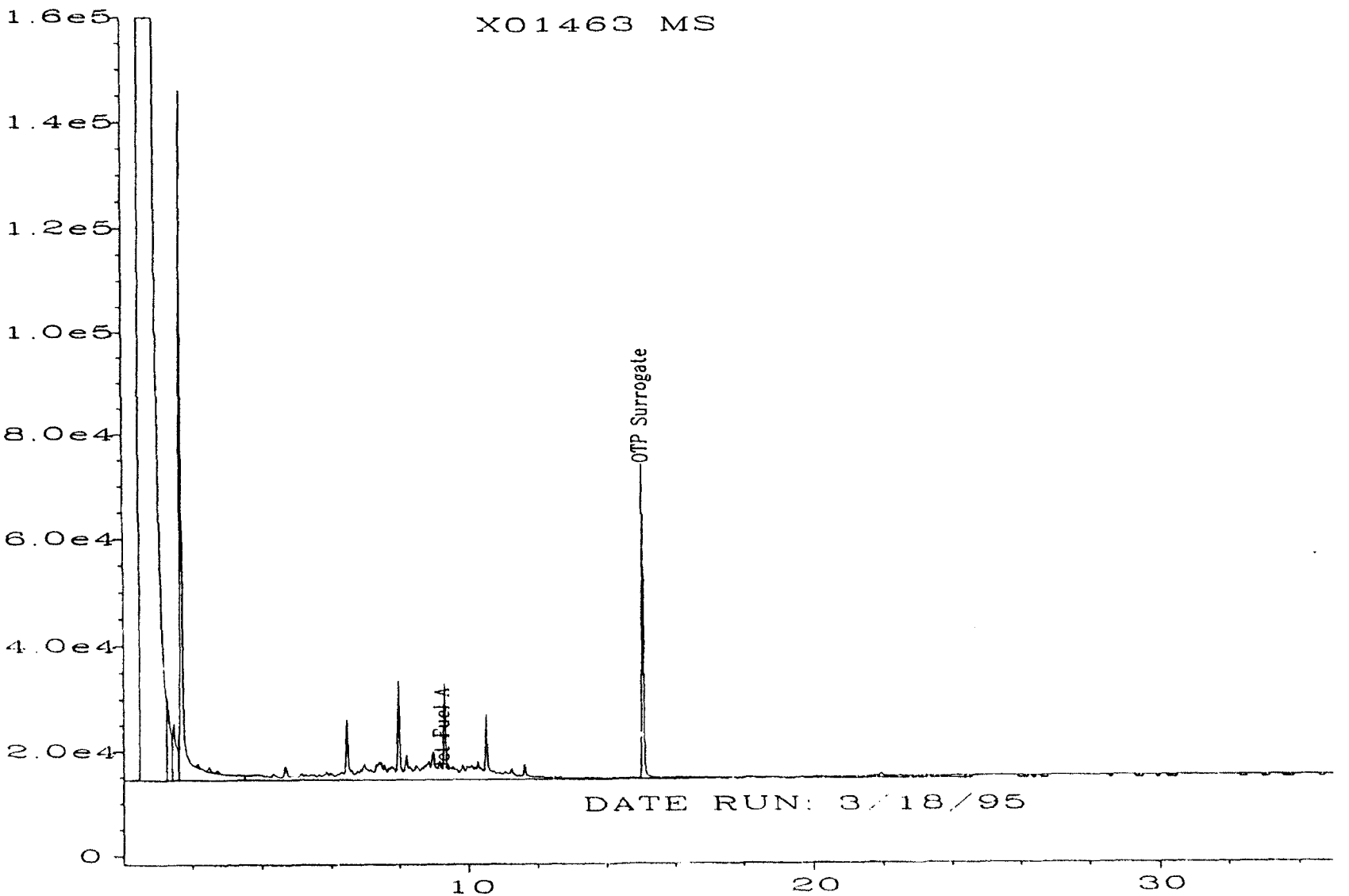
* = Values outside of QC limits.

RPD: 0 out of (1) outside limits.

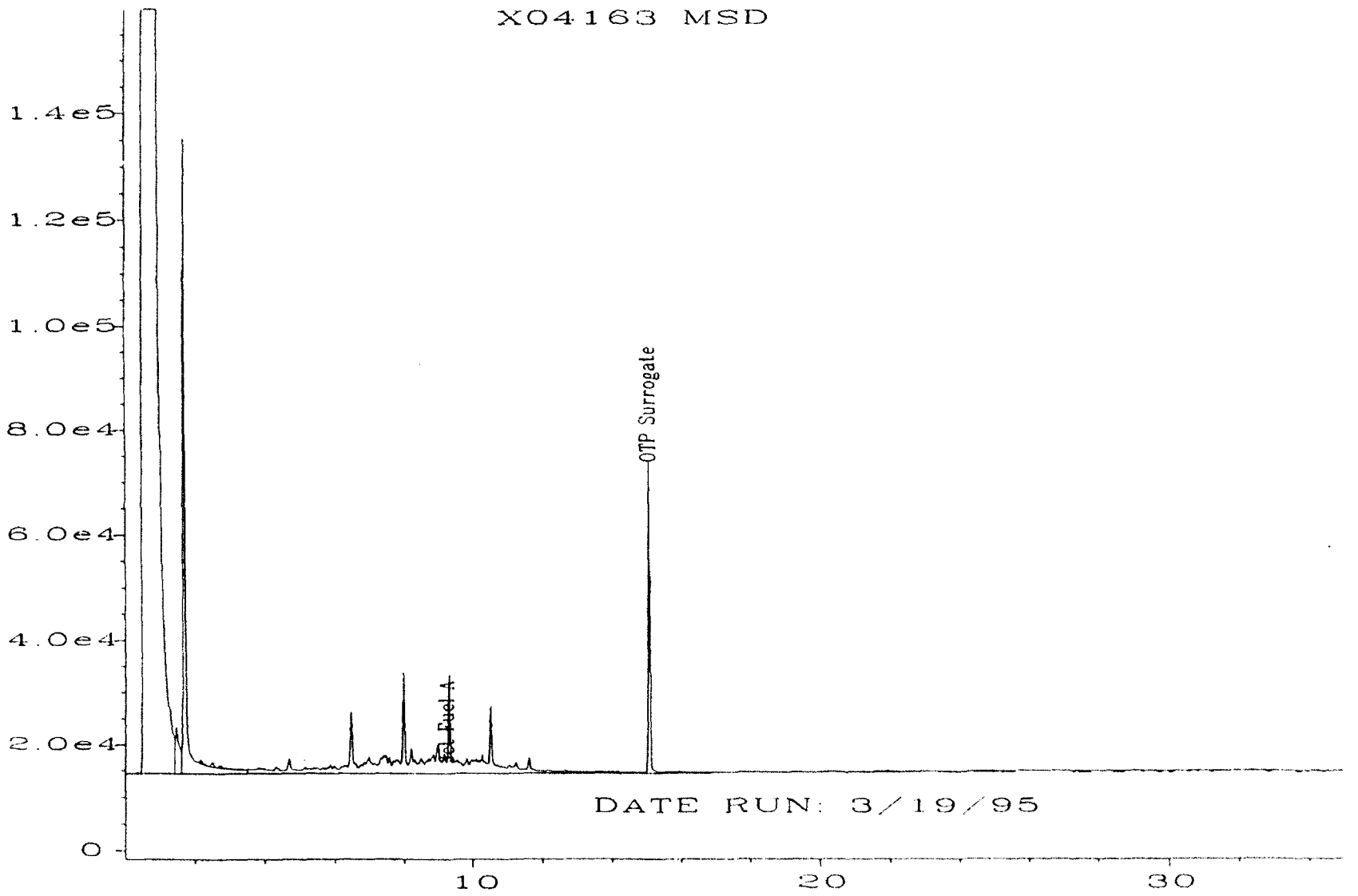
Spike Recovery: 0 out of (1) outside limits.

Comments: NA = Not analyzed/not applicable.

Values reported in ug/mL in the liquid extract.



Sig. 2 in C:\HPCHEM\2\DATA\TEH0317\042R0101.D



Sig. 2 in C:\HPCHEM\2\DATA\TEH0317\043R0101.D

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS

TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 24MP-7(2-4)	Client Project No.	: 722450.21020/Mac D
Lab Sample No.	: X04163	Lab Project No.	: 95-0819
Date Sampled	: 3/10/95-3/11/95	EPA Method No.	: 5030/8015 Mod
Date Received	: 3/14/95	Matrix	: Soil
Date Prepared	: 3/15/95	Method Blank	: MB031595
Date Analyzed	: 3/15/95-3/16/95		

Compound	Spike Added (mg/Kg)	Sample Concentration (mg/Kg)	MS Concentration (mg/Kg)	MS %REC	QC Limits %REC
Gasoline	5.00	0.00	5.33	107	60-140

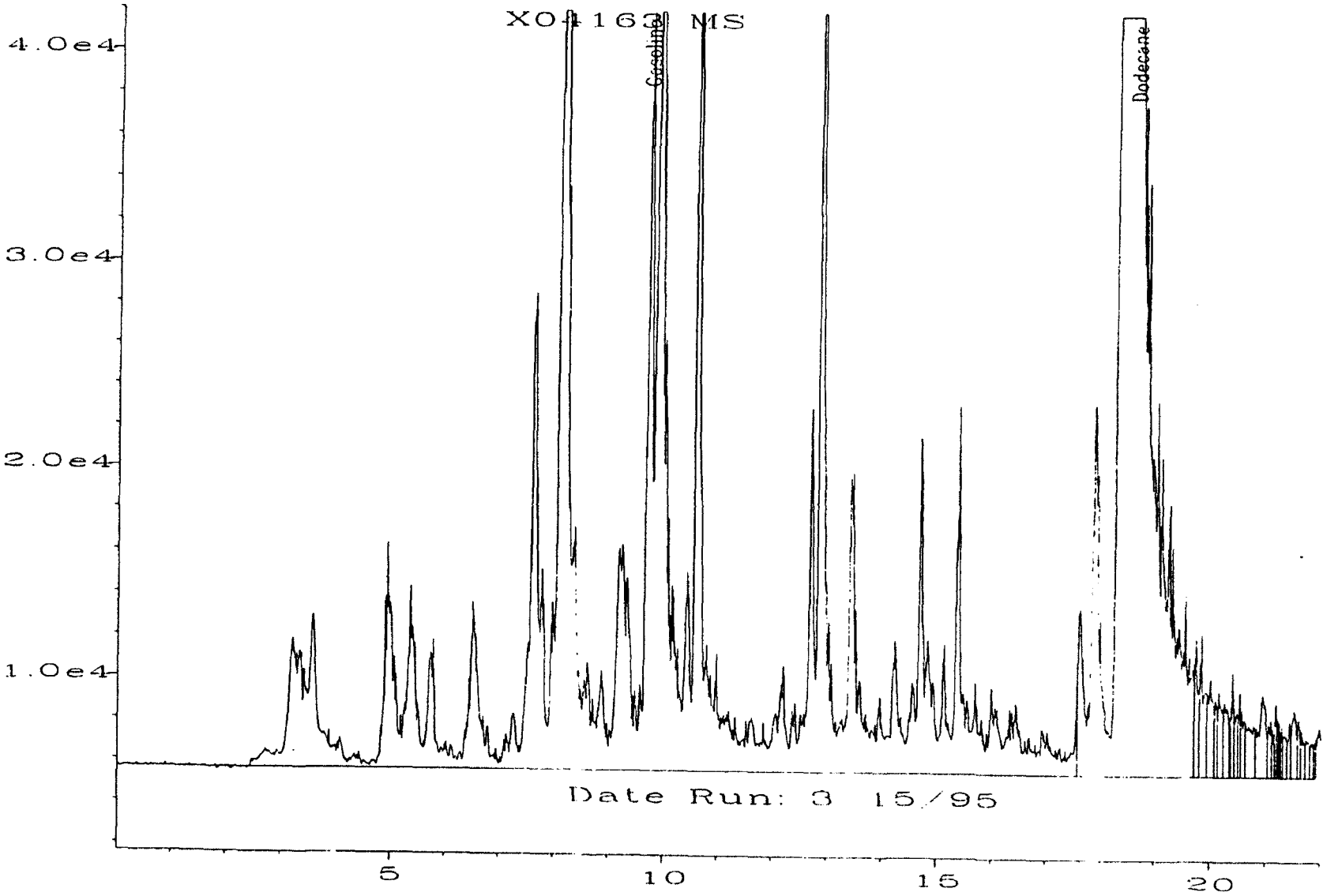
Compound	Spike Added (mg/L)	MSD Concentration (mg/L)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Gasoline	5.00	4.97	99	7.0	30	60-140

* = Values outside of QC limits.

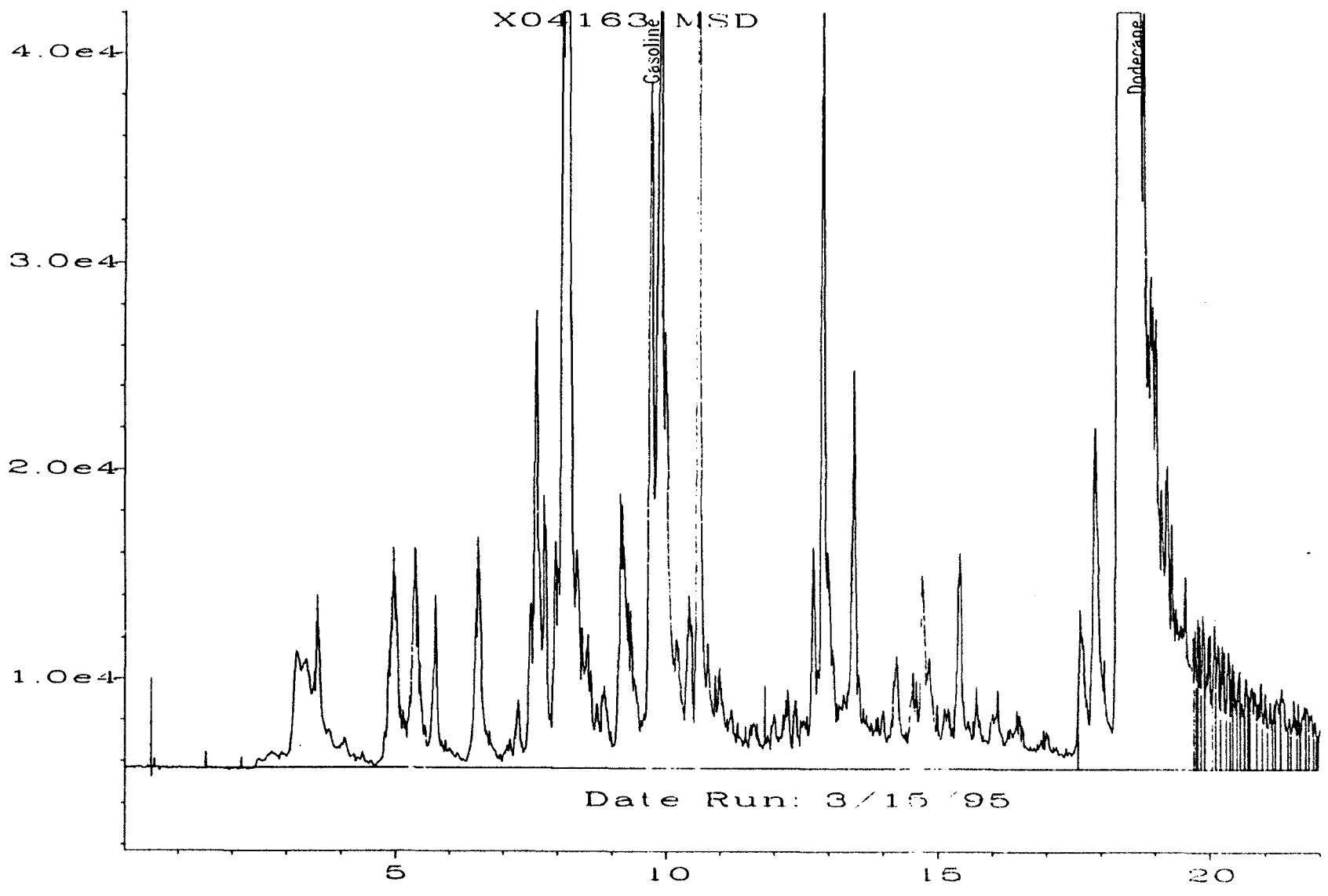
RPD: 0 out of (1) outside limits.

Spike Recovery: 0 out of (2) outside limits.

Comments: NA = Not analyzed/not applicable.



Sig. 1 in C:\HPCHEM\1\DATA\TVH0315\018F0101.D



Sig. 1 in C:\HPCHEM\1\DATA\TVH0315 019F0101.D

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

BTEX Soil Matrix Spike/Matrix Spike Duplicate Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample No.	: 24MP-7(2-4)		
Lab Sample No.	: X04163	Lab Project No.	: 95-0819
Date Sampled	: 3/10/95	EPA Method No.	: 8020
Date Received	: 3/14/95	Matrix	: Soil
Date Prepared	: 3/16/95	Lab File Number(s)	: BX2031615
Date Analyzed	: 3/16/95	Method Blank	: MB031695

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Benzene	20	0.0	18.4	92	65-121
Toluene	20	0.0	18.7	94	69-117
Ethyl Benzene	20	0.0	18.8	94	68-118
m/p-Xylene	40	0.0	41.3	103	66-116
o-Xylene	20	0.0	18.8	94	73-117
Chlorobenzene	20	0.0	18.2	91	65-121
1,3,5-TMB	20	0.0	18.9	95	65-121
1,2,4-TMB	40	0.0	36.3	91	65-121
1,2,3-TMB	40	0.0	33.4	84	65-121
1,2,3,4-TeMB	20	0.0	17.3	87	65-121

Compound	Spike Added (ug/L)	MSD Concentration (ug/L)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Benzene	20	17.7	89	3.9	17.4	65-121
Toluene	20	18.0	90	3.8	15.8	69-117
Ethyl Benzene	20	18.2	91	3.2	11.9	68-118
m/p-Xylene	40	39.8	100	3.7	15.4	66-116
o-Xylene	20	17.9	90	4.9	13.2	73-117
Chlorobenzene	20	17.5	88	3.9	17.4	65-121
1,3,5-TMB	20	18.1	91	4.3	17.4	65-121
1,2,4-TMB	40	33.9	85	6.8	17.4	65-121
1,2,3-TMB	40	32.8	82	1.8	17.4	65-121
1,2,3,4-TeMB	20	15.4	77	12	17.4	65-121

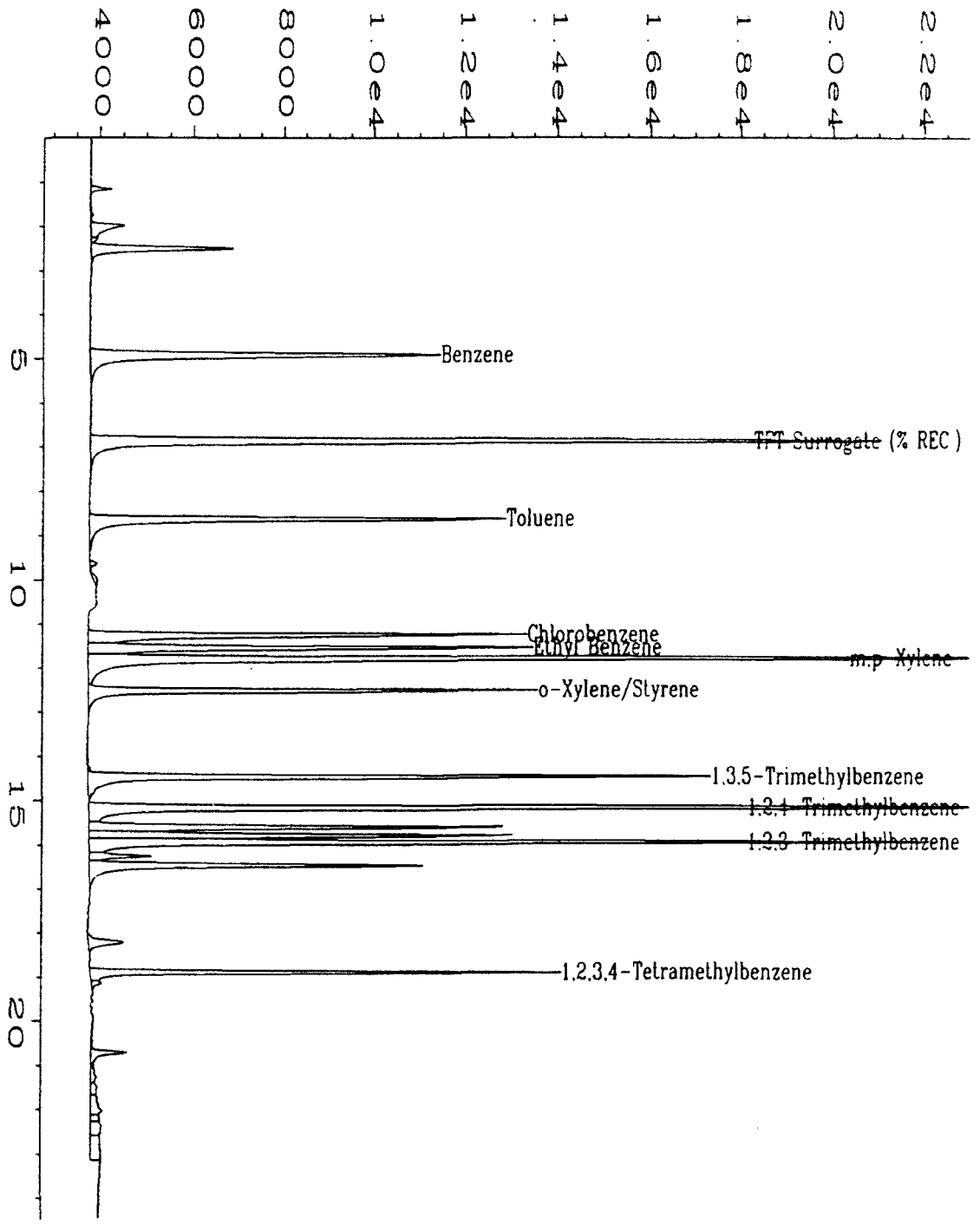
* = Values outside of QC limits.

RPD: 0 out of (10) outside limits.

Spike Recovery: 0 out of (20) outside limits.

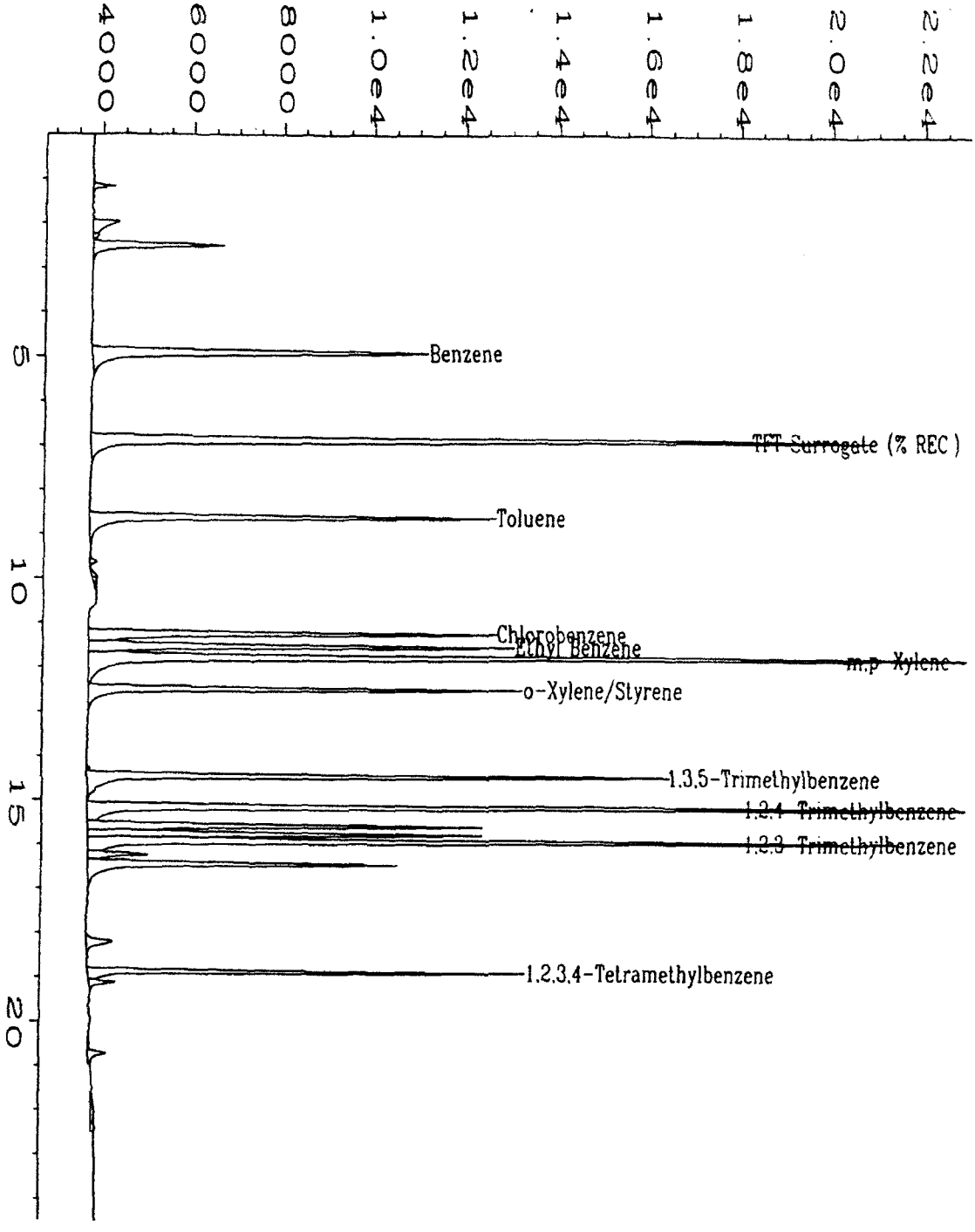
Comments: CJC

24MP-7(2-4) MS



Data File Name	: C:\HPCHEM\2\DATA\BX20316\015R0401.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 15
Sample Name	: X04163MS DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 16 Mar 95 08:11 PM	Instrument Method	: BX20316 H
Report Created on	: 17 Mar 95 11:31 AM	Analysis Method	: BX20316...H
Last Recalib on	: 17 MAR 95 10:55 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

24MP-7(2-4) MSD



Data File Name	: C:\HPCHEM\2\DATA\BX20316\016R0401.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 16
Sample Name	: X04163MSD DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
uired on	: 16 Mar 95 08:54 PM	Instrument Method	: BX20316.MTH
port Created on	: 17 Mar 95 11:32 AM	Analysis Method	: BX20316.MTH
Last Recalib on	: 17 MAR 95 10:55 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: Rinsate Blank		
Lab Sample Number	: X04171	Lab Project No.	: 95-0819
Date Sampled	: 3/11/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/16/95	Matrix	: Water
Date Analyzed	: 3/16/95	Lab File No.	: BX2031620
Methanol Extract?	: No	Method Blank No.	: MB031695

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4
Toluene	108-88-3	U	4
Ethyl Benzene	100-41-4	U	4
Total Xylene	1330-20-7	U	4
Chlorobenzene	108-90-7	U	4
1,3,5-trimethylbenzene	108-67-8	U	4
1,2,4-trimethylbenzene	95-63-6	U	4
1,2,3-trimethylbenzene	526-73-8	U	4
1,2,3,4-tetramethylbenzene	488-23-3	U	4

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

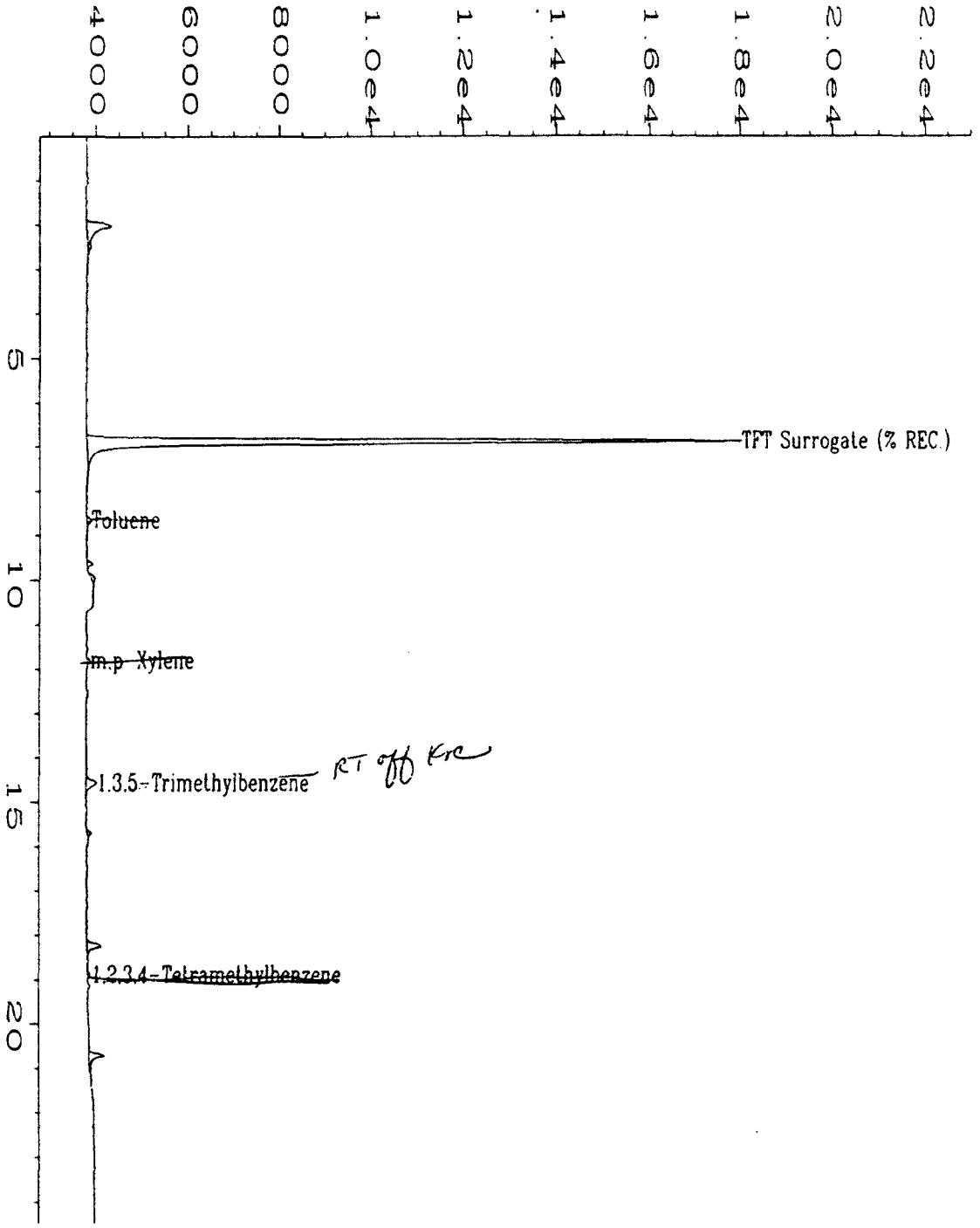
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 75%
QC Reporting Limits : 70%-131%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved

Rinsate Blank



Data File Name	: C:\HPCHEM\2\DATA\BX20316\020R0401.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 20
Sample Name	: X04171 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 16 Mar 95 11:50 PM	Instrument Method	: BX20316.MTH
Report Created on	: 17 Mar 95 11:33 AM	Analysis Method	: BX20316.MTH
Last Recalib on	: 17 MAR 95 10:55 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 3/28/95

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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill
Client Sample Number	: Trip Blank		
Lab Sample Number	: X04172	Lab Project No.	: 95-0819
Date Sampled	: 3/11/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/16/95	Matrix	: Water
Date Analyzed	: 3/17/95	Lab File No.	: BX2031621
Methanol Extract?	: No	Method Blank No.	: MB031695

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4
Toluene	108-88-3	U	4
Ethyl Benzene	100-41-4	U	4
Total Xylene	1330-20-7	U	4
Chlorobenzene	108-90-7	U	4
1,3,5-trimethylbenzene	108-67-8	U	4
1,2,4-trimethylbenzene	95-63-6	U	4
1,2,3-trimethylbenzene	526-73-8	U	4
1,2,3,4-tetramethylbenzene	488-23-3	U	4

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

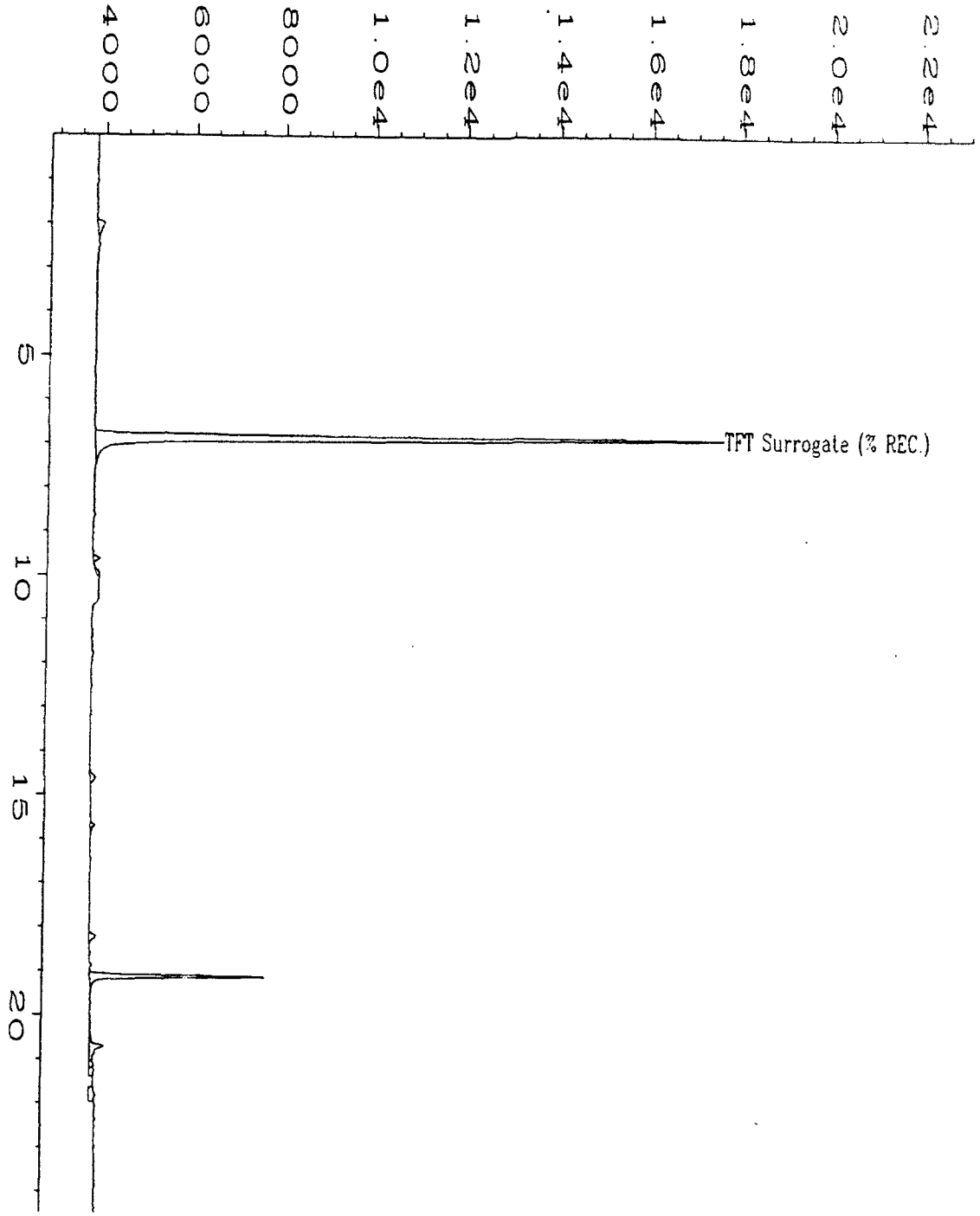
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 74%
QC Reporting Limits : 70%-131%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

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Trip Blank



Data File Name	: C:\HPCHEM\2\DATA\BX20316\021R0401.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 21
Sample Name	: X04172 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 17 Mar 95 00:35 AM	Instrument Method	: BX20316.MTH
Report Created on	: 17 Mar 95 11:34 AM	Analysis Method	: BX20316.MTH
Last Recalib on	: 17 MAR 95 10:55 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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BTEX Data Report
Method Blank Report

Met d Blank Number	: MB031695	Client Project No.	: 722450.21020 MacDill
Date xtracted/Prepare	: 3/16/95	Lab Project No.	: 95-0819
Date alyzed	: 3/16/95	Dilution Factor	: 1.00
		Method	: 8020
		Matrix	: Water
		Lab File No.	: BX2031609

Compou d Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4
Toluene	108-88-3	U	4
Ethyl E nzene	100-41-4	U	4
Total Xylene	1330-20-7	U	4
Chlc benzene	108-90-7	U	4
1,3,5 imethylbenzene	108-67-8	U	4
1,2,4 nethylbenzene	95-63-6	U	4
1,2,3- ethylbenzene	526-73-8	U	4
1,2,3,4 tramethylbenzene	488-23-3	U	4

Note: To al Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

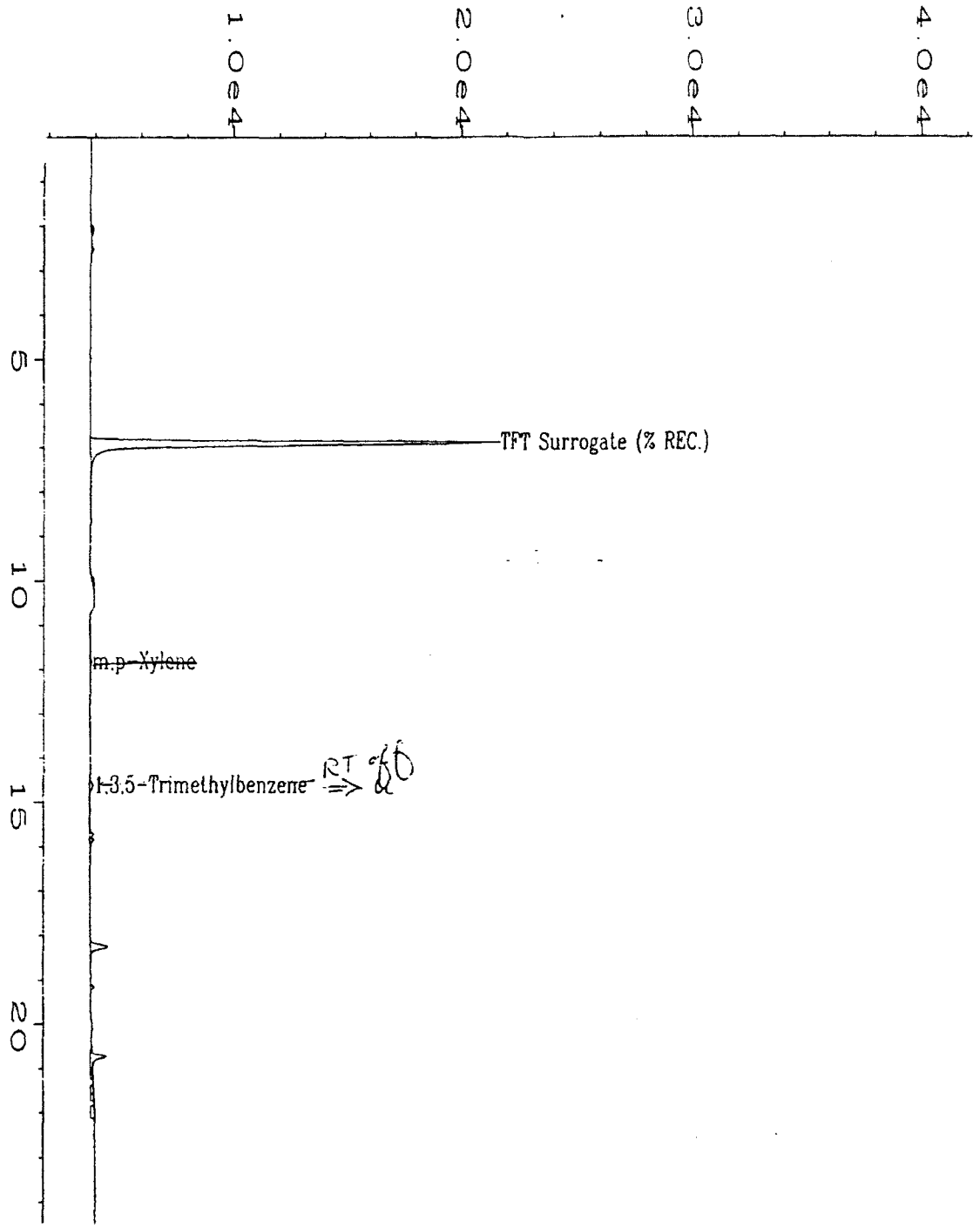
Surrogate covery:
a,a,a,-Triflu otoluene : 97%
QC Reportin Limits : 70%-131%

QUALIFIERS:
E = Extrapo ed value
U = Compou f analyzed for, but not detected.
B = Compou found in blank and sample. Compare blank and sample data.
J = Indicates n estimated value when the compound is detected, but is below the Practical Quantita n Limit (PQL).
PQL = Practic Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method D tection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not ava ble

Analyst

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Method Blank



Data File Name : C:\HPCHEM\2\DATA\BX20316\009R0401.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : MB031695-WATER
Run Time Bar Code:
Acquired on : 16 Mar 95 03:41 PM
Report Created on: 17 Mar 95 11:29 AM
Last Recalib on : 17 MAR 95 10:55 AM
Multiplier : 1

Page Number : 1
Vial Number : 9
Injection Number : 1
Sequence Line : 4
Instrument Method: BX20316.MTH
Analysis Method : BX20316.MTH
Sample Amount : 0
ISTD Amount :

fm 3/28/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020
			MacDill
Method Blank Number	: MB031795	Lab Project No.	: 95-0819
Date Extracted/Prepared	: 3/17/95	Dilution Factor	: 1.00
Date Analyzed	: 3/17/95	Method	: 8020
		Matrix	: Water
		Lab File No.	: BX2031709

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4
Toluene	108-88-3	U	4
Ethyl Benzene	100-41-4	U	4
Total Xylene	1330-20-7	U	4
Chlorobenzene	108-90-7	U	4
1,3,5-trimethylbenzene	108-67-8	U	4
1,2,4-trimethylbenzene	95-63-6	U	4
1,2,3-trimethylbenzene	526-73-8	U	4
1,2,3,4-tetramethylbenzene	488-23-3	U	4

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

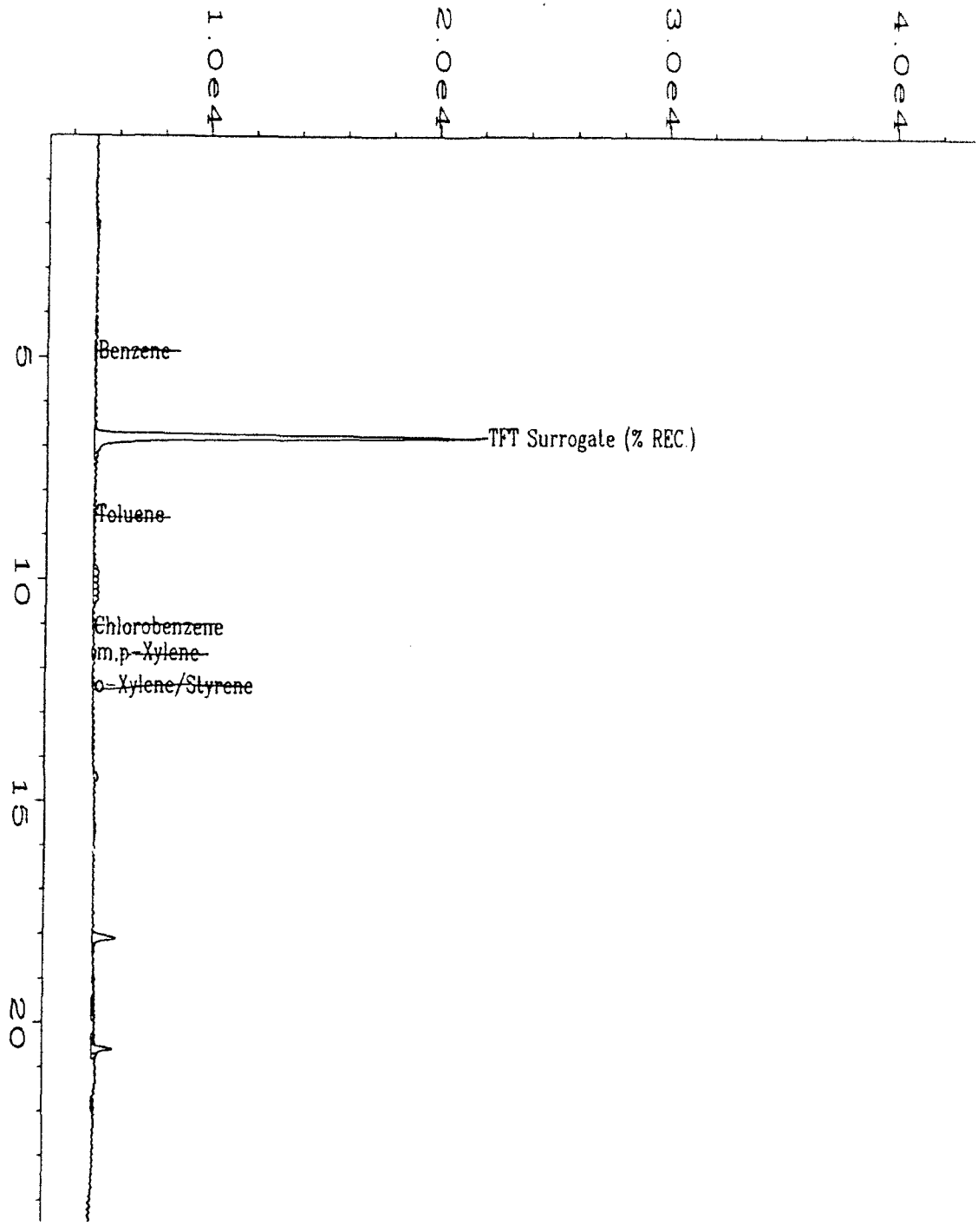
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 90%
QC Reporting Limits : 70%-131%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cone
Approved

Method Blank



Data File Name	: C:\HPCHEM\2\DATA\BX20317\009R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 9
Sample Name	: MB031795-WATER	Injection Number	: 1
n Time Bar Code:		Sequence Line	: 8
quired on	: 17 Mar 95 05:27 PM	Instrument Method	: BX20317.MTH
Report Created on	: 17 Mar 95 05:52 PM	Analysis Method	: BX20317.MTH
Last Recalib on	: 17 Mar 95 04:23 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 3/28/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Laboratory Control Sample (LCS)

		Client Project No.	: 722450.21020
LCS Number	: LCS031795		MacDill
Date Extracted/Prepared	: 3/17/95	Lab Project No.	: 95-0819
Date Analyzed	: 3/17/95	Dilution Factor	: 1.00
		Method	: 602
		Matrix	: Water
		Lab File No.	: BX2031710

Compound Name	Cas Number	LCS Concentration ug/L	QC Limit ug/L
Benzene	71-43-2	17.3	12-24
Toluene	108-88-3	16.3	13-22
Ethyl Benzene	100-41-4	16.0	13-24
m,p-Xylene	NA	16.2	13-24
o-Xylene	95-47-6	15.9	13-24
Chlorobenzene	108-90-7	16.1	14-23
1,3,5-trimethylbenzene	108-67-8	16.2	12-24
1,2,4-trimethylbenzene	95-63-6	12.7	12-23
1,2,3-trimethylbenzene	526-73-8	14.0	15-25
1,2,3,4-tetramethylbenzene	488-23-3	15.4	NA

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

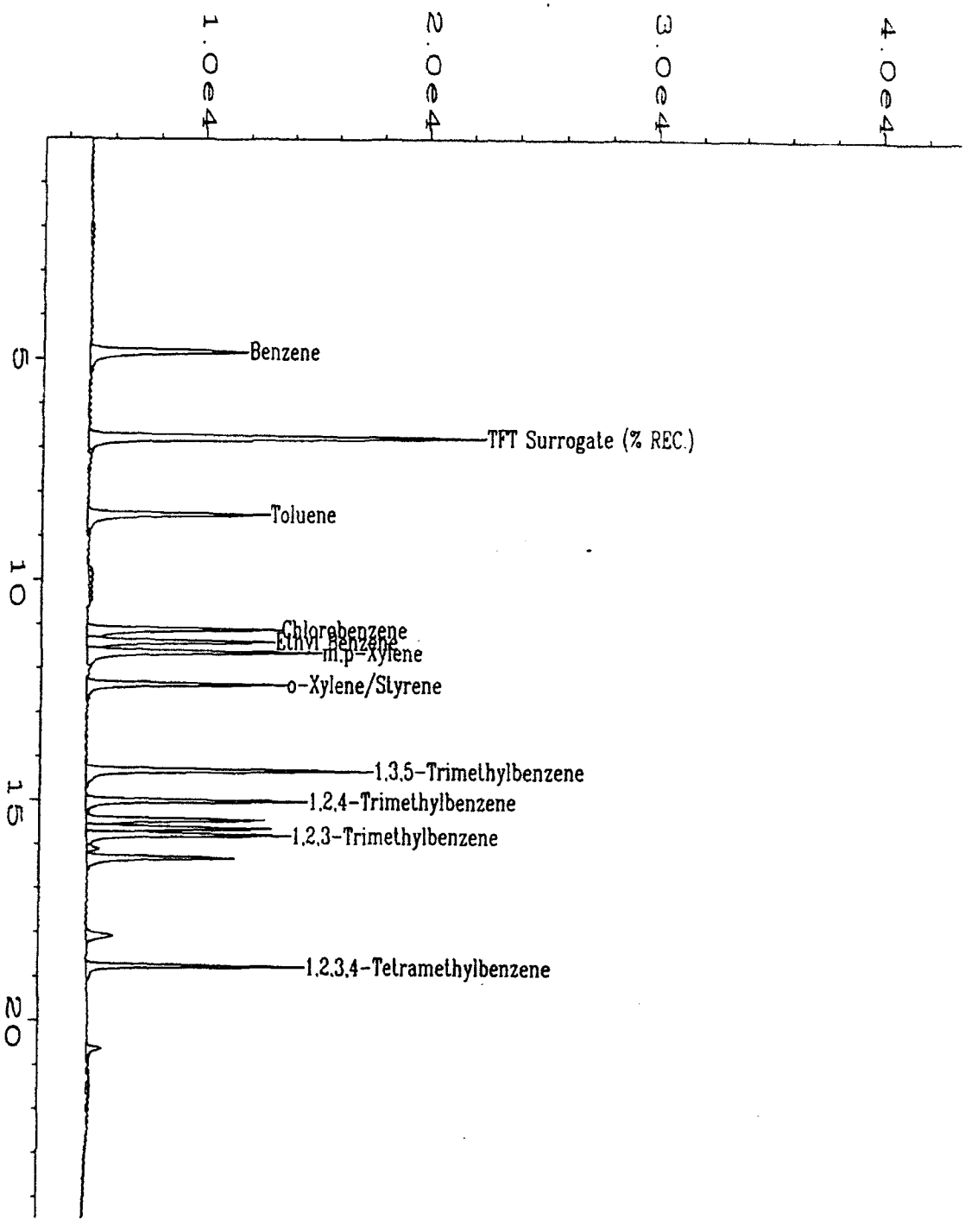
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 90%
QC Reporting Limits : 69%-131%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved

LCS



Data File Name	: C:\HPCHEM\2\DATA\BX20317\010R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 10
Sample Name	: LCS031795	Injection Number	: 1
R· Time Bar Code:		Sequence Line	: 8
A ired on	: 17 Mar 95 06:11 PM	Instrument Method	: BX20317.MTH
Report Created on	: 17 Mar 95 06:36 PM	Analysis Method	: BX20317.MTH
Last Recalib on	: 17 Mar 95 04:23 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Laboratory Control Sample (LCS)

		Client Project No.	: 722450.21020 MacDill
LCS Number	: LCS031695		
Date Extracted/Prepared	: 3/16/95	Lab Project No.	: 95-0819
Date Analyzed	: 3/16/95	Dilution Factor	: 1.00
		Method	: 602
		Matrix	: Water
		Lab File No.	: BX2031610

Compound Name	Cas Number	LCS Concentration ug/L	QC Limit ug/L
Benzene	71-43-2	18.4	12-24
Toluene	108-88-3	17.8	13-22
Ethyl Benzene	100-41-4	18.0	13-24
m,p-Xylene	NA	16.7	13-24
o-Xylene	95-47-6	17.4	13-24
Chlorobenzene	108-90-7	17.9	14-23
1,3,5-trimethylbenzene	108-67-8	18.8	12-24
1,2,4-trimethylbenzene	95-63-6	14.2	12-23
1,2,3-trimethylbenzene	526-73-8	16.2	15-25
1,2,3,4-tetramethylbenzene	488-23-3	17.8	NA

Note: Total Xylene consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

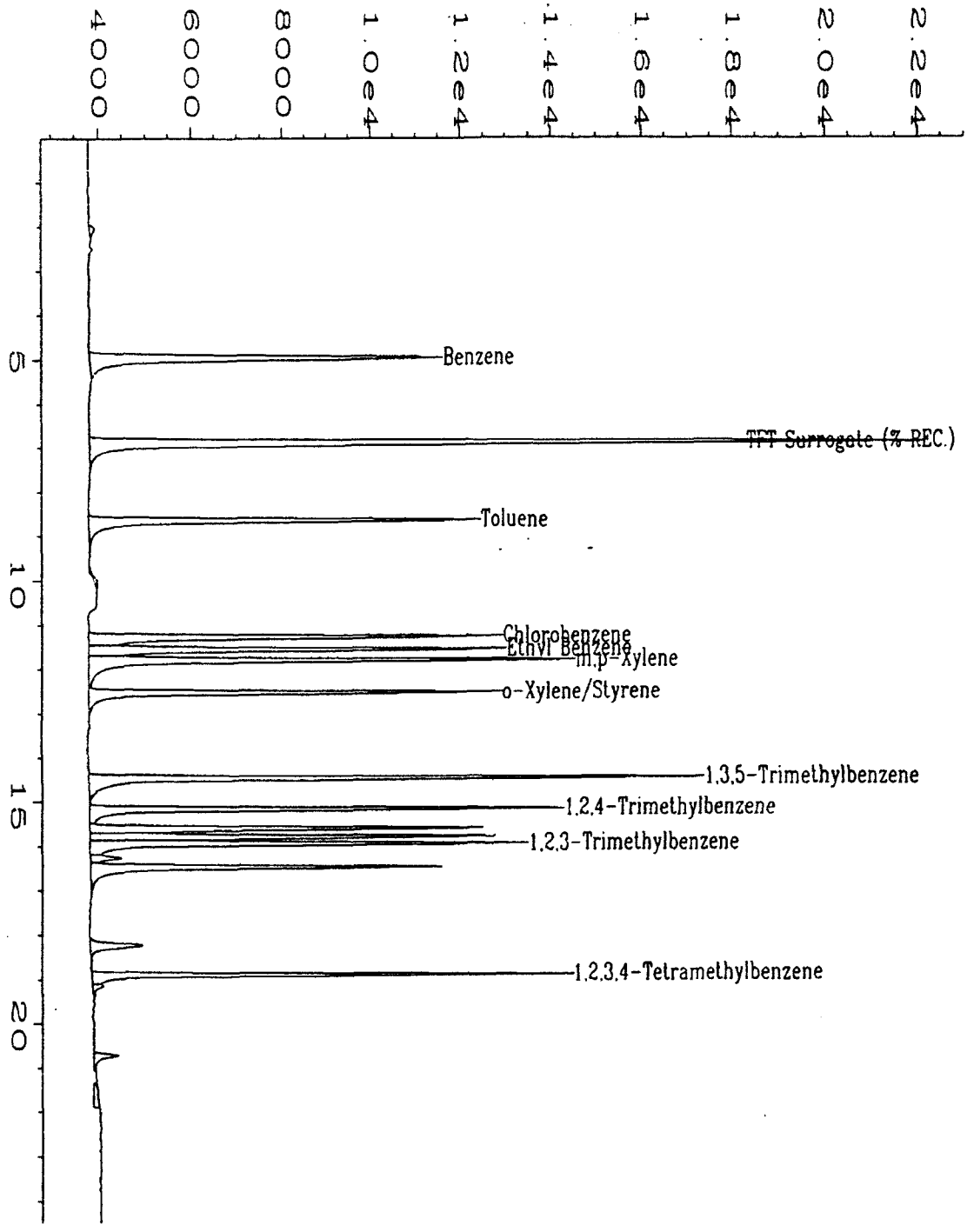
Surrogate Recovery:
a,a,a,-Trifluorotoluene : 96%
QC Reporting Limits : 69%-131%

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved

LCS



Data File Name	: C:\HPCHEM\2\DATA\BX20316\010R0401.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 10
Sample Name	: LCS031695	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 16 Mar 95 04:26 PM	Instrument Method	: BX20316.MTH
Report Created on	: 17 Mar 95 11:29 AM	Analysis Method	: BX20316.MTH
Last Recalib on	: 17 MAR 95 10:55 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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TOTAL VOLATILE HYDROCARBONS (TVH)

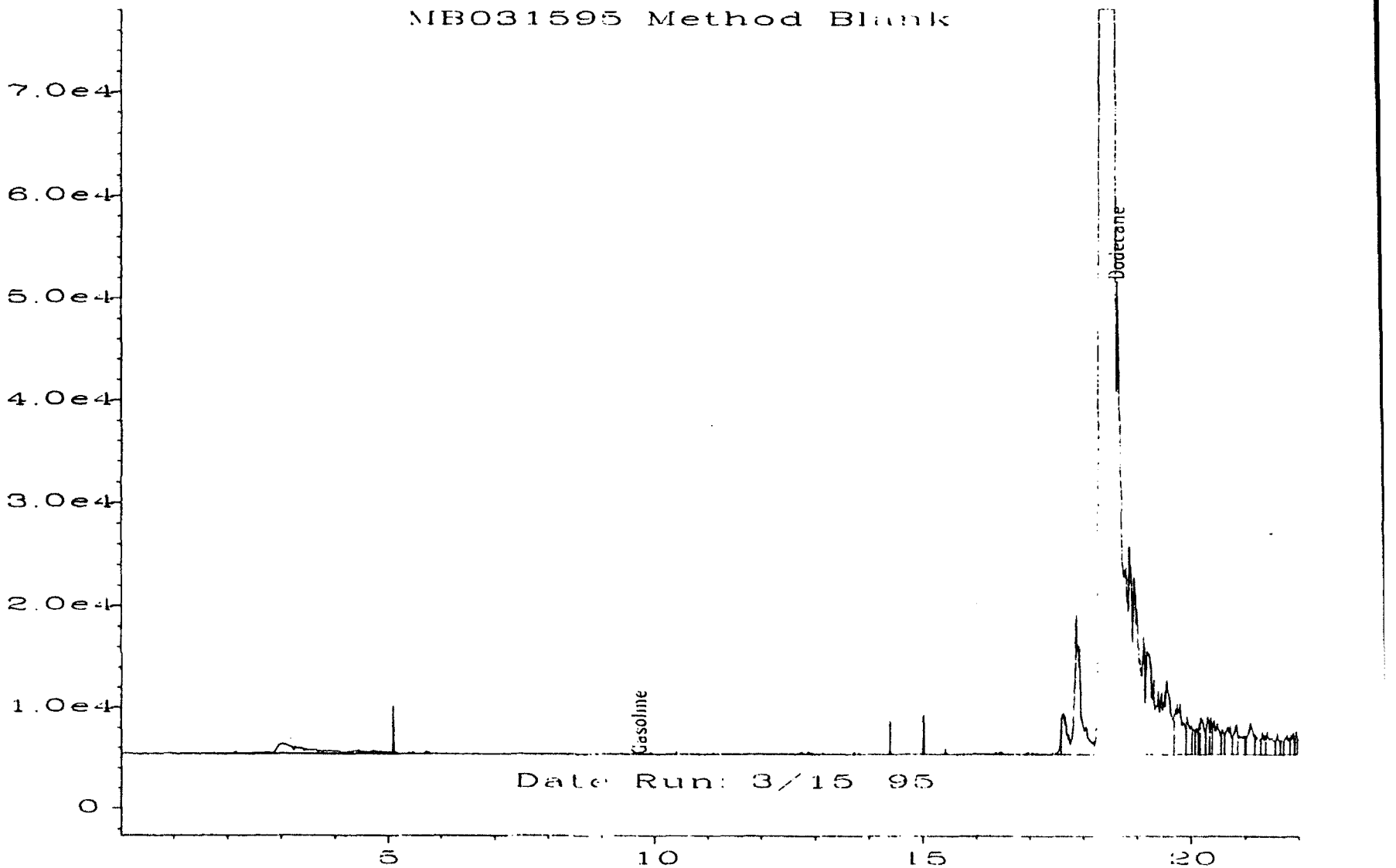
Date Sampled	: 3/10/95-3/11/95	Client Project Number	: 722450.21020/Mac Dill
Date Received	: 3/14/95	Lab Project Number	: 95-0819
Date Prepared	: 3/15/95	Matrix	: Soil
Date Analyzed	: 3/15/95-3/16/95	Method Number	: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH** mg/Kg	MDL** mg/Kg
MB031595	Method Blank	100%	U	0.1
X04163	24MP-7(2-4)	115%	U	0.12
X04164	24MP-8(2-4)	116%	U	0.12
X04165	24MP-9(3-5)	132%	0.17	0.12
X04166	24MP-9(9-11)	124%	U	0.12
X04167	24MP-10(2-4)	126%	U	0.12
X04168	24MW-6(2-4)	127%	U	0.13
X04169	24MW-6(9-11)	122%	U	0.12
X04170	175MP-1(3-5)	130%	U	0.12
X04170 DUP	175MP-1(3-5)	119%	U	0.12

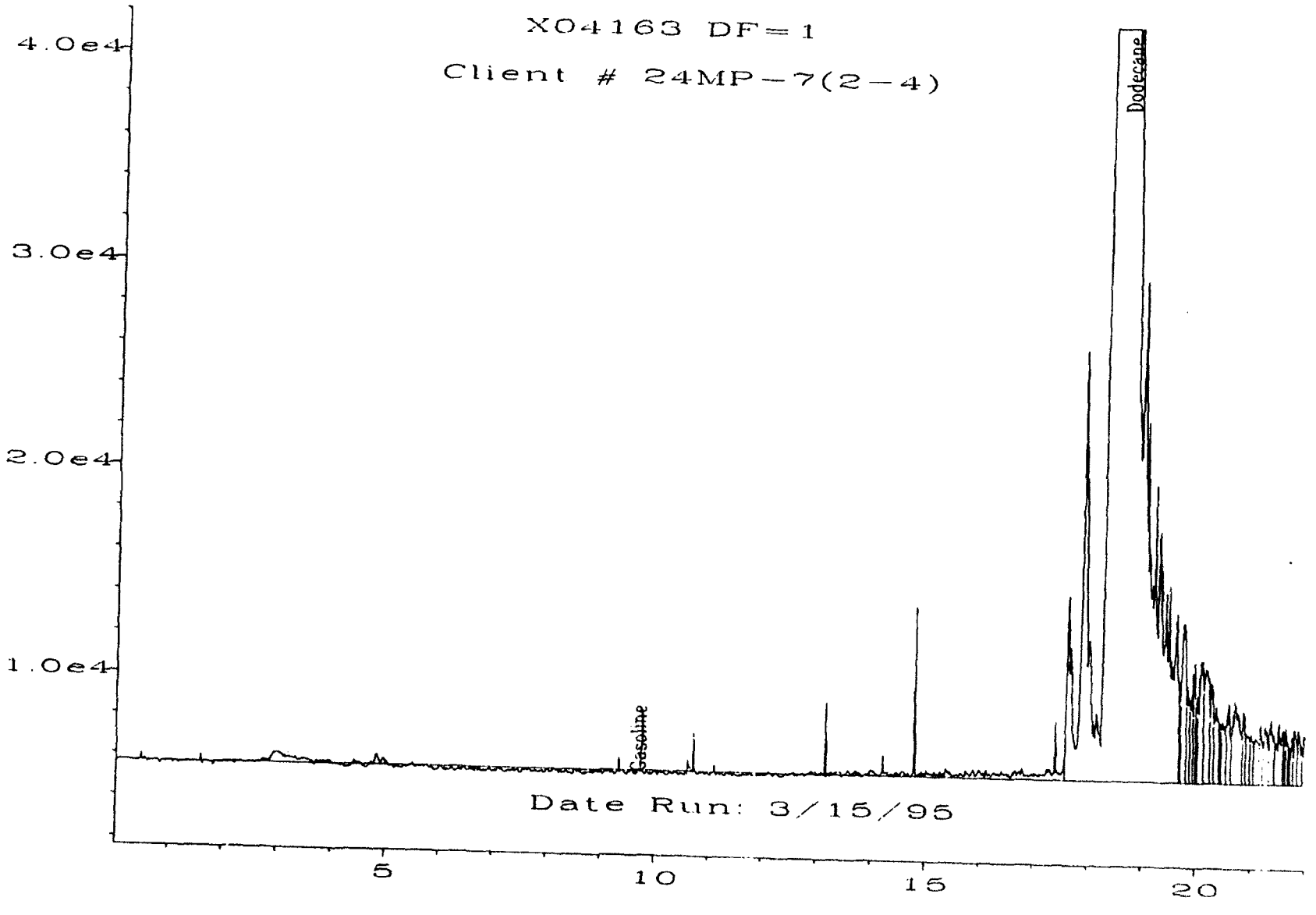
QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
MDL = Method Detection Limit
** = All sample results and MDLs are reported on a dry weight basis.

Analyst

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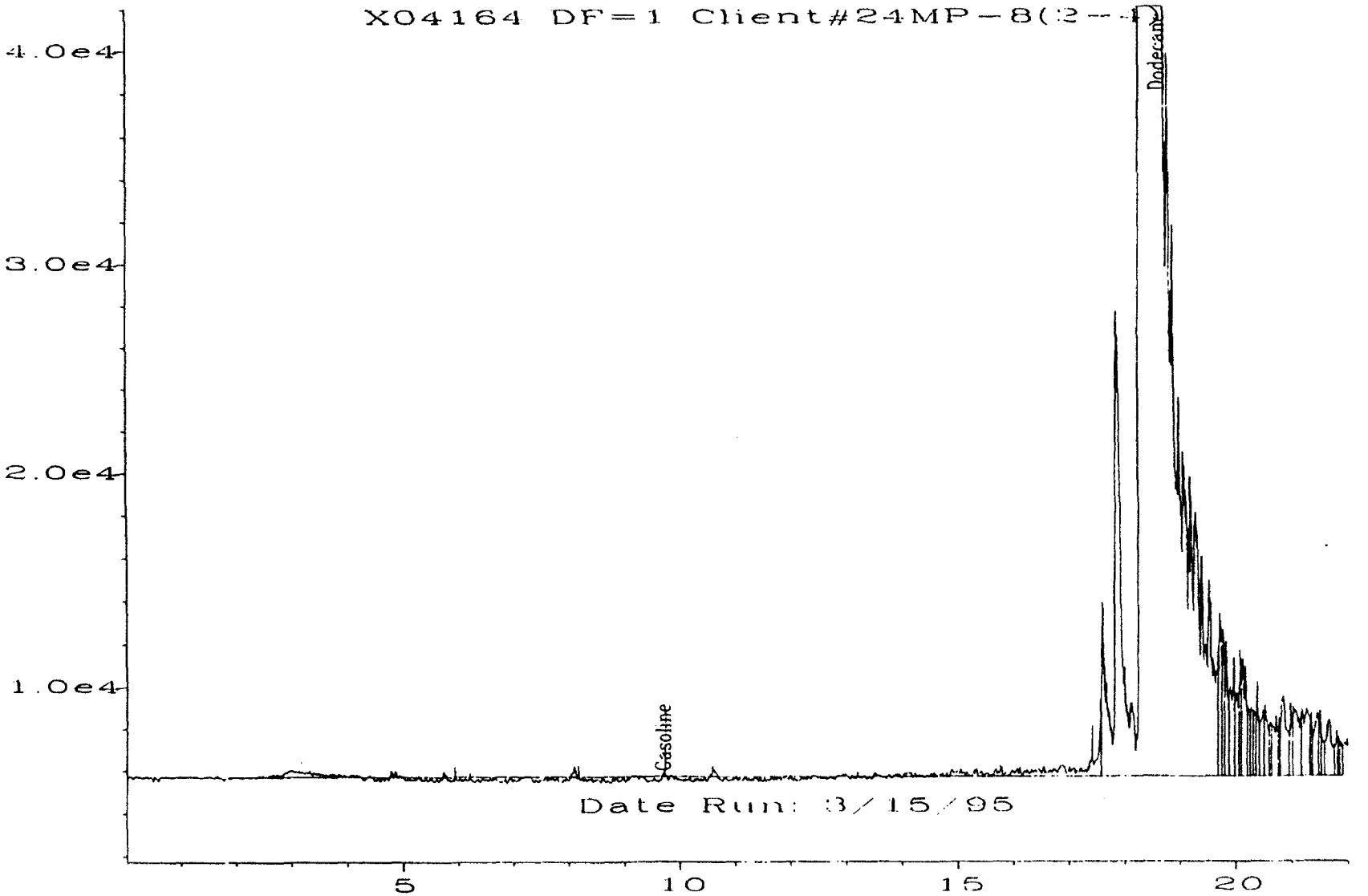


Sig. 1 in C:\HPCHEM 1\DATA\TVH0315 001F0101.D

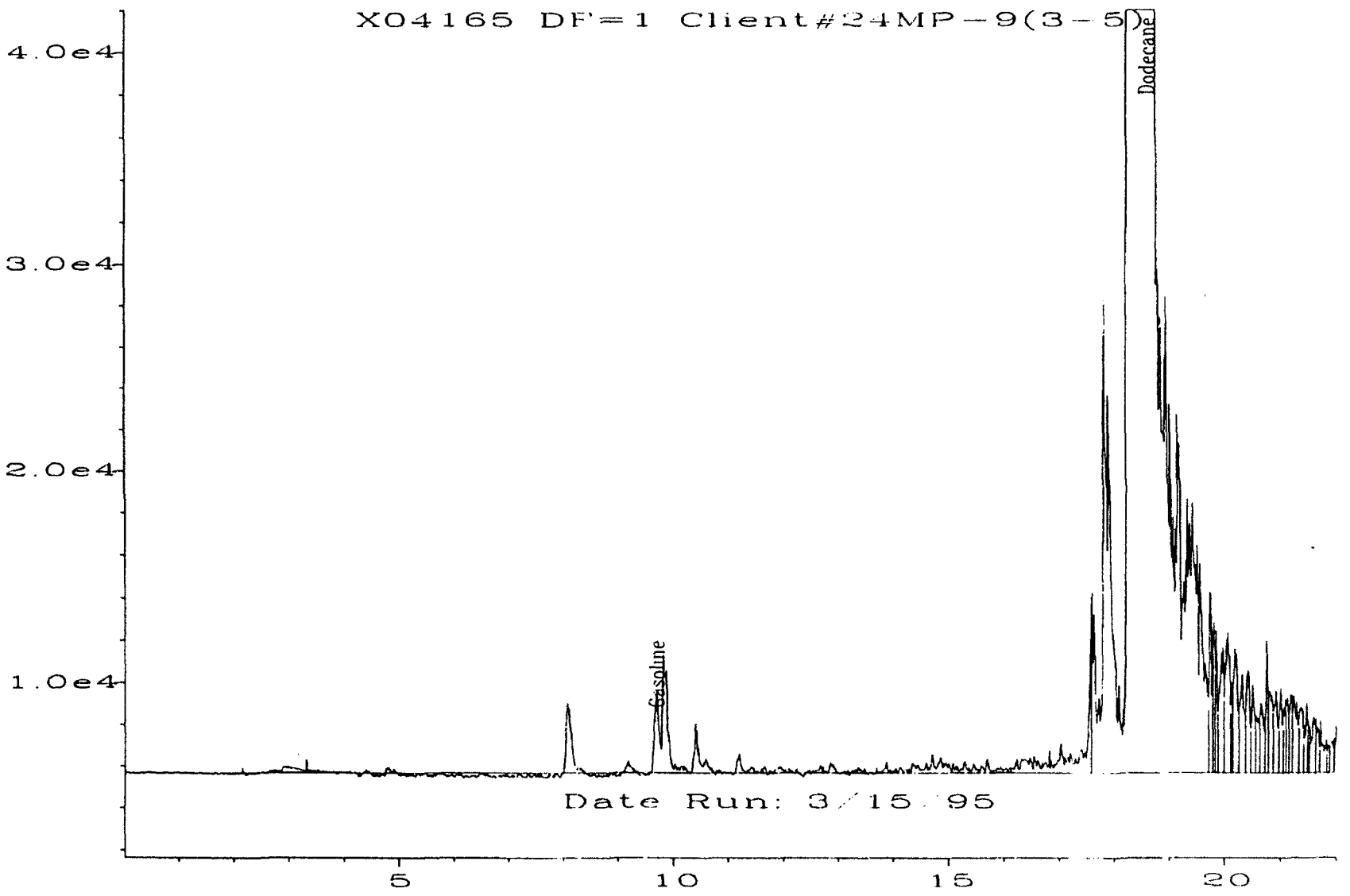


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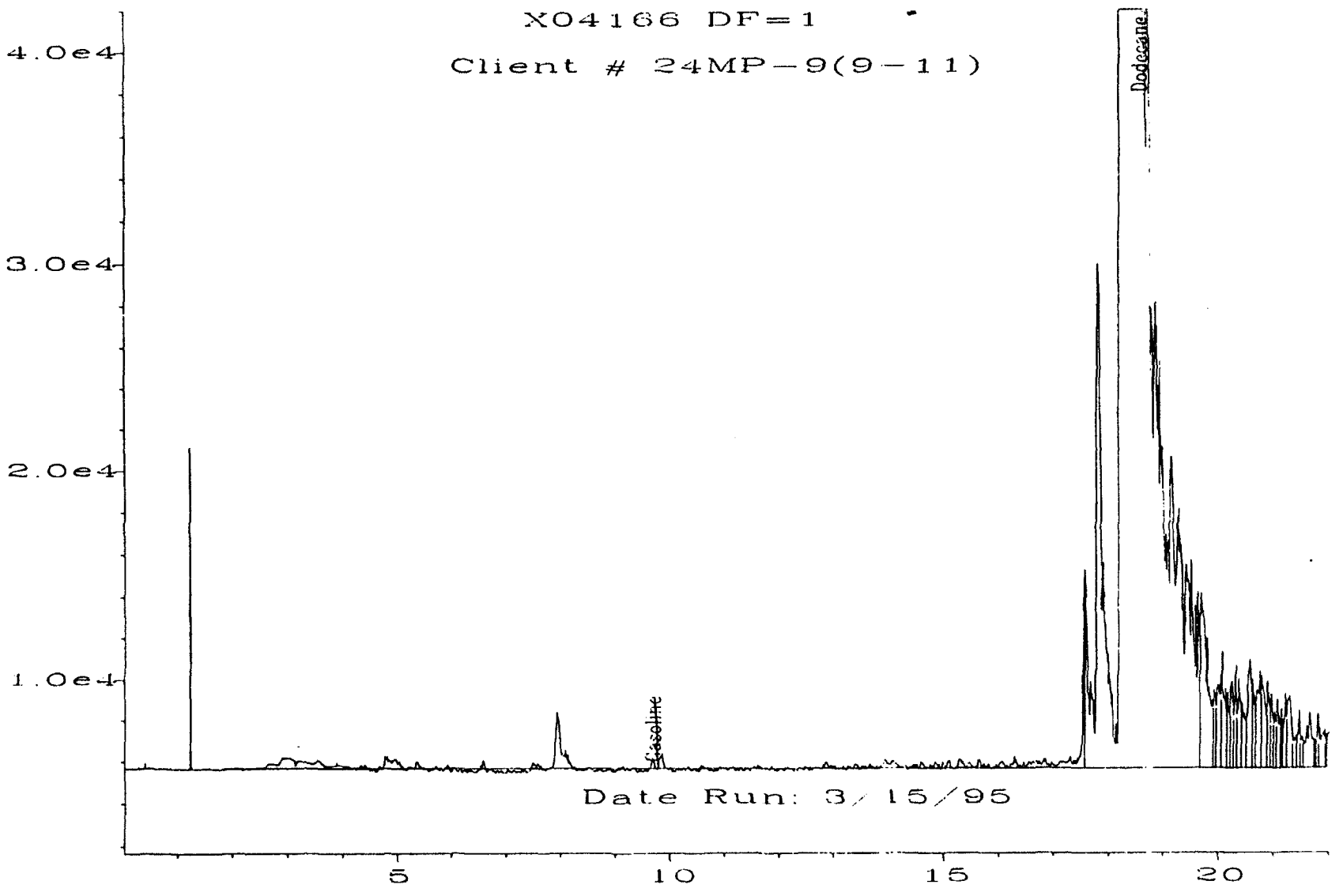
3/15/95



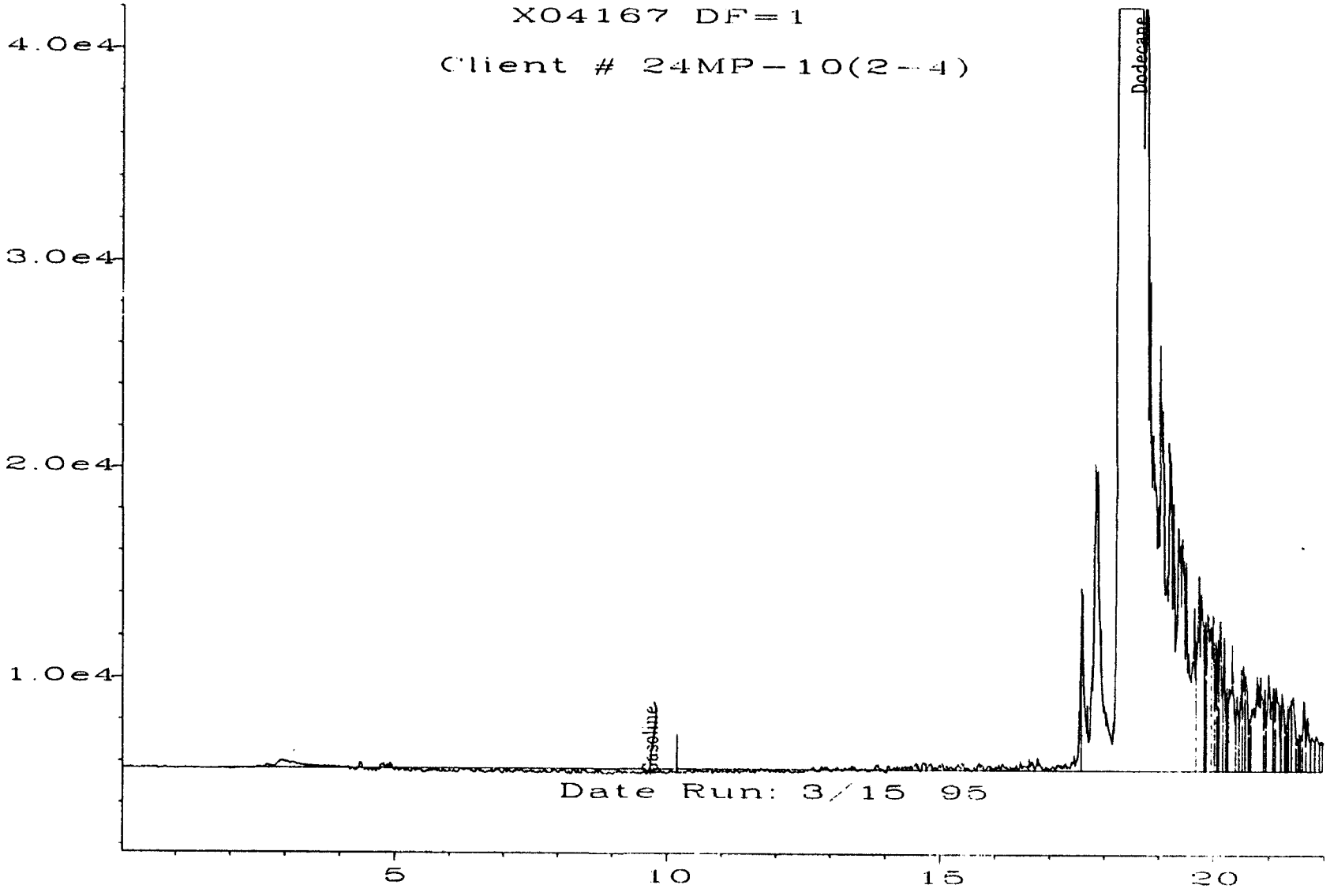
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Sig. 1 in C:\HPCHEM\1\DATA\TVH0315 021F0101.D

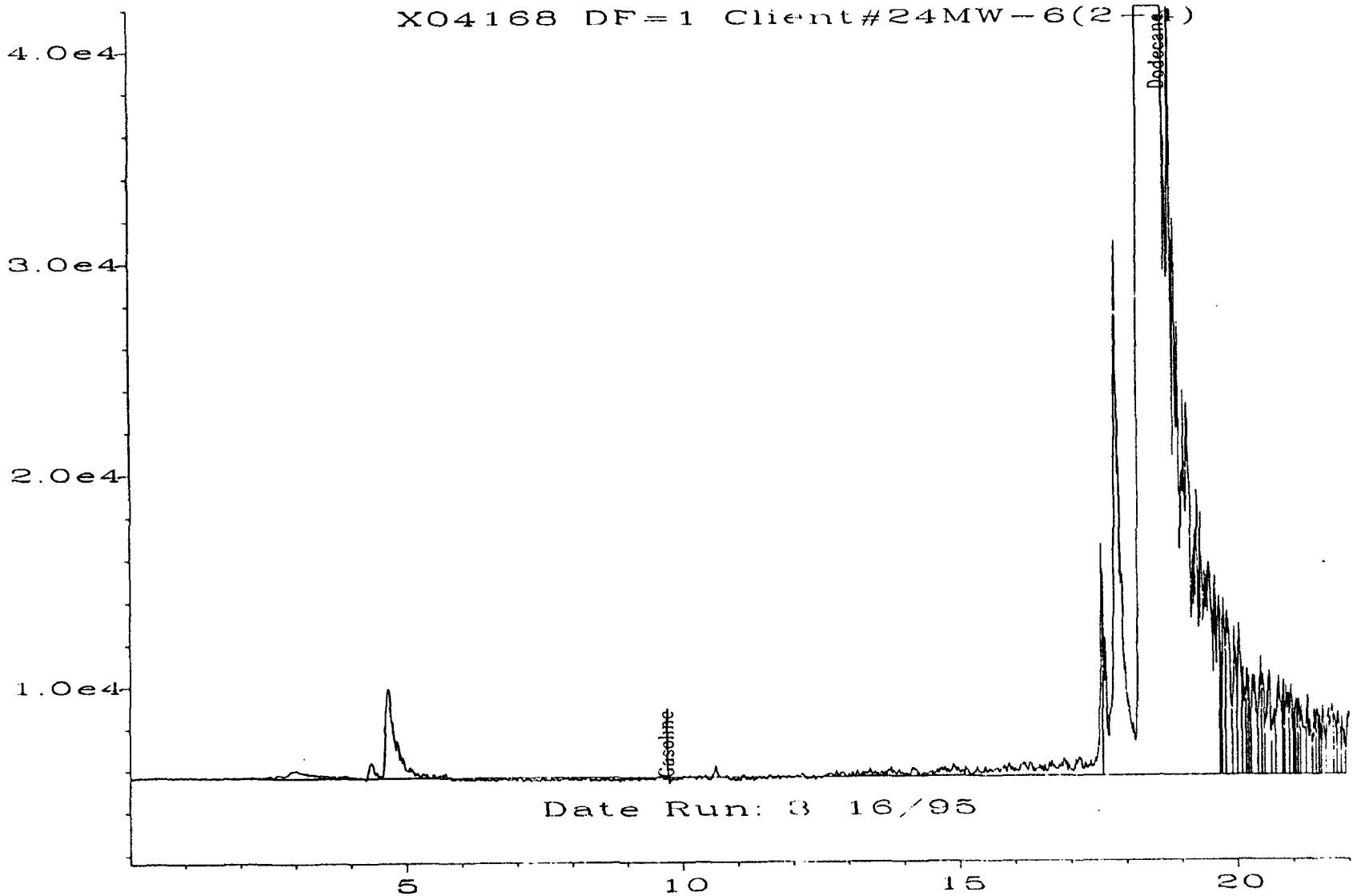


Sig. 1 in C:\HPCHEM\1\DATA\TVH0315\022F0101.D



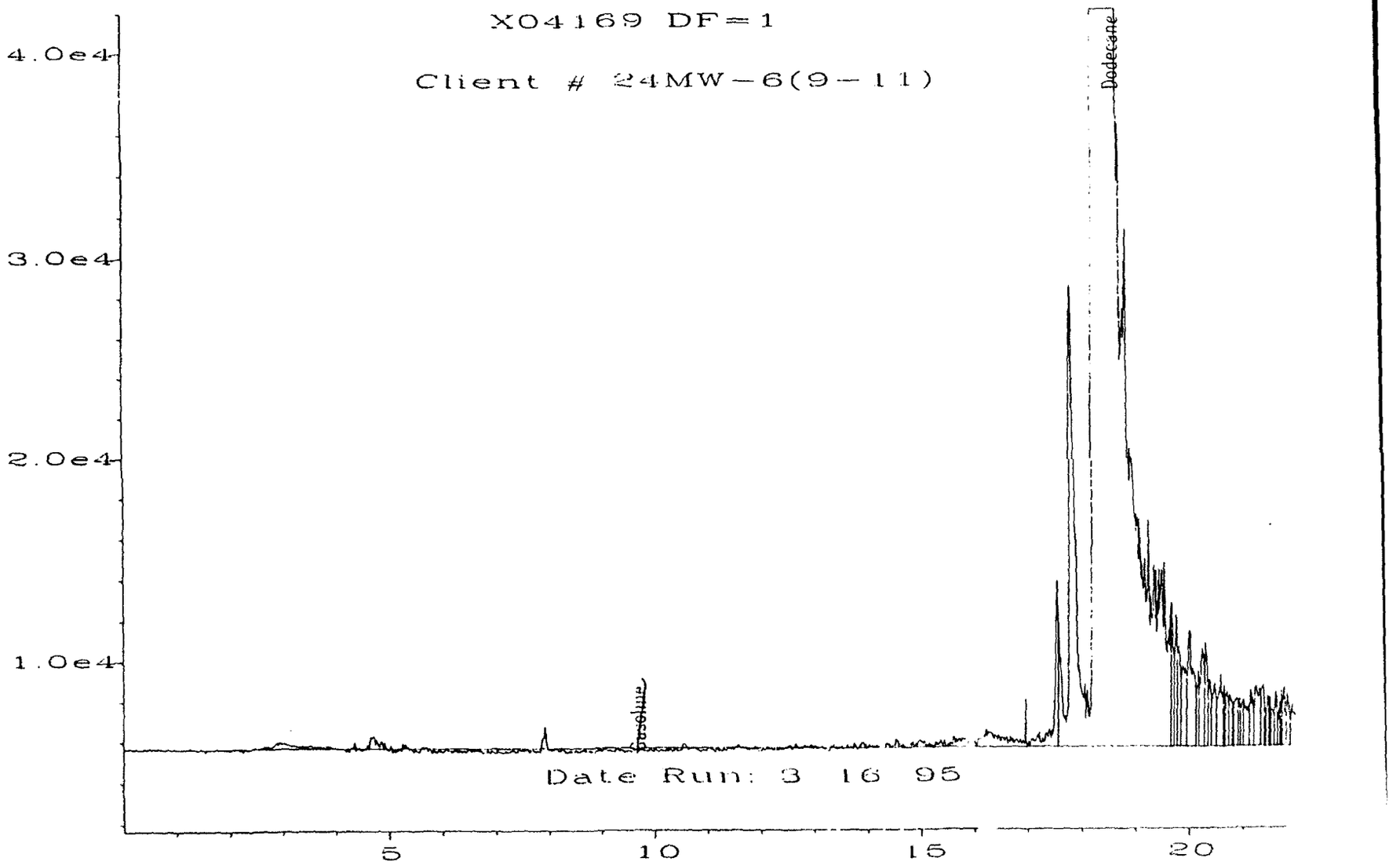
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Dm 3/21/95



Sig. 1 in C:\HPCHEM\1\DATA\TVH0315\024F0101.D

3/30/95



Sig. 1 in C:\HPCHEM\1\DATA\TVH0315\025F0101.D

3/16/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH)
Jet Fuel Boiling Range

Date Sampled	: 3/10/95,3/11/95	Client Project Number	722450.21020/MAC DILL
Date Received	: 3/14/95		
Date Prepared	: 3/15,17/95	Lab Project Number	: 95-0819
Date Analyzed	: 3/18,19,22/95	Matrix	: SOIL
		Method Number	: 3500/8015M

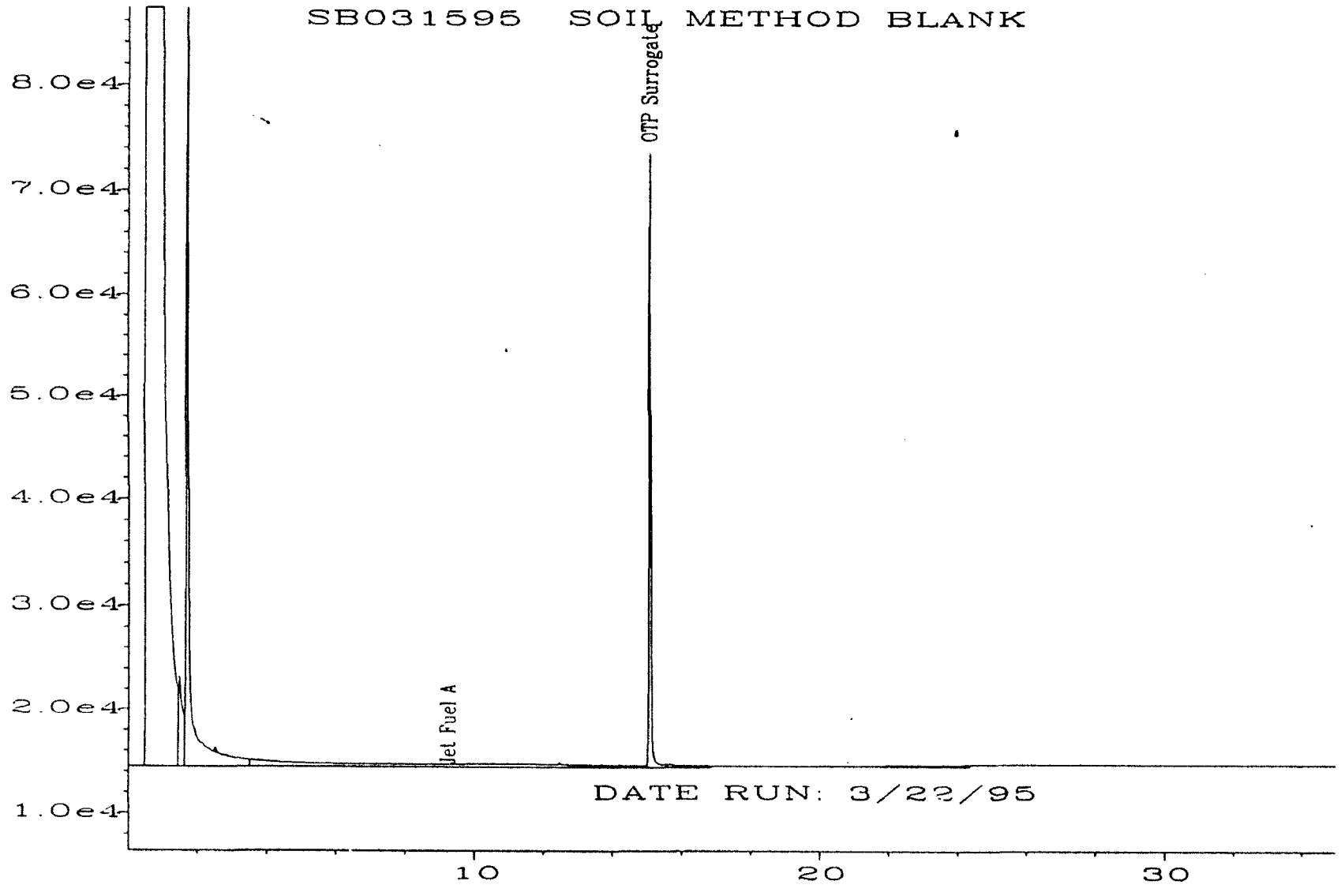
Evergreen Sample #	Client Sample #	Surrogate Recovery	TEH * mg/Kg	RL* mg/Kg
SB031595	SOIL METHOD BLANK	81%	U	10
SB031795	SOIL METHOD BLANK	77%	U	10
X04163	24MP-7(2-4)	73%	U	12
X04164	24MP-8(2-4)	76%	U	12
X04165	24MP-9(3-5)	77%	U	12
X04166	24MP-9(9-11)	78%	U	12
X04167	24MP-10(2-4)	77%	U	12
X04168	24MW-6(2-4)	84%	U	13
X04169	24MW-6(9-11)	81%	U	12
X04170	175MP-1(3-5)	81%	U	12

QUALIFIERS
U = TEH analyzed for but not detected.
B = TEH found in blank as well as sample (blank data should be compared)
E = Extrapolated value.
RL = Reporting Limit

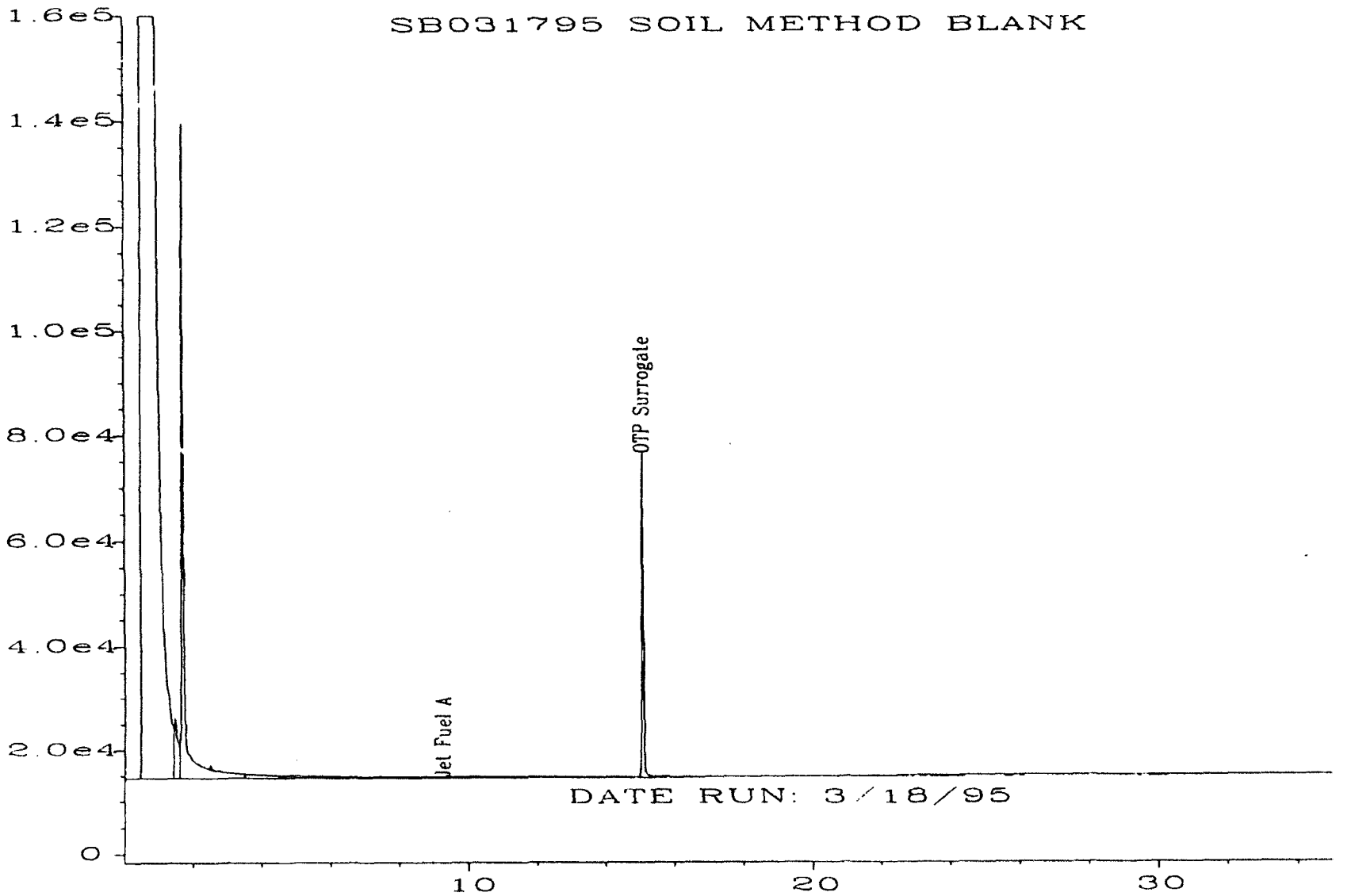
* = Based on dry weight

Analyst K. Cone

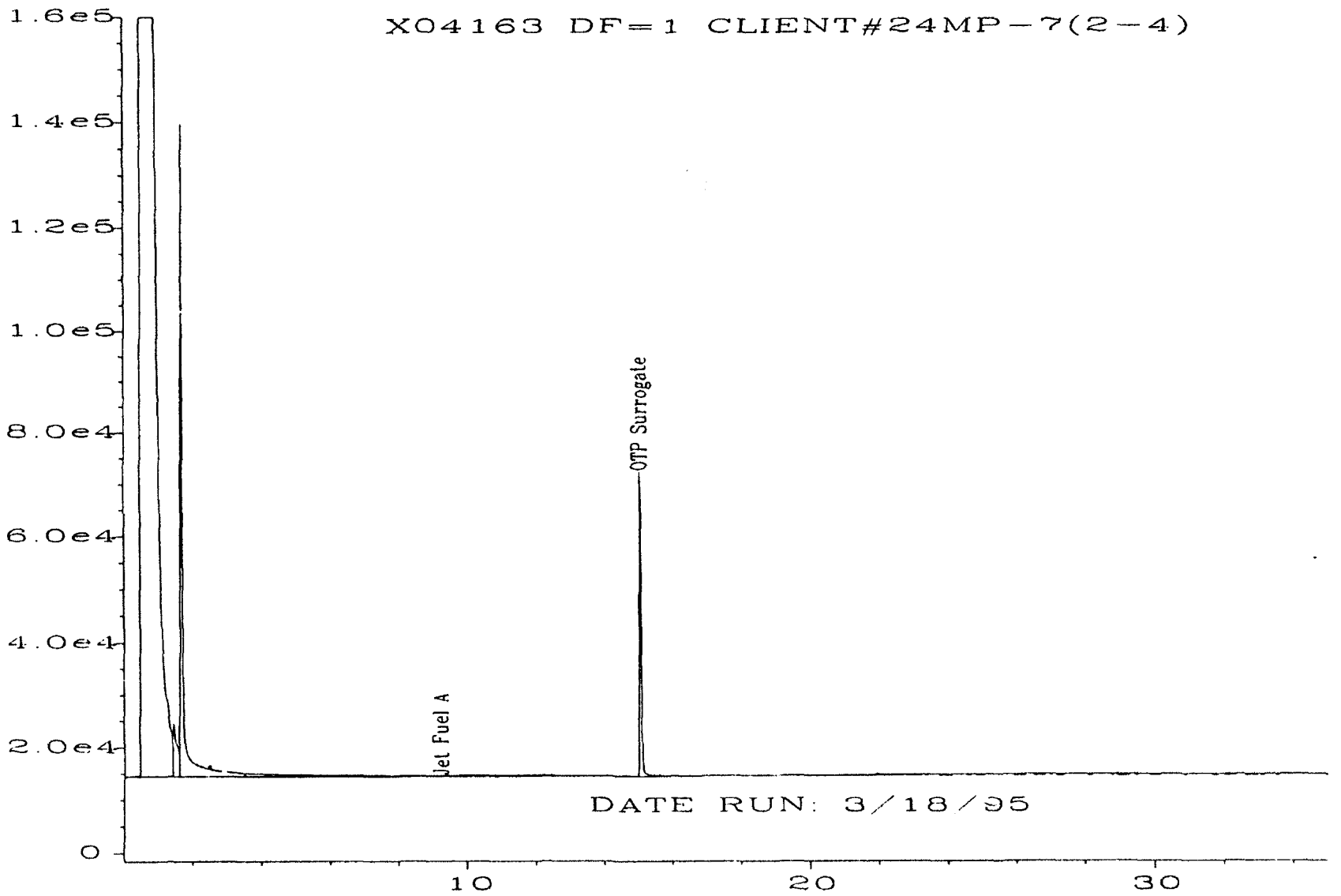
Approved P McClellan



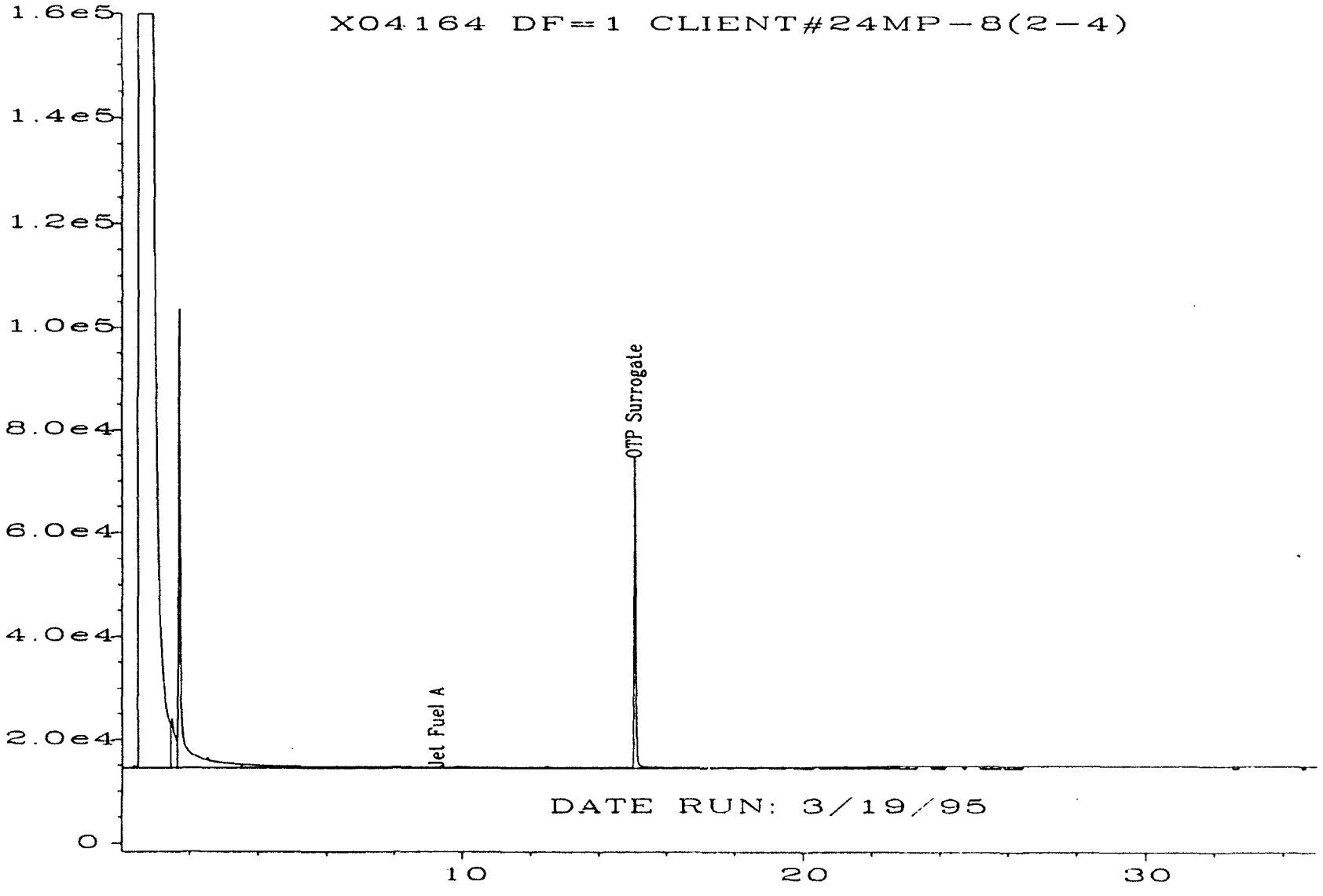
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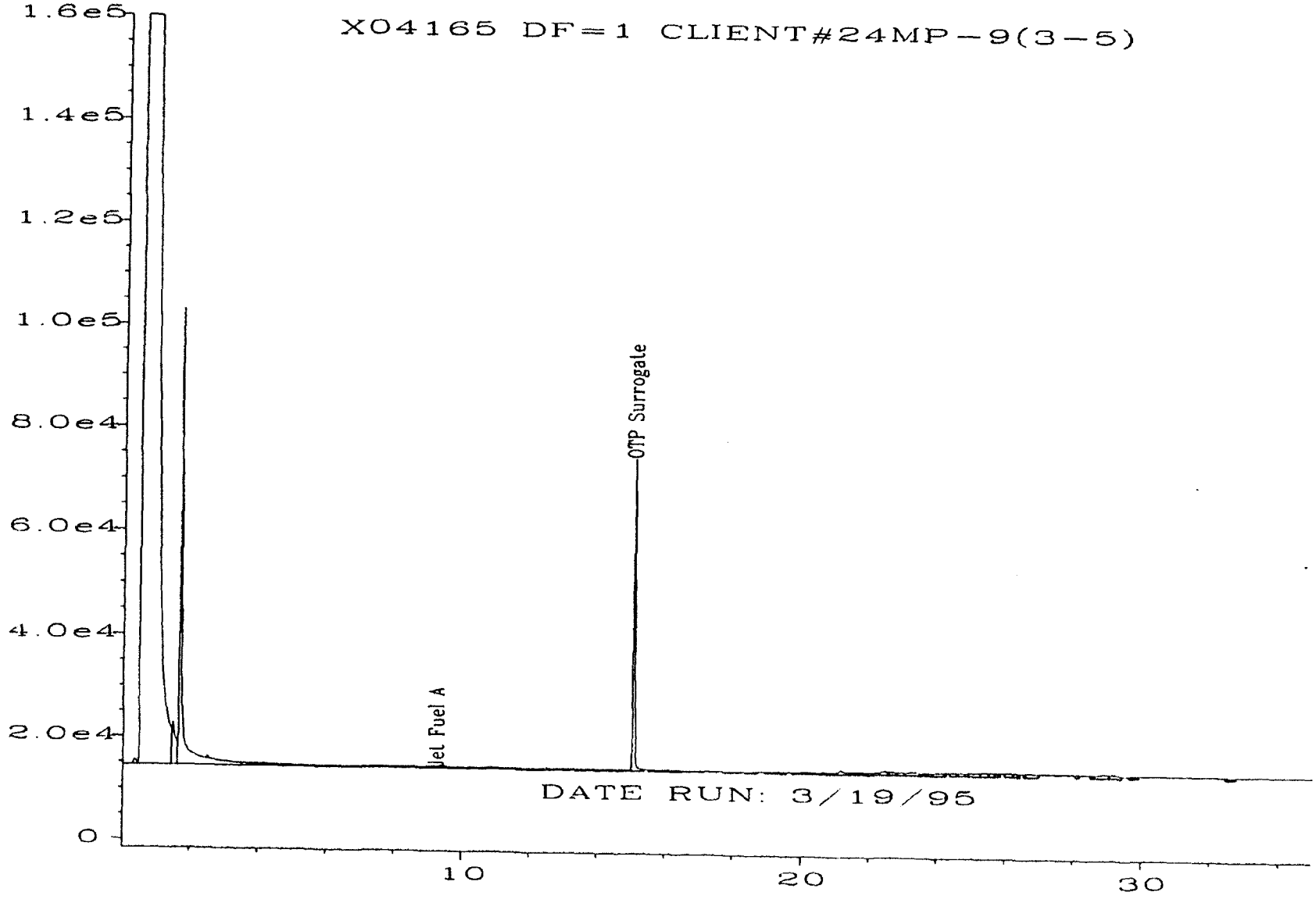
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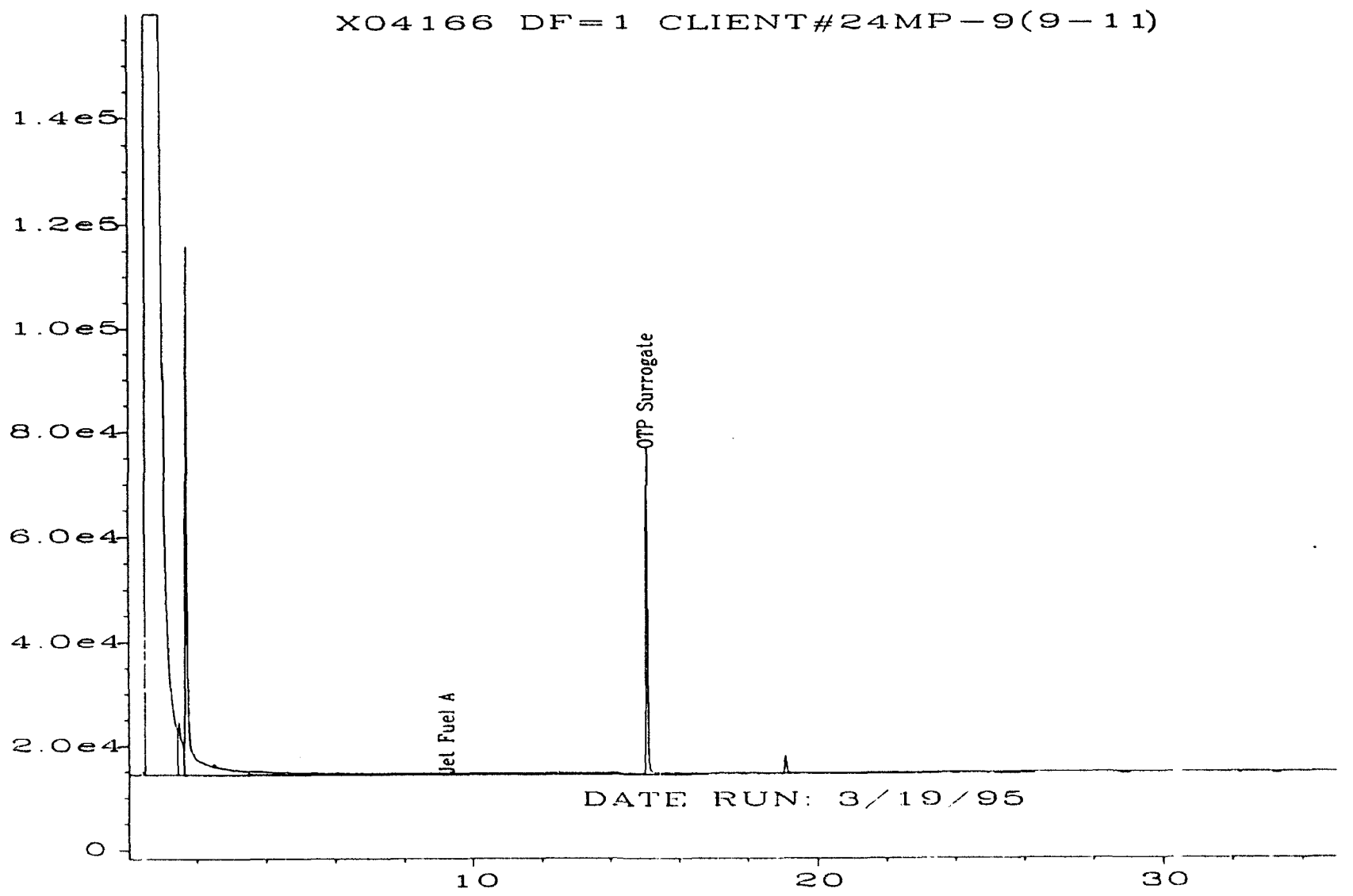
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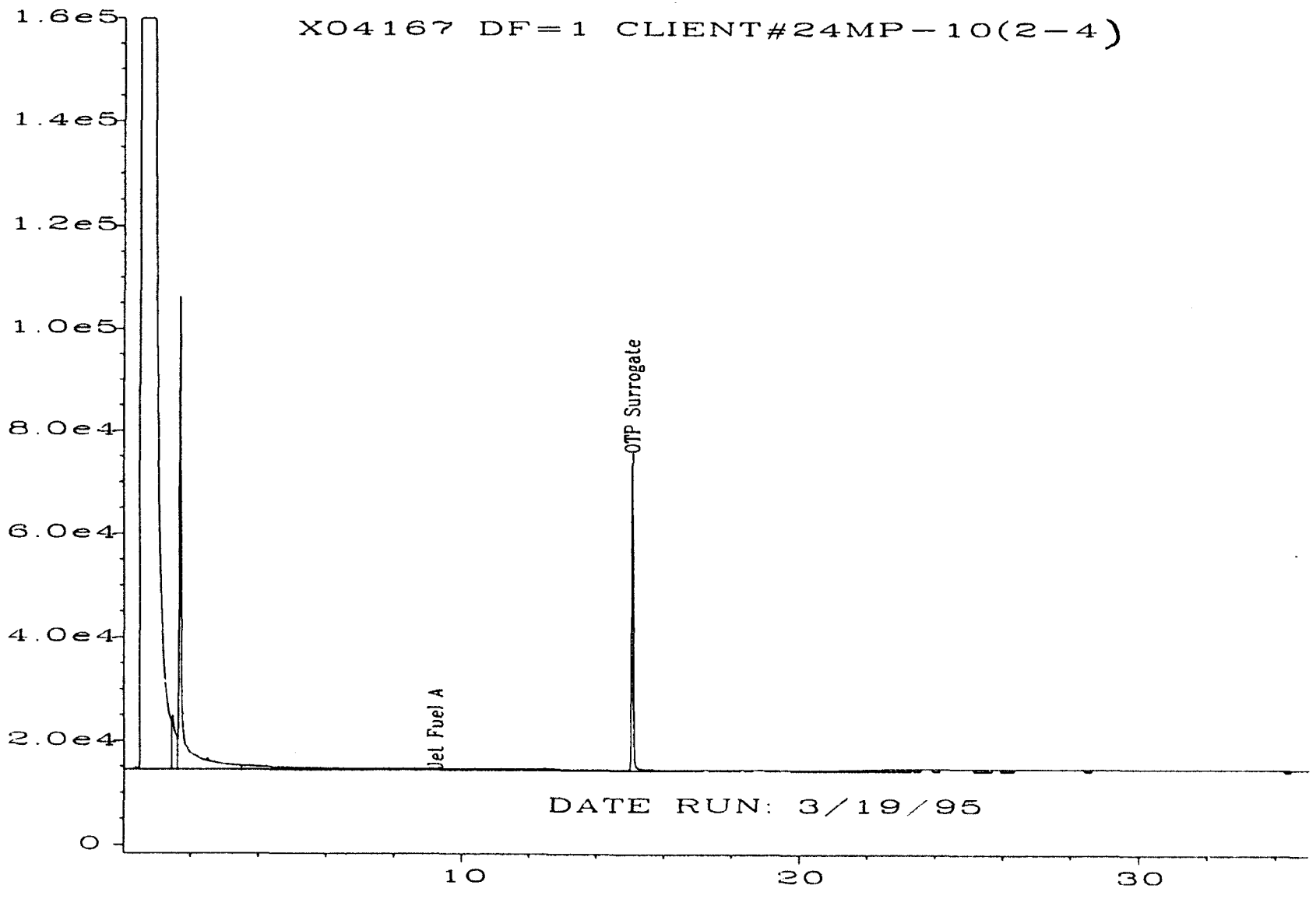
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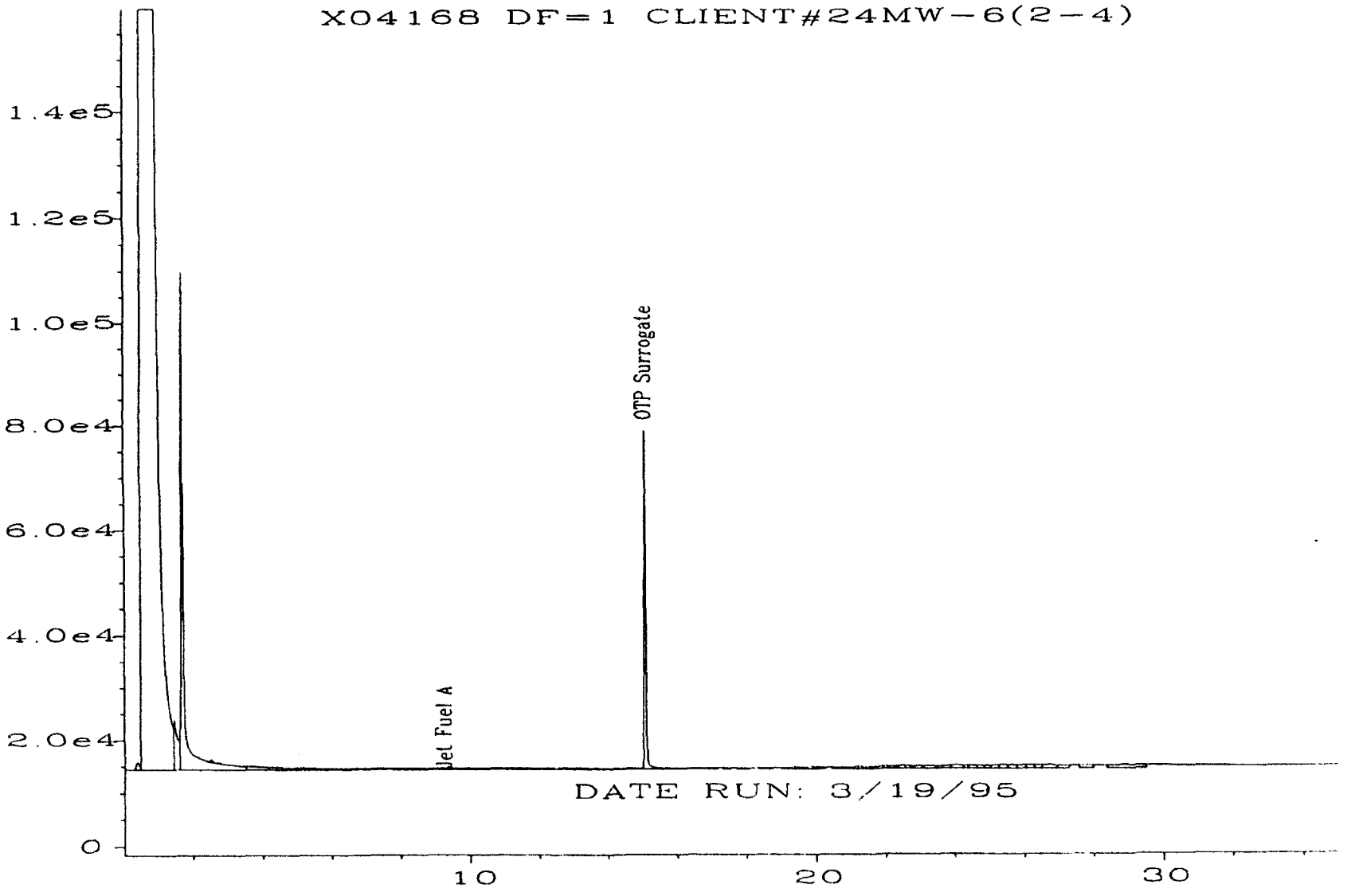
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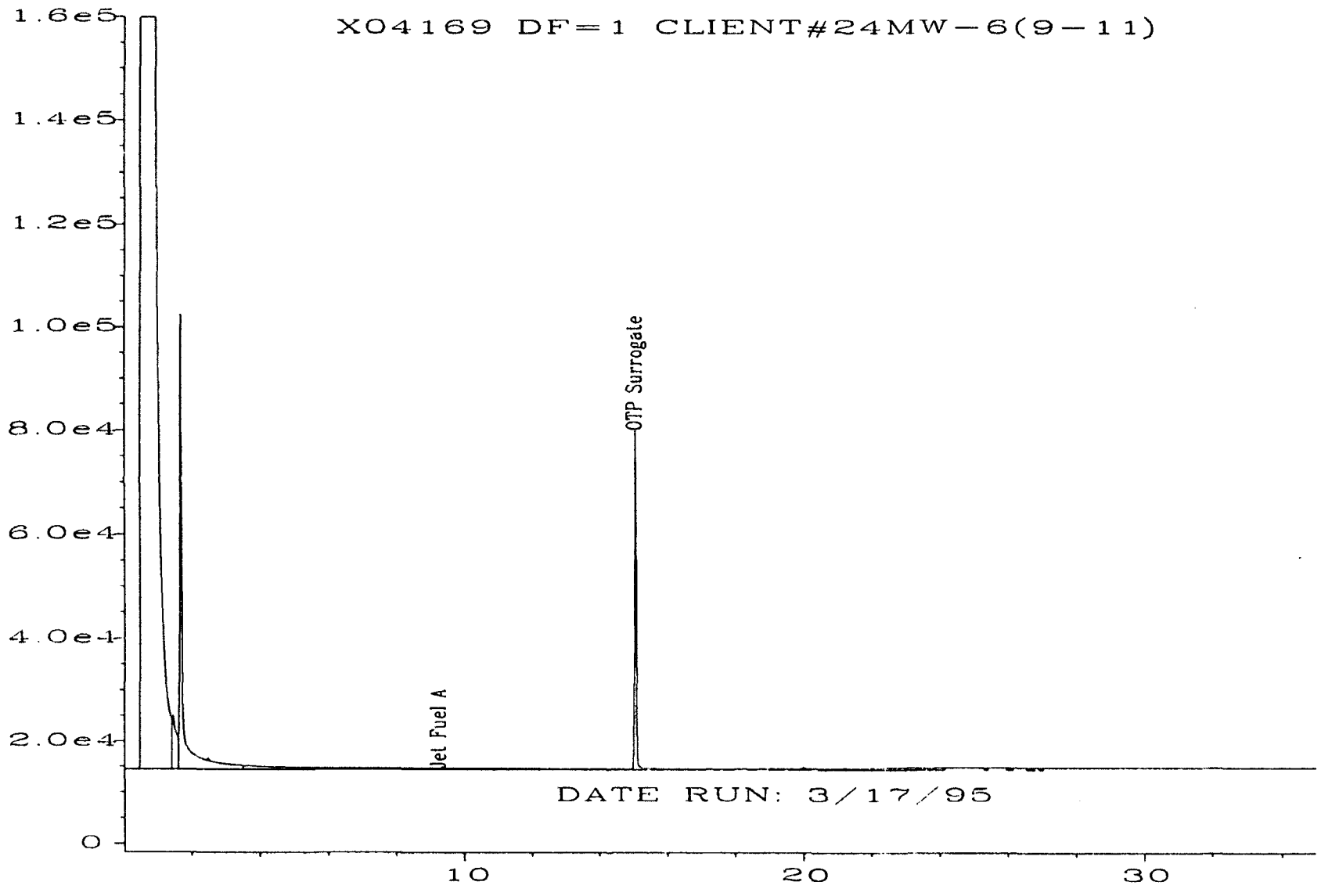
Sig. 2 in C:\HPCHEM\2\DATA\TEH0317 048R0101.D



Sig. 2 in C:\HPCHEM\2\DATA\TEH0317\049R0101.D



Sig. 2 in C:\HPCHEM 2\DATA\TEH0317\050R0101.D



Sig. 2 in C:\HPCHEM\2\DATA\TEH0317\051R0101.D

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH)
Laboratory Control Sample (LCS)

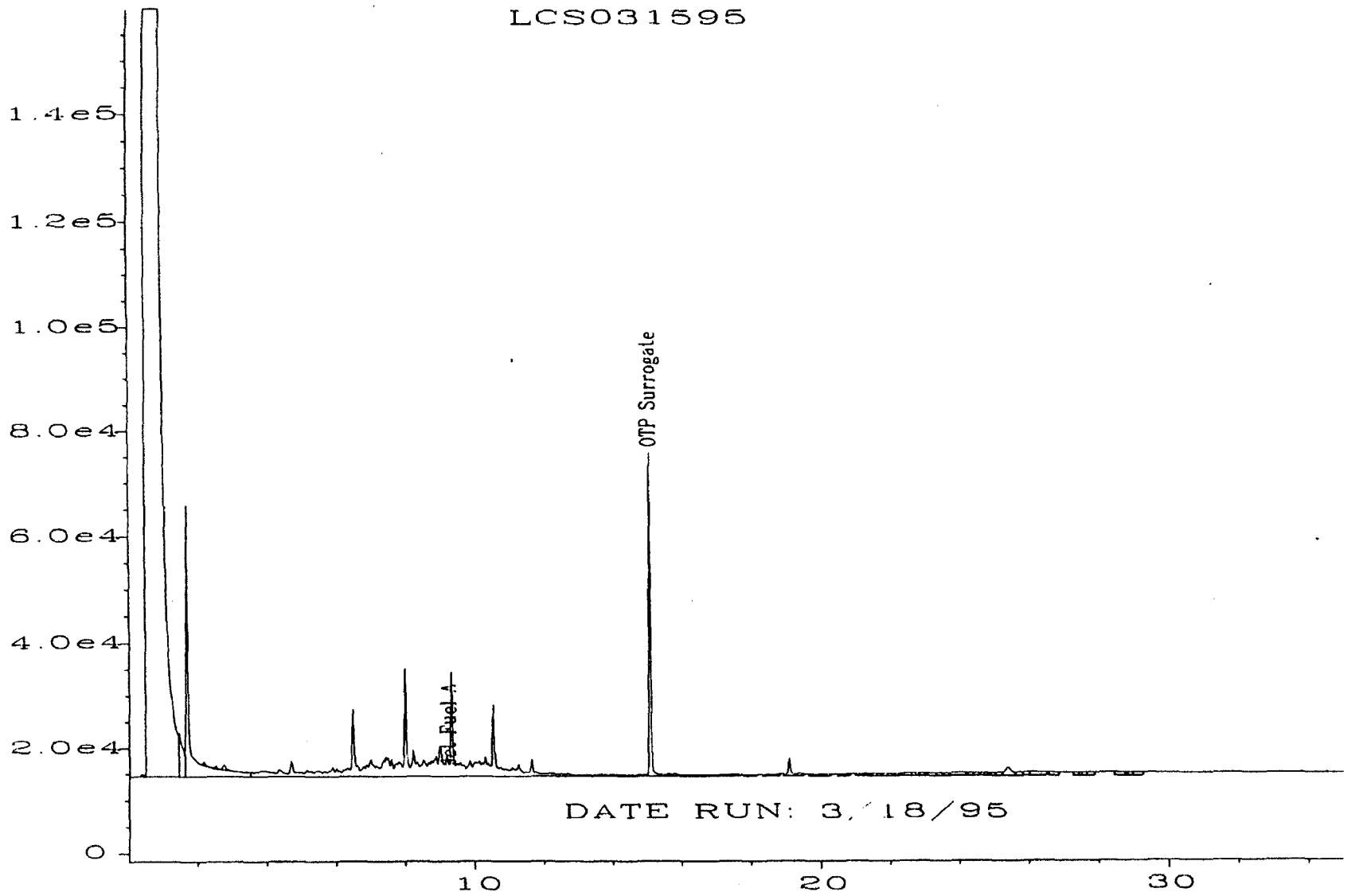
LCS Number	: LCS031595	Client Project Number	: 722450.21020/MAC DILL
Date Prepared	: 3/15/95	Lab Project Number	: 95-0819
Date Analyzed	: 3/18/95	Matrix	: SOIL
Sequence Number	: TEH0317021	Method Number	: 3500/Mod. 8015

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/Kg	QC Limit mg/Kg
JET FUEL	1000	960	750-1750

QUALIFIERS
U = TEH analyzed for but not detected.
B = TEH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

K. Cone
Analyst

Approved



Sig. 2 in C:\HPCHEM\2\D. 'A\TEH0317\021R0101.D

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Miscellaneous Analyses

Date Sampled	: 3/10,11/95	Client Project ID.	: 722450.21020
Date Received	: 3/14/95	Lab Project No.	: 95-0819
Date Prepared	: 3/15/95	Matrix	: Soil
Date Analyzed	: 3/15/95	Method	: EPA 160.3

Evergreen Sample #	Client Sample ID	Moisture (%)
X04163	24MP-7 (2-4)	17.2
X04164	24MP-8 (2-4)	18.7
X04165	24MP-9 (3-5)	18.6
X04166	24MP-9 (9-11)	18.3
X04167	24MP-10 (2-4)	16.7
X04168	24MW-6 (2-4)	20.8
X04169	24MW-6 (9-11)	18.0
X04170	175MP-1 (3-5)	14.4

Analyst

Approved

0819tm.4

HUFFMAN
LABORATORIES, INC.
Quality Analytical Services Since 1936
4630 Indiana Street · Golden, CO 80403

NON-CLP ANALYSIS RESULTS

Date: 03/24/95
Lab Name: Huffman Labs — Client: Evergreen Analytical
Contact: Sue Zeller — Contact: Patty McClellan
Sample Matrix: soil — Huffman Lab #: 143595

	Client Smp#	Lab ID #	Element/ Compound	Dilution Factor	Results	Units	Prep Date	Analysis Date	Sample Size (g)	Method #	Instrumen
	75SS-4 (3-4)	14359501	TC	NA	<0.05	%	NA	03/23/95	2.195	Leco CR12	#7
	75SS-4 (3-4)	14359501	TC	NA	<0.05	%	NA	03/23/95	2.067	Leco CR12	#7
	75SS-6 (3-5)	14359502	TC	NA	<0.05	%	NA	03/23/95	2.154	Leco CR12	#7
	75MP-7 (4-6)	14359503	TC	NA	<0.05	%	NA	03/23/95	3.332	Leco CR12	#7
	75MP-17 (4-6)	14359504	TC	NA	<0.05	%	NA	03/23/95	2.888	Leco CR12	#7
	24MP-7 (2-4)	14359505	TC	NA	<0.05	%	NA	03/23/95	3.555	Leco CR12	#7
	24MP-3 (3-5)	14359506	TC	NA	0.21	%	NA	03/23/95	3.331	Leco CR12	#7
	24MP-4 (3-5)	14359507	TC	NA	0.13	%	NA	03/23/95	2.908	Leco CR12	#7
	24MP-6 (4-6)	14359508	TC	NA	2.21	%	NA	03/23/95	3.093	Leco CR12	#7
	24MP-16 (4-6)	14359509	TC	NA	0.73	%	NA	03/23/95	3.394	Leco CR12	#7
	75SS-4 (3-4)	14359501	CC	NA	<0.02	%	NA	03/21/95	0.111	COU-02	"tower"
	75SS-4 (3-4)	14359501	CC	NA	<0.02	%	NA	03/21/95	0.259	COU-02	"tower"
	75SS-6 (3-5)	14359502	CC	NA	<0.02	%	NA	03/21/95	0.185	COU-02	"to[illegible]"
	75MP-7 (4-6)	14359503	CC	NA	<0.02	%	NA	03/21/95	0.248	COU-02	"t[illegible]
	75MP-17 (4-6)	14359504	CC	NA	<0.02	%	NA	03/21/95	0.221	COU-02	"tower"
	24MP-7 (2-4)	14359505	CC	NA	<0.02	%	NA	03/21/95	0.127	COU-02	"tower"
	24MP-3 (3-5)	14359506	CC	NA	<0.02	%	NA	03/21/95	0.130	COU-02	"tower"
	24MP-4 (3-5)	14359507	CC	NA	<0.02	%	NA	03/21/95	0.128	COU-02	"tower"
	24MP-6 (4-6)	14359508	CC	NA	<0.02	%	NA	03/21/95	0.138	COU-02	"tower"
	24MP-16 (4-6)	14359509	CC	NA	<0.02	%	NA	03/21/95	0.165	COU-02	"tower"
		% moisture			result						
	75SS-4 (3-4)	14359501	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
	75SS-4 (3-4)	14359501	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
0871	75SS-6 (3-5)	14359502	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
	75MP-7 (4-6)	14359503	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
	75MP-17 (4-6)	14359504	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
0819	24MP-7 (2-4)	14359505 17.24	TOC	NA	<0.05 0.06	%	NA	NA	NA	by calc	NA
	24MP-3 (3-5)	14359506	TOC	NA	0.21	%	NA	NA	NA	by calc	NA
0820	24MP-4 (3-5)	14359507	TOC	NA	0.13	%	NA	NA	NA	by calc	NA
	24MP-6 (4-6)	14359508	TOC	NA	2.21	%	NA	NA	NA	by calc	NA
	24MP-16 (4-6)	14359509	TOC	NA	0.73	%	NA	NA	NA	by calc	NA

Samples analyzed and results reported on an as received basis.
Soil samples are not homogeneous.
Values reported below Detection Limits are for reference only.
TC detection limit = 0.05%
CC detection limit = 0.02%
TOC detection limit = 0.05%

The numbers to the left above represent the last four digits of the EAL project number under which the samples were analyzed.
The original report and quality control results are filed with EAL project 95-C

HUFFMAN
LABORATORIES, INC.
Quality Analytical Services Since 1936
4630 Indiana Street • Golden, CO 80403

NON-CLP ANALYSIS RESULTS

Date: 03/24/95
Lab Name: Huffman Labs — Client: Evergreen Analytical
Contact: Sue Zeller — Contact: Patty McClellan
Sample Matrix: soil — Huffman Lab #: 143595

Client Smp#	Lab ID #	Element/ Compound	Dilution Factor	Results	Units	Prep Date	Analysis Date	Sample Size (g)	Method #	Instrument ID
75SS-4 (3-4)	14359501	TC	NA	<0.05	%	NA	03/23/95	2.195	Leco CR12	#7
75SS-4 (3-4)	14359501	TC	NA	<0.05	%	NA	03/23/95	2.067	Leco CR12	#7
75SS-6 (3-5)	14359502	TC	NA	<0.05	%	NA	03/23/95	2.154	Leco CR12	#7
75MP-7 (4-6)	14359503	TC	NA	<0.05	%	NA	03/23/95	3.332	Leco CR12	#7
75MP-17 (4-6)	14359504	TC	NA	<0.05	%	NA	03/23/95	2.888	Leco CR12	#7
24MP-7 (2-4)	14359505	TC	NA	<0.05	%	NA	03/23/95	3.555	Leco CR12	#7
24MP-3 (3-5)	14359506	TC	NA	0.21	%	NA	03/23/95	3.331	Leco CR12	#7
24MP-4 (3-5)	14359507	TC	NA	0.13	%	NA	03/23/95	2.908	Leco CR12	#7
24MP-6 (4-6)	14359508	TC	NA	2.21	%	NA	03/23/95	3.093	Leco CR12	#7
24MP-18 (4-6)	14359509	TC	NA	0.73	%	NA	03/23/95	3.394	Leco CR12	#7
75SS-4 (3-4)	14359501	CC	NA	<0.02	%	NA	03/21/95	0.111	COU-02	"tower"
75SS-4 (3-4)	14359501	CC	NA	<0.02	%	NA	03/21/95	0.259	COU-02	"tower"
75SS-6 (3-5)	14359502	CC	NA	<0.02	%	NA	03/21/95	0.185	COU-02	"tower"
75MP-7 (4-6)	14359503	CC	NA	<0.02	%	NA	03/21/95	0.248	COU-02	"tower"
75MP-17 (4-6)	14359504	CC	NA	<0.02	%	NA	03/21/95	0.221	COU-02	"tower"
24MP-7 (2-4)	14359505	CC	NA	<0.02	%	NA	03/21/95	0.127	COU-02	"tower"
24MP-3 (3-5)	14359506	CC	NA	<0.02	%	NA	03/21/95	0.130	COU-02	"tower"
24MP-4 (3-5)	14359507	CC	NA	<0.02	%	NA	03/21/95	0.128	COU-02	"tower"
24MP-6 (4-6)	14359508	CC	NA	<0.02	%	NA	03/21/95	0.138	COU-02	"tower"
24MP-18 (4-6)	14359509	CC	NA	<0.02	%	NA	03/21/95	0.165	COU-02	"tower"
75SS-4 (3-4)	14359501	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
75SS-4 (3-4)	14359501	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
75SS-6 (3-5)	14359502	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
75MP-7 (4-6)	14359503	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
75MP-17 (4-6)	14359504	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
24MP-7 (2-4)	14359505	TOC	NA	<0.05	%	NA	NA	NA	by calc	NA
24MP-3 (3-5)	14359506	TOC	NA	0.21	%	NA	NA	NA	by calc	NA
24MP-4 (3-5)	14359507	TOC	NA	0.13	%	NA	NA	NA	by calc	NA
24MP-6 (4-6)	14359508	TOC	NA	2.21	%	NA	NA	NA	by calc	NA
24MP-18 (4-6)	14359509	TOC	NA	0.73	%	NA	NA	NA	by calc	NA

Samples analyzed and results reported on an as received basis.
Soil samples are not homogeneous.

Values reported below Detection Limits are for reference only.

TC detection limit = 0.05%
CC detection limit = 0.02%
TOC detection limit = 0.05%

HUFFMAN
LABORATORIES, INC.
Quality Analytical Services Since 1936
4630 Indiana Street • Golden, CO 80403

NON-CLP ANALYSIS RESULTS
LABORATORY CONTROL STANDARD

Date: 03/24/95 Client: Evergreen Analytical
Lab Name: Huffman Labs Contact: Patty McClellan
Contact: Sue Zeller Huffman Lab #: 143595

LABORATORY CONTROL STANDARD

Lab ID #	Source	Element/ Compound	True Value	Found Value	% R	Units	Date	Method #	Instrument ID
LCS	BN 4851	TC	3.35	3.41	102	%	03/23/95	Leco CR12	#7
LCS	BN 4056	CC	11.33	11.32	100	%	03/21/95	COU-02	"tower"

SPIKE RECOVERY

Lab ID #	Source	Element/ Compound	True Value	Found Value	% R	Units	Date	Method #	Instrument ID
SPIKE	BN 4712	TC	12960	14089	109	ug C	03/23/95	Leco CR12	#7
SPIKE DUP	BN 4712	TC	14520	15357	106	ug C	03/23/95	Leco CR12	#7
SPIKE	BN 4712	CC	1080	1086	101	ug C	03/21/95	COU-02	"tower"
SPIKE DUP	BN 4712	CC	1167	1168	100	ug C	03/21/95	COU-02	"tower"

HUFFMAN
LABORATORIES, INC.
Quality Analytical Services Since 1936
4630 Indiana Street • Golden, CO 80403

NON-CLP QA/QC ANALYSIS RESULTS
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Date: 03/24/95 Client: Evergreen Analytical
Lab Name: Huffman Labs Contact: Patty McClellan
Contact: Sue Zeller Huffman Lab #: 143595

INITIAL CALIBRATION

Lab ID #	Source	Element/ Compound	True Value	Found Value	% R	Units	Date	Method #	Instrument ID
ICS	BN 4712	TC	12.00	11.92	99	%	03/23/95	Leco CR12	#7
ICS	BN 4712	CC	12.00	11.96	100	%	03/21/95	COU-02	"tower"

Slope = NA
Intercept = NA Single point calibrations for this test.
95% Correlation Coefficient = NA

CONTINUING CALIBRATION VERIFICATION

Lab ID #	Source	Element/ Compound	True Value	Found Value	% R	Units	Date	Method #	Instrument ID
CCS	BN 4712	TC	12.00	12.19	102	%	03/23/95	Leco CR12	#7
CCS	BN 4712	TC	12.00	12.07	101	%	03/23/95	Leco CR12	#7
CCS	BN 4712	TC	12.00	11.81	98	%	03/23/95	Leco CR12	#7
CCS	BN 4712	CC	12.00	11.96	100	%	03/21/95	COU-02	"tower"
CCS	BN 4712	CC	12.00	11.92	99	%	03/21/95	COU-02	"tower"
CCS	BN 4712	CC	12.00	11.93	99	%	03/21/95	COU-02	"tower"
CCS	BN 4712	CC	12.00	11.97	100	%	03/21/95	COU-02	"tower"

HUFFMAN
LABORATORIES, INC.
Quality Analytical Services Since 1936
4630 Indiana Street · Golden, CO 80403

ANALYSIS : TOTAL CARBON	METHOD : HIGH TEMP COMB. - INFRARED DET.
INSTRUMENT : LECO CR12	ANALYZER # 7
BALANCE # 19	

STD. CALCIUM CARBONATE	STD. N.I.S.T. BUFFALO RIVER SEDIMENT (BRS)
12.00 %C (theory) BN 4712	3.348 %C (theory) BN 4851

SAMPLE #	SAMPLE WT G			% CARBON PRE-CALIB	% CARBON POST-CALIB		QC	% REC.
[redacted]								
$CaCO_3$	0.103			11.88	11.92		ICS	
$CaCO_3$	0.115			11.95			CCS	99.6
$CaCO_3$	0.123			12.09			CCS	100.8
BL	1.0000			[redacted].608			MB	
BL	1.0000			0.001			IB	
BRS	0.271			3.411			LCS	101.9
[redacted]								

ANALYST	DATE 3-23-95	REVIEWED SV	DATE 3/24/95	PAGE 1 OF 3

ARM WAS CAL (BOOK SAYS TO RECAL + CHECK FOR LEAKS/RESTRICTIONS)
SUCROSE BN 3743 (Th +2.1%)

HUFFMAN
LABORATORIES, INC.
Quality Analytical Services Since 1956
1 Indiana Street · Golden, CO 80403

ANALYSIS : TOTAL CARBON	METHOD : HIGH TEMP COMB. - INFRARED DET.
INSTRUMENT : LECO CR12	ANALYZER # 7
BALANCE # 19	

STD. CALCIUM CARBONATE	STD. N.I.S.T. BUFFALO RIVER SEDIMENT (BRS)
12.00 %C (theory) BN 4712	3.348 %C (theory) BN 4851

SAMPLE #	SAMPLE WT G			% CARBON PRE-CALIB	% CARBON POST-CALIB		QC	% REC.
[redacted]								
4343 BL	1.0000				0.002		IB	
BRS	0.310				3.429		CCS	102.4
CaCO3	0.116				12.19		CCS	101.6
SUCROSE	0.088				42.56		CCS	101.1
SUCROSE	0.091				42.70		CCS	101.4

ANALYST	DATE 3-23-95	REVIEWED	DATE 3/24/95	PAGE 2 OF 3

7/27/93

HUFFMAN
LABORATORIES, INC.
Quality Analytical Services Since 1936
4630 Indiana Street • Golden, CO 80403

ANALYSIS : TOTAL CARBON	METHOD : HIGH TEMP COMB. - INFRARED DET.
INSTRUMENT : LECO CR12	ANALYZER # 7
BALANCE # 19	

STD. CALCIUM CARBONATE	STD. N.I.S.T. BUFFALO RIVER SEDIMENT (BRS)
12.00 %C (theory) BN 4712	3.348 %C (theory) BN 4851

SAMPLE #	SAMPLE WT G			% CARBON PRE-CALIB	% CARBON POST-CALIB		QC	% REC.
~~143505~~ BL	1.000				0.001		IB	
143501	2.195				0.041		Dup ±2.50% of mean	
143501	2.067				0.039			
143501	2.138				(0.659)			
+SPIKE CaCO3	0.108				—			
143501	2.026				(0.758)			
+SPIKE CaCO3	0.121				—			
143502	2.154				0.045			
143503	3.3320				0.043			
143504	2.888				0.036			
143505	3.555				0.043			
143506	3.331				0.213			
BRS	0.316				3.436		CCS	102.6
CaCO3	0.115				12.07		CCS	100.5
BL	1.000				0.004		IB	
143507	2.908		(NH)		0.126			
143508	3.093				2.213			
143509	3.394				0.727			
BRS	0.249				3.437		CCS	102.7
CaCO3	0.134				11.81		CCS	98.4

ANALYST	DATE	REVIEWED	DATE	PAGE
[illegible]	5-23-95	[illegible]	5/24/95	3 OF 3

7/27/93

HUFFMAN
LABORATORIES, INC.
Quality Analytical Services Since 1956
4630 Indiana Street · Golden, CO 80403

ANALYSIS	CARBONATE CARBON	METHOD	SOP COU-02
ANALYZER #	6	COULOMETER #	Tower
BALANCE #	10		

CALCIUM CARBONATE (STD # 333) CaCO3	BOTTLE # 4712	% C THEORY = 12.00%	SODIUM CARBONATE Na2CO3	BOTTLE # 4056	%C THEORY = 11.33 %

SAMPLE NO.	TARE WT. GRAMS	TARE + SAMPLE WT.	SAMPLE WT. GRAMS	NOTES	COUNTS µGRAMS	LESS BLANK 6	% CARBON AS CARBONATE CARBON		% RECOVERY
Blank			—		6.2			IB	
Boat Bl			—		6.4			MB	
[redacted]									
#CaCO3	0.603084	0.611777	0.008693		1164.8	1158.8	11.96	ICS	99.63% rec
#Na2CO3	0.601000	0.611682	0.010682		1215.4	1209.4	11.32	LCS	99.93% rec
[redacted]									
#CaCO3	0.549270	0.560589	0.011319		1360.3	1354.3	11.96	CCS	99.71% rec
[redacted]									
1435-01	0.543314	0.654615	0.111301		7.1 7.4	1.1	0.001		
1435-01	0.565839	0.824428	0.258589		8.5	2.5	0.001	dup	
#CaCO3	0.585053	0.599070	0.014017		1676.7	1670.7	11.92	CCS	99.33% rec
went to lunch									
#CaCO3	0.625218	0.636989	0.011771		1410.2	1404.2	11.93	CCS	99.41% rec
#CaCO3	0.673700	0.682700	0.009000						
1435-01	0.558872	0.673700	0.114828		1092.0	1086.0	100.45% rec	spike (see spike sheet)	

ANALYST	DATE	REVIEWED	DATE	PAGE
Tom Herman	3-21-95	X	3/22/95	1 OF 2

REVISED 1/30/92

HUFFMAN LABORATORIES, INC.
Quality Analytical Services Since 1956
4630 Indiana Street · Golden, CO 80403

ANALYSIS	CARBONATE CARBON	METHOD	SOP COU-02
ANALYZER #	6	COULOMETER #	Tom
BALANCE #	10		

CALCIUM CARBONATE (STD 1000) CaCO3	BOTTLE # 4712	% C THEORY = 12.00%	SODIUM CARBONATE Na2CO3	BOTTLE # 4056	%C THEORY = 11.33

SAMPLE NO.	TARE WT. GRAMS	TARE + SAMPLE WT.	SAMPLE WT. GRAMS	NOTES	COUNTS µGRAMS	LESS BLANK 6	% CARBON AS CARBONATE CARBON		% RECOVERY
(+#CaCO3)	0.535211	0.544936	0.009725						
1435-01	0.574936	0.710449	0.165513		1174.4	1162.4	99.98% recapitulate		
[redacted]									
1435-02	0.618251	0.803001	0.184750		7.8	1.8	0.001		
1435-03	0.615765	0.864216	0.248451		8.4	2.4	0.001		
1435-04	0.574414	0.794484	0.220699		8.2	2.2	0.001		
1435-05	0.564375	0.690941	0.126566		7.3	1.3	0.001		
1435-06	0.562620	0.712407	0.129787		6.8	0.8	0.001		
1435-07	0.557044	0.684879	0.127833		7.2	1.2	0.001		
[redacted]									
#CaCO3	0.678550	0.670446	0.010591		1269.4	1263.4	11.93	CCS	99.41 %
1435-08	0.506013	0.644224	0.138211		8.5	2.5	0.002		
1435-09	0.543937	0.709064	0.165127		7.5	1.5	0.001		
[redacted]									
#CaCO3	0.670032	0.681088	0.011056		1329.0	1323.0	11.97	CCS	99.72 % rec

ANALYST	DATE	REVIEWED	DATE	PAGE
Tom Herman	3-24-95	[illegible]	3/22/95	PAGE 2 OF 2

REVISED 1/20/93

Evergreen

CASE NARRATIVE

Evergreen Analytical Laboratory (EAL) Project #: 95-0983

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt

On March 28, 1995, 22 water samples and one trip blank were received in good condition at EAL with the following discrepancies: 1. Holding times for samples 24PZ-1S, 24PZ-1D, 24MP-6S and MD32-3 for Nitrate/Nitrite analyses had expired prior to sample shipment; the chain of custody requested the trip blank be analyzed for BTEX, TVH, alkalinity, anions and TOC. The laboratory was instructed by John Hicks of PES to proceed with the anion analyses and to analyze the trip blank for BTEX.

Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and PES sample identifications.

BTEX, Water Matrix, Method 602

Samples 24PZ-1S, 56MP-5S and MW56-10 were analyzed at dilutions due to contaminant beyond the linear range of the instrument. The reporting limits were raised accordingly. Samples 56MP-4S and MW56-6 were originally analyzed within holding times at a dilution factor of 100 due to target analytes. Toluene was still beyond the linear range so the samples were re-run at a dilution factor of 250 outside holding times. The original data is reported with extrapolated values for toluene.

There were no other quality control anomalies to report.

Total Volatile Hydrocarbons (TVH), Water Matrix, Method 8015M

The sequence for samples 56MP-15D (laboratory duplicate), MW56-10 and 56MP-7D was initiated before the holding time expired, however, the analyses were completed shortly after midnight. There were no other quality control anomalies to report.

General Chemistry

The holding times for samples 24PZ-1S, 24PZ-1D, 24MP-6S and MD32-3 for Nitrate/Nitrite expired prior to sample receipt. There were no other quality control anomalies to report.

P McClellan

Patricia A. McClellan, Project Manager

Evergreen Analytical Sample Log Sheet

Project # 95-0983

Date(s) Sampled: 03/24,26,27/95 COC

Date Due: 03/31-BTEX,TVH
04/11 OTHERS

Date Received: 03/28/95 0930

Holding Time(s): 03/26,28,29-NO_2,N
04/7,9,10-BTEX,TVH,ALKALINIT

Client Project I.D. 722450.21020/MAC DILL

Rush STANDARD

Client: Parsons Engineering Science, Inc.

Address: 1700 Broadway Suite 900
Denver, CO 80290

Contact: TODD WIEDEMEIER

Client P.O. _____

Phone #831-8100 **Fax #**831-8208

Shipping Charges N/A

E.A. Cooler # 263

Airbill # FED EX

Custody Seal Intact? Y
Cooler X Bottles ___
COC Present Y
Sample Tags Present? Y
Sample Tags Listed? Y
Sample(s) Sealed? Y

Special Invoicing/Billing_____
Special Instructions * ALL BTEX ARE TO INCLUDE CHLOROBENZENE, TMB AND TEMB
* AN MS/MSD AND LAB DUPLICATE IS TO BE ANALYZED ON ALL PES PROJECTS.

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04848A/B	24 PZ-1S	* BTEX 602	W	40V	2
X04849A/B	24 PZ-1D	* BTEX 602	W	40V	2
X04850A/B	24 MP-6S	* BTEX 602	W	40V	2
X04851A/B	MD 32-3	* BTEX 602	W	40V	2
X04852A/B	MW 56-10	* BTEX 602	W	40V	2
X04853A/B	56 MP-6D	* BTEX 602	W	40V	2
X04854A/B	56 MP-6S	* BTEX 602	W	40V	2
X04855A/B	MW 56-1	* BTEX 602	W	40V	2
X04856A/B	MW 56-21	* BTEX 602	W	40V	2
X04857A/B	56 MP-8S	* BTEX 602	W	40V	2
X04858A/B	56 MP-10S	* BTEX 602	W	40V	2
X04859A/B	MW 56-2	* BTEX 602	W	40V	2
X04860A/B	MW 56-8	* BTEX 602	W	40V	2
X04861A/B	MW 56-9	* BTEX 602	W	40V	2
X04862A/B	56 MP-4S	* BTEX 602	W	40V	2
X04863A/B	MW 56-12	* BTEX 602	W	40V	2
X04864A/B	MW 56-6	* BTEX 602	W	40V	2

R=Sample to be returned

Route To GC/MS ___ GC 3 Metals ___ Wet Chem 2 SxPrep ___ Acctg 1
SxRec C QA/QC C Sales C File Orig

Custodian/Date: 3/29/95

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
)4865A/B	56 MP-5S	* BTEX 602	W	40V	2
X04866A/B	56 MP-5D	* BTEX 602	W	40V	2
X04867A/B	56 MP-15D	* BTEX 602	W	40V	2
X04868A/B	MW 56-10	* BTEX 602	W	40V	2
X04869A/B	56 MP-7D	* BTEX 602	W	40V	2
X04870A/B	TRIP BLANK	* BTEX 602	W	40V	2
X04848C/D	24 PZ-1S	TVPH	W	40V	2
X04849C/D	24 PZ-1D	TVPH	W	40V	2
X04850C/D	24 MP-6S	TVPH	W	40V	2
X04851C/D	MD 32-3	TVPH	W	40V	2
X04852C/D	MW 56-10	TVPH	W	40V	2
X04853C/D	56 MP-6D	TVPH	W	40V	2
X04854C/D	56 MP-6S	TVPH	W	40V	2
X04855C/D	MW 56-1	TVPH	W	40V	2
X04856C/D	MW 56-21	TVPH	W	40V	2
X04857C/D	56 MP-8S	TVPH	W	40V	2
X04858C/D	56 MP-10S	TVPH	W	40V	2
)4859C/D	MW 56-2	TVPH	W	40V	2
X04860C/D	MW 56-8	TVPH	W	40V	2
X04861C/D	MW 56-9	TVPH	W	40V	2
X04862C/D	56 MP-4S	TVPH	W	40V	2
X04863C/D	MW 56-12	TVPH	W	40V	2
X04864C/D	MW 56-6	TVPH	W	40V	2
X04865C/D	56 MP-5S	TVPH	W	40V	2
X04866C/D	56 MP-5D	TVPH	W	40V	2
X04867C/D	56 MP-15D	TVPH	W	40V	2
X04868C/D	MW 56-10	TVPH	W	40V	2
X04869C/D	56 MP-7D	TVPH	W	40V	2
X04848E	24 PZ-1S	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04849E	24 PZ-1D	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04850E	24 MP-6S	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04851E	MD 32-3	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04852E	MW 56-10	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04853E	56 MP-6D	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
)4854E	56 MP-6S	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3

Project # 95-0983

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04855E	MW 56-1	ANIONS	W	125P	CR3
X04856E	MW 56-21	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04857E	56 MP-8S	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04858E	56 MP-10S	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04859E	MW 56-2	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04860E	MW 56-8	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04861E	MW 56-9	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04862E	56 MP-4S	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04863E	MW 56-12	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04864E	MW 56-6	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04865E	56 MP-5S	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04866E	56 MP-5D	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04867E	56 MP-15D	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04868E	MW 56-10	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04869E	56 MP-7D	ANIONS Cl, SO_4, NO_2, NO_3	W	125P	CR3
X04851F	MD 32-3	ALKALINITY	W	250P	CR3
X04853F	56 MP-6D	ALKALINITY	W	250P	CR3
X04854F	56 MP-6S	ALKALINITY	W	250P	CR3
X04866F	56 MP-5D	ALKALINITY	W	250P	CR3
X04867F	56 MP-15D	ALKALINITY	W	250P	CR3
X04868F	MW 56-10	ALKALINITY	W	250P	CR3
X04851G	MD 32-3	TOC	W	125A	CR3
X04850	24 MP-6S	TOC	W	125A	CR3

Project # 95-0983

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons Engineering Science
ADDRESS 1700 Broadway, Suite 900
CITY Denver STATE CO ZIP 80290
PHONE# 303-831-8100 FAX # 303-831-8202 FAX RESULTS Y / N

CLIENT CONTACT (print) Todd Wiedmeier
PROJECT I.D. 722450.21020
EAL. QUOTE # P.O.#
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Mark Vessely
(print) Mark Vessely
Evergreen Analytical Cooler No. 263
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle) + TMB and TETRA MB	TRPH 418.1/Oil & Grease 413.1 (circle)	TPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity	Anions (Cl⁻, SO₄⁻², NO₃⁻)	TDC & TMB & Tetra MB					EAL Sample No.
24 PZ-1S	3/24/95	1230	5	X									X		X					X						04848
24 PZ-1D	3/24/95	1345	5	X									X		X					X						49
24MP-6S	3/24/95	1410	6	X									X		X					X	X[A]					50
MD32-3	3/24/95	1545	7	X									X		X				F X	X	X[B]					51
MW56-10	3/26/95	0930	5	X									X		X					X						52
56MP-6D	3/26/95	1030	6	X									X		X					X	X					53
56MP-6S	3/26/95	1100	6	X									X		Y					X	X					54
MW56-1	3/26/95	1210	5	X									X		X					X						55
MW56-21	3/26/95	1210	5	X									X		X					X						56
56MP-8S	3/26/95	1310	5	X									X		X					X						57
HT:													40V		40V			250P	125P	125A						Location #2, CR3
DD:																										Container Size

EAL use only
Do not write in shaded area

EAL Project # 0983
Custodian

Instructions: Samples Packed on ICE

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Mark Vessely	3/27	Fed ex					

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons Engineering Science
ADDRESS 1700 Broadway, Suite
CITY Denver STATE CO ZIP 80290
PHONE# 303-831-8100 FAX # 303-831-8202 FAX RESULTS Y / N

CLIENT CONTACT (print) Todd Wiedemeier
PROJECT I.D. 722450.2102
EAL. QUOTE # P.O.#
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature)
(print) MARK VESSELY

Evergreen Analytical Cooler No. 263
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge (Ground) (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle) MTBE (circle) 4 TMB & Tetra MB	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline) C6	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity F	Anions (Cl, SO4, NO3-N, NO2-N) E	TOC (& TMB & Tetra MB) G	EAL Sample No.
56MP-10S	3/26/95	1410	5	X									X		X					X			04858
MW56-7	3/26/95	1510	5	X									X		X					X			59
MW56-8	3/26/95	1545	5	X									X		X					X			60
MW56-9	3/27/95	0800	5	X									X		X					X			61
56MP-4S	3/27/95	0900	5	X									X		X					X			62
MW56-12	3/27/95	0940	5	X									X		X					X			63
MW56-6	3/27/95	1030	5	X									X		X					X			64
56MP-5S	3/27/95	1130	5	X									X		X					X			65
56MP-5D	3/27/95	1220	6	X									X		X				X	X			66
56MP-15D	3/27/95	1220	6	X									X		X				X	X			67
HT:																							Location A2, CB3
DD:																							Container Size

EAL use only
Do not write in shaded area

EAL Project # 0983
Custodian

Instructions: See page 1

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons Engineering Science
ADDRESS 1700 Broadway, Suite 900
CITY Denver STATE CO ZIP 80290
PHONE# 303-831-8100 FAX # 303-831-8208 FAX RESULTS Y / N

CLIENT CONTACT (print) Todd Wiedmeier
PROJECT I.D. 722450.21020
EAL QUOTE # _____ P.O # _____
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature) [signature]
(print) MARK JESSELY

Evergreen Analytical Cooler No. 263
Cooler Received _____

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle) (ITMS; Test MS)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline) C/D	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity F	Anions (Cl, SO4, NO3, NO2) F	TOC (ITMS; Test MS)	EAL Sample No.
MW56-10	3/27/95	1310	6	X									X		X				X	X			04868
56MP-70	3/27/95	1345	5	X									X		X					X			69
Trip Blank			1										X		/				/	/	/		70
HT:																							Location #2, CR3
DD:																							Container Size

EAL use only
Do not write in shaded area

EAL Project # 0983
Custodian _____

Instructions: Analyze trip blank for BTEX only / Leigh Benson 3/22/95 pm 3/28/95

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3/27/95	[signature]		[signature]		[signature]	

Evergreen Analytical Sample Receipt/Check-in Record

Date & Time Rec'd: 3-28-95 1100 Shipped Via: ~~UPS~~ Fedex
(Airbill # if applicable)

Client : Eng. Sci.

Client Project ID(s): 722450.21020

EAL Project #(s): 95- 0963 EAL Cooler(s): (Y) N

Cooler#	263								
Ice packs	(Y)	N	Y	N	Y	N	Y	N	Y	N
Temperature °C	4°C								

	Y	N	N/A
1. Custody seal(s) present:	X		
Seals on cooler intact	X		
Seals on bottle intact			X
2. Chain of Custody present:	X		
3. Containers broken or leaking: (Comment on COC if Y)		X	
4. Containers labeled:	X		
5. COC agrees w/ bottles received: (Comment on COC if N)	X		
6. COC agrees w/ labels: (Comment on COC if N)	X		
7. Headspace in VOA vials-waters only (comment on COC if Y)		X	
8. VOA samples preserved:	X		
9. pH measured on metals, cyanide or phenolics*:			X
List discrepancies			
*Non-EAL provided containers only, water samples only.			
10. Metal samples present:			X
Total _____ , Dissolved _____			
D or PD to be filtered:			
T,TR,D,PD to be Preserved:			
11. Short holding times:		X	
Specify parameters			
12. Multi-phase sample(s) present:		X	
13. COC signed w/ date/time:	X		

Comments: _____

(Additional comments on back)
Custodian Signature/Date: [signature] 3-28-95

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.

4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons Engineering Science
ADDRESS 1700 Broadway, Suite 900
CITY Denver STATE CO ZIP 80290
PHONE# 303-831-8100 FAX # 303-831-8202 FAX RESULTS Y / N

CLIENT CONTACT (print) Todd Wiedmeier
PROJECT I.D. 722450.21020
EAL. QUOTE # _____ P.O.# _____
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature) [signature]
(print) Mark Vessely

Evergreen Analytical Cooler No. 263
Cooler Received _____

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle) See TMB and Tetra A8	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity	Anions (Cl^-, SO_4^{-2}, NO_2^-, NO_3^-)	TOC & TMB & Tetra M8					EAL Sample No.
24 PZ-1S	3/24/95	1230	5	X									X		X					X						
24 PZ-1D	3/24/95	1345	5	X									X		X					X						
24MP-6S	3/24/95	1410	6	X									X		X					X	X					
MD32-3	3/24/95	1545	7	X									X		X				X	X	X					
MW56-10	3/26/95	0930	5	X									X		X					X						
56MP-6D	3/26/95	1030	6	X									X		X				X	X						
56MP-6S	3/26/95	1100	6	X									X		X				X	X						
MW56-1	3/26/95	1210	5	X									X		X					X						
MW56-21	3/26/95	1210	5	X									X		X					X						
56MP-8S	3/26/95	1310	5	X									X		X					X						
HT:																										Location
DD:																										Container Size

EAL use only
Do not write in shaded area

EAL
Project # _____
Custodian _____

Instructions: Samples Packed on ICE

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	3/27	[signature]		[signature]		[signature]	

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons Engineering Science
ADDRESS 1700 Broadway, Suite
CITY Denver STATE CO ZIP 80290
PHONE# 303-831-8100 FAX # 303-831-8202 FAX RESULTS Y / N

CLIENT CONTACT (print) Todd Wiedemeier
PROJECT I.D. 722450.2102
EAL. QUOTE # P.O.#
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature)
(print) MARK VESSELY
Evergreen Analytical Cooler No. 263
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle) MTBE 7T2-M8	TRPH 418.1/Oil & Grease 413.1 (circle)	VPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity	Anions (Cl, SO4, NO2, NO3)	TOC (& TMB & Tetra M8)					EAL Sample No.
56MP-10S	3/26/95	1410	5	X									X		X					X						
MW56-2	3/26/95	1510	5	X									X		X					X						
MW56-8	3/26/95	1546	5	X									X		X					X						
MW56-9	3/27/95	0800	5	X									X		X					X						
56MP-4S	3/27/95	0900	5	X									X		X					X						
MW56-12	3/27/95	0940	5	X									X		X					X						
MW56-6	3/27/95	1030	5	X									X		X					X						
56MP-5S	3/27/95	1130	5	X									X		X					X						
56MP-5D	3/27/95	1220	6	X									X		X				X	X						
56MP-15D	3/27/95	1220	6	X									X		X				X	X						
HT:																									Location	
DD:																									Container Size	

EAL use only
Do not write in shaded area

EAL
Project #
Custodian

Instructions: See page 1

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons Engineering Science
ADDRESS 1700 Broadway, Suite 900
CITY Denver STATE CO ZIP 80290
PHONE # 303 831-8100 FAX # 303-831-8202 FAX RESULTS Y / N

CLIENT CONTACT (print) Todd Wiedmeier
PROJECT I.D. 722450.21020
EAL. QUOTE # _____ P.O.# _____
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Mark Jessely
(print) MARK JESSELY

Evergreen Analytical Cooler No. 263
Cooler Received _____

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle) (4 TAGS & Tekmar 245)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity	Anions (Cl, SO4, NO3, F)	TOC (TAGS & Tekmar 245)	EAL Sample No.
MW56-10	3/27/95	1310	6	X										X	X	X				X	X		
56MP-7D	3/27/95	1345	5	X										X		X					X		
Trip Blank			1											X		X				X	X	X	
HT:																							Location
DD:																							Container Size

EAL use only
Do not write in shaded area

EAL
Project # _____
Custodian _____

Instructions: Analyse trip blank for BTEX only / Leigh Benson pm 3/28/95 3/27/95

Relinquished by (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	3/27/95						4-28-95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24PZ-1S	Client Project No.	: 722450.21020/MacDi
Lab Sample Number	: X04848	Lab Project No.	: 95-0983
Date Sampled	: 3/24/95	Dilution Factor	: 1.00
Date Received	: 3/28/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/6/95	Lab File No.	: BX2040522
		Method Blank No.	: MB040595

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	**		**
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4

Surrogate Recovery (α,α,α-Trifluorotoluene):	96%	70%-130% (QC limits)

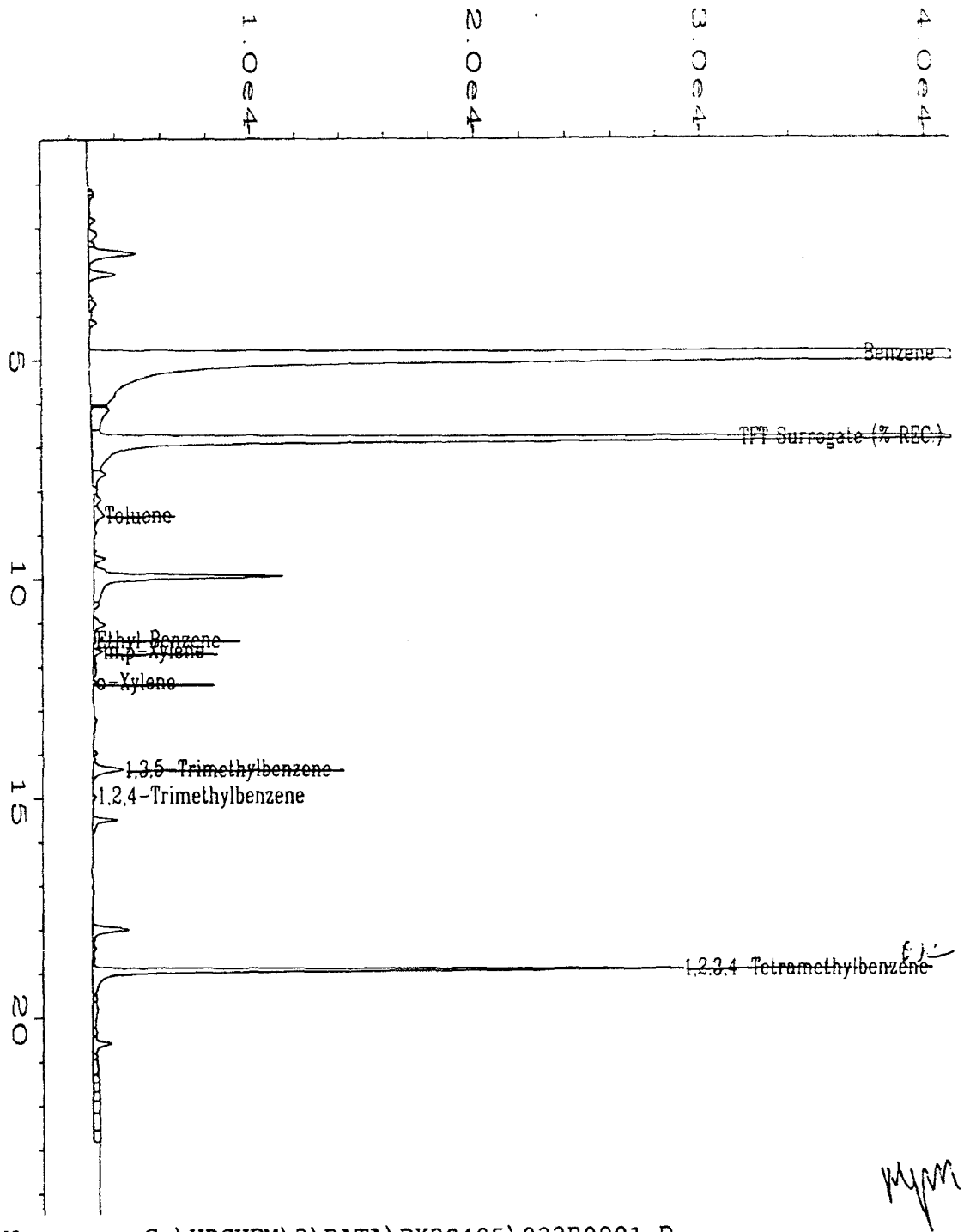
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

** = See BX2040612 for noted values, df = 1, 04/06/95

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

Approved



mym 5/1/95

Data File Name : C:\HPCHEM\2\DATA\BX20405\022R0901.D
Operator : SW Tyson
Instrument : BTEX2
Sample Name : X04848;1;5
Run Time Bar Code:
Acquired on : 06 Apr 95 02:15 AM
Report Created on: 06 Apr 95 08:39 AM
Last Recalib on : 06 APR 95 08:23 AM
Multiplier : 1
Sample Info : Project#: 95-0983 Client#: 24 PZ-1S Water

Page Number : 1
Vial Number : 22
Injection Number : 1
Sequence Line : 9
Instrument Method: BX20405.MTH
Analysis Method : BX20405.MTH
Sample Amount : 0
ISTD Amount :

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24PZ-1S	Client Project No.	: 722450.21020/MacD
Lab Sample Number	: X04848	Lab Project No.	: 95-0983
Date Sampled	: 3/24/95	Dilution Factor	: 10.00
Date Received	: 3/28/95	Method	: 602
Date Prepared	: 4/6/95	Matrix	: Water
Date Analyzed	: 4/6/95	Lab File No.	: BX2040612
		Method Blank No.	: MB040695

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	180	4.0
Toluene	108-88-3	**	**
Chlorobenzene	108-90-7	**	**
Ethyl Benzene	100-41-4	**	**
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	**	**
1,3,5-Trimethylbenzene	108-67-8	**	**
1,2,4-Trimethylbenzene	95-63-6	**	**
1,2,3-Trimethylbenzene	526-73-8	**	**
1,2,3,4-Tetramethylbenzene	488-23-3	**	**
Surrogate Recovery (α,α,α-Trifluorotoluene):		94%	70%-130% (QC limits

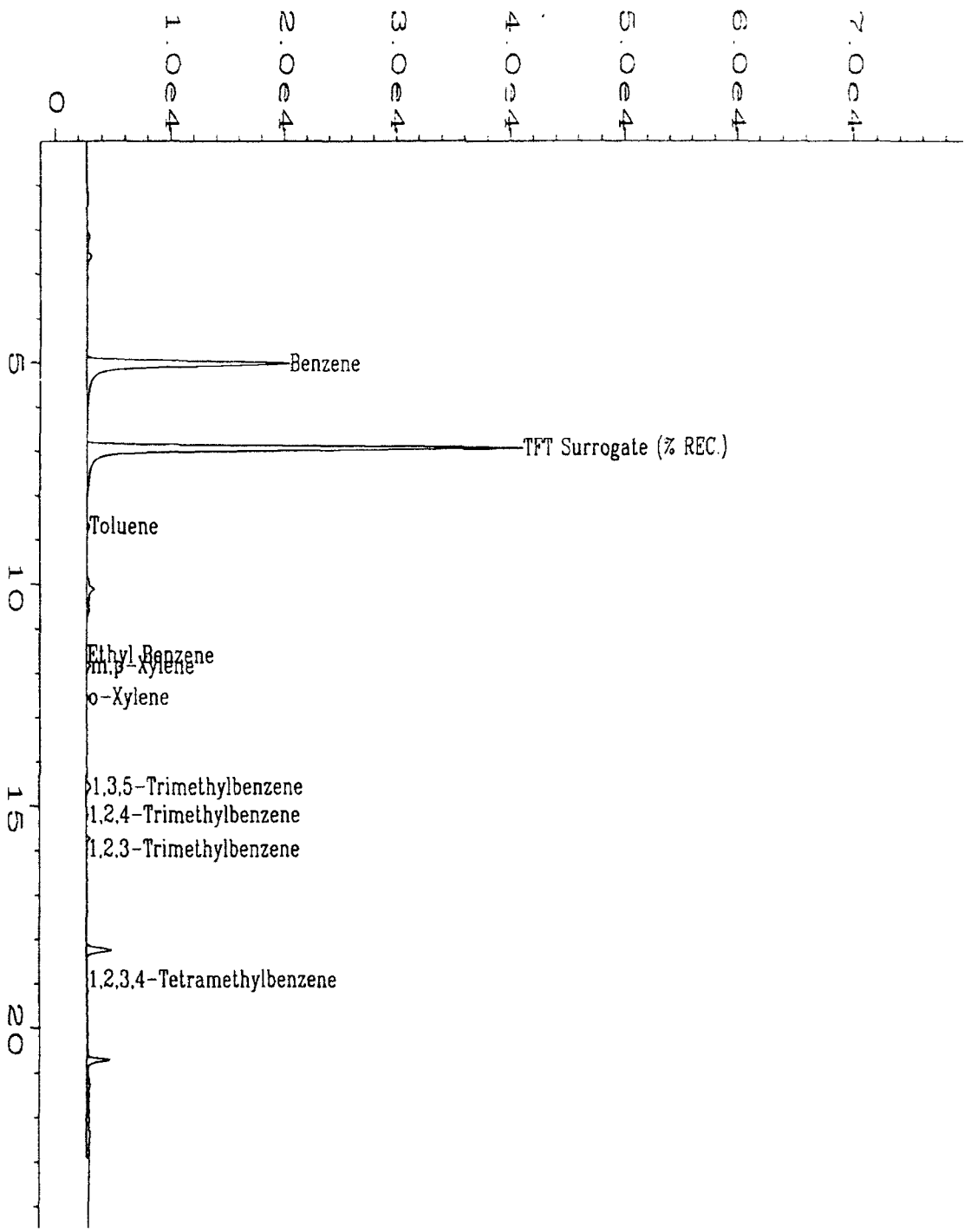
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

** = See BX2040522 for noted values, df = 1, 04/06/95.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20406\012R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 12
Sample Name	: X04648;10;1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 06 Apr 95 05:04 PM	Instrument Method	: BX20406.MTH
Report Created on	: 30 Apr 95 08:31 PM	Analysis Method	: BX20406B.MTH
Last Recalib on	: 30 APR 95 08:02 PM	Sample Amount	: 0
Multiplier	: 10	ISTD Amount	:
Sample Info	: Project#: 95-0983 Client#: 24 PZ-1S Water		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24PZ-1D '	Client Project No.	: 722450.21020/MacDill
Lab Sample Number	: X04849	Lab Project No.	: 95-0983
Date Sampled	: 3/24/95	Dilution Factor	: 1.00
Date Received	: 3/28/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/6/95	Lab File No.	: BX2040523
		Method Blank No.	: MB040595

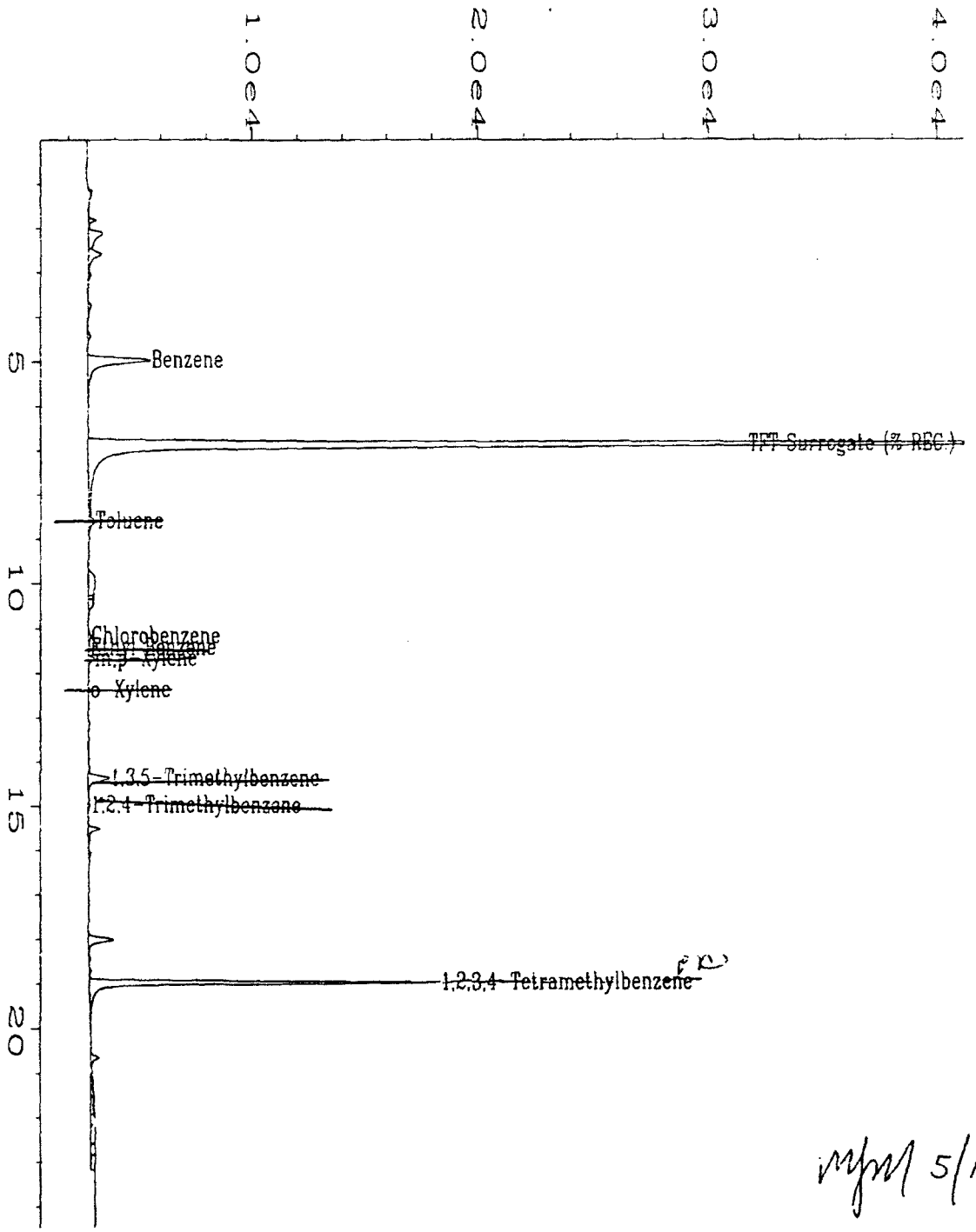
Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	2.3		0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	0.6		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		87%		70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

Approved



mjm 5/1/95

Data File Name	: C:\HPCHEM\2\DATA\BX20405\023R0901.D		
Operator	: SW Tyson	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 23
Sample Name	: X04849;1;5	Injection Number	: 1
In Time Bar Code	:	Sequence Line	: 9
Acquired on	: 06 Apr 95 03:00 AM	Instrument Method	: BX20405.MTH
Report Created on	: 06 Apr 95 08:40 AM	Analysis Method	: BX20405.MTH
Last Recalib on	: 06 APR 95 08:23 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0983 Client#: 24 PZ-1D Water		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24MP-6S	Client Project No.	: 722450.21020/MacDill
Lab Sample Number	: X04850	Lab Project No.	: 95-0983
Date Sampled	: 3/24/95	Dilution Factor	: 1.00
Date Received	: 3/28/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/6/95	Lab File No.	: BX2040524
		Method Blank No.	: MB040595

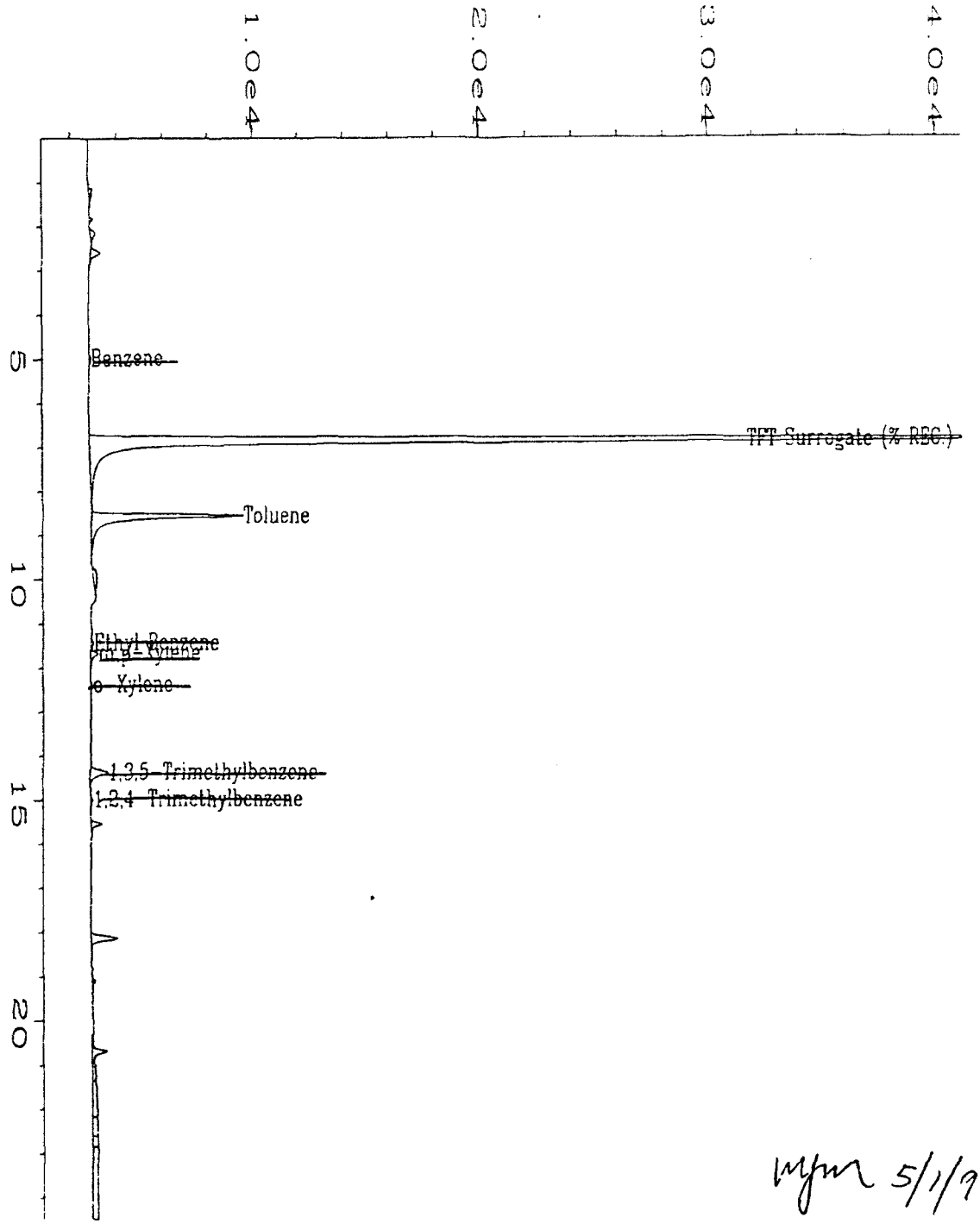
Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	4.1		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		86%		70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved



mjm 5/1/95

Data File Name	: C:\HPCHEM\2\DATA\BX20405\024R0901.D		
Operator	: SW Tyson	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 24
Sample Name	: X04850;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
quired on	: 06 Apr 95 03:47 AM	Instrument Method	: BX20405.MTH
port Created on	: 06 Apr 95 08:41 AM	Analysis Method	: BX20405.MTH
Last Recalib on	: 06 APR 95 08:23 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0983 Client#: 24 MP-6S Water		

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

BTEX Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: MW56-10	Client Project No.	: 722450.21020/MacDill
Lab Sample No.	: X04852	Lab Project No.	: 95-0983
Date Sampled	: 3/26/95	EPA Method No.	: 602
Date Received	: 3/28/95	Matrix	: Water
Date Prepared	: 4/6/95	Lab File Number(s)	: BX2040615,16
Date Analyzed	: 4/6/95	Method Blank	: MB040695

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Benzene	20.0	36.3	54.7	92	50-150
Toluene	20.0	1.1	17.0	80	50-148
Ethyl Benzene	20.0	0.8	16.8	80	50-150
m,p-Xylene	40.0	0.6	37.2	92	50-150
o-Xylene	20.0	0.7	16.5	79	50-150
Chlorobenzene	20.0	4.3	22.0	89	55-135
1,3,5-TMB	20.0	0.0	14.8	74	50-150
1,2,4-TMB	20.0	0.0	16.2	81	50-150
1,2,3-TMB	20.0	0.0	15.4	77	50-1
1,2,3,4-TeMB	20.0	1.8	19.4	88	50-150

Compound	Spike Added (ug/L)	MSD Concentration (ug/L)	MSD %REC	RPD	QC Limits RPD	QC Limits %REC
Benzene	20.0	53.6	87	6.2	25	50-150
Toluene	20.0	17.1	80	0.6	25	50-148
Ethyl Benzene	20.0	16.6	79	1.3	25	50-150
m,p-Xylene	40.0	35.7	88	4.2	25	50-150
o-Xylene	20.0	16.3	78	1.3	25	50-150
Chlorobenzene	20.0	21.0	84	5.8	25	55 135
1,3,5-TMB	20.0	14.6	73	1.4	25	50-150
1,2,4-TMB	20.0	15.7	79	3.1	25	50-150
1,2,3-TMB	20.0	15.0	75	2.6	25	50-150
1,2,3,4-TeMB	20.0	18.4	83	5.8	25	50-150

* = Values outside of QC limits.

RPD: 0 out of (10) outside limits.

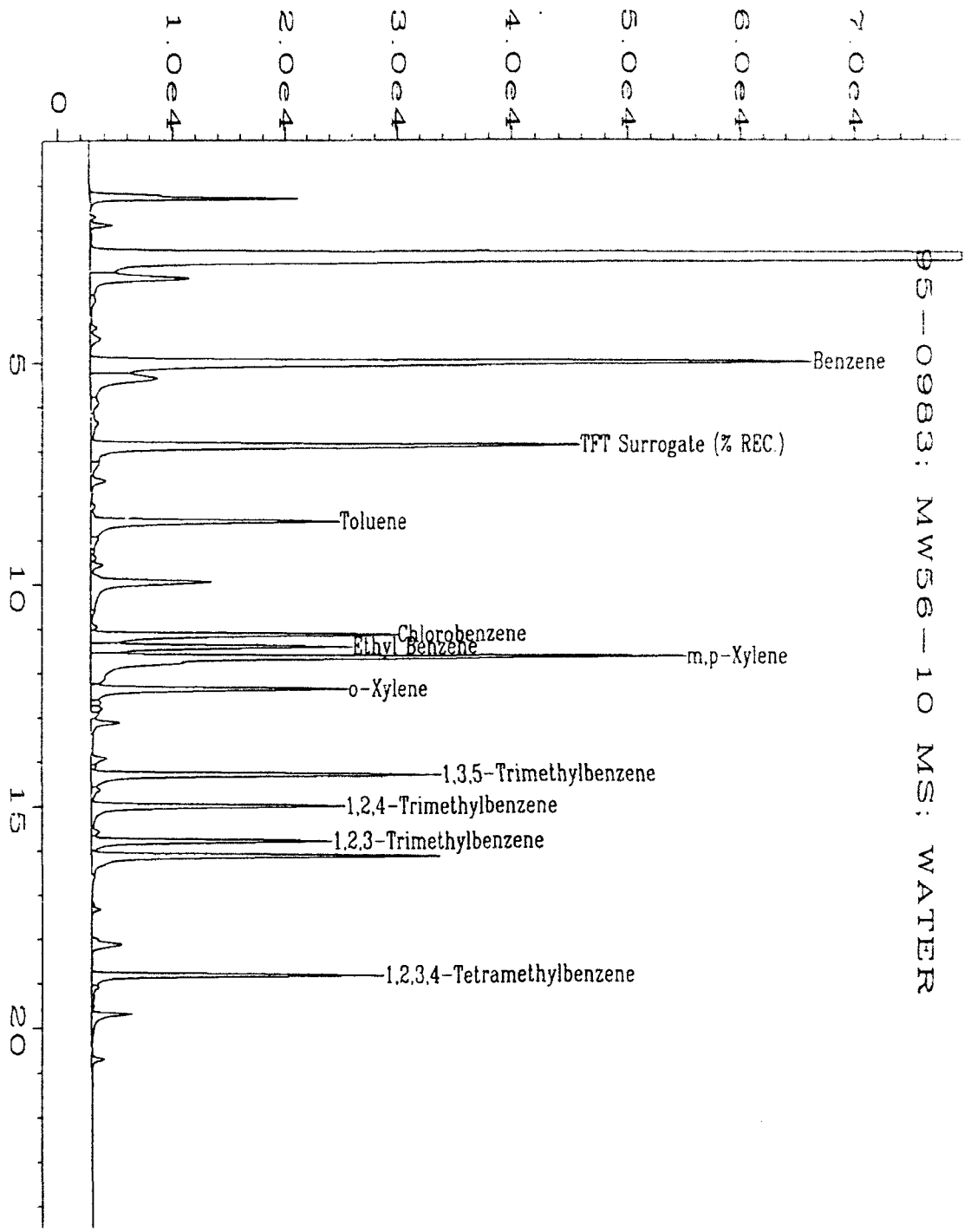
Spike Recovery: 0 out of (20) outside limits.

Comments:

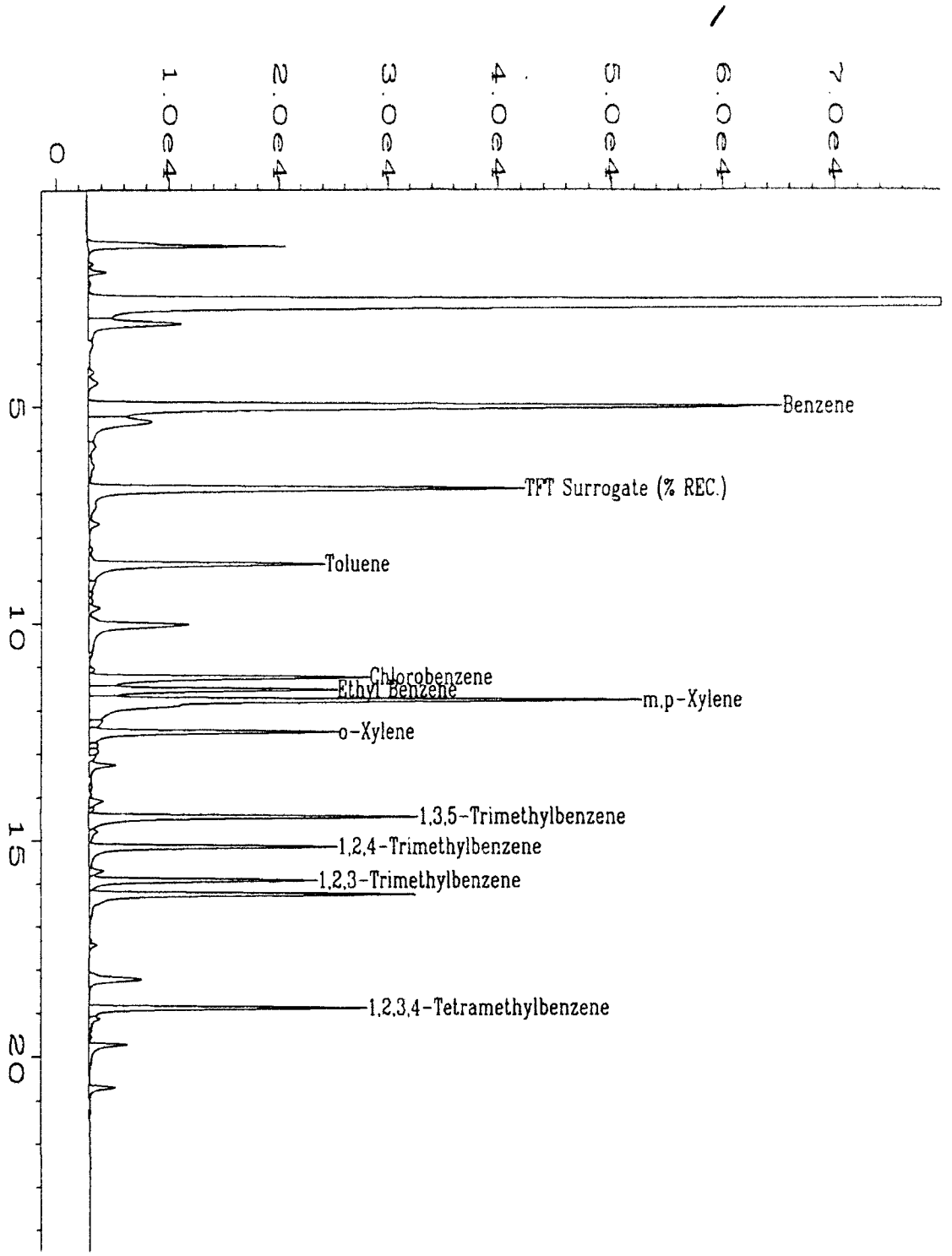
K. Cone
Analyst

Approved

MS0983B.XLS



Data File Name	: C:\HPCHEM\2\DATA\BX20406\015R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 15
Sample Name	: X04852MS;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 06 Apr 95 07:23 PM	Instrument Method	: BX20406.MTH
Report Created on	: 30 Apr 95 08:50 PM	Analysis Method	: BX20406B.MTH
Last Recalib on	: 30 APR 95 08:02 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



Data File Name	: C:\HPCHEM\2\DATA\BX20406\016R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 16
Sample Name	: X04852MSD;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 06 Apr 95 08:10 PM	Instrument Method	: BX2040 [illegible]
Report Created on	: 30 Apr 95 08:33 PM	Analysis Method	: BX2040[illegible].M
Last Recalib on	: 30 APR 95 08:02 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0983 Client#: MW 56-10 Water		

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TOTAL VOLATILE HYDROCARBONS
TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 56MP-6D	Client Project No.	: 722450.21020/PARSONS
Lab Sample No.	: X04853	Lab Project No.	: 95-0983
Date Sampled	: 3/26/95	EPA Method No.	: 5030/8015 Mod.
Date Received	: 3/28/95	Matrix	: Water
Date Prepared	: 4/7/95	Method Blank	: MB040895
Date Analyzed	: 4/7/95		

Compound	Spike Added (mg/L)	Sample Concentration (mg/L)	MS Concentration (mg/L)	MS %REC	QC Limits %REC
Gasoline	2.00	0.00	2.14	107%	60-140

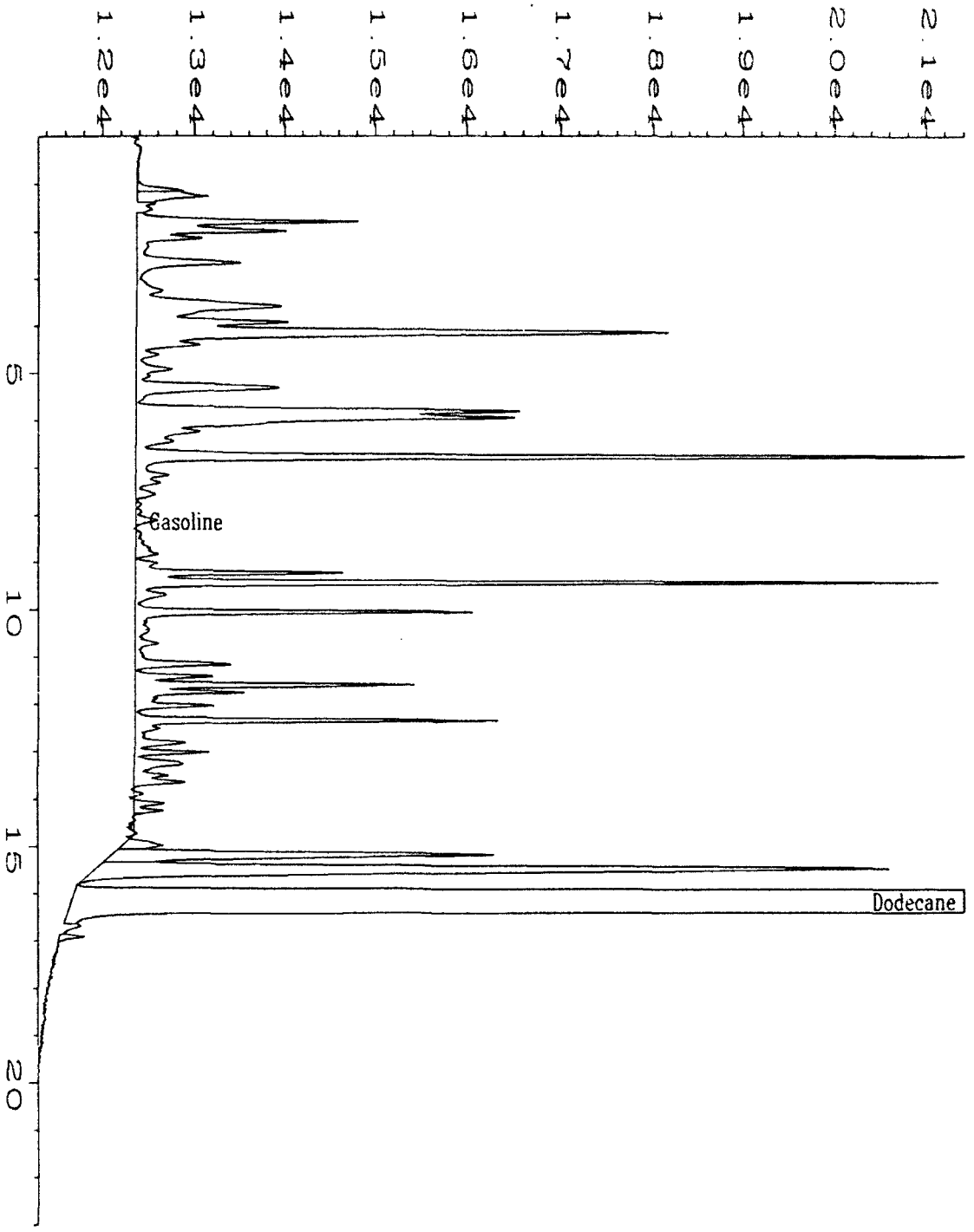
Compound	Spike Added (mg/L)	MSD Concentration (mg/L)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Gasoline	2.00	1.69	85%	23	50	60-140

* = Values outside of QC limits.

RPD: 0 out of (1) outside limits.

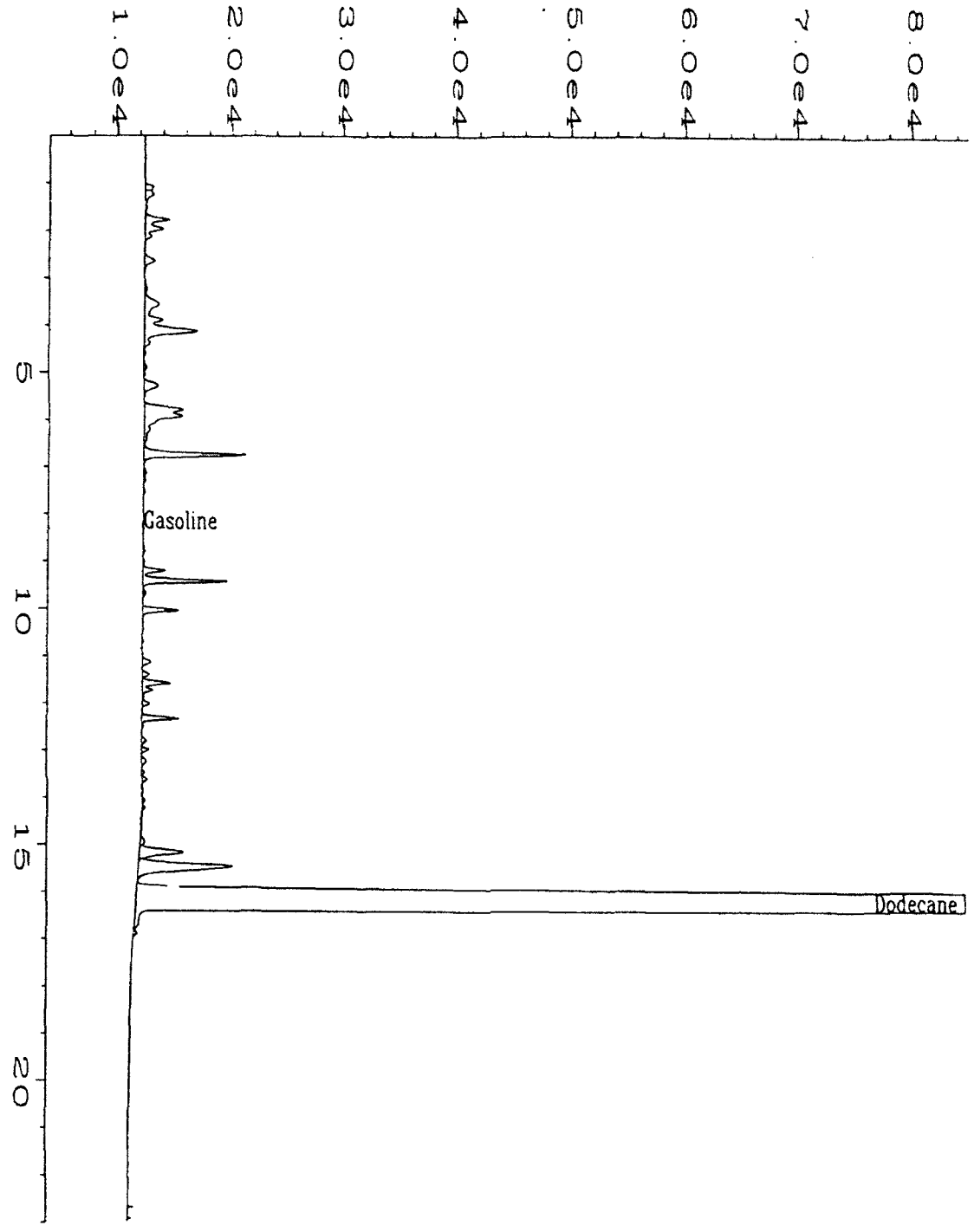
Spike Recovery: 0 out of (2) outside limits.

Comments: NA = Not analyzed/not applicable.



Data File Name	: C:\HPCHEM\1\DATA\tvh0408\012F0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TVH	Vial Number	: 12
Sample Name	: X04853 MS	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 07 Apr 95 06:35 PM	Instrument Method	: TVH1B. ..M
Report Created on	: 10 Apr 95 09:55 AM	Analysis Method	: TVH0408.M
Last Recalib on	: 07 APR 95 04:22 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

56MP-6D MS



Data File Name	: C:\HPCHEM\1\DATA\tvh0408\013F0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TVH	Vial Number	: 13
Sample Name	: X04853 MSD	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 07 Apr 95 07:11 PM	Instrument Method	: TVH1BASE.MTH
Report Created on	: 10 Apr 95 09:55 AM	Analysis Method	: TVH0408.MTH
Last Recalib on	: 07 APR 95 04:22 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

56MP-6D MSD

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TOTAL VOLATILE HYDROCARBONS
TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: MW56-9	Client Project No.	: 722450.21020
Lab Sample No.	: X04861	Lab Project No.	: 95-0983
Date Sampled	: 3/27/95	EPA Method No.	: 5030/8015 Mod.
Date Received	: 3/28/95	Matrix	: Water
Date Prepared	: 4/10/95	Method Blank	: MB041095
Date Analyzed	: 4/10/95		

Compound	Spike Added (mg/L)	Sample Concentration (mg/L)	MS Concentration (mg/L)	MS %REC	QC Limits %REC
Gasoline	2.00	0.00	2.20	110%	60-140

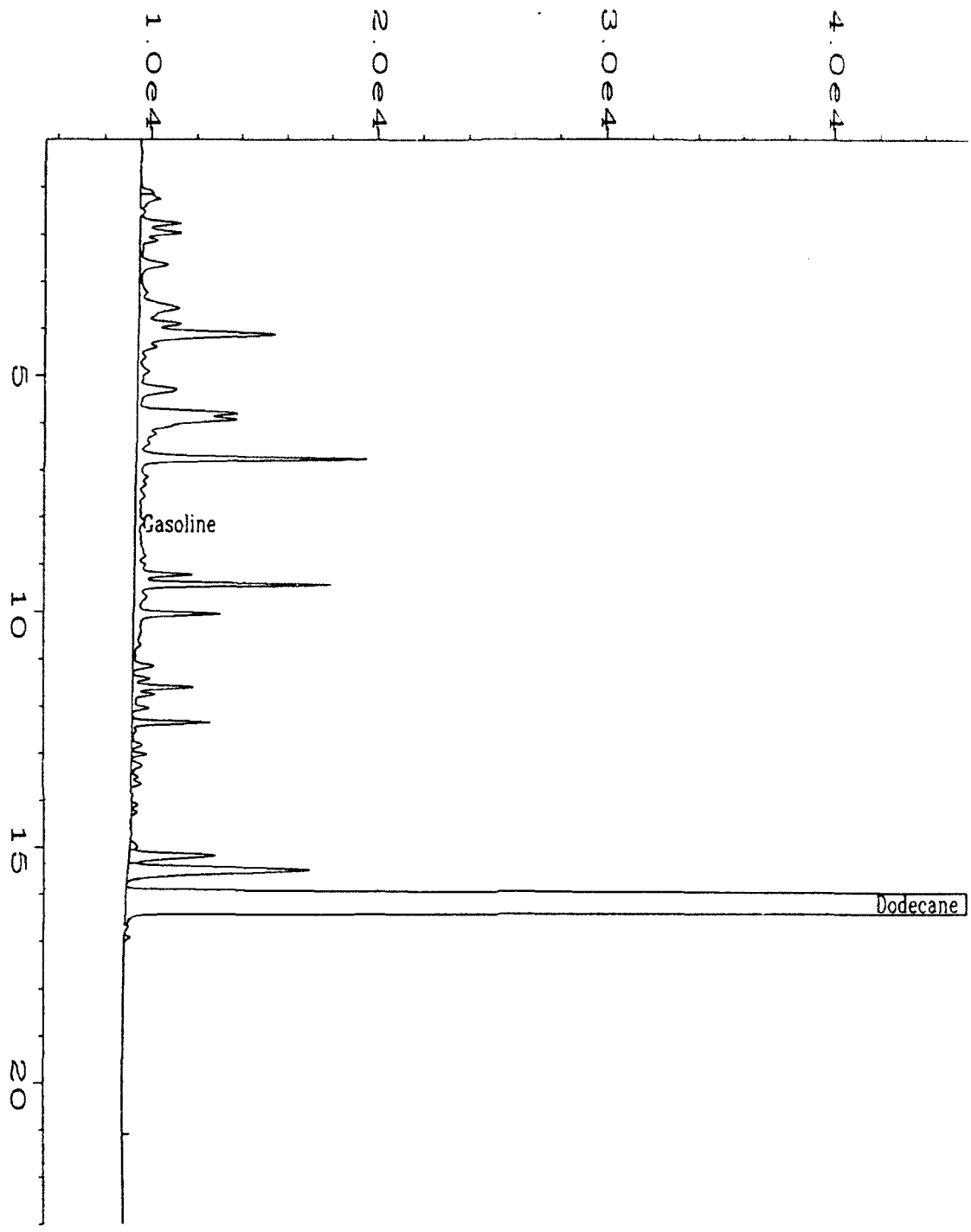
Compound	Spike Added (mg/L)	MSD Concentration (mg/L)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Gasoline	2.00	1.74	87%	23	50	60-140

* = Values outside of QC limits.

RPD: 0 out of (1) outside limits.

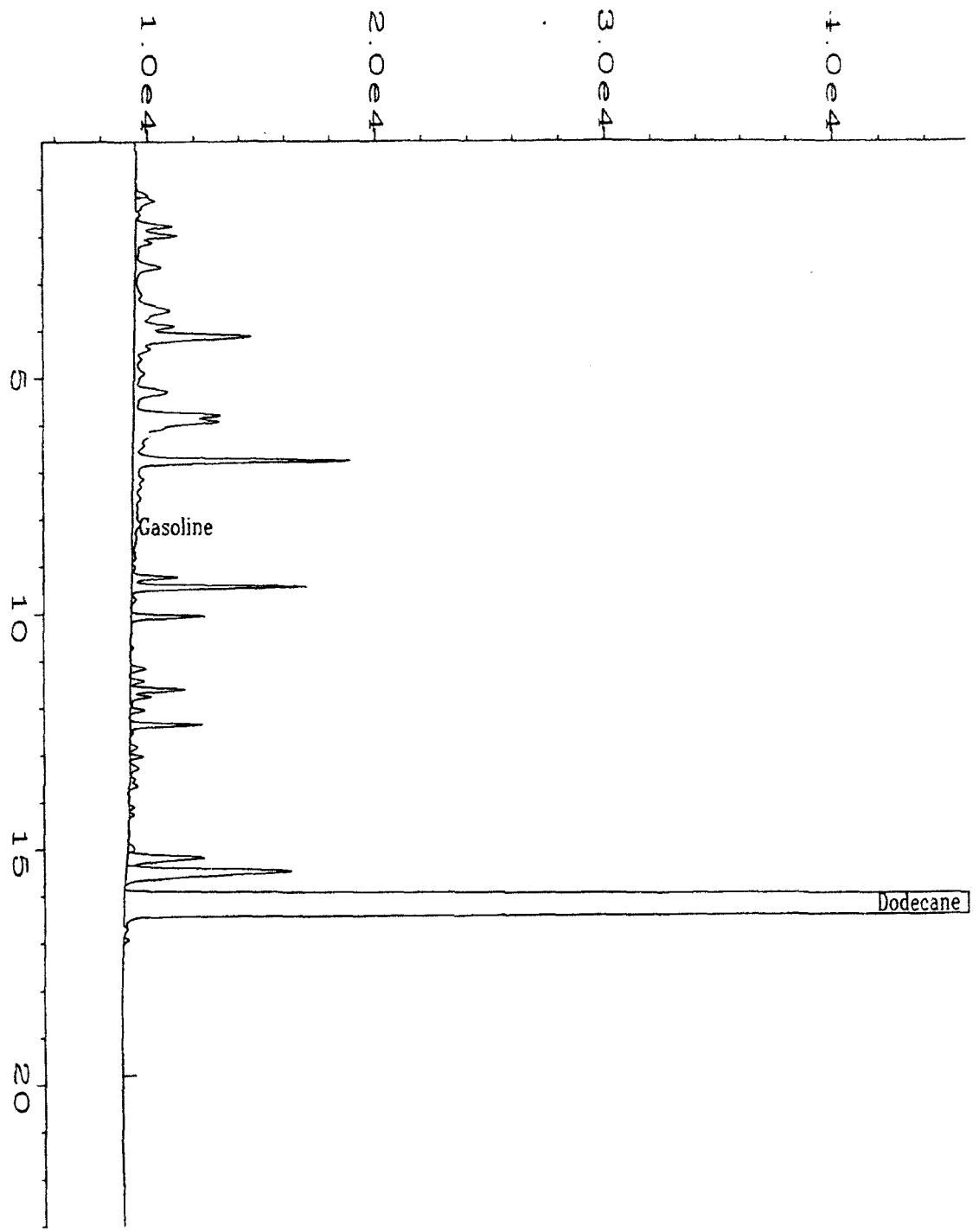
Spike Recovery: 0 out of (2) outside limits.

Comments: NA = Not analyzed/not applicable.



Data File Name	: C:\HPCHEM\1\DATA\tvh0410\013F0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TVH	Vial Number	: 13
Sample Name	: X04861 MS	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Apr 95 04:52 PM	Instrument Method	: TVH1BASE.MTH
Report Created on	: 10 Apr 95 10:45 PM	Analysis Method	: TVH0410.MTH
Last Recalib on	: 10 APR 95 01:08 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

MW56-9 MS



Data File Name : C:\HPCHEM\1\DATA\tvh0410\014F0101.D
Operator : Dawn N. Guildner
Instrument : TVH
Sample Name : X04861 MSD
Run Time Bar Code:
Acquired on : 10 Apr 95 05:28 PM
Report Created on: 10 Apr 95 10:45 PM
Last Recalib on : 10 APR 95 01:08 PM
Multiplier : 1

Page Number : 1
Vial Number : 14
Injection Number : 1
Sequence Line : 1
Instrument Method: TVH1B
Analysis Method : TVH04
Sample Amount : 0
ISTD Amount :

MW56-9 MSD

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TOTAL VOLATILE HYDROCARBONS
TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 56MP-5D	Client Project No.	: 722450.21020
Lab Sample No.	: X04866	Lab Project No.	: 95-0983
Date Sampled	: 3/27/95	EPA Method No.	: 5030/8015 Mod.
Date Received	: 3/28/95	Matrix	: Water
Date Prepared	: 4/10/95	Method Blank	: MB041095
Date Analyzed	: 4/10/95		

Compound	Spike Added (mg/L)	Sample Concentration (mg/L)	MS Concentration (mg/L)	MS %REC	QC Limits %REC
Gasoline	2.00	0.00	1.93	97%	60-140

Compound	Spike Added (mg/L)	MSD Concentration (mg/L)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Gasoline	2.00	1.99	100%	3	50	60-140

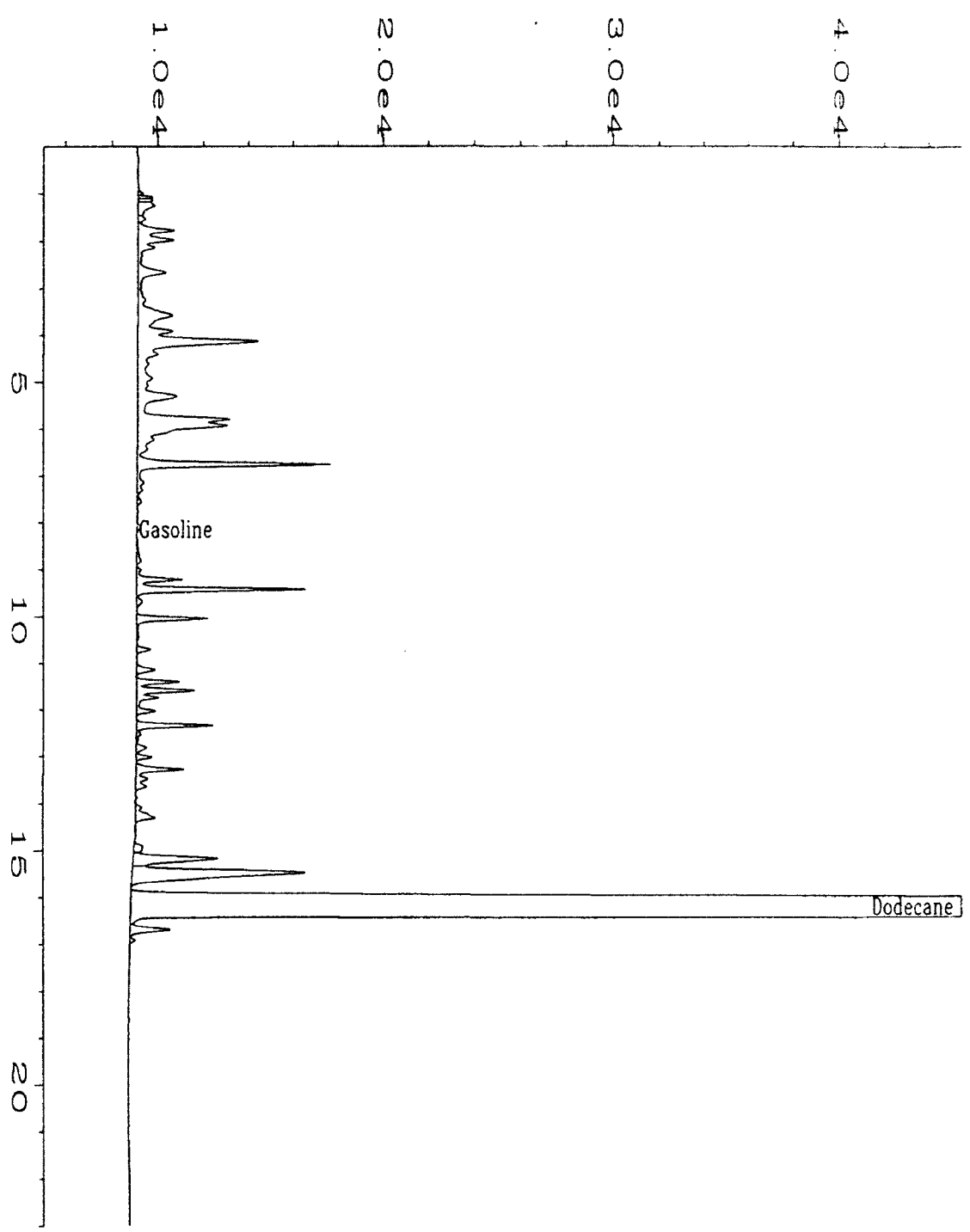
* = Values outside of QC limits.

RPD: 0 out of (1) outside limits.

Spike Recovery: 0 out of (2) outside limits.

Comments: NA = Not analyzed/not applicable.

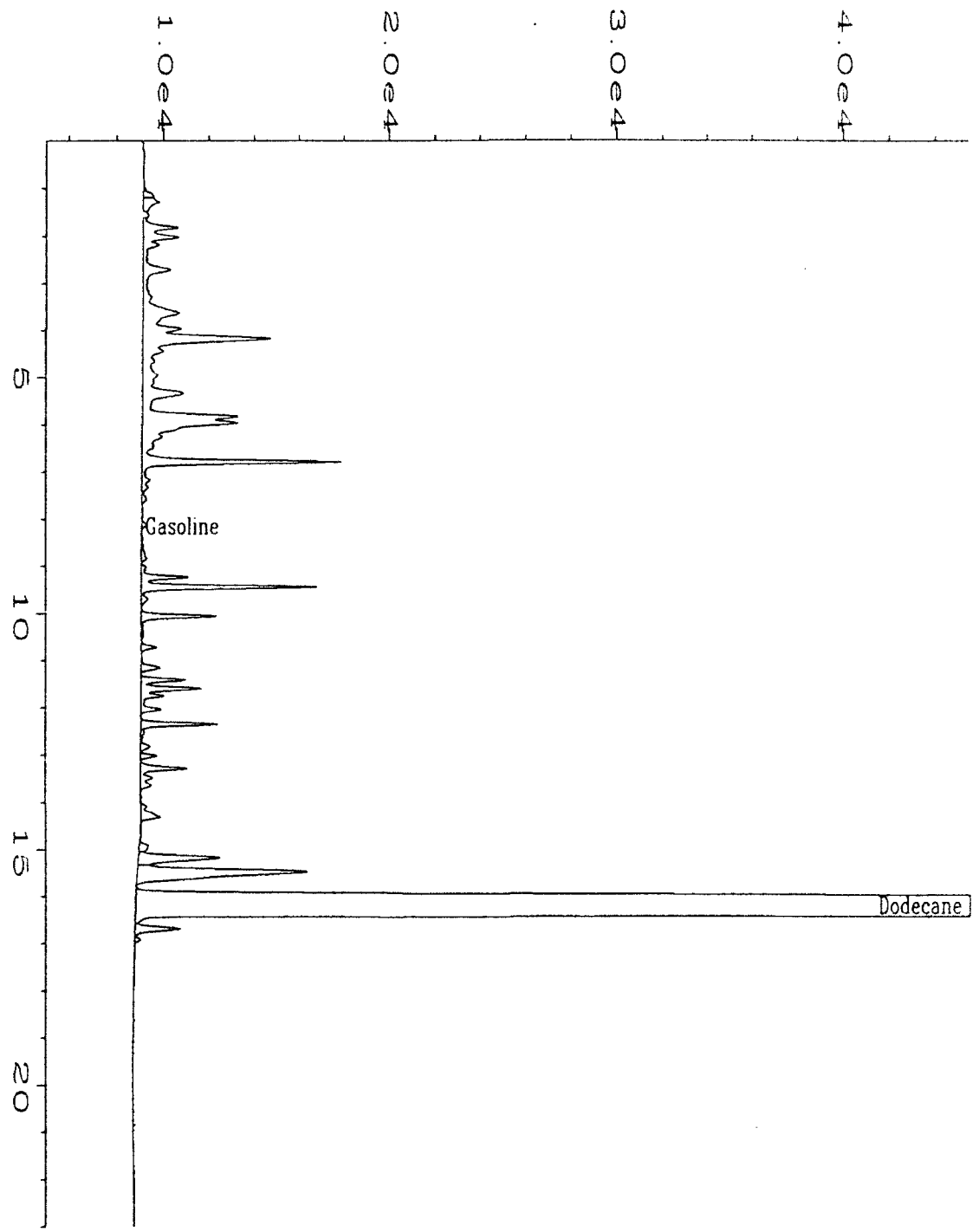
F12



Data File Name : C:\HPCHEM\1\DATA\tvh0410\022F0101.D
Operator : Dawn N. Guildner
Instrument : TVH
Sample Name : X04866 MS
Run Time Bar Code:
Acquired on : 10 Apr 95 10:16 PM
Report Created on: 10 Apr 95 10:47 PM
Last Recalib on : 10 APR 95 01:08 PM
Multiplier : 1

Page Number : 1
Vial Number : 22
Injection Number : 1
Sequence Line : 1
Instrument Method: TVH1BA.
Analysis Method : TVH0410.MTH
Sample Amount : 0
ISTD Amount :

56MP-5D MS



Data File Name : C:\HPCHEM\1\DATA\tvh0410\023F0101.D
Operator : Dawn N. Guildner
Instrument : TVH
Sample Name : X04866 MSD
Run Time Bar Code:
quired on : 10 Apr 95 10:52 PM
port Created on: 11 Apr 95 10:09 AM
Last Recalib on : 10 APR 95 01:08 PM
Multiplier : 1

Page Number : 1
Vial Number : 23
Injection Number : 1
Sequence Line : 1
Instrument Method: TVH1BASE.MTH
Analysis Method : TVH0410.MTH
Sample Amount : 0
ISTD Amount :

56 MP-SD MSD

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Method 602 Data Report
Method Blank Report

Method Blank Number	: MB040595	Client Project No.	: 722450.21020/MacDill
Date Prepared	: 4/5/95	Lab Project No.	: 95-0983
Date Analyzed	: 4/5/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX2040509

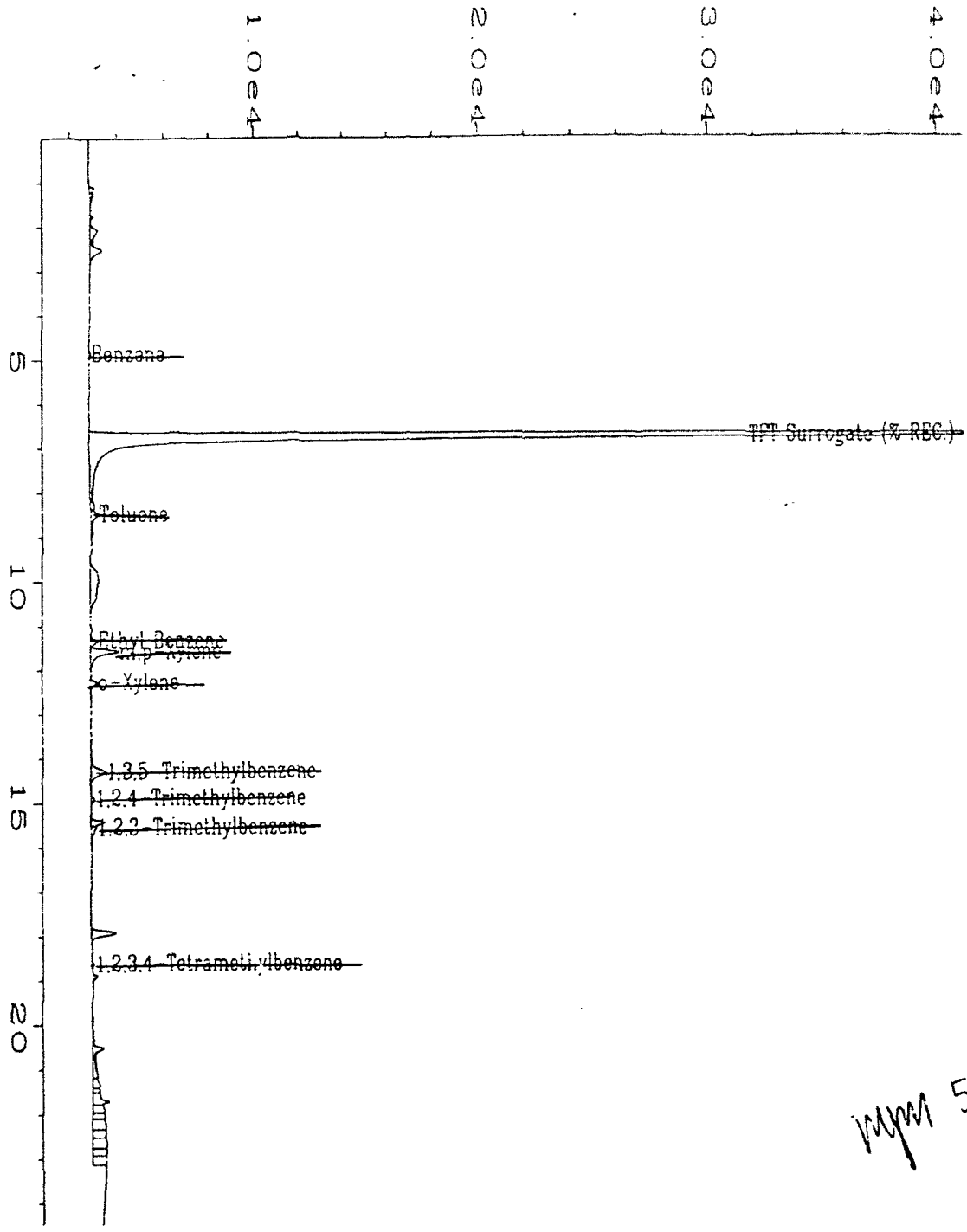
Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		93%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved



mgm 5/1/95

Data File Name : C:\HPCHEM\2\DATA\BX20405\009R0901.D
Operator : SW Tyson
Instrument : BTEX2
Sample Name : MB040595
Run Time Bar Code:
Acquired on : 05 Apr 95 04:21 PM
Report Created on: 06 Apr 95 08:31 AM
Last Recalib on : 06 APR 95 08:23 AM
Multiplier : 1

Page Number : 1
Vial Number : 9
Injection Number : 1
Sequence Line : 9
Instrument Method: BX20405.MTH
Analysis Method : BX20405.MTH
Sample Amount : 0
ISTD Amount :

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Method 602 Data Report
Method Blank Report

Method Blank Number	: MB040695	Client Project No.	: 722450.21020/MacD
Date Prepared	: 4/6/95	Lab Project No.	: 95-0983
Date Analyzed	: 4/6/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX2040609

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	0.6		0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4

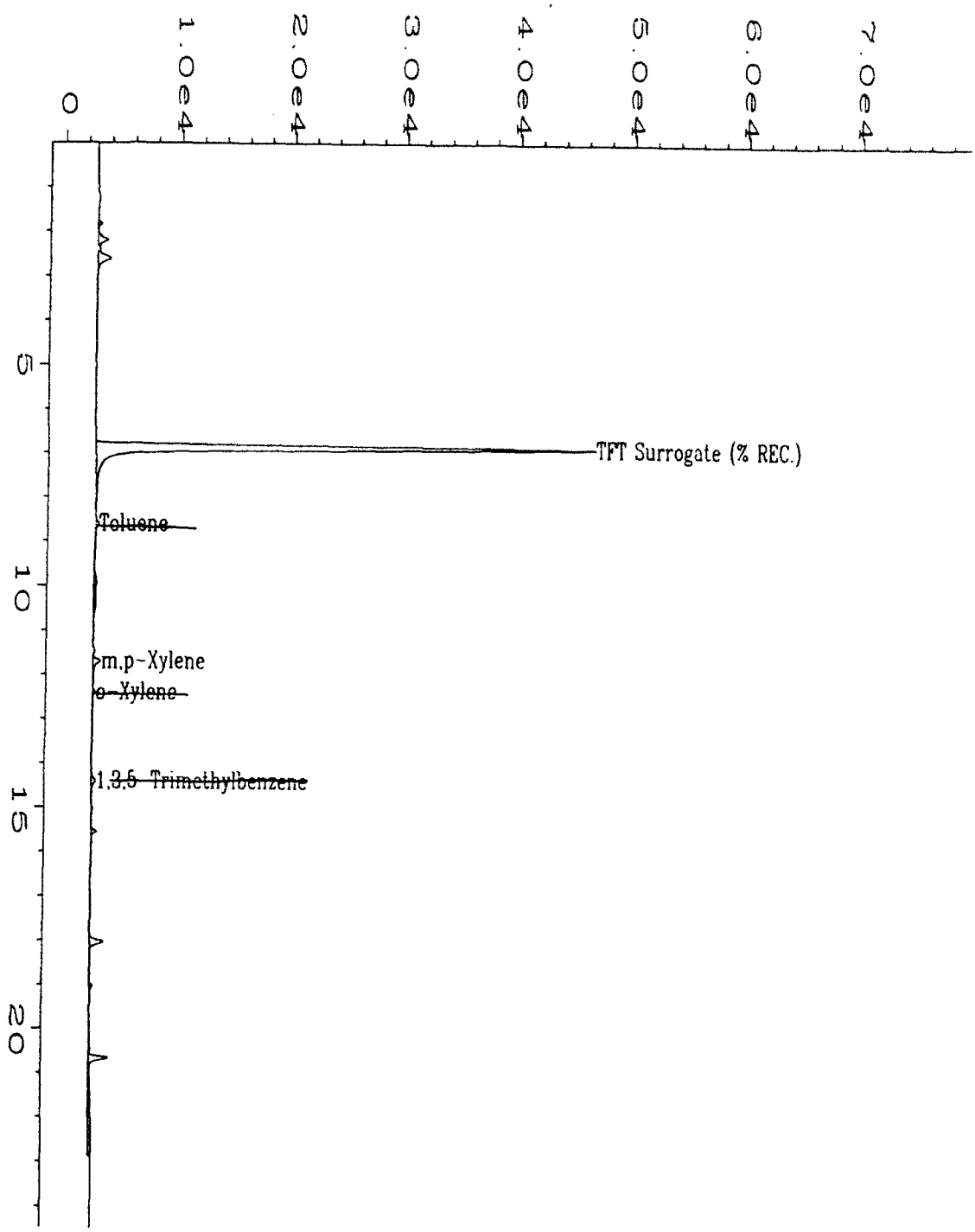
Surrogate Recovery (α,α,α-Trifluorotoluene):	105%	70%-130% (QC limits

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

Approved



Data File Name : D:\2\DATA\BX20406\009R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : MB040695
In Time Bar Code:
Acquired on : 06 Apr 95 02:47 PM
Report Created on: 30 Apr 95 08:14 PM
Last Recalib on : 30 Apr 95 08:02 PM
Multiplier : 1

Page Number : 1
Vial Number : 9
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20406.MTH
Analysis Method : BX20406B.MTH
Sample Amount : 0
ISTD Amount :

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Method 602 Data Report
Method Blank Report

Method Blank Number	: MB040795	Client Project No.	: 722450.21020/MacDill
Date Prepared	: 4/7/95	Lab Project No.	: 95-0983
Date Analyzed	: 4/7/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX2040709

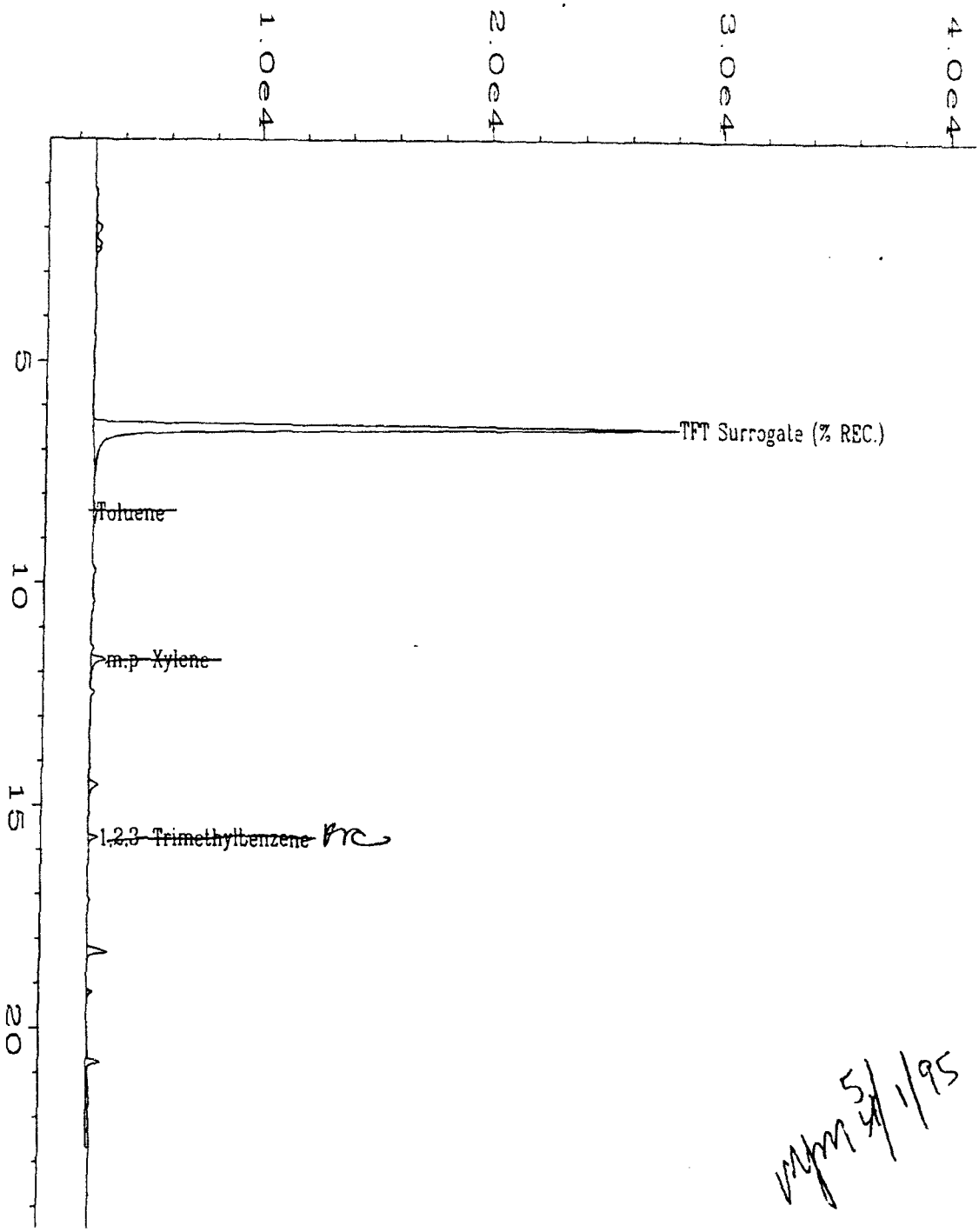
Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		96%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved



5/1/95

Data File Name : C:\HPCHEM\2\DATA\BX20407\009R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : MB040795
n Time Bar Code:
..equired on : 07 Apr 95 03:26 PM
Report Created on: 01 May 95 00:45 AM
Last Recalib on : 10 APR 95 07:26 AM
Multiplier : 1

Page Number : 1
Vial Number : 9
Injection Number : 1
Sequence Line : 9
Instrument Method: BX20407.MTH
Analysis Method : BX20407B.MTH
Sample Amount : 0
ISTD Amount :

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Method 602 Data Report
Method Blank Report

Method Blank Number	: MB040895	Client Project No.	: 722450.21020/MacDill
Date Prepared	: 4/8/95	Lab Project No.	: 95-0983
Date Analyzed	: 4/8/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX2040810

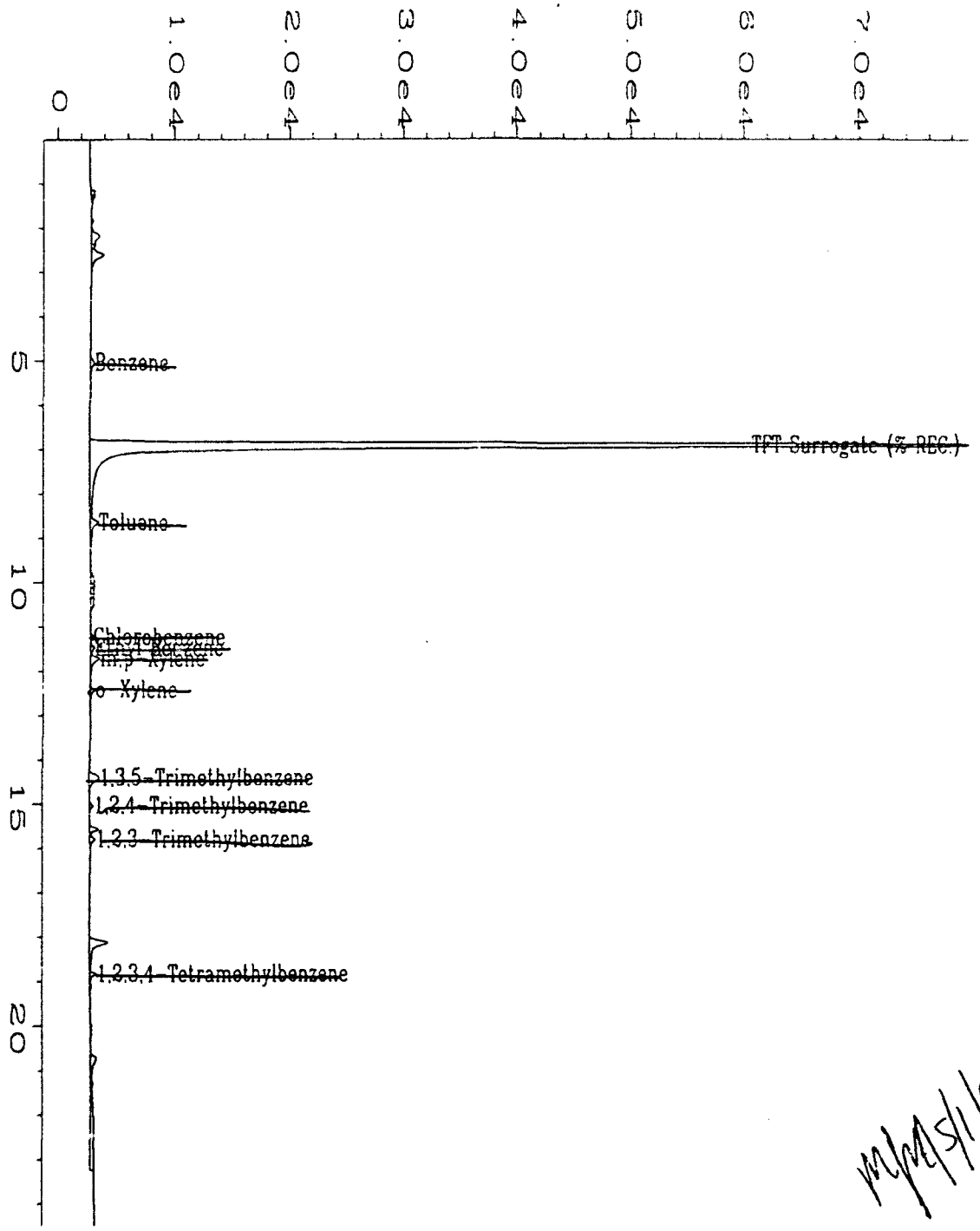
Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		104%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved



4/5/95

Data File Name : C:\HPCHEM\2\DATA\BX20408\010R0901.D
Operator : S.W. Tyson
Instrument : BTEX2
Sample Name : MB040895
Page Number : 1
Vial Number : 10
Injection Number : 1
Sequence Line : 9
Instrument Method: BX20408.MTH
Analysis Method : BX20408.MTH
Sample Amount : 0
ISTD Amount :
Bar Code:
Time
Acquired on : 08 Apr 95 04:07 PM
Report Created on: 09 Apr 95 02:24 PM
Last Recalib on : 09 Apr 95 02:21 PM
Multiplier : 1

EVERGREEN ANALYTICAL, INC.
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Method 602 Data Report

Client Sample Number	: Trip Blank	**Client Project No.**	: 722450.21020/MacDil
Lab Sample Number	: X04870	**Lab Project No.**	: 95-0983
Date Sampled	: NA	**Dilution Factor**	: 1.00
Date Received	: 3/28/95	**Method**	: 602
Date Prepared	: 4/7/95	**Matrix**	: Water
Date Analyzed	: 4/8/95	**Lab File No.**	: BX2040725
		Method Blank No.	: MB040795

Compound Name	*Cas Number*	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4

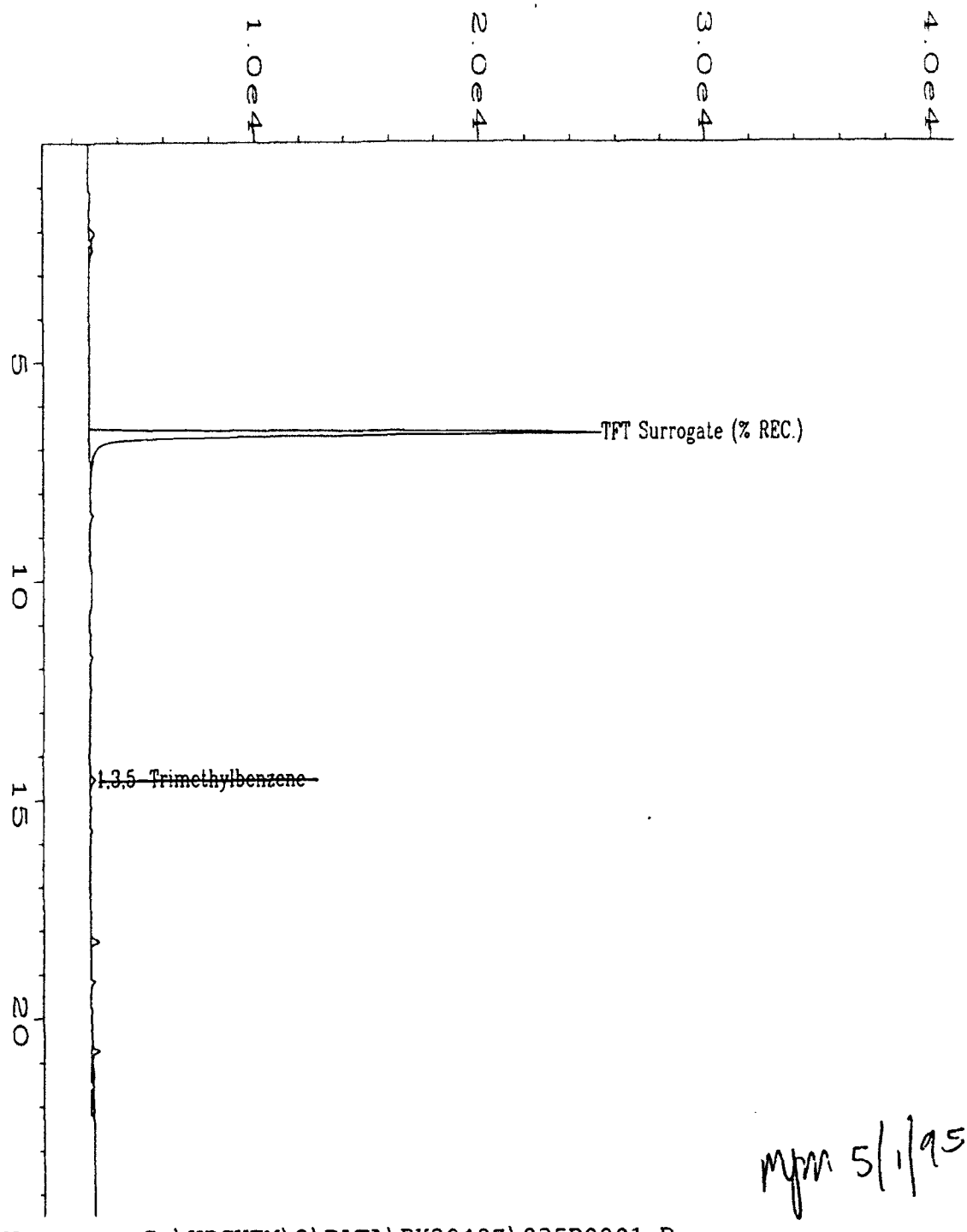
Surrogate Recovery (α,α,α-Trifluorotoluene):	79%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

Approved



mpm 5/1/95

Data File Name : C:\HPCHEM\2\DATA\BX20407\025R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04870;1;5
Bar Code Time:
Acquired on : 08 Apr 95 02:19 AM
Report Created on: 01 May 95 00:53 AM
Last Recalib on : 10 APR 95 07:26 AM
Multiplier : 1
Sample Info : Project#: 95-0983 Client#: Trip Blank Water

Page Number : 1
Vial Number : 25
Injection Number : 1
Sequence Line : 9
Instrument Method: BX20407.MTH
Analysis Method : BX20407B.MTH
Sample Amount : 0
ISTD Amount :

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BTEX Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS040595	Dilution Factor	: 1.00
Date Extracted/Prepared	: 4/5/95	Method	: 602
Date Analyzed	: 4/5/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX2040510

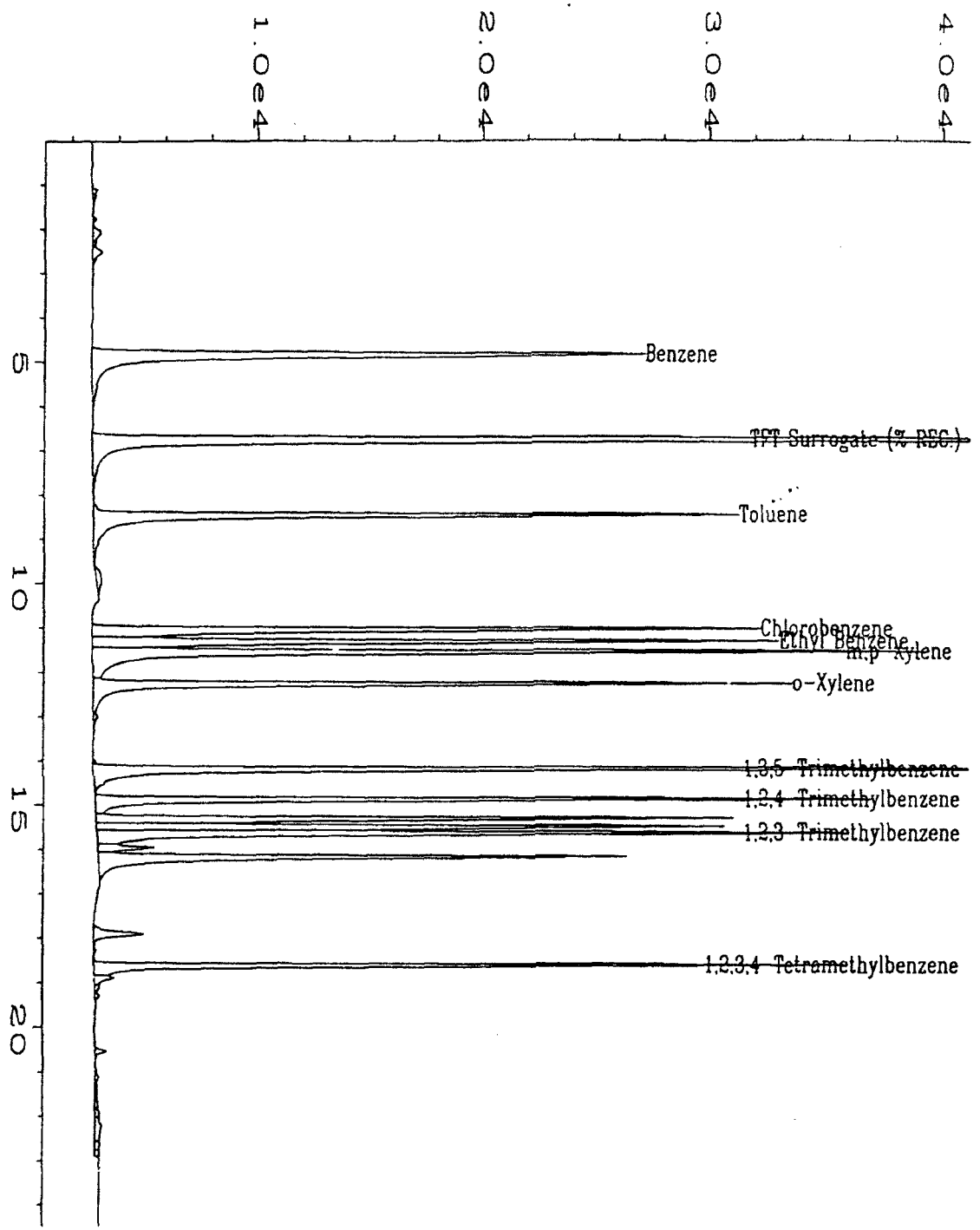
Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.8	79.0	71.0-119.0*
Toluene	108-88-3	16.2	81.0	73.0-111.0*
Chlorobenzene	108-90-7	16.3	81.5	64.0-119.0*
Ethyl Benzene	100-41-4	16.6	83.0	75.0-114.0*
m,p-Xylene	108-38-3	17.6	88.0	75.0-114.0*
o-Xylene	106-42-3 95-47-6	16.7	83.5	64.0-1 *
1,3,5-Trimethylbenzene	108-67-8	16.9	84.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.4	87.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.1	100.5	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.9	89.5	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		93%	70%-130% (QC limits)	

* = Limits established 4/3/95 KSC

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Cone
Analyst

Approved



ata File Name	: C:\HPCHEM\2\DATA\BX20405\010R0901.D		
perator	: SW Tyson	Page Number	: 1
strument	: BTEX2	Vial Number	: 10
mple Name	: LCS040595	Injection Number	: 1
in Time Bar Code:		Sequence Line	: 9
red on	: 05 Apr 95 05:07 PM	Instrument Method	: BX20405.MTH
port Created on	: 06 Apr 95 08:32 AM	Analysis Method	: BX20405.MTH
st Recalib on	: 06 APR 95 08:23 AM	Sample Amount	: 0
ltiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS040695	Dilution Factor	: 1.00
Date Extracted/Prepared	: 4/6/95	Method	: 602
Date Analyzed	: 4/6/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX2040610

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	16.8	84.0	71.0-119.0*
Toluene	108-88-3	16.5	82.5	73.0-111.0*
Chlorobenzene	108-90-7	17.5	87.5	64.0-119.0*
Ethyl Benzene	100-41-4	16.5	82.5	75.0-114.0*
m,p-Xylene	108-38-3	18.0	90.0	75.0-114.0*
o-Xylene	106-42-3 95-47-6	16.6	83.0	64.0-11
1,3,5-Trimethylbenzene	108-67-8	16.0	80.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.5	87.5	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	19.8	99.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.9	89.5	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		106%	70%-130% (QC limits)	

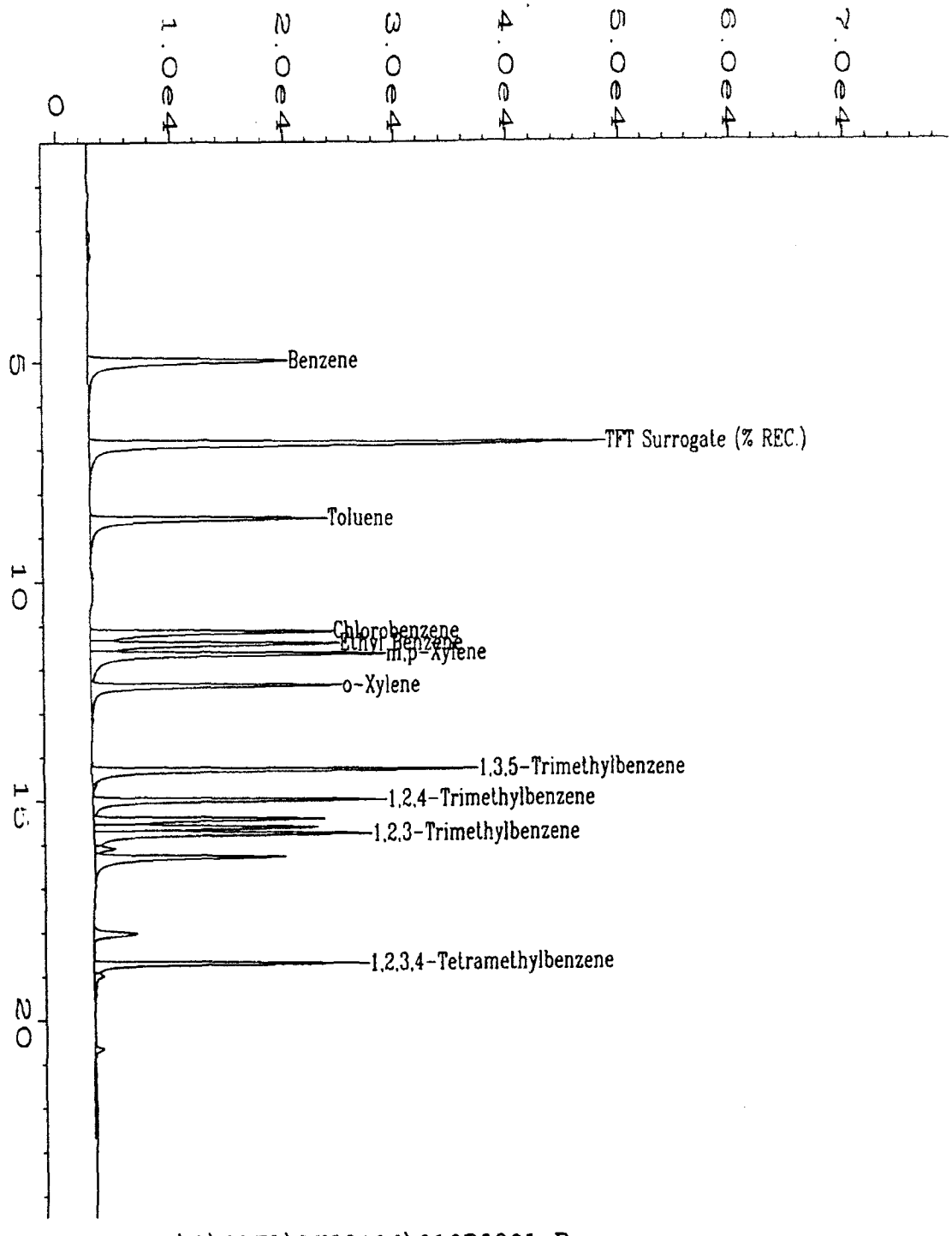
* = Limits established 4/3/95 KSC

QUALIFIERS:

E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Cone
Analyst

Approved



Data File Name : D:\2\DATA\BX20406\010R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : LCS040695
n Time Bar Code:
cquired on : 06 Apr 95 03:32 PM
Report Created on: 30 Apr 95 08:13 PM
Last Recalib on : 30 Apr 95 08:02 PM
Multiplier : 1

Page Number : 1
Vial Number : 10
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20406.MTH
Analysis Method : BX20 06B.MTH
Sample Amount : 0
ISTD Amount :

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS040795	Dilution Factor	: 1.00
Date Extracted/Prepared	: 4/7/95	Method	: 602
Date Analyzed	: 4/7/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX2040710

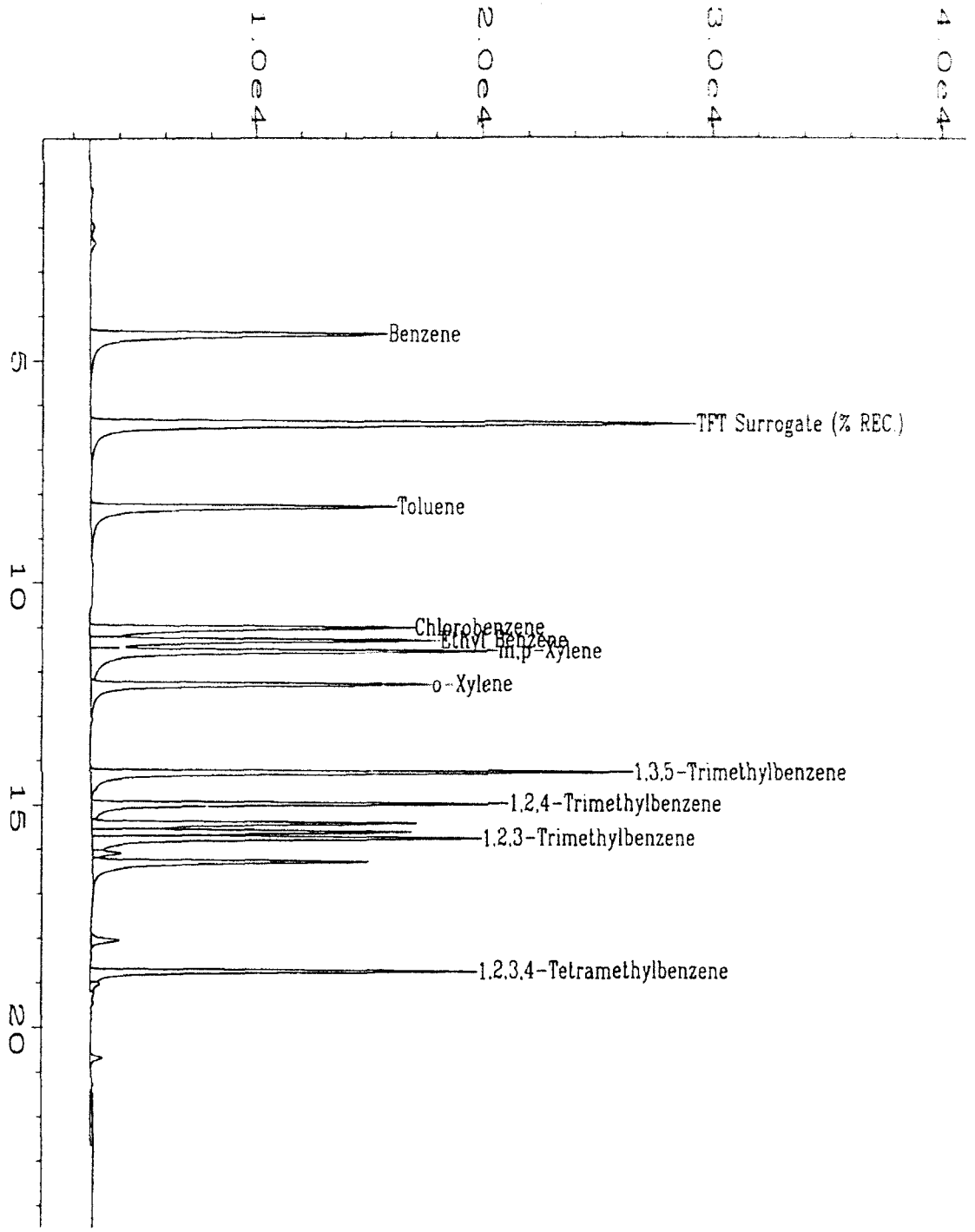
Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	16.7	83.5	71.0-119.0*
Toluene	108-88-3	16.4	82.0	73.0-111.0*
Chlorobenzene	108-90-7	18.1	90.5	64.0-119.0*
Ethyl Benzene	100-41-4	17.1	85.5	75.0-114.0*
m,p-Xylene	108-38-3	18.3	91.5	75.0-114.0*
o-Xylene	106-42-3 95-47-6	17.1	85.5	64.0-11
1,3,5-Trimethylbenzene	108-67-8	17.8	89.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.9	89.5	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.8	104.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	18.6	93.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		97%	70%-130% (QC limits)	

* = Limits established 4/3/95 KSC

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20407\010R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 10
Sample Name	: LCS040795	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 07 Apr 95 04:06 PM	Instrument Method	: BX20407.MTH
Report Created on	: 01 May 95 00:39 AM	Analysis Method	: BX20407B.MTH
Last Recalib on	: 10 APR 95 07:26 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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BTEX Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS040895	Dilution Factor	: 1.00
Date Extracted/Prepared	: 4/8/95	Method	: 602
Date Analyzed	: 4/8/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX2040811

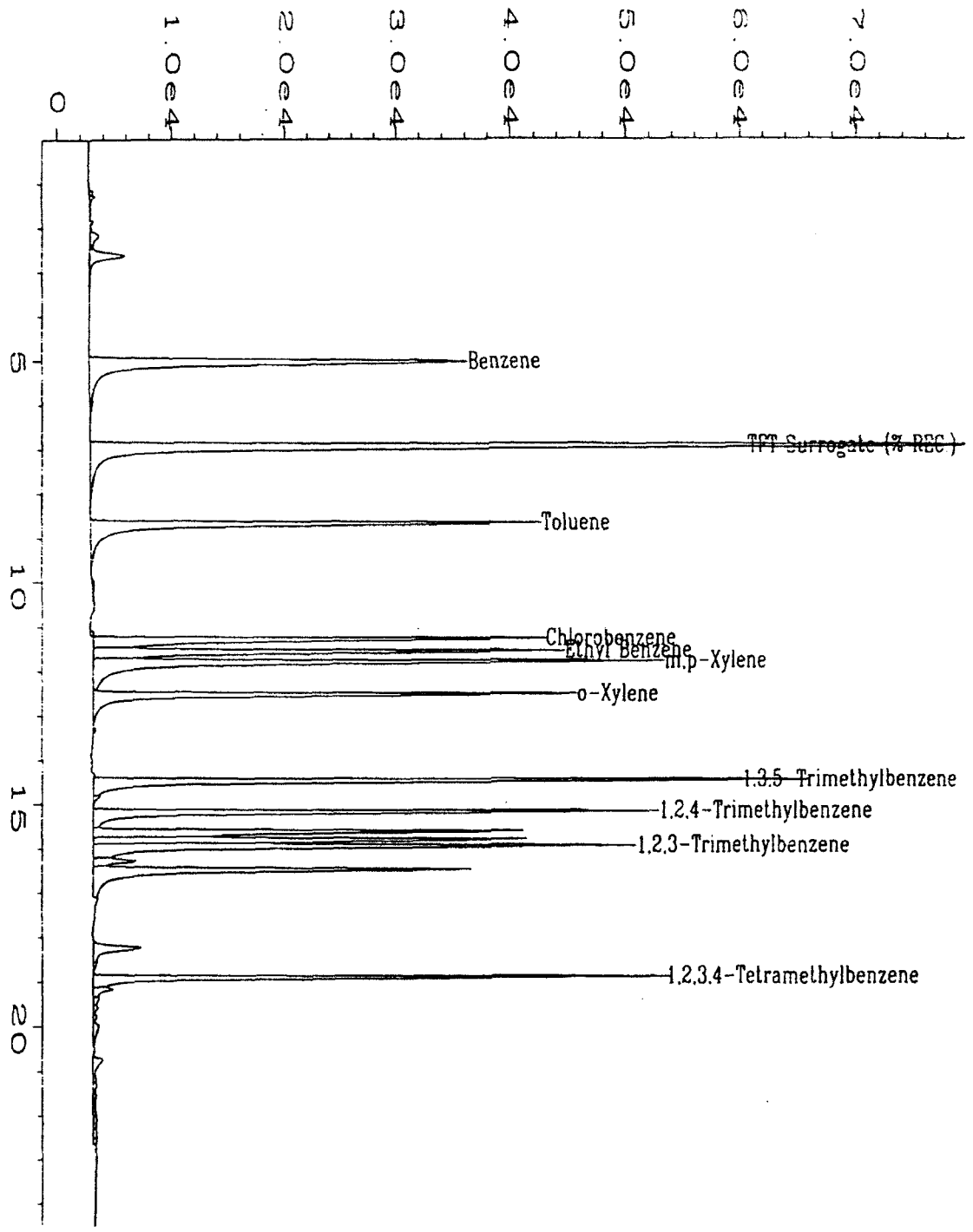
Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.9	79.5	71.0-119.0*
Toluene	108-88-3	16.4	82.0	73.0-111.0*
Chlorobenzene	108-90-7	15.9	79.5	64.0-119.0*
Ethyl Benzene	100-41-4	16.6	83.0	75.0-114.0*
m,p-Xylene	108-38-3	16.9	84.5	75.0-114.0*
o-Xylene	106-42-3 95-47-6	15.2	76.0	64.0-11[illegible]
1,3,5-Trimethylbenzene	108-67-8	16.2	81.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.9	89.5	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	21.7	108.5	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.6	88.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		98%	70%-130% (QC limits)	

* = Limits established 4/3/95 KSC

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20408\011R0901.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 11
Sample Name	: LCS040895	Injection Number	: 1
F Time Bar Code:		Sequence Line	: 9
Acquired on	: 08 Apr 95 04:54 PM	Instrument Method	: BX20408.MTH
Report Created on	: 09 Apr 95 02:25 PM	Analysis Method	: BX20408.MTH
Last Recalib on	: 09 Apr 95 02:21 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
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(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH-GASOLINE)

Date Sampled	: 3/24,26/95	Client Project Number	: 722450.21020
Date Received	: 3/28/95	Lab Project Number	: 95-0983
Date Prepared	: 4/3,7/95	Matrix	: Water
Date Analyzed	: 4/3,4,7,8/95	Method Number	: 5030/Mod.8015

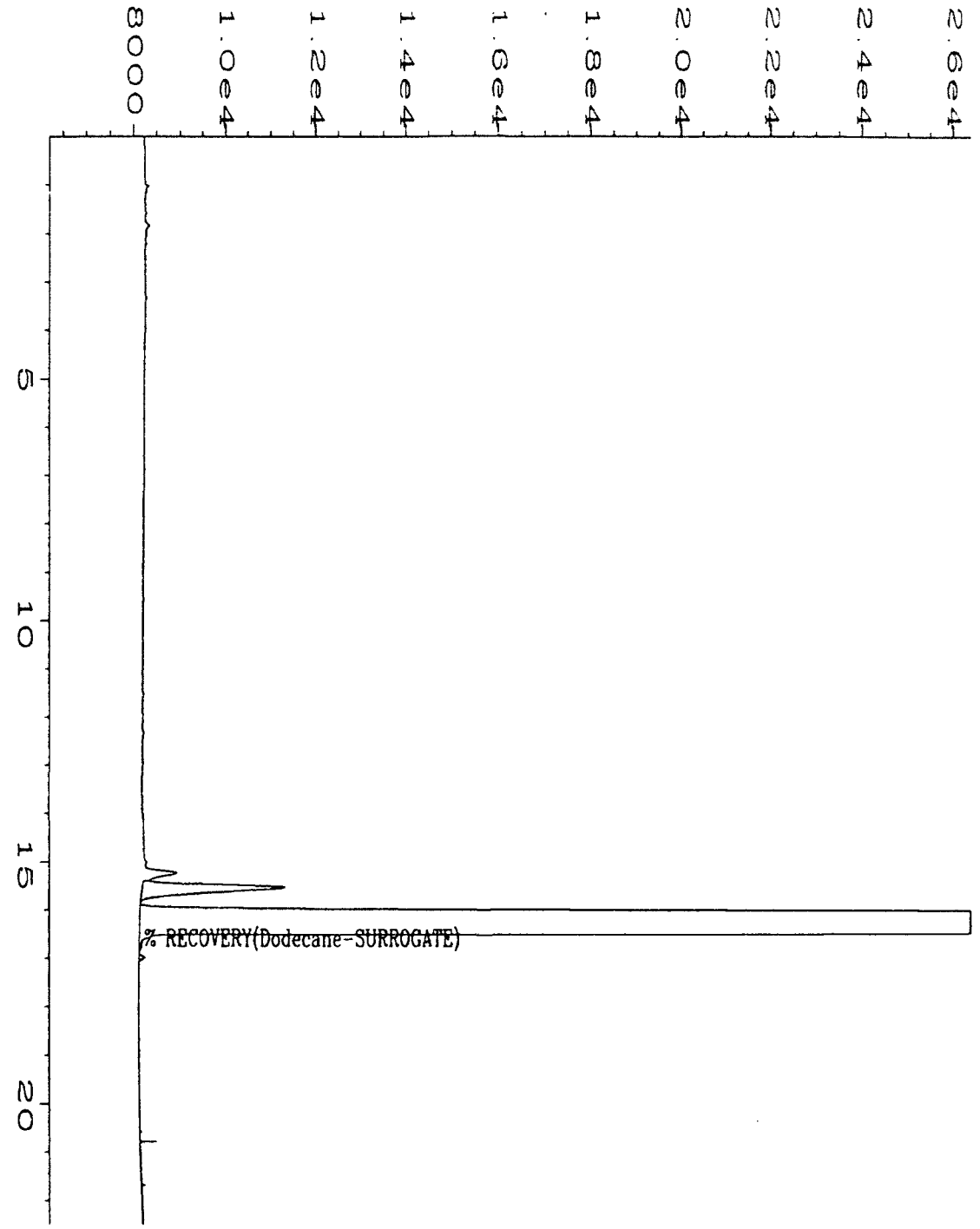
Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH mg/L	RL mg/L
MB040395	METHOD BLANK	100%	U	0.1
MB040895	METHOD BLANK	100%	U	0.1
MB041095	METHOD BLANK	100%	U	0.1
X04848	24 PZ-1S	98%	0.5	0.1
X04849	24 PZ-1D	99%	U	0.1
X04850	24 MP-6S	100%	U	0.1
X04851	MD32-3	96%	U	0.1
X04852	MW56-10	101%	1.0	0.1
X04853	56MP-6D	98%	U	0.1
X04854	56MP-6S	94%	U	0.1
X04854 DUP	56MP-6S	92%	U	0.1
X04855	MW56-1	90%	U	0.1
X04856	MW56-21	92%	U	0.1
X04857	56MP-8S	97%	U	0.1
X04858	56MP-10S	96%	U	0.1
X04859	MW56-2	92%	U	0.1
X04859 DUP	MW56-2	91%	U	0.1
X04860	MW56-8	91%	0.2	0.1

QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank.
E = Extrapolated value.
RL = Reporting Limit.

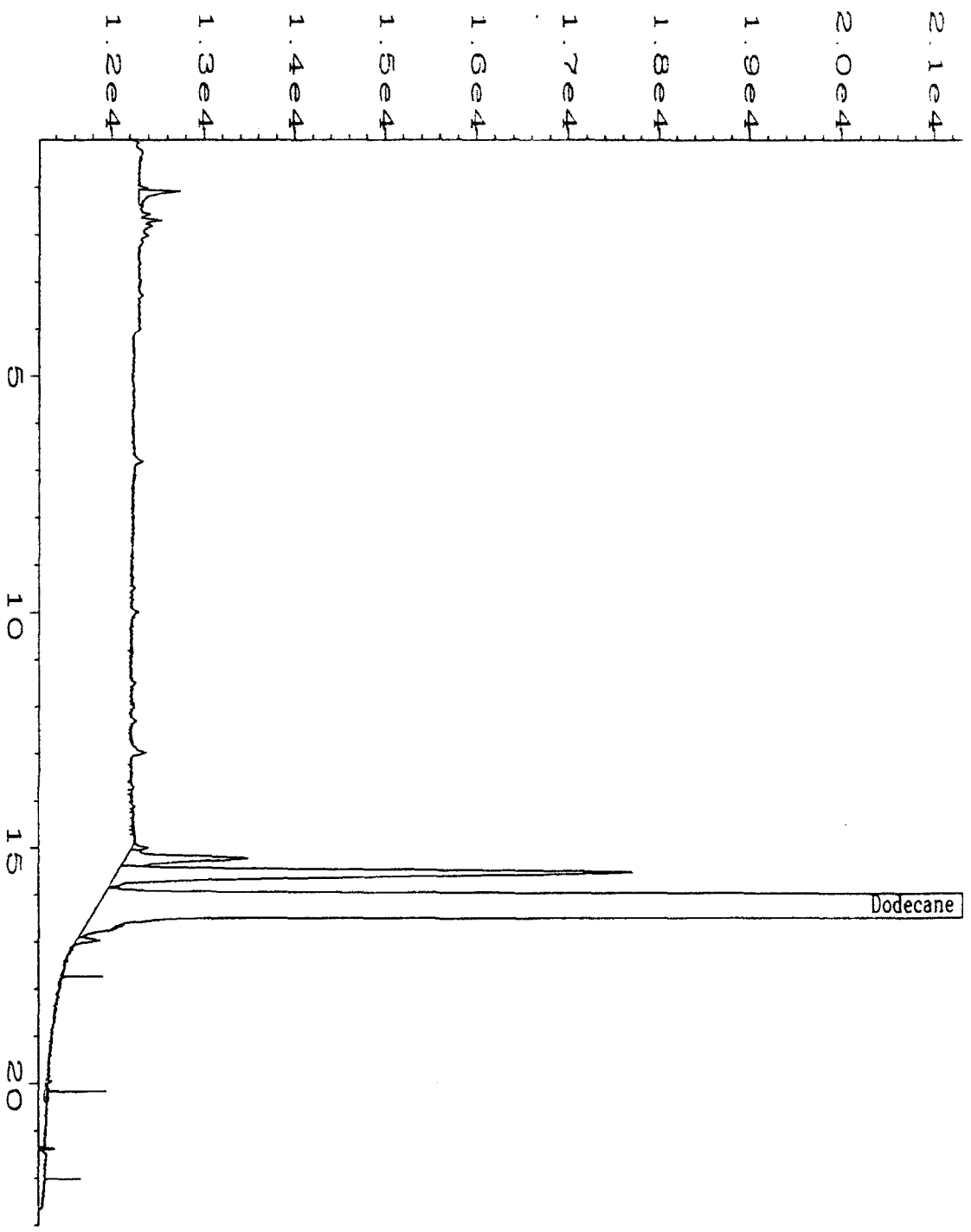
Analyst

Approved

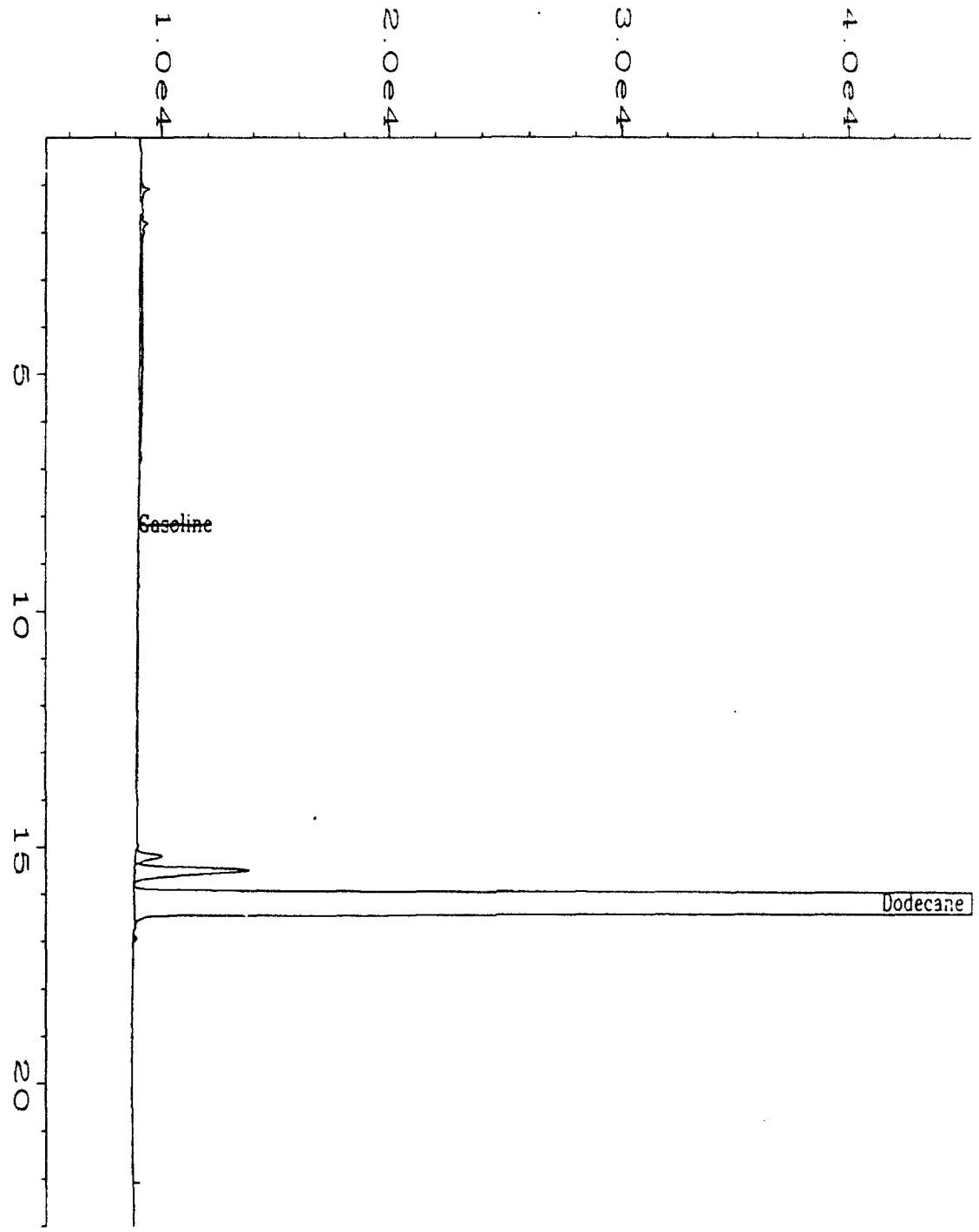
TVH0983.XLS



Data File Name	: C:\HPCHEM\1\DATA\TVH0402\050F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 50
Sample Name	: MB040395	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
quired on	: 03 Apr 95 08:52 PM	Instrument Method	: TVH0402.MTH
Report Created on	: 11 Apr 95 11:16 AM	Analysis Method	: TVH0402.MTH
Last Recalib on	: 02 APR 95 01:38 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

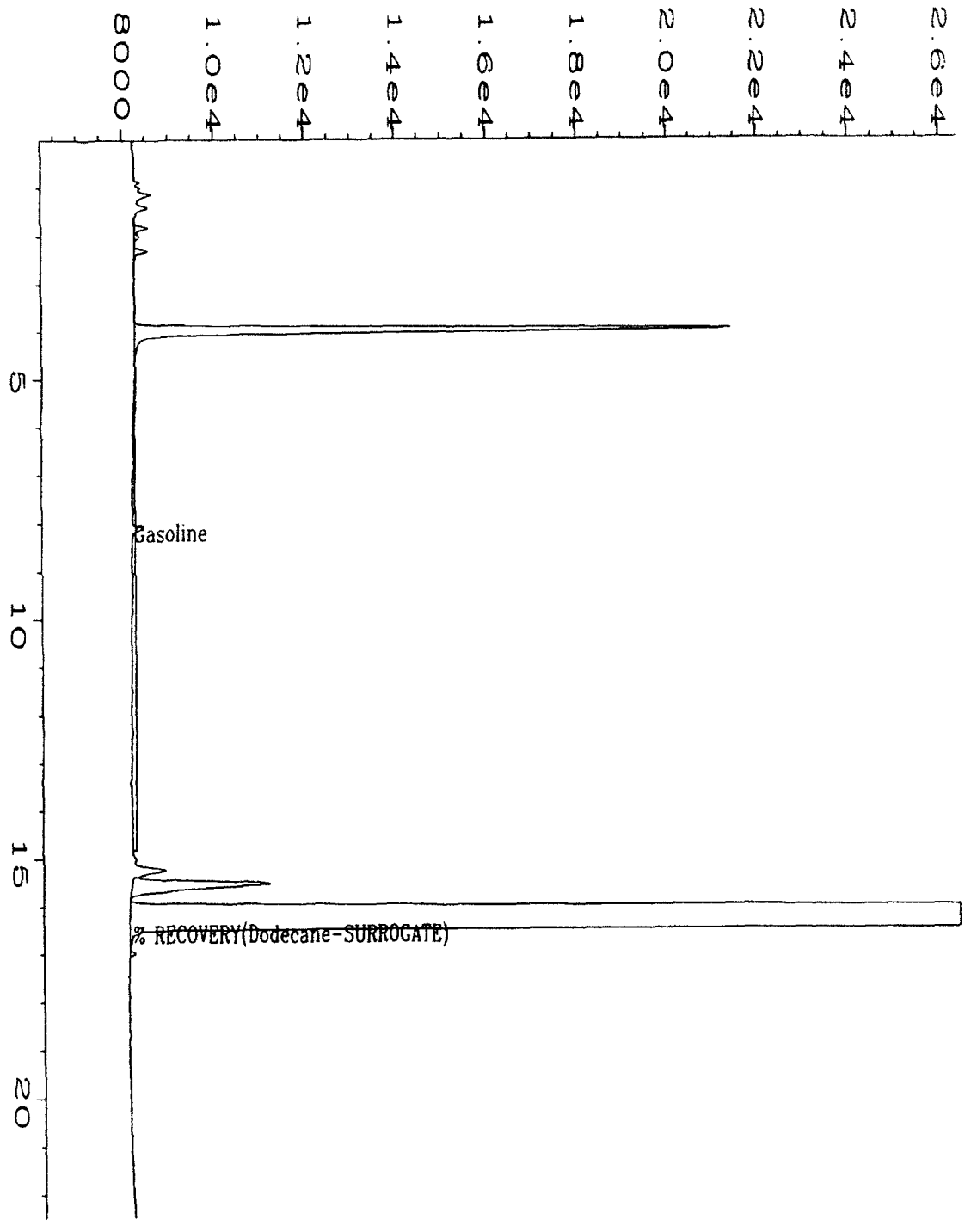


Data File Name	: C:\HPCHEM\1\DATA\tvh0408\009F0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TVH	Vial Number	: 9
Sample Name	: MB040895	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 07 Apr 95 04:47 PM	Instrument Method	: TVH1B? M
Report Created on	: 10 Apr 95 09:55 AM	Analysis Method	: TVH040?.MT
Last Recalib on	: 07 APR 95 04:22 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



Data File Name	: C:\HPCHEM\1\DATA\tvh0410\008F0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TVH	Vial Number	: 8
Sample Name	: MB041095	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 10 Apr 95 01:52 PM	Instrument Method	: TVH1BASE.MTH
Report Created on	: 10 Apr 95 03:05 PM	Analysis Method	: TVH0410.MTH
Last Recalib on	: 10 APR 95 01:08 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

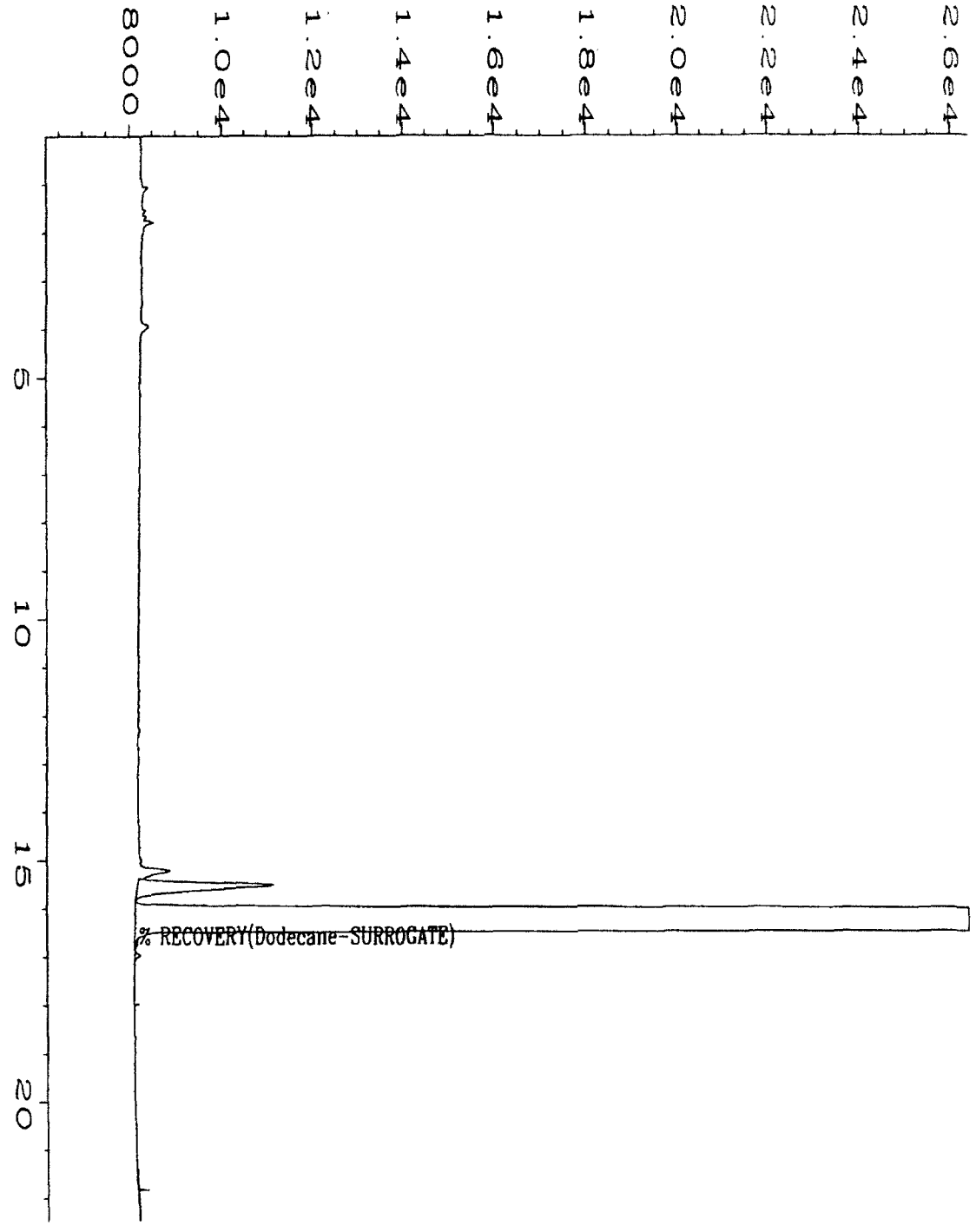
dnm 4/20/95



Data File Name : C:\HPCHEM\1\DATA\TVH0402\061F0801.D
Operator : S.W. Tyson
Instrument : TVH
Sample Name : X04848;1;5
Run Time Bar Code:
Acquired on : 04 Apr 95 03:05 AM
Report Created on: 11 Apr 95 11:14 AM
Last Recalib on : 02 APR 95 01:38 PM
Multiplier : 1

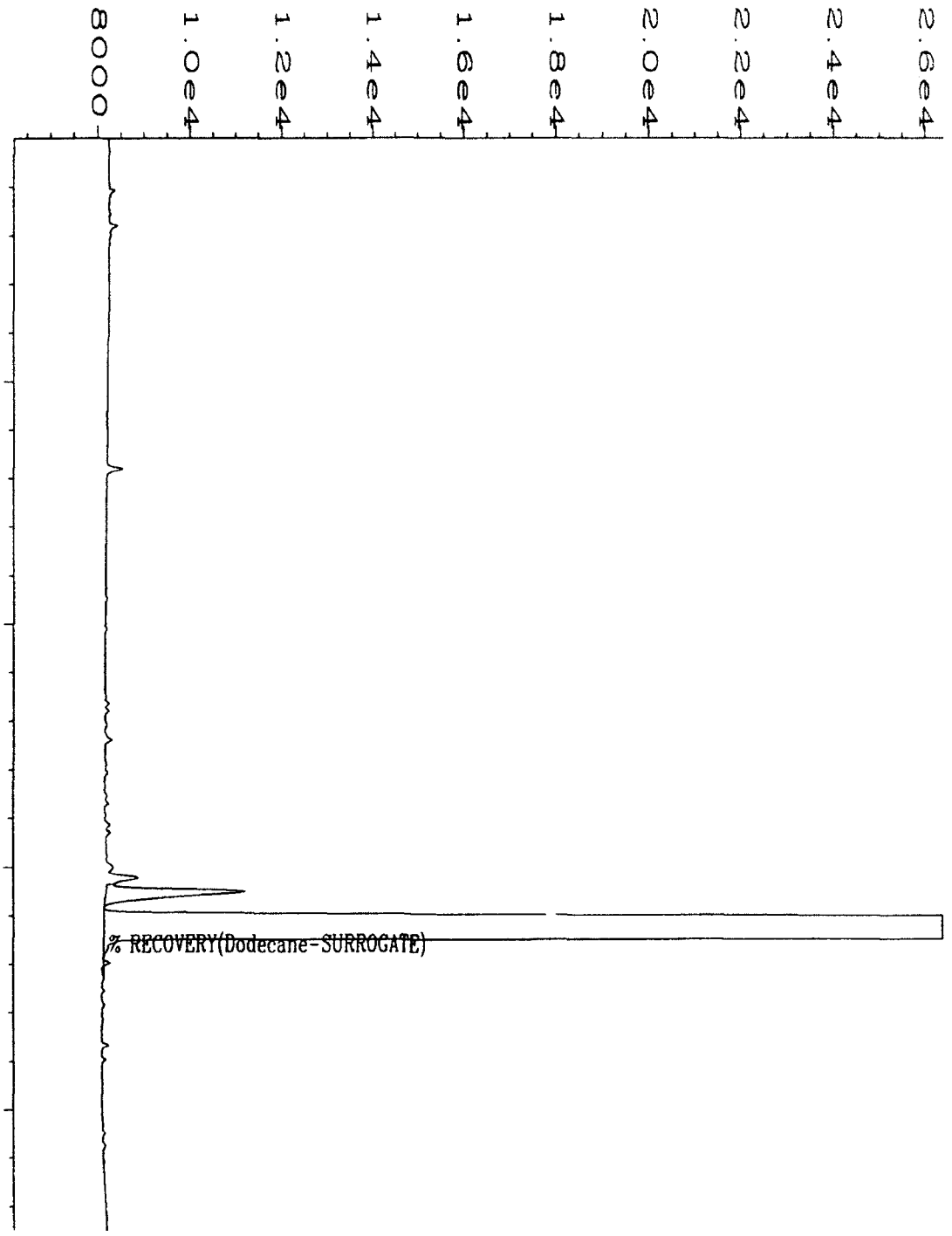
Page Number : 1
Vial Number : 61
Injection Number : 1
Sequence Line : 8
Instrument Method: TVH040 .T
Analysis Method : TVH0402.MT
Sample Amount : 0
ISTD Amount :

Client # 24 PZ-15



Data File Name	: C:\HPCHEM\1\DATA\TVH0402\062F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 62
Sample Name	: X04849;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 04 Apr 95 03:39 AM	Instrument Method	: TVH0402.MTH
Report Created on	: 11 Apr 95 11:14 AM	Analysis Method	: TVH0402.MTH
Last Recalib on	: 02 APR 95 01:38 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

24P2-1D



Data File Name : C:\HPCHEM\1\DATA\TVH0402\063F0801.D
Operator : S.W. Tyson
Instrument : TVH
Sample Name : X04850;1;5
Run Time Bar Code:
Acquired on : 04 Apr 95 04:13 AM
Report Created on: 11 Apr 95 11:15 AM
Last Recalib on : 02 APR 95 01:38 PM
Multiplier : 1

Page Number : 1
Vial Number : 63
Injection Number : 1
Sequence Line : 8
Instrument Method: TVH04 MT
Analysis Method : TVH0402.MT
Sample Amount : 0
ISTD Amount :

24MP-6S

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH)
Laboratory Control Sample (LCS)

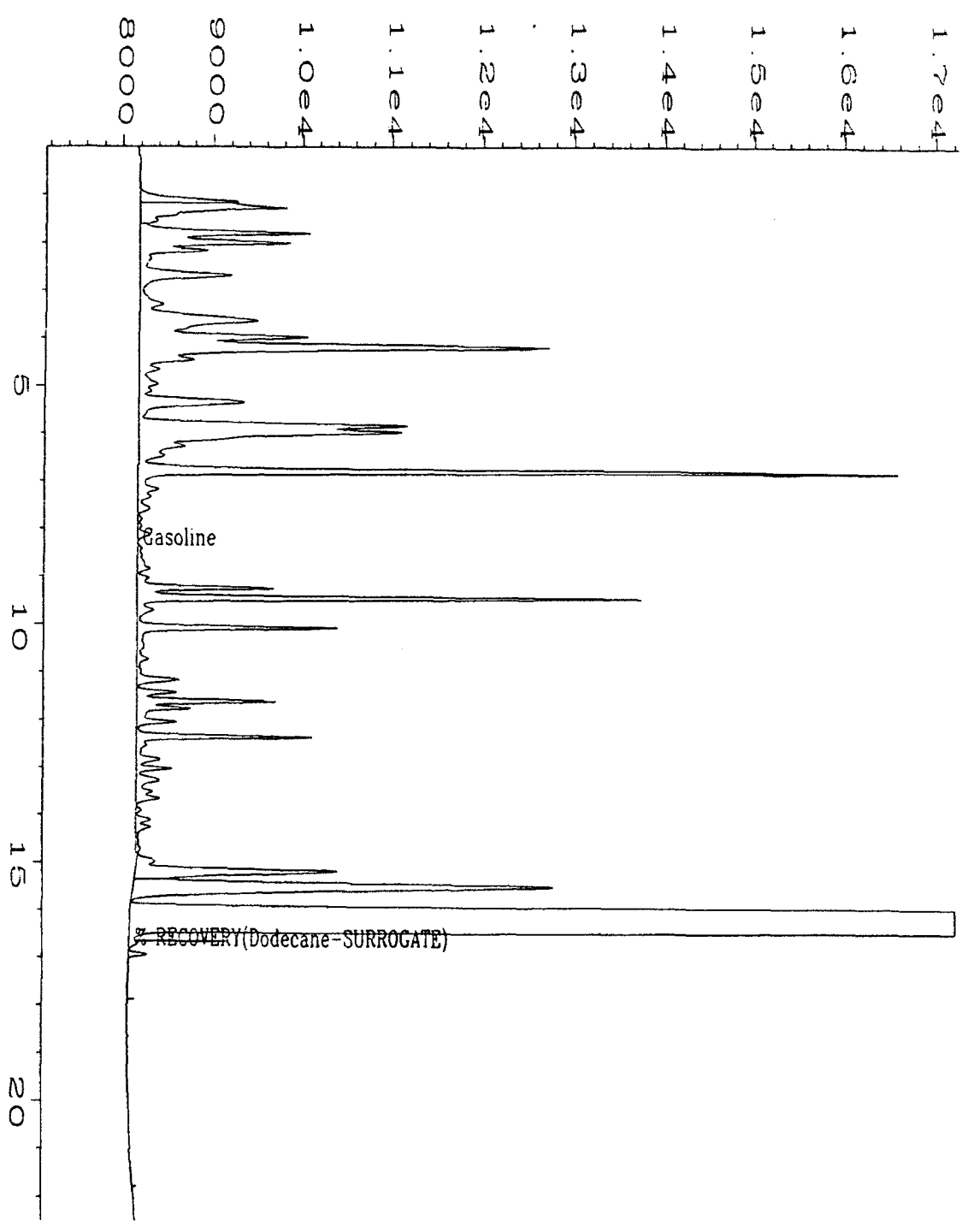
LCS Number	: LCS040295	Matrix	: WATER
Date Prepared	: 4/1/95	Method Number	: 5030/MOD.8015
Date Analyzed	: 4/2/95		
Sequence Number	: TVH8		

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	2.00	2.18	109%	70%-130%

QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

Approved



Data File Name	: C:\HPCHEM\1\DATA\TVH0402\008F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 8
Sample Name	: LCS040295	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 02 Apr 95 02:20 PM	Instrument Method	: TVH04(IT
Report Created on	: 11 Apr 95 11:18 AM	Analysis Method	: TVH0402.MT
Last Recalib on	: 02 APR 95 01:38 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH)
Laboratory Control Sample (LCS)

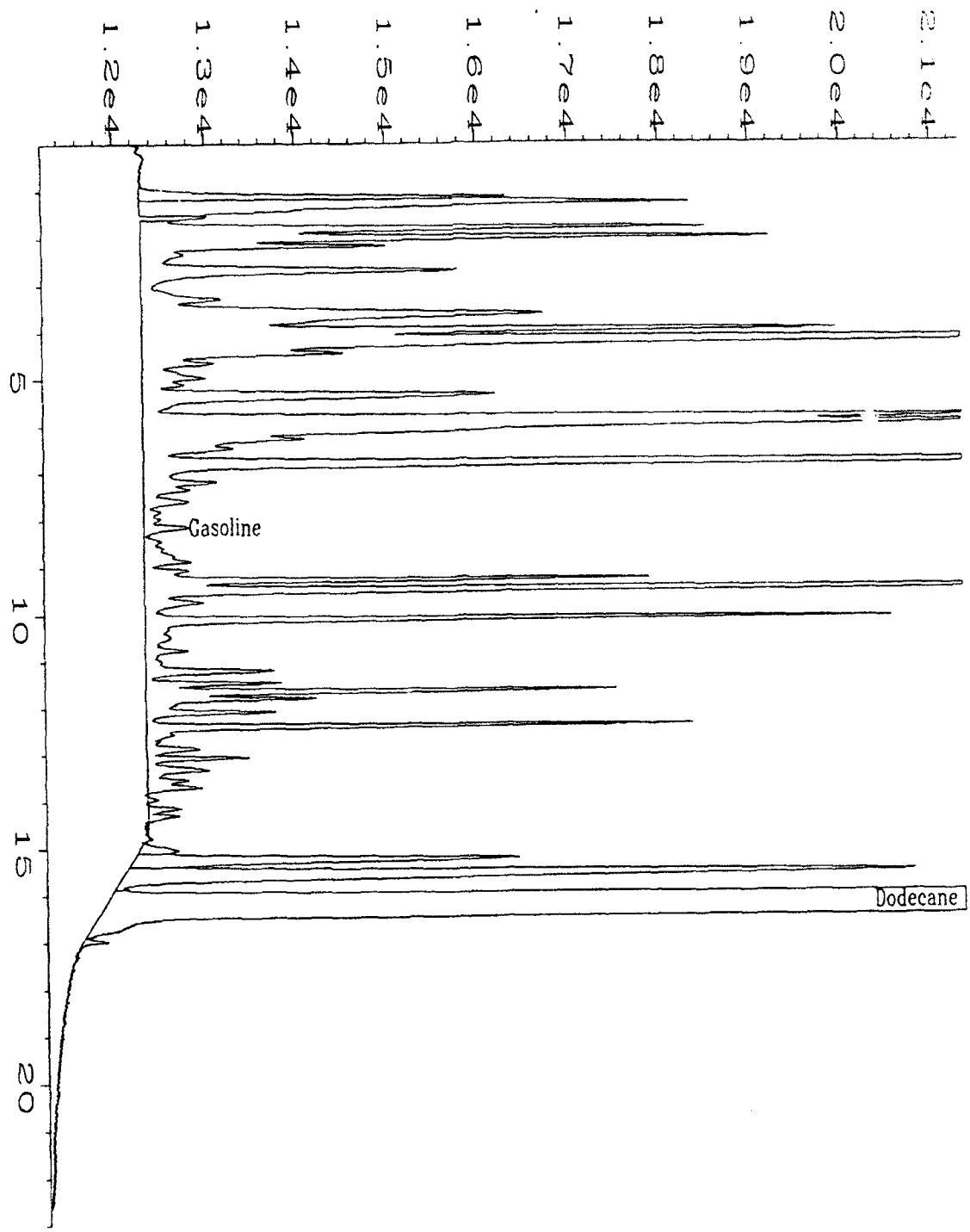
LCS Number	: LCS040895	Matrix	: WATER
Date Prepared	: 4/7/95	Method Number	: 5030/MOD.8015
Date Analyzed	: 4/7/95		
Sequence Number	: TVH8		

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	5.00	5.38	108%	70%-130%

QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

K. Core
Analyst

Approved



Data File Name : C:\HPCHEM\1\DATA\tvh0408\008F0101.D
Operator : Dawn N. Guildner
Instrument : TVH
Sample Name : LCS040895
Run Time Bar Code:
Acquired on : 07 Apr 95 04:11 PM
Report Created on: 10 Apr 95 09:54 AM
Last Recalib on : 07 APR 95 04:22 PM
Multiplier : 1

Page Number : 1
Vial Number : 8
Injection Number : 1
Sequence Line : 1
Instrument Method: TVH1B .M
Analysis Method : TVH0408.MT
Sample Amount : 0
ISTD Amount :

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(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH)
Laboratory Control Sample (LCS)

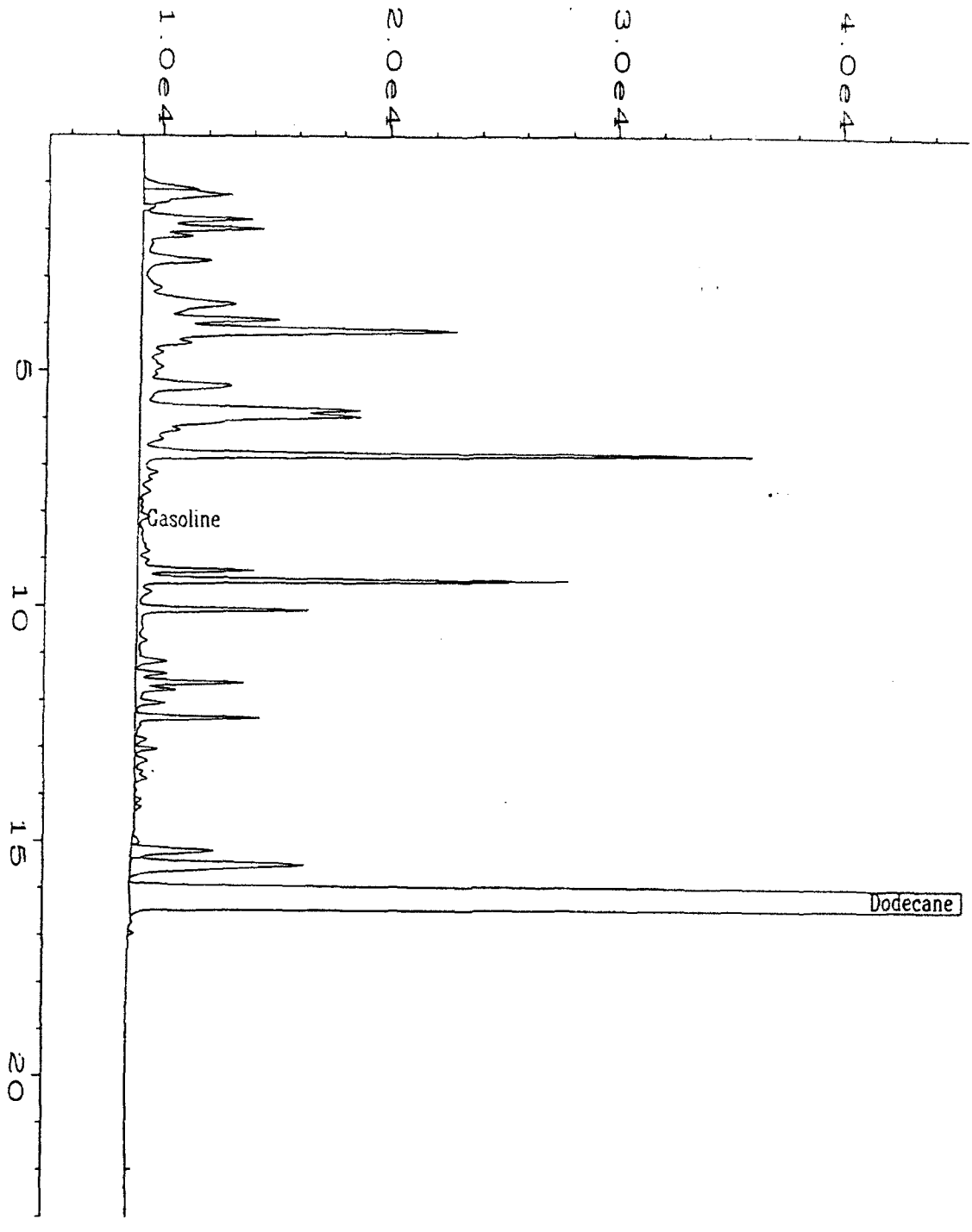
LCS Number	: LCS041095	Matrix	: WATER
Date Prepared	: 4/10/95	Method Number	: 5030/MOD.8015
Date Analyzed	: 4/10/95		
Sequence Number	: TVH7		

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	5.00	4.97	99%	70%-130%

QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

Approved



ata File Name : C:\HPCHEM\1\DATA\tvh0410\007F0101.D
perator : Dawn N. Guildner
nstrument : TVH
ample Name : LCS041095
un Time Bar Code:
cquired on : 10 Apr 95 01:17 PM
eport Created on: 10 Apr 95 03:04 PM
ast Recalib on : 10 APR 95 01:08 PM
ultiplier : 1

Page Number : 1
Vial Number : 7
Injection Number : 1
Sequence Line : 1
Instrument Method: TVH1BASE.
Analysis Method : TVH0410.MTH
Sample Amount : 0
ISTD Amount :

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled : 3/24,26/95
Date Received : 3/28/95
Date Prepared : 3/28/95
Date Analyzed : 3/28/95

Client Project ID. : 722450.21020/ MacDill AFB
Lab Project No. : 95-0983
Method : EPA 300.0
Detection Limit : 0.250 mg/L
Matrix : Water

Evergreen Sample #	Client Sample ID	Chloride (mg/L)
X04848	24PZ-1S	27.4
X04849	24PZ-1D	177
X04850	24MP-6S	42.6
X04851	MD32-3	32.8
X04852	MW56-10	11.5
X04853	56MP-6D	41.7
X04854	56MP-6S	27.5
X04855	MW56-1	28.3
X04856	MW56-21	27.8
X04857	56MP-8S	28.2
X04857dup	56MP-8Sdup	28.5
Method Blank 3-28-95		<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04857	56MP-8S Matrix Spike	10.0	28.2	39.1	110
X04857	56MP-8S Matrix Spike Dup	10.0	28.2	38.3	102
	MS/MSD RPD				7.56
X04857/X04857 Dup	RPD				9.76

Analyst

Approved

0983tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled	: 3/26,27/95	Client Project ID.	: 722450.21020/ MacDill AFB
Date Received	: 3/28/95	Lab Project No.	: 95-0983
Date Prepared	: 3/28/95	Method	: EPA 300.0
Date Analyzed	: 3/28/95	Detection Limit	: 0.250 mg/L
		Matrix	: Water

Evergreen Sample #	Client Sample ID	Chloride (mg/L)
X04858	56MP-10S	7.90
X04859	MW56-2	24.7
X04860	MW56-8	10.8
X04861	MW56-9	17.6
X04862	56MP-4S	15.3
X04863	MW56-12	147
X04864	MW56-6	21.5
X04865	56MP-5S	10.7
X04866	56MP-5D	16.9
X04867	56MP-15D	16.4
X04868	MW56-10	23.4
X04869	56MP-7D	24.1
X04869Dup	56MP-7D dup	24.0
Method Blank 3-28-95		<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04869	56MP-7D Matrix Spike	10.0	24.1	33.6	94.8
X04869	56MP-7D Matrix Spike Dup	10.0	24.1	34.6	105
	MS/MSD RPD				10.3
X04869/X04869 Dup	RPD				0.457

Analyst

Approved

0983tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled	: 3/24,26/95	Client Project ID.	: 722450.21020/ MacDill AFB
Date Received	: 3/28/95	Lab Project No.	: 95-0983
Date Prepared	: 3/28/95	Method	: EPA 300.0
Date Analyzed	: 3/28/95	Detection Limit	: 0.076 mg/L
		Matrix	: Water

Evergreen Sample #	Client Sample ID	Nitrite-N (mg/L)
X04848+	24PZ-1S	<0.076
X04849+	24PZ-1D	<0.760*
X04850+	24MP-6S	<0.076
X04851+	MD32-3	<0.076
X04852	MW56-10	<0.076
X04853	56MP-6D	<0.076
X04854	56MP-6S	<0.076
X04855	MW56-1	<0.076
X04856	MW56-21	<0.076
X04857	56MP-8S	<0.076
X04857dup	56MP-8Sdup	<0.076
Method Blank 3-28-95		<0.076

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04857	56MP-8S Matrix Spike	10.0	<0.250	9.40	94.0
X04857	56MP-8S Matrix Spike Dup	10.0	<0.250	9.13	91.3
	MS/MSD RPD				2.91
X04857/X04857 Dup	RPD				NC

* = Increased detection limit due to matrix interference.
** = Quality assurance results reported as Nitrite (NO_2)
NC = Not calculated because sample and/or duplication results below detection limit.
\+ = Samples received outside of holding times for this analyte.

Analyst

Approved

0983tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled	: 3/26,27/95	Client Project ID.	: 722450.21020/ MacDill AFB
Date Received	: 3/28/95	Lab Project No.	: 95-0983
Date Prepared	: 3/28/95	Method	: EPA 300.0
Date Analyzed	: 3/28/95	Detection Limit	: 0.076 mg/L
		Matrix	: Water

Evergreen Sample #	Client Sample ID	Nitrite-N (mg/L)
X04858	56MP-10S	<0.076
X04859	MW56-2	<0.076
X04860	MW56-8	<0.076
X04861	MW56-9	<0.076
X04862	56MP-4S	<0.076
X04863	MW56-12	<0.760*
X04864	MW56-6	<0.076
X04865	56MP-5S	<0.076
X04866	56MP-5D	<0.076
X04867	56MP-15D	<0.076
X04868	MW56-10	<0.076
X04869	56MP-7D	<0.076
X04869Dup	56MP-7D dup	<0.076
Method Blank 3-28-95		<0.076

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04869	56MP-7D Matrix Spike	10.0	<0.250	9.07	90.7
X04869	56MP-7D Matrix Spike Dup	10.0	<0.250	8.88	88.8
	MS/MSD RPD				2.01
X04869/X04869 Dup	RPD				NC

* = Increased detection limit due to matrix interference.
** = Quality assurance results reported as Nitrite (NO_2)
NC = Not calculated because sample and/or duplication results below detection limit.

Analyst

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0983tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled	: 3/24,26/95	Client Project ID.	: 722450.21020/ MacDill AFB
Date Received	: 3/28/95	Lab Project No.	: 95-0983
Date Prepared	: 3/28/95	Method	: EPA 300.0
Date Analyzed	: 3/28/95	Detection Limit	: 0.056 mg/L
		Matrix	: Water

Evergreen Sample #	Client Sample ID	Nitrate-N (mg/L)
X04848+	24PZ-1S	<0.056
X04849+	24PZ-1D	<0.056
X04850+	24MP-6S	<0.056
X04851+	MD32-3	<0.056
X04852	MW56-10	0.202
X04853	56MP-6D	<0.056
X04854	56MP-6S	<0.056
X04855	MW56-1	0.992
X04856	MW56-21	0.992
X04857	56MP-8S	<0.056
X04857dup	56MP-8Sdup	<0.056
Method Blank 3-28-95		<0.056

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04857	56MP-8S Matrix Spike	10.0	<0.250	9.21	92.1
X04857	56MP-8S Matrix Spike Dup	10.0	<0.250	8.92	89.2
	MS/MSD RPD				3.20
X04857/X04857 Dup	RPD				NC

** = Quality assurance results reported as Nitrate (NO_3)
NC = Not calculated because sample and/or duplication results below detection limit.
+ = Samples received outside of holding times for this analyte.

Analyst

Approved

0983tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled	: 3/26,27/95	Client Project ID.	: 722450.21020/ MacDill AFB
Date Received	: 3/28/95	Lab Project No.	: 95-0983
Date Prepared	: 3/28/95	Method	: EPA 300.0
Date Analyzed	: 3/28/95	Detection Limit	: 0.056 mg/L
		Matrix	: Water

Evergreen Sample #	Client Sample ID	Nitrate-N (mg/L)
X04858	56MP-10S	<0.056
X04859	MW56-2	<0.056
X04860	MW56-8	<0.056
X04861	MW56-9	0.608
X04862	56MP-4S	<0.056
X04863	MW56-12	0.394
X04864	MW56-6	<0.056
X04865	56MP-5S	0.080
X04866	56MP-5D	<0.056
X04867	56MP-15D	<0.056
X04868	MW56-10	<0.056
X04869	56MP-7D	<0.056
X04869Dup	56MP-7D dup	<0.056
Method Blank 3-28-95		<0.056

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04869	56MP-7D Matrix Spike	10.0	<0.250	8.75	87.5
X04869	56MP-7D Matrix Spike Dup	10.0	<0.250	8.73	87.3
	MS/MSD RPD				0.229
X04869/X04869 Dup	RPD				NC

** = Quality assurance results reported as Nitrate (NO_3)
NC = Not calculated because sample and/or duplication results below detection limit.

Analyst

Approved

0983cm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled	: 3/24,26/95	Client Project ID.	: 722450.21020/ MacDill AFB
Date Received	: 3/28/95	Lab Project No.	: 95-0983
Date Prepared	: 3/28/95	Method	: EPA 300.0
Date Analyzed	: 3/28/95	Detection Limit	: 0.250 mg/L
		Matrix	: Water

Evergreen Sample #	Client Sample ID	Sulfate (mg/L)
X04848	24PZ-1S	1.04
X04849	24PZ-1D	3.56
X04850	24MP-6S	8.12
X04851	MD32-3	99.2
X04852	MW56-10	17.8
X04853	56MP-6D	183
X04854	56MP-6S	67.3
X04855	MW56-1	80.0
X04856	MW56-21	79.4
X04857	56MP-8S	108
X04857dup	56MP-8Sdup	107
Method Blank 3-28-95		<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04857	56MP-8S Matrix Spike	10.0	108	20.4*	96.2
X04857	56MP-8S Matrix Spike Dup	10.0	108	20.0*	92.2
	MS/MSD RPD				4.25
X04857/X04857 Dup	RPD				0.344

* Spike result based on a 10x dilution factor.

Analyst

Approved

0983tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled : 3/26,27/95
Date Received : 3/28/95
Date Prepared : 3/28/95
Date Analyzed : 3/28/95

Client Project ID. : 722450.21020/ MacDill AFB
Lab Project No. : 95-0983
Method : EPA 300.0
Detection Limit : 0.250 mg/L
Matrix : Water

Evergreen Sample #	Client Sample ID	Sulfate (mg/L)
X04858	56MP-10S	4.61
X04859	MW56-2	46.3
X04860	MW56-8	29.7
X04861	MW56-9	58.7
X04862	56MP-4S	0.395
X04863	MW56-12	42.4
X04864	MW56-6	2.92
X04865	56MP-5S	1.21
X04866	56MP-5D	50.4
X04867	56MP-15D	52.9
X04868	MW56-10	68.6
X04869	56MP-7D	65.1
X04869Dup	56MP-7D dup	65.4
Method Blank 3-28-95		<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04869	56MP-7D Matrix Spike	10.0	65.1	75.4	102
X04869	56MP-7D Matrix Spike Dup	10.0	65.1	75.5	104
	MS/MSD RPD				1.36
X04869/X04869 Dup	RPD				0.368

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EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Miscellaneous Analyses

722450.21020

Date Sampled	: 3/24,26,27/95	Client Project ID.	: /MacDill AFB
Date Received	: 3/28/95	Lab Project No.	: 95-0983
Date Prepared	: 3/30/95	Detection Limit	: 5.00 $mgCaCO_3/L$
Date Analyzed	: 3/30/95	Method	: EPA 310.1

Evergreen Sample #	Client Sample ID	Matrix	Total Alkalinity ($mgCaCO_3/L$)
X04851	MD32-3	Water	149
X04851 Dup	MD32-3 Dup	Water	150
X04853	56MP-6D	Water	154
X04854	56MP-6S	Water	131
X04866	56MP-5D	Water	123
X04867	56-MP-15D	Water	121
X04868	MW56-10	Water	152
Method blank (3/30/95)			<5.00

Quality Assurance

	True Value ($mgCaCO_3/L$)	Result ($mgCaCO_3/L$)	% Recovery
APG Minerals Reference Lot 13862	11.8	10.5	89.0
X04851/X04851 Dup RPD			0.575

Analyst

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0983tm.4

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Total Organic Carbon

Date Sampled	: 3/24/95	Client Project ID.	: 722450.21020/ MacDill AFB
Date Received	: 3/28/95	Lab Project No.	: 95-0983
Date Prepared	: 3/31/95	Method	: EPA 415.1
Date Analyzed	: 3/31/95	Matrix	: Water
		Detection Limit	: 1.00 mg C/L

Evergreen Sample #	Client Sample ID	mg C/Liter
X04850	24MP-6S	30.1
X04851	MD32-3	8.55
95-1009		
X04936	56MP-3S	10.2
X04936 Dup	56MP-3S Dup	10.2
Method Blank (3/31/95)		<1.00

Quality Assurance

		Spike Amount (mg C/L)	Sample Result (mg C/L)	Spike Result (mg C/L)	% Recovery
95-1009					
X04936	Matrix Spike 56MP-3S	10.0	10.2	20.6	103
X04936	Matrix Spike Dup 56MP-3S	10.0	10.2	20.7	104
	MS/MSD RPD				1.15
X04936/X04936	RPD				0.098

Analyst

Approved

0983cm.10

External Standard Report

Data File Name : C:\HPCHEM\1\DATA\BX10413\012F0101.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X04862;250;0.02
Run Time Bar Code:
Acquired on : 13 Apr 95 06:57 PM
Report Created on: 13 Apr 95 07:24 PM
Last Recalib on : 13 APR 95 04:13 PM
Multiplier : 250
Sample Info : Project#: 95-0983 Client#: 56MP-4S Water

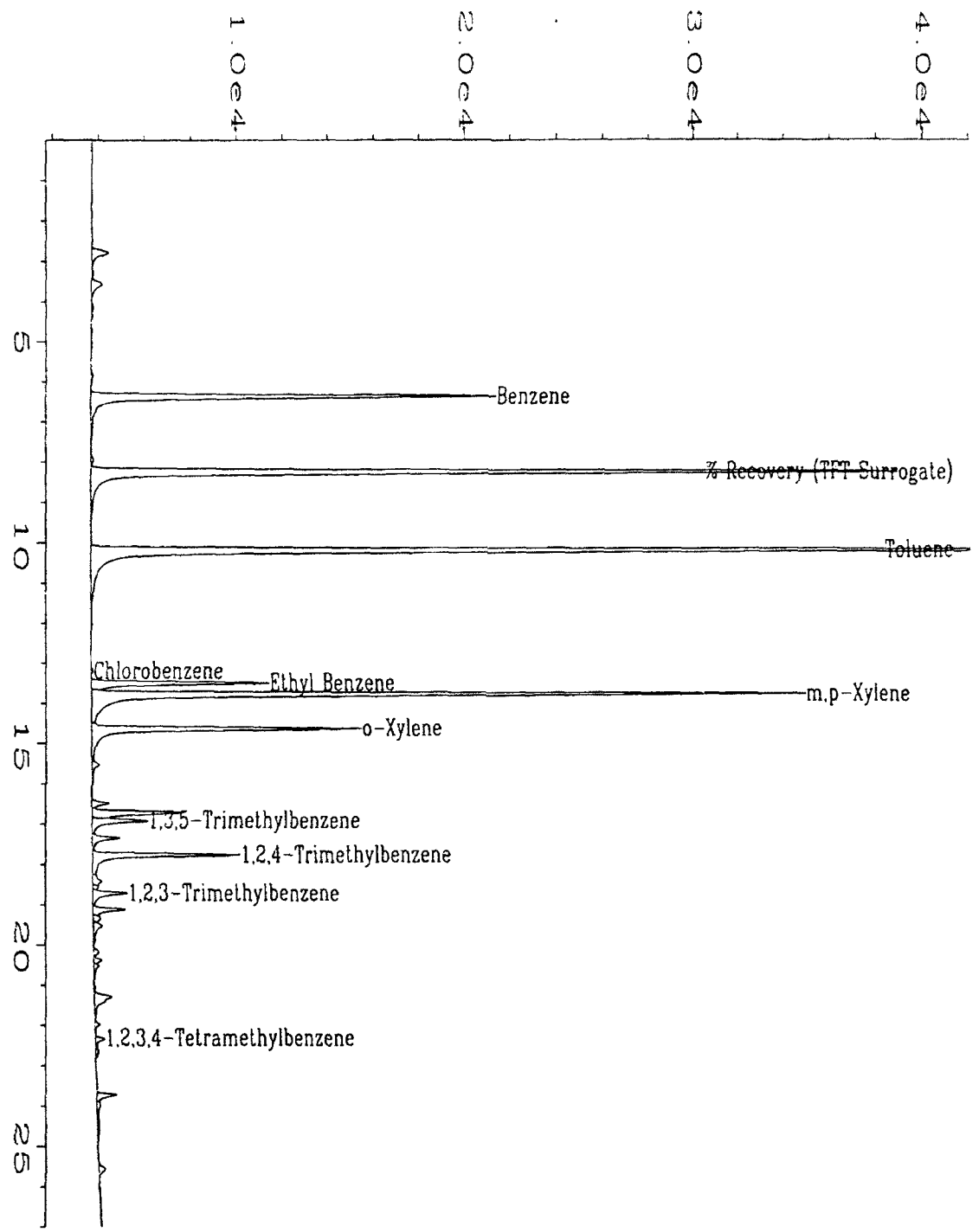
Page Number : 1
Vial Number : 12
Injection Number : 1
Sequence Line : 1
Instrument Method: BX10413A.MTH
Analysis Method : BX10413A.MTH
Sample Amount : 0
ISTD Amount :

Sig. 1 in C:\HPCHEM\1\DATA\BX10413\012F0101.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
6.362	120692	PV	0.104	1	3928.657	Benzene = 3929
8.244	238005	VV	0.104	1-R	19894.49	% Recovery (TFT Surrogate) = 80
10.177	327698	VV	0.096	1	11936.23	Toluene = 11936
13.184	614	PV	0.104	1	47.505	Chlorobenzene
13.485	44051	VV	0.087	1	1778.348	Ethyl Benzene = 1778
13.763	196208	VV	0.095	1	6512.699	m,p-Xylene = 6513
14.628	75627	VV	0.096	1	3061.683	o-Xylene = 3062
16.909	17557	VV	0.105	1	508.633	1,3,5-Trimethylbenzene
17.751	41320	VV	0.096	1	1743.240	1,2,4-Trimethylbenzene = 1743
18.699	10682	VV	0.105	1	376.462	1,2,3-Trimethylbenzene
22.317	3080	VV	0.111	1	14.252	1,2,3,4-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
2	8.262	8.244	-0.018

Part holder 4 Time
DF = 100
Dec 4/8/95



Data File Name	: C:\HPCHEM\1\DATA\BX10413\012F0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 12
Sample Name	: X04862;250;0.02	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 13 Apr 95 06:57 PM	Instrument Method	: BX1041 M
Report Created on	: 13 Apr 95 07:24 PM	Analysis Method	: BX1041 M
Last Recalib on	: 13 APR 95 04:13 PM	Sample Amount	: 0
Multiplier	: 250	ISTD Amount	:
Sample Info	: Project#: 95-0983 Client#: 56MP-4S Water		

External Standard Report

Data File Name : C:\HPCHEM\1\DATA\BX10413\013F0101.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X04864;250;0.02
Run Time Bar Code:
Acquired on : 13 Apr 95 07:36 PM
Report Created on: 13 Apr 95 08:04 PM
Last Recalib on : 13 APR 95 04:13 PM
Multiplier : 250
Sample Info : Project#: 95-0983 Client#: MW56-6 Water

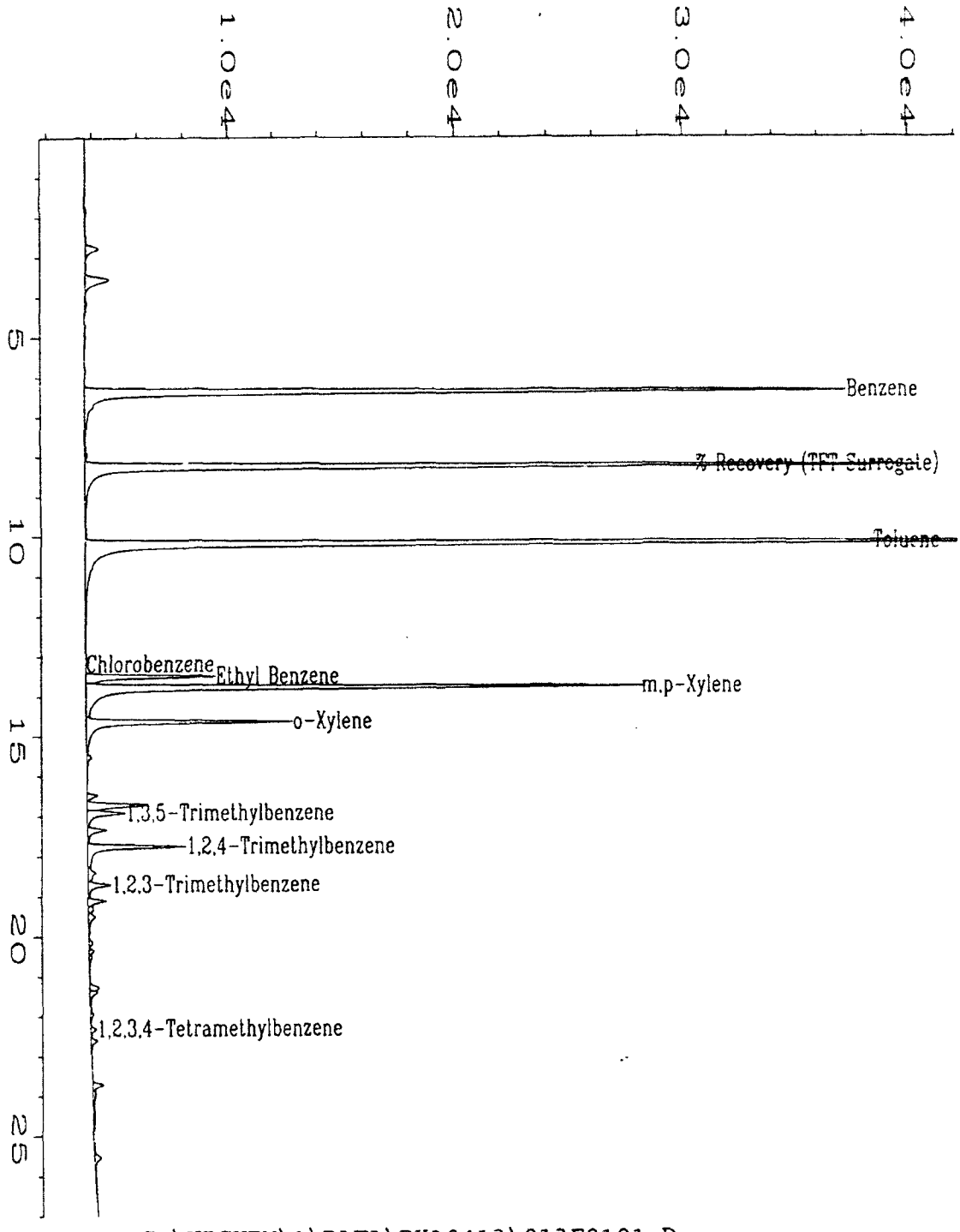
Page Number : 1
Vial Number : 13
Injection Number : 1
Sequence Line : 1
Instrument Method: BX10413A.MTH
Analysis Method : BX10413A.MTH
Sample Amount : 0
ISTD Amount :

Sig. 1 in C:\HPCHEM\1\DATA\BX10413\013F0101.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
6.357	229474	PV	0.105	1	7478.965	Benzene = 7479
8.242	250991	VV	0.105	1-R	20979.94	% Recovery (TFT Surrogate) = 84%
10.178	349156	VV	0.097	1	12722.18	Toluene = 12722
13.188	114	PV	0.101	1	28.655	Chlorobenzene
13.487	33203	VV	0.089	1	1332.292	Ethyl Benzene = 1332
13.765	154670	VV	0.095	1	5092.296	m,p-Xylene = 5092
14.630	60075	VV	0.098	1	2418.316	o-Xylene = 2418
16.913	12749	VV	0.110	1	344.942	1,3,5-Trimethylbenzene
17.753	29116	VV	0.099	1	1205.224	1,2,4-Trimethylbenzene = 1205
18.700	7388	VV	0.107	1	208.066	1,2,3-Trimethylbenzene
22.311	1739	VV	0.108	1	-65.020	1,2,3,4-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
2	8.262	8.242	-0.020

just bidding time
EPC



Data File Name	: C:\HPCHEM\1\DATA\BX10413\013F0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 13
Sample Name	: X04864;250;0.02	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 13 Apr 95 07:36 PM	Instrument Method	: BX1041[illegible]
Report Created on	: 13 Apr 95 08:04 PM	Analysis Method	: BX10413...[illegible]
Last Recalib on	: 13 APR 95 04:13 PM	Sample Amount	: 0
Multiplier	: 250	ISTD Amount	:
Sample Info	: Project#: 95-0983 Client#: MW56-6 Water		

Evergreen

CASE NARRATIVE

Evergreen Analytical Laboratory (EAL) Project #: 95-0954

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt

On March 24, 1995, 13 water samples, 7 soil samples and one trip blank were received at EAL in good condition with the following discrepancies: Sample bottles were not included for TOC analysis for MD42-1 and 24MP-5D. The instructions at the bottom of page 1 of the chain of custody request field blank analyses, however, a field blank was not included in the cooler.

Three sets of matrix spike and matrix spike duplicate samples were included for previous sample shipments. These aliquots had already been taken from extra sample volume, therefore, 24MP-6S, 74SS-4 and 56SS-2 MS/MSD samples were not analyzed. Todd Wiedemeier was notified by FAX on March 24, 1995.

The trip blank was analyzed for BTEX only per instructions from Leigh Benson on March 22, 1995.

Refer to the EAL Sample Log Sheet for specific Log-in information and cross-reference of EAL and PES sample identifications.

BTEX, Water and Soil Matrix, Methods SW8020 and 602

Sample 24MP-1S was analyzed at dilution factors of one and 100 due to the presence of analytes of interest in the sample. Both data sets are reported.

The Method Blank MB040495 was contaminated with chlorobenzene at 0.7 UG/L. Any affected data are flagged "B". There were no other quality control anomalies to report.

Total Volatile Hydrocarbon (TVH), Water and Soil Matrix, Method 8015M

There were no quality control anomalies to report.

Total Extractable Hydrocarbons (TEH) Soil Matrix, Method 8015M, Jet-A

There were no quality control anomalies to report. Please note however, that the sample chromatogram 24SS-2, indicates the presence of significant levels of hydrocarbons with a boiling range greater than Jet Fuel. Laboratory duplicate analysis confirms results which do not match jet fuel pattern.

General Chemistry

There were no quality control anomalies to report.

Patricia A. McClellan, Project Manager

Evergreen Analytical Sample Log Sheet

Project # 95-0954

Date(s) Sampled: 03/22-23,/95 COC

Date Due: 03/29/95-UST
0407/95-OTHERS

Date Received: 03/24/95 1000

Holding Time(s): 03/24,25-NO_2,NO_3
04/5-6-BTEX,TVH,TEH,ALKALINITY

Client Project I.D. 722450.21020/MACDILL AFB

Rush STANDARD

Client: Parsons Engineering Science, Inc.

Shipping Charges N/A

Address: 1700 Broadway Suite 900
Denver, CO 80290

E.A. Cooler # 606

Airbill # FEDEX 9581826446

Contact: TODD WIEDEMEIR

Custody Seal Intact? Y
Cooler X Bottles ___

Client P.O. 722450.21020

COC Present Y
Sample Tags Present? Y
Sample Tags Listed? Y
Sample(s) Sealed? Y

Phone #831-8100 **Fax #**831-8208

Special Instructions $PLUS CLOROBENZENE, TEMB & TMB. REPORT ALL SOILS ON A DRY WEIGHT BASIS. ANALYZE AN MS/MSD & LAB DUPLICATE FOR THIS CLIENT. SAMPLE DATES ON COC INCORRECT; 3/23 &3/24 SHOULD BE 3/22& 3/23 RESPECTIVELY. SAMPLES X04764-69 ARE ON HOLD UNLESS EXTRA SAMPLE VOLUME NECESSARY FOR MS/MSD. THESE ARE THE QC SAMPLES FOR PROJECT #95-0820, -0871 AND -0915.

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04750A/B	MD24-8	$BTEX 602	W	40V	#2
04751A/B	24MP-2D	$BTEX 602	W	40V	#2
X04752A/B	24MP-2S	$BTEX 602	W	40V	#2
X04753A/B	24MP-1D	$BTEX 602	W	40V	#2
X04754A/B	24MP-1S	$BTEX 602	W	40V	#2
X04755A/B	MD24-2	$BTEX 602	W	40V	#2
X04756A/B	MD24-5	$BTEX 602	W	40V	#2
X04757A/B	24MP-4S	$BTEX 602	W	40V	#2
X04758A/B	MD24-4	$BTEX 602	W	40V	#2
X04759A/B	MD24-41	$BTEX 602	W	40V	#2
X04760A/B	MD24-3	$BTEX 602	W	40V	#2
X04761A/B	MD24-1	$BTEX 602	W	40V	#2
X04762A/B	24MP-5D	$BTEX 602	W	40V	#2
X04770A/B	24SS-2	$BTEX 8020	S	4WM	#2
X04763	TRIP BLANK	$ BTEX,TVH	W	40V	#2
X04770E	24SS-2	TEPH 8015	S	4WM	CR1
X04750C/D	MD24-8	TVPH 8015	W	40V	#2

R=Sample to be returned

Route GC/MS ___ GC 3 Metals ___ Wet Chem 2 SxPrep 1 Acctg 1
To
SxRec C QA/QC C Sales C File Orig

Page 1 of 3 Page(s)

Custodian/Date: 3/23/95
Rec 3/27/95

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04751C/D	24MP-2D	TVPH 8015	W	40V	#2
X04752C/D	24MP-2S	TVPH 8015	W	40V	#2
X04753C/D	24MP-1D	TVPH 8015	W	40V	#2
X04754C/D	24MP-1S	TVPH 8015	W	40V	#2
X04755C/D	MD24-2	TVPH 8015	W	40V	#2
X04756C/D	MD24-5	TVPH 8015	W	40V	#2
X04757C/D	24MP-4S	TVPH 8015	W	40V	#2
X04758C/D	MD24-4	TVPH 8015	W	40V	#2
X04759C/D	MD24-41	TVPH 8015	W	40V	#2
X04760C/D	MD24-3	TVPH 8015	W	40V	#2
X04761C/D	MD24-1	TVPH 8015	W	40V	#2
X04762C/D	24MP-5D	TVPH 8015	W	40V	#2
X04770C/D	24SS-2	TVPH 8015	S	4WM	#2
X04750F	MD24-8	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04751E	24MP-2D	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04752E	24MP-2S	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04753E	24MP-1D	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04754E	24MP-1S	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04755E	MD24-2	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04756E	MD24-5	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04757E	24MP-4S	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04758E	MD24-4	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04759E	MD24-41	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04760E	MD24-3	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04761E	MD24-1	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04762E	24MP-5D	Cl^-, SO_4, NO_2, NO_3	W	125P	CR1
X04756F	MD24-5	TOC	W	125A	CR1
X04760F	MD24-3	TOC	W	125A	CR1
X04761F	MD24-1	TOC	W	125A	CR1
X04762F	24MP-5D	TOC	W	125A	CR1
X04750E	MD24-8	ALKALINITY	W	250P	CR1
X04764A/B	MAT.SP.24MP-6S	HOLD	S	4WM	#2
X04765A/B	MAT.SP.DUP.24MP-6S	HOLD	S	4WM	#2
X04766A/B	MAT.SP.75SS-4	HOLD	S	4WM	#2
X04767A/B	MAT.SP.DUP.75SS-4	HOLD	S	4WM	#2
X04768A/B	MAT.SP.56SS-2	HOLD	S	4WM	#2
X04769A/B	MAT.SP.DUP.56SS-2	HOLD	S	4WM	#2

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04764C/D	MAT.SP.24MP-6S	HOLD	S	4WM	#2
X04765C/D	MAT.SP.DUP.24MP-6S	HOLD	S	4WM	#2
X04766C/D	MAT.SP.75SS-4	HOLD	S	4WM	#2
X04767C/D	MAT.SP.DUP.75SS-4	HOLD	S	4WM	#2
X04768C/D	MAT.SP.56SS-2	HOLD	S	4WM	#2
X04769C/D	MAT.SP.DUP.56SS-2	HOLD	S	4WM	#2
X04764E	MAT.SP.24MP-6S	HOLD	S	4WM	CR1
X04765E	MAT.SP.DUP.24MP-6S	HOLD	S	4WM	CR1
X04766E	MAT.SP.75SS-4	HOLD	S	4WM	CR1
X04767E	MAT.SP.DUP.75SS-4	HOLD	S	4WM	CR1
X04768E	MAT.SP.56SS-2	HOLD	S	4WM	CR1
X04769E	MAT.SP.DUP.56SS-2	HOLD	S	4WM	CR1
X04764F	MAT.SP.24MP-6S	HOLD	S	2WM	CR1
X04765F	MAT.SP.DUP.24MP-6S	HOLD	S	2WM	CR1
X04766F	MAT.SP.75SS-4	HOLD	S	2WM	CR1
X04767F	MAT.SP.DUP.75SS-4	HOLD	S	2WM	CR1
X04768F	MAT.SP.56SS-2	HOLD	S	2WM	CR1
X04769F	MAT.SP.DUP.56SS-2	HOLD	S	2WM	CR1
X04764G	MAT.SP.24MP-6S	HOLD	S	125A	CR1
X04765G	MAT.SP.DUP.24MP-6S	HOLD	S	125A	CR1
X04766G	MAT.SP.75SS-4	HOLD	S	125A	CR1
X04767G	MAT.SP.DUP.75SS-4	HOLD	S	125A	CR1
X04768G	MAT.SP.56SS-2	HOLD	S	125A	CR1
X04769G	MAT.SP.DUP.56SS-2	HOLD	S	125A	CR1

Project # 95-0954

R=Sample to be returned

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons ES
ADDRESS 700 Broadway Ste 900
CITY Denver STATE CO ZIP 80290
PHONE# 831-3100 FAX # FAX RESULTS Y / N

CLIENT CONTACT (print) John Hicks
PROJECT I.D. McDill AFB
EAL. QUOTE # P.O.# 722450.21
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Mark Vassely
(print) Mark Vassely

Evergreen Analytical Cooler No.
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle) and TRPH	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline) 40V	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW946 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity 250P	Anions (Cl, SO4, NO3-NO2) Tcc 125P						EAL Sample No.
MD24-8	3/23/95	10:15	6	X										X	X	X				X	X					X04750
~~MD~~24MP-20	3/23/95	13:25	5	X										X	X	X					X					51
24MP-25	3/23/95	14:10	5	X										X	X	X					X					52
24MP-10	3/23/95	15:10	5	X										X	X	X					X					53
24MP-15	3/24/95	8:20	5	X										X	X	X					X					54
MD24-2	3/24/95	9:35	5	X										X	X	X					X					55
MD24-5	3/24/95	10:41	6	X										X	X	X					X	X				56
~~MD~~24MP-45	3/24/95	11:50	5	X										X	X	X					X					57
MD24-4	3/24/95	12:30	5	X										X	X	X					X					58
MD24-41	3/24/95	12:30	5	X										X	X	X					X					59
HT:																										Location 2,CR1
DD:																										Container Size

EAL use only
Do not write in shaded area

EAL Project # 0954
Custodian

Instructions: All Samples in Ice
Please Analyze Trip Blank and Field Blank for BTEX, TVH. Alkalinity, Anions, & Coground water → DATES 3/23 + 3/24 should be 3/22 and 3/23 respectively.

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons E.S.
ADDRESS 1700 Broadway, Suite 900
CITY Denver STATE CO ZIP 80290
PHONE# 303-831-8100 FAX # FAX RESULTS Y / N

CLIENT CONTACT (print) John Hicks
PROJECT I.D. MacDill AFB
EAL QUOTE # P.O.# 72245.0210
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Mark Vessely
(print) MARK VESSELY

Evergreen Analytical Cooler No.
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge(Ground) (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline) 40V	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Anions (Cl⁻, SO4²⁻, NO3⁻)	TOC	Alkalinity						EAL Sample No.
MD24-3	3/24/95	1400	6	X										X		X				X	X						X04760
MD24-1	3/24/95	1445	5	X										X		X				X	X						61
24MP-5D	3/24/95	1420	5	X										X		X				X	X						62
Trip Blank			1											X		X				X		X					63

HT:
DD:

Location 2, CR1
Container Size

Instructions: See Pg 1

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	3/25/95						

EAL use only
Do not write in shaded area

EAL Project # 0954
Custodian

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons ES
ADDRESS 1700 Broadway Ste 900
CITY Denver STATE CO ZIP ~~8029~~ 80290
PHONE# 831-8100 FAX # _____ FAX RESULTS Y / N

CLIENT CONTACT (print) J. Hicks
PROJECT I.D. McD. AFB
EAL. QUOTE # _____ P.O.# 722450.21020
TURNAROUND REQUIRED* _____
*expedited turnaround subject to additional fee

Sampler Name:
(signature) _____
(print) _____
Evergreen Analytical Cooler No. _____
Cooler Received _____

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen 4WM	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline) 4WM	TEPH 8015mod. (Diesel) 4WM	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Moisture 2 WM	TOC 2WM						EAL Sample No.
Matrix Spike 7555-4	3-22-95	0730	5		X									X		X	X			X	X					X04764
Matrix Spike Dup 7555-4	3-22-95	0730	5		X									X		X	X			X	X					65
Matrix Spike 7555-4	3-22-95	0900	5		X									X		X	X			X	X					66
Matrix Spike Dup 7555-4	3-22-95	0900	5		X									X		X	X			X	X					67
Matrix Spike 5655-2	3-22-95	0930	6		X									X		X	X			X	X					68
Matrix Spike Dup 5655-2	3-22-95	0930	6		X									X		X	X			X	X					69
2455-2	3-23-95	1300	4		X									X		X	X									70
HT:																										Location 2, CR1
DD:																										Container Size

EAL use only
Do not write in shaded area

EAL Project # 0954
Custodian _____

Instructions:

Date & Time Rec'd: 3/24/95 1700 Shipped Via: AAD Fed Ex 9958

(Airbill # if applicable) 958182464

Client : Parsons ES

Client Project ID(s): Mac Dill AFB

EAL Project #(s): 95-0954 EAL Cooler(s): (Y) N

Cooler#	6066								
Ice packs	(Y)	N	Y	N	Y	N	Y	N	Y	N
Temperature °C	cold								

	Y	N	N/A
1. Custody seal(s) present:	✓		
Seals on cooler intact	✓		✓
Seals on bottle intact			✓
2. Chain of Custody present:	✓		
3. Containers broken or leaking: (Comment on COC if Y)		✓	
4. Containers labeled:	✓		
5. COC agrees w/ bottles received: (Comment on COC if N)	✓		
6. COC agrees w/ labels: (Comment on COC if N)	✓		
7. Headspace in VOA vials-waters only (comment on COC if Y)			✓
8. VOA samples preserved:			✓
9. pH measured on metals, cyanide or phenolics*:			✓
List discrepancies			
*Non-EAL provided containers only, water samples only.			
10. Metal samples present:			✓
Total _____ , Dissolved _____			
D or PD to be filtered:			
T,TR,D,PD to be Preserved:			
11. Short holding times:		✓	
Specify parameters			
12. Multi-phase sample(s) present:		✓	
13. COC signed w/ date/time:	✓		

Comments: _____

(Additional comments on back)

Custodian Signature/Date: Lei Conner 3/24/95

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons ES
ADDRESS 1700 Broadway Ste 900
CITY Denver STATE CO ZIP 80290
PHONE # 831-8100 FAX # _____ FAX RESULTS Y / N

CLIENT CONTACT (print) John Hicks
PROJECT I.D. McClellan AFB
EAL QUOTE # _____ P.O. # 722450.2102
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Mark Vassely
(print) Mark Vassely

Evergreen Analytical Cooler No. _____
Cooler Received _____

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle) and TPH	MTBE (circle) and TPH	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity	Anions (Cl, SO_4^{-2}, NO_3^-, NO_2^-)	TOC	EAL Sample No.
MD24-3	3/23/95	10:15	6	X										X		X					X	X	X	
MD24MP-20	3/23/95	13:25	5	X										X		X						X		
24MP-25	3/23/95	14:10	5	X										X		X						X		
24MP-10	3/23/95	15:10	5	X										X		X						X		
24MP-15	3/24/95	8:20	5	X										X		X						X		
MD24-2	3/24/95	9:35	5	X										X		X						X		
MD24-5	3/24/95	10:40	6	X										X		X						X	X	
MD24MP-45	3/24/95	11:50	5	X										X		X						X		
MD24-4	3/24/95	12:20	5	X										X		X						X		
MD24-41	3/24/95	12:20	5	X										X		X						X		
HT:																								Location
DD:																								Container Size

EAL use only
Do not write in shaded area

EAL
Project # _____
Custodian _____

Instructions: All Samples in TCE
Please Analyze trip Blank and field Blank for BTEX, TVH, Alkalinity, Anions
- Groundwater → DATES 3/23 3/24 should be 3/22 and 3/23 respectively

Relinquished by (signature) | Date/Time | Received by (Signature) | Date/Time | Relinquished by (Signature) | Date/Time | Received by (Signature) | Date/Time

CHAIN OF CUSTODY RECORD ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons E.S.
ADDRESS 1700 Broadway, Suite 900
CITY Denver STATE CO ZIP 80290
PHONE# 303-831-8100 FAX # FAX RESULTS Y / N

CLIENT CONTACT (print) John Hicks
PROJECT I.D. MacDill AFB
EAL. QUOTE # P.O.# 722450.210
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Mark Vessely
(print) MARK VESSELY

Evergreen Analytical Cooler No.
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/(Ground) (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Anions (Cl⁻, SO4²⁻, NO3⁻)	Toc	Alkalinity					EAL Sample No.
MW24-3	3/24/95	1400	6	X										X		X				X	X					
MW24-1	3/24/95	1445	5	X										X		X				X	X					
24MP-50	3/24/95	1420	5	X										X		X				X	X					
Temp Blank			1											X		X				X		X				
HT:																									Location	
DD:																									Container Size	

EAL use only
Do not write in shaded area

EAL
Project #
Custodian

Instructions: See Pg 1

Relinquished by (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons ES
ADDRESS 1700 Broadway Ste 900
CITY Denver STATE CO ZIP ~~80202~~ 80290
PHONE# 831-8100 FAX # FAX RESULTS Y / N

CLIENT CONTACT (print) J. Hicks
PROJECT I.D. Mather AFB
EAL QUOTE # P.O.# 722450.21020
TURNAROUND REQUIRED*
*expedited turnaround subject to additional fee

Sampler Name:
(signature)
(print)
Evergreen Analytical Cooler No.
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Moisture	TOC	EAL use only Do not write in shaded area: EAL Sample No.
Matrix Spike 2455-2	3-22-95	0730	5		X									X		X	X			X	X	
Matrix Spike Dup 2455-2	3-22-95	0730	5		X									X		X	X			X	X	
Matrix Spike 7558-4	3-22-95	0900	5		X									X		X	X			X	X	
Matrix Spike Dup 7558-4	3-22-95	0900	5		X									X		X	X			X	X	
Matrix Spike 2455-2	3-22-95	0930	6		X									X		X	X			X	X	
Matrix Spike Dup 2455-2	3-22-95	0930	6		X									X		X	X			X	X	
2455-2	3-23-95	1300	4		X									X		X	X					
HT:																						Location
DD:																						Container Size

EAL Project #
Custodian

Instructions:

Relinquished by (Signature) | Date/Time | Received by (Signature) | Date/Time | Relinquished by (Signature) | Date/Time | Received by (Signature) | Date/Time

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report
Method Blank Report

Method Blank Number	: MB040395	Client Project No.	: 722450.21020
Date Prepared	: 4/3/95	Lab Project No.	: 95-0954
Date Analyzed	: 4/3/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX2040318

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4

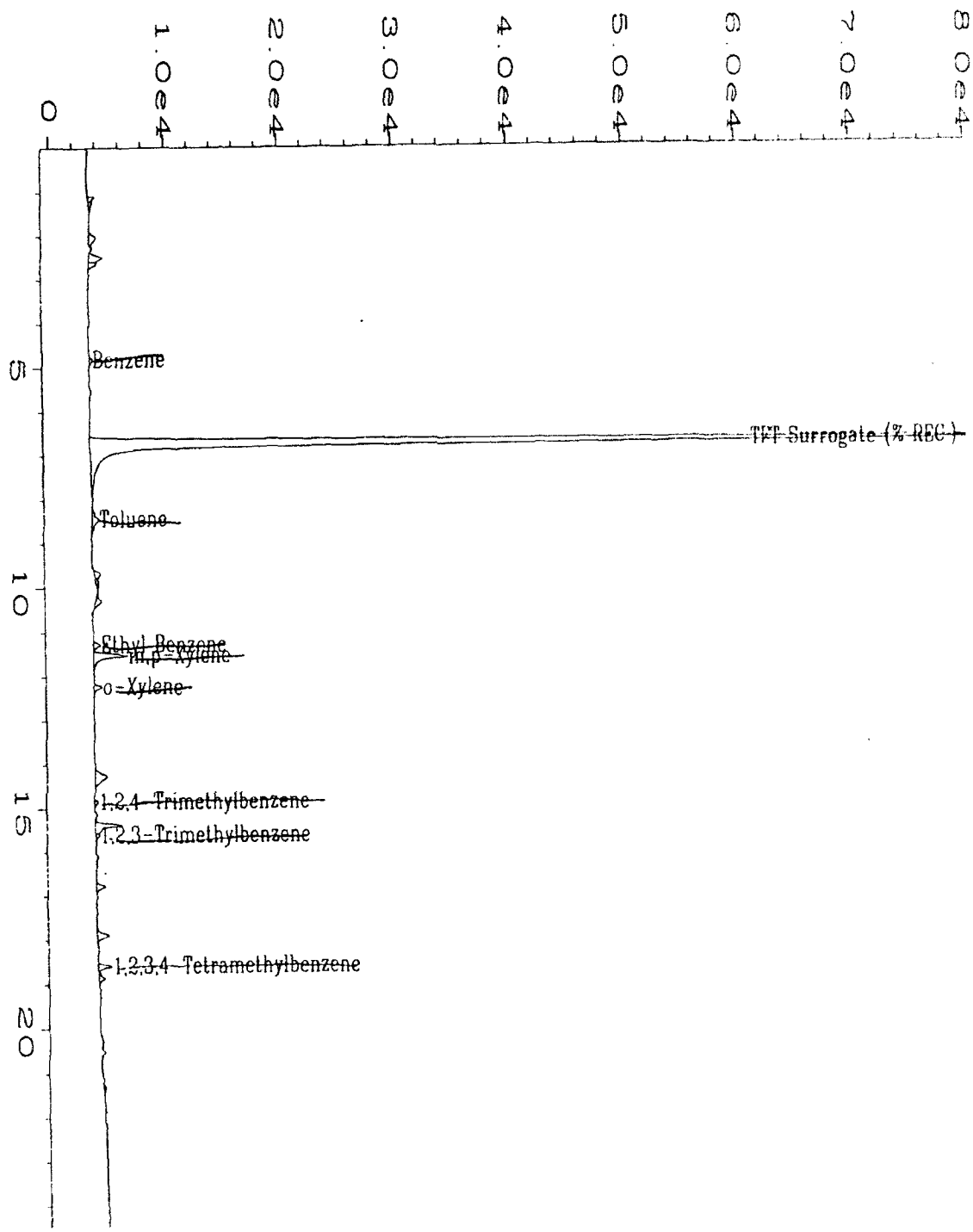
Surrogate Recovery (α,α,α-Trifluorotoluene):	99%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20403\018R0701.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 18
Sample Name	: MB040395	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 03 Apr 95 02:56 PM	Instrument Method	: BX2040 TI
Report Created on	: 10 Apr 95 04:41 PM	Analysis Method	: BX2040 T
Last Recalib on	: 10 APR 95 04:19 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report
Method Blank Report

Method Blank Number	: MB040495	Client Project No.	: 722450.21020
Date Prepared	: 4/4/95	Lab Project No.	: 95-0954
Date Analyzed	: 4/4/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX2040409

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	0.7		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4

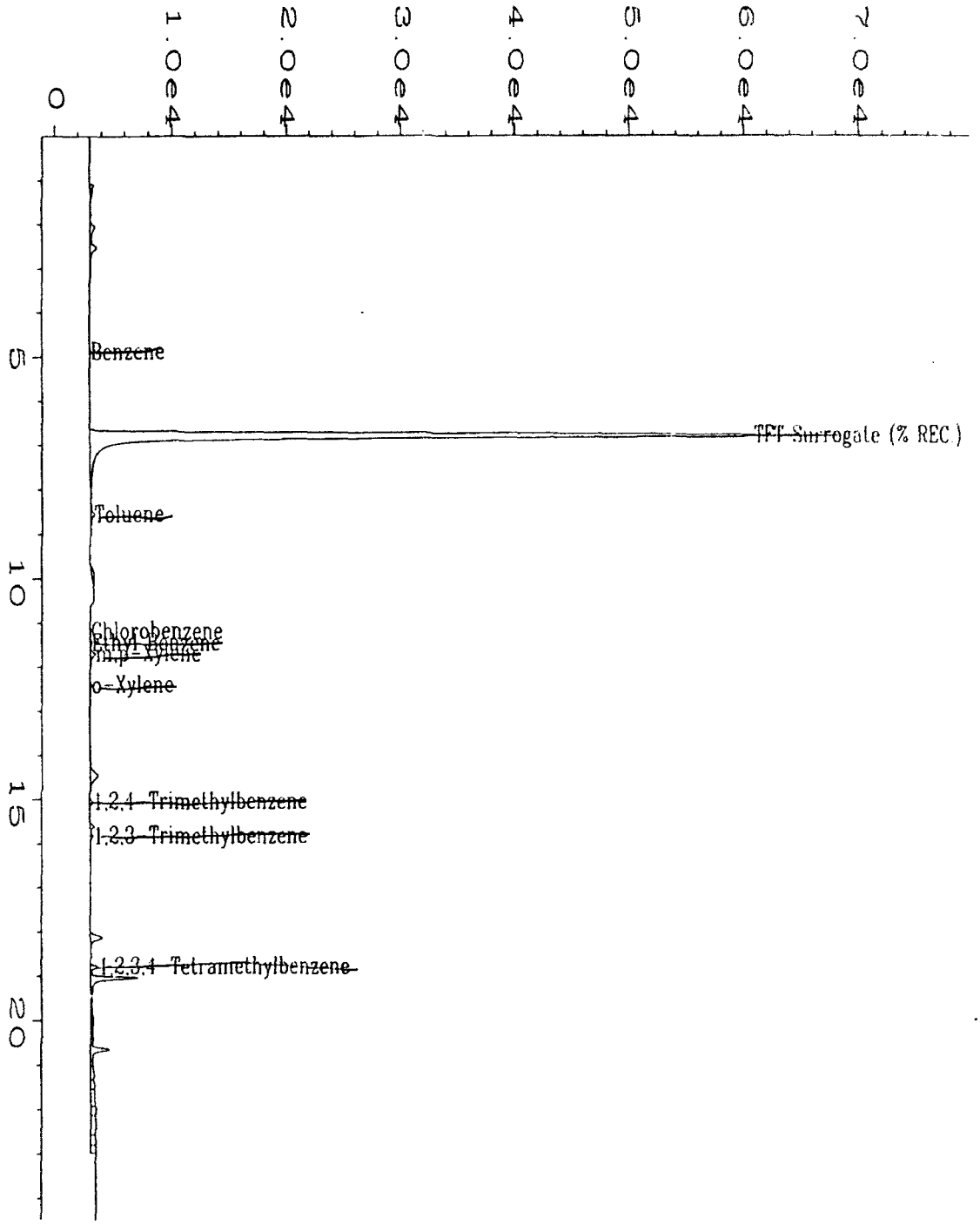
Surrogate Recovery (α,α,α-Trifluorotoluene):	97%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

P.McClelle
Approved



Data File Name	: E:\2\DATA\BX20404\009R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 9
Sample Name	: MB040495	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 04 Apr 95 06:01 AM	Instrument Method	: BX20404 "T
Report Created on	: 26 Apr 95 05:52 PM	Analysis Method	: BX2040 I
Last Recalib on	: 14 APR 95 02:10 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report
Method Blank Report

Method Blank Number	: MB040595	Client Project No.	: 722450.21020
Date Prepared	: 4/5/95	Lab Project No.	: 95-0954
Date Analyzed	: 4/5/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX1040509

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4

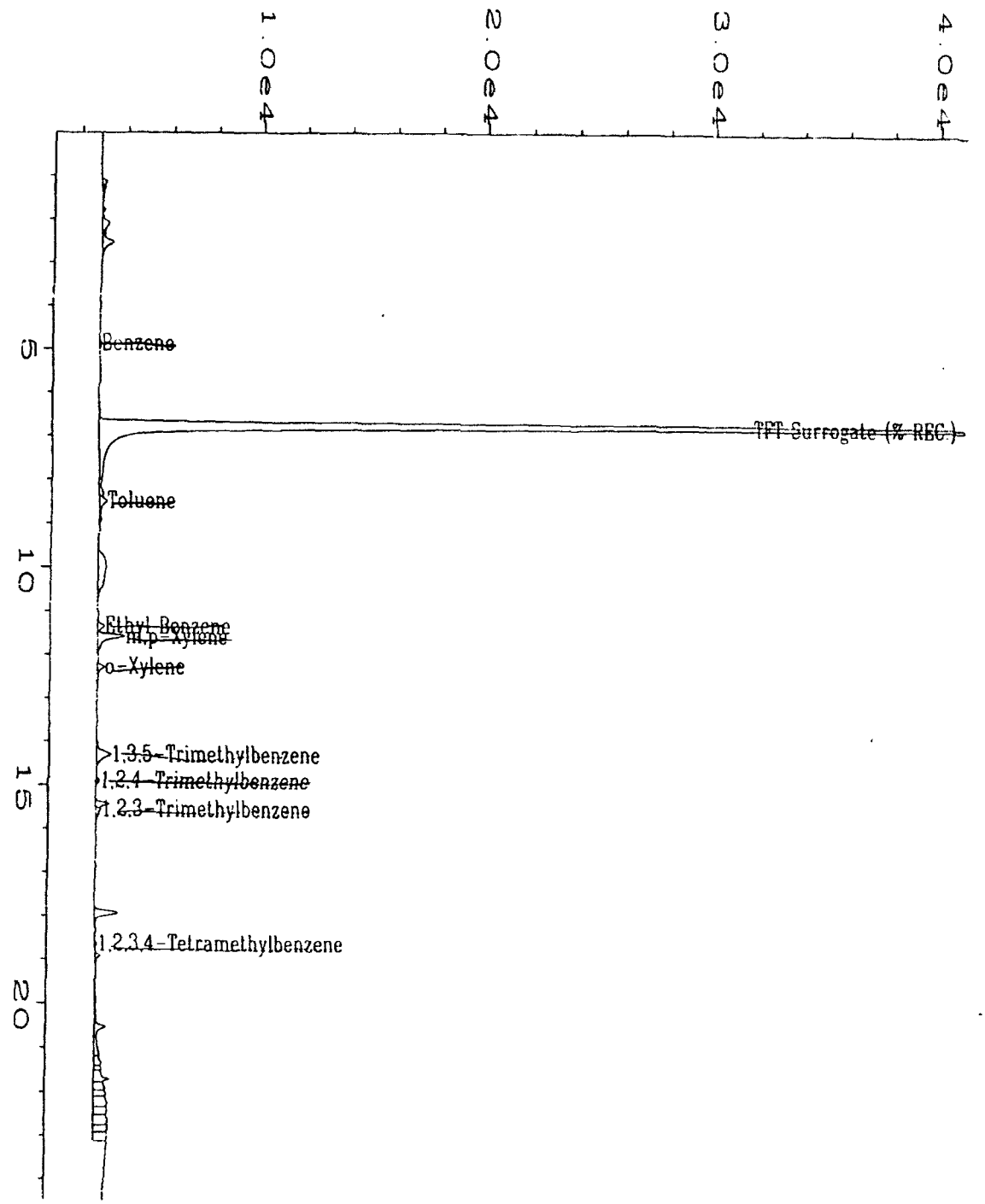
Surrogate Recovery (α,α,α-Trifluorotoluene):	93%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20405\009R0901.D		
Operator	: SW Tyson	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 9
Sample Name	: MB040595	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 05 Apr 95 04:21 PM	Instrument Method	: BX20405.MTH
Report Created on	: 06 Apr 95 08:31 AM	Analysis Method	: BX20405 I
Last Recalib on	: 06 APR 95 08:23 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-80201

Method 8020 Data Report
Method Blank Report

Method Blank Number	: MB040695	Client Project No.	: 722450.21020
Date Extracted/Prepared	: 4/6/95	Lab Project No.	: 95-0954
Date Analyzed	: 4/6/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX2040609

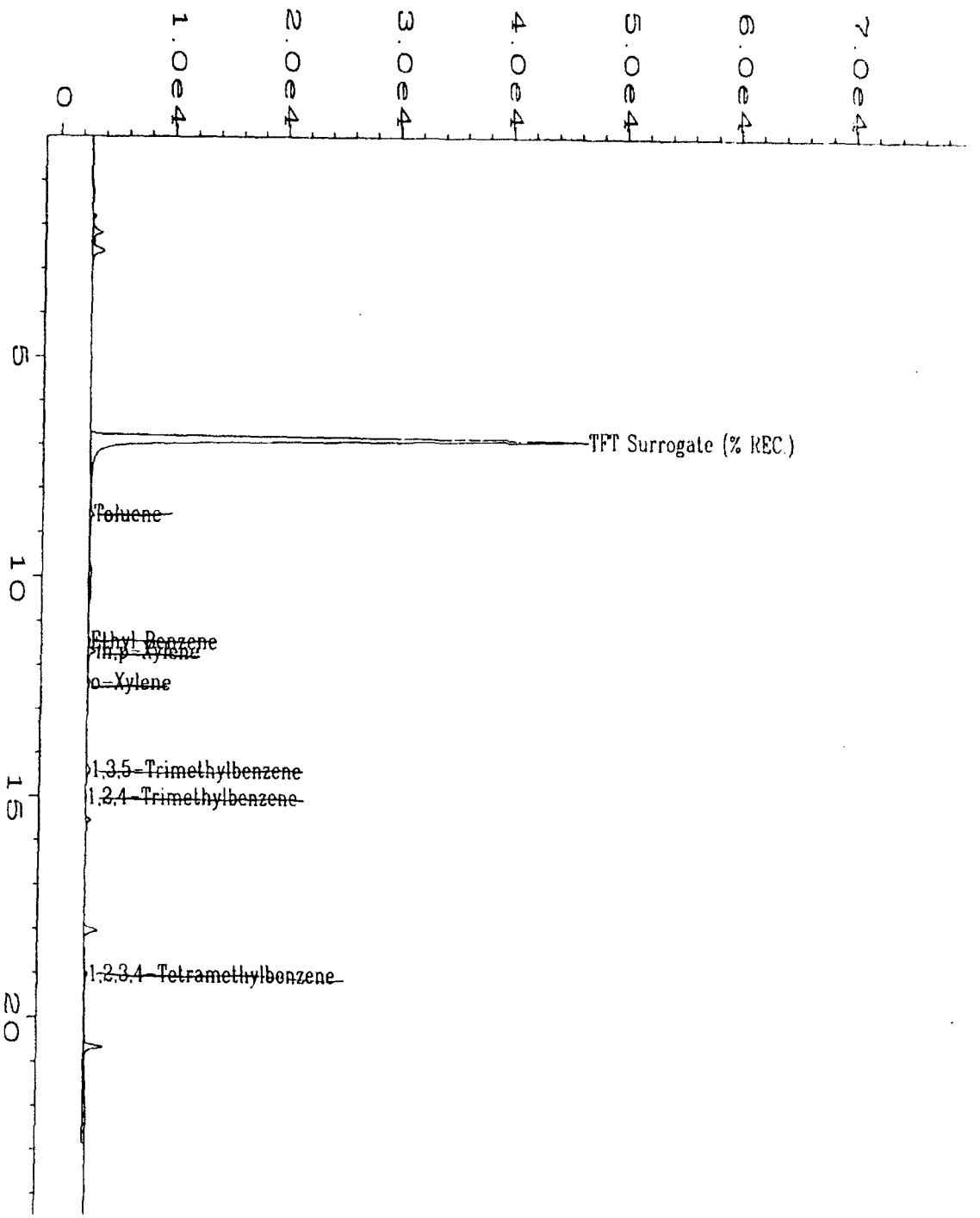
Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	U		1.0
Toluene	108-88-3	U		1.0
Chlorobenzene	108-90-7	U		1.0
Ethyl Benzene	100-41-4	U		1.0
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U		1.0
1,3,5-Trimethylbenzene	108-67-8	U		1.0
1,2,4-Trimethylbenzene	95-63-6	U		1.0
1,2,3-Trimethylbenzene	526-73-8	U		1.0
1,2,3,4-Tetramethylbenzene	488-23-3	U		1.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		105%		70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20406\009R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 9
Sample Name	: MB040695	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 06 Apr 95 02:47 PM	Instrument Method	: BX2040
Report Created on	: 14 Apr 95 02:46 PM	Analysis Method	: BX2040
Last Recalib on	: 07 APR 95 07:38 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24MP-2S	Client Project No.	: 722450.21020
Lab Sample Number	: X04752	Lab Project No.	: 95-0954
Date Sampled	: 3/22/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/3/95	Matrix	: Water
Date Analyzed	: 4/3/95	Lab File No.	: BX2040326
		Method Blank No.	: MB040395

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	3.9		0.4
Toluene	108-88-3	14		0.4
Chlorobenzene	108-90-7	1.8		0.4
Ethyl Benzene	100-41-4	14		0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	2.5		0.4
1,3,5-Trimethylbenzene	108-67-8	10		0.4
1,2,4-Trimethylbenzene	95-63-6	29		0.4
1,2,3-Trimethylbenzene	526-73-8	7.8		0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4

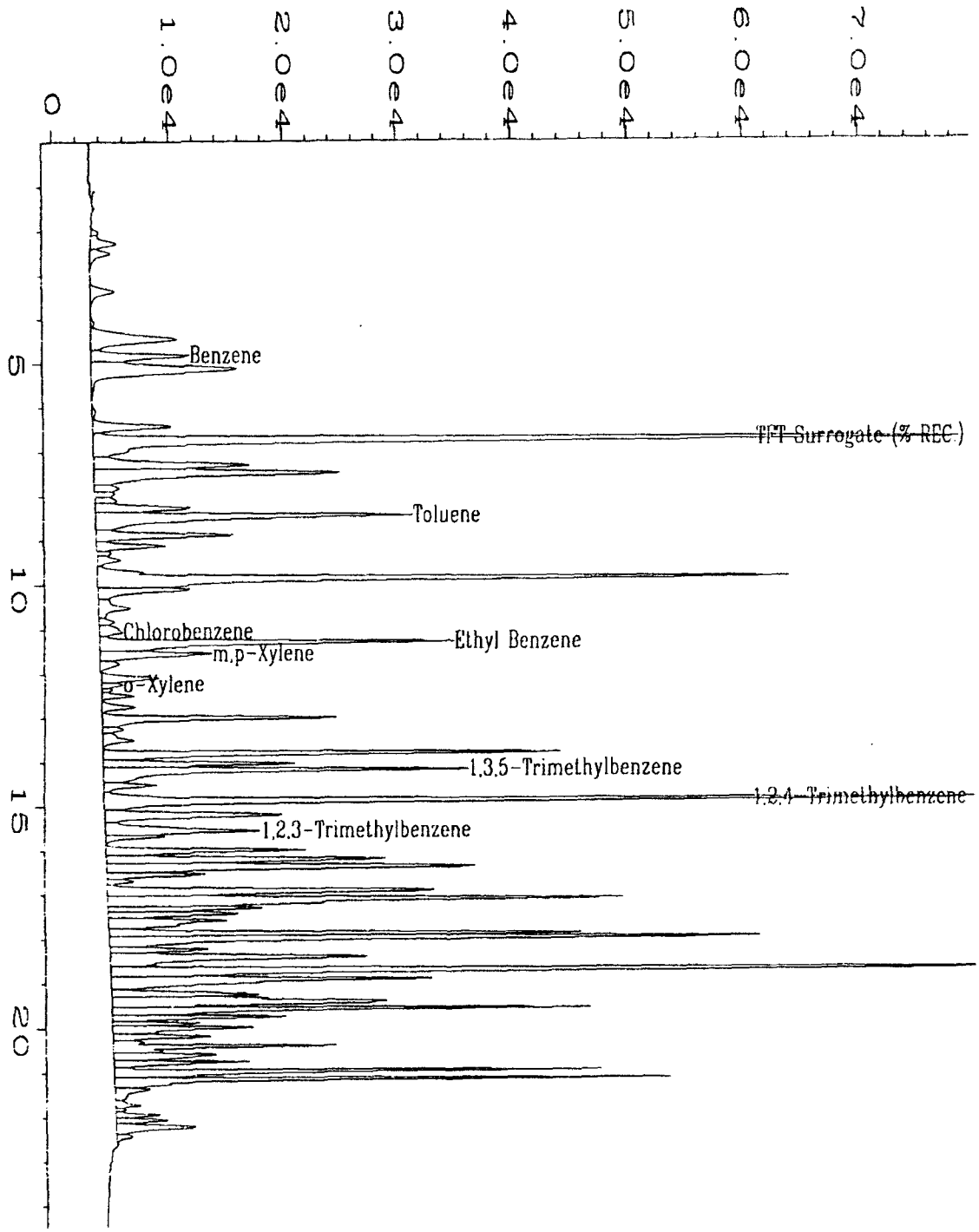
Surrogate Recovery (α,α,α-Trifluorotoluene):	81%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

P McClellan
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20403\026R0701.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 26
Sample Name	: X04752;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 03 Apr 95 08:58 PM	Instrument Method	: BX20403 TH
Report Created on	: 10 Apr 95 04:45 PM	Analysis Method	: BX20403 TH
Last Recalib on	: 10 APR 95 04:19 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT#: 95-0954 CLIENT#: 24MP-2S WATER		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24MP-4S	Client Project No.	: 722450.21020
Lab Sample Number	: X04757	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/4/95	Matrix	: Water
Date Analyzed	: 4/4/95	Lab File No.	: BX2040417
		Method Blank No.	: MB040495

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3	9.3		0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4

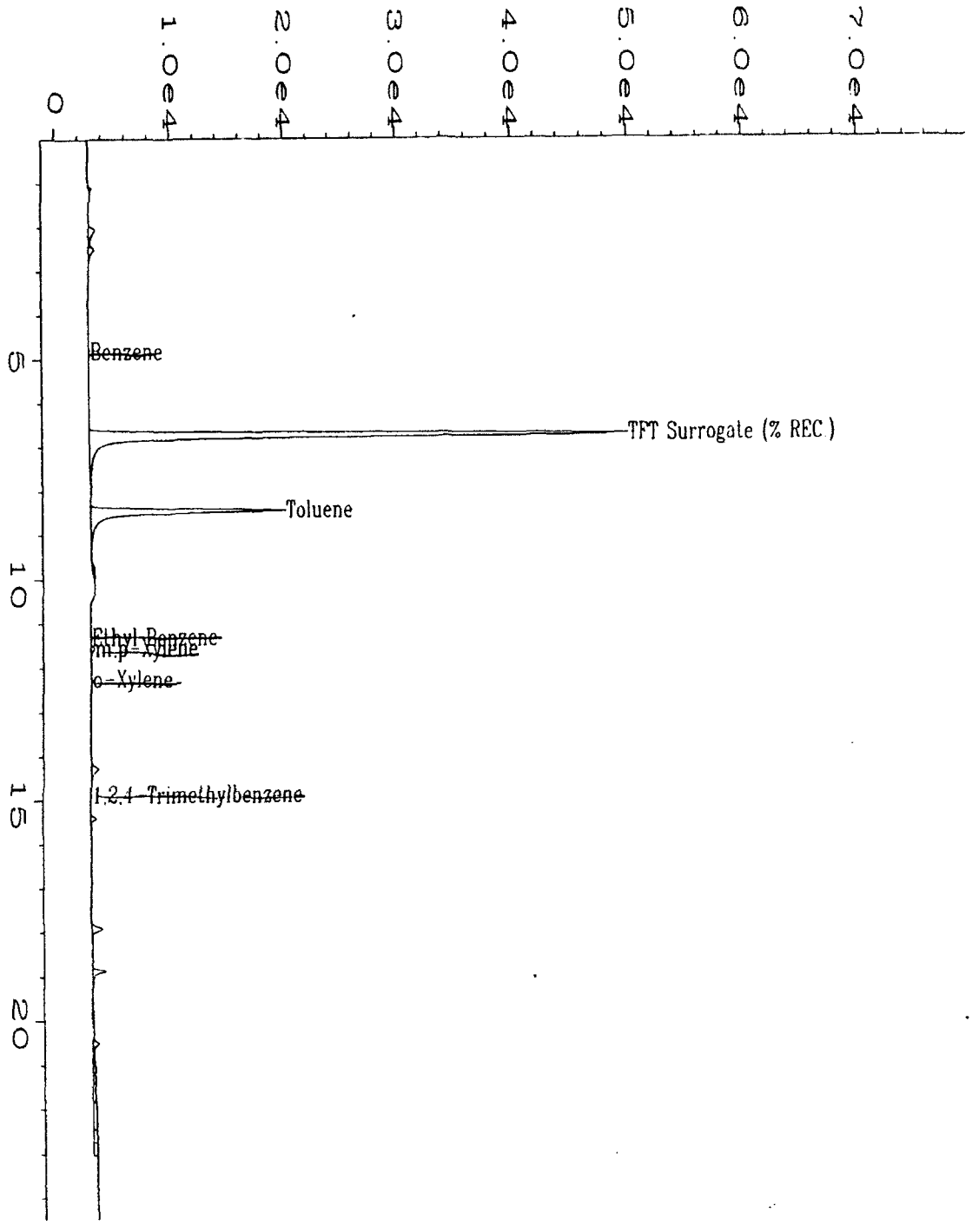
Surrogate Recovery (α,α,α-Trifluorotoluene):	71%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved



Data File Name : E:\2\DATA\BX20404\017R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04757;1;5
Run Time Bar Code:
Acquired on : 04 Apr 95 12:09 PM
Report Created on: 26 Apr 95 05:57 PM
Last Recalib on : 14 APR 95 02:10 PM
Multiplier : 1

Page Number : 1
Vial Number : 17
Injection Number : 1
Sequence Line : 9
Instrument Method: BX2040' MT
Analysis Method : BX204(IT
Sample Amount : 0
ISTD Amount :

24MP-4S

pm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24MP-5DJ	Client Project No.	: 722450.21020
Lab Sample Number	: X04762	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/5/95	Lab File No.	: BX2040518
		Method Blank No.	: MB040595

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	0.8		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	0.8		0.4

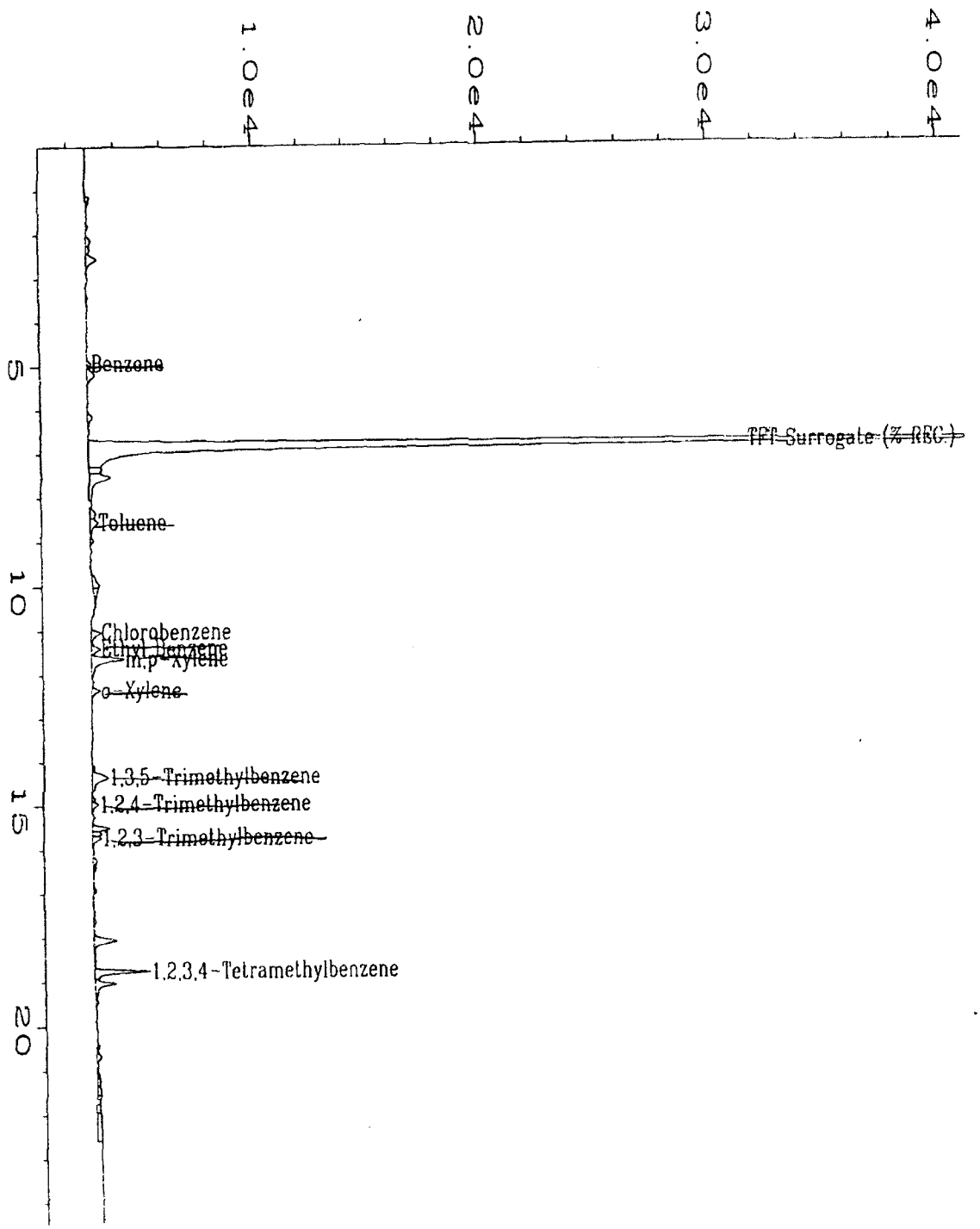
Surrogate Recovery (α,α,α-Trifluorotoluene):	93%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20405\018R0901.D		
Operator	: SW Tyson	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 18
Sample Name	: X04762;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 05 Apr 95 11:13 PM	Instrument Method	: BX2040[illegible]
Report Created on	: 06 Apr 95 08:36 AM	Analysis Method	: BX2040
Last Recalib on	: 06 APR 95 08:23 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0954 Client#: 24MP-5D Water		

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EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-80201

Method 8020 Data Report

Client Sample Number	: 24SS-2	Client Project No.	: 722450.21020
Lab Sample Number	: X04770	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 8020
Date Extracted/Prepared	: 4/6/95	Matrix	: Soil
Date Analyzed	: 4/6/95	Lab File No.	: BX2040611
		Method Blank No.	: MB040695

Compound Name	Cas Number	Sample Concentration ug/Kg		RL ug/Kg
Benzene	71-43-2		U	4.0
Toluene	108-88-3		U	4.0
Chlorobenzene	108-90-7		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	1.0	J	4.0
1,3,5-Trimethylbenzene	108-67-8	2.0	J	4.0
1,2,4-Trimethylbenzene	95-63-6		U	4.0
1,2,3-Trimethylbenzene	526-73-8		U	4.0
1,2,3,4-Tetramethylbenzene	488-23-3		U	4.0

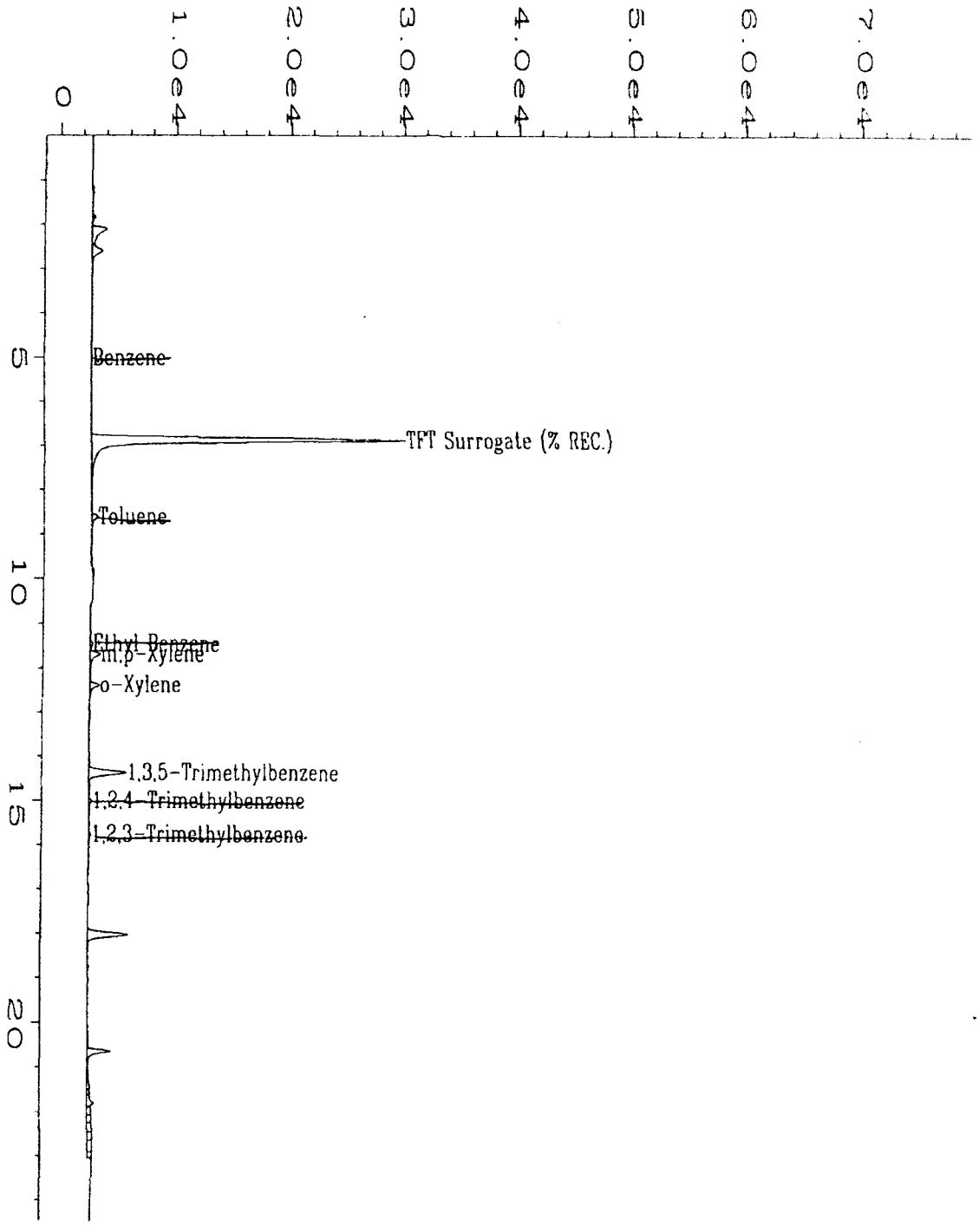
Surrogate Recovery (α,α,α-Trifluorotoluene):	66%	50%-150% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20406\011R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 11
Sample Name	: X04770;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 06 Apr 95 04:18 PM	Instrument Method	: BX20406
Report Created on	: 07 Apr 95 07:48 AM	Analysis Method	: BX20406
Last Recalib on	: 07 APR 95 07:38 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0954 Client#: 24SS-2 SOIL		

pm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-1	Client Project No.	: 722450.21020
Lab Sample Number	: X04761DUP	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/5/95	Lab File No.	: BX2040515
		Method Blank No.	: MB040595

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	1.9		0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	1.0		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4

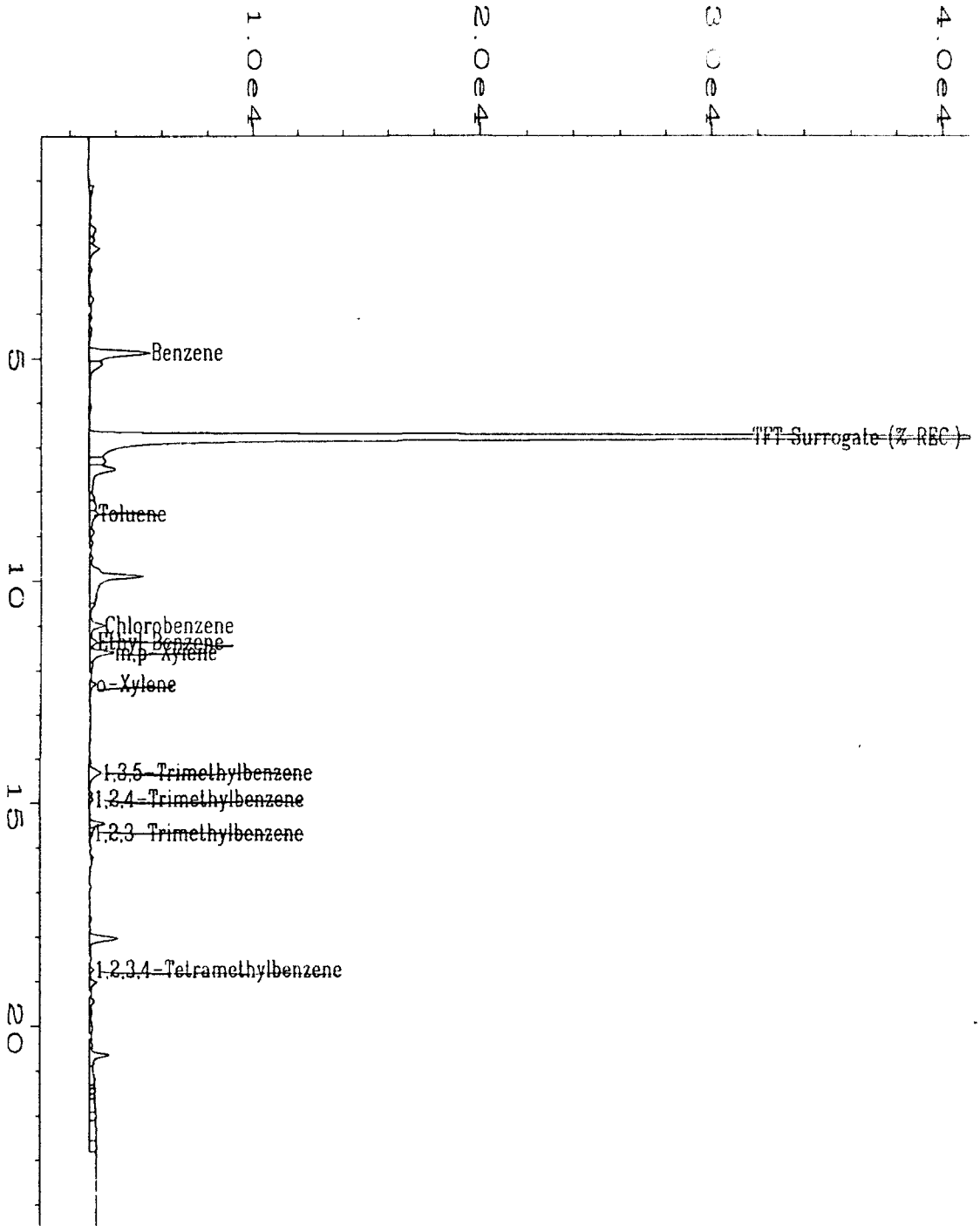
Surrogate Recovery (α,α,α-Trifluorotoluene):	95%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20405\015R0901.D		
Operator	: SW Tyson	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 15
Sample Name	: X04761DUP;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 05 Apr 95 08:57 PM	Instrument Method	: BX20405 MTI
Report Created on	: 06 Apr 95 08:34 AM	Analysis Method	: BX2040 TI
Last Recalib on	: 06 APR 95 08:23 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0954 Client#: MD24-1 Water		

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EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-1 J	Client Project No.	: 722450.21020
Lab Sample Number	: X04761	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/5/95	Lab File No.	: BX2040514
		Method Blank No.	: MB040595

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	1.8		0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	1.0		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4

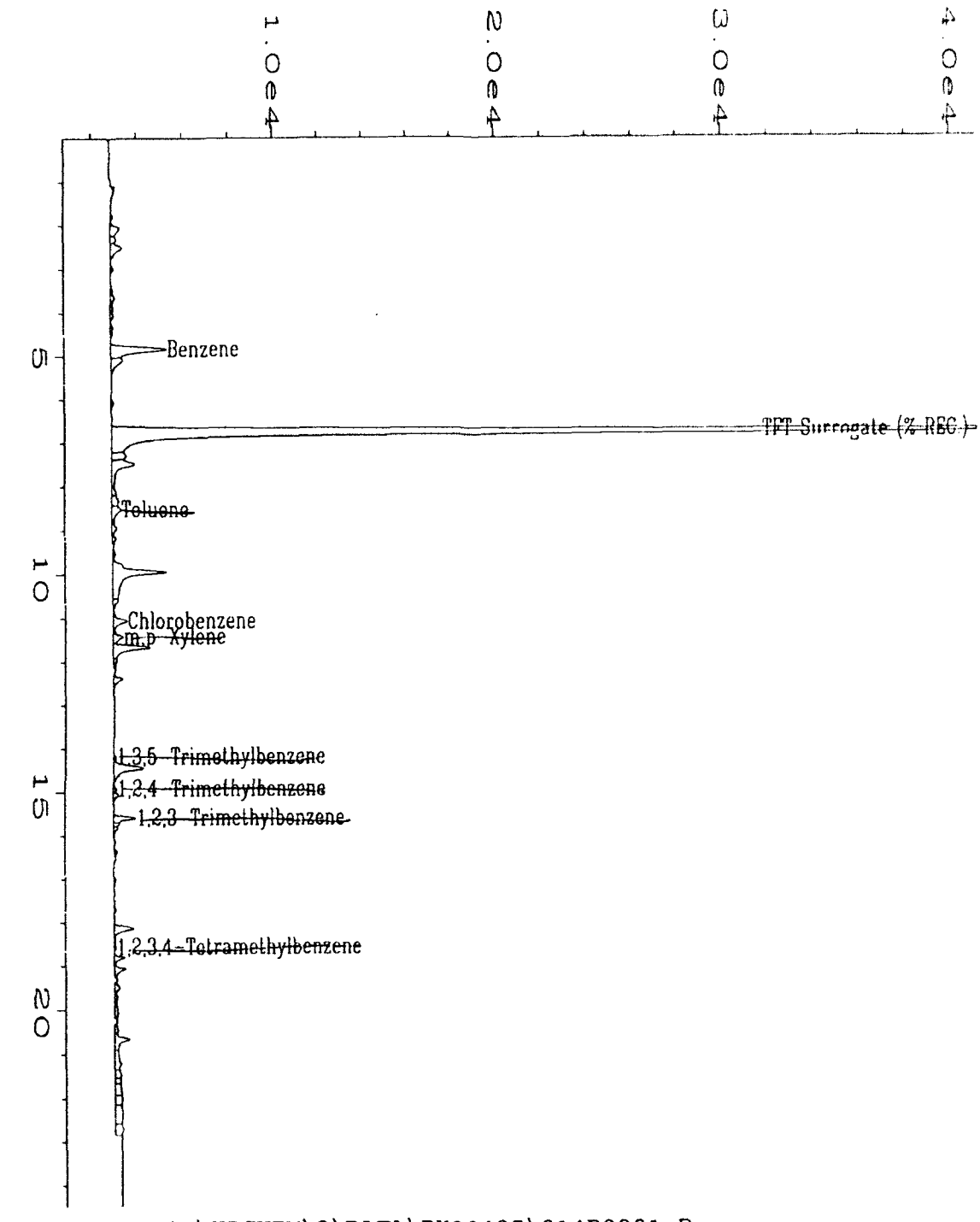
Surrogate Recovery (α,α,α-Trifluorotoluene):	88%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Coy
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20405\014R0901.D		
Operator	: SW Tyson	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 14
Sample Name	: X04761;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 05 Apr 95 08:11 PM	Instrument Method	: BX20405 "T
Report Created on	: 06 Apr 95 08:34 AM	Analysis Method	: BX2040[illegible]
Last Recalib on	: 06 APR 95 08:23 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0954 Client#: MD24-1 Water		

pm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-2	Client Project No.	: 722450.21020
Lab Sample Number	: X04755	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/3/95	Matrix	: Water
Date Analyzed	: 4/3/95	Lab File No.	: BX2040413
		Method Blank No.	: MB040495

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	20		0.4
Toluene	108-88-3	0.9		0.4
Chlorobenzene	108-90-7	0.8	B	0.4
Ethyl Benzene	100-41-4	0.6		0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	0.6		0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	1.7		0.4

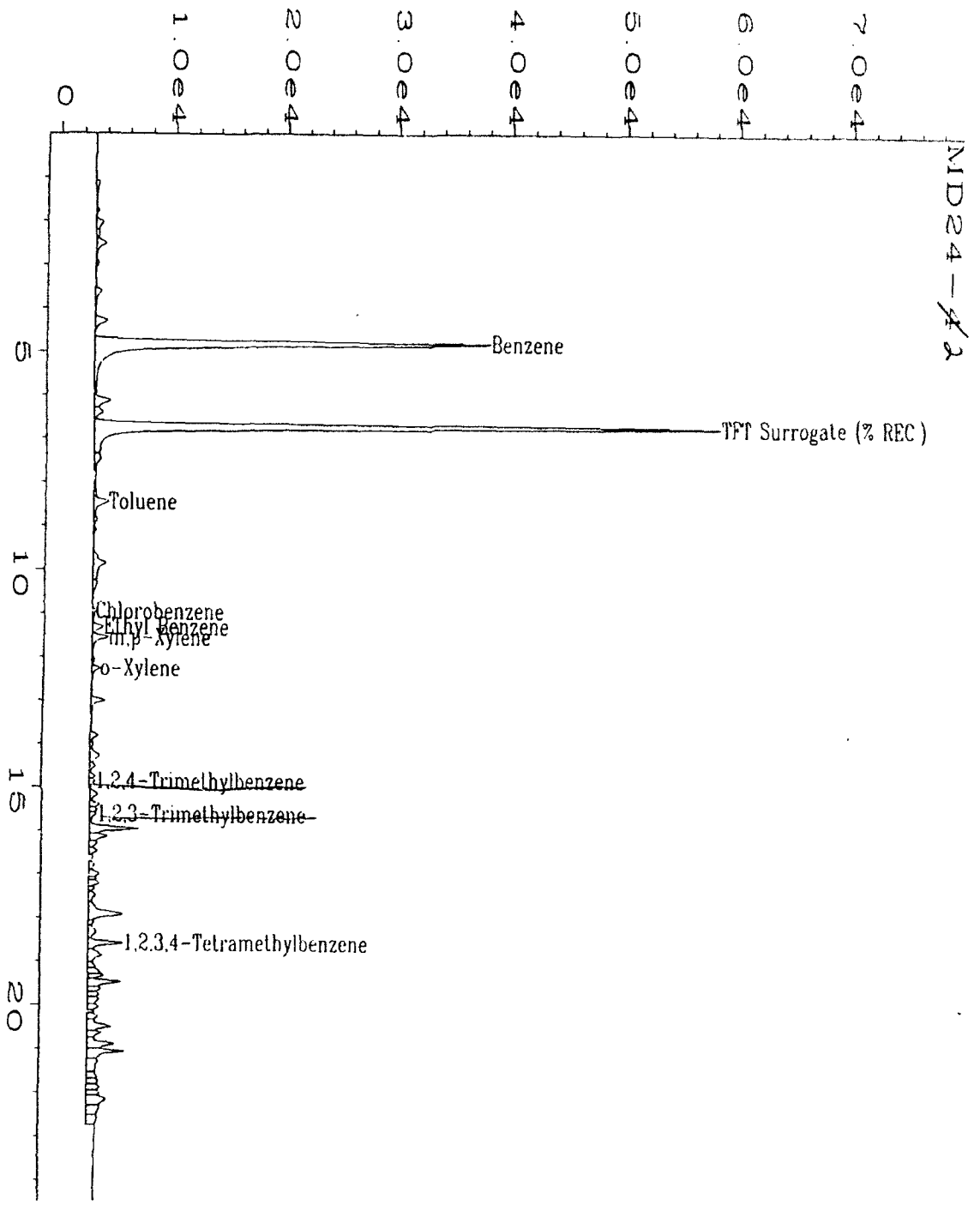
Surrogate Recovery (α,α,α-Trifluorotoluene):	81%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K Cone
Analyst

A McClellan
Approved



Data File Name	: E:\2\DATA\BX20404\013R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 13
Sample Name	: X04755;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 04 Apr 95 09:04 AM	Instrument Method	: BX2040 MT
Report Created on	: 26 Apr 95 07:44 PM	Analysis Method	: BX2040 .T
Last Recalib on	: 14 APR 95 02:10 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

dm 4/27/95

MD24-2

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-3	Client Project No.	: 722450.21020
Lab Sample Number	: X04760	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/5/95	Lab File No.	: BX2040513
		Method Blank No.	: MB040595

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	0.8		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4

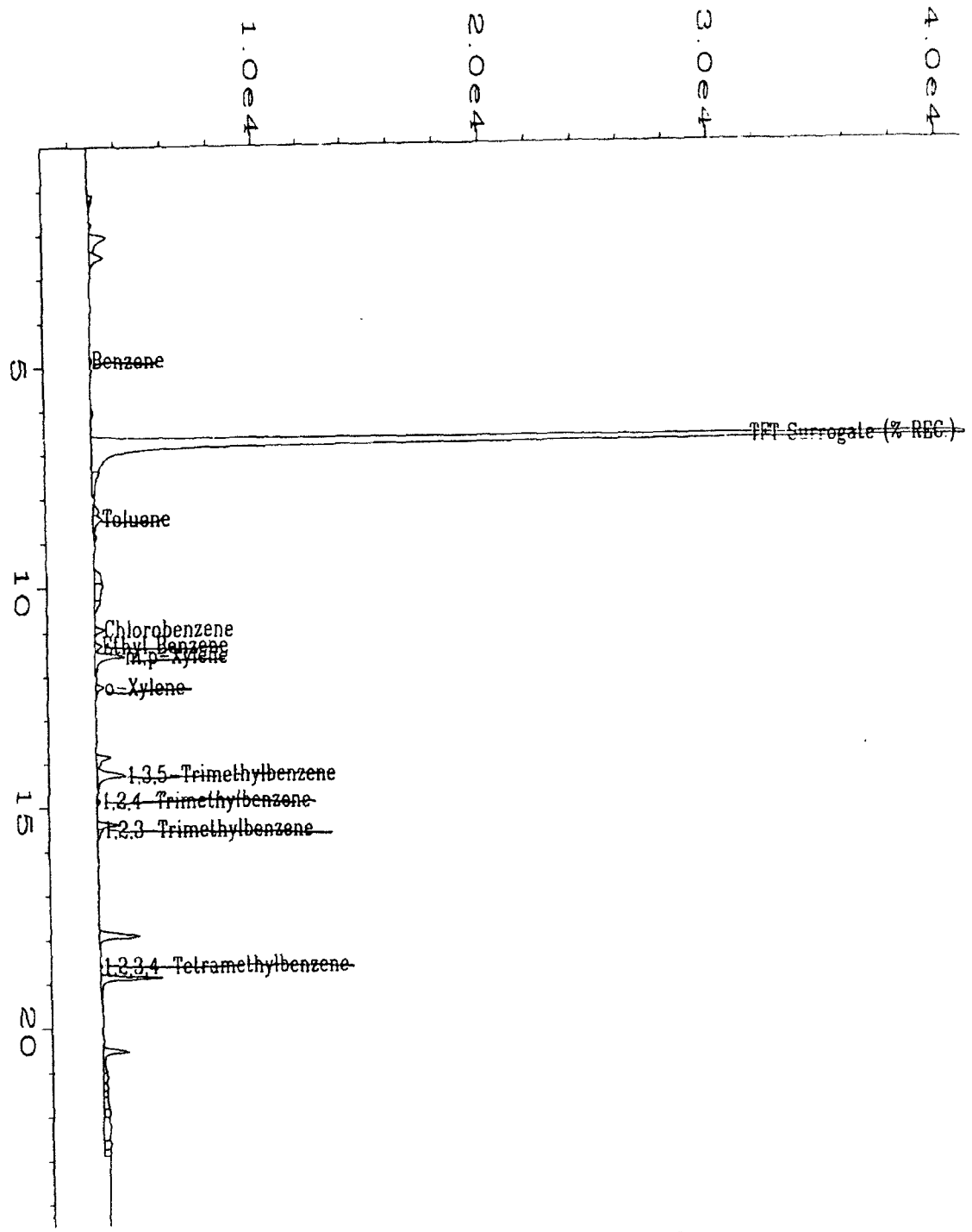
Surrogate Recovery (α,α,α-Trifluorotoluene):	91%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
A = Not Available/Not Applicable.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20405\013R0901.D		
Operator	: SW Tyson	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 13
Sample Name	: X04760;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 05 Apr 95 07:26 PM	Instrument Method	: BX2040[illegible] MT
Report Created on	: 06 Apr 95 08:33 AM	Analysis Method	: BX204[illegible] T
Last Recalib on	: 06 APR 95 08:23 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0954 Client#: MD24-3 Water		

dm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-4 J	Client Project No.	: 722450.21020
Lab Sample Number	: X04758	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/4/95	Matrix	: Water
Date Analyzed	: 4/4/95	Lab File No.	: BX2040418
		Method Blank No.	: MB040495

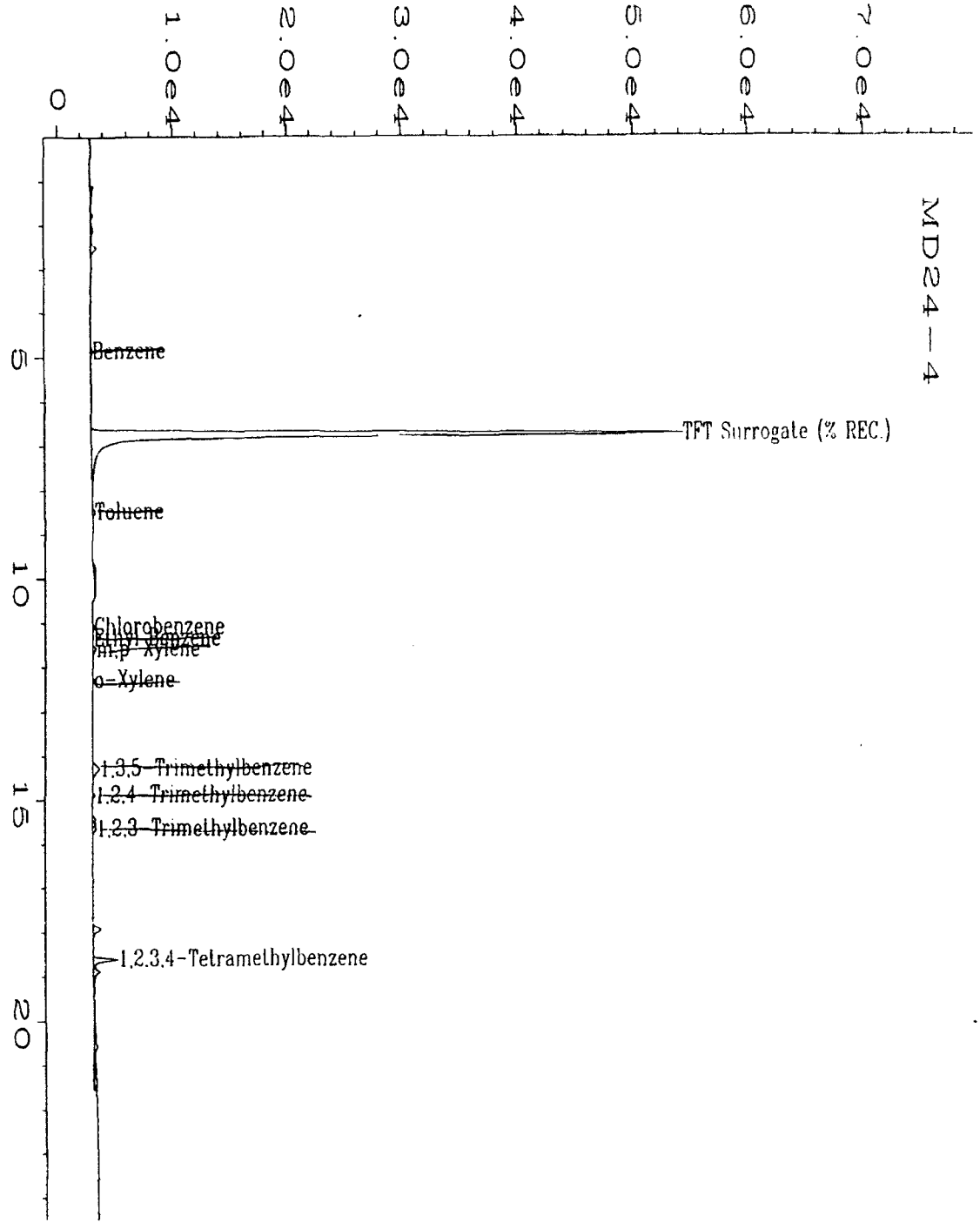
Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	0.7	B	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	0.8		0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		77%		70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

P.M. McClellan
Approved



Data File Name	: E:\2\DATA\BX20404\018R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 18
Sample Name	: X04758;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 04 Apr 95 12:56 PM	Instrument Method	: BX2040 MT
Report Created on	: 26 Apr 95 07:28 PM	Analysis Method	: BX204(4T
Last Recalib on	: 14 APR 95 02:10 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-5	Client Project No.	: 722450.21020
Lab Sample Number	: X04756	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/4/95	Matrix	: Water
Date Analyzed	: 4/4/95	Lab File No.	: BX2040416
		Method Blank No.	: MB040495

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3	0.5		0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4

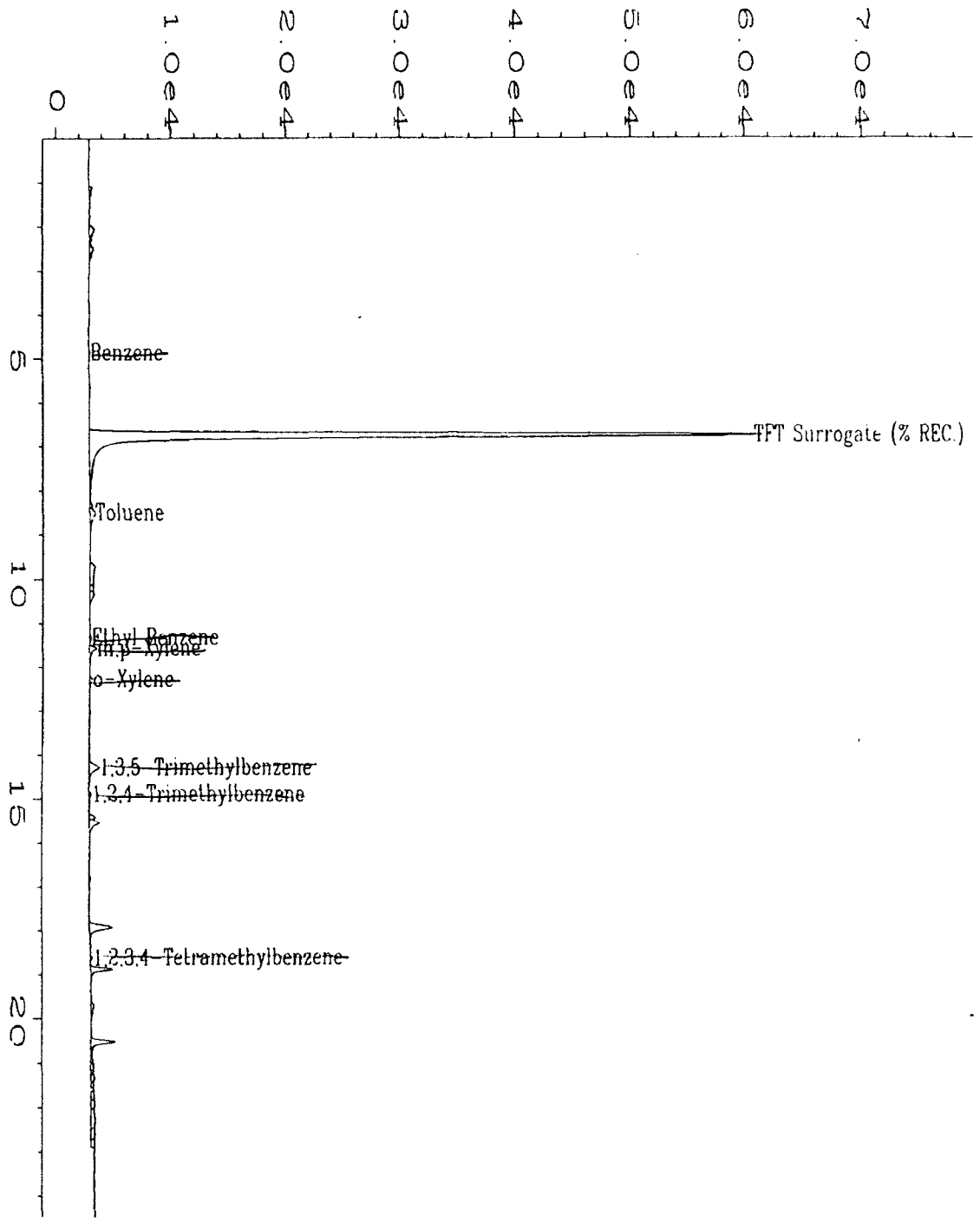
Surrogate Recovery (α,α,α-Trifluorotoluene):	90%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved



Data File Name : E:\2\DATA\BX20404\016R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04756;1;5
Run Time Bar Code:
Acquired on : 04 Apr 95 11:23 AM
Report Created on: 26 Apr 95 05:56 PM
Last Recalib on : 14 APR 95 02:10 PM
Multiplier : 1

Page Number : 1
Vial Number : 16
Injection Number : 1
Sequence Line : 9
Instrument Method: BX2040 MT
Analysis Method : BX2040 MT
Sample Amount : 0
ISTD Amount :

pm 4/27/95

MD24-5

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-8	Client Project No.	: 722450.21020
Lab Sample Number	: X04750	Lab Project No.	: 95-0954
Date Sampled	: 3/22/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/3/95	Matrix	: Water
Date Analyzed	: 4/3/95	Lab File No.	: BX2040320
		Method Blank No.	: MB040395

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4

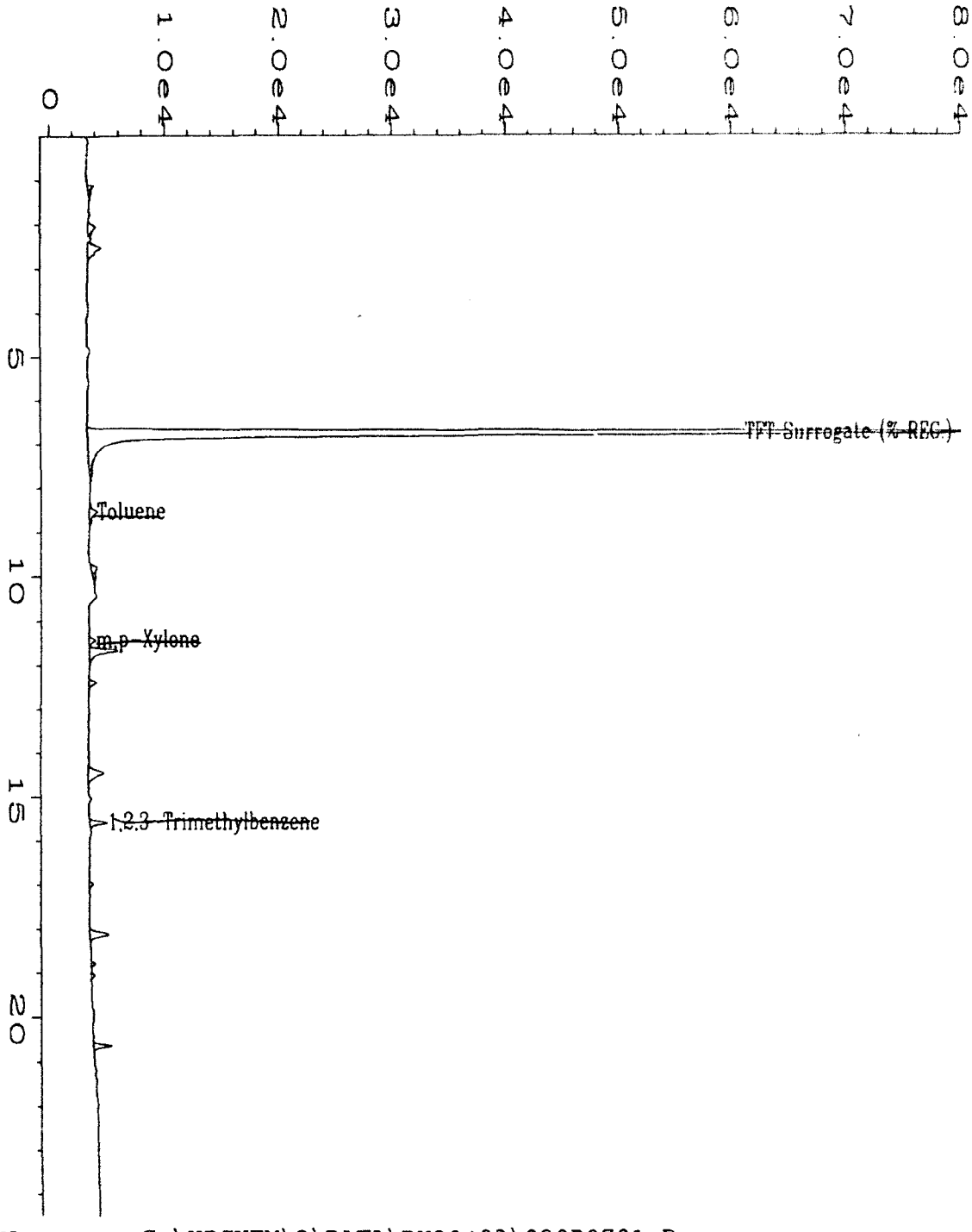
Surrogate Recovery (α,α,α-Trifluorotoluene):	97%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20403\020R0701.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 20
Sample Name	: X04750;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 03 Apr 95 04:27 PM	Instrument Method	: BX20403 TE
Report Created on	: 10 Apr 95 04:42 PM	Analysis Method	: BX2040_ JF
Last Recalib on	: 10 APR 95 04:19 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT#: 95-0954 CLIENT#: MD24-8 WATER		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-41	Client Project No.	: 722450.21020
Lab Sample Number	: X04759 DUP	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/5/95	Lab File No.	: BX2040512
		Method Blank No.	: MB040595

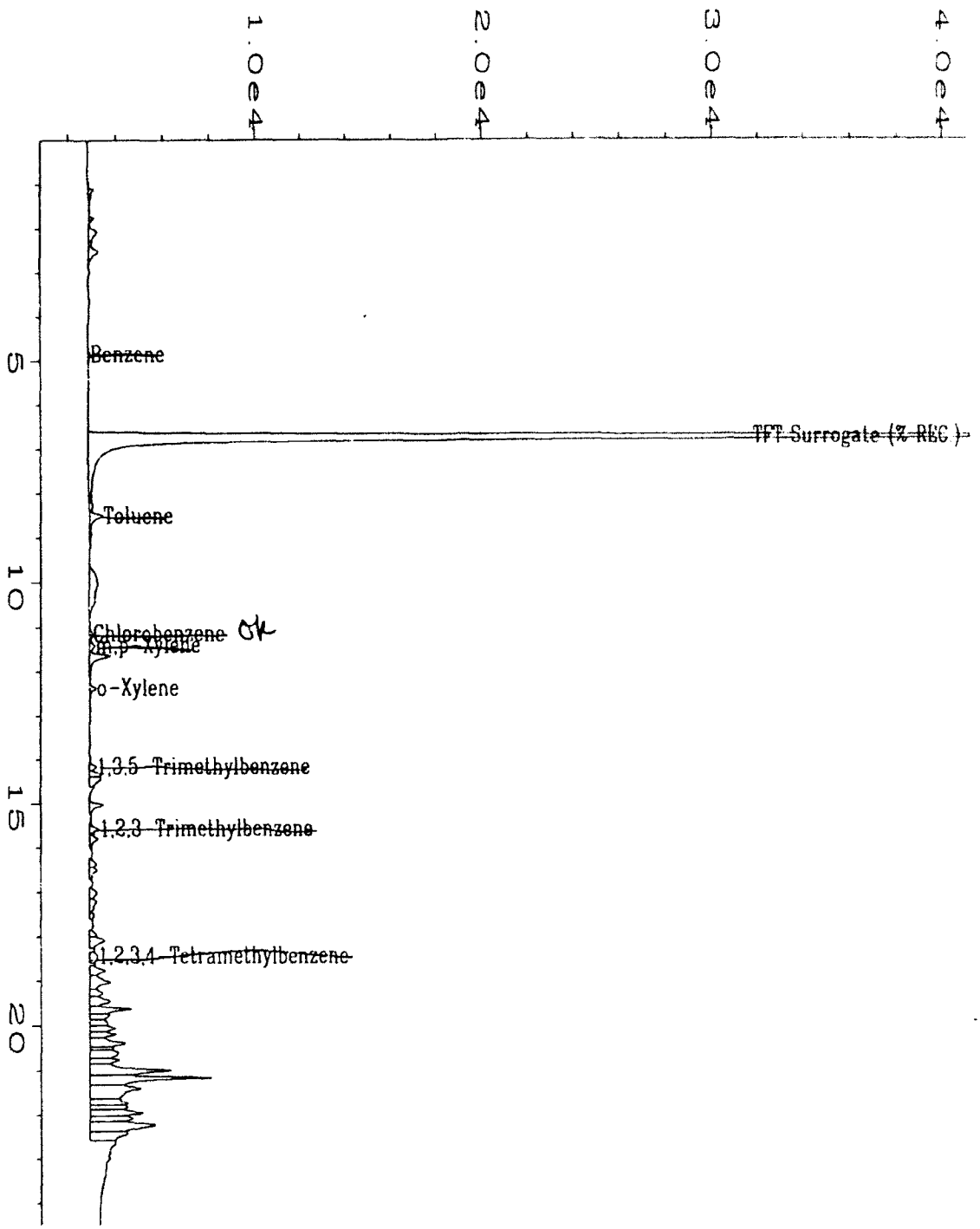
Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	0.6		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		96%		70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

Approved



OK

Data File Name	: C:\HPCHEM\2\DATA\BX20405\012R0901.D		
Operator	: SW Tyson	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 12
Sample Name	: X04759;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 05 Apr 95 06:40 PM	Instrument Method	: BX2040[illegible]MT
Report Created on	: 06 Apr 95 08:32 AM	Analysis Method	: BX2040[illegible]T
Last Recalib on	: 06 APR 95 08:23 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0954 Client#: MD24-41 Water		

pm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24MP-1S	Client Project No.	: 722450.21020
Lab Sample Number	: X04754	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/4/95	Matrix	: Water
Date Analyzed	: 4/4/95	Lab File No.	: BX2040411
		Method Blank No.	: MB040495

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	*		*
Toluene	108-88-3	*		*
Chlorobenzene	108-90-7	1.1	B	0.4
Ethyl Benzene	100-41-4	*		*
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	*		*
1,3,5-Trimethylbenzene	108-67-8	*		*
1,2,4-Trimethylbenzene	95-63-6	*		*
1,2,3-Trimethylbenzene	526-73-8	*		*
1,2,3,4-Tetramethylbenzene	488-23-3	73		0.4

Surrogate Recovery (α,α,α-Trifluorotoluene):	98%	70%-130% (QC limits)

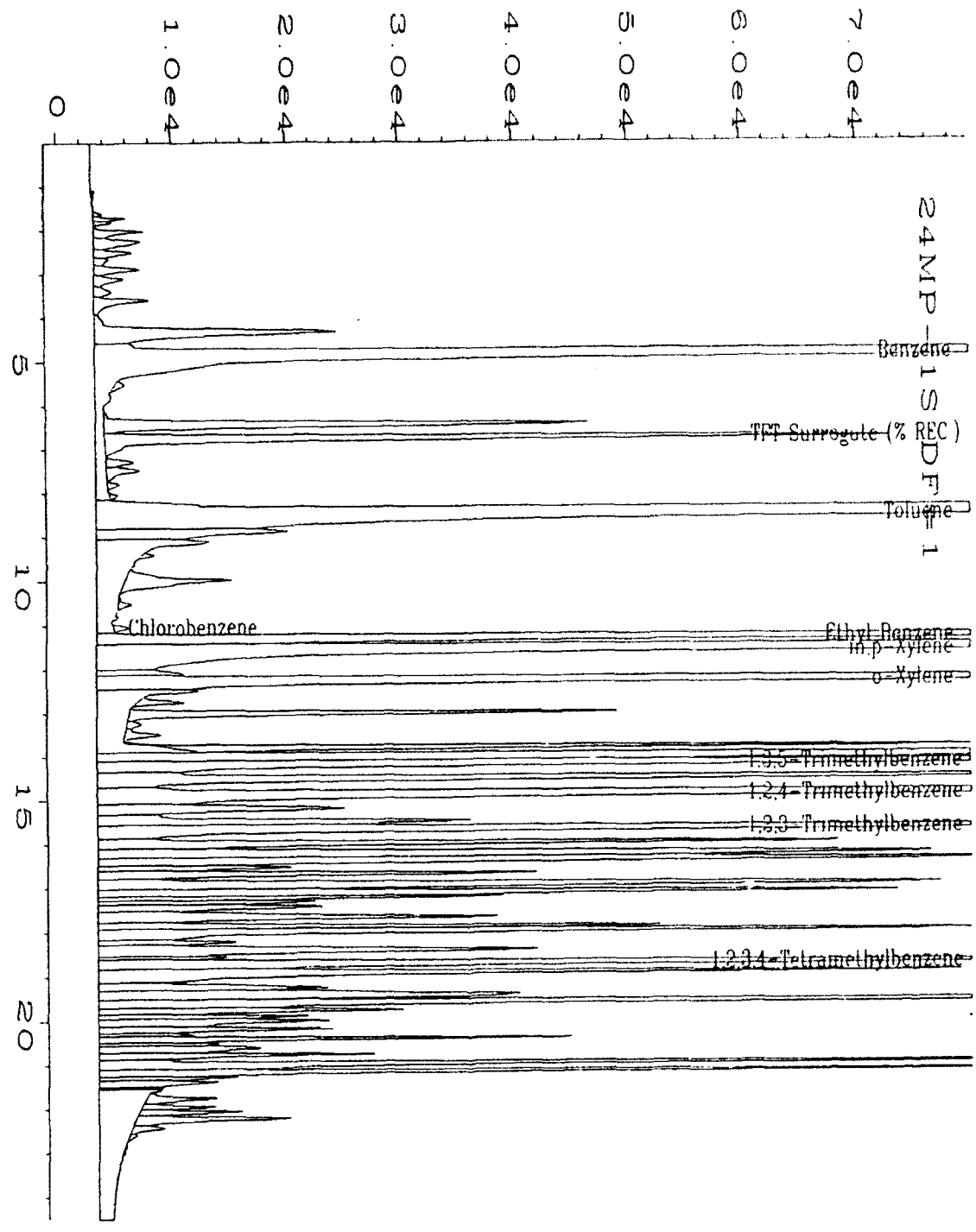
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

* = See BX2040511 for noted values, df = 100, 04/05/95.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

PMcClellan
Approved



Data File Name : E:\2\DATA\BX20404\011R0901.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04754;1;5
Run Time Bar Code:
Acquired on : 04 Apr 95 07:33 AM
Report Created on: 26 Apr 95 07:29 PM
Last Recalib on : 14 APR 95 02:10 PM
Multiplier : 1

Page Number : 1
Vial Number : 11
Injection Number : 1
Sequence Line : 9
Instrument Method: BX2040 MT
Analysis Method : BX2040 MT
Sample Amount : 0
ISTD Amount :

24MP-1S

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24MP-1S	Client Project No.	: 722450.21020
Lab Sample Number	: X04754	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 100.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/5/95	Lab File No.	: BX2040511
		Method Blank No.	: MB040595

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	220		40.0
Toluene	108-88-3	1800		40.0
Chlorobenzene	108-90-7	62		40.0
Ethyl Benzene	100-41-4	130		40.0
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	690		40.0
1,3,5-Trimethylbenzene	108-67-8	65		40.0
1,2,4-Trimethylbenzene	95-63-6		U	40.0
1,2,3-Trimethylbenzene	526-73-8		U	40.0
1,2,3,4-Tetramethylbenzene	488-23-3		U	40.0

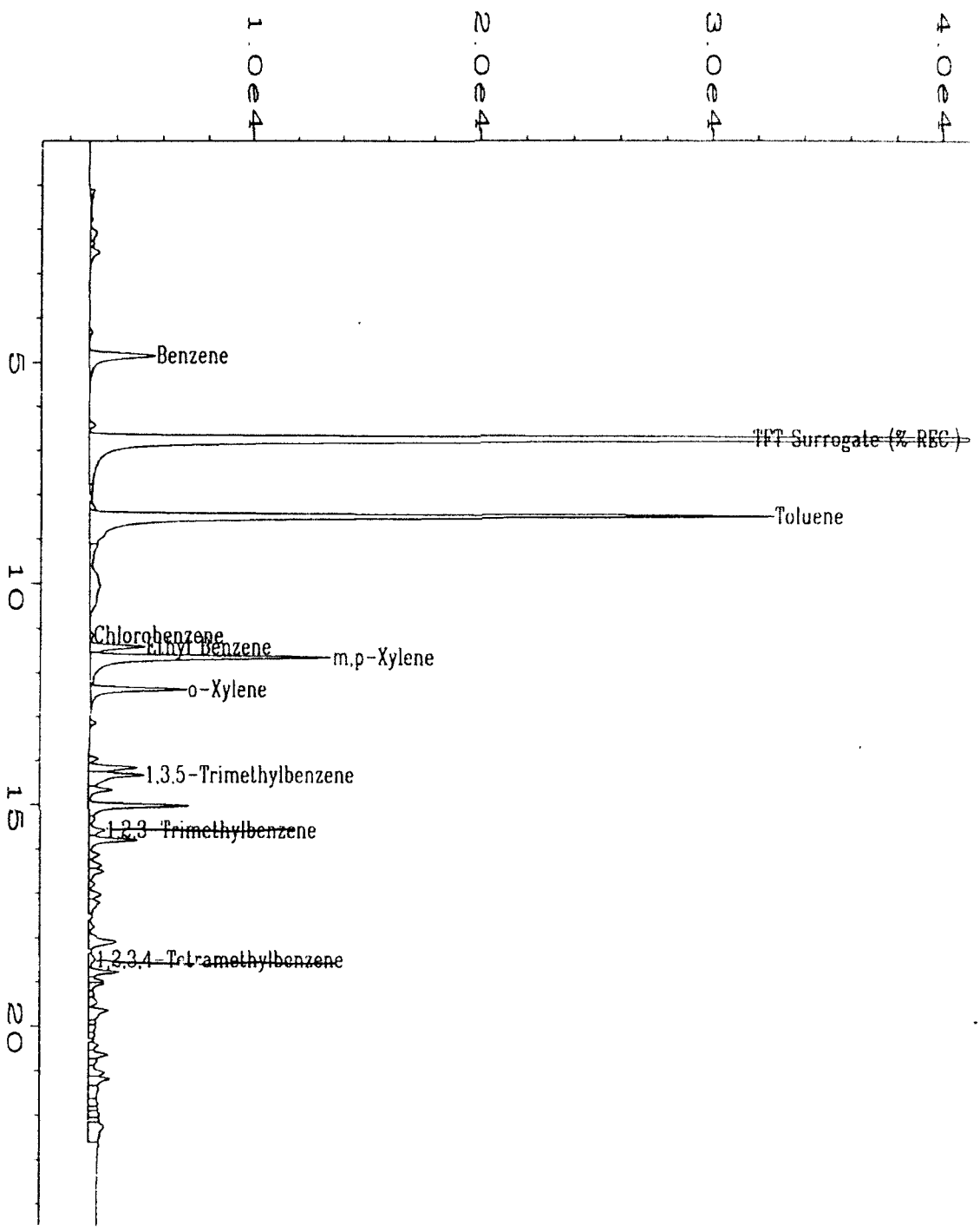
Surrogate Recovery (α,α,α-Trifluorotoluene):	100%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20405\011R0901.D		
Operator	: SW Tyson	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 11
Sample Name	: X04754;100;0.050	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 05 Apr 95 05:53 PM	Instrument Method	: BX20405 TH
Report Created on	: 06 Apr 95 08:32 AM	Analysis Method	: BX20405 TH
Last Recalib on	: 06 APR 95 08:23 AM	Sample Amount	: 0
Multiplier	: 100	ISTD Amount	:
Sample Info	: Project#: 95-0954 Client#: 24MP-1S Water		

pm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24MP-1D	Client Project No.	: 722450.21020
Lab Sample Number	: X04753	Lab Project No.	: 95-0954
Date Sampled	: 3/22/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/3/95	Matrix	: Water
Date Analyzed	: 4/3/95	Lab File No.	: BX2040327
		Method Blank No.	: MB040395

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	15		0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	1.0		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	0.5		0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4

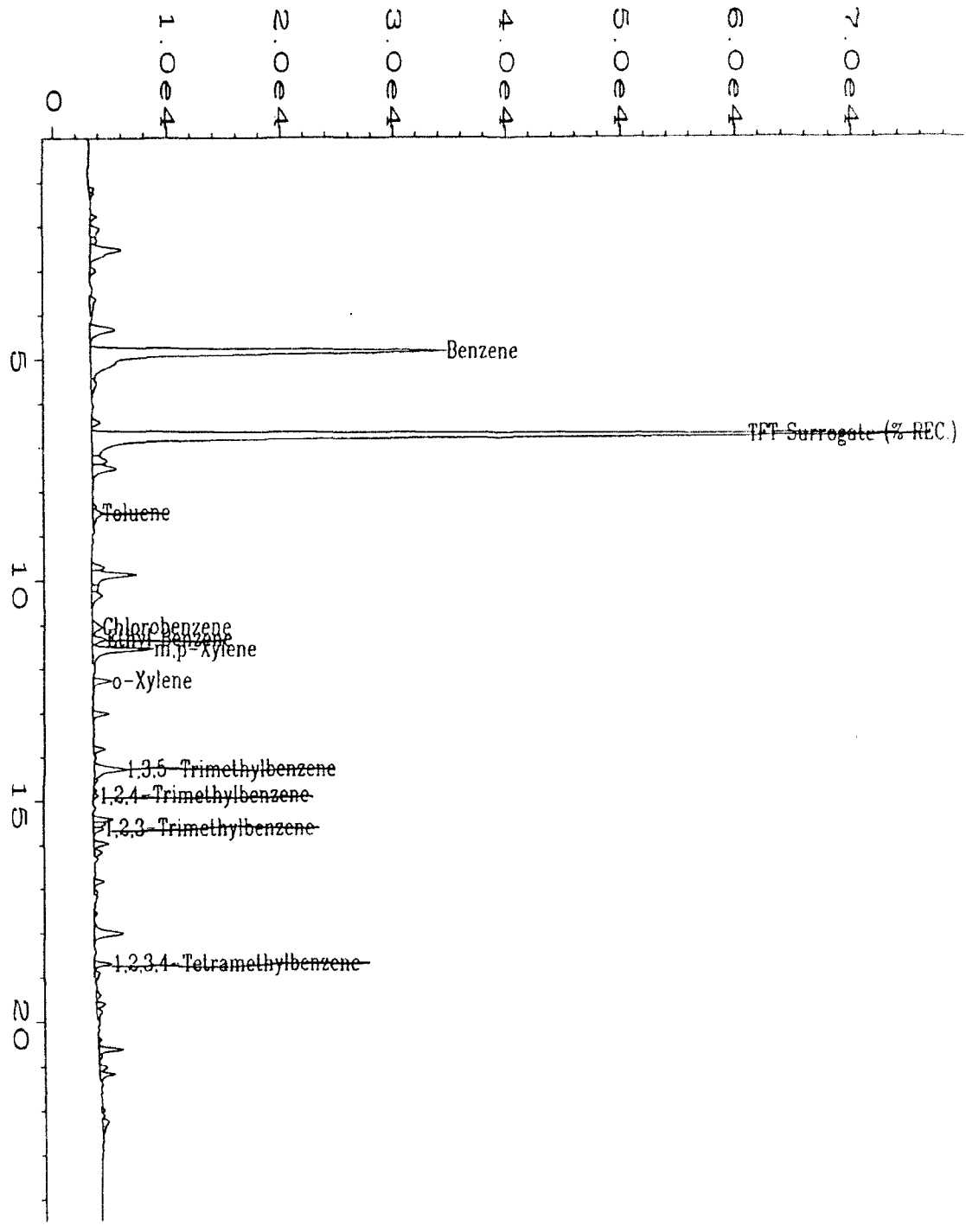
Surrogate Recovery (α,α,α-Trifluorotoluene):	80%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

P. McClellan
Approved



Data File Name : E:\2\DATA\BX20403\027R0101.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04753;1;5
Run Time Bar Code:
Acquired on : 03 Apr 95 09:43 PM
Report Created on: 10 Apr 95 05:27 PM
Last Recalib on : 10 APR 95 04:19 PM
Multiplier : 1

Page Number : 1
Vial Number : 27
Injection Number : 1
Sequence Line : 1
Instrument Method: BX2040
Analysis Method : BX2040
Sample Amount : 0
ISTD Amount :

pm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24MP-2D	Client Project No.	: 722450.21020
Lab Sample Number	: X04751	Lab Project No.	: 95-0954
Date Sampled	: 3/22/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/3/95	Matrix	: Water
Date Analyzed	: 4/3/95	Lab File No.	: BX2040321
		Method Blank No.	: MB040395

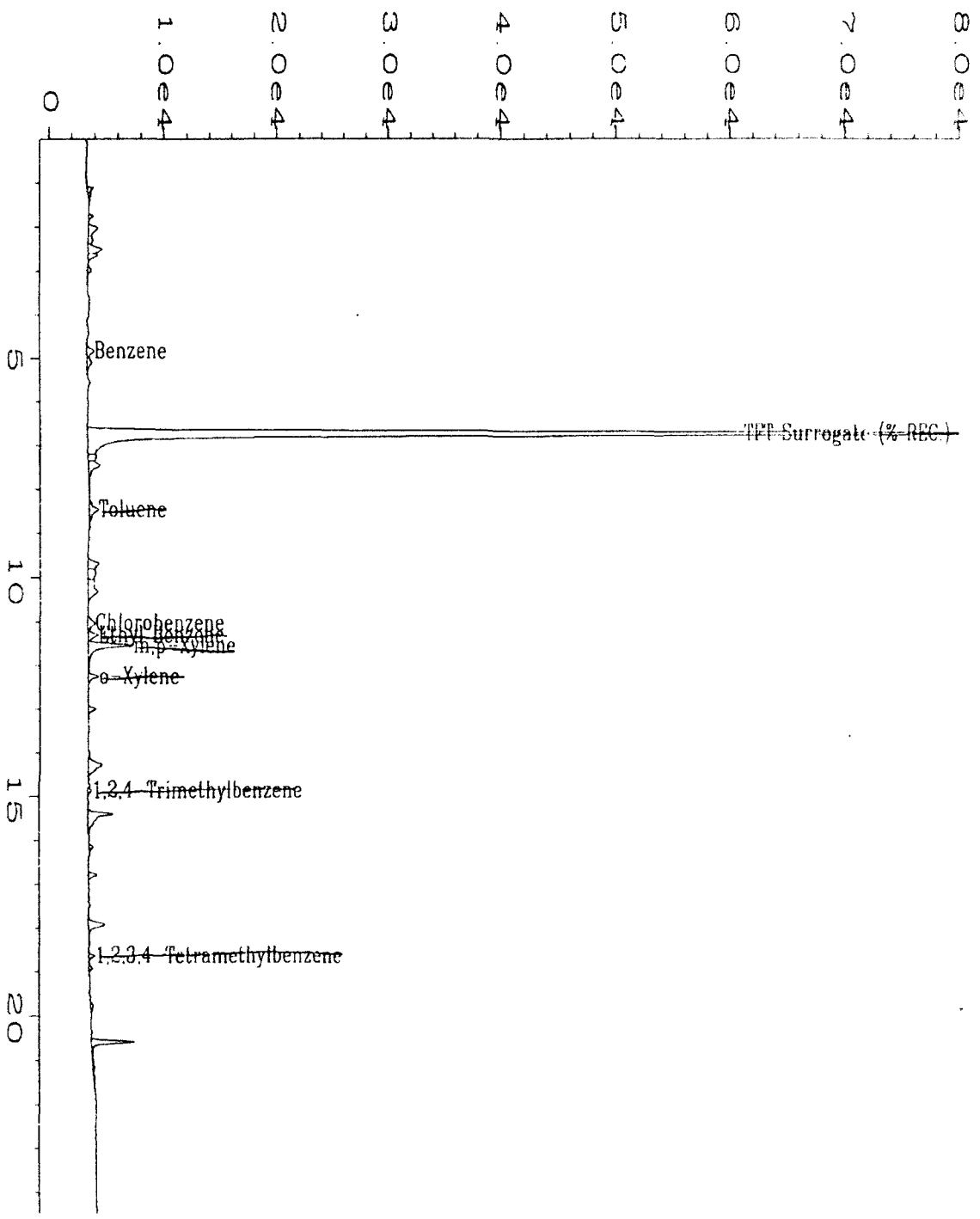
Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	0.4		0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	0.9		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		90%		70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20403\021R0701.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 21
Sample Name	: X04751;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 03 Apr 95 05:11 PM	Instrument Method	: BX2040
Report Created on	: 10 Apr 95 04:42 PM	Analysis Method	: BX2040
Last Recalib on	: 10 APR 95 04:19 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT#: 95-0954 CLIENT#: 24MP-2D WATER		

pm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24MP-2D	Client Project No.	: 722450.21020
Lab Sample Number	: X04751DUP	Lab Project No.	: 95-0954
Date Sampled	: 3/22/95	Dilution Factor	: 1 00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/3/95	Matrix	: Water
Date Analyzed	: 4/3/95	Lab File No.	: BX2040322
		Method Blank No.	: MB040395

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	0.9		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4

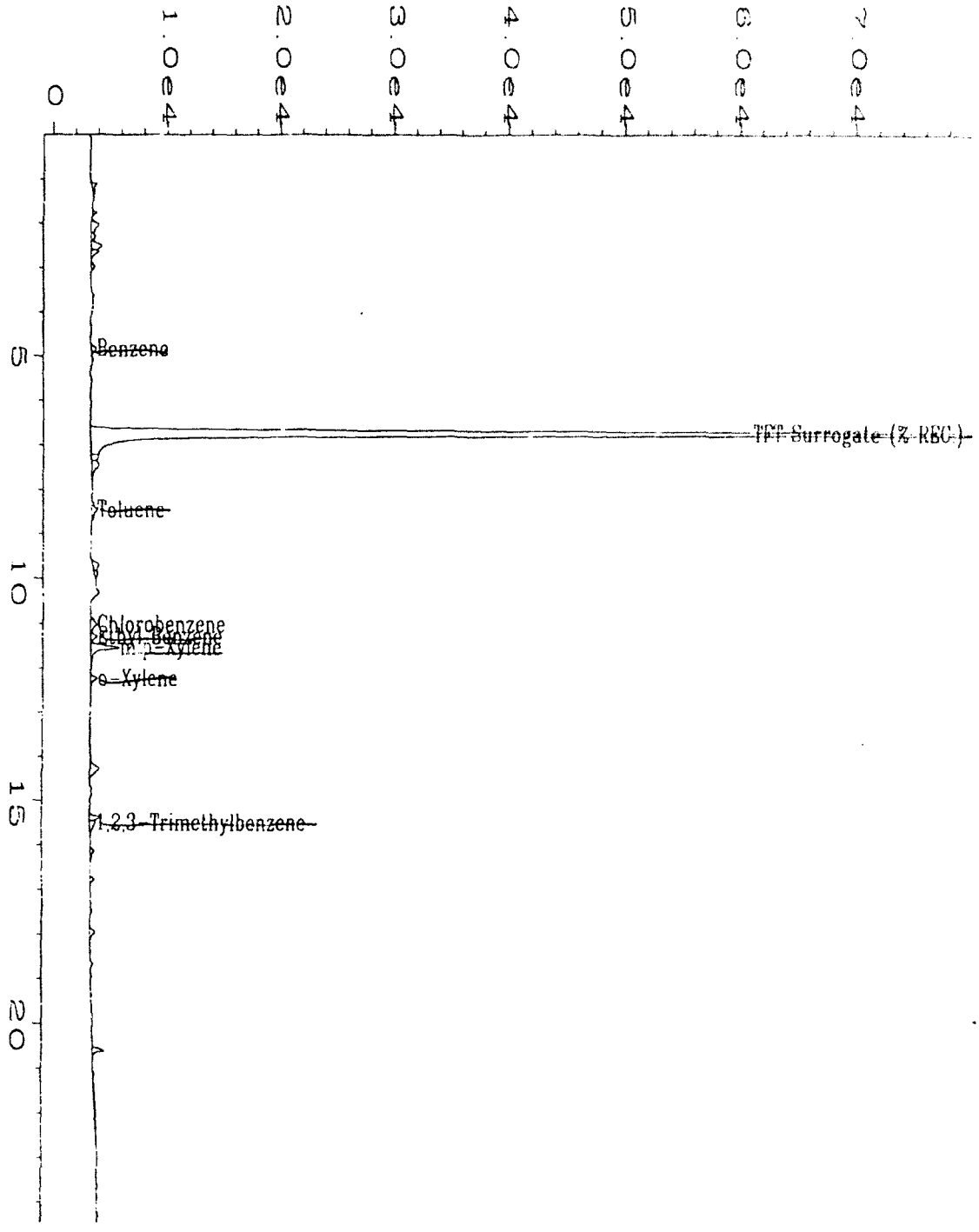
Surrogate Recovery (α,α,α-Trifluorotoluene):	94%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20403\022R0701.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04751DUP;1;5
Run Time Bar Code:
Acquired on : 03 Apr 95 05:56 PM
Report Created on: 10 Apr 95 04:43 PM
Last Recalib on : 10 APR 95 04:19 PM
Multiplier : 1
Sample Info : PROJECT#: 95-0954 CLIENT#: 24MP-2D WATER

Page Number : 1
Vial Number : 22
Injection Number : 1
Sequence Line : 7
Instrument Method: BX2040 MT
Analysis Method : BX204(MT
Sample Amount : 0
ISTD Amount :

pm 4/27/95

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS
TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 24MP-1D	**Client Project No.**	: 722450.21020/MAC
Lab Sample No.	: X04753	**Lab Project No.**	: 95-0954
Date Sampled	: 3/23/95	**EPA Method No.**	: 5030/8015 Mod.
Date Received	: 3/24/95	**Matrix**	: Water
Date Prepared	: 4/3/95	**Method Blank**	: MB040395
Date Analyzed	: 4/3/95		

Compound	Spike Added (mg/L)	Sample Concentration (mg/L)	MS Concentration (mg/L)	MS %REC	QC Limits %REC
Gasoline	1.00	0.00	0.91	91%	60-140

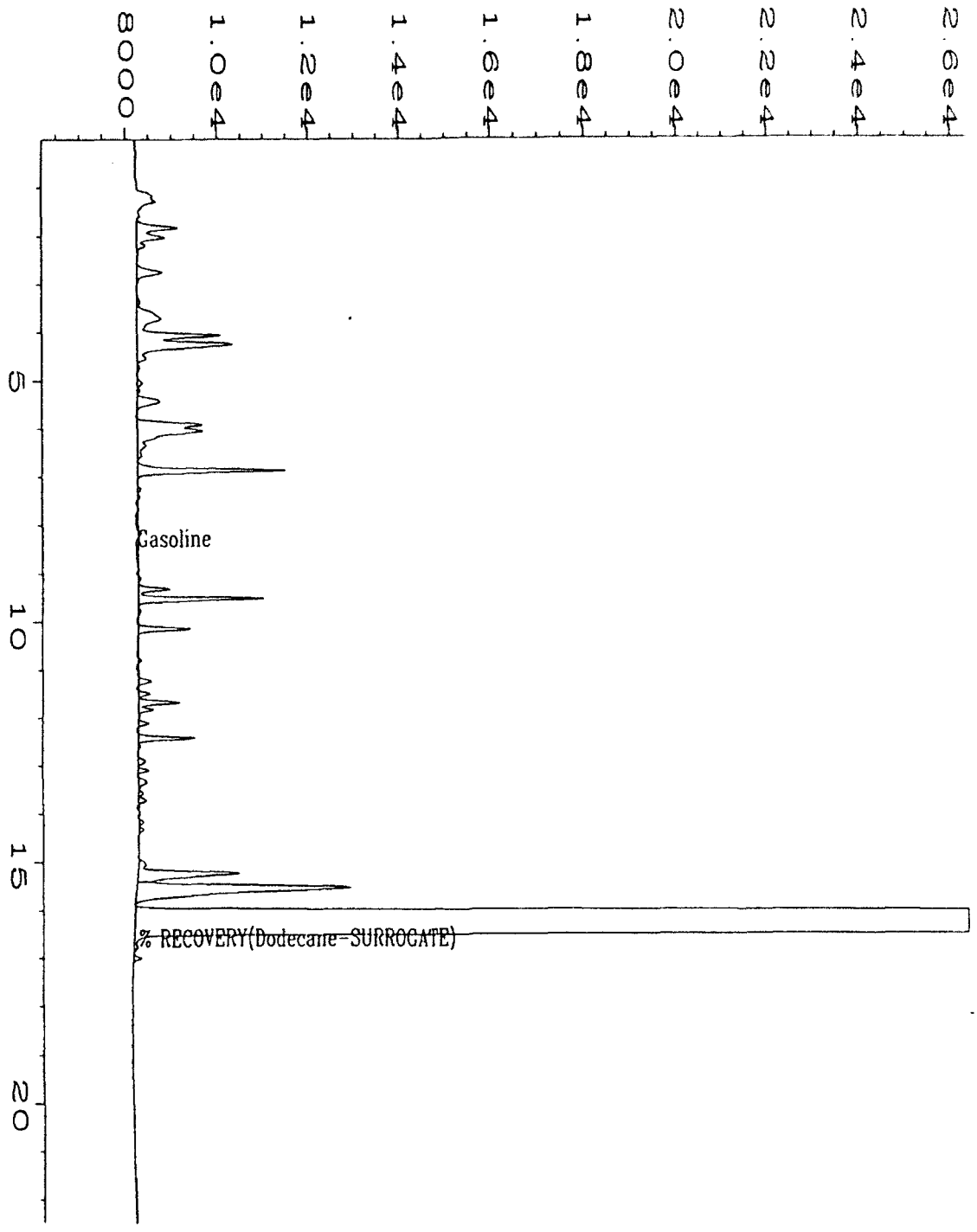
Compound	Spike Added (mg/L)	MSD Concentration (mg/L)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Gasoline	1.00	0.95	95%	4	50	60-140

* = Values outside of QC limits.

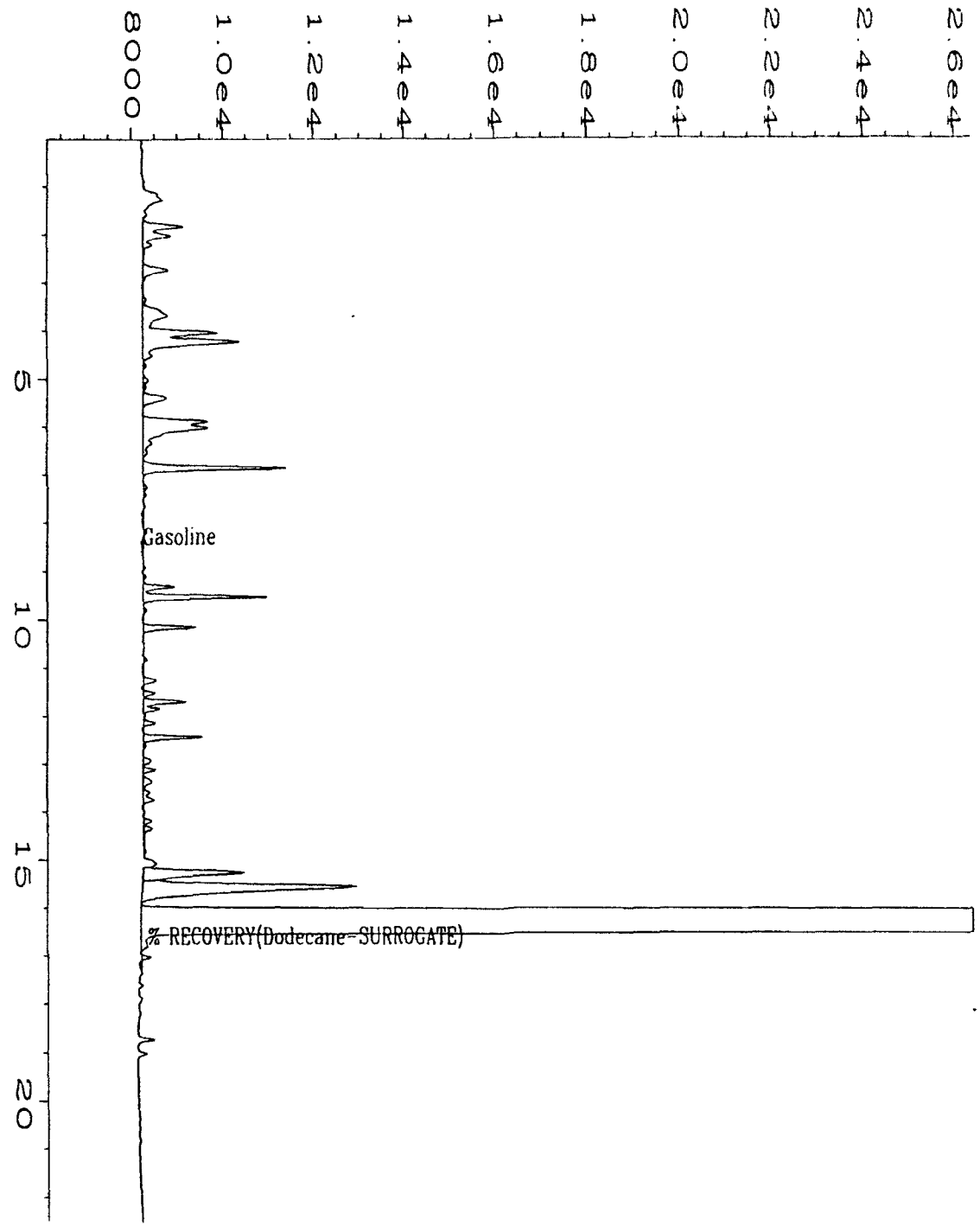
RPD: 0 out of (1) outside limits.

Spike Recovery: 0 out of (2) outside limits.

Comments: NA = Not analyzed/not applicable.



Data File Name	: C:\HPCHEM\1\DATA\tvh0402\044F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 44
Sample Name	: X04753 MS	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 05:27 PM	Instrument Method	: TVH040 T
Report Created on	: 03 Apr 95 05:50 PM	Analysis Method	: TVH040 T
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 1 PPM SPIKE		



Data File Name	: C:\HPCHEM\1\DATA\tvh0402\045F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 45
Sample Name	: X04753 MSD	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 06:01 PM	Instrument Method	: TVH0402.MTH
Report Created on	: 03 Apr 95 06:24 PM	Analysis Method	: TVH0402.MTH
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 1 PPM SPIKE		

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4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

BTEX Water Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 24MP-2D	Client Project No.	: 722450.21020 MacDill AFB
Lab Sample No.	: X04751	Lab Project No.	: 95-0954
Date Sampled	: 3/22/95	EPA Method No.	: 602
Date Received	: 3/24/95	Matrix	: Water
Date Prepared	: 4/3/95	Lab File Number(s)	: BX2040324,25
Date Analyzed	: 4/3/95	Method Blank	: MB040395

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Benzene	40.0	0.4	32.7	81	65-121
Toluene	40.0	0.0	33.3	83	69-117
Ethyl Benzene	40.0	0.0	33.0	83	68-118
m,p-Xylene	80.0	0.0	72.0	90	66-116
o-Xylene	40.0	0.0	33.2	83	73-117
Chlorobenzene	40.0	0.0	32.9	82	65-121
1,3,5-TMB	40.0	0.0	36.0	90	65-121
1,2,4-TMB	40.0	0.0	32.8	82	65-121
1,2,3-TMB	40.0	0.0	33.9	85	65-121
1,2,3,4-TeMB	40.0	0.0	34.7	87	65-121

Compound	Spike Added (ug/L)	MSD Concentration (ug/L)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Benzene	40.0	32.7	81	0.0	17.4	65-121
Toluene	40.0	33.1	83	0.6	15.8	69-117
Ethyl Benzene	40.0	33.1	83	0.3	11.9	68-118
m,p-Xylene	80.0	70.3	88	2.4	15.4	66-116
o-Xylene	40.0	32.8	82	1.2	13.2	73-117
Chlorobenzene	40.0	33.6	84	2.1	17.4	65-121
1,3,5-TMB	40.0	34.8	87	3.4	17.4	65-121
1,2,4-TMB	40.0	32.4	81	1.2	17.4	65-121
1,2,3-TMB	40.0	33.6	84	0.9	17.4	65-121
1,2,3,4-TeMB	40.0	33.8	85	2.6	17.4	65-121

* = Values outside of QC limits.

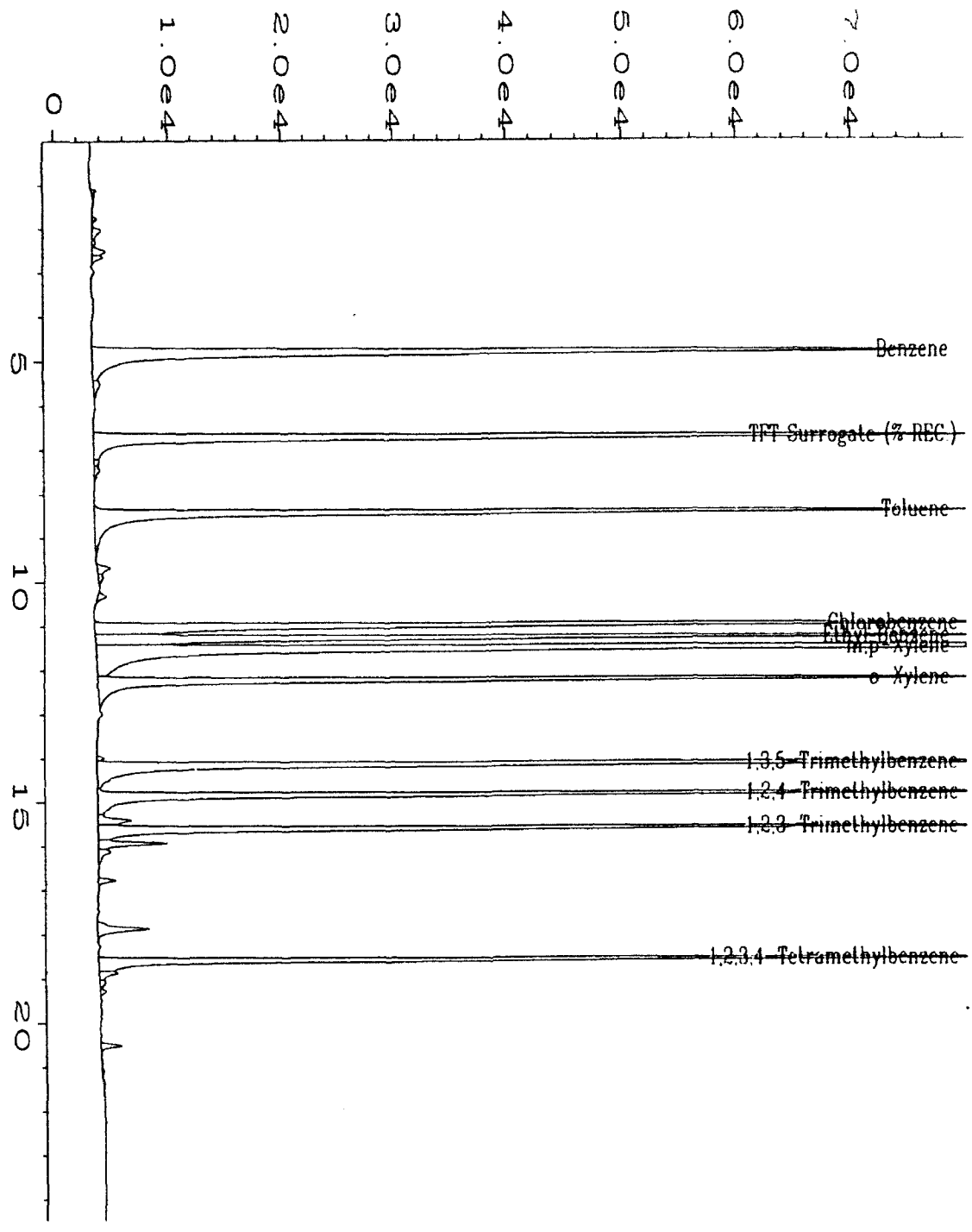
RPD: 0 out of (10) outside limits.

Spike Recovery: 0 out of (20) outside limits.

Comments:

KSC
Analyst

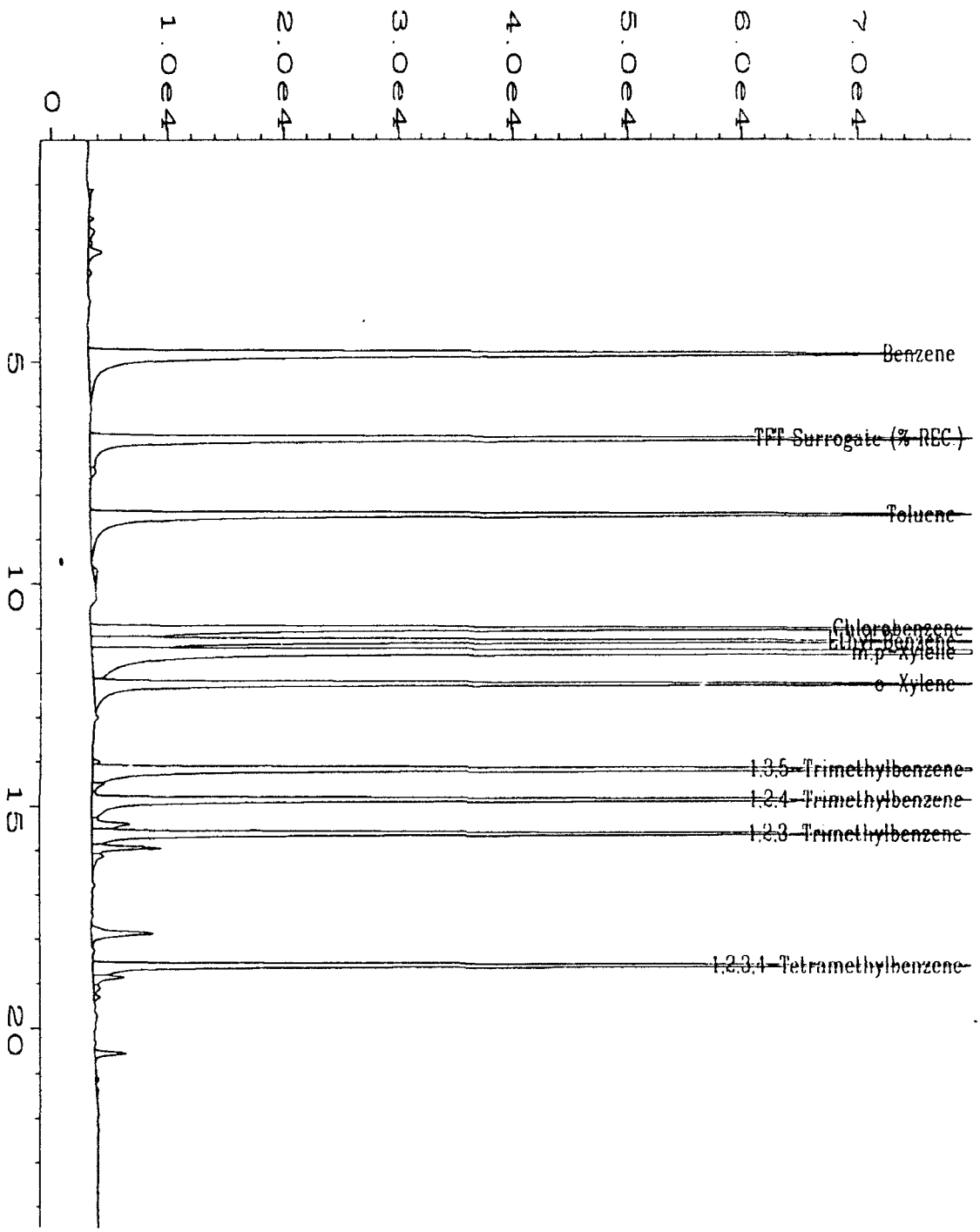
Approved



Data File Name : E:\2\DATA\BX20403\024R0701.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04751MS;1;5
Run Time Bar Code:
:quired on : 03 Apr 95 07:27 PM
.eport Created on: 10 Apr 95 05:12 PM
Last Recalib on : 10 APR 95 04:19 PM
Multiplier : 1

Page Number : 1
Vial Number : 24
Injection Number : 1
Sequence Line : 7
Instrument Method: BX20403.MTH
Analysis Method : BX20403.MTH
Sample Amount : 0
ISTD Amount :

24MP-3D



Data File Name	: C:\HPCHEM\2\DATA\BX20403\025R0701.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 25
Sample Name	: X04751MSD;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 03 Apr 95 08:12 PM	Instrument Method	: BX2040 T
Report Created on	: 10 Apr 95 04:45 PM	Analysis Method	: BX2040 .T
Last Recalib on	: 10 APR 95 04:19 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT#: 95-0954 CLIENT#: 24MP-2D WATER		

Evergreen Analytical, Inc.
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TOTAL EXTRACTABLE HYDROCARBONS

TEH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 24SS-2	**Client Project No.**	: 722.450.2102/MAC
Lab Sample No.	: X04770	**Lab Project No.**	: 95-0954
Date Sampled	: 3/23/95	**EPA Method No.**	: 3500/MOD.8015
Date Received	: 3/24/95	**Matrix**	: SOIL
Date Prepared	: 3/29/95	**Method Blank**	: SB032995
Date Analyzed	: 3/31/95-4/1/95		

Compound	Spike Added (ug/mL)	Sample Concentration (ug/mL)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Jet Fuel	1000	693	1520	83	60-140

Compound	Spike Added (ug/mL)	MSD Concentration (ug/mL)	MSD %REC	RPD	QC Limits RPD	QC Limits %REC
Jet Fuel	1000	1570	88	5.9	50	60-140

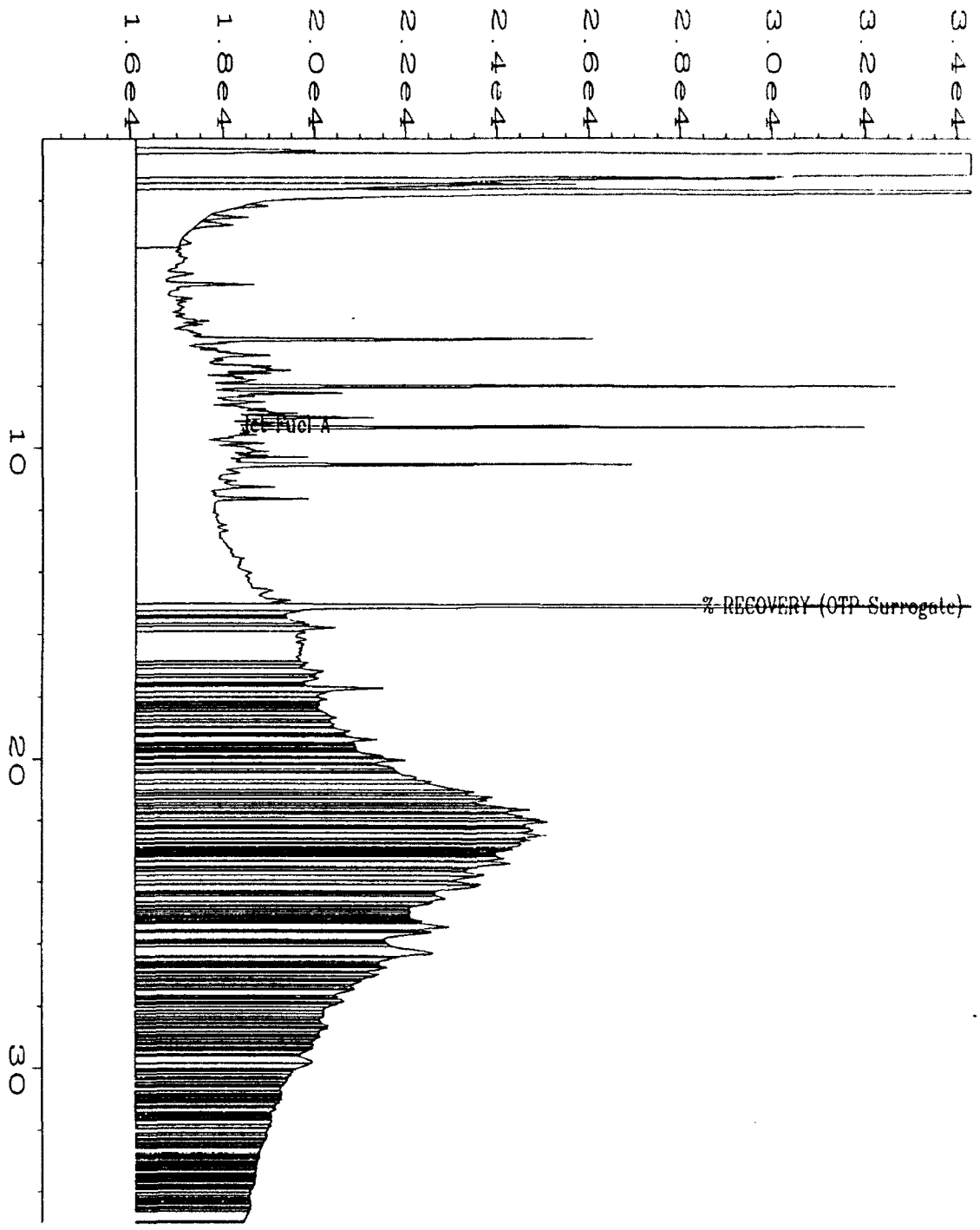
* = Values outside of QC limits.

RPD: 0 out of (1) outside limits.

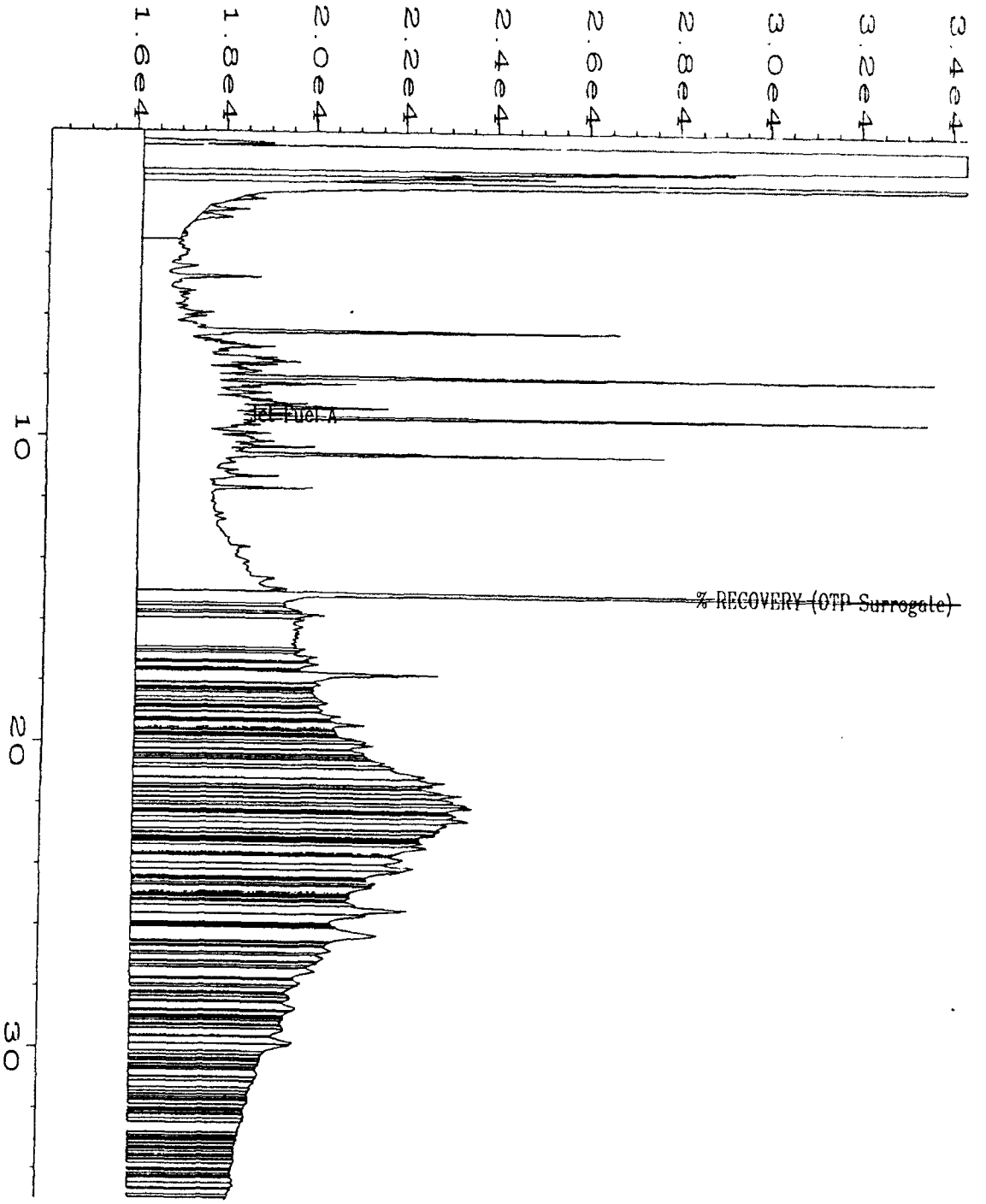
Spike Recovery: 0 out of (1) outside limits.

Comments: NA = Not analyzed/not applicable.

Values reported in ug/mL in the liquid extract.



Data File Name	: C:\HPCHEM\2\DATA\JET0331\012R0801.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 12
Sample Name	: X04770 MS	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 31 Mar 95 08:18 PM	Instrument Method	: JET033 TI
Report Created on	: 31 Mar 95 08:54 PM	Analysis Method	: JET033 .MTI
Last Recalib on	: 31 Mar 95 02:18 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



Data File Name : C:\HPCHEM\2\DATA\JET0331\013R0801.D
Operator : Dawn N. Guildner
Instrument : TEH
Sample Name : X04770 MSD
Run Time Bar Code:
'quired on : 31 Mar 95 09:08 PM
.port Created on: 31 Mar 95 09:43 PM
Last Recalib on : 31 Mar 95 02:18 PM
Multiplier : 1

Page Number : 1
Vial Number : 13
Injection Number : 1
Sequence Line : 8
Instrument Method: JET0331.MTH
Analysis Method : JET0331.MTH
Sample Amount : 0
ISTD Amount :

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report
Method Blank Report

Method Blank Number	: MB040395	Client Project No.	: 722450.21020
Date Prepared	: 4/3/95	Lab Project No.	: 95-0954
Date Analyzed	: 4/3/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX2040318

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4

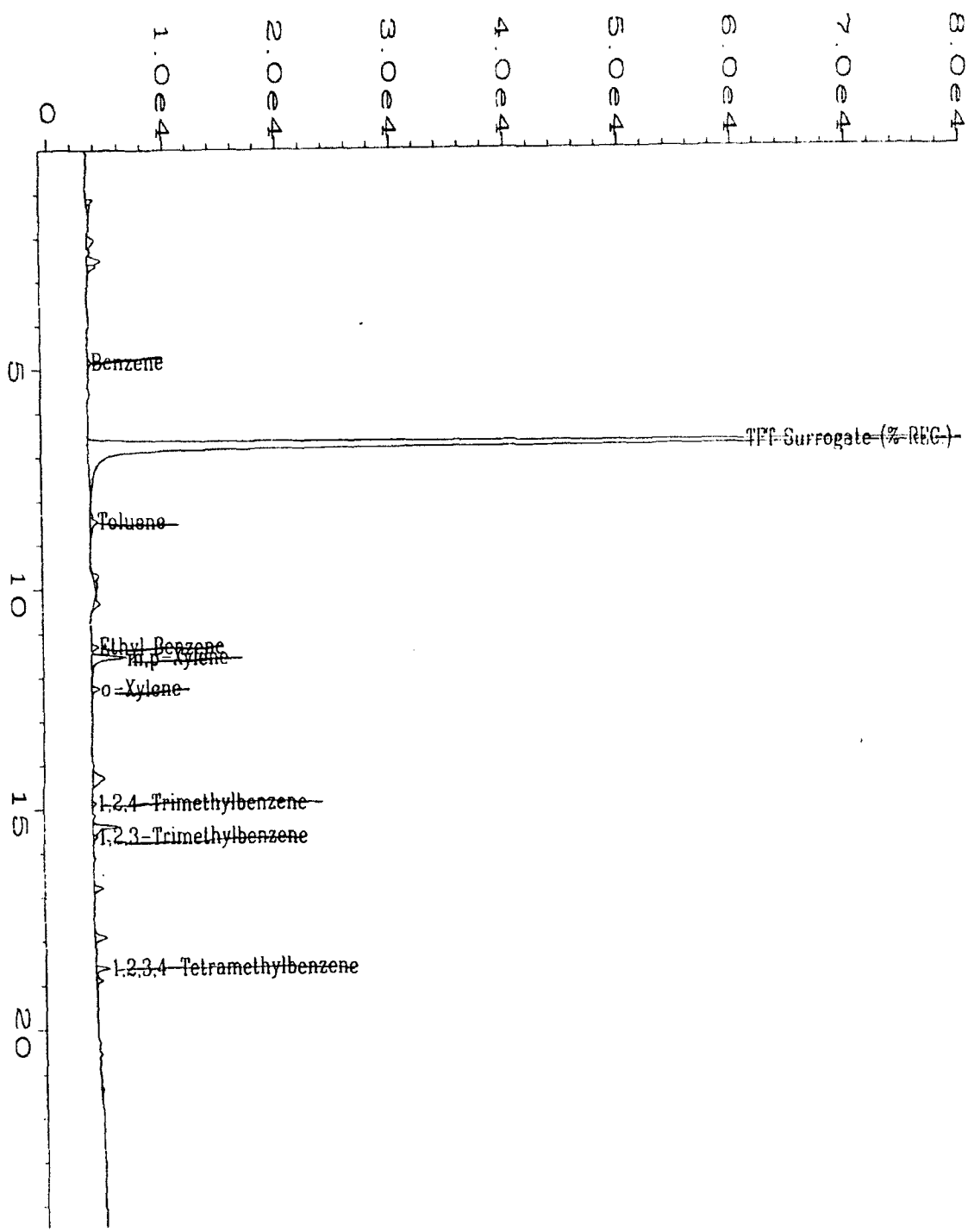
Surrogate Recovery (α,α,α-Trifluorotoluene):	99%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved



Data File Name : C:\HPCHEM\2\DATA\BX20403\018R0701.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : MB040395
Run Time Bar Code:
quired on : 03 Apr 95 02:56 PM
eport Created on: 10 Apr 95 04:41 PM
Last Recalib on : 10 APR 95 04:19 PM
Multiplier : 1

Page Number : 1
Vial Number : 18
Injection Number : 1
Sequence Line : 7
Instrument Method: BX20403.MTH
Analysis Method : BX20403.MTH
Sample Amount : 0
ISTD Amount :

pm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report
Method Blank Report

Method Blank Number	: MB040495	Client Project No.	: 722450.21020
Date Prepared	: 4/4/95	Lab Project No.	: 95-0954
Date Analyzed	: 4/4/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX2040409

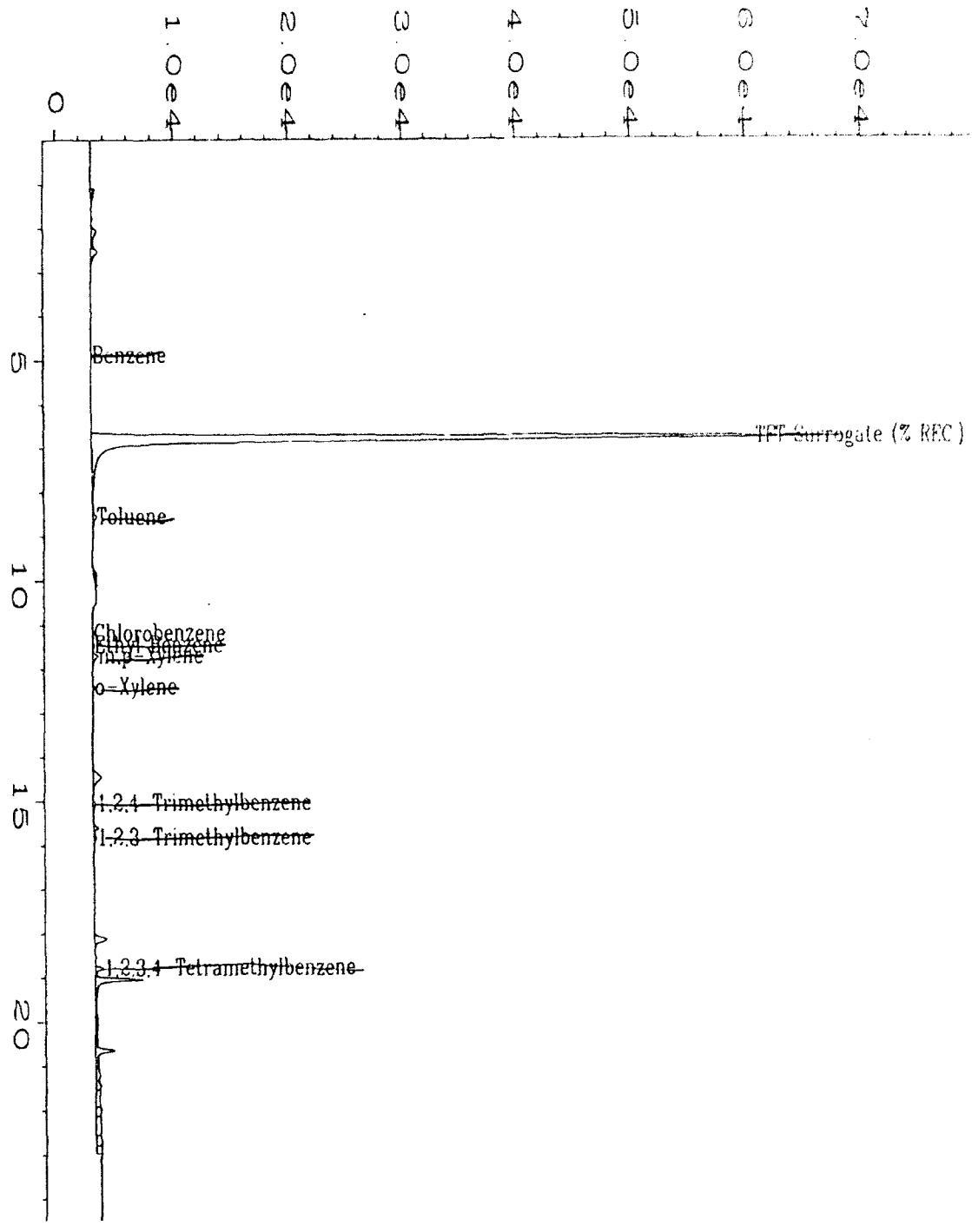
Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	0.7		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108 38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		97%		70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

P.McClelle
Approved



Data File Name	: E:\2\DATA\BX20404\009R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 9
Sample Name	: MB040495	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 04 Apr 95 06:01 AM	Instrument Method	: BX20404.MTH
Report Created on	: 26 Apr 95 05:52 PM	Analysis Method	: BX20404.MTH
Last Recalib on	: 14 APR 95 02:10 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report
Method Blank Report

Method Blank Number	: MB040595	Client Project No.	: 722450.21020
Date Prepared	: 4/5/95	Lab Project No.	: 95-0954
Date Analyzed	: 4/5/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX1040509

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4

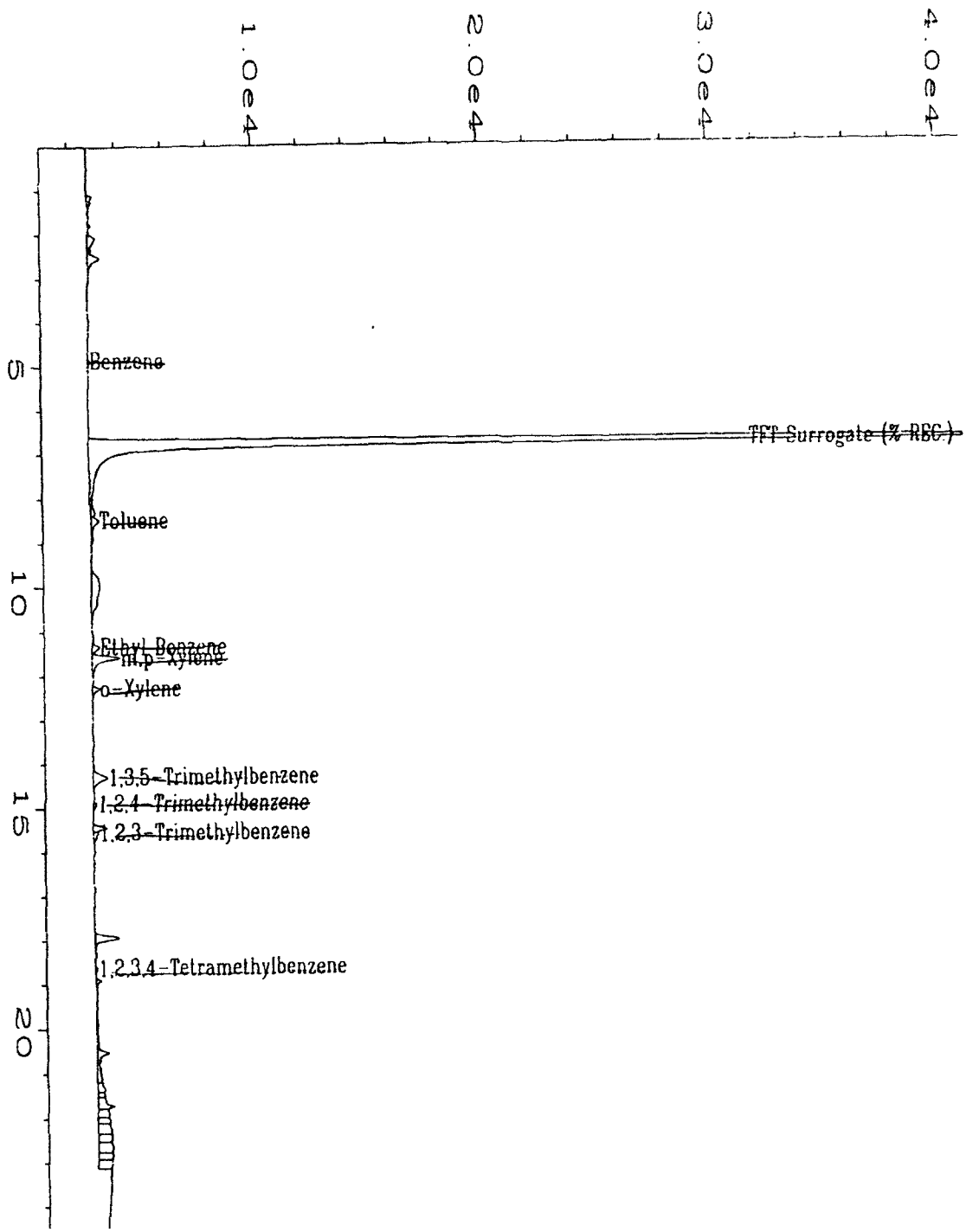
Surrogate Recovery (α,α,α-Trifluorotoluene):	93%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved



Data File Name : C:\HPCHEM\2\DATA\BX20405\009R0901.D
Operator : SW Tyson
Instrument : BTEX2
Sample Name : MB040595
Run Time Bar Code:
quired on : 05 Apr 95 04:21 PM
eport Created on: 06 Apr 95 08:31 AM
Last Recalib on : 06 APR 95 08:23 AM
Multiplier : 1

Page Number : 1
Vial Number : 9
Injection Number : 1
Sequence Line : 9
Instrument Method: BX20405.MTH
Analysis Method : BX20405.MTH
Sample Amount : 0
ISTD Amount :

4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-80201

Method 8020 Data Report
Method Blank Report

Method Blank Number	: MB040695	Client Project No.	: 722450.21020
Date Extracted/Prepared	: 4/6/95	Lab Project No.	: 95-0954
Date Analyzed	: 4/6/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX2040609

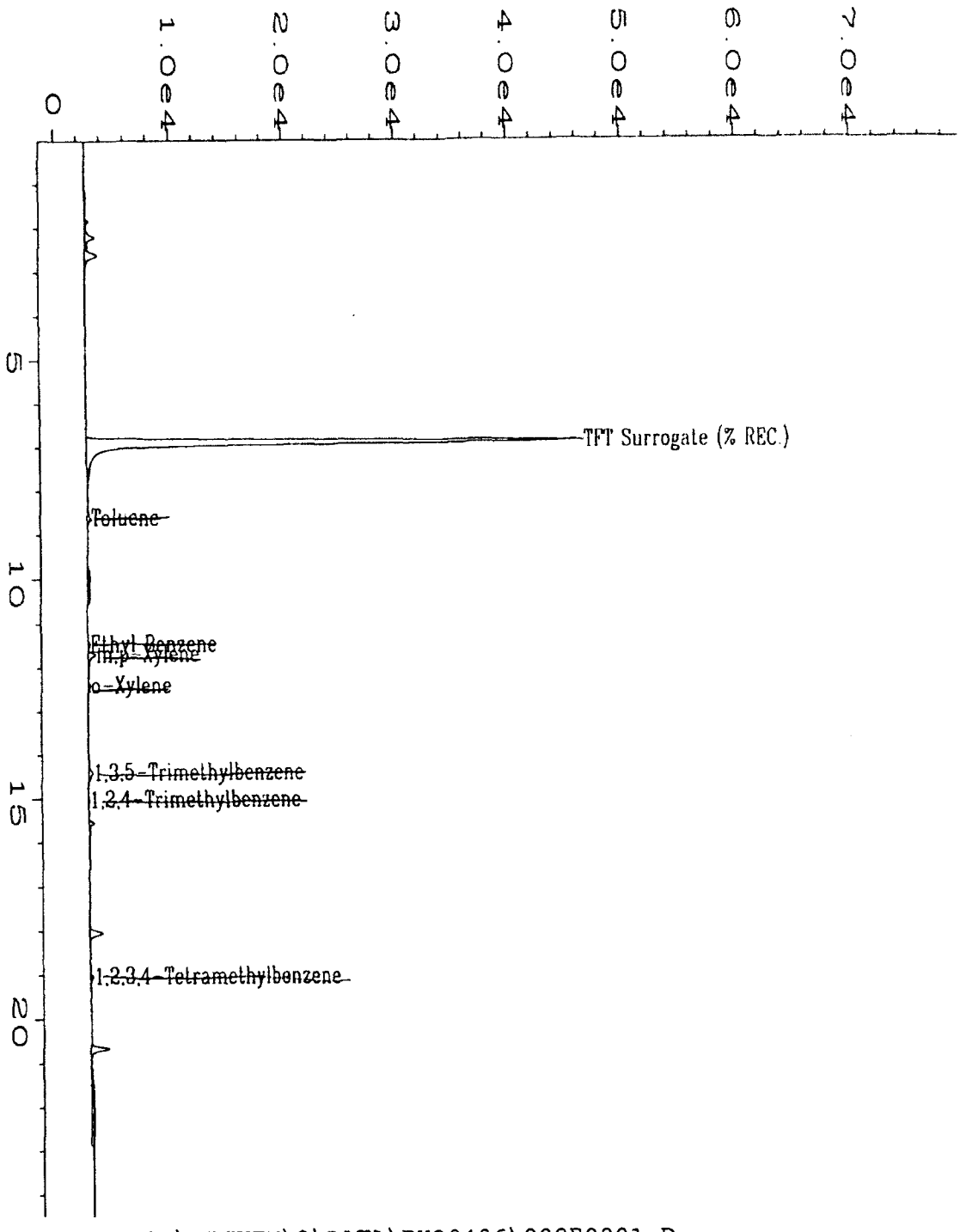
Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	U		1.0
Toluene	108-88-3	U		1.0
Chlorobenzene	108-90-7	U		1.0
Ethyl Benzene	100-41-4	U		1.0
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U		1.0
1,3,5-Trimethylbenzene	108-67-8	U		1.0
1,2,4-Trimethylbenzene	95-63-6	U		1.0
1,2,3-Trimethylbenzene	526-73-8	U		1.0
1,2,3,4-Tetramethylbenzene	488-23-3	U		1.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		105%		70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20406\009R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 9
Sample Name	: MB040695	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 06 Apr 95 02:47 PM	Instrument Method	: BX20406.MTH
Report Created on	: 14 Apr 95 02:46 PM	Analysis Method	: BX20406.MTH
Last Recalib on	: 07 APR 95 07:38 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

DRA 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-602

Method 602 Data Report

Client Sample Number	: Trip Blank	Client Project No.	: 722450.21020
Lab Sample Number	: X04763	Lab Project No.	: 95-0954
Date Sampled	: 3/22/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/6/95	Lab File No.	: BX2040521
		Method Blank No.	: MB040595

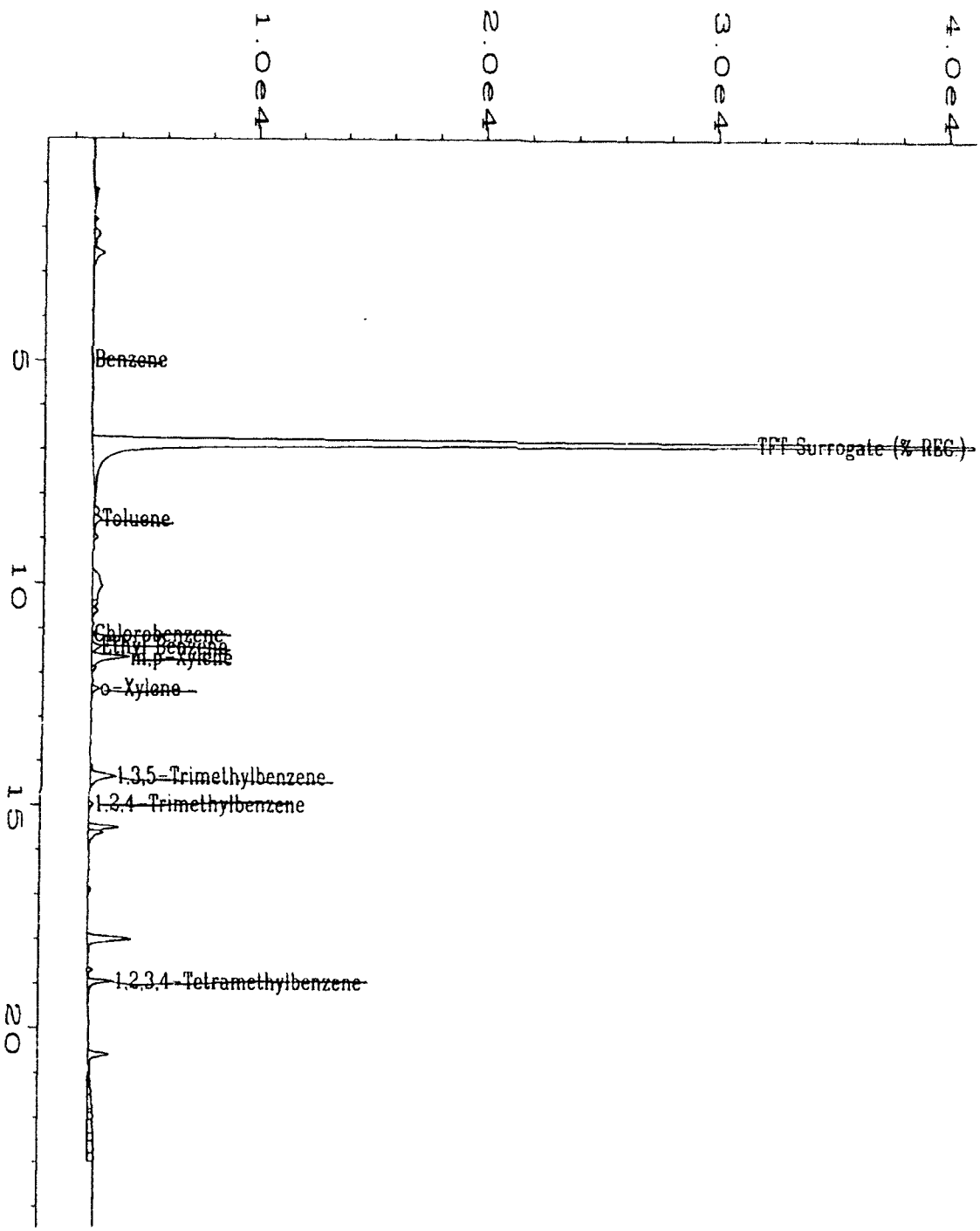
Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		88%		70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20405\021R0901.D		
Operator	: SW Tyson	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 21
Sample Name	: X04763;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 06 Apr 95 01:29 AM	Instrument Method	: BX20405.MTH
Report Created on	: 06 Apr 95 08:39 AM	Analysis Method	: BX20405.MTH
Last Recalib on	: 06 APR 95 08:23 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0954 Client#: TRIP BLANK Water		

pm 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS040395	Dilution Factor	: 1.00
Date Extracted/Prepared	: 4/3/95	Method	: 602
Date Analyzed	: 4/3/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX20403019

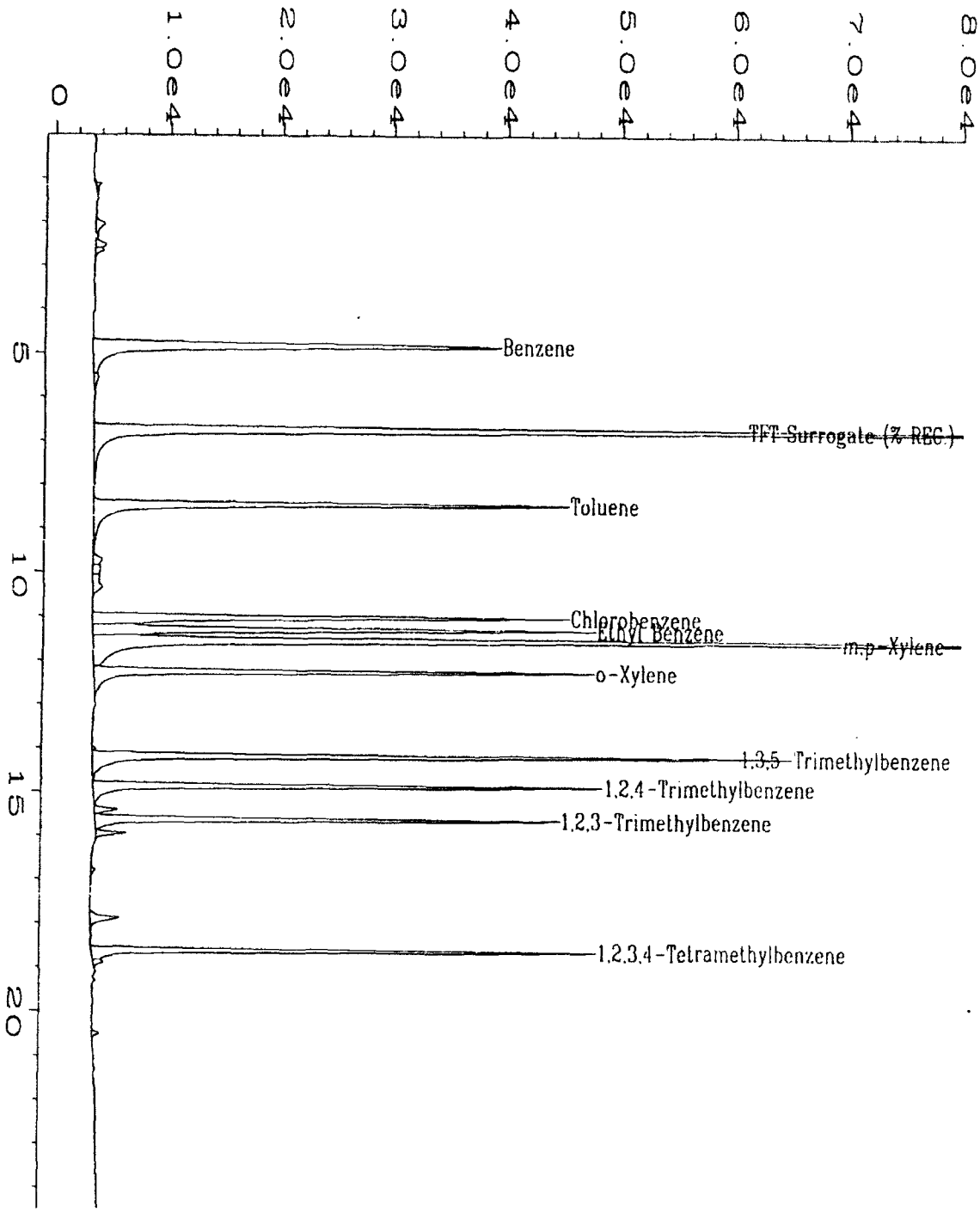
Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	17.2	86.0	71.0-119.0*
Toluene	108-88-3	17.8	89.0	73.0-111.0*
Chlorobenzene	108-90-7	16.8	84.0	64.0-119.0*
Ethyl Benzene	100-41-4	17.5	87.5	75.0-114.0*
m,p-Xylene	108-38-3	37.8	106.0	75.0-114.0*
o-Xylene	106-42-3 95-47-6	17.4	87.0	64.0-1 0*
1,3,5-Trimethylbenzene	108-67-8	18.2	91.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	16.5	82.5	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	16.4	82.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	16.4	82.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		92%	70%-130% (QC limits)	

* = Limits established 4/3/95 KSC

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20403\019R0701.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 19
Sample Name	: LCS040395	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 03 Apr 95 03:41 PM	Instrument Method	: BX20403.MTH
Report Created on	: 10 Apr 95 04:41 PM	Analysis Method	: BX20403.MTH
Last Recalib on	: 10 APR 95 04:19 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: REF #1649		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS040495	Dilution Factor	: 1.00
Date Extracted/Prepared	: 4/4/95	Method	: 602
Date Analyzed	: 4/4/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX20404010
		GC	: BX2

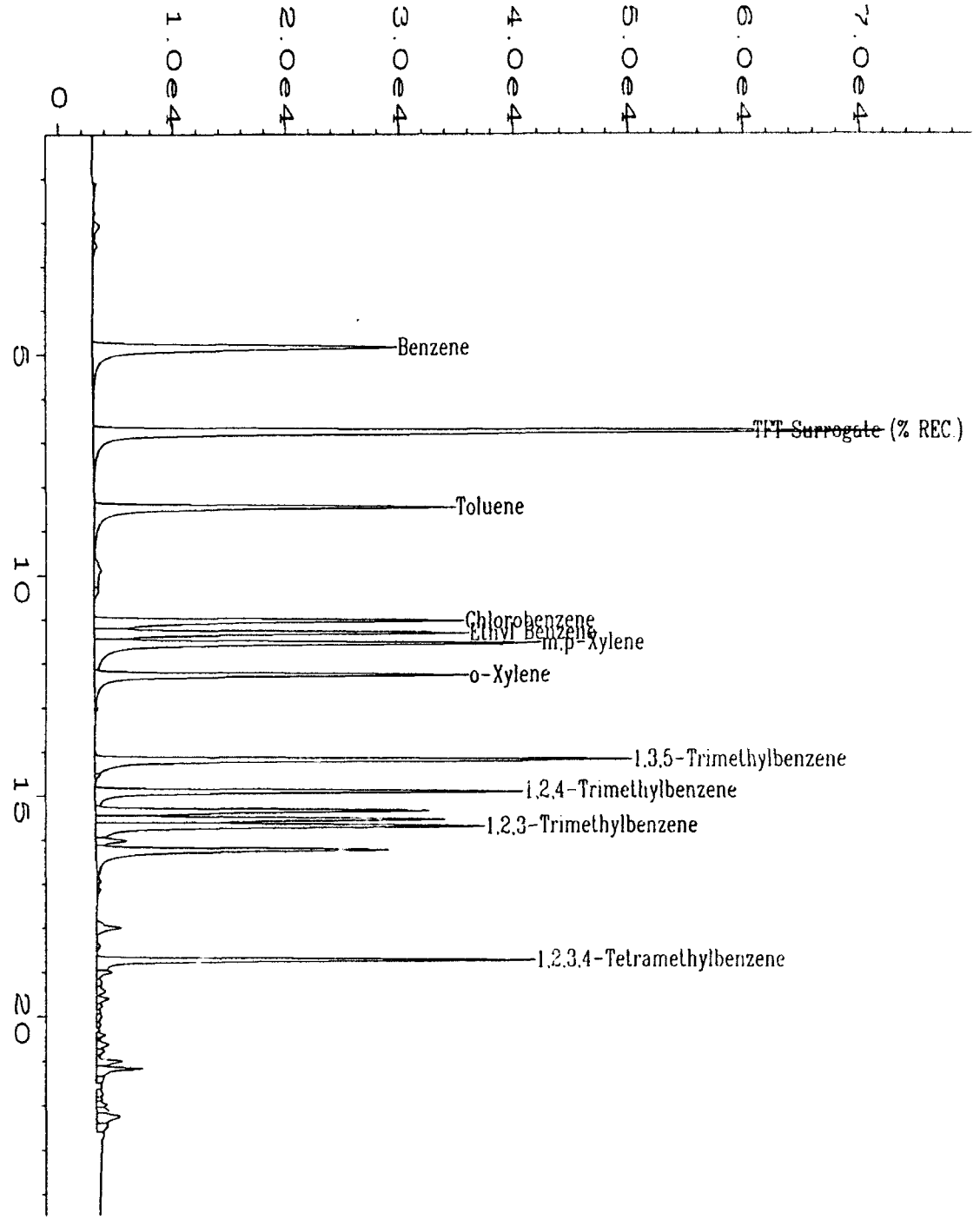
Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.6	78.0	71.0-119.0*
Toluene	108-88-3	15.9	79.5	73.0-111.0*
Chlorobenzene	108-90-7	15.9	79.5	64.0-119.0*
Ethyl Benzene	100-41-4	16.2	81.0	75.0-114.0*
m,p-Xylene	108-38-3	17.2	86.0	75.0-114.0*
o-Xylene	106-42-3 95-47-6	16.0	80.0	64.0-11[illegible]*
1,3,5-Trimethylbenzene	108-67-8	16.7	83.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.1	85.5	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.0	100.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	18.7	93.5	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		98%	70%-130% (QC limits)	

* = Limits established 4/3/95 KSC

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Cone
Analyst

Approved



Data File Name	: E:\2\DATA\BX20404\010R0901.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 10
Sample Name	: LCS040495	Injection Number	: 1
Run Time Bar Code	:	Sequence Line	: 9
Acquired on	: 04 Apr 95 06:48 AM	Instrument Method	: BX20404.MTH
Report Created on	: 26 Apr 95 05:52 PM	Analysis Method	: BX20404.MTH
Last Recalib on	: 14 APR 95 02:10 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS040595	Dilution Factor	: 1.00
Date Extracted/Prepared	: 4/5/95	Method	: 602
Date Analyzed	: 4/5/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX2040510

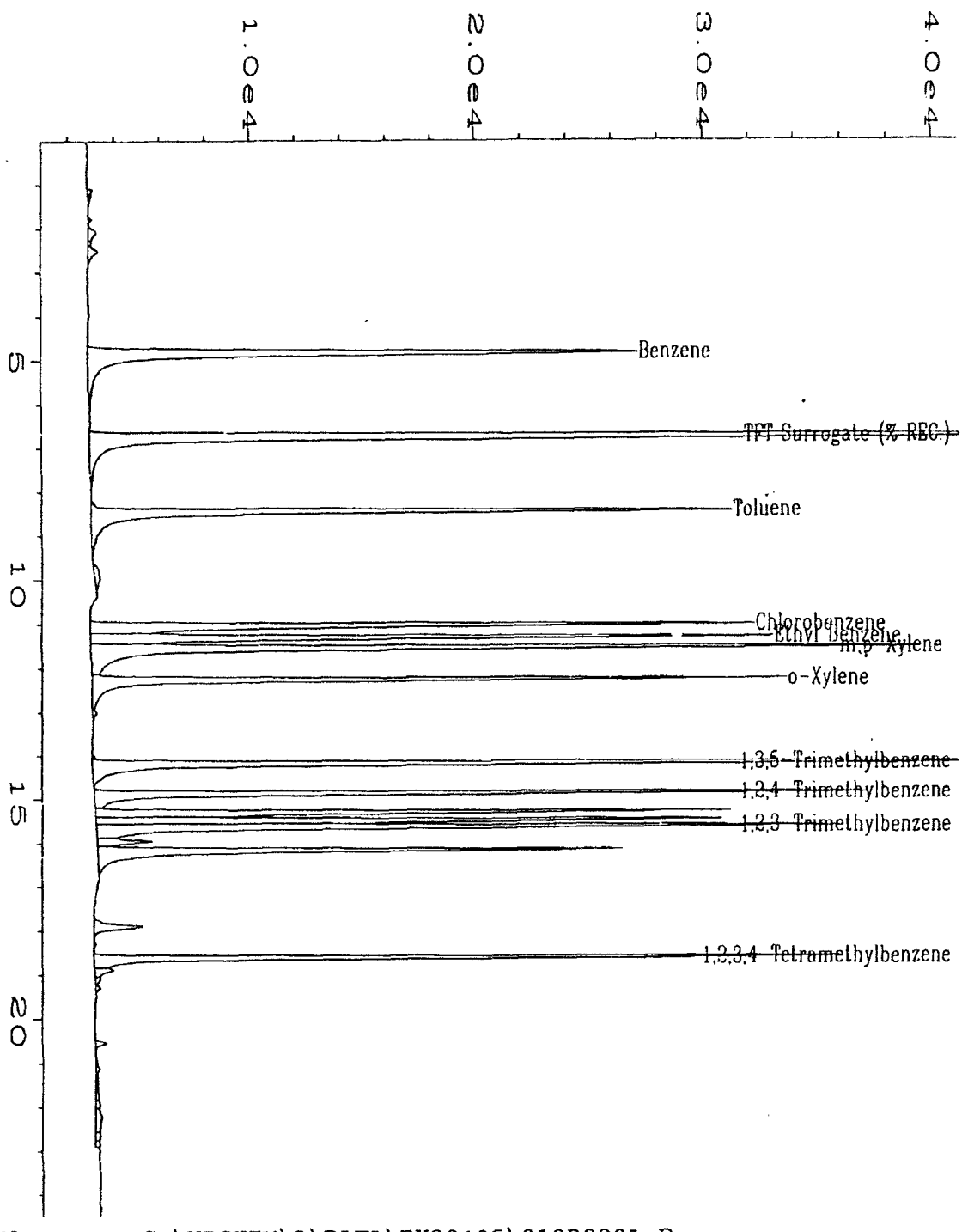
Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.8	79.0	71.0-119.0*
Toluene	108-88-3	16.2	81.0	73.0-111.0*
Chlorobenzene	108-90-7	16.3	81.5	64.0-119.0*
Ethyl Benzene	100-41-4	16.6	83.0	75.0-114.0*
m,p-Xylene	108-38-3	17.6	88.0	75.0-114.0*
o-Xylene	106-42-3 95-47-6	16.7	83.5	64.0-119.0*
1,3,5-Trimethylbenzene	108-67-8	16.9	84.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.4	87.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.1	100.5	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.9	89.5	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		93%	70%-130% (QC limits)	

* = Limits established 4/3/95 KSC

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20405\010R0901.D		
Operator	: SW Tyson	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 10
Sample Name	: LCS040595	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 05 Apr 95 05:07 PM	Instrument Method	: BX20405.MTH
Report Created on	: 06 Apr 95 08:32 AM	Analysis Method	: BX20405.MTH
Last Recalib on	: 06 APR 95 08:23 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS040695	Dilution Factor	: 1.00
Date Extracted/Prepared	: 4/6/95	Method	: 602
Date Analyzed	: 4/6/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX2040610

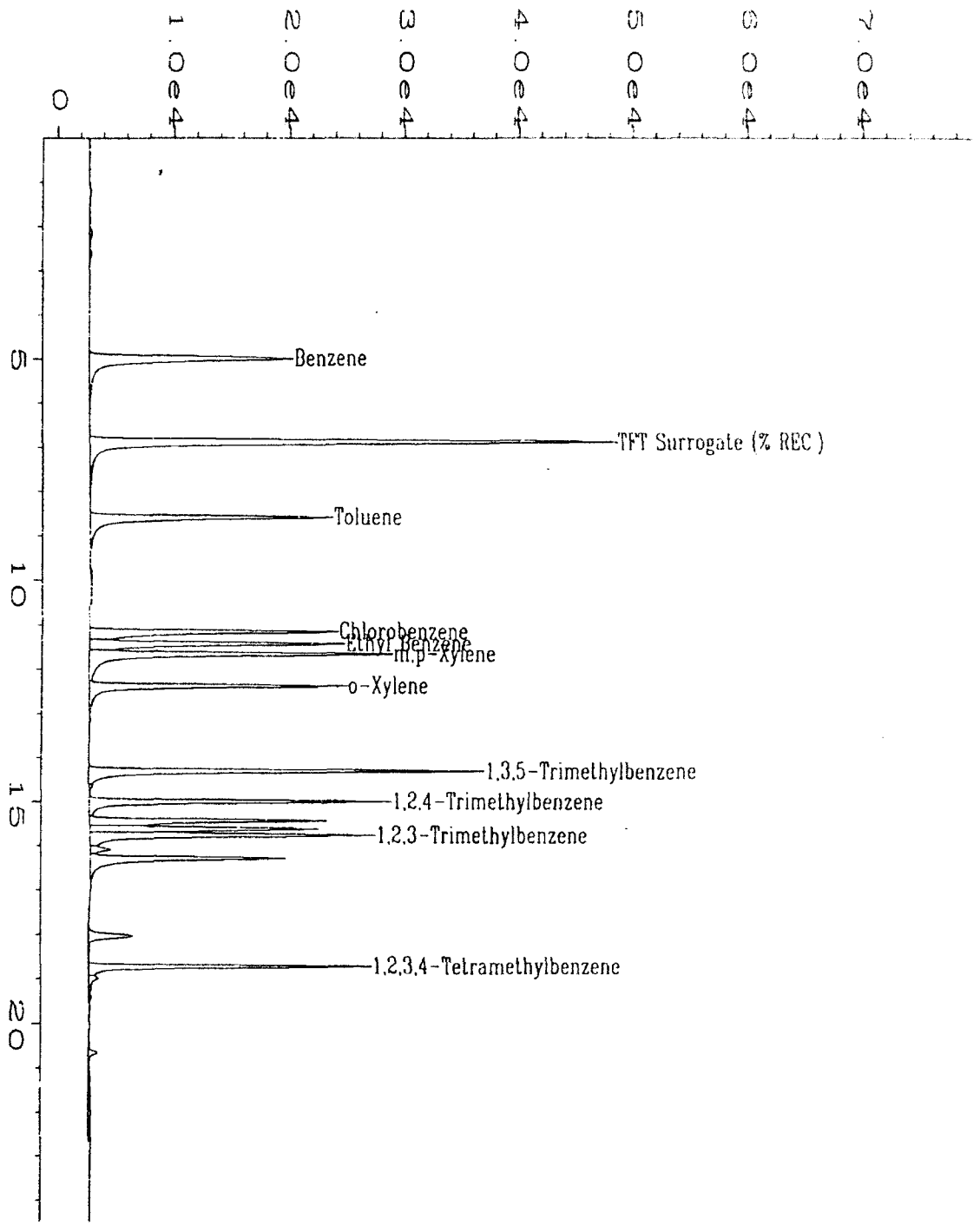
Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.8	79.0	71.0-119.0*
Toluene	108-88-3	16.2	81.0	73.0-111.0*
Chlorobenzene	108-90-7	16.2	81.0	64.0-119.0*
Ethyl Benzene	100-41-4	16.8	84.0	75.0-114.0*
m,p-Xylene	108-38-3	18.2	91.0	75.0-114.0*
o-Xylene	106-42-3 95-47-6	16.6	83.0	64.0-119.0*
1,3,5-Trimethylbenzene	108-67-8	17.1	85.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.4	87.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.8	104.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.4	87.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		106%	70%-130% (QC limits)	

* = Limits established 4/3/95 KSC

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K Cone
Analyst

P McClelland
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20406\010R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 10
Sample Name	: LCS040695	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 06 Apr 95 03:32 PM	Instrument Method	: BX20406.MTH
Report Created on	: 07 Apr 95 08:15 AM	Analysis Method	: BX20406.MTH
Last Recalib on	: 07 APR 95 07:38 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH-GASOLINE)

Date Sampled	: 3/22,23/95	Client Project Number	: 722450.21020/MACDILL
Date Received	: 3/24/95	Lab Project Number	: 95-0954
Date Prepared	: 4/2,3/95	Matrix	: Water
Date Analyzed	: 4/2,3,4/95	Method Number	: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH mg/L	RL mg/L
MB040295	METHOD BLANK	100%	U	0.1
MB040395	METHOD BLANK	75%	U	0.1
MB040395B	METHOD BLANK	101%	U	0.1
X04750	MD24-8	100%	U	0.1
X04751	24MP-2D	108%	U	0.1
X04751 DUP	24MP-2D	108%	U	0.1
X04752	24MP-2S	102%	1.0	0.1
X04753	24MP-1D	103%	U	0.1
X04754	24MP-1S	103%	13	0.5
X04755	MD24-2	98%	U	0.1
X04756	MD24-5	101%	U	0.1
X04757	24MP-4S	107%	U	0.1
X04758	MD24-4	108%	U	0.1
X04759	MD24-41	106%	U	0.1
X04760	MD24-3	106%	U	0.1
X04761	MD24-1	107%	U	0.1
X04762	24MP-5D	105%	U	0.1
X04762 DUP	24MP-5D	104%	U	0.1

QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
RL = Reporting Limit

Analyst

Approved

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH-GASOLINE)

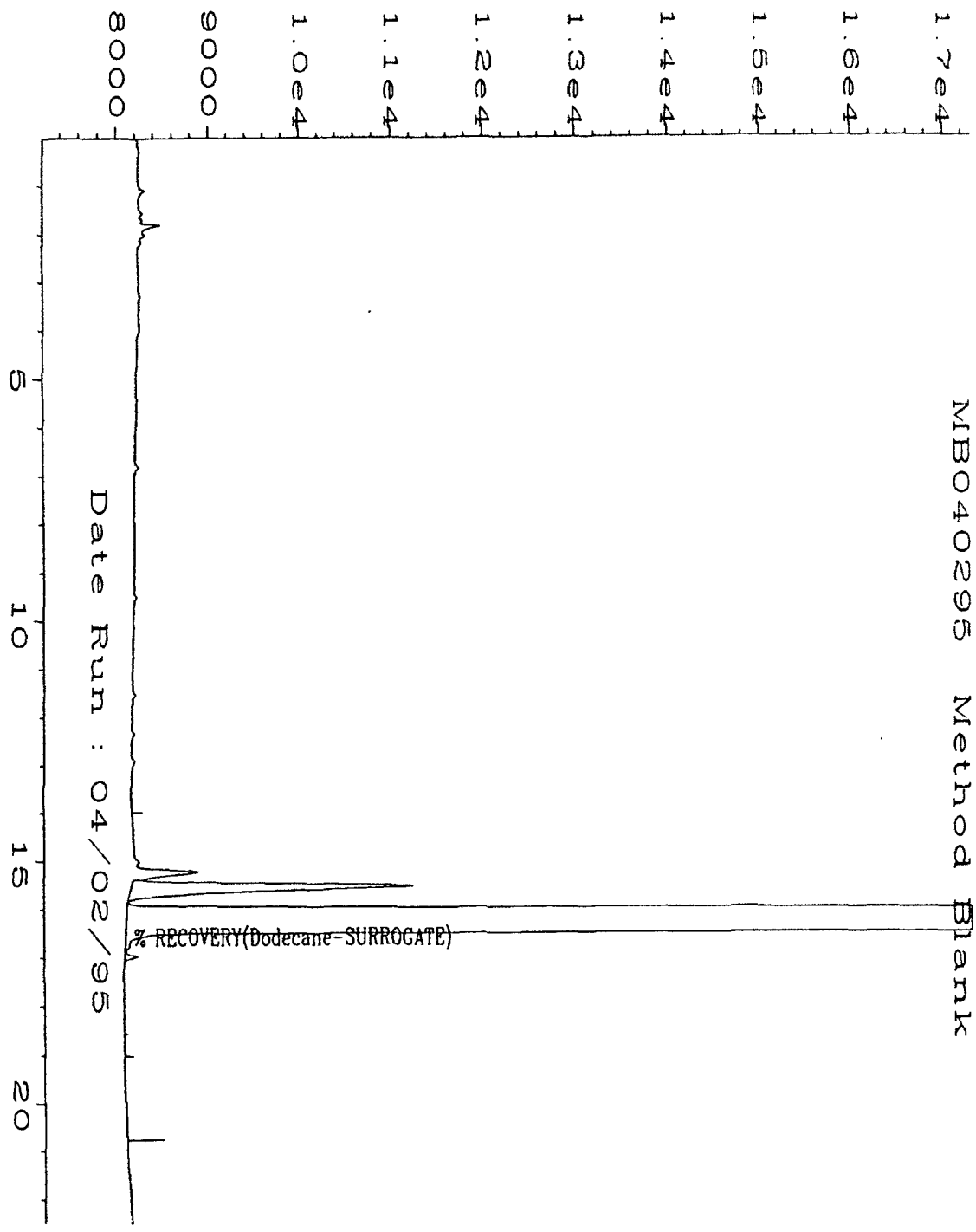
Date Sampled	: 3/23/95	Client Project Number	: 722450.21020/MACDILL
Date Received	: 3/24/95	Lab Project Number	: 95-0954
Date Prepared	: 4/3/95	Matrix	: Soil
Date Analyzed	: 4/4/95	Method Number	: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH* mg/Kg	RL* mg/Kg
MB040395B	METHOD BLANK	100%	U	0.1
X04770	24SS-2	102%	U	0.14

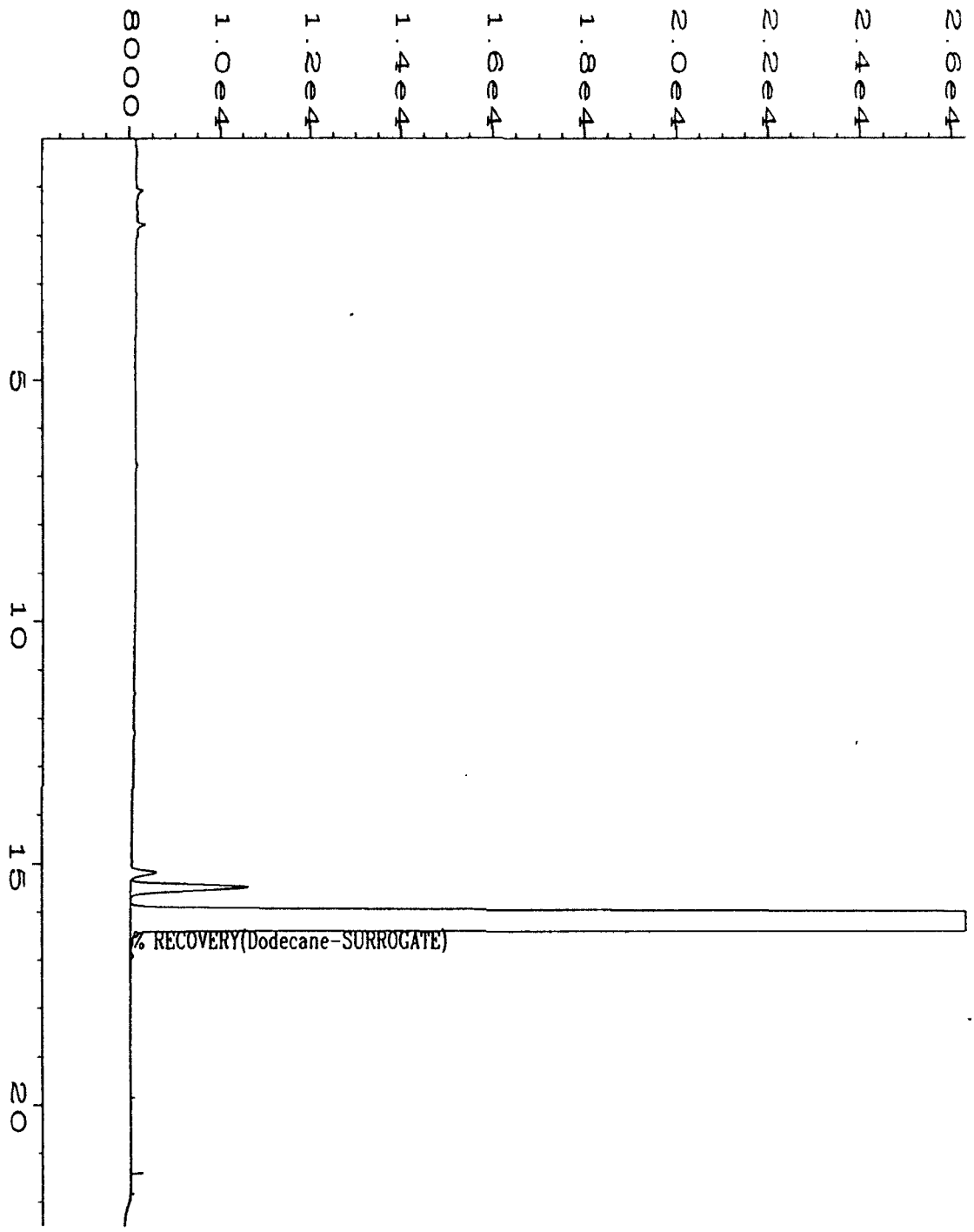
* = Result reported on a dry weight basis.
QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
RL = Reporting Limit

Analyst

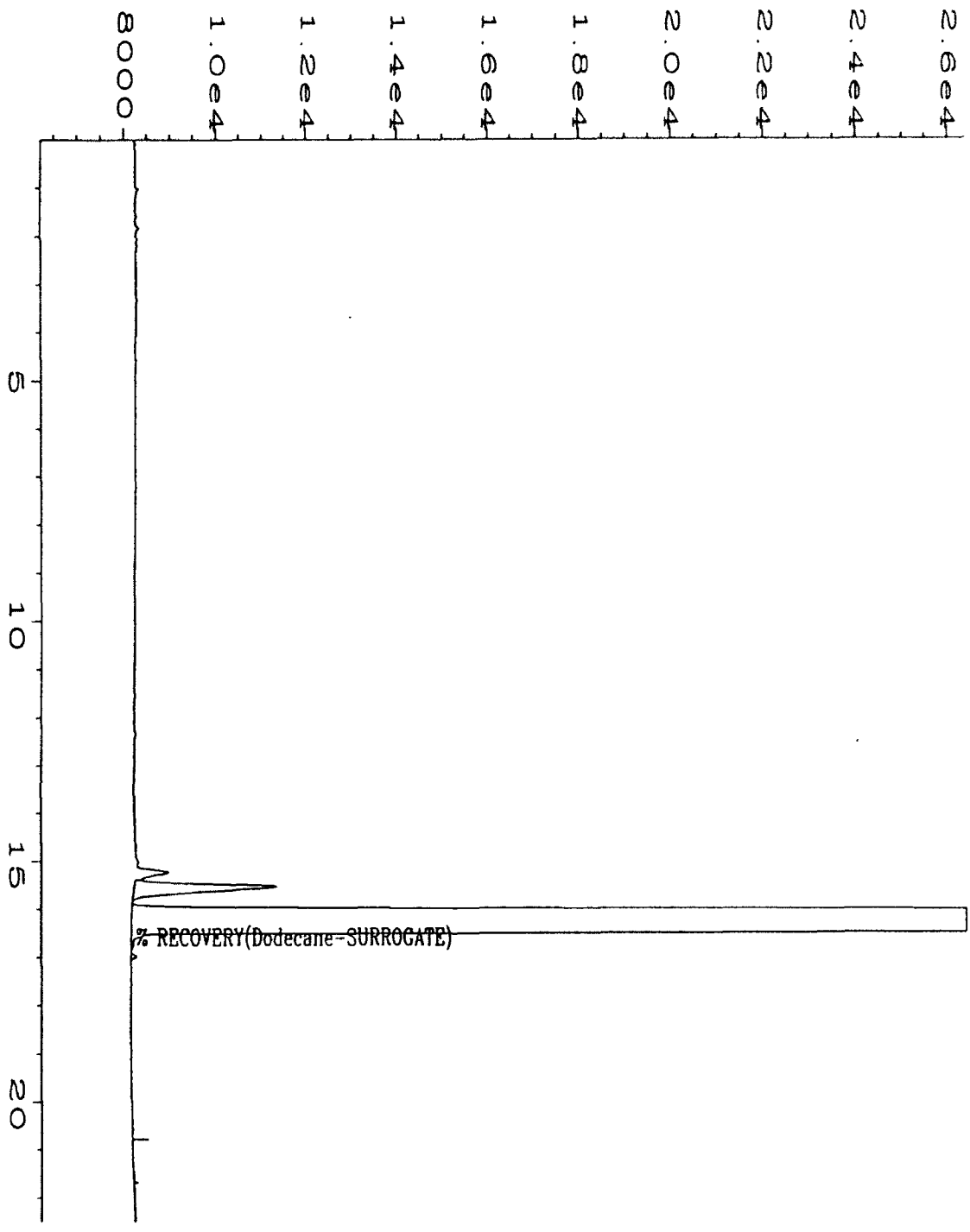
Approved



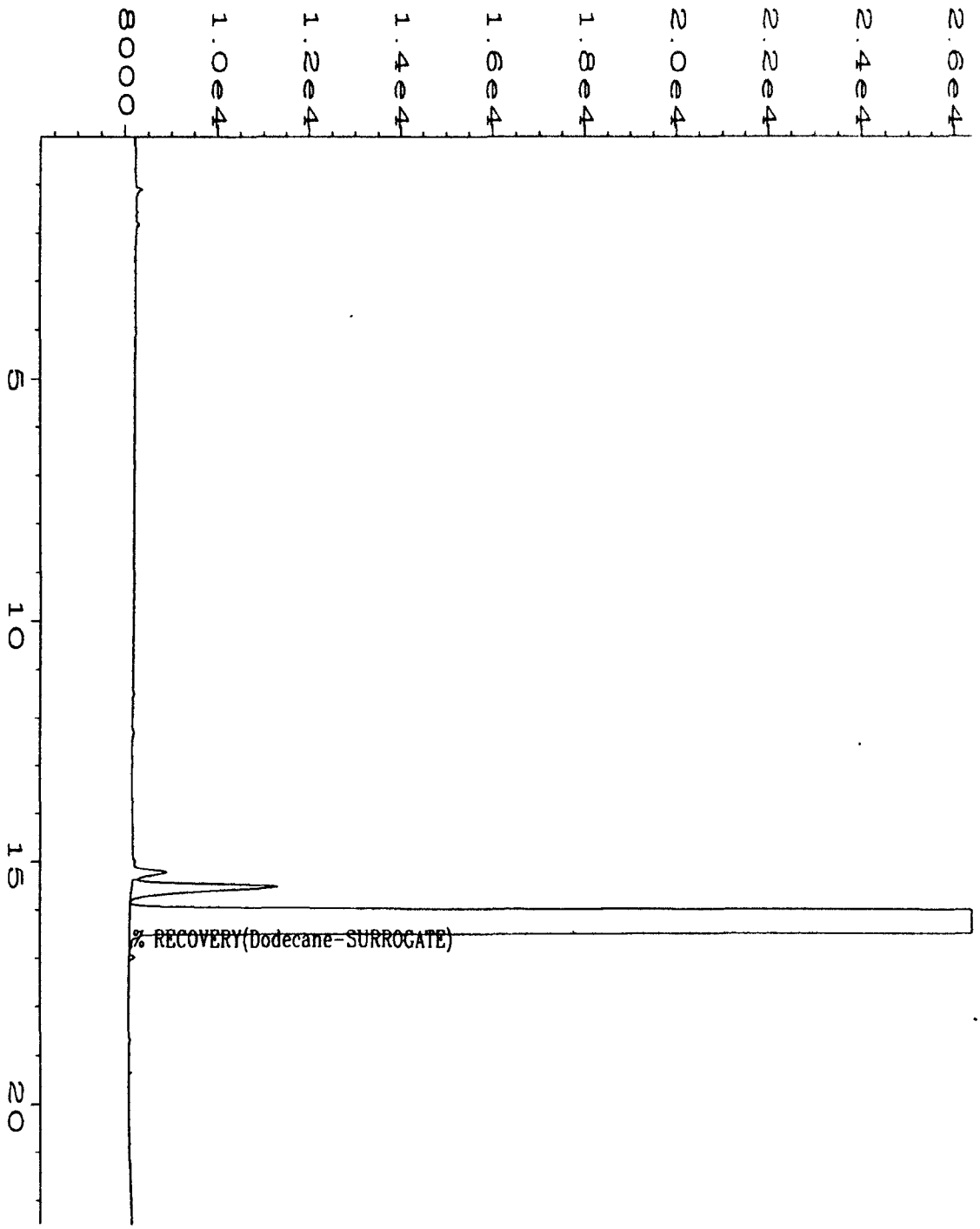
Data File Name	: C:\HPCHEM\1\DATA\TVH0402\007F0701.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 7
Sample Name	: MB040295	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 02 Apr 95 01:46 PM	Instrument Method	: TVH0402 H
Report Created on	: 02 Apr 95 04:15 PM	Analysis Method	: TVH0402.. H
Last Recalib on	: 02 Apr 95 01:38 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



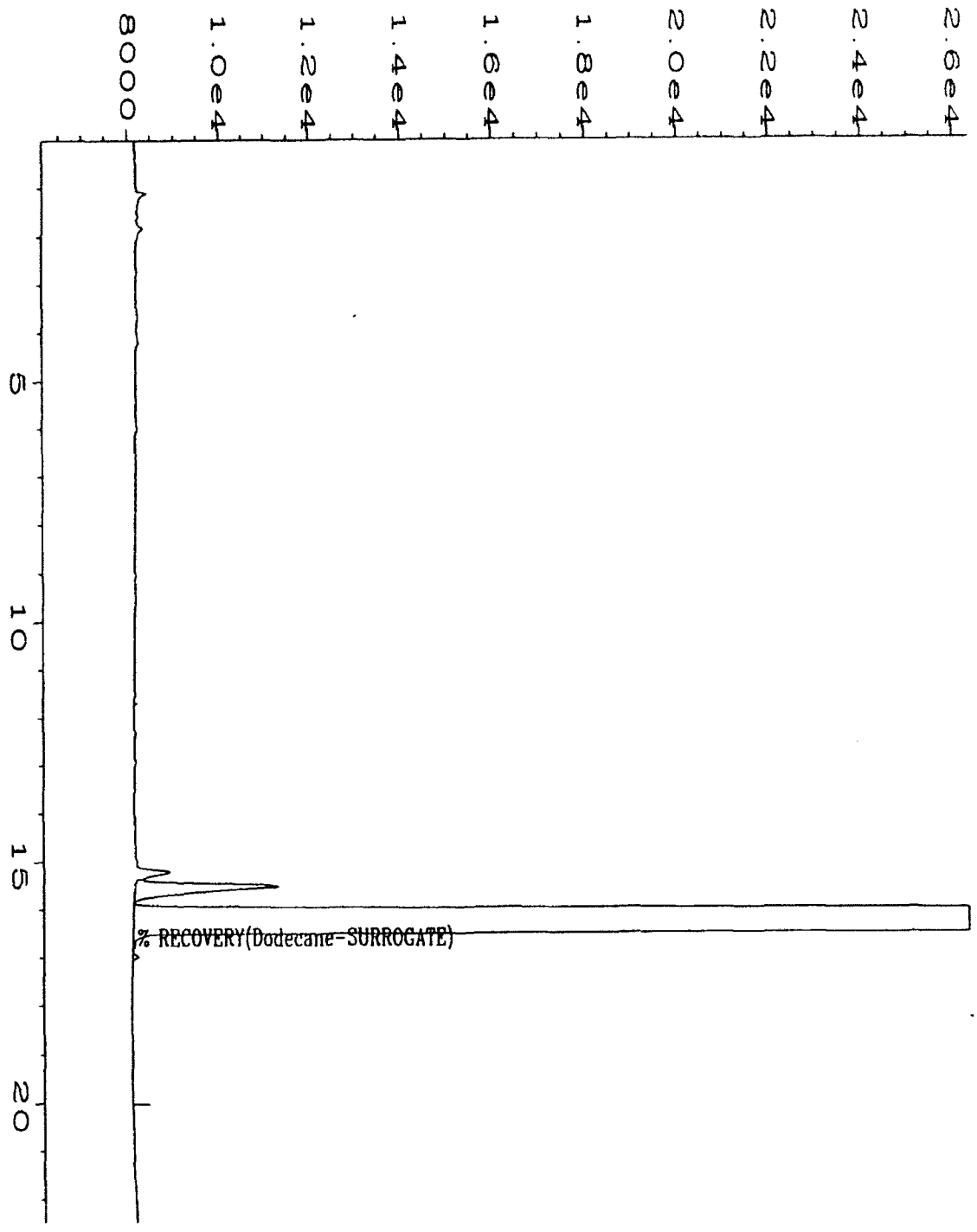
Data File Name	: C:\HPCHEM\1\DATA\TVH0402\028F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 28
Sample Name	: MB040395	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
cquired on	: 03 Apr 95 08:24 AM	Instrument Method	: TVH0402.MTH
eport Created on	: 04 Apr 95 09:55 AM	Analysis Method	: TVH0404.MTH
Last Recalib on	: 02 APR 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



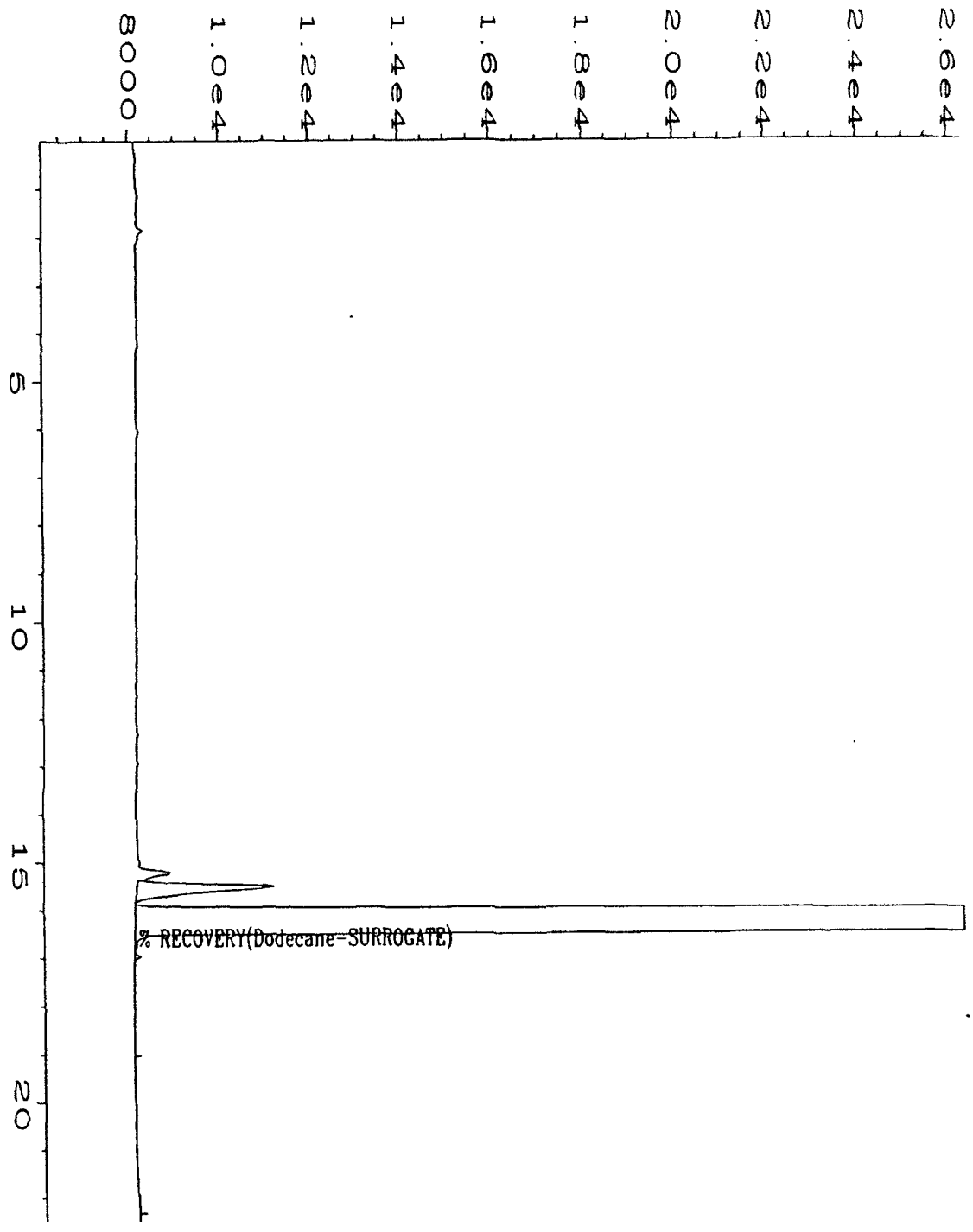
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\050F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 50
Sample Name	: MB040395B	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 08:52 PM	Instrument Method	: TVH040
Report Created on	: 03 Apr 95 09:15 PM	Analysis Method	: TVH040
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



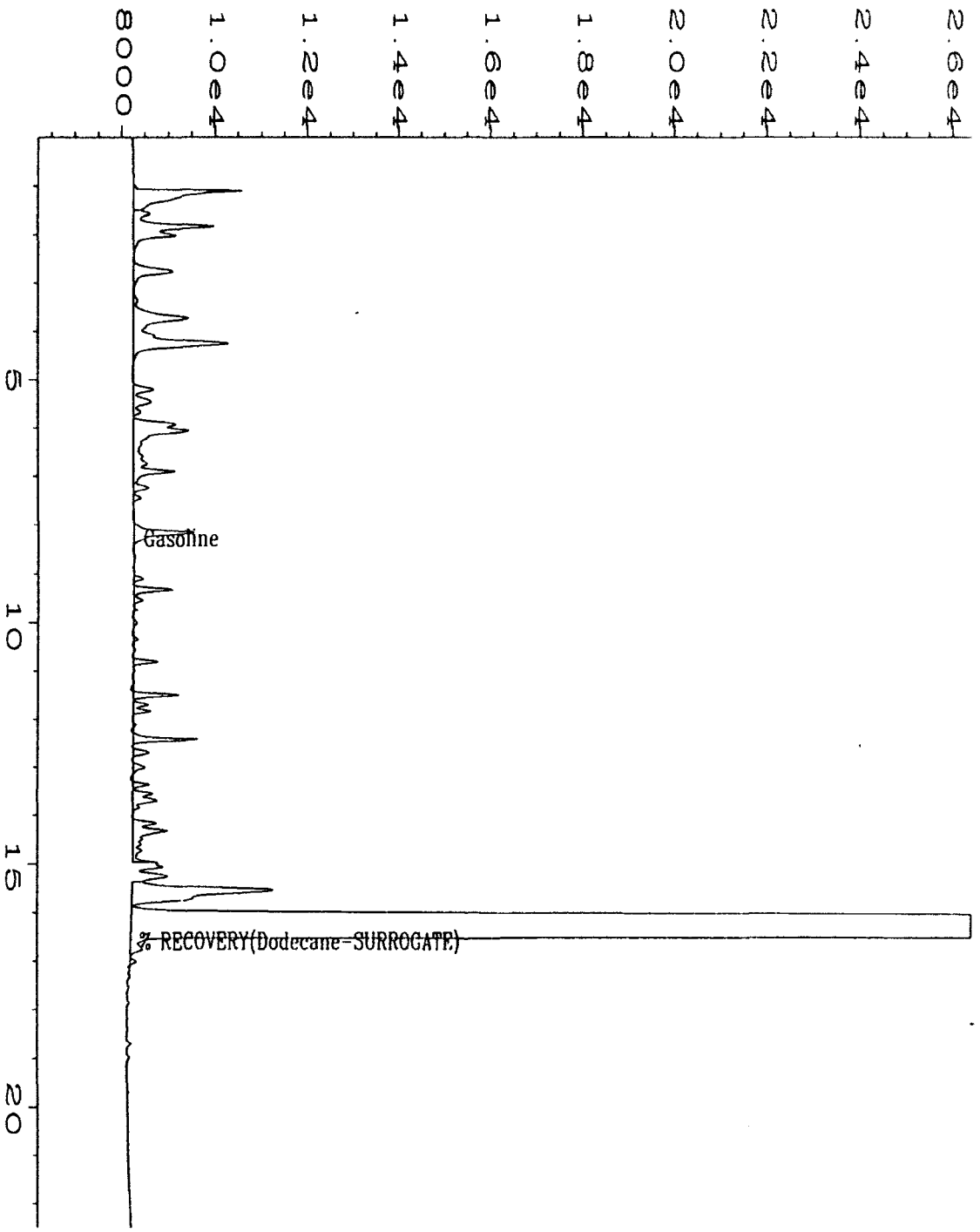
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\033F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 33
Sample Name	: X04750 ;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 11:14 AM	Instrument Method	: TVH0402.MTH
Report Created on	: 03 Apr 95 11:37 AM	Analysis Method	: TVH0402.MTH
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # MD24-8 WATER		



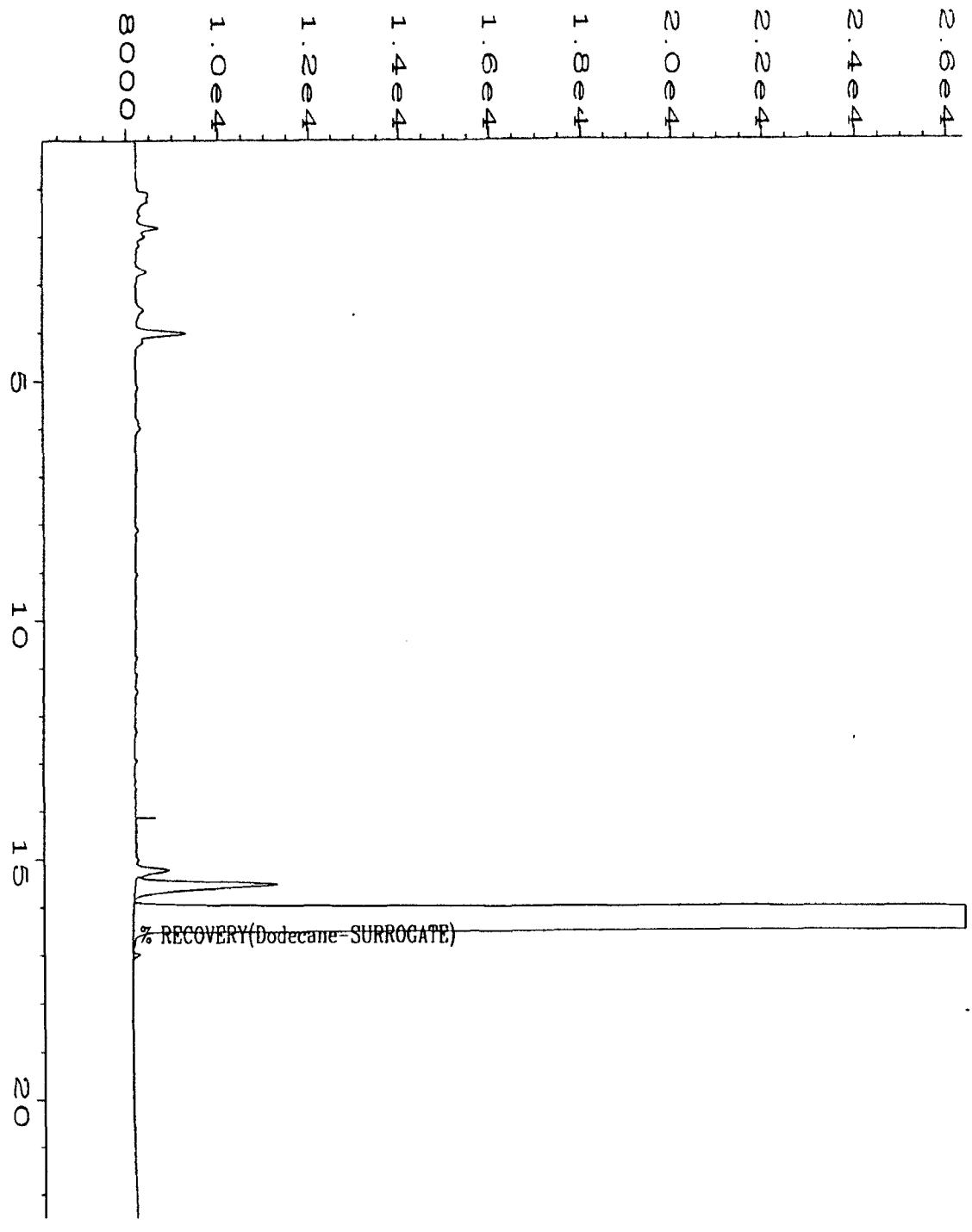
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\037F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 37
Sample Name	: X04751;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 01:29 PM	Instrument Method	: TVH04(MT
Report Created on	: 03 Apr 95 01:53 PM	Analysis Method	: TVH04(MT
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # 24MP-2D WATER		



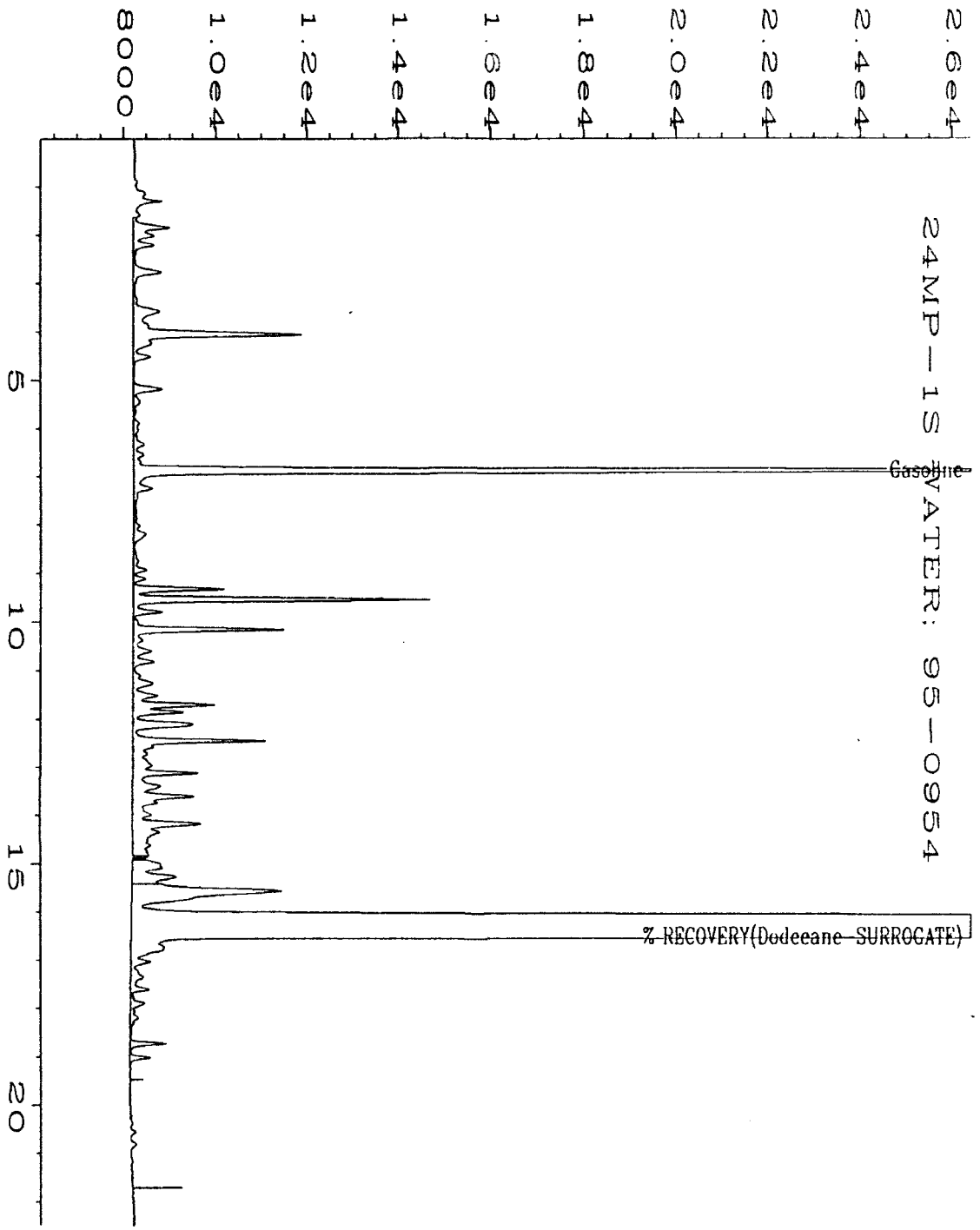
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\038F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 38
Sample Name	: X04751 DUP	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 02:03 PM	Instrument Method	: TVH0402.MTH
Report Created on	: 03 Apr 95 02:26 PM	Analysis Method	: TVH0402.MTH
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



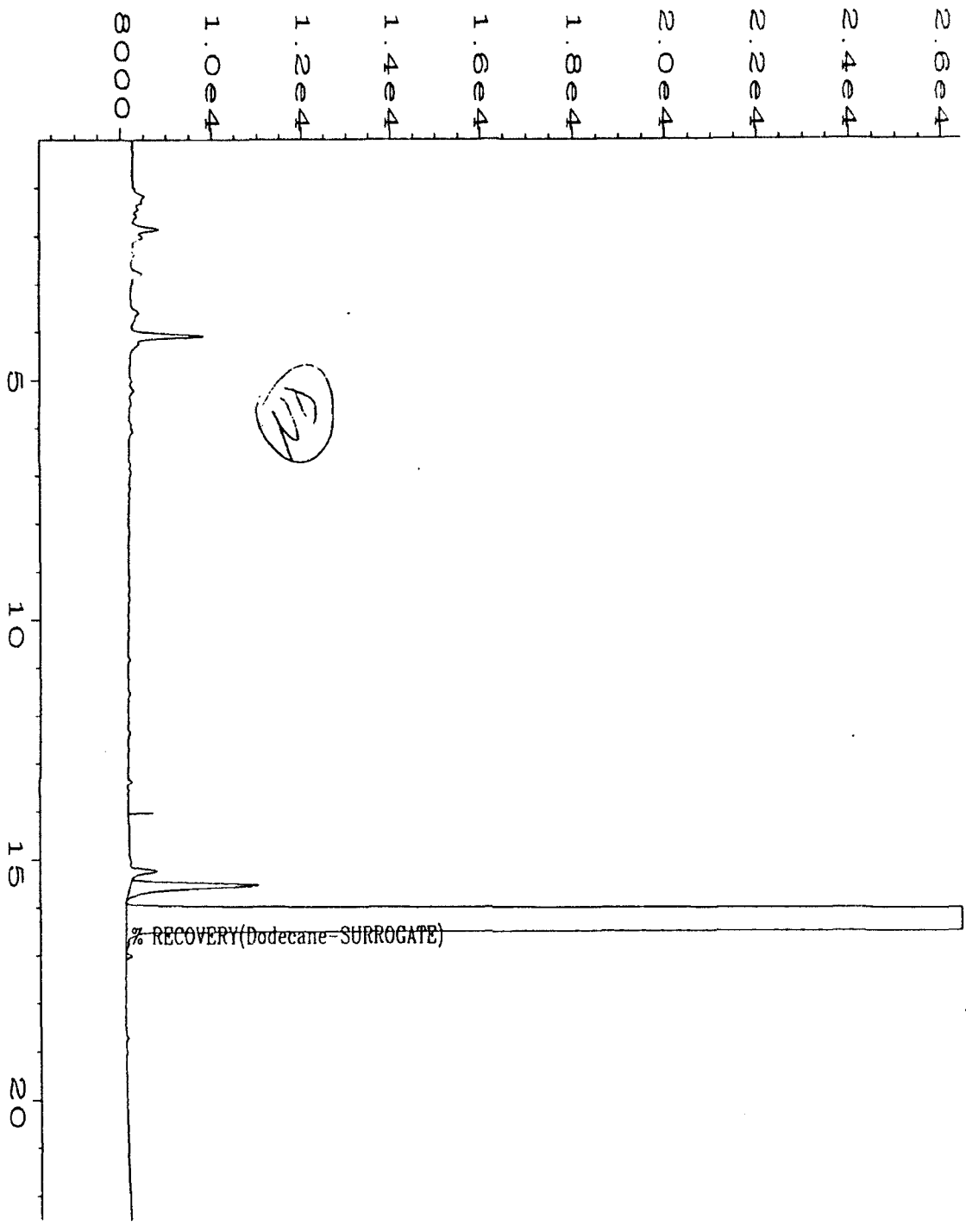
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\046F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 46
Sample Name	: X04752;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 06:35 PM	Instrument Method	: TVH040 .M
Report Created on	: 03 Apr 95 06:58 PM	Analysis Method	: TVH040 .M
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # 24MP-2S WATER		



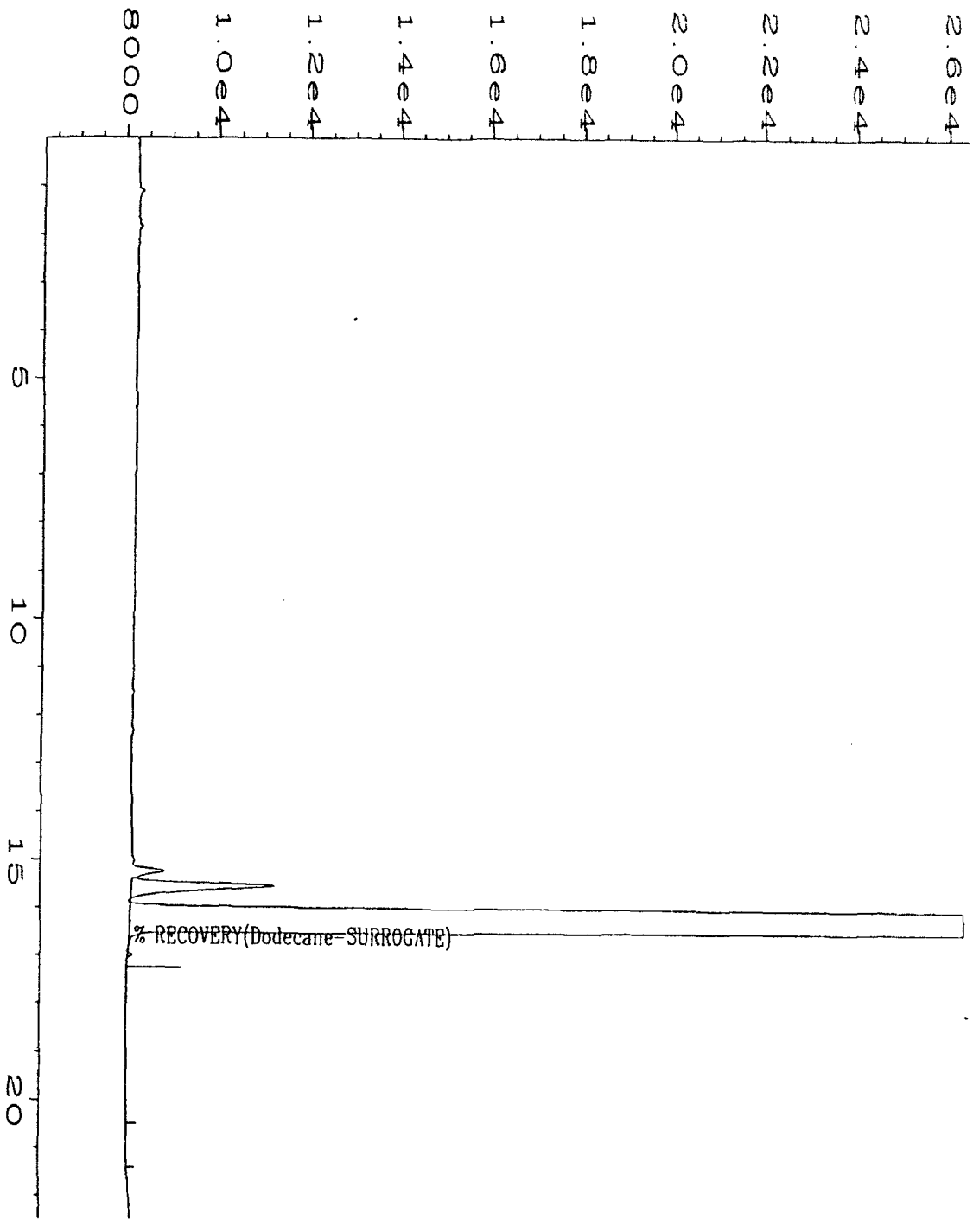
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\043F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 43
Sample Name	: X04753;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 04:53 PM	Instrument Method	: TVH0402.MTH
Report Created on	: 03 Apr 95 05:16 PM	Analysis Method	: TVH0402.MTH
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # 24MP-1D WATER		



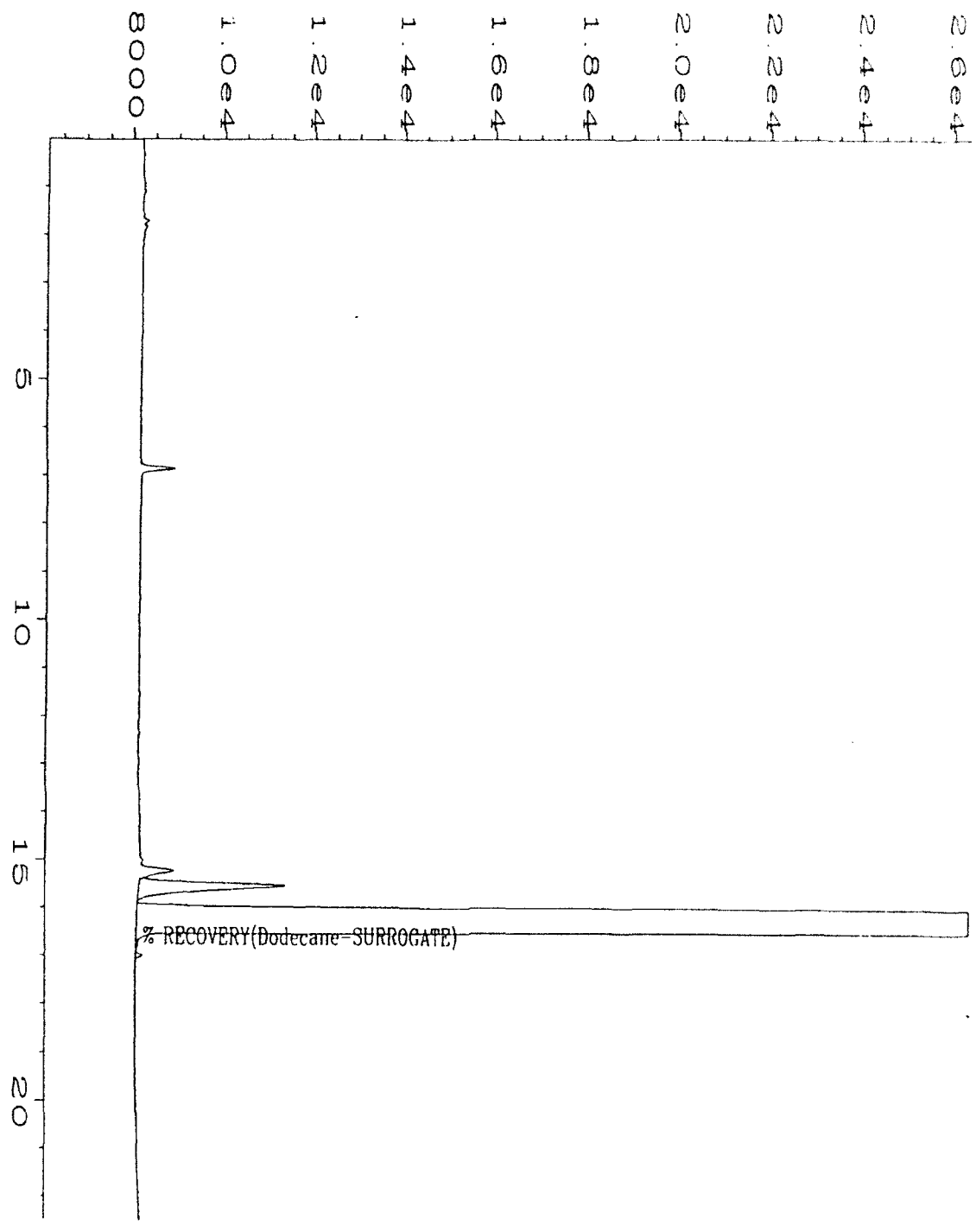
Data File Name	: C:\HPCHEM\1\DATA\TVH0402\047F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 47
Sample Name	: X04754;5;1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 07:09 PM	Instrument Method	: TVH040 T
Report Created on	: 07 Apr 95 06:53 PM	Analysis Method	: TVH040[illegible]T
Last Recalib on	: 02 APR 95 01:38 PM	Sample Amount	: 0
Multiplier	: x 5 mjm	ISTD Amount	:



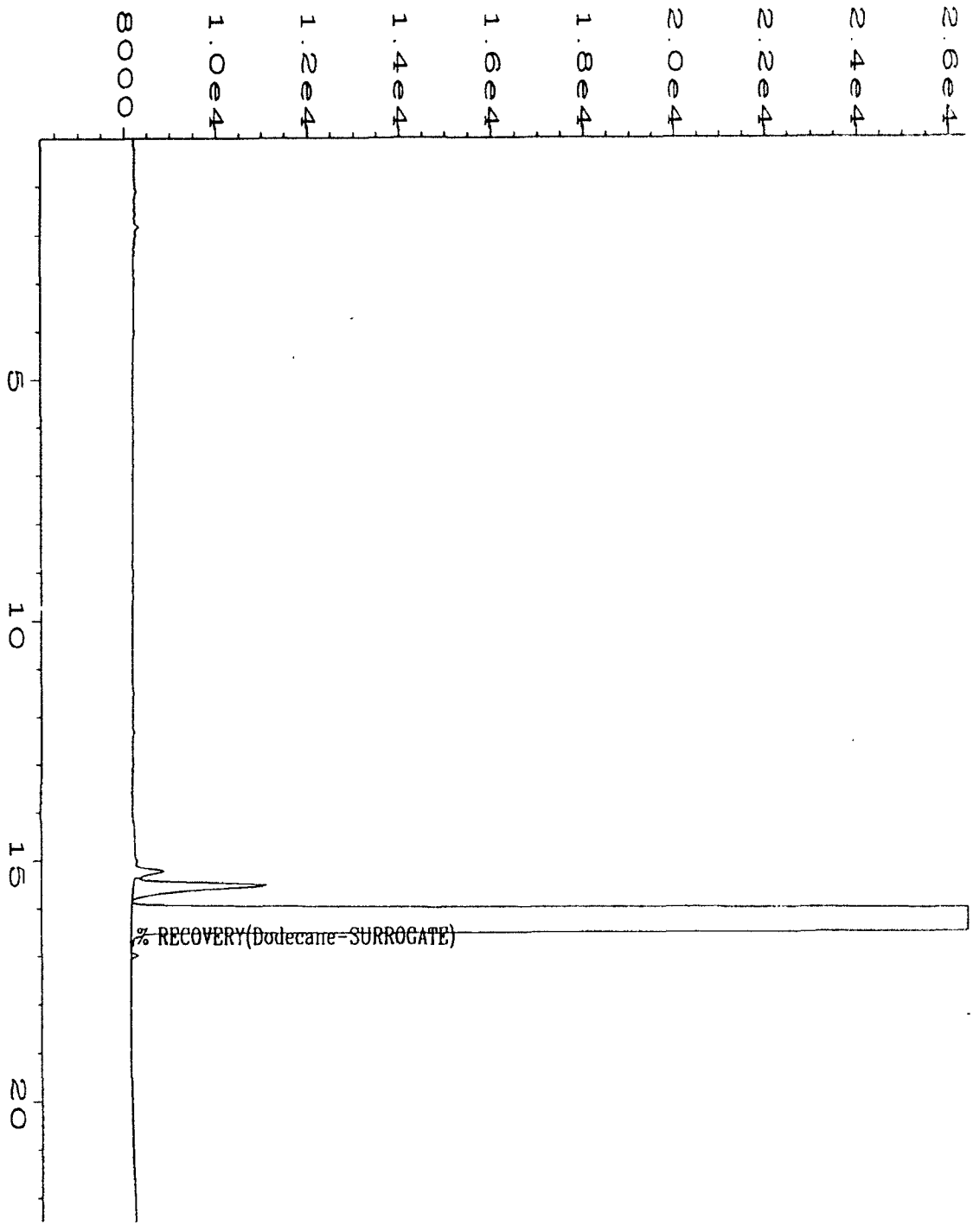
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\048F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 48
Sample Name	: X04755;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
quired on	: 03 Apr 95 07:44 PM	Instrument Method:	TVH0402.MTH
eport Created on:	03 Apr 95 08:14 PM	Analysis Method	: TVH0402.MTH
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # MD24-2 WATER		



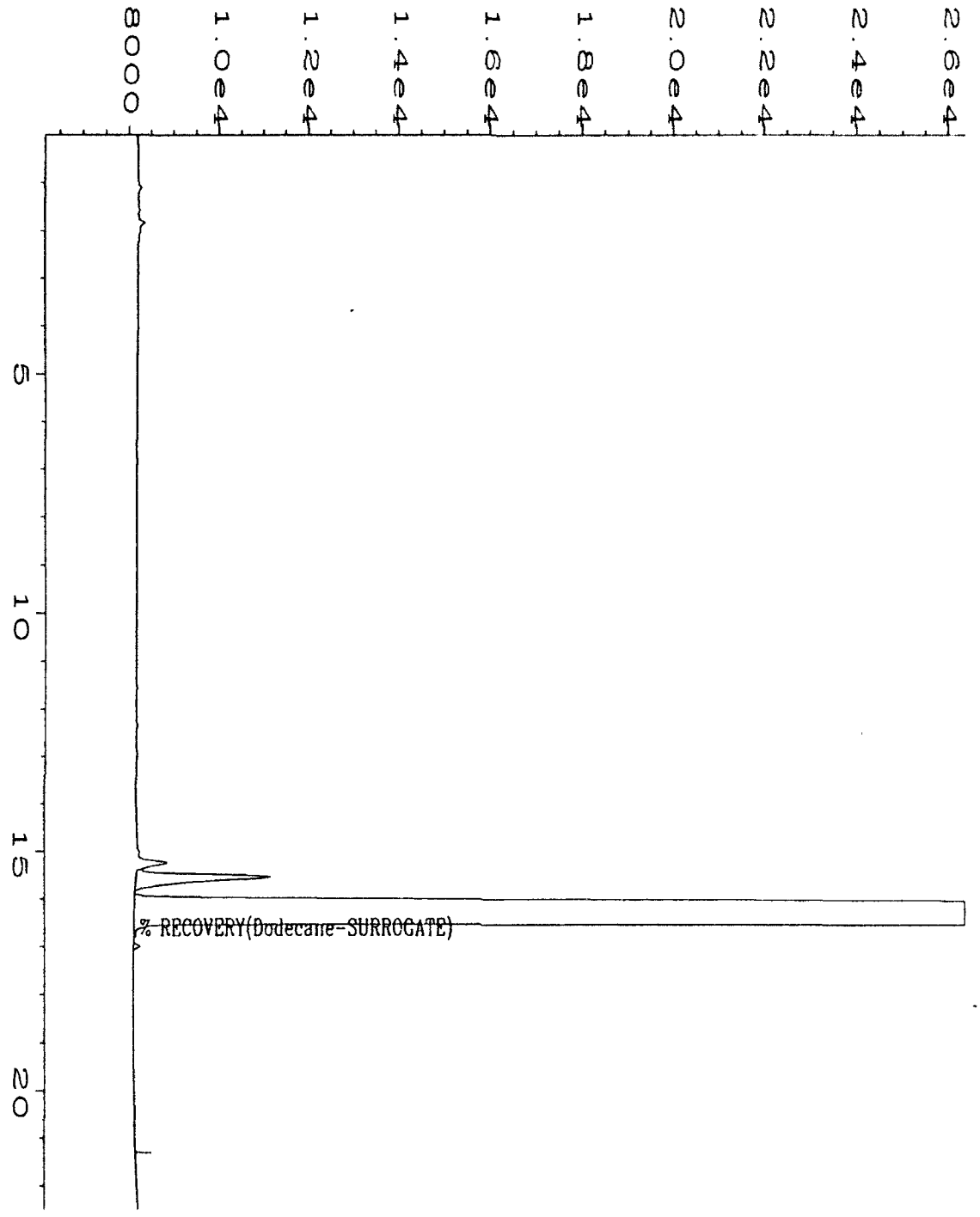
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\049F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 49
Sample Name	: X04756;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 08:18 PM	Instrument Method	: TVH040[illegible]
Report Created on	: 03 Apr 95 08:41 PM	Analysis Method	: TVH0402...[illegible]
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # MD24-5 WATER		



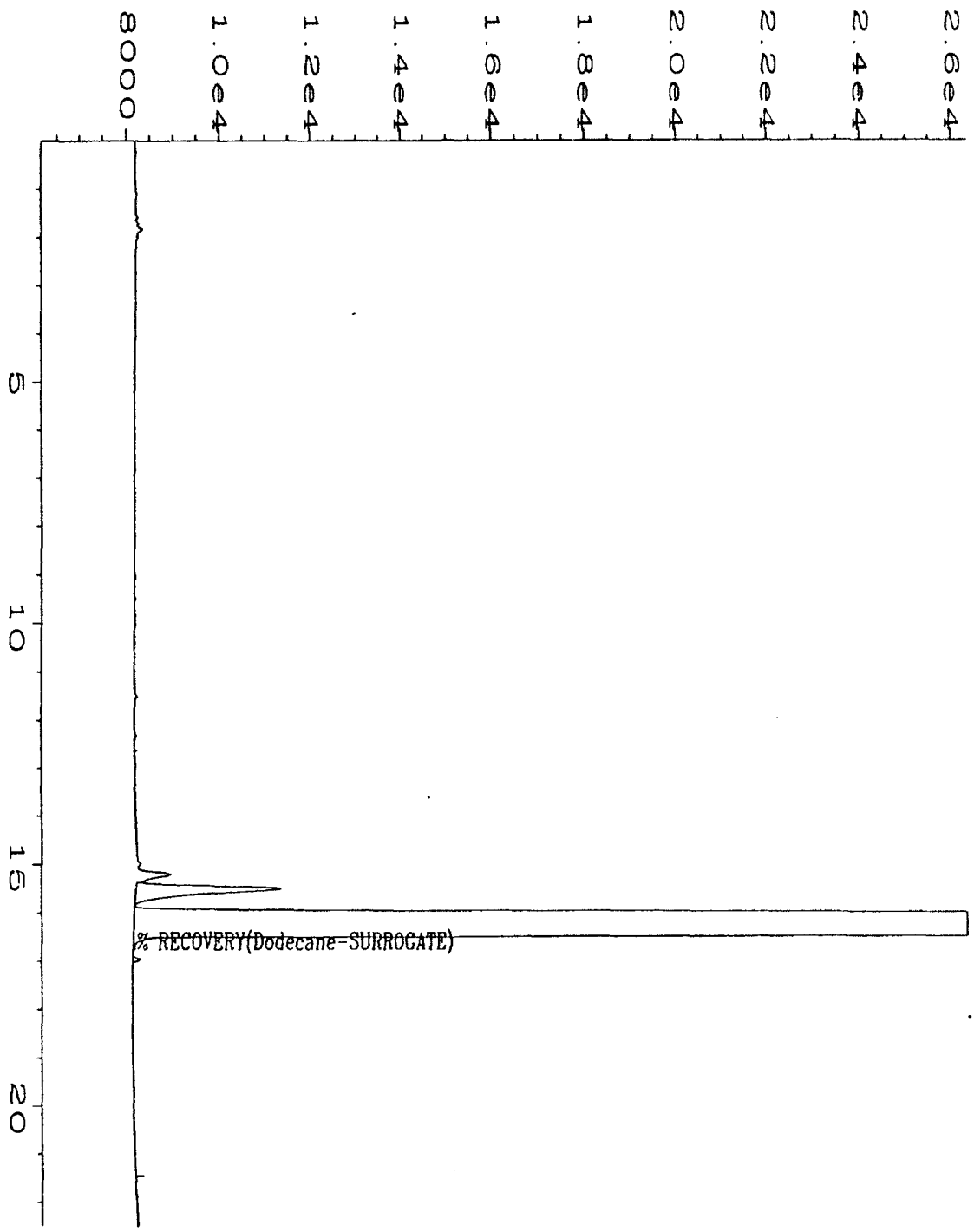
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\052F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 52
Sample Name	: X04757;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 10:00 PM	Instrument Method	: TVH0402.MTH
Report Created on	: 03 Apr 95 10:23 PM	Analysis Method	: TVH0402.MTH
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # 24MP-4S WATER		



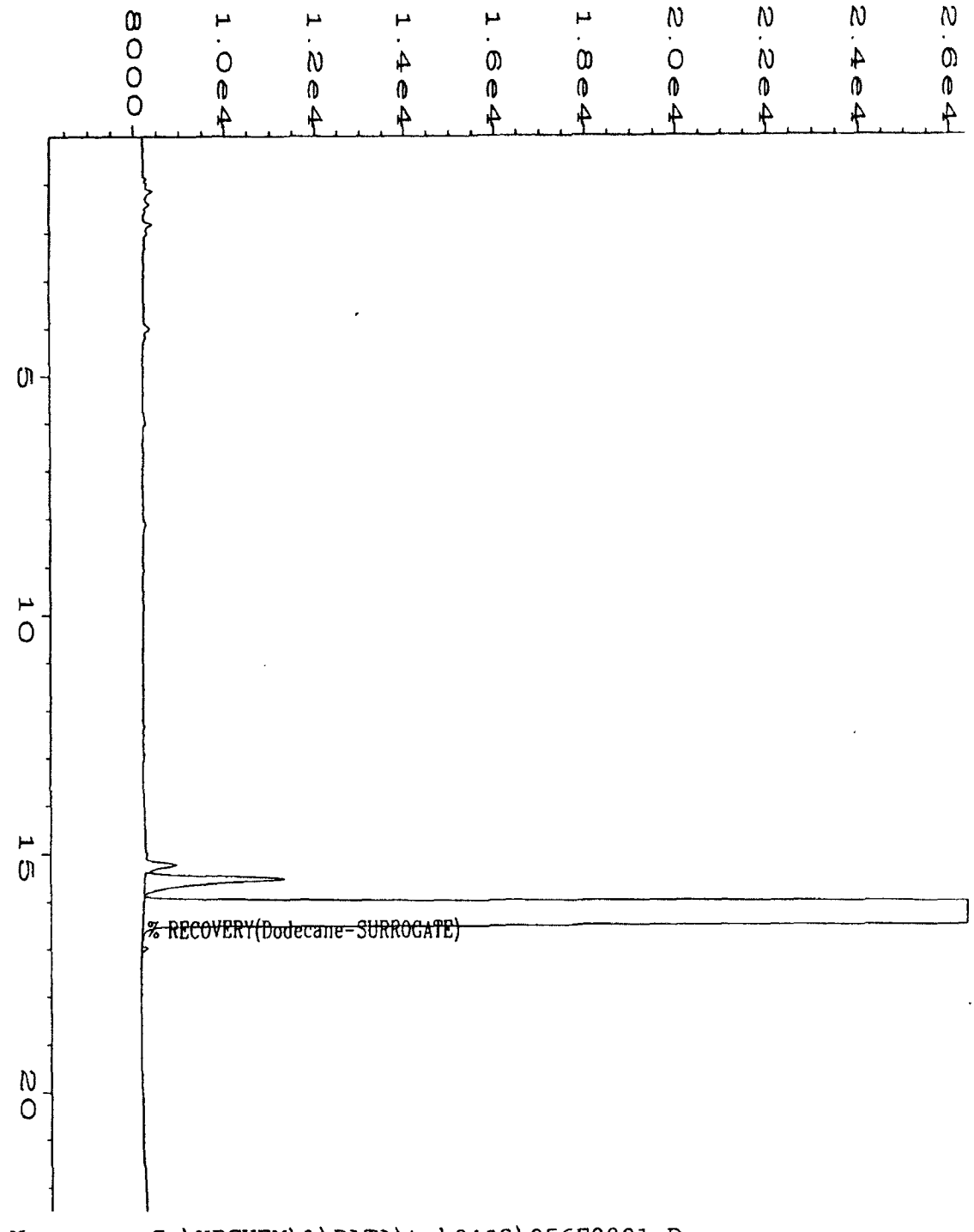
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\053F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 53
Sample Name	: X04758;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 10:34 PM	Instrument Method	: TVH040 T
Report Created on	: 03 Apr 95 10:57 PM	Analysis Method	: TVH040. T
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # MD24-4S WATER		



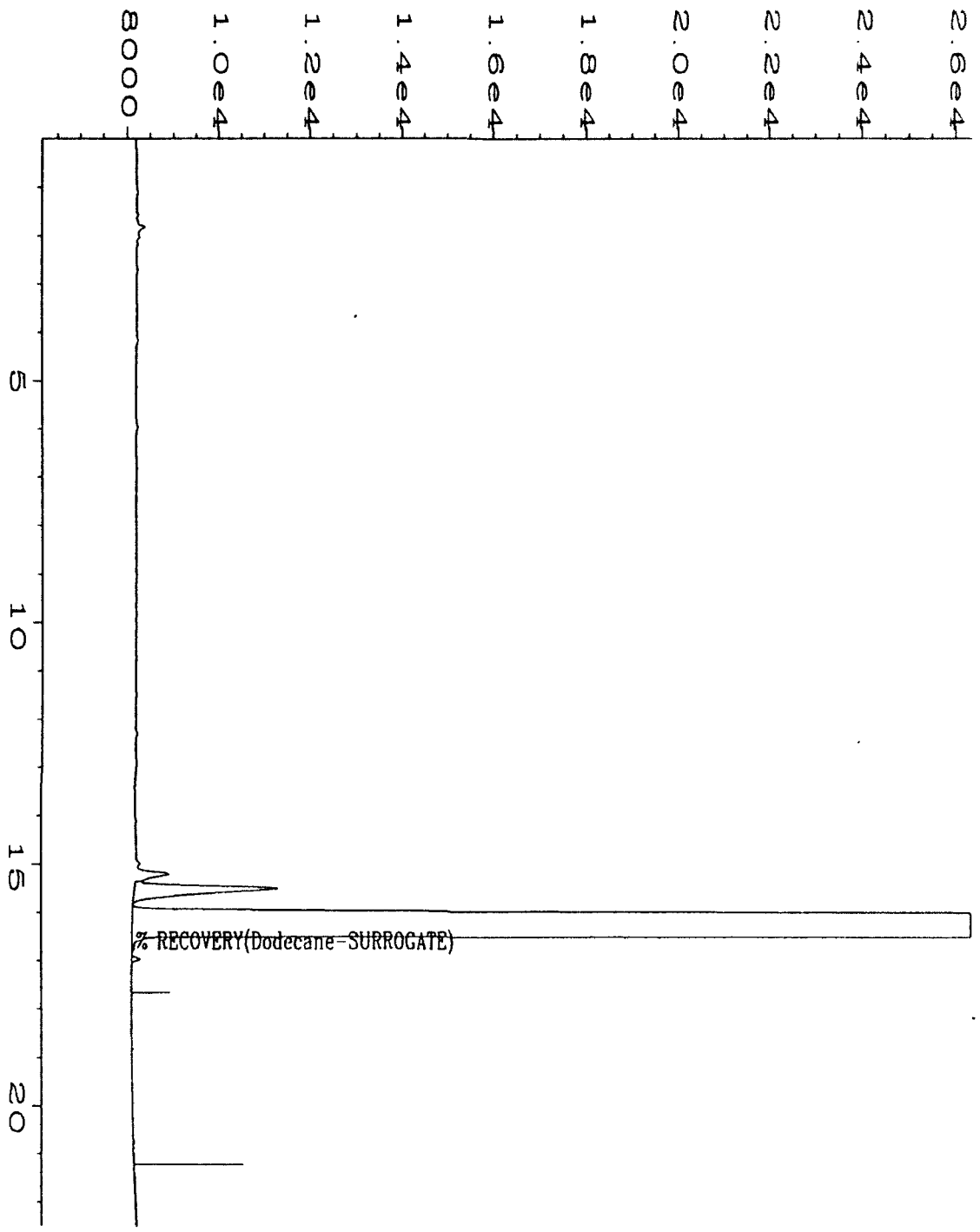
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\054F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 54
Sample Name	: X04759;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
uired on	: 03 Apr 95 11:08 PM	Instrument Method	: TVH0402.MTH
ort Created on	: 03 Apr 95 11:31 PM	Analysis Method	: TVH0402.MTH
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # MD24-41 WATER		



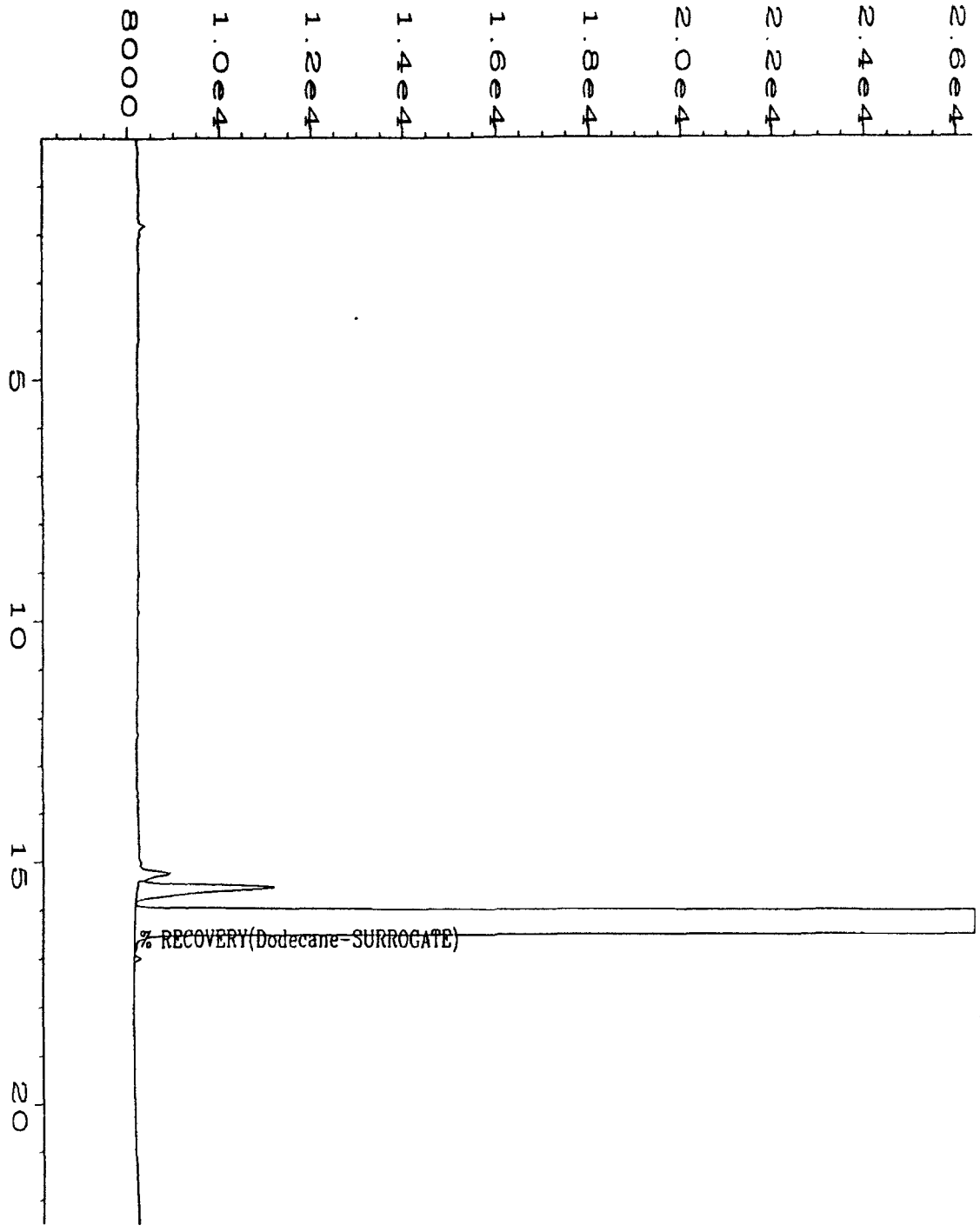
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\055F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 55
Sample Name	: X04760;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 03 Apr 95 11:42 PM	Instrument Method	: TVH04C T
Report Created on	: 04 Apr 95 00:05 AM	Analysis Method	: TVH0402.MT
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # MD24-3 WATER		



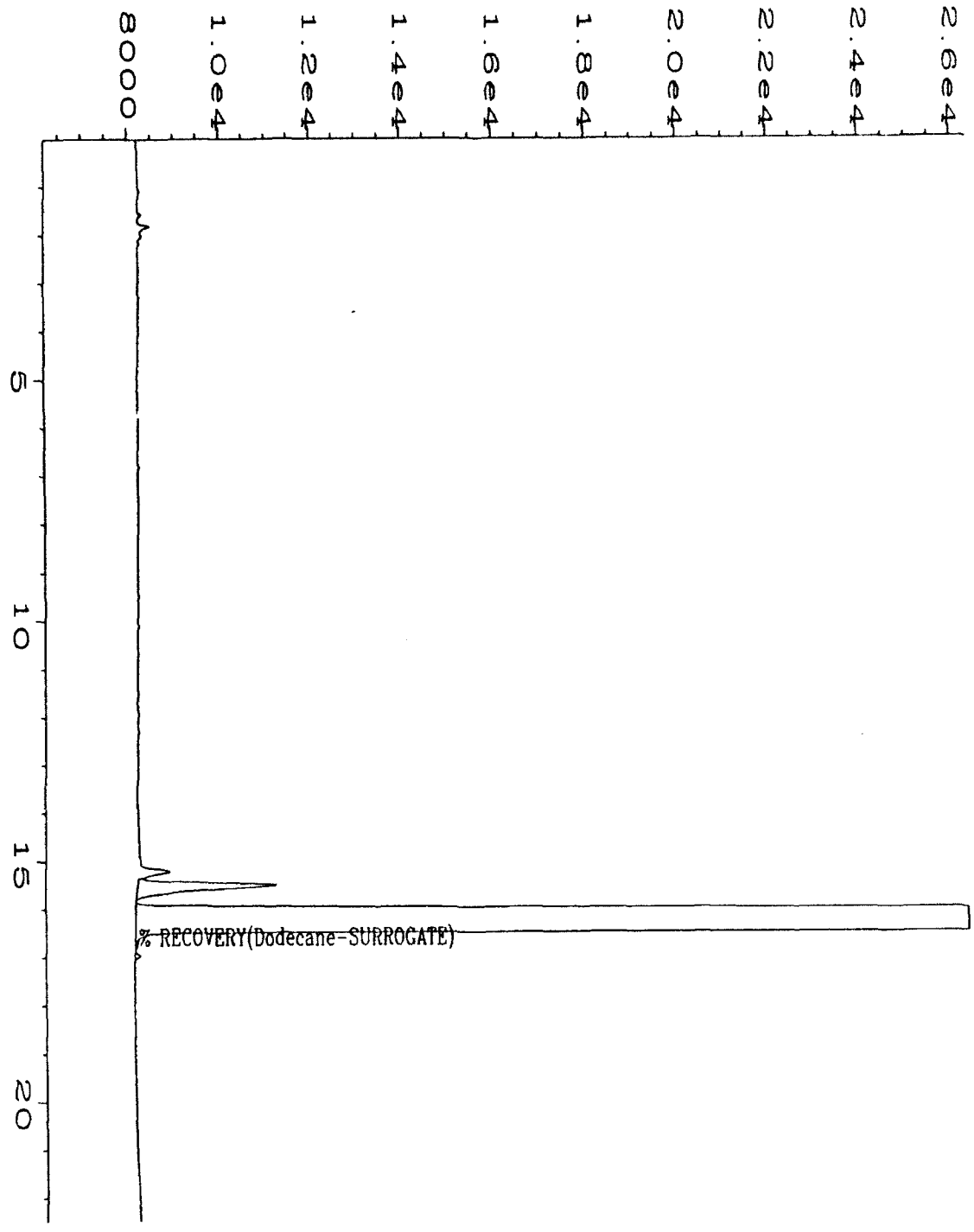
Data File Name	: C:\HPCHEM\1\DATA\tvh0402\056F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 56
Sample Name	: X04761;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
quired on	: 04 Apr 95 00:16 AM	Instrument Method	: TVH0402.MTH
port Created on	: 04 Apr 95 00:39 AM	Analysis Method	: TVH0402.MTH
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # MD24-1 WATER		



Data File Name	: C:\HPCHEM\1\DATA\tvh0402\057F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 57
Sample Name	: X04762;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 04 Apr 95 00:49 AM	Instrument Method	: TVH040 T
Report Created on	: 04 Apr 95 01:12 AM	Analysis Method	: TVH040[illegible]T
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # 24MP-5D WATER		



Data File Name	: C:\HPCHEM\1\DATA\tvh0402\058F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 58
Sample Name	: X04762DUP;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
quired on	: 04 Apr 95 01:23 AM	Instrument Method	: TVH0402.MTH
port Created on	: 04 Apr 95 01:46 AM	Analysis Method	: TVH0402.MTH
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # 24MP-5D WATER		



Data File Name	: C:\HPCHEM\1\DATA\tvh0402\059F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 59
Sample Name	: X04770;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 04 Apr 95 01:57 AM	Instrument Method	: TVH040 T
Report Created on	: 04 Apr 95 02:20 AM	Analysis Method	: TVH040... .T
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # 24SS-2 SOIL		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH)
Laboratory Control Sample (LCS)

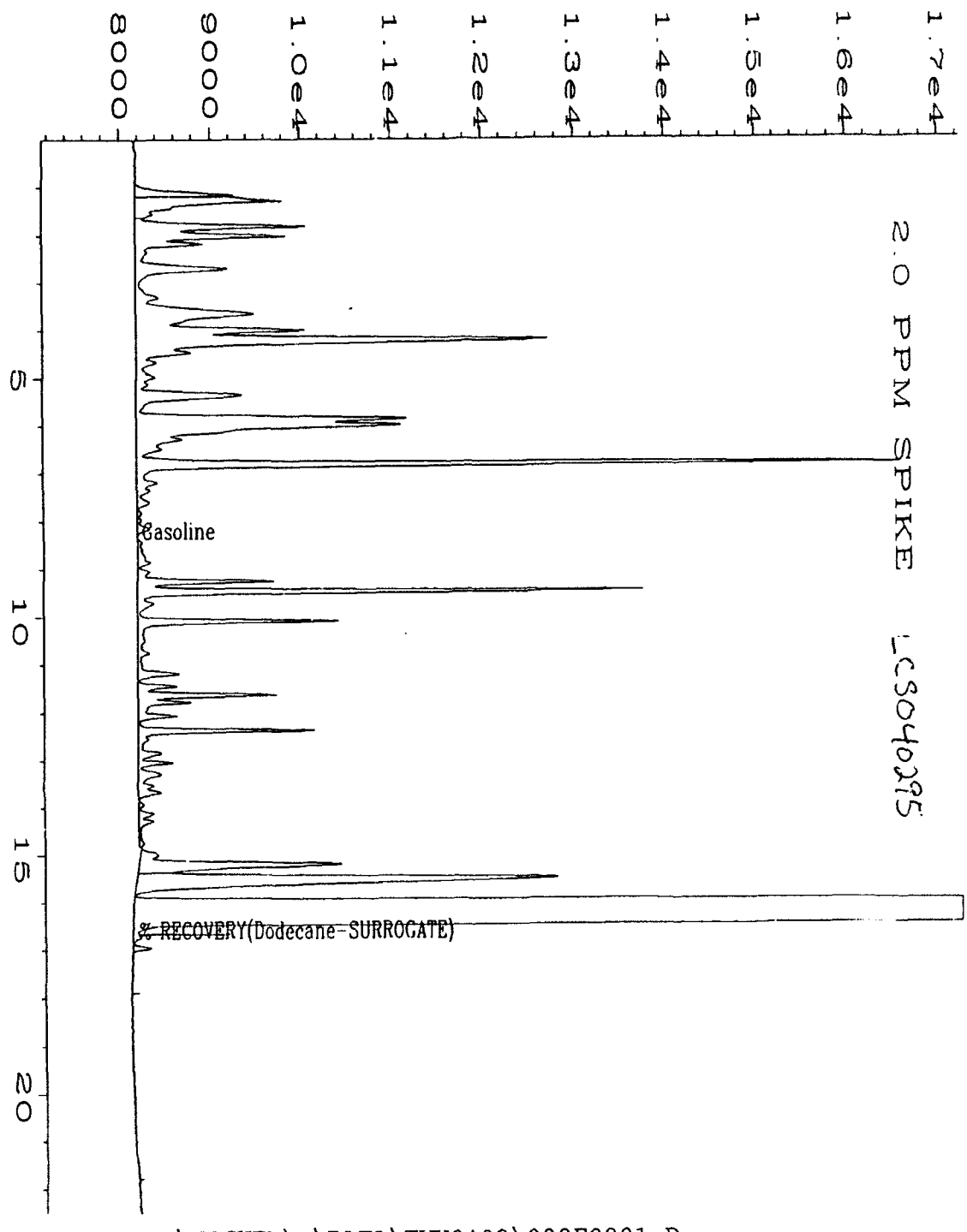
LCS Number	: LCS040295	Matrix	: WATER
Date Prepared	: 4/2/95	Method Number	: 5030/MOD.8015
Date Analyzed	: 4/2/95		
Sequence Number	: TVH8		

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	2.00	2.18	109%	70%-130%

QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

Approved



Data File Name : C:\HPCHEM\1\DATA\TVH0402\008F0801.D
Operator : S.W. Tyson
Instrument : TVH
Sample Name : LCS040295
Run Time Bar Code:
Acquired on : 02 Apr 95 02:20 PM
Report Created on: 07 Apr 95 06:45 PM
Last Recalib on : 02 APR 95 01:38 PM
Multiplier : 1

Page Number : 1
Vial Number : 8
Injection Number : 1
Sequence Line : 8
Instrument Method: TVH040 TI
Analysis Method : TVH0402.MT
Sample Amount : 0
ISTD Amount :

EVERGREEN ANALYTICAL, INC.
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TOTAL EXTRACTABLE HYDROCARBONS (TEH)
JET FUEL

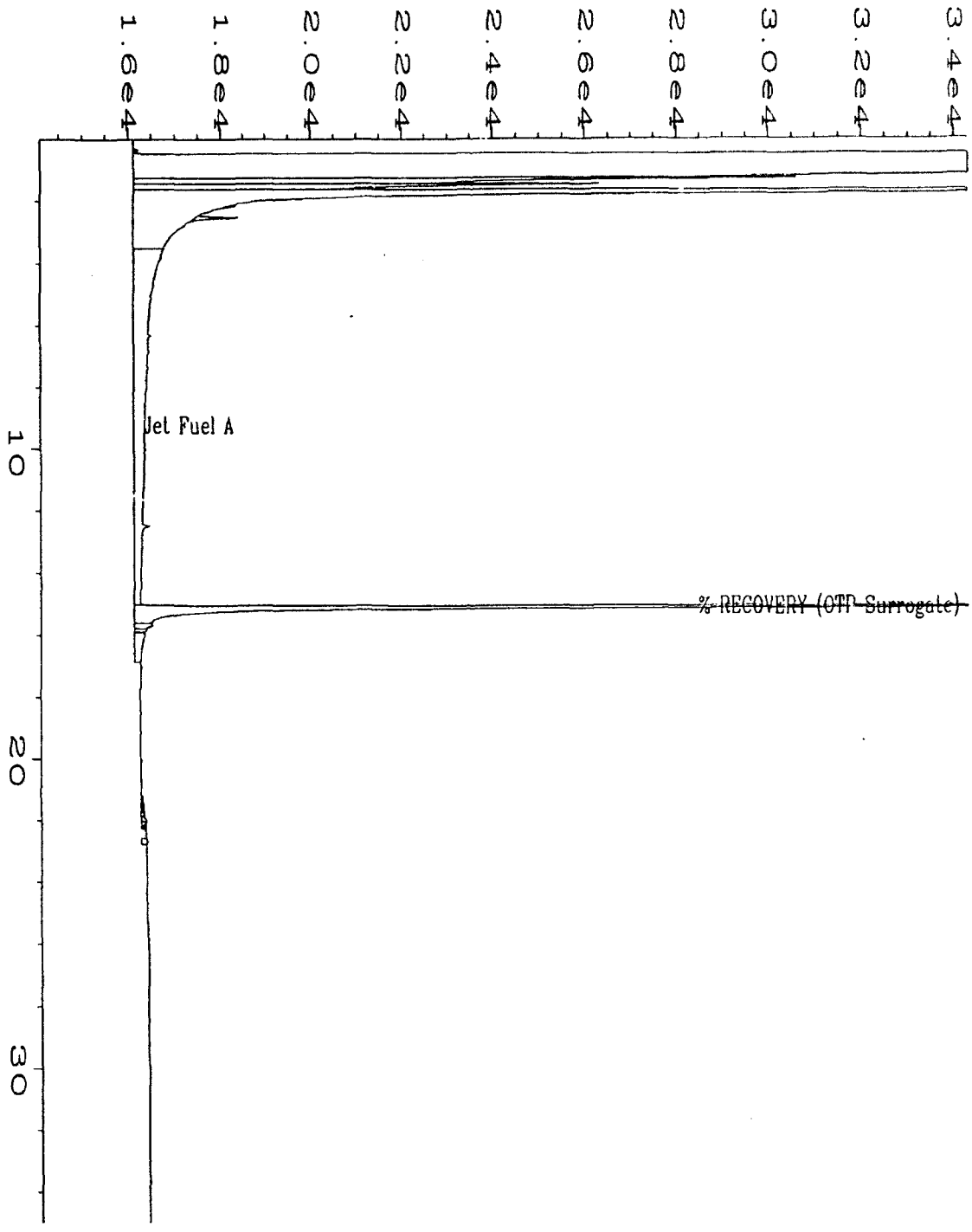
Date Sampled	: 3/23/95	Client Project Number	: 722450.2102/MACDILL
Date Received	: 3/24/95	Lab Project Number	: 95-0954
Date Prepared	: 3/29/95	Matrix	: Soil
Date Analyzed	: 3/31/95-4/1/95	Method Number	: 3500/Mod. 8015

Evergreen Sample #	Client Sample #	OTP Surrogate % Recovery	TEH* JET FUEL mg/Kg	RL* mg/Kg
SB032995	SOIL METHOD BLANK	104%	U	10
X04770	24SS-2	112%	64#	14
X04770 DUP	24SS-2	111%	43#	14

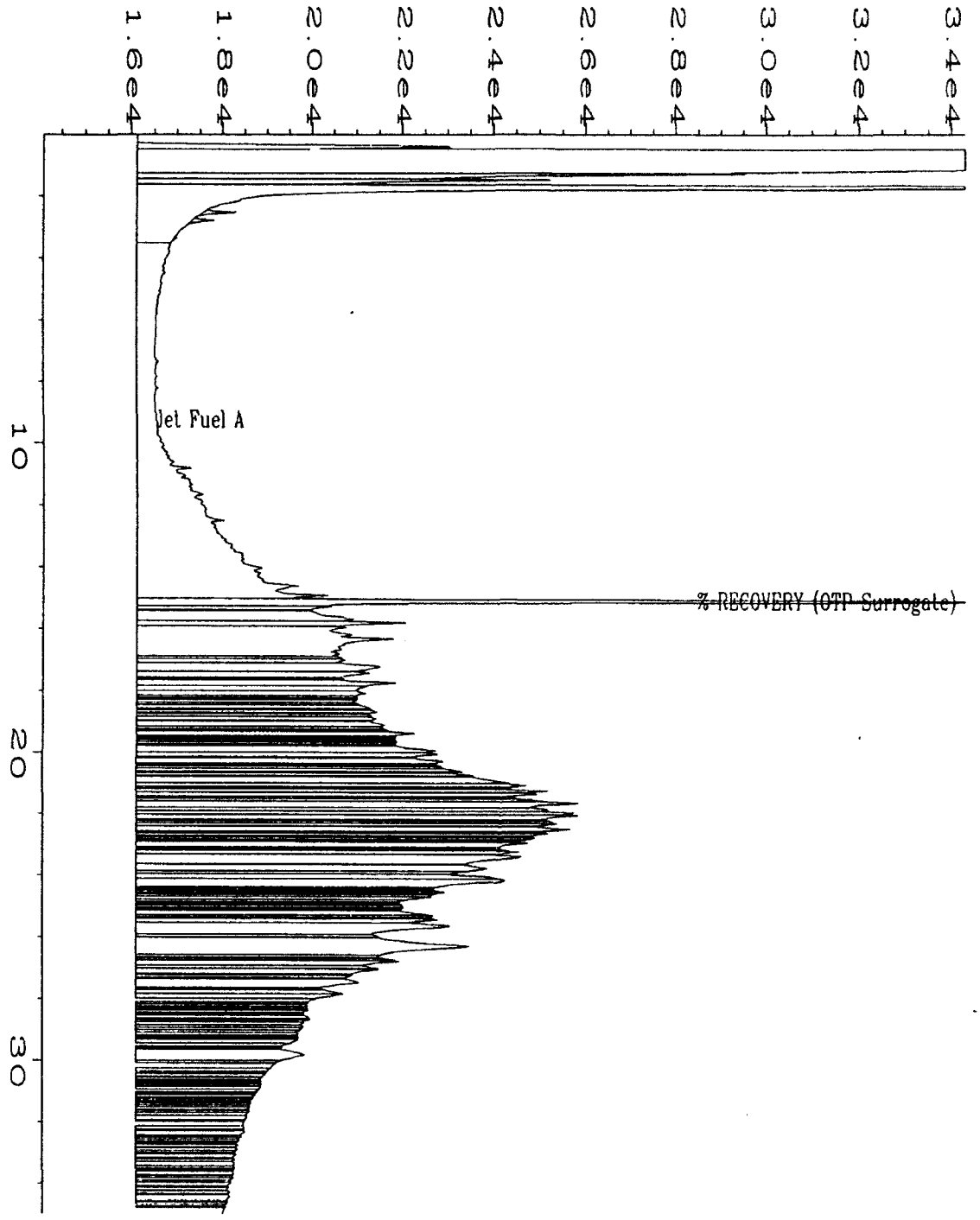
* = Based on dry weight.
\# = Does not match jet fuel pattern.
QUALIFIERS
U = TEH analyzed for but not detected.
B = TEH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
RL = Reporting Limit

Analyst

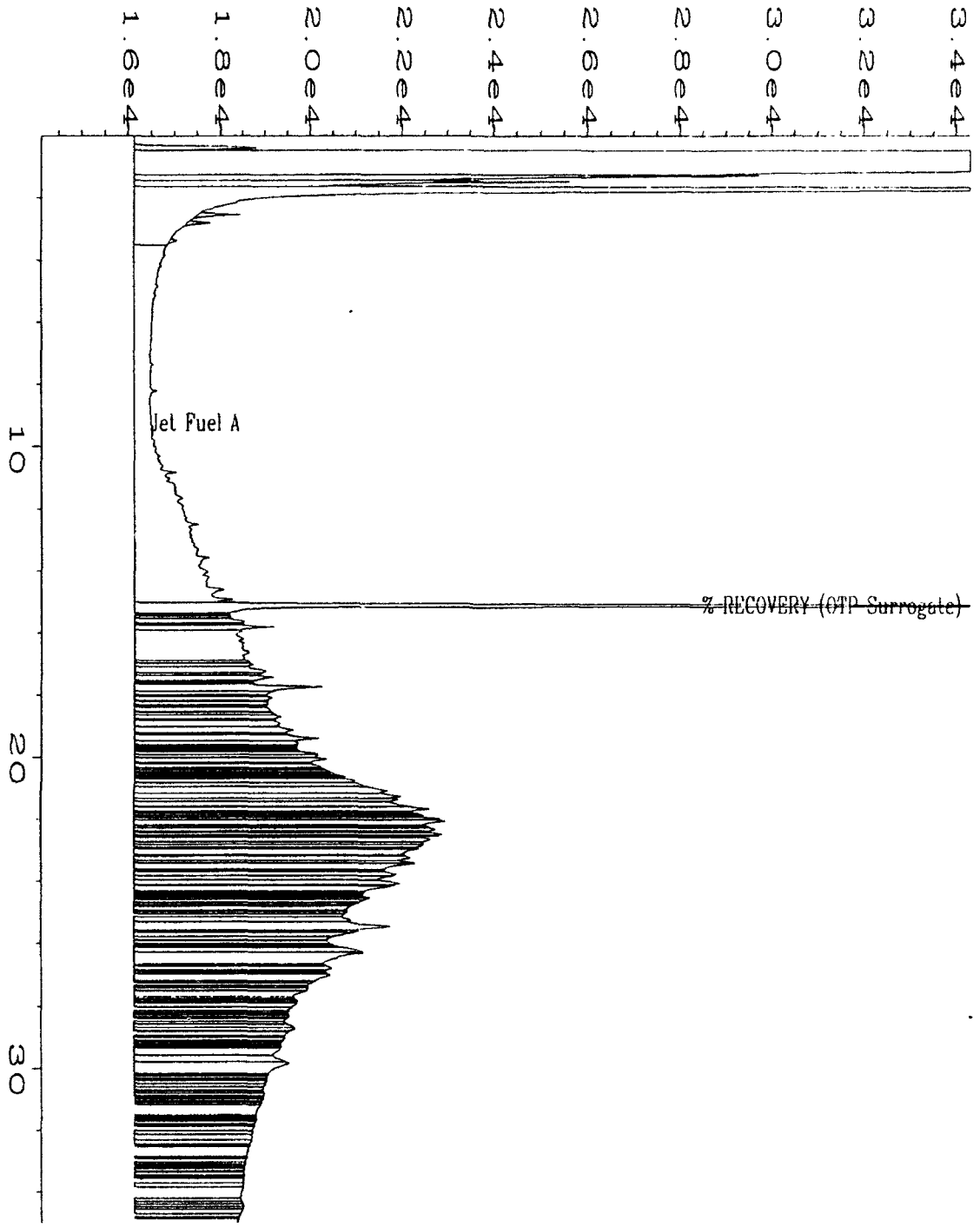
Approved



Data File Name	: C:\HPCHEM\2\DATA\JET0331\009R0801.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 9
Sample Name	: SB032995	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 31 Mar 95 05:50 PM	Instrument Method	: JET033 TI
Report Created on	: 31 Mar 95 06:26 PM	Analysis Method	: JET033 .M
Last Recalib on	: 31 Mar 95 02:18 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



Data File Name	: C:\HPCHEM\2\DATA\JET0331\011R0801.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 11
Sample Name	: X04770 DF=1, 30	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
quired on	: 31 Mar 95 07:29 PM	Instrument Method	: JET0331.MTH
ort Created on	: 31 Mar 95 08:04 PM	Analysis Method	: JET0331.MTH
Last Recalib on	: 31 Mar 95 02:18 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0954 CLIENT # 24SS-2 SOIL		



Data File Name	: C:\HPCHEM\2\DATA\JET0331\014R0801.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 14
Sample Name	: X04770 DUP	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 31 Mar 95 09:57 PM	Instrument Method	: JET033 .MT
Report Created on	: 31 Mar 95 10:32 PM	Analysis Method	: JET033 .MT
Last Recalib on	: 31 Mar 95 02:18 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
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TOTAL EXTRACTABLE HYDROCARBONS (TEH)
Laboratory Control Sample (LCS)

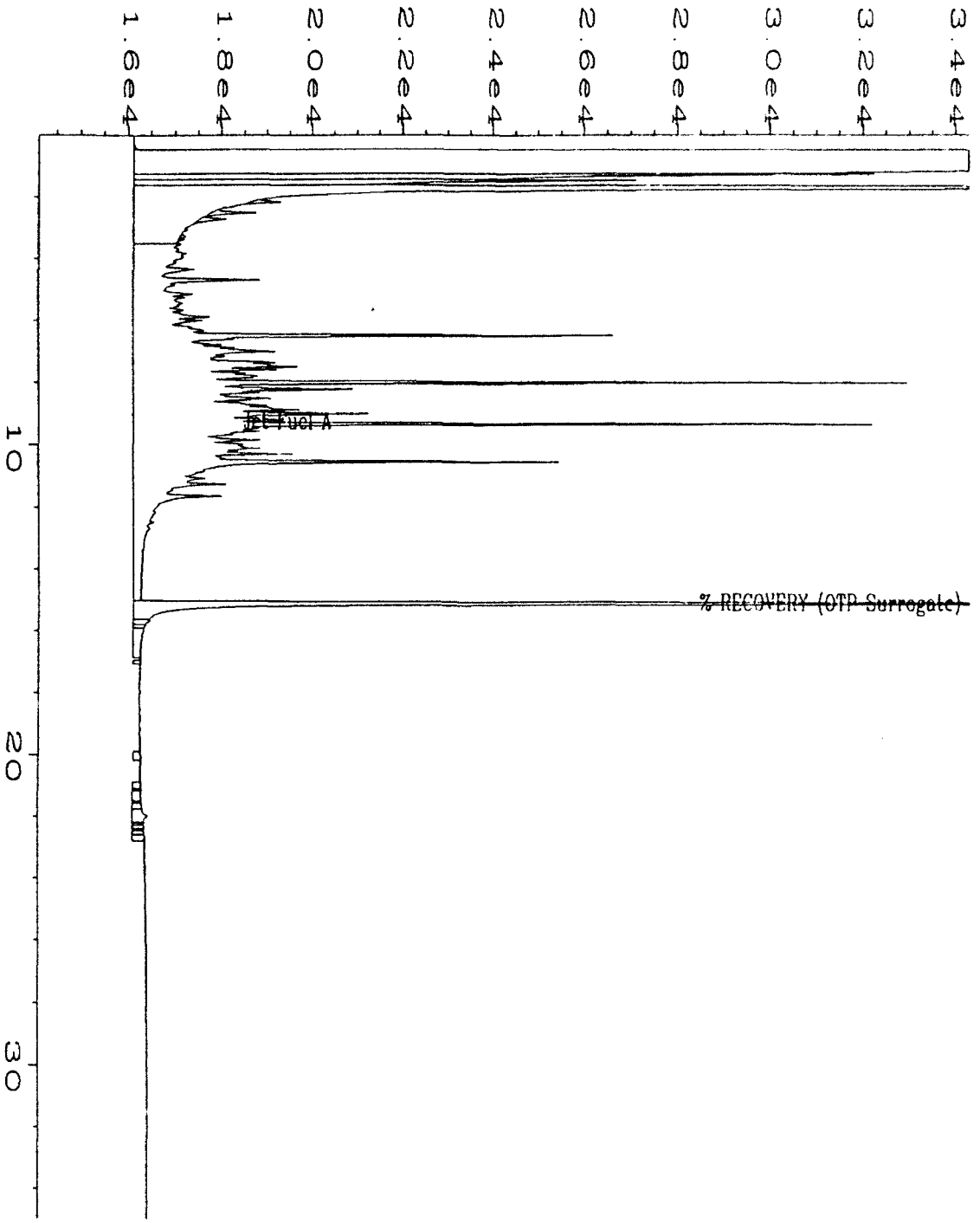
LCS Number	: LCS032995	Matrix	: SOIL
Date Prepared	: 3/29/95	Method Number	: 3500/MOD.8015
Date Analyzed	: 3/31/95		
Sequence Number	: JET10		

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
JET FUEL	1000	1080	108%	70%-130%

QUALIFIERS
U = TEH analyzed for but not detected.
B = TEH found in blank as well as sample (blank data should be compared)
E = Extrapolated value.
NA = Not Available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\JET0331\010R0801.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 10
Sample Name	: LCS032995	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 31 Mar 95 06:40 PM	Instrument Method	: JET0331
Report Created on	: 31 Mar 95 07:15 PM	Analysis Method	: JET0331
Last Recalib on	: 31 Mar 95 02:18 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

722450.21020

Date Sampled : 3/22,23/95
Date Received : 3/24/95
Date Prepared : 3/24/95
Date Analyzed : 3/24/95

Client Project ID. : /MacDill AFB
Lab Project No. : 95-0954
Method : EPA 300.0
Matrix : Water
Detection Limit : 0.250 mg/L

Evergreen Sample #	Client Sample ID	Chloride (mg/L)
X04750	MD24-8	6.55
X04750 Dup	MD24-8 Dup	6.59
X04751	24MP-2D	291
X04752	24MP-2S	15.6
X04753	24MP-1D	454
X04754	24MP-1S	16.2
X04755	MD24-2	262
X04756	MD24-5	2.94
X04757	24MP-4S	30.6
X04758	MD24-4	320
X04759	MD24-4I	326
X04760	MD24-3	207
X04761	MD24-1	79.8
X04762	24MP-5D	354
Method blank 3-24-95		<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04762	24MP-5D Matrix Spike	10.0	354	46.0*	106
X04762	24MP-5D Matrix Spike Dup	10.0	354	46.0*	106
	MS/MSD RPD				0
X04750/X04750 dup	RPD				0.609

* Result based on a 10x dilution factor.

Analyst

Approved

0954tm 25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled	: 3/22,23/95	Client Project ID.	: 722450.21020 /MacDill AFB
Date Received	: 3/24/95	Lab Project No.	: 95-0954
Date Prepared	: 3/24/95	Method	: EPA 300.0
Date Analyzed	: 3/24/95	Matrix	: Water
		Detection Limit	: 0.076 mg/L

Evergreen Sample #	Client Sample ID	Nitrite-N (mg/L)
X04750	MD24-8	<0.076
X04750 Dup	MD24-8 Dup	<0.076
X04751	24MP-2D	<0.760*
X04752	24MP-2S	<0.076
X04753	24MP-1D	<1.52*
X04754	24MP-1S	<0.076
X04755	MD24-2	<0.760*
X04756	MD24-5	<0.076
X04757	24MP-4S	<0.076
X04758	MD24-4	<0.760*
X04759	MD24-4	<0.760*
X04760	MD24-3	<0.760*
X04761	MD24-1	<0.076
X04762	24MP-5D	<0.760*
Method blank 3-24-95		<0.076

Quality Assurance **

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04762	24MP-5D Matrix Spike	10.0	<0.076	9.49	94.9
X04762	24MP-5D Matrix Spike Dup	10.0	<0.076	9.67	96.7
	MS/MSD RPD				1.88
X04750/X04750 dup	RPD				NC

* = Increased detection limit due to matrix interference.
** = Quality assurance results reported as Nitrite (NO_2)
NC = Not calculated because sample and/or duplication results below detection limit.

Debra V. Byrne
Analyst

Approved

0954tm 25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled : 3/22,23/95
Date Received : 3/24/95
Date Prepared : 3/24/95
Date Analyzed : 3/24/95

Client Project ID. : 722450.21020 /MacDill AFB
Lab Project No. : 95-0954
Method : EPA 300.0
Matrix : Water
Detection Limit : 0.056 mg/L

Evergreen Sample #	Client Sample ID	Nitrate-N (mg/L)
X04750	MD24-8	<0.056
X04750 Dup	MD24-8 Dup	<0.056
X04751	24MP-2D	<0.056
X04752	24MP-2S	<0.056
X04753	24MP-1D	<0.056
X04754	24MP-1S	<0.056
X04755	MD24-2	<0.056
X04756	MD24-5	<0.056
X04757	24MP-4S	<0.056
X04758	MD24-4	<0.056
X04759	MD24-41	<0.056
X04760	MD24-3	<0.056
X04761	MD24-1	<0.056
X04762	24MP-5D	<0.056
Method blank 3-24-95		<0.056

Quality Assurance **

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04762	24MP-5D Matrix Spike	10.0	<0.250	9.00	90.0
X04762	24MP-5D Matrix Spike Dup	10.0	<0.250	9.01	90.1
	MS/MSD RPD				0.111
X04750/X04750 dup	RPD				NC

** = Quality assurance results reported as Nitrate (NO_3)
NC = Not calculated because sample and/or duplication results below detection limit.

Analyst

Approved

0954tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled	: 3/22,23/95	Client Project ID.	: 722450.21020 /MacDill AFB
Date Received	: 3/24/95	Lab Project No.	: 95-0954
Date Prepared	: 3/24/95	Method	: EPA 300.0
Date Analyzed	: 3/24/95	Matrix	: Water
		Detection Limit	: 0.250 mg/L

Evergreen Sample #	Client Sample ID	Sulfate (mg/L)
X04750	MD24-8	1.39
X04750	MD24-8	1.43
Dup	Dup	
X04751	24MP-2D	10.5
X04752	24MP-2S	22.3
X04753	24MP-1D	2.00
X04754	24MP-1S	77.0
X04755	MD24-2	6.78
X04756	MD24-5	12.0
X04757	24MP-4S	23.5
X04758	MD24-4	11.7
X04759	MD24-4I	11.7
X04760	MD24-3	18.4
X04761	MD24-1	7.16
X04762	24MP-5D	17.4
Method blank 3-24-95		<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04762	24MP-5D Matrix Spike	10.0	17.4	26.9	95.3
X04762	24MP-5D Matrix Spike Dup	10.0	17.4	27.2	97.7
	MS/MSD RPD				2.49
X04750/X04750 dup	RPD				2.84

Analyst

Approved

0954tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Miscellaneous Analyses

			722450.21020
Date Sampled	: 3/22/95	Client Project ID.	: /MacDill AFB
Date Received	: 3/24/95	Lab Project No.	: 95-0954
Date Prepared	: 3/28/95	Detection Limit	: 5.00 $mgCaCO_3/L$
Date Analyzed	: 3/28/95	Method	: EPA 310.1

Evergreen Sample #	Client Sample ID	Matrix	Total Alkalinity ($mgCaCO_3/L$)
X04750	MD24-8	Water	206
X04750 Dup	MD24-8 Dup	Water	205
Method Blank (3/28/95)			<5.00

Quality Assurance

	True Value ($mgCaCO_3/L$)	Result ($mgCaCO_3/L$)	% Recovery
APG Minerals Reference Lot 13862	11.8	10.6	89.8
X04750/X04750 Dup RPD			0.486

Analyst

Approved

0954tm.4

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Total Organic Carbon

			722450.21020
Date Sampled	: 3/23/95	Client Project ID.	: /MacDill AFB
Date Received	: 3/24/95	Lab Project No.	: 95-0954
Date Prepared	: 3/31/95	Method	: EPA 415.1
Date Analyzed	: 3/31/95	Matrix	: Water
		Detection Limit	: 1.00 mg C/L

Evergreen Sample #	Client Sample ID	mg C/Liter
X04756	MD24-5	5.52
X04760	MD24-3	34.6
95-1009		
X04936	56MP-3S	10.2
X04936 Dup	56MP-3S dup	10.2
Method Blank (3/31/95)		<1.00

Quality Assurance

		Spike Amount (mg C/L)	Sample Result (mg C/L)	Spike Result (mg C/L)	% Recovery
95-1009 X04936	Matrix spike 56MP-3S	10.0	10.2	20.6	103
X04936	Matrix spike Dup 56MP-3S	10.0	10.2	20.7	104
	MS/MSD RPD				1.15
X04936/X04936 Dup RPD					0.098

Analyst

Approved

0954tm 10

Evergreen

CASE NARRATIVE

Evergreen Analytical Laboratory, (EAL) Project #: 95-0915

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt

On March 22, 1995, 13 water and 16 soil samples were received in good condition at Evergreen Analytical Laboratory. One trip blank was received with instructions to analyze for BTEX, TVH, Anions and Alkalinity. EAL was instructed by Leigh Benson of PES to analyze all trip blanks for BTEX only by telephone on March 22, 1995. Matrix spike (MS) samples were submitted for analysis with no associated sample. Upon questioning, John Hicks of PES was unable to determine which samples the MSs were associated with, therefore, they were handled as normal samples.

BTEX, Soil Matrix, Method SW8020

The soil samples were analyzed for BTEX within holding times. Samples 56MP-1(8-10), 56MP-2(13-15), 56SS-1(8-10) and Matrix Spike were analyzed at a dilution factor of 5 and 56MP-5(406) at DF = 1250 and 12500 due to levels of contamination. The reporting limits were adjusted accordingly.

Sample 56MP-6(4-6) exhibited low surrogate recovery. The sample was re-run for low surrogate confirmation with similar results. Method Blank MB032895 also exhibited low surrogate recovery, therefore, please refer to the Methanol Extraction Blank MEB032895.

BTEX, Water Matrix, Method 602

The water samples were analyzed within holding times at normal concentrations. No adjustment in reporting limits was necessary.

BTEX QC SAMPLES

The following Method Blanks exhibited total xylene contamination at or around the detection limit; MB032695, MEB032895, MEB032995 and MB032995. MEB033095 was contaminated with 1,2,3-trimethylbenzene. All samples associated with contaminated blanks are flagged "B".

Six Laboratory Control Samples (LCS) were associated with this project. All spikes and surrogates are within EAL control limits.

All duplicate sets of sample RPDs were within control limits.

Total Volatile Hydrocarbons, Soil and Water Matrix, Method 8015M
All samples were analyzed for TVH within holding times. Sample 56MP-16(4-6) exhibited low surrogate recovery due to matrix interference. This was confirmed by a second analysis.

There were no other quality control anomalies to report.

Total Extractable Hydrocarbons, Soil Matrix, Method 8015M
There were no quality control anomalies to report.

General Chemistry
There were no quality control anomalies to report.

Total Organic Carbon (TOC) in Soil
TOC was analyzed by Huffman Laboratories in Golden, Colorado by analyzing for total carbon (TC) and inorganic (carbonate) carbon (CC). The difference is then calculated and reported as TOC. The reports from Huffman are included.

P.McClellan

Patricia A. McClellan, Project Manager

Evergreen Analytical Sample Log Sheet

Project # 95-0915

Date(s) Sampled: 03/17,20,21/95 COC

Date Due: 03/27/95-UST
04/05/95-OTHERS

Date Received: 03/22/95 1015

Holding Time(s): 3/22,23-NO_2,NO_3, 3/31,4/3,4-BTEX,TVH,TEH,4/3,4-ALK.

Client Project I.D. 722450.21020/MAC DILL AFB

Rush STANDARD

Client: Parsons Engineering Science, Inc.

Address: 1700 Broadway Suite 900
Denver, CO 80290

Contact: TODD WIEDEMEIR

Client P.O. 722450.21020

Phone #831-8100 Fax #831-8208

Shipping Charges N/A

E.A. Cooler # 422,412

Airbill # FEDEX 3518630791

Custody Seal Intact? Y
Cooler X Bottles ___
COC Present Y
Sample Tags Present? Y
Sample Tags Listed? Y
Sample(s) Sealed? Y

Special Instructions $PLUS CHLOROBENZENE, TEMB & TMB. REPORT ALL SOILS ON A DRY WEIGHT BASIS. ANALYZE AN MS/MSD AND LAB DUPLICATE FOR THIS CLIENT.

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04546A/B	24MP-5S	$BTEX 602	W	40V	2
X04547A/B	24MP-3S	$BTEX 602	W	40V	2
X04548A/B	24MP-3D	$BTEX 602	W	40V	2
X04549A/B	24MP-8D	$BTEX 602	W	40V	2
X04550A/B	24MP-8S	$BTEX 602	W	40V	2
X04551A/B	MD24-9	$BTEX 602	W	40V	2
X04552A/B	MD24-10A	$BTEX 602	W	40V	2
X04553A/B	MD24-10	$BTEX 602	W	40V	2
X04554A/B	MD24-7	$BTEX 602	W	40V	2
X04555A/B	MD24-7(DUP)	$BTEX 602	W	40V	2
X04559	RINSEATE BLANK	$BTEX 602	W	40V	2
X04565	MATRIX SPIKE	$BTEX 8020 (% MOISTURE)	S	4WM	2
X04557	56MP-1(4-6)	$BTEX 8020,TVH	S	4WM	2
X04558	56MP-1(8-10)	$BTEX 8020,TVH	S	4WM	2
X04560	56MP-2(6-8)	$BTEX 8020,TVH	S	4WM	2
X04561	56MP-2(13-15)	$BTEX 8020,TVH	S	4WM	2
X04562	56MP-3(4-6)	$BTEX 8020,TVH	S	4WM	2
X04563	56MP-3(11-13)	$BTEX 8020,TVH	S	4WM	2
X04564	56SS-1(8-10)	$BTEX 8020,TVH(% MOISTURE)	S	TUBE	2

R=Sample to be returned

Route To: GC/MS ___ GC 4 Metals ___ Wet Chem 1 SxPrep 1 Acctg 1
SxRec C QA/QC C Sales C File Orig

Custodian/Date: 3/24/95

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04566	56MP-5(4-6)	$BTEX 8020,TVH	S	4WM	2
X04567	56MP-5(8-11)	$BTEX 8020,TVH(% MOISTURE)	S	2WM	2
X04568	56MP-6(4-6)	$BTEX 8020,TVH	S	4WM	2
X04569	56MP-6(10-11)	$BTEX 8020,TVH(% MOISTURE)	S	TUBE	2
X04571	MATRIX SPIKE	$BTEX 8020,TVH	S	2WM	2
X04572	56MP-16(4-6)	$BTEX 8020,TVH	S	4WM	2
X04556A/B	TRIP BLANK	$BTEX 602	W	40V	2
X04573A	TRIP BLANK	$BTEX 602	W	40V	2
X04546C/D	24MP-5S	TVH	W	40V	2
X04547C/D	24MP-3S	TVH	W	40V	2
X04548C/D	24MP-3D	TVH	W	40V	2
X04549C/D	24MP-8D	TVH	W	40V	2
X04550C/D	24MP-8S	TVH	W	40V	2
X04551C/D	MD24-9	TVH	W	40V	2
X04552C/D	MD24-10A	TVH	W	40V	2
X04553C/D	MD24-10	TVH	W	40V	2
X04554C/D	MD24-7	TVH	W	40V	2
X04555C/D	MD24-7(DUP)	TVH	W	40V	2
X04557	56MP-1(4-6)	TEH	S	2WM	CL3
X04558	56MP-1(8-10)	TEH	S	2WM	CL3
X04560	56MP-2(6-8)	TEH	S	2WM	CL3
X04561	56MP-2(13-15)	TEH	S	2WM	CL3
X04562	56MP-3(4-6)	TEH	S	2WM	CL3
X04566	56MP-5(4-6)	TEH	S	2WM	CL3
X04568	56MP-6(4-6)	TEH	S	2WM	CL3
X04571	MATRIX SPIKE	TEH	S	2WM	CL3
X04572	56MP-16(4-6)	TEH	S	2WM	CL3
X04557	56MP-1(4-6)	% MOISTURE	S	2WM	CL3
X04558	56MP-1(8-10)	% MOISTURE	S	2WM	CL3
X04560	56MP-2(6-8)	% MOISTURE	S	2WM	CL3
X04561	56MP-2(13-15)	% MOISTURE	S	2WM	CL3
X04562	56MP-3(4-6)	% MOISTURE	S	2WM	CL3
X04563	56MP-3(11-13)	% MOISTURE	S	2WM	CL3
X04566	56MP-5(4-6)	% MOISTURE	S	2WM	CL3
X04568	56MP-6(4-6)	% MOISTURE	S	2WM	CL3
X04571	MATRIX SPIKE	% MOISTURE	S	2WM	CL3
X04572	56MP-16(4-6)	% MOISTURE	S	2WM	CL3

R=Sample to be returned

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04546E	24MP-5S	ALKALINITY	W	250P	CL3
X04547E	24MP-3S	ALKALINITY	W	250P	CL3
X04548E	24MP-3D	ALKALINITY	W	250P	CL3
X04549E	24MP-8D	ALKALINITY	W	250P	CL3
X04550E	24MP-8S	ALKALINITY	W	250P	CL3
X04552E	MD24-10A	ALKALINITY	W	250P	CL3
X04553E	MD24-10	ALKALINITY	W	250P	CL3
X04546F	24MP-5S	Cl^-, SO_4, NO_2, NO_3	W	125P	CL3
X04547F	24MP-3S	Cl^-, SO_4, NO_2, NO_3	W	125P	CL3
X04548F	24MP-3D	Cl^-, SO_4, NO_2, NO_3	W	125P	CL3
X04549F	24MP-8D	Cl^-, SO_4, NO_2, NO_3	W	125P	CL3
X04550F	24MP-8S	Cl^-, SO_4, NO_2, NO_3	W	125P	CL3
X04551E	24MP-9	Cl^-, SO_4, NO_2, NO_3	W	125P	CL3
X04552F	MD24-10A	Cl^-, SO_4, NO_2, NO_3	W	125P	CL3
X04553F	MD24-10	Cl^-, SO_4, NO_2, NO_3	W	125P	CL3
X04554E	MD24-7	Cl^-, SO_4, NO_2, NO_3	W	125P	CL3
X04555E	MD24-7(DUP)	Cl^-, SO_4, NO_2, NO_3	W	125P	CL3
X04562	56MP-3(4-6)	TOC	S	2WM	OUT
X04568	56MP-6(4-6)	TOC	S	2WM	OUT
X04570	56SS-2(4-6)	TOC (% MOISTURE)	S	2WM	OUT
X04574	56SS-12(4-6)	TOC (% MOISTURE)	S	2WM	OUT

Project # 95-0915

R=Sample to be returned

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons Engineering Science
ADDRESS 1700 Broadway, Suite 900
CITY Denver STATE CO ZIP 80290
PHONE # 303-831-8100 FAX # 303-831-8208 FAX RESULTS Y / (N)

CLIENT CONTACT (print) Todd Wiedemeier
PROJECT I.D. Mac D.A.F. AFB
EAL QUOTE # 22450 21020 P.O.#
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Mark Vessely
(print) MARK VESSELY

Evergreen Analytical Cooler No. 422
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline) 40V	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity 125P	Cl⁻, SO₄⁻², NO₂⁻, NO₃⁻ 28	EAL Sample No.
24MP-5S	3/20/95	08:50	6	X										X		X				X	X	X04546
24MP-3S	3/20/95	11:25	6	X										X		X				X	X	47
24MP-3D	3/20/95	12:20	6	X										X		X				X	X	48
24MP-8D	3/20/95	13:55	6	X										X		X				X	X	49
24MP-8S	3/20/95	15:10	6	X										X		X				X	X	50
MW24-9	3/20/95	10:05	5	X										X		X					X	51
MW24-10A	3/21/95	10:00	6	X										X		X				X	X	52
MW24-10	3/21/95	10:45	6	X										X		X				X	X	53
MW24-7	3/21/95	11:45	5	X										X		X					X	54
MW24-7 (DUP)	3/21/95	11:45	5	X										X		X					X	55
HT:																						Location 2, CL1
DD:																						Container Size

Instructions: All samples placed in ice
Please analyze for Bicarbonate, Alkalinity, Anions

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[illegible]	3/21/95	FED EX		FED EX		[illegible]	3/23/95

Evergreen Analytical Inc.

4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons Engineering Science
ADDRESS 1700 Broadway, Suite 900
CITY Denver STATE Co ZIP 80290
PHONE# 303-831-8100 FAX # 303-831-8208 FAX RESULTS Y / (N)

CLIENT CONTACT (print) Todd Livedalen
PROJECT I.D. Mac Dill AFB
EAL QUOTE # 22450-2102C P.O #
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Mark Vessely
(print) MARK VESSELY

Evergreen Analytical Cooler No. 421
Cooler Received

Please **PRINT** all information:

EAL use only
Do not write in shaded area

EAL Project # 0915
Custodian

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle and Trip Blank Only)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Al Ca Fe Mg	Cl - SO4 2- NO2 + NO3 -	EAL Sample No.
TRIP BLANK	3/20/95	0730	1	X										X	X							X046556
HT:																						Location 2, CL1
DD:																						Container Size

Instructions: Please See PAGE 1 Trip Blank for BTEX only / Leigh Parsons

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Mark Vessely	3/21/95	Fed Ex		Fed Ex			

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons ES
ADDRESS 1700 Broadway
CITY Denver STATE CO ZIP 80202
PHONE# 323 831 8100 FAX #
FAX RESULTS (Y) / N

CLIENT CONTACT (print) Jobie Hicks
PROJECT I.D. MacD-11
EAL QUOTE # PO # 722450.2102
TURNAROUND REQUIRED*
*expedited turnaround subject to additional fee

Sampler Name:
(signature)
(print) Kyle L. Cannon
Evergreen Analytical Cooler No. 4/12
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	BTEX 8020/602 (circle)/MTBE	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	TDC	Moisture	EAL Sample No.
56MP-1(4-6)	3-17-95	0915	3		X		X	X	X		X	X04557
56MP-1(8-10)	3-17-95		3		X		X	X	X		X	58
Rinsate Blank	3-17-95	0930	1	X			X					59 4 OV
56MP-2(6-8)	3-17-95	1110	3		X		X	X	X		X	60
56MP-2(13-15)	3-17-95	1145	3		X		X	X	X	X	X	61
56MP-3(4-6)	3-17-95	1415	3		X		X	X	X		X	62
56MP-3(11-13)	3-17-95	1600	3		X		X	X	X		X	63
5655-1(8-10)	3-20-95	0820	3		X		X	X	X		X	64 T
[redacted]	[redacted]											[redacted]
Matrix Spike	3-17-95		1		X		X					65
HT:												Location 2,CL3
DD:												Container Size tubes 2@m,4@m

EAL use only
Do not write in shaded area

EAL Project # 0915
Custodian

Instructions:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/
[signature]	3/24/95	[signature]	3/22/95				

Evergreen Analytical Inc.

4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons ES
ADDRESS 1700 Broadway
CITY Denver STATE CO ZIP 80290
PHONE# 831-8100 FAX # FAX RESULTS Y / N
Sampler Name (signature) Kyle L. Conner
(print) Kyle L. Conner
Evergreen Analytical Cooler No. 412
Cooler Received

CLIENT CONTACT (print) John Hucks
PROJECT I.D. MacDill AFB
EAL QUOTE # PO.# 722850.2126
TURNAROUND REQUIRED*
*expedited turnaround subject to additional fee

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	TOC	Moisture	EAL Sample No.
SGMP5(4-6)	3-20-95	1130	3		X									X	X	X	X				X	X04566
SG MP-5 (9-11)	3-20-95	1200	2		X									X	X	X	X				✓	67 2
SG MP-6 (4-6)	3-20-95	1230	4		X								2	X		X	X			X	X	68
SG MP-6 (10-11)	3-20-95	1400	1		X									X		X					✓	69 T
SG SS-2 (4-6)	3-20-95	1500	1		X															X	✓	70
Matrix Spike	3-20-95		1		X									X		X	X				X	71
SG MP-10 (4-6)	3-20-95	1830	3		X									X		X	X				X	72
Trip Blank			1	X										X							DI*	73
[redacted]																						
SG SS-12 (4-6)	3-20-95	1900	1			X														X	✓	74
HT:																						Location 2, 23
DD:																						Container Size 240m 40m

EAL use only — do not write in shaded area
EAL Project # 0915
Custodian

Instructions: Sample SGMP-5 (9-11) had [illegible] recovery. If the container for BTEX is not sufficient, use the TVH vial to analyze for BTEX. Same w/ SGMP-6 (10-11). ALL TOC Samples Completed.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Kyle L. Conner	3/24/95	Lee Conner	3/22/95				

Evergreen Analytical Sample Receipt/Check-in Record

Date & Time Rec'd: 3/22/95 10.15 Shipped Via: Fed Ex
(Airbill # if applicable)

Client : Parsons Engineering

Client Project ID(s): 722450.21020

EAL Project #(s): 95-0915 EAL Cooler(s): (Y) N

Cooler#	422								
Ice packs	(Y)	N	Y	N	Y	N	Y	N	Y	N
Temperature °C	Cold								

	Y	N	N/A
1. Custody seal(s) present:	✓		
Seals on cooler intact	✓		✓
Seals on bottle intact			
2. Chain of Custody present:	✓		
3. Containers broken or leaking: (Comment on COC if Y)		✓	
4. Containers labeled:	✓		
5. COC agrees w/ bottles received: (Comment on COC if N)	✓		
6. COC agrees w/ labels: (Comment on COC if N)	✓		
7. Headspace in VOA vials-waters only (comment on COC if Y)		✓	
8. VOA samples preserved:	✓		
9. pH measured on metals, cyanide or phenolics*:			✓
List discrepancies			
*Non-EAL provided containers only, water samples only.			
10. Metal samples present:			✓
Total _____ , Dissolved _____			
D or PD to be filtered:			
T,TR,D,PD to be Preserved:			
11. Short holding times:			
Specify parameters			
12. Multi-phase sample(s) present:		✓	
13. COC signed w/ date/time:	✓		

Comments: _____

(Additional comments on back)
Custodian Signature/Date: Lee Connor 3/22/95

Weighted Analytical Sample Receipt/Check-In Record

Date & Time Rec'd: 3/22/95 1015 Shipped Via: HD
(Airbill # if applicable)

Client : Parsons ES

Client Project ID(s): ~~MACTEC~~ 722450.21020

EAL Project #(s): 95- 0915 EAL Cooler(s): (Y) N

Cooler#	412								
Ice packs	(Y)	N	Y	N	Y	N	Y	N	Y	N
Temperature °C	cold								

	Y	N	N/A
1. Custody seal(s) present:	✓		
Seals on cooler intact	✓		
Seals on bottle intact			✓
2. Chain of Custody present:	✓		
3. Containers broken or leaking: (Comment on COC if Y)		✓	
4. Containers labeled:	✓		
5. COC agrees w/ bottles received: (Comment on COC if N)	✓		
6. COC agrees w/ labels: (Comment on COC if N)		✓	
7. Headspace in VOA vials-waters only (comment on COC if Y)		✓	
8. VOA samples preserved:		✓	
9. pH measured on metals, cyanide or phenolics*:			✓
List discrepancies			
*Non-EAL provided containers only, water samples only.			
10. Metal samples present:			✓
Total _____ , Dissolved _____			
D or PD to be filtered:			
T,TR,D,PD to be Preserved:			
11. Short holding times:		✓	
Specify parameters			
12. Multi-phase sample(s) present:		✓	
13. COC signed w/ date/time:	✓		

Comments:

(Additional comments on back)
Custodian Signature/Date: Lee Connor

Evergreen Analytical Inc.

4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons Engineering Science
ADDRESS 1700 S. Broadway, Suite 900
CITY Denver STATE CO ZIP 80290
PHONE# 303-831-8100 FAX # 303-831-8208 FAX RESULTS Y / (N)

CLIENT CONTACT (print) Todd Wiedemeier
PROJECT I.D. Mac Dill AFB
EAL. QUOTE # 722450.21020 P.O.#
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Mark Vessely
(print) Mark Vessely

Evergreen Analytical Cooler No. 422
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity	Ca, SO4, NO3, Mg	EAL Sample No.
24MP-5S	3/20/95	08:50	6	X										X		X				X	X	
24MP-3S	3/20/95	11:25	6	X										X		X				X	X	
24MP-3D	3/20/95	12:20	6	X										X		X				X	X	
24MP-8D	3/20/95	13:55	6	X										X		X				X	X	
24MP-8S	3/20/95	15:10	6	X										X		X				X	X	
MD24-9	3/20/95	10:05	5	X										X		X					X	
MD24-10A	3/21/95	10:00	6	X										X		X				X	X	
MD24-10	3/21/95	10:45	6	X										X		X				X	X	
MD24-7	3/21/95	11:45	5	X										X		X					X	
MD24-7 (DUP)	3/21/95	11:45	5	X										X		X					X	
HT:																						Location
DD:																						Container Size

EAL use only
Do not write in shaded area

EAL
Project #
Custodian

Instructions: All samples Placed in ICE
Please analyze trip Blank for BTEX, TVH, Alkalinity, Anions

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Mark Vessely	3/21/95	FED EX		FED EX		Pin (courier	1015

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Ingsons Engineering Science
ADDRESS 1700 Broadway, Suite 900
CITY Denver STATE Co ZIP 80290
PHONE# 303-831-8100 FAX # 303-831-8208 FAX RESULTS Y / (N)

CLIENT CONTACT (print) Todd Wiedemeier
PROJECT I.D. Mac Dill AFB
EAL. QUOTE # 822.45C-21020 P.O.#
TURNAROUND REQUIRED* 30 days
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Mark Vessely
(print) Mark Vessely

Evergreen Analytical Cooler No. 421
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle) and Total & Lead Scavenging	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Alkalinity	Cl⁻, SO₄²⁻, NO₂⁻, NO₃⁻	EAL Sample No.
Trip Blank	3/21/95	1700	1	W										X	X							
															pm					pm	pm	
HT:																						Location
DD:																						Container Size

EAL use only
Do not write in shaded area

EAL
Project #
Custodian

Instructions: Please See Page 1 Analyze trip blank for BTEX only per Leigh Benson 3/22/95 pm.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Mark Vessely	3/21/95 17:00	Fed Ex		Fed Ex		Lee Connor	1015

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

Page 1 of 1

COMPANY Parsons ES
ADDRESS 1700 Broadway
CITY Denver STATE CO ZIP 80290
PHONE# 323 831 8100 FAX # FAX RESULTS Y / N
Sampler Name:
(signature)
(print) Kyle L. Cannum
Evergreen Analytical Cooler No. 412
Cooler Received

CLIENT CONTACT (print) John Hicks
PROJECT I.D. MacDill
EAL QUOTE # P.O # 722450.2002
TURNAROUND REQUIRED*
*expedited turnaround subject to additional fee

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	TOC	Moisture	EAL Sample No.
56MP-1(4-6)	3-17-95	0815	3		X									X		X	X				X	
56MP-1(8-10)	3-17-95		3		X									X		X	X				X	
Rinseate Blank	3-17-95	0930	1	X										X								
56MP-2(6-8)	3-17-95	1110	3		X									X		X	X				X	
56MP-2(13-15)	3-17-95	1145	3		X									X		X	X				X	
56MP-3(4-6)	3-17-95	1415	84		X									X		X	X			X	X	
56MP-3(11-13)	3-17-95	1600	3		X									X		X	X				X	
SGSS-1(8-10)	3-20-95	0830	81		X									X		X	X				X	
~~SB-MP-1(8-10)~~	~~3-20-95~~	~~1000~~																				
Matrix Spike	3-17-95		1		X									X								
HT:																						Location
DD:																						Container Size

EAL use only
Do not write in shaded area

EAL
Project #
Custodian

Instructions:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	3/24/95		3/22/95				

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons ES
ADDRESS 1700 Broadway
CITY Denver STATE CO ZIP 80290
PHONE# 831-8100 FAX # FAX RESULTS Y / N
Sampler Name (signature) Kyle L. Cavin
(print) Kyle L. Cavin
Evergreen Analytical Cooler No. 412
Cooler Received

CLIENT CONTACT (print) John Hicks
PROJECT I.D. MacDill AFB
EAL QUOTE # P.O.# 722 TO.21 22
TURNAROUND REQUIRED*
*expedited turnaround subject to additional fee

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	TOC	Moisture	EAL Sample No.
SGMP-5 (4-6)	3-20-95	1130	3		X									X	X	X	X				X	
SGMP-5 (9-11)	3-20-95	1200	2		X									X	X	X	X					
SGMP-6 (4-6)	3-20-95	1230	4		X									X		X	X			X	X	
SGMP-6 (10-11)	3-20-95	1400	1		X									X		X						
SGMP-7 (4-6)	3-20-95	1500	1		X															X		
Matrix Spike	3-20-95		4		X									X								
SGMP-10 (4-6)	3-20-95	1830	3		X									X		X	X				X	
Trip Blank			1	X										X								
[redacted]																						
SGSS-12 (4-6)	3-20-95	1900	1		X															X		
HT:																						Location
DD:																						Container Size

EAL use only
Do not write in shaded area

EAL
Project #
Custodian

Instructions: Sample SGMP-5 (9-11) had poor recovery. If the container for BTEX is not sufficient, use the TVH to analyze for BTEX. Same w/ SGMP-6 (10-11). ALL TOC Samples Completed.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Kyle L. Cavin	3/21/95 1400	Bill O'Connor	3/22/95 1015				

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

Client Sample Number	: MD24-7	Client Project No.	: 722450.21020 MacDill AFB
Lab Sample Number	: X04554	Lab Project No.	: 95-0915
Date Sampled	: 3/21/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/26/95	Matrix	: Water
Date Analyzed	: 3/27/95	Lab File No.	: BX2032618
Methanol Extract?	: No	Method Blank No.	: MB032695
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2	3.1	J	4.0
Toluene	108-88-3		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	0.7	J	4.0

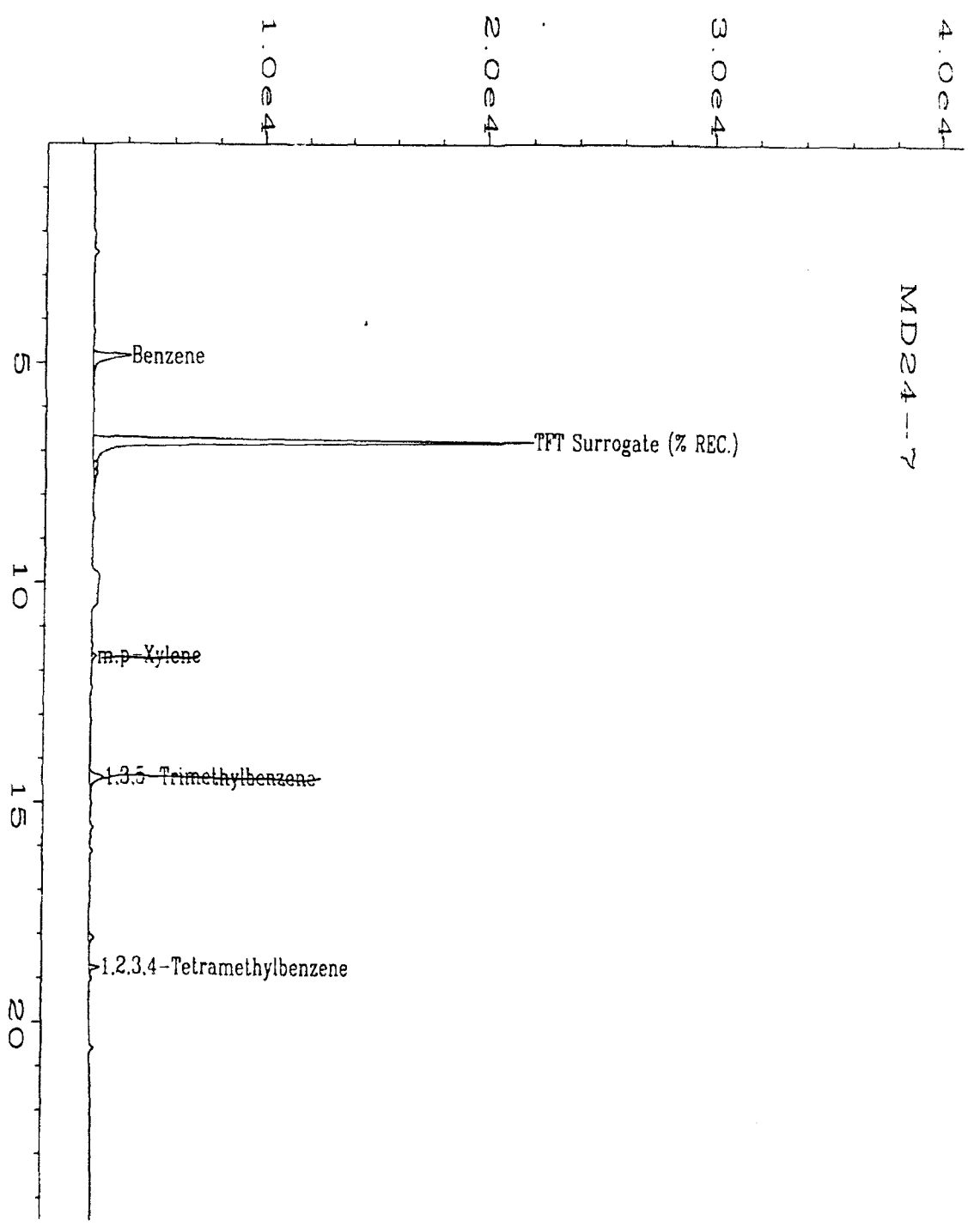
Surrogate Recovery (α,α,α-Trifluorotoluene):	100%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20326\018R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 18
Sample Name	: X04554;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
uired on	: 27 Mar 95 00:41 AM	Instrument Method	: BX20326.MTH
ort Created on	: 17 Apr 95 02:14 PM	Analysis Method	: BX20326A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 4/19/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

Client Sample Number	: MD24-7(DUP)	Client Project No.	: 722450.21020 MacDill AFB
Lab Sample Number	: X04555	Lab Project No.	: 95-0915
Date Sampled	: 3/21/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/27/95	Matrix	: Water
Date Analyzed	: 3/27/95	Lab File No.	: BX2032711
Methanol Extract?	: No	Method Blank No.	: MB032795
% Moisture	: 0.00%		

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2	3.2	J	4.0
Toluene	108-88-3		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

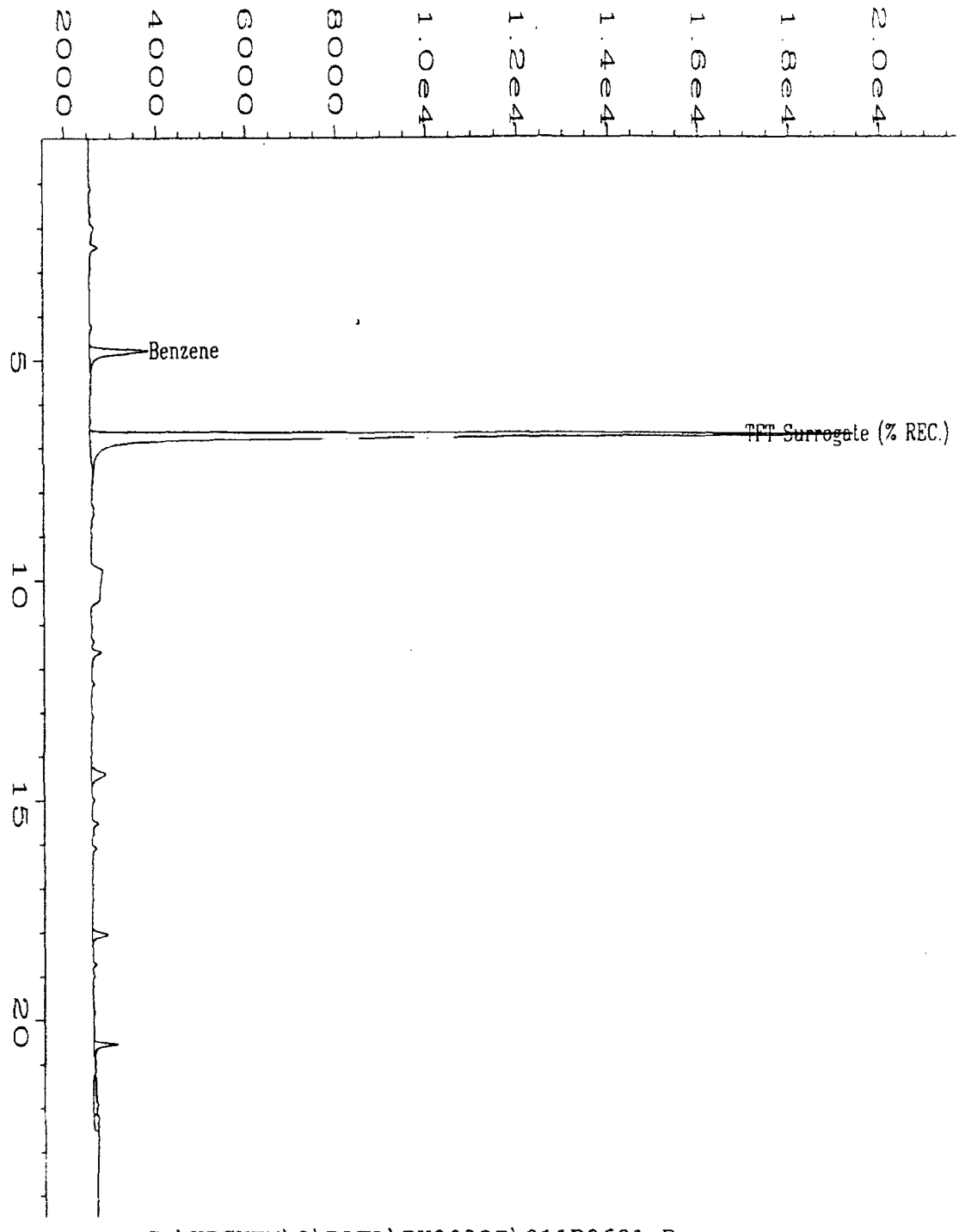
Surrogate Recovery (α,α,α-Trifluorotoluene):	100%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20327\011R0601.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 11
Sample Name	: X04555;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 27 Mar 95 06:05 PM	Instrument Method	: BX20327.MT
Report Created on	: 17 Apr 95 12:35 PM	Analysis Method	: BX20327A.M
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0915 Client#: MD24-7(DUP) Water		

MD24-7DUP

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: MD24-7(DUP)		
Lab Sample Number	: X04555DUP	Lab Project No.	: 95-0915
Date Sampled	: 3/21/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/27/95	Matrix	: Water
Date Analyzed	: 3/27/95,	Lab File No.	: BX2032712
Methanol Extract?	: No	Method Blank No.	: MB032795
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2	2.3	J	4.0
Toluene	108-88-3		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

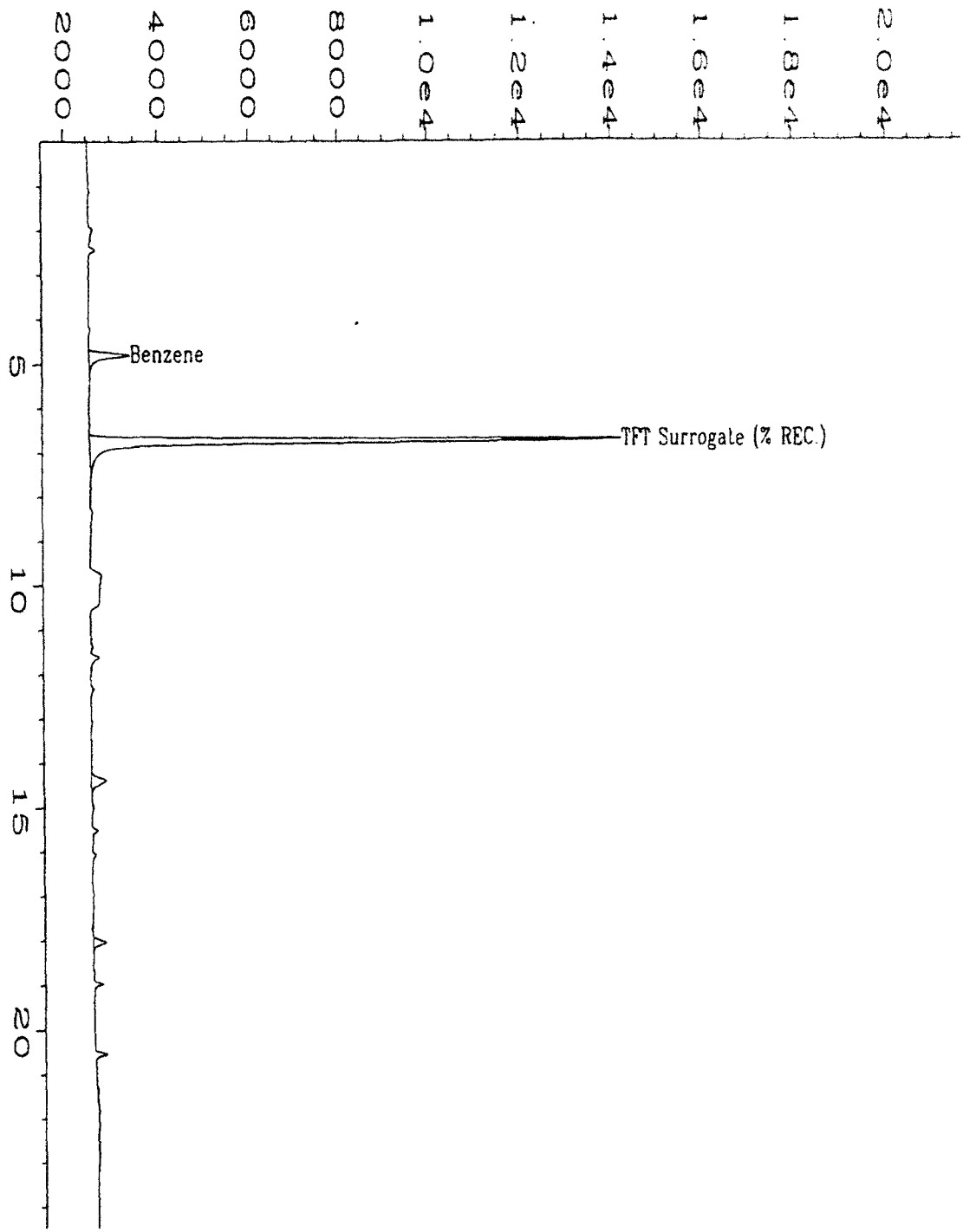
Surrogate Recovery (α,α,α-Trifluorotoluene):	70%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20327\012R0601.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 12
Sample Name	: X04555DUP;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 27 Mar 95 06:50 PM	Instrument Method	: BX20327.MTH
Report Created on	: 17 Apr 95 12:35 PM	Analysis Method	: BX20327A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0915 Client#: MD24-7(DUP) Water		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: MD24-9		
Lab Sample Number	: X04551	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/26/95	Matrix	: Water
Date Analyzed	: 3/26/95	Lab File No.	: BX2032612
Methanol Extract?	: No	Method Blank No.	: MB032695
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7	0.5	JB	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzena	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

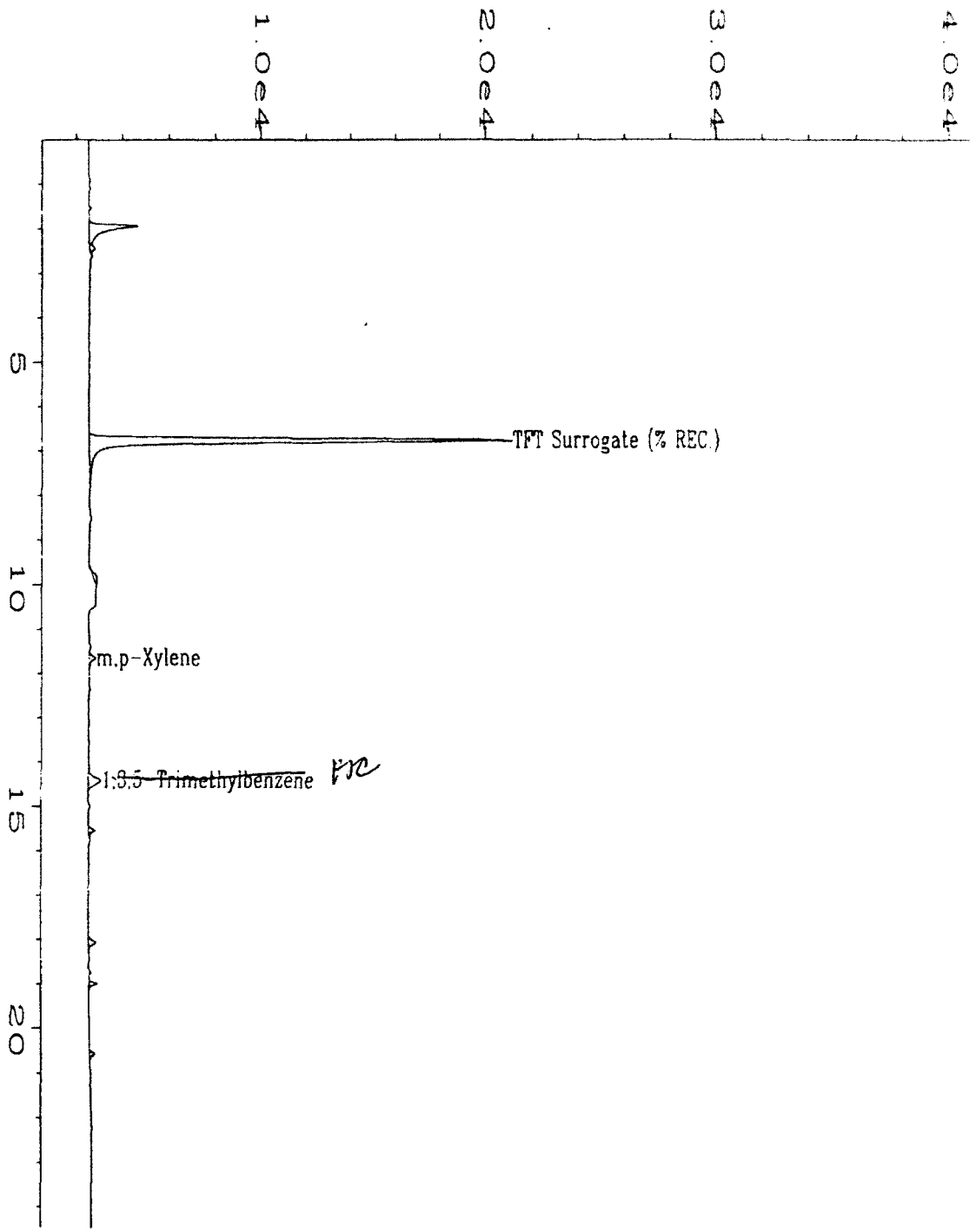
Surrogate Recovery (α,α,α-Trifluorotoluene):	99%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

P. McClellan
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20326\012R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 12
Sample Name	: X04551;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
quired on	: 26 Mar 95 08:13 PM	Instrument Method	: BX20326.MTH
eport Created on	: 17 Apr 95 02:07 PM	Analysis Method	: BX20326A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: MD24-9		
Lab Sample Number	: X04551DUP	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/26/95	Matrix	: Water
Date Analyzed	: 3/26/95	Lab File No.	: BX2032613
Methanol Extract?	: No	Method Blank No.	: MB032695
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

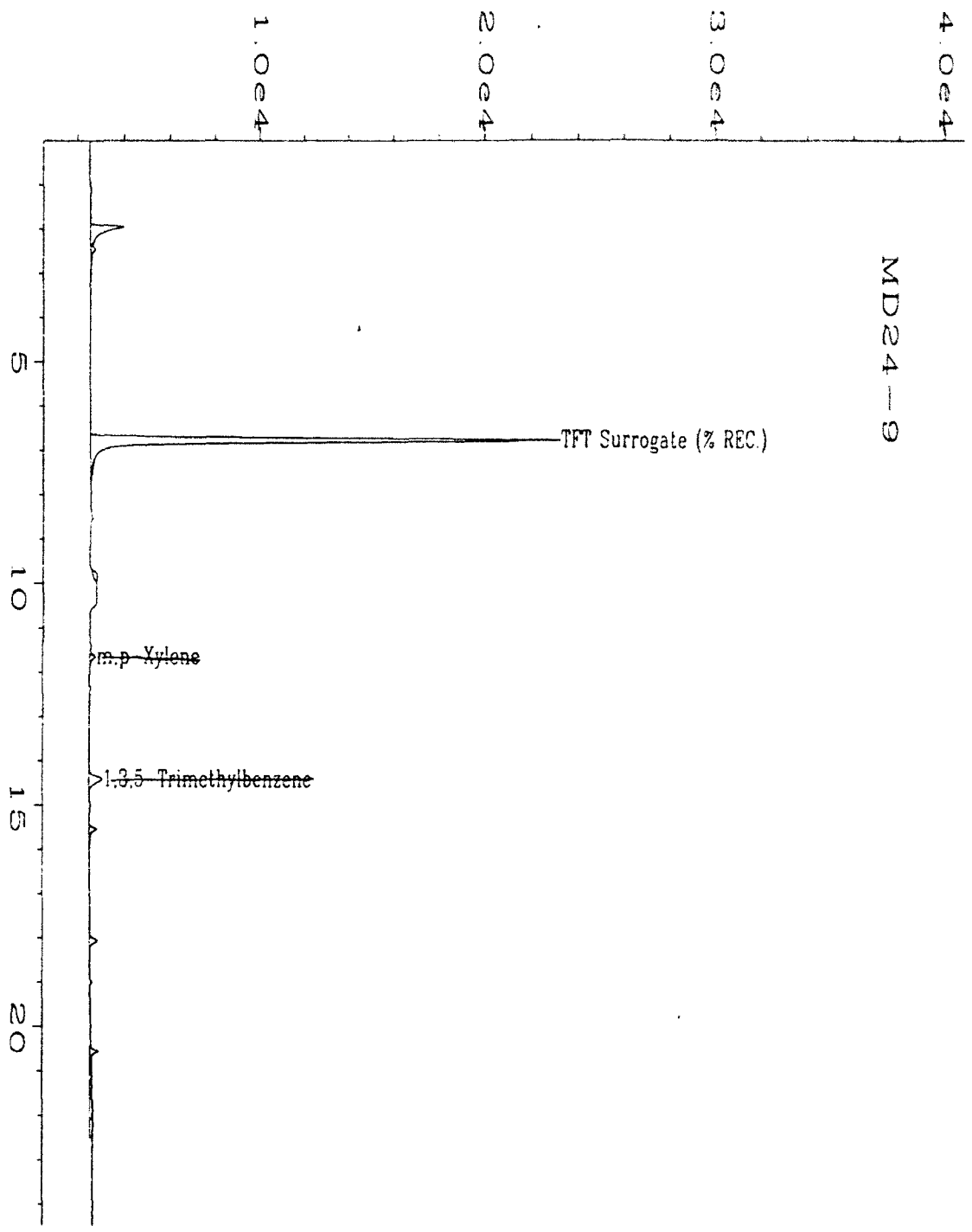
Surrogate Recovery (α,α,α-Trifluorotoluene):	106%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20326\013R0801.D

Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 13
Sample Name	: X04551DUP;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 26 Mar 95 08:59 PM	Instrument Method	: BX20326.MTH
Report Created on	: 17 Apr 95 02:09 PM	Analysis Method	: BX20326A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 4/19/95

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(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: MD24-10		
Lab Sample Number	: X04553	Lab Project No.	: 95-0915
Date Sampled	: 3/21/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/26/95	Matrix	: Water
Date Analyzed	: 3/26/95,	Lab File No.	: BX2032617
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

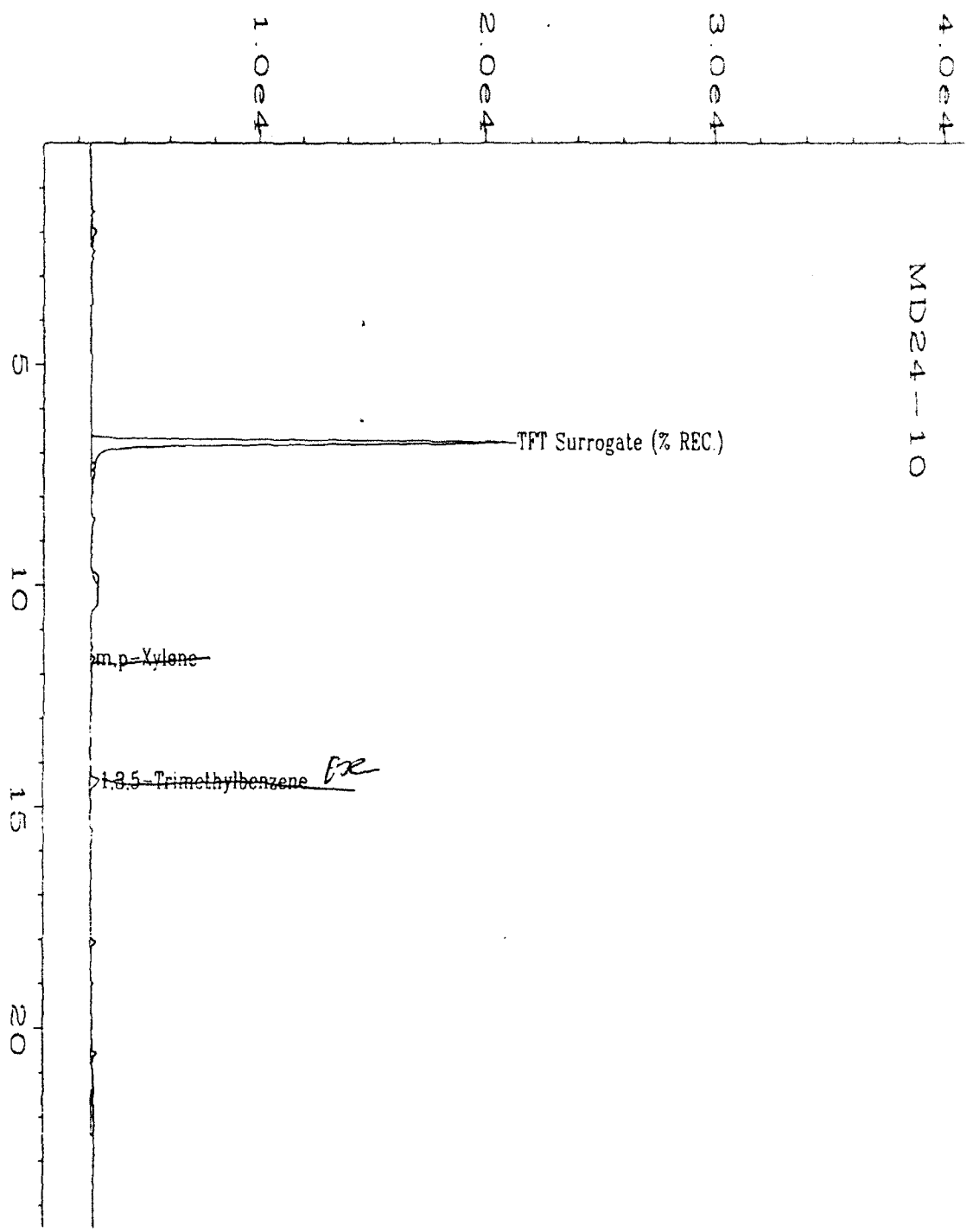
Surrogate Recovery (α,α,α-Trifluorotoluene):	100%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

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Data File Name	: C:\HPCHEM\2\DATA\BX20326\017R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 17
Sample Name	: X04553;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 26 Mar 95 11:57 PM	Instrument Method	: BX20326.MTH
Report Created on	: 17 Apr 95 02:13 PM	Analysis Method	: BX20326A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Dm 4/19/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: MD24-10A		
Lab Sample Number	: X04552	Lab Project No.	: 95-0915
Date Sampled	: 3/21/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/26/95	Matrix	: Water
Date Analyzed	: 3/26/95	Lab File No.	: BX2032616
Methanol Extract?	: No	Method Blank No.	: MB032695
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7	0.5	JB	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

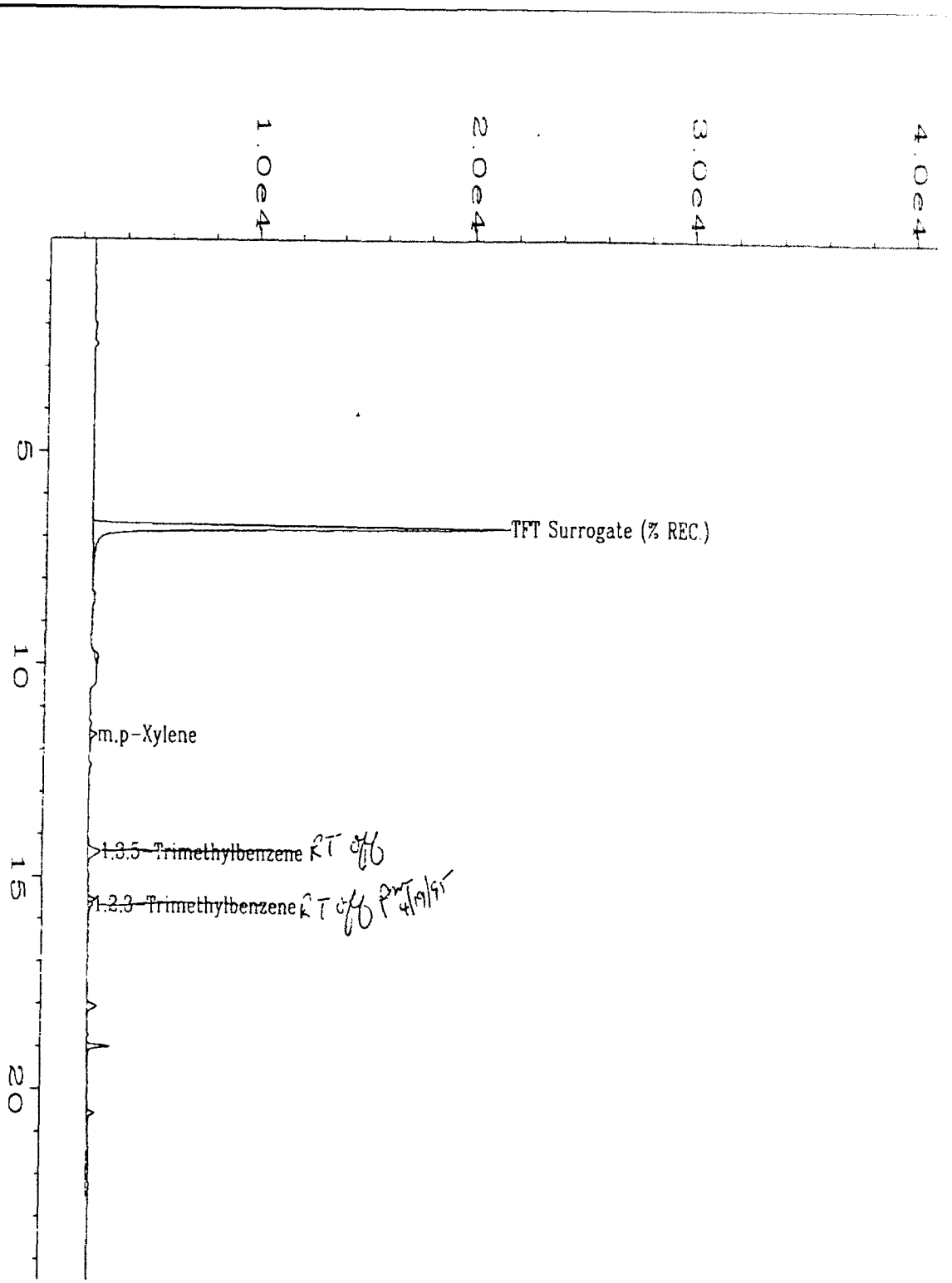
Surrogate Recovery (α,α,α-Trifluorotoluene):	100%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

P. McClellan
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20326\016R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 16
Sample Name	: X04552;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
uired on	: 26 Mar 95 11:12 PM	Instrument Method	: BX20326.MTH
ort Created on	: 17 Apr 95 02:12 PM	Analysis Method	: BX20326A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
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(303) 425-6021

BTEX Data Report

Client Sample Number	: 24MP-3S ✓	Client Project No.	: 722450.21020 MacDill AFB
Lab Sample Number	: X04547	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/26/95.	Lab File No.	: BX2032517
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3	3.6		4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	0.7	J	4.0

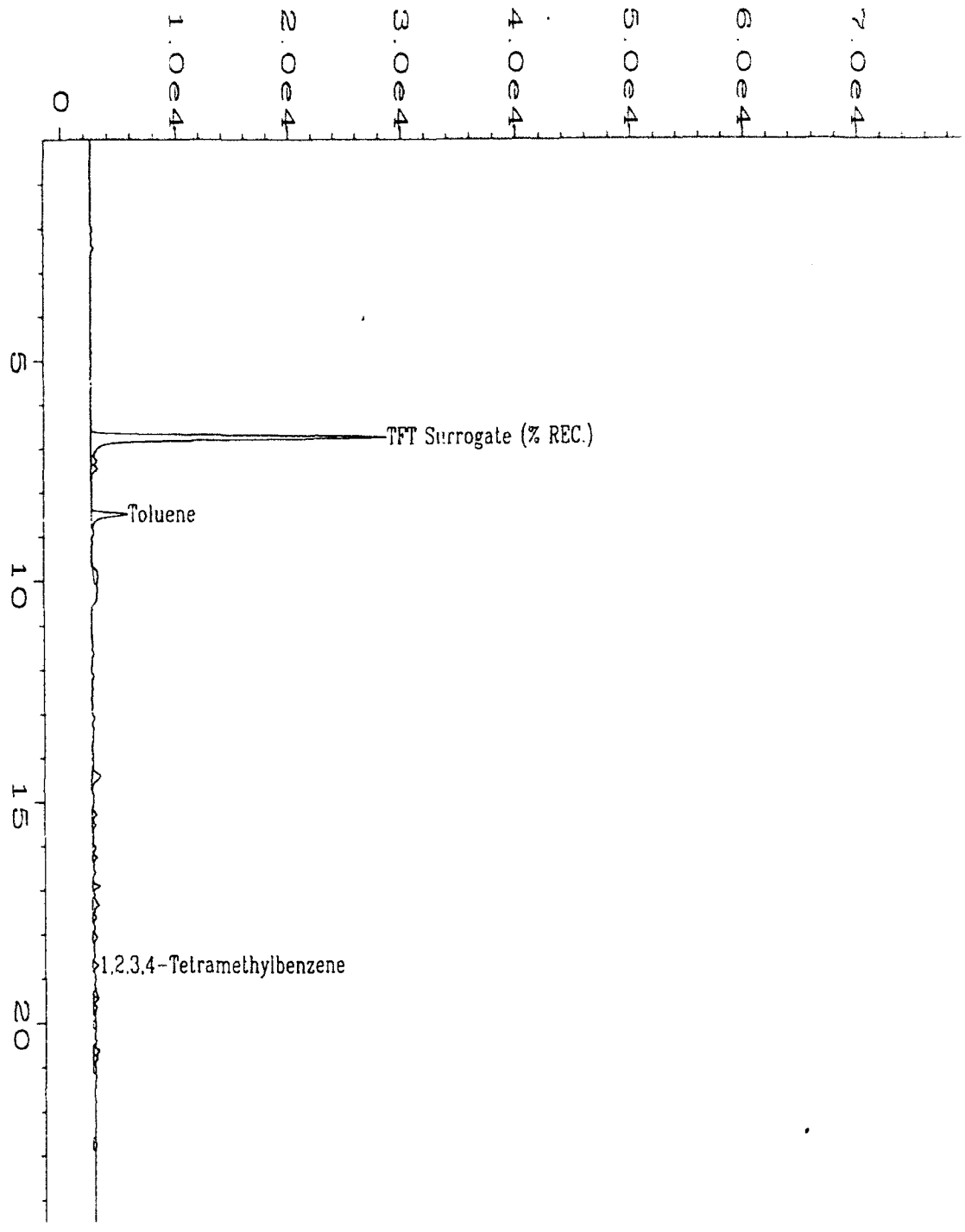
Surrogate Recovery (α,α,α-Trifluorotoluene):	83%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20325\017R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 17
Sample Name	: X04547;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
quired on	: 26 Mar 95 01:20 AM	Instrument Method	: BX20325.MTH
port Created on	: 17 Apr 95 01:06 PM	Analysis Method	: BX20325A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0915	Client#: 24MP-3S	Water

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: 24MP-3D		
Lab Sample Number	: X04548	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/26/95,	Lab File No.	: BX2032518
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	0.8	J	4.0

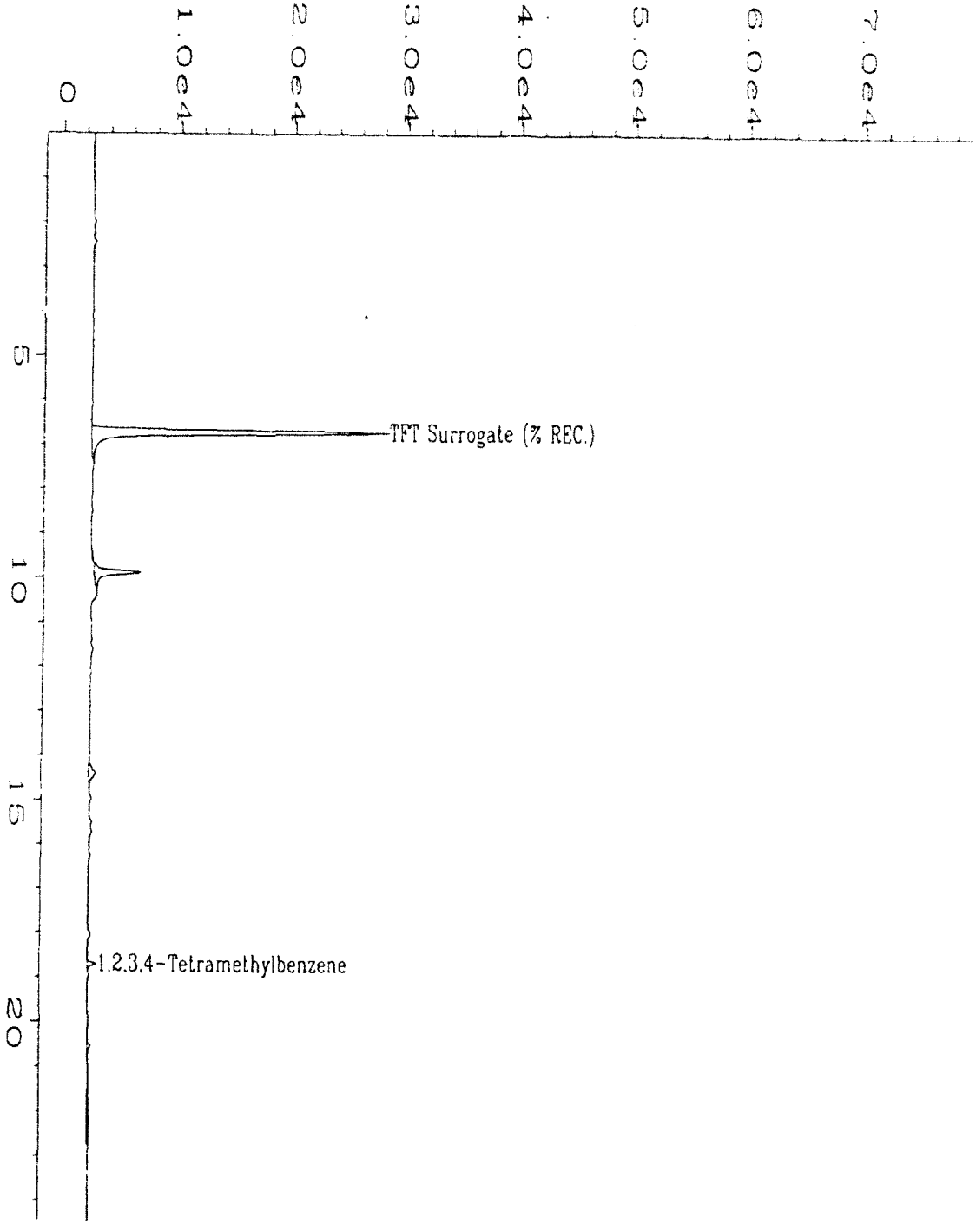
Surrogate Recovery (α,α,α-Trifluorotoluene):	83%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20325\018R0801.D
Operator : T.L. Lockwood
Instrument : BTEX2
Sample Name : X04548;1;5
Run Time Bar Code:
Acquired on : 26 Mar 95 02:04 AM
Report Created on: 17 Apr 95 01:07 PM
Last Recalib on : 11 APR 95 00:39 AM
Multiplier : 1
Sample Info : Project#: 95-0915

Page Number : 1
Vial Number : 18
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20325.MTH
Analysis Method : BX20325A.MTH
Sample Amount : 0
ISTD Amount :
Client#: 24MP-3D Water

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: 24MP-5S		
Lab Sample Number	: X04546	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/25/95	Lab File No.	: BX2032513
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	9.3	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

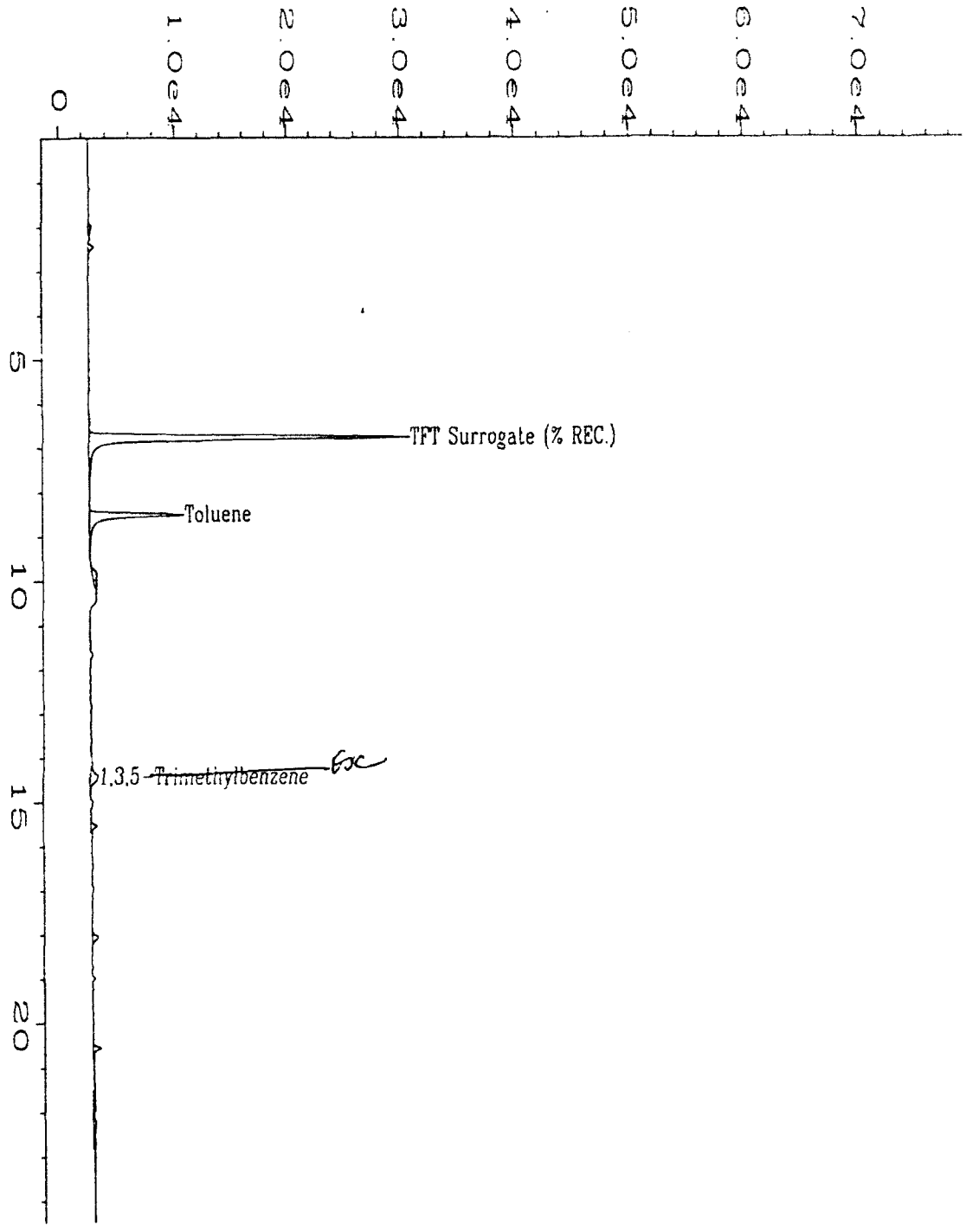
Surrogate Recovery (α,α,α-Trifluorotoluene):	89%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20325\013R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 13
Sample Name	: X04546;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 25 Mar 95 10:23 PM	Instrument Method	: BX20325.MTH
Report Created on	: 17 Apr 95 01:03 PM	Analysis Method	: BX20325A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0915	Client#: 24MP-5S	Water

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: 24MP-5S		
Lab Sample Number	: X04546DUP	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/25/95,	Lab File No.	: BX2032514
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3	9.0		4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

Surrogate Recovery (α,α,α-Trifluorotoluene):	90%	70%-130% (QC limits)

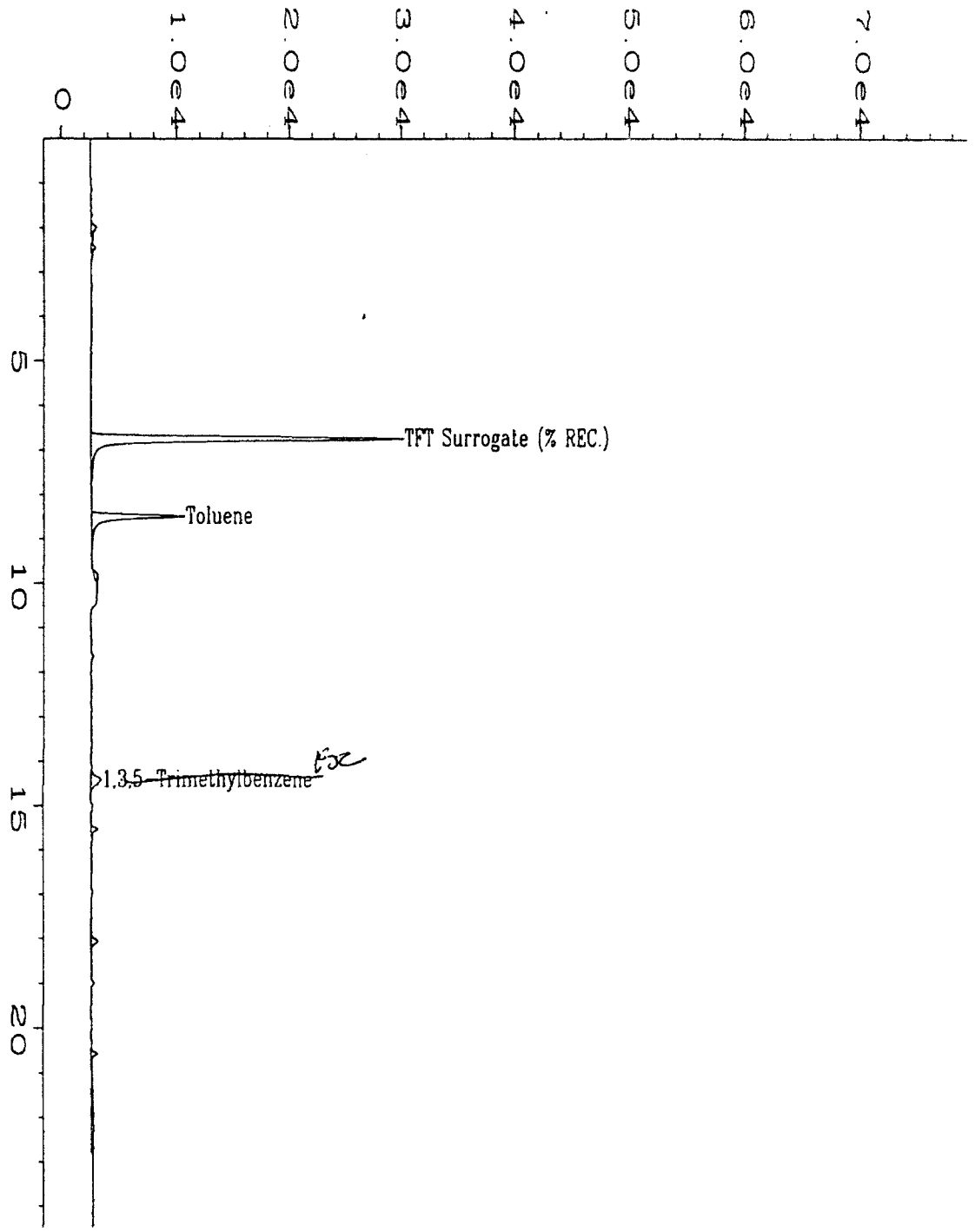
Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20325\014R0801.D
Operator : T.L. Lockwood
Instrument : BTEX2
Sample Name : X04546DUP;1;5
Run Time Bar Code:
uired on : 25 Mar 95 11:08 PM
ort Created on: 17 Apr 95 01:03 PM
Last Recalib on : 14 APR 95 00:39 AM
Multiplier : 1
Sample Info : Project#: 95-0915

Page Number : 1
Vial Number : 14
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20325.MTH
Analysis Method : BX20325A.MTH
Sample Amount : 0
ISTD Amount :
Client#: 24MP-5S Water

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

Client Sample Number	: 24MP-8S	Client Project No.	: 722450.21020 MacDill AFB
Lab Sample Number	: X04550	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/26/95	Lab File No.	: BX2032521
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3	5.4		4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

Surrogate Recovery (α,α,α-Trifluorotoluene):	76%	70%-130% (QC limits)

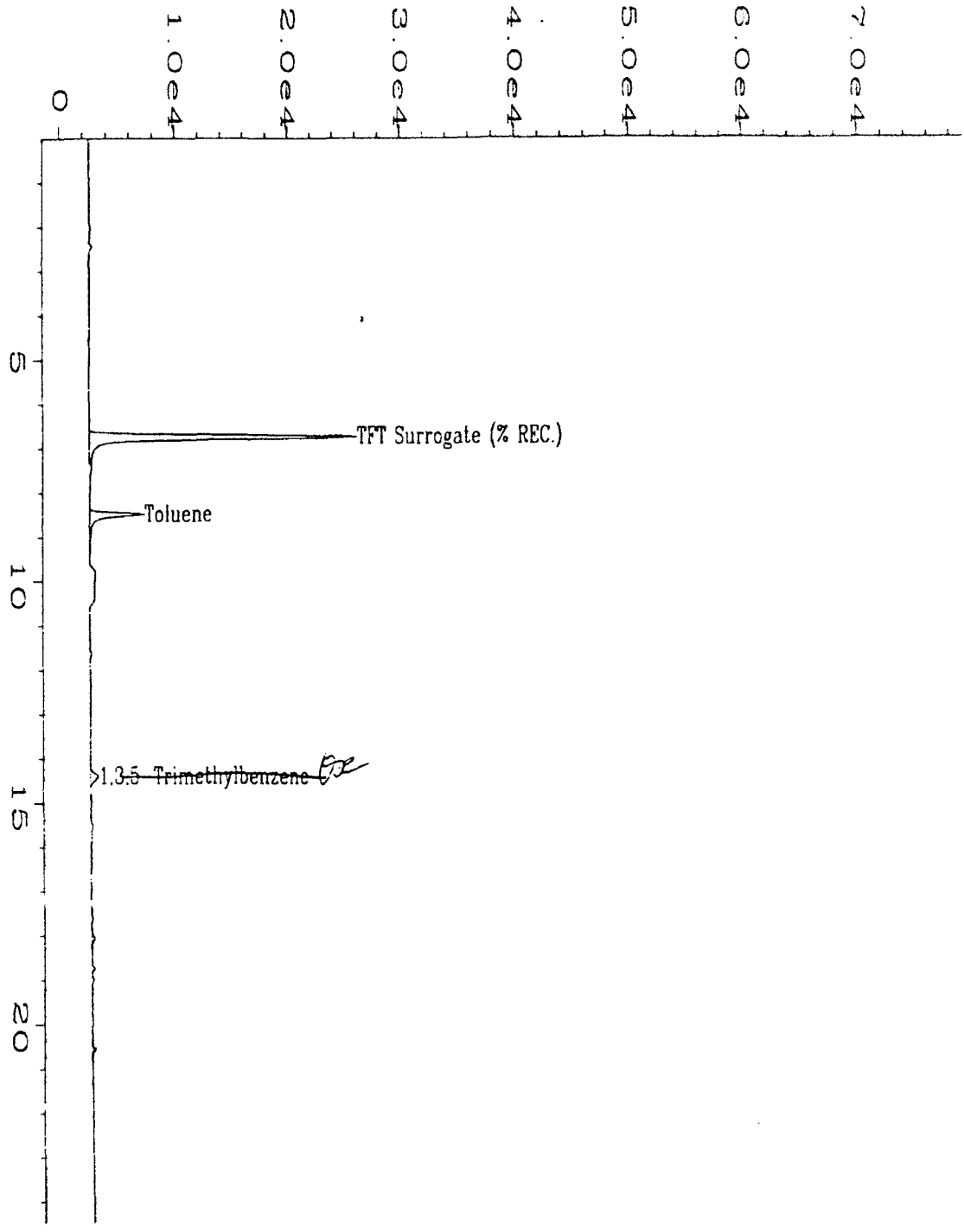
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20325\021R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 21
Sample Name	: X04550;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
quired on	: 26 Mar 95 04:16 AM	Instrument Method	: BX20325.MTH
port Created on	: 17 Apr 95 01:11 PM	Analysis Method	: BX20325A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0915	Client#: 24MP-8S	Water

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: 24MP-8S✓		
Lab Sample Number	: X04550DUP	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/26/95	Lab File No.	: BX2032522
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3	5.6		4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

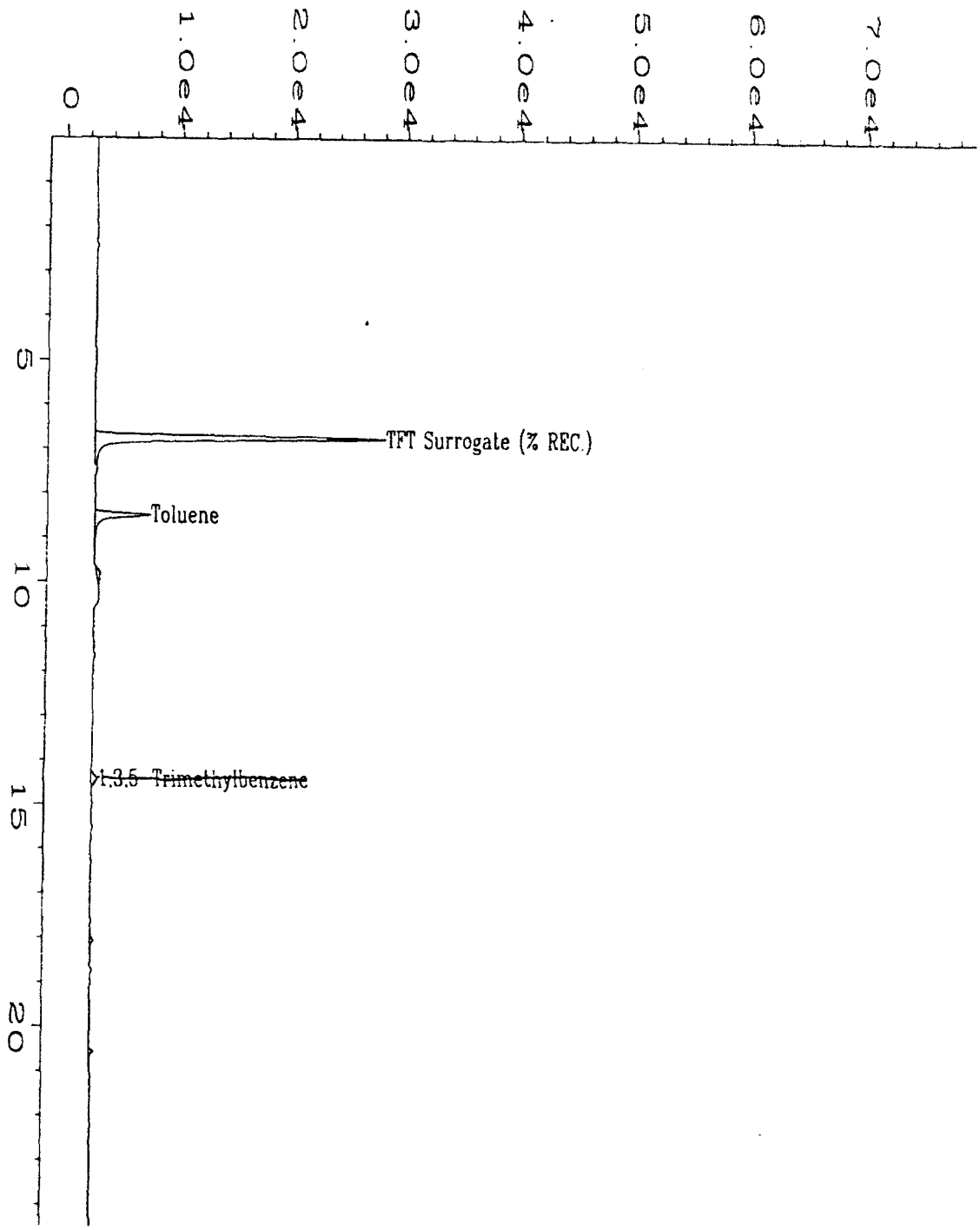
Surrogate Recovery (α,α,α-Trifluorotoluene):	83%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20325\022R0801.D
Operator : T.L. Lockwood
Instrument : BTEX2
Sample Name : X04550DUP;1;5
Run Time Bar Code:
uired on : 26 Mar 95 05:01 AM
ort Created on: 17 Apr 95 01:12 PM
Last Recalib on : 14 APR 95 00:39 AM
Multiplier : 1
Sample Info : Project#: 95-0915

Page Number : 1
Vial Number : 22
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20325.MTH
Analysis Method : BX20325A.MTH
Sample Amount : 0
ISTD Amount :
Client#: 24MP-8S Water

pm 4/19/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report

Client Sample Number	: 24MP-8D	Client Project No.	: 722450.21020 MacDill AFB
Lab Sample Number	: X04549	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/26/95	Lab File No.	: BX2032520
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

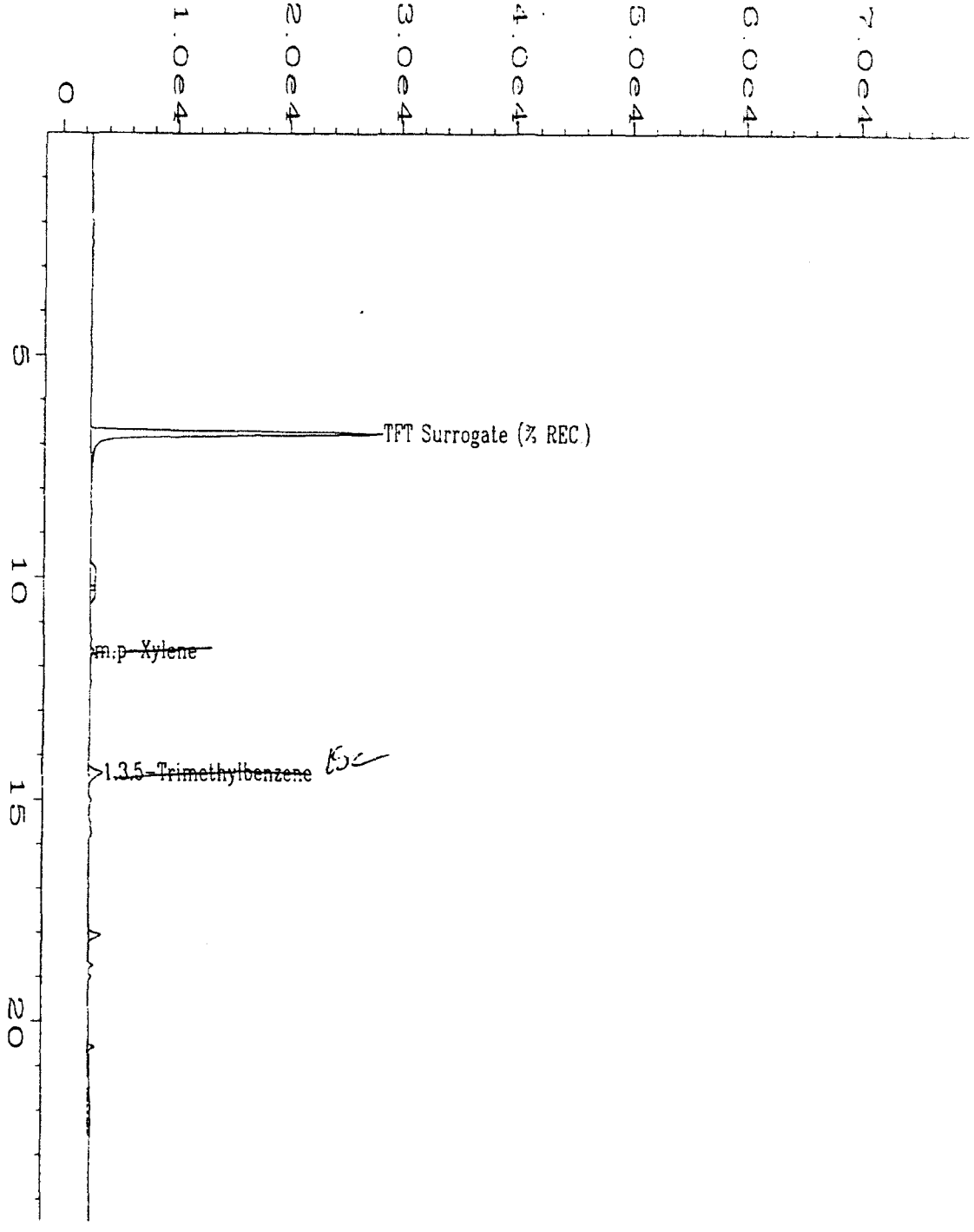
Surrogate Recovery (α,α,α-Trifluorotoluene):	84%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20325\020R0801.D
Operator : T.L. Lockwood
Instrument : BTEX2
Sample Name : X04549;1;5
Run Time Bar Code:
Acquired on : 26 Mar 95 03:32 AM
Report Created on: 17 Apr 95 01:10 PM
Last Recalib on : 14 APR 95 00:39 AM
Multiplier : 1
Sample Info : Project#: 95-0915

Page Number : 1
Vial Number : 20
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20325.MTH
Analysis Method : BX20325A.MTH
Sample Amount : 0
ISTD Amount :
Client#: 24MP-8D Water

DMR 4/19/95

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS
TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 56MP-1(4-6)	**Client Project No.**	: 722450.21020/MAC
Lab Sample No.	: X04557	**Lab Project No.**	: 95-0915
Date Sampled	: 3/17/95	**EPA Method No.**	: 5030/8015 Mod.
Date Received	: 3/22/95	**Matrix**	: SOIL
Date Prepared	: 3/30/95	**Method Blank**	: MB033095
Date Analyzed	: 3/30/95		

Compound	Spike Added (mg/kg)	Sample Concentration (mg/kg)	MS Concentration (mg/kg)	MS %REC	QC Limits %REC
Gasoline	1.00	0.00	0.93	93%	60-140

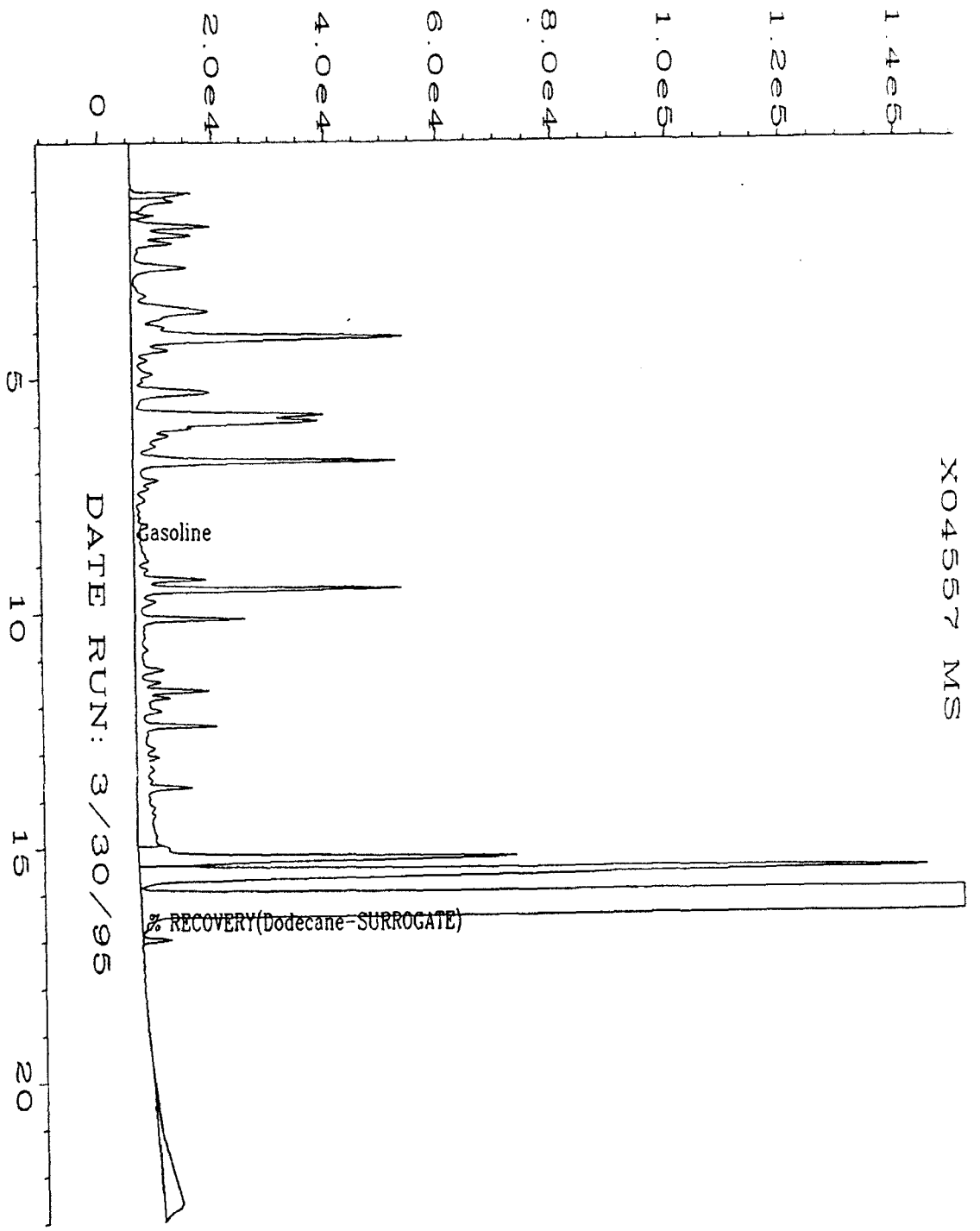
Compound	Spike Added (mg/kg)	MSD Concentration (mg/kg)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Gasoline	1.00	0.91	91%	2	50	60-140

* = Values outside of QC limits.

RPD: 0 out of (1) outside limits.

Spike Recovery: 0 out of (2) outside limits.

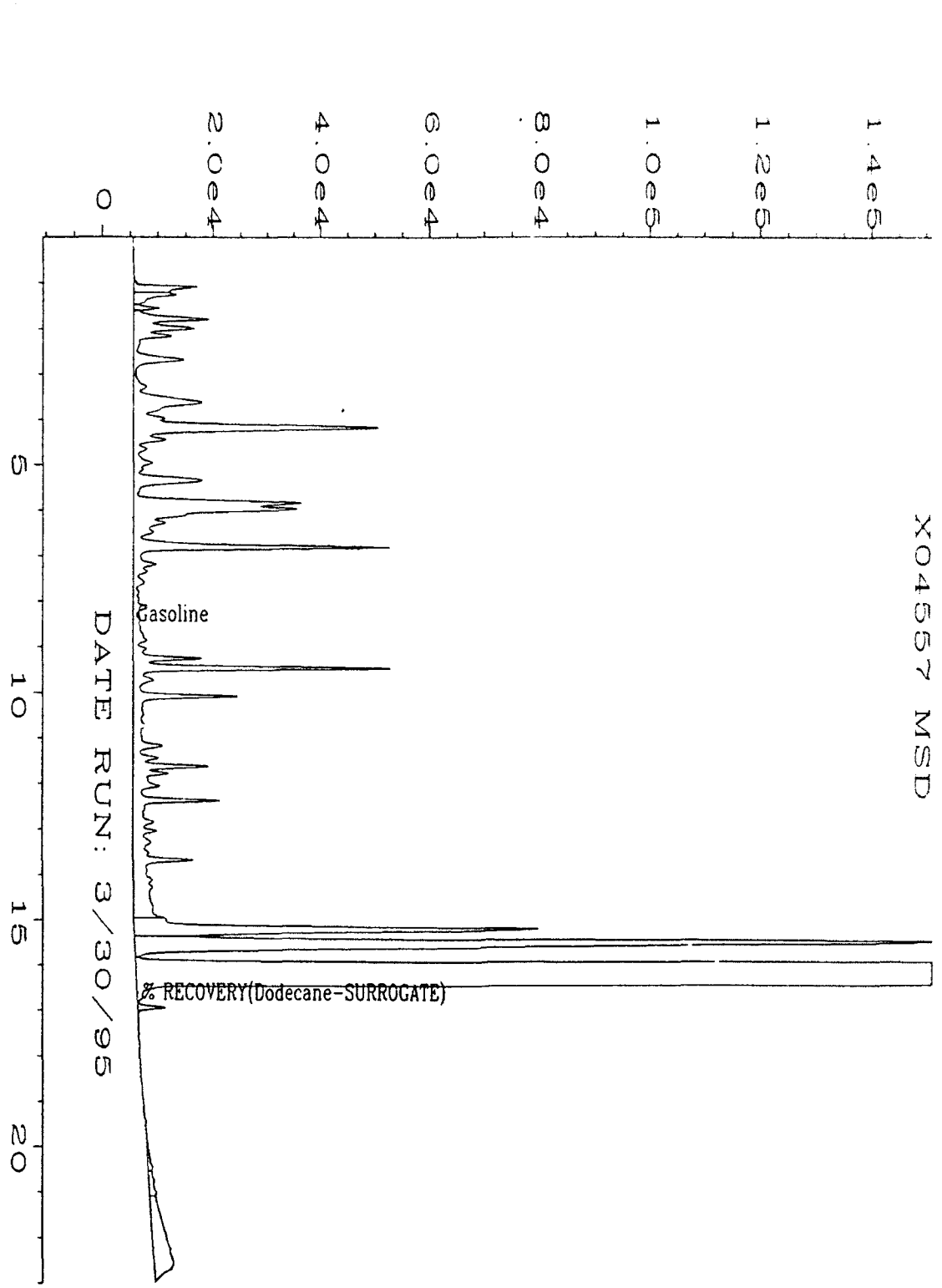
Comments: NA = Not analyzed/not applicable.



Data File Name : C:\HPCHEM\1\DATA\TVH0330\004F0201.D
Operator : Dawn N. Guildner
Instrument : TVH
Sample Name : X04557 MS
Run Time Bar Code:
Acquired on : 30 Mar 95 07:36 PM
Report Created on: 31 Mar 95 09:45 AM
Last Recalib on : 29 MAR 95 08:06 PM
Multiplier : 1

Page Number : 1
Vial Number : 4
Injection Number : 1
Sequence Line : 2
Instrument Method: TVH0323.MTH
Analysis Method : TVH0330.MTH
Sample Amount : 0
ISTD Amount :

Client # Somp-1(4-6)



Data File Name	: C:\HPCHEM\1\DATA\TVH0330\005F0201.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TVH	Vial Number	: 5
Sample Name	: X04557 MSD	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 2
Acquired on	: 30 Mar 95 08:10 PM	Instrument Method	: TVH0321 H
Report Created on	: 31 Mar 95 09:46 AM	Analysis Method	: TVH0330.MTH
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Client # 56MP-1(4-6)

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

BTEX Matrix Spike/Matrix Spike Duplicate Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample No.	: 24MP-5S		
Lab Sample No.	: X04546	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	EPA Method No.	: 602
Date Received	: 3/22/95	Matrix	: Water
Date Prepared	: 3/25/95	Lab File Number(s)	: BX2032515,16
Date Analyzed	: 3/25,26/1995	Method Blank	: MB032595

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Benzene	20.0	0.0	16.7	84	50-150
Toluene	20.0	9.3	26.1	84	50-148
Ethyl Benzene	20.0	0.0	16.5	83	50-150
m,p-Xylene	40.0	0.0	32.2	81	50-150
o-Xylene	20.0	0.0	15.9	80	50-150
Chlorobenzene	20.0	0.0	16.9	85	55-135
1,3,5-TMB	20.0	0.0	16.4	82	50-150
1,2,4-TMB	20.0	0.0	16.4	82	50-150
1,2,3-TMB	20.0	0.0	16.3	82	50-150
1,2,3,4-TeMB	20.0	0.0	15.9	80	50-150

Compound	Spike Added (ug/L)	MSD Concentration (ug/L)	MSD %REC	RPD	QC Limits RPD	QC Limits %REC
Benzene	20.0	15.9	80	4.9	25	50-150
Toluene	20.0	24.9	78	7.4	25	50-148
Ethyl Benzene	20.0	15.5	78	6.3	25	50-150
m,p-Xylene	40.0	29.7	74	8.1	25	50-150
o-Xylene	20.0	14.8	74	7.2	25	50-150
Chlorobenzene	20.0	16.2	81	4.2	25	55-135
1,3,5-TMB	20.0	14.3	72	13.7	25	50-150
1,2,4-TMB	20.0	14.3	72	13.7	25	50-150
1,2,3-TMB	20.0	14.7	74	10.3	25	50-150
1,2,3,4-TeMB	20.0	13.6	68	15.6	25	50-150

* = Values outside of QC limits.

RPD: 0 out of (10) outside limits.

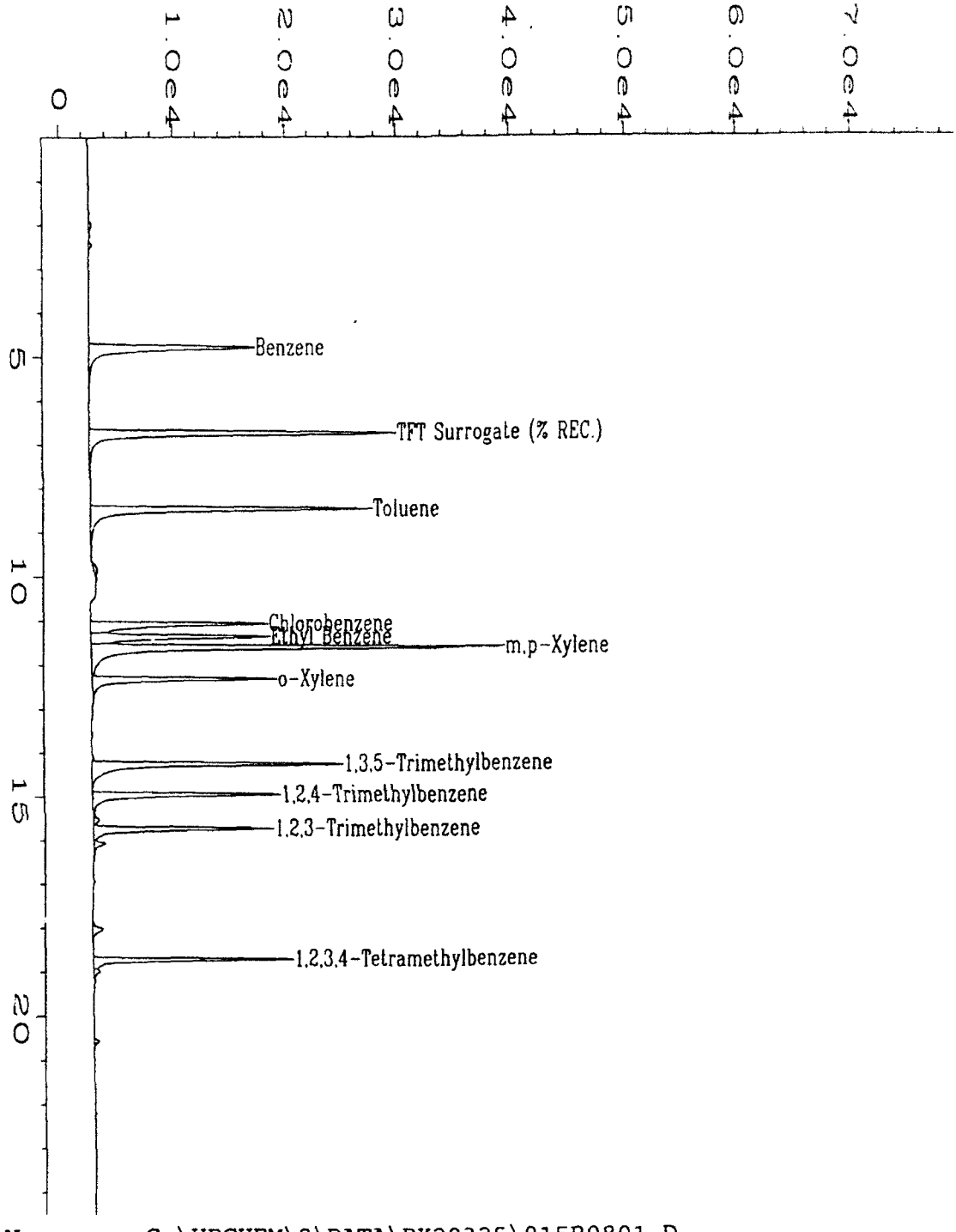
Spike Recovery: 0 out of (20) outside limits.

Comments:

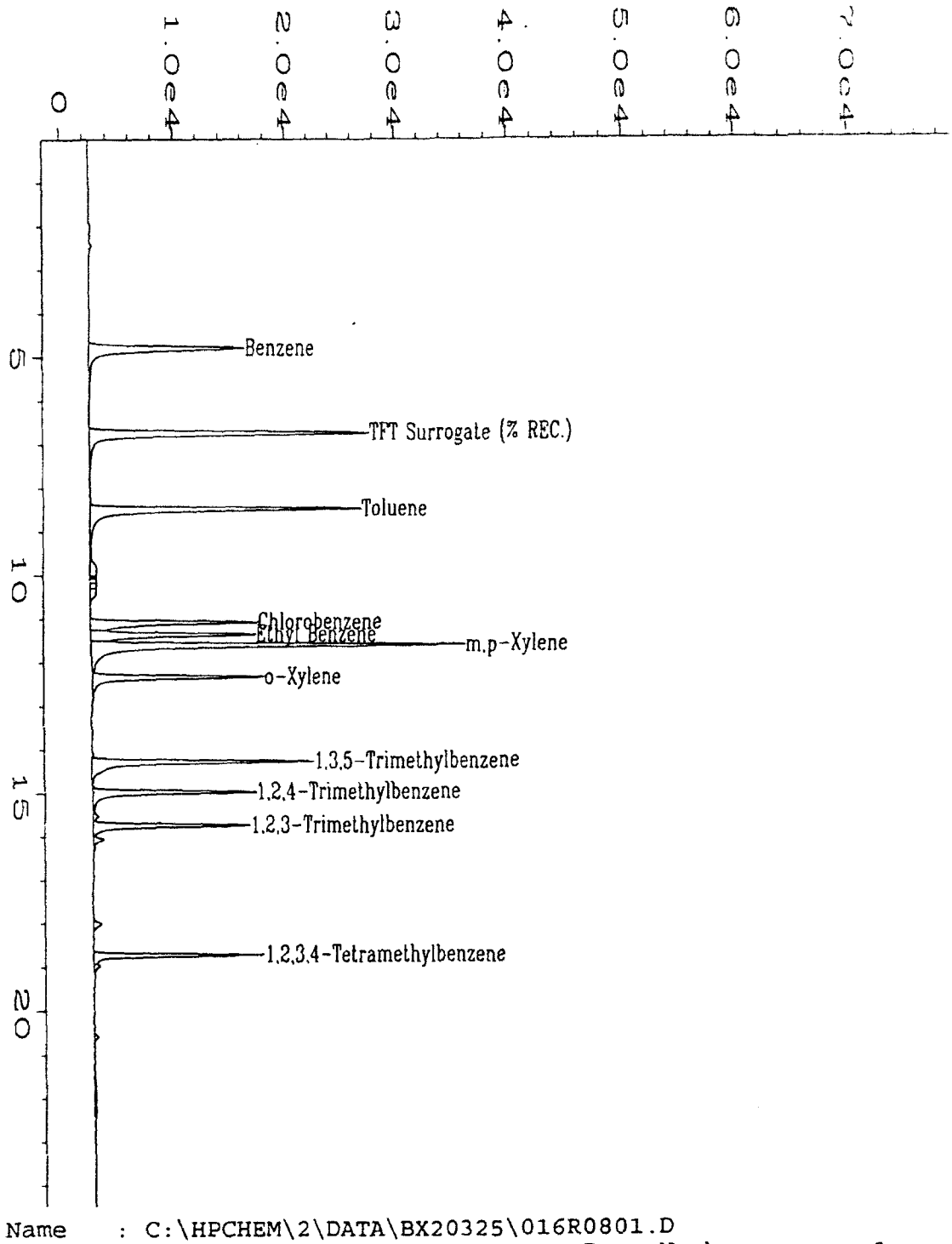
K. Cone
Analyst

Approved

MS0915A.XLS



Data File Name	: C:\HPCHEM\2\DATA\BX20325\015R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 15
Sample Name	: X04546MS;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 25 Mar 95 11:51 PM	Instrument Method	: BX20325
Report Created on	: 17 Apr 95 01:04 PM	Analysis Method	: BX20325
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0915	Client#: 24MP-5S	Water



Data File Name	: C:\HPCHEM\2\DATA\BX20325\016R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 16
Sample Name	: X04546MSD;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 26 Mar 95 00:36 AM	Instrument Method	: BX20325.MTH
Report Created on	: 17 Apr 95 01:05 PM	Analysis Method	: BX20325A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0915	Client#: 24MP-5S	Water

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

BTEX Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: MD24-9	Client Project No.	: 722450.21020 MacDill AFB
Lab Sample No.	: X04551	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	EPA Method No.	: 602
Date Received	: 3/22/95	Matrix	: Water
Date Prepared	: 3/26/95	Lab File Number(s)	: BX2032614,15
Date Analyzed	: 3/26/95	Method Blank	: MB032695

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Benzene	20.0	0.0	17.3	87	65-121
Toluene	20.0	0.0	17.1	86	69-117
Ethyl Benzene	20.0	0.0	17.3	87	68-118
m,p-Xylene	40.0	0.5	34.6	85	66-116
o-Xylene	20.0	0.0	17.3	87	73-117
Chlorobenzene	20.0	0.0	17.3	87	65-121
1,3,5-TMB	20.0	0.0	16.8	84	65-121
1,2,4-TMB	20.0	0.0	17.1	86	65-121
1,2,3-TMB	20.0	0.0	17.2	86	65-121
1,2,3,4-TeMB	20.0	0.0	16.7	84	65-121

Compound	Spike Added (ug/L)	MSD Concentration (ug/L)	MSD %REC	RPD	QC Limits RPD	QC Limits %REC
Benzene	20.0	17.7	89	2.3	17.4	65-121
Toluene	20.0	17.5	88	2.3	15.8	69-117
Ethyl Benzene	20.0	17.7	89	2.3	11.9	68-118
m,p-Xylene	40.0	35.3	87	2.0	15.4	66-116
o-Xylene	20.0	17.8	89	2.8	13.2	73-117
Chlorobenzene	20.0	17.8	89	2.8	17.4	65-121
1,3,5-TMB	20.0	17.2	86	2.4	17.4	65-121
1,2,4-TMB	20.0	17.8	89	4.0	17.4	65-121
1,2,3-TMB	20.0	17.9	90	4.0	17.4	65-121
1,2,3,4-TeMB	20.0	17.8	89	6.4	17.4	65-121

* = Values outside of QC limits.

RPD: 0 out of (10) outside limits.

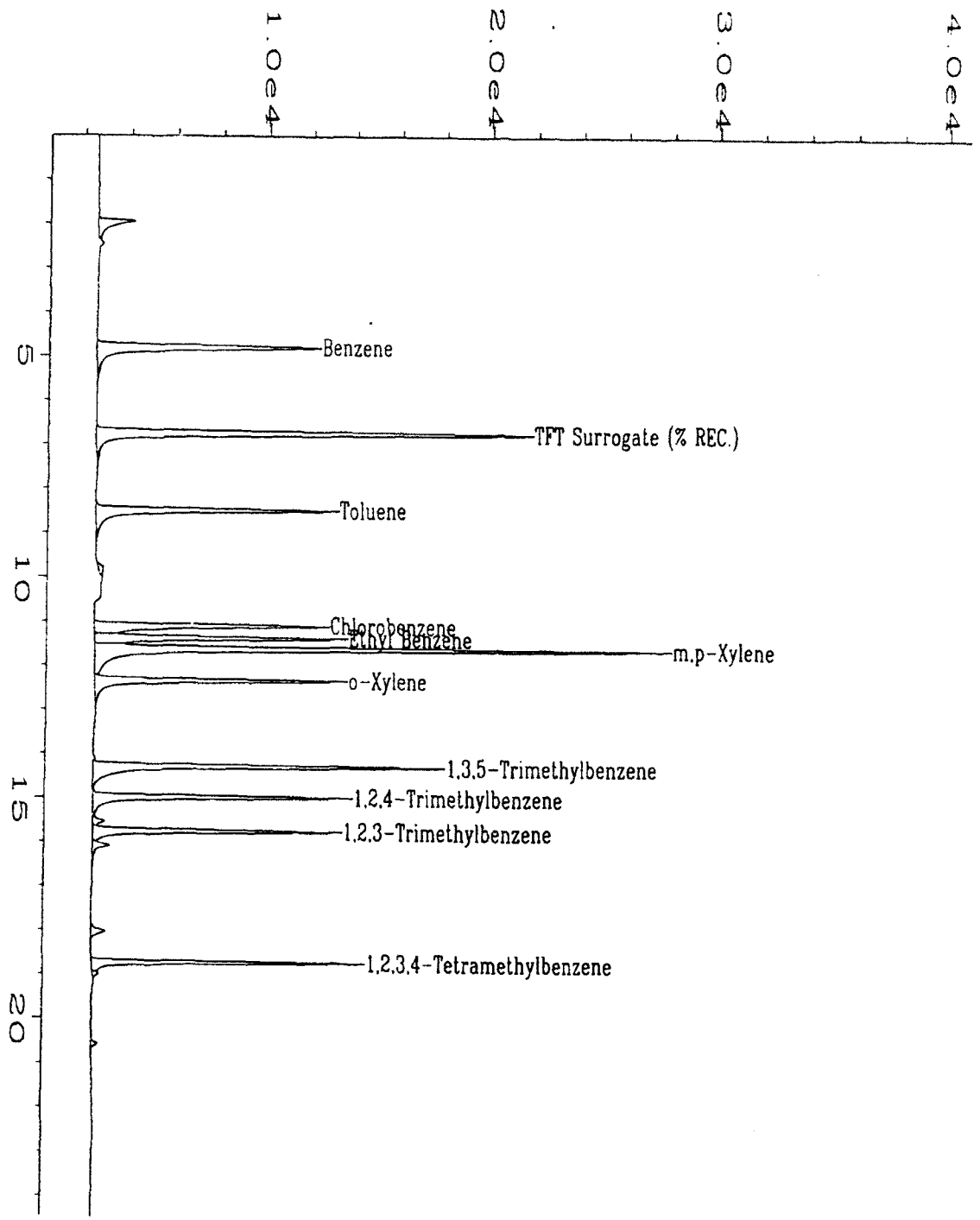
Spike Recovery: 0 out of (20) outside limits.

Comments:

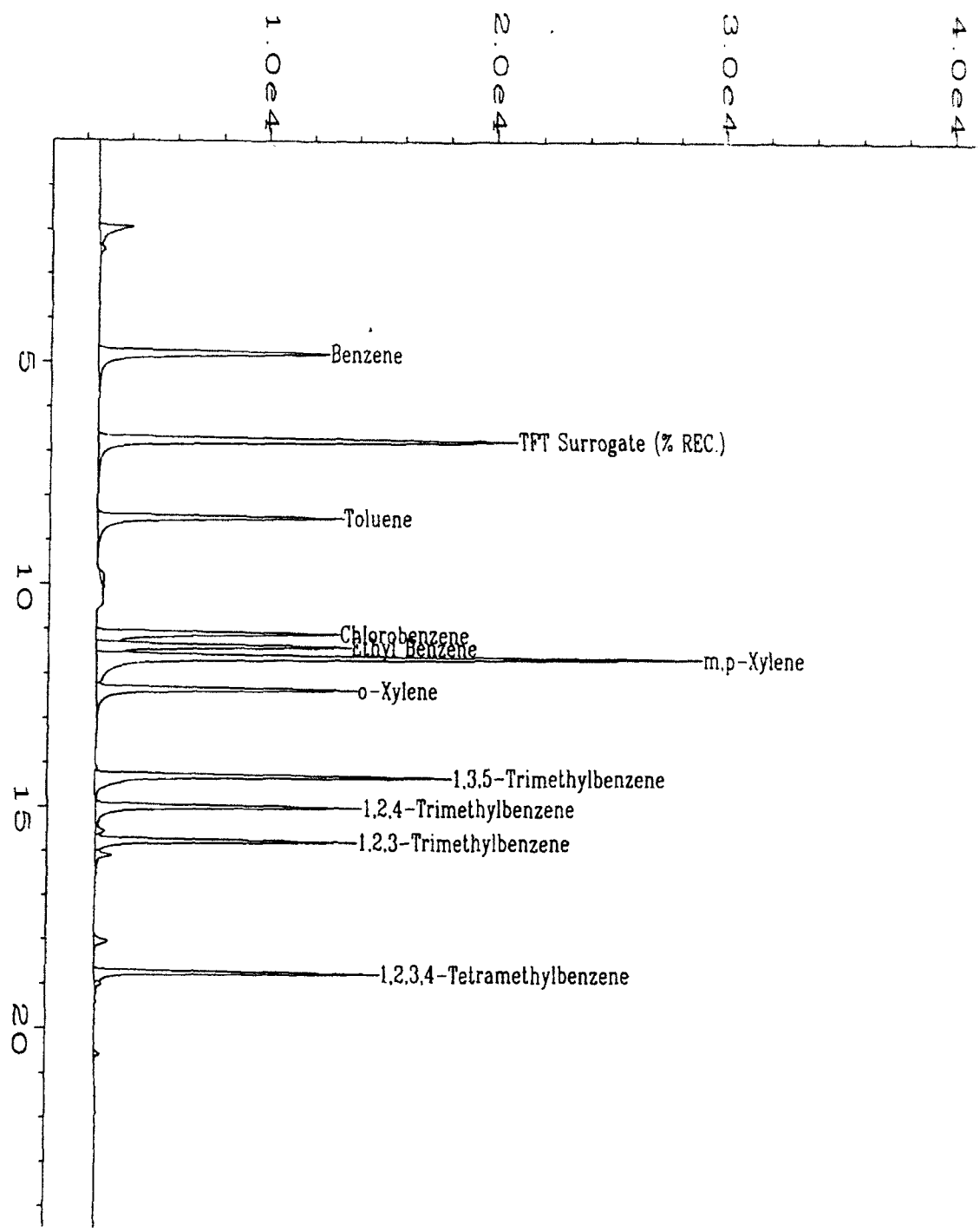
Analyst

Approved

MS0915B.XLS



Data File Name	: C:\HPCHEM\2\DATA\BX20326\014R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 14
Sample Name	: X04551MS;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
quired on	: 26 Mar 95 09:43 PM	Instrument Method	: BX20326.MTH
port Created on	: 17 Apr 95 02:10 PM	Analysis Method	: BX20326A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



Data File Name	: C:\HPCHEM\2\DATA\BX20326\015R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 15
Sample Name	: X04551MSD;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 26 Mar 95 10:27 PM	Instrument Method	: BX20326 4
Report Created on	: 17 Apr 95 02:10 PM	Analysis Method	: BX20326A...T
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

BTEX Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: Matrix Spike 3/20	Client Project No.	: 722450.21020 MacDill AFB
Lab Sample No.	: X04571	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	EPA Method No.	: 8020
Date Received	: 3/22/95	Matrix	: SOIL
Date Prepared	: 3/29/95	Lab File Number(s)	: BX2032926,27
Date Analyzed	: 3/30/95	Method Blank	: MB032995

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Benzene	40.0	0.0	35.3	88	50-150
Toluene	40.0	0.0	32.6	82	50-148
Ethyl Benzene	40.0	0.0	28.4	71	50-150
m,p-Xylene	80.0	0.0	54.3 B	68	50-150
o-Xylene	40.0	0.0	30.6	77	50-150
Chlorobenzene	40.0	0.0	32.8	82	55-135
1,3,5-TMB	40.0	0.0	24.4	61	50-150
1,2,4-TMB	40.0	0.0	26.9	67	50-150
1,2,3-TMB	40.0	0.0	27.1	68	50-150
1,2,3,4-TeMB	40.0	0.0	22.0	55	50-150

Compound	Spike Added (ug/L)	MSD Concentration (ug/L)	MSD %REC	RPD	QC Limits RPD	QC Limits %REC
Benzene	40.0	32.5	81	8.3	25	50-150
Toluene	40.0	31.7	79	2.8	25	50-148
Ethyl Benzene	40.0	28.0	70	1.4	25	50-150
m,p-Xylene	80.0	53.4 B	67	1.7	25	50-150
o-Xylene	40.0	30.3	76	1.0	25	50-150
Chlorobenzene	40.0	32.2	81	1.8	25	55-135
1,3,5-TMB	40.0	24.1	60	1.2	25	50-150
1,2,4-TMB	40.0	26.7	67	0.7	25	50-150
1,2,3-TMB	40.0	27.2	68	0.4	25	50-150
1,2,3,4-TeMB	40.0	21.5	54	2.3	25	50-150

* = Values outside of QC limits.

RPD: 0 out of (10) outside limits.

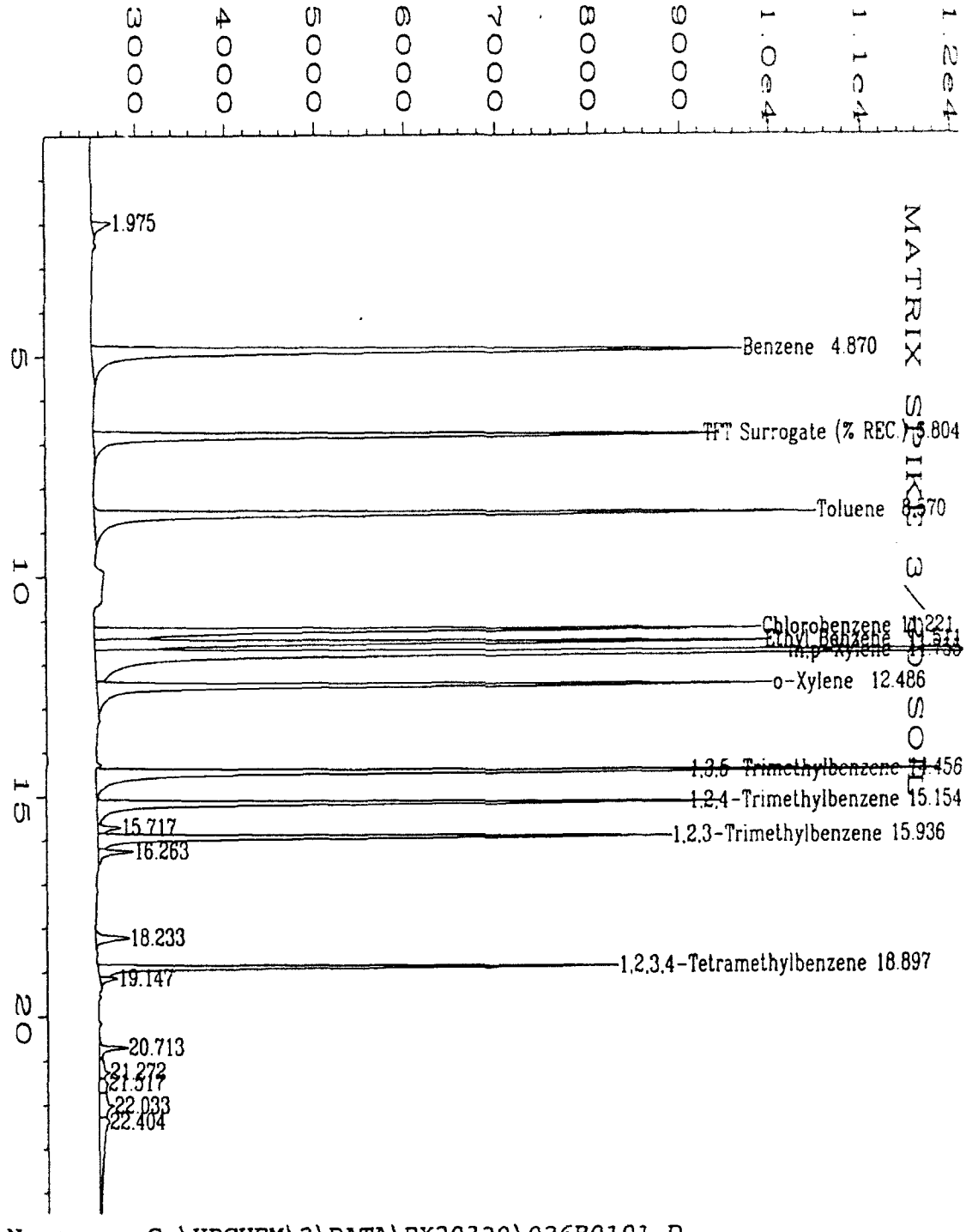
Spike Recovery: 0 out of (20) outside limits.

Comments:

K. Cone
Analyst

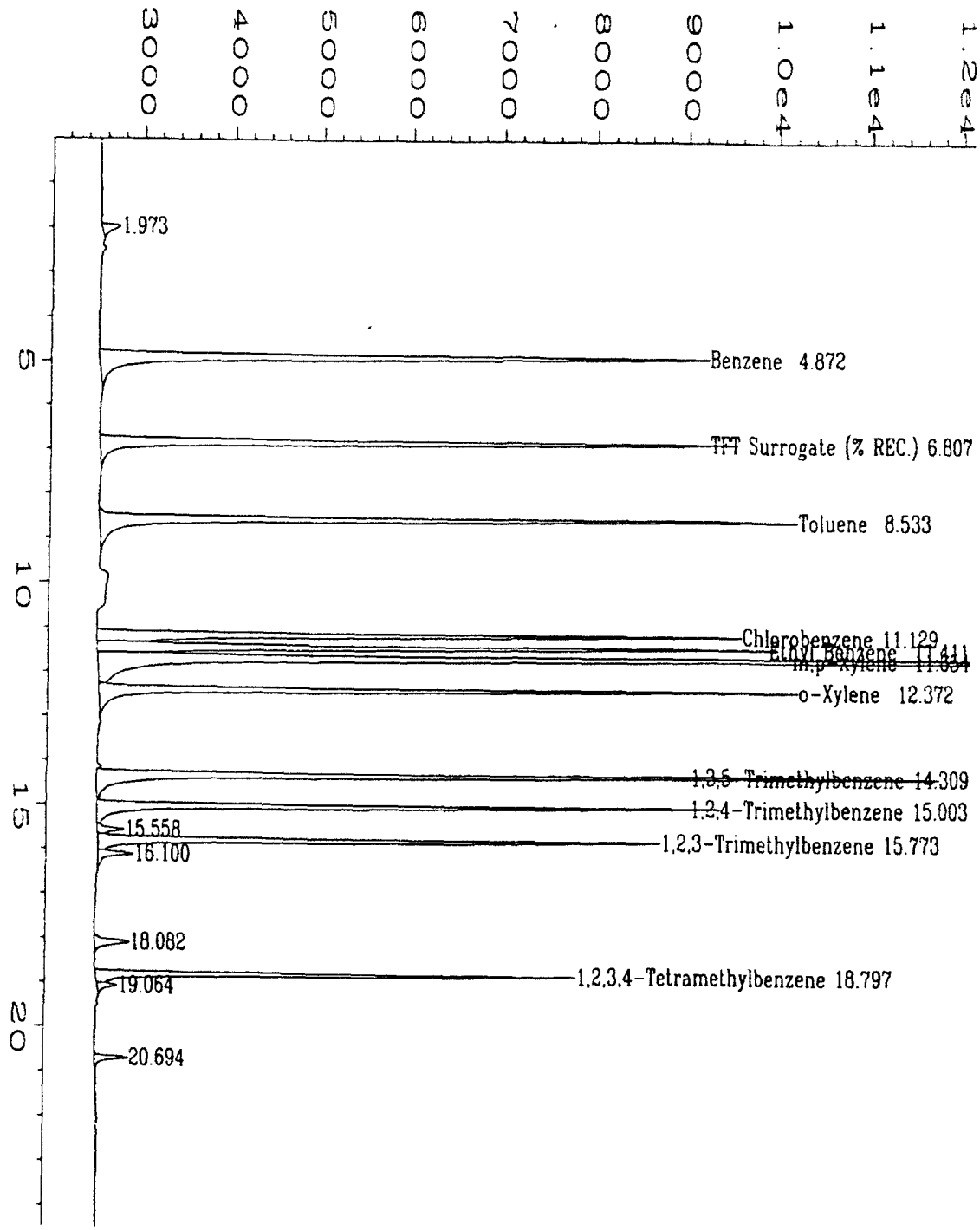
Approved

MS0915E.XLS



Data File Name : C:\HPCHEM\2\DATA\BX20329\026R0101.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04571MS;5;1
Run Time Bar Code:
Acquired on : 30 Mar 95 06:53 AM
Report Created on: 18 Apr 95 00:15 AM
Last Recalib on : 14 APR 95 00:39 AM
Multiplier : 1

Page Number : 1
Vial Number : 26
Injection Number : 1
Sequence Line : 1
Instrument Method: BX2032S H
Analysis Method : BX20329B.MT
Sample Amount : 0
ISTD Amount :



Data File Name : C:\HPCHEM\2\DATA\BX20329\027R0101.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04571MSD;5;1
Run Time Bar Code:
Acquired on : 30 Mar 95 07:41 AM
Report Created on: 18 Apr 95 00:18 AM
Last Recalib on : 14 APR 95 00:39 AM
Multiplier : 1

Page Number : 1
Vial Number : 27
Injection Number : 1
Sequence Line : 1
Instrument Method: BX20329.MTH
Analysis Method : BX20329B.MTH
Sample Amount : 0
ISTD Amount :

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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: Trip Blank		
Lab Sample Number	: X04573	Lab Project No.	: 95-0915
Date Sampled	: NA	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/29/95	Matrix	: Water
Date Analyzed	: 3/30/95	Lab File No.	: BX2032922
Methanol Extract?	: No	Method Blank No.	: MB032995
% Moisture	: NA		

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

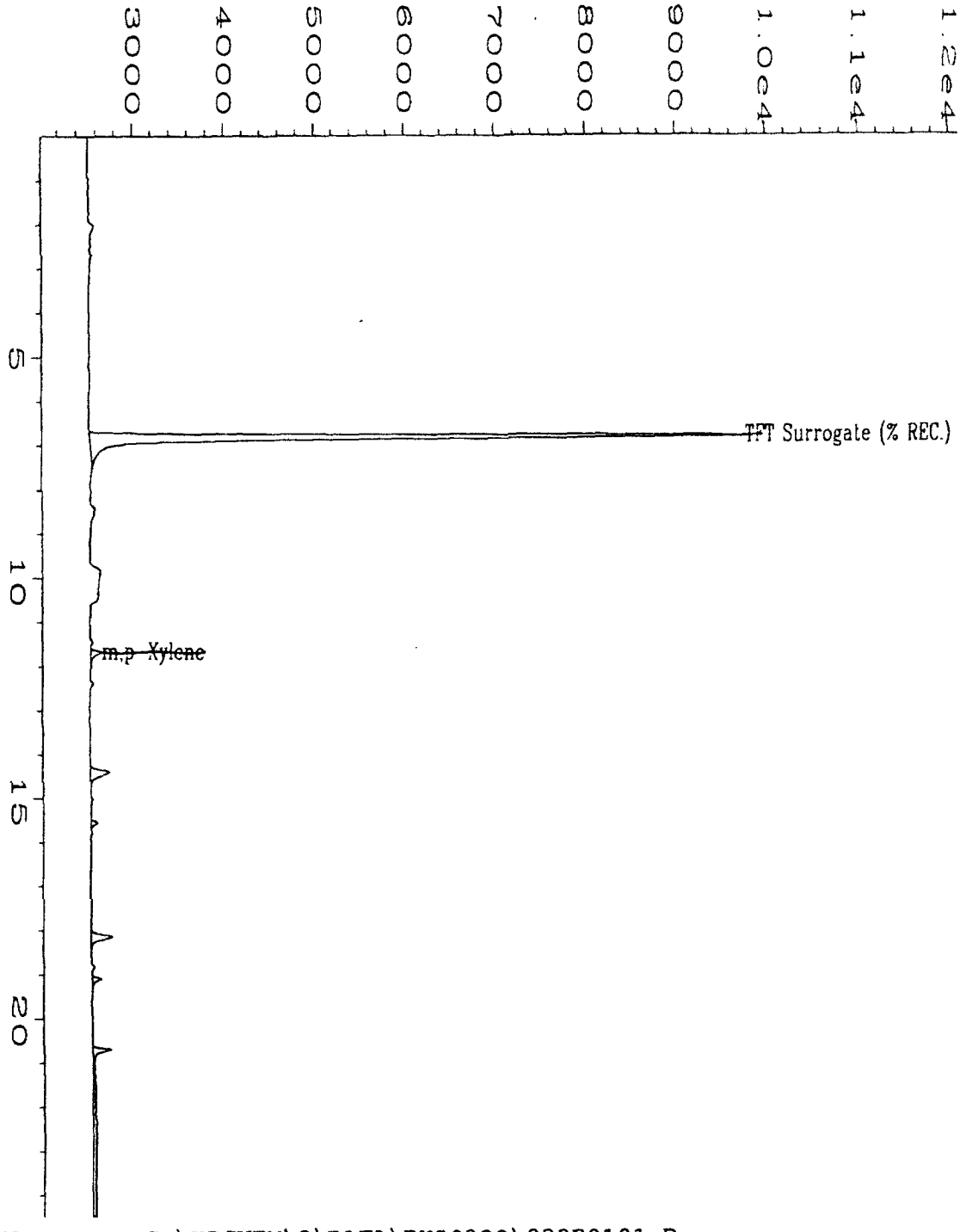
Surrogate Recovery (α,α,α-Trifluorotoluene):	82%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available/Not Applicable.

K. Coe
Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20329\022R0101.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04573;1;5
Run Time Bar Code:
Acquired on : 30 Mar 95 03:43 AM
Report Created on: 17 Apr 95 09:48 PM
Last Recalib on : 14 APR 95 00:39 AM
Multiplier : 1
Sample Info : Project#: 95-0915 Client#: Trip Blank Water

Page Number : 1
Vial Number : 22
Injection Number : 1
Sequence Line : 1
Instrument Method: BX20329.MTH
Analysis Method : BX20329B.MTH
Sample Amount : 0
ISTD Amount :

pm 4/19/95

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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: Matrix Spike 3/20		
Lab Sample Number	: X04571	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 5.00
Date Received	: 3/22/95	Method	: 8020
Date Extracted/Prepared	: 3/30/95	Matrix	: Soil
Date Analyzed	: 3/31/95	Lab File No.	: BX2033019
Methanol Extract?	: No	Method Blank No.	: MB033095
% Moisture	: 23.58%		

Compound Name	Cas Number	Sample Concentration* ug/kg	PQL* ug/kg
Benzene	71-43-2	U	26
Toluene	108-88-3	U	26
Ethyl Benzene	100-41-4	U	26
Total Xylenes	1330-20-7	U	26
Chlorobenzene	108-90-7	U	26
1,3,5-trimethylbenzene	108-67-8	U	26
1,2,4-trimethylbenzene	95-63-6	U	26
1,2,3-trimethylbenzene	526-73-8	U	26
1,2,3,4-tetramethylbenzene	488-23-3	U	26

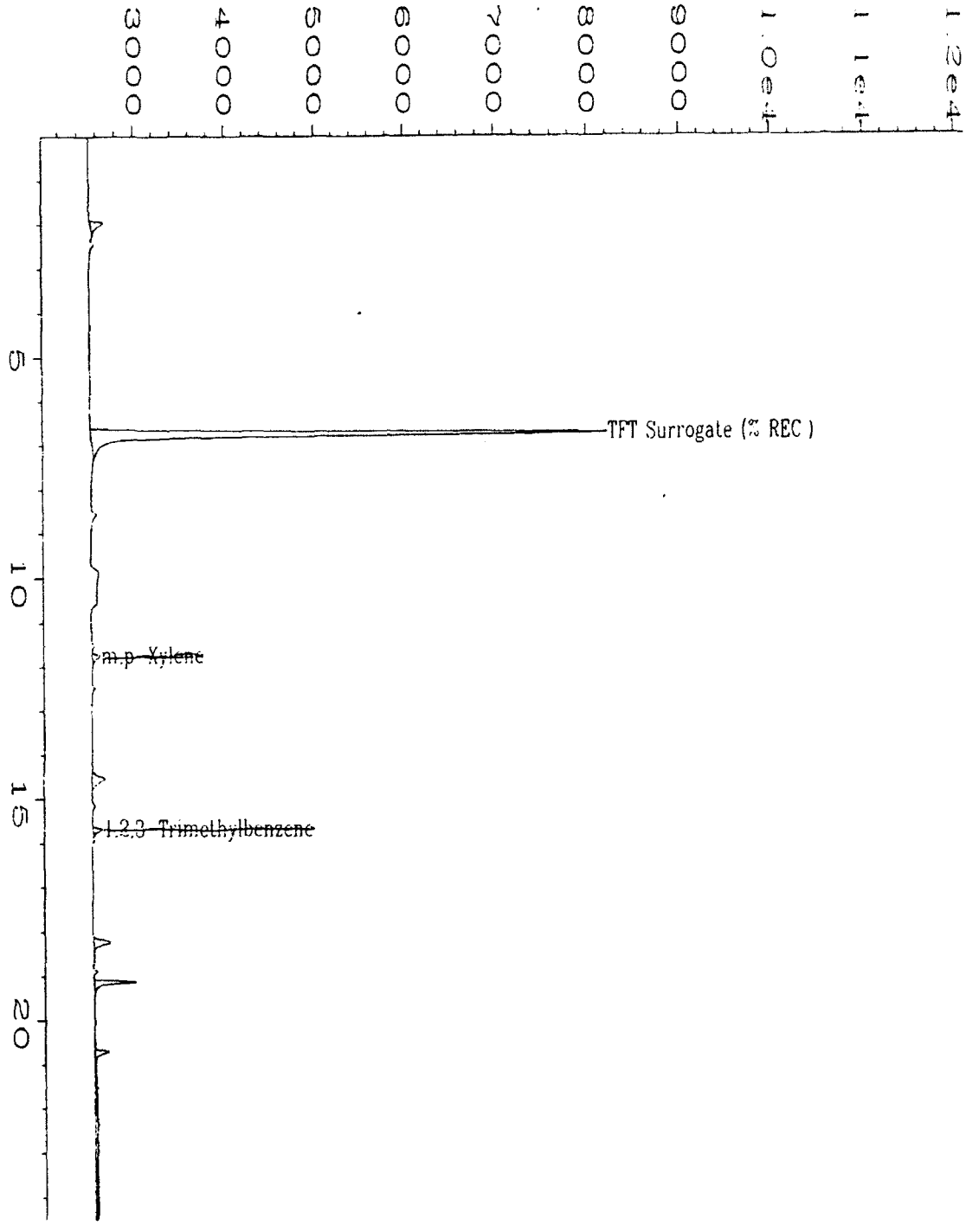
Surrogate Recovery (α,α,α-Trifluorotoluene):	82%	64%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Dry Weight Basis.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20330\019R0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 19
Sample Name	: X04571;5;1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 31 Mar 95 00:39 AM	Instrument Method	: BX20330.MTH
Report Created on	: 31 Mar 95 08:47 AM	Analysis Method	: BX20330.MTH
Last Recalib on	: 31 MAR 95 08:24 AM	Sample Amount	: 0
Multiplier	: 5	ISTD Amount	:
Sample Info	: Project#: 95-0915 Client#: Matrix Spike 3/20 Soil		

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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: Matrix Spike 3/20		
Lab Sample Number	: X04571DUP	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 5.00
Date Received	: 3/22/95	Method	: 8020
Date Extracted/Prepared	: 3/30/95	Matrix	: Soil
Date Analyzed	: 3/31/95,	Lab File No.	: BX2033020
Methanol Extract?	: No	Method Blank No.	: MB033095
% Moisture	: 23.58%		

Compound Name	Cas Number	Sample Concentration* ug/kg	PQL* ug/kg
Benzene	71-43-2	U	26
Toluene	108-88-3	U	26
Ethyl Benzene	100-41-4	U	26
Total Xylenes	1330-20-7	U	26
Chlorobenzene	108-90-7	U	26
1,3,5-trimethylbenzene	108-67-8	U	26
1,2,4-trimethylbenzene	95-63-6	U	26
1,2,3-trimethylbenzene	526-73-8	U	26
1,2,3,4-tetramethylbenzene	488-23-3	U	26

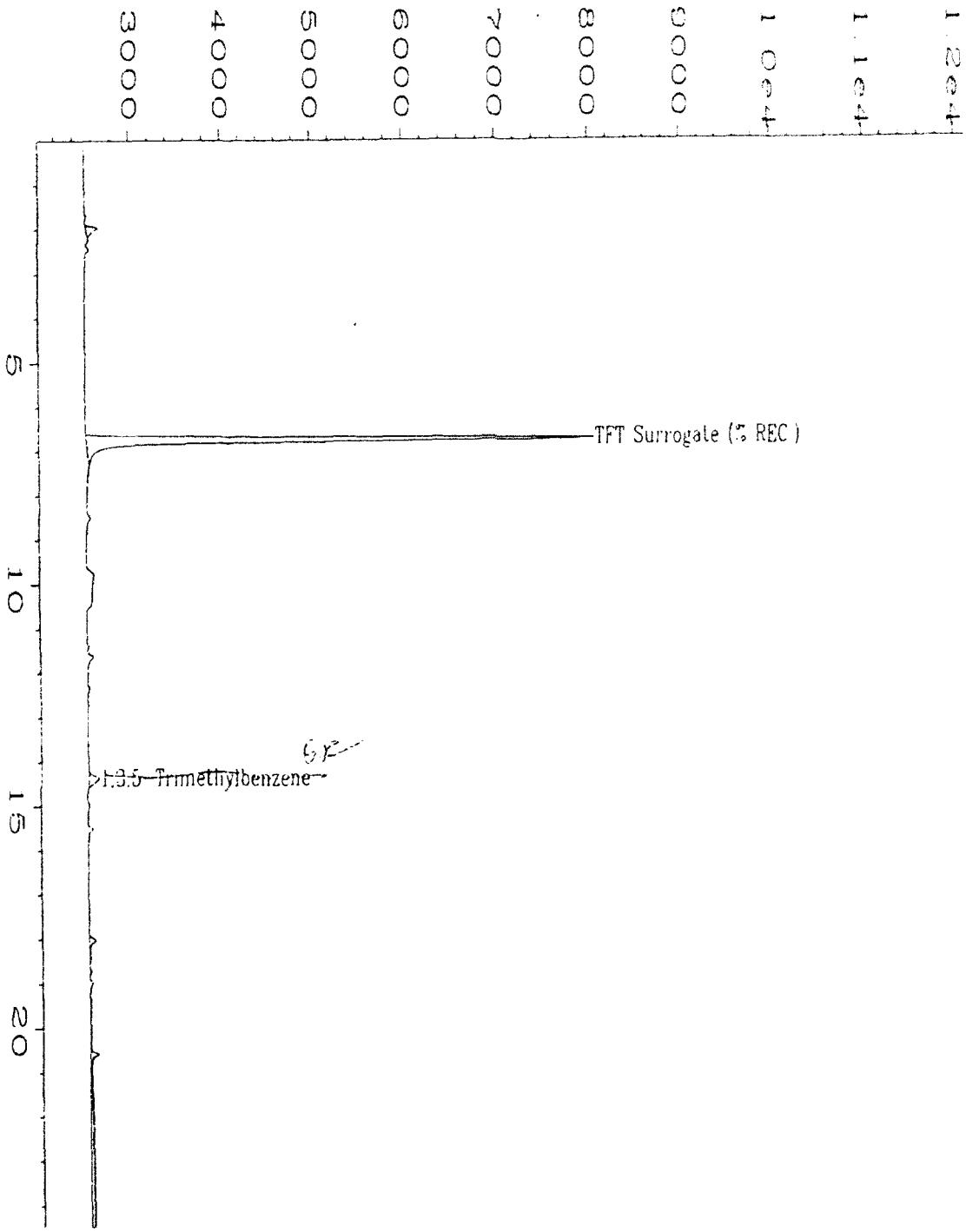
Surrogate Recovery (α,α,α-Trifluorotoluene):	80%	64%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Dry Weight Basis.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

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Data File Name : C:\HPCHEM\2\DATA\BX20330\020R0101.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04571DUP;5;1
Run Time Bar Code:
Acquired on : 31 Mar 95 01:23 AM
Report Created on: 31 Mar 95 08:47 AM
Last Recalib on : 31 MAR 95 08:24 AM
Multiplier : 5
Sample Info : Project#: 95-0915 Client#: Matrix Spike 3/20 Soil

Page Number : 1
Vial Number : 20
Injection Number : 1
Sequence Line : 1
Instrument Method: BX20330.MTH
Analysis Method : BX20330.MTH
Sample Amount : 0
ISTD Amount :

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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: Matrix Spike 3/17		
Lab Sample Number	: X04565	Lab Project No.	: 95-0915
Date Sampled	: 3/17/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 8020
Date Extracted/Prepared	: 3/28/95	Matrix	: Soil
Date Analyzed	: 3/28/95	Lab File No.	: BX2032816
Methanol Extract?	: No	Method Blank No.	: MEB032895
% Moisture	: 17.63%		

Compound Name	Cas Number	Sample Concentration* ug/kg	PQL* ug/kg
Benzene	71-43-2	U	4.9
Toluene	108-88-3	U	4.9
Ethyl Benzene	100-41-4	U	4.9
Total Xylenes	1330-20-7	U	4.9
Chlorobenzene	108-90-7	U	4.9
1,3,5-trimethylbenzene	108-67-8	U	4.9
1,2,4-trimethylbenzene	95-63-6	U	4.9
1,2,3-trimethylbenzene	526-73-8	U	4.9
1,2,3,4-tetramethylbenzene	488-23-3	U	4.9

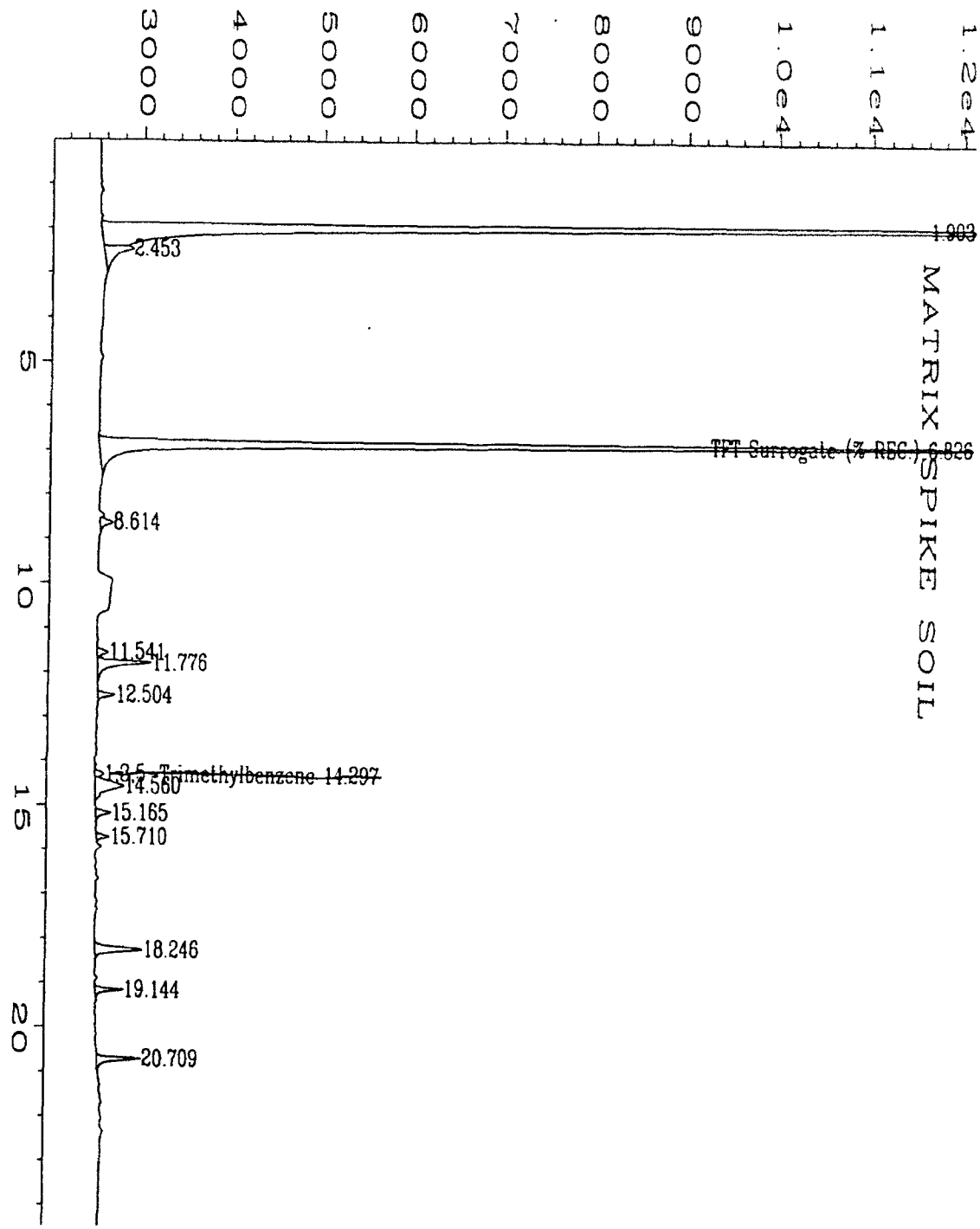
Surrogate Recovery (α,α,α-Trifluorotoluene):	103%	54%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Dry Weight Basis.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

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Data File Name : C:\HPCHEM\2\DATA\BX20328\016R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04565;1;5
Run Time Bar Code:
Acquired on : 28 Mar 95 09:58 PM
Report Created on: 18 Apr 95 01:10 AM
Last Recalib on : 14 APR 95 00:39 AM
Multiplier : 1

Page Number : 1
Vial Number : 16
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20328.MTH
Analysis Method : BX20328B.MTH
Sample Amount : 0
ISTD Amount :

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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: Matrix Spike 3/17		
Lab Sample Number	: X04565DUP	Lab Project No.	: 95-0915
Date Sampled	: 3/17/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 8020
Date Extracted/Prepared	: 3/28/95	Matrix	: Soil
Date Analyzed	: 3/28/95,	Lab File No.	: BX2032817
Methanol Extract?	: No	Method Blank No.	: MEB032895
% Moisture	: 17.63%		

Compound Name	Cas Number	Sample Concentration* ug/kg		PQL* ug/kg
Benzene	71-43-2		U	4.9
Toluene	108-88-3		U	4.9
Ethyl Benzene	100-41-4		U	4.9
Total Xylenes	1330-20-7	2.0	JB	4.9
Chlorobenzene	108-90-7		U	4.9
1,3,5-trimethylbenzene	108-67-8		U	4.9
1,2,4-trimethylbenzene	95-63-6		U	4.9
1,2,3-trimethylbenzene	526-73-8		U	4.9
1,2,3,4-tetramethylbenzene	488-23-3		U	4.9

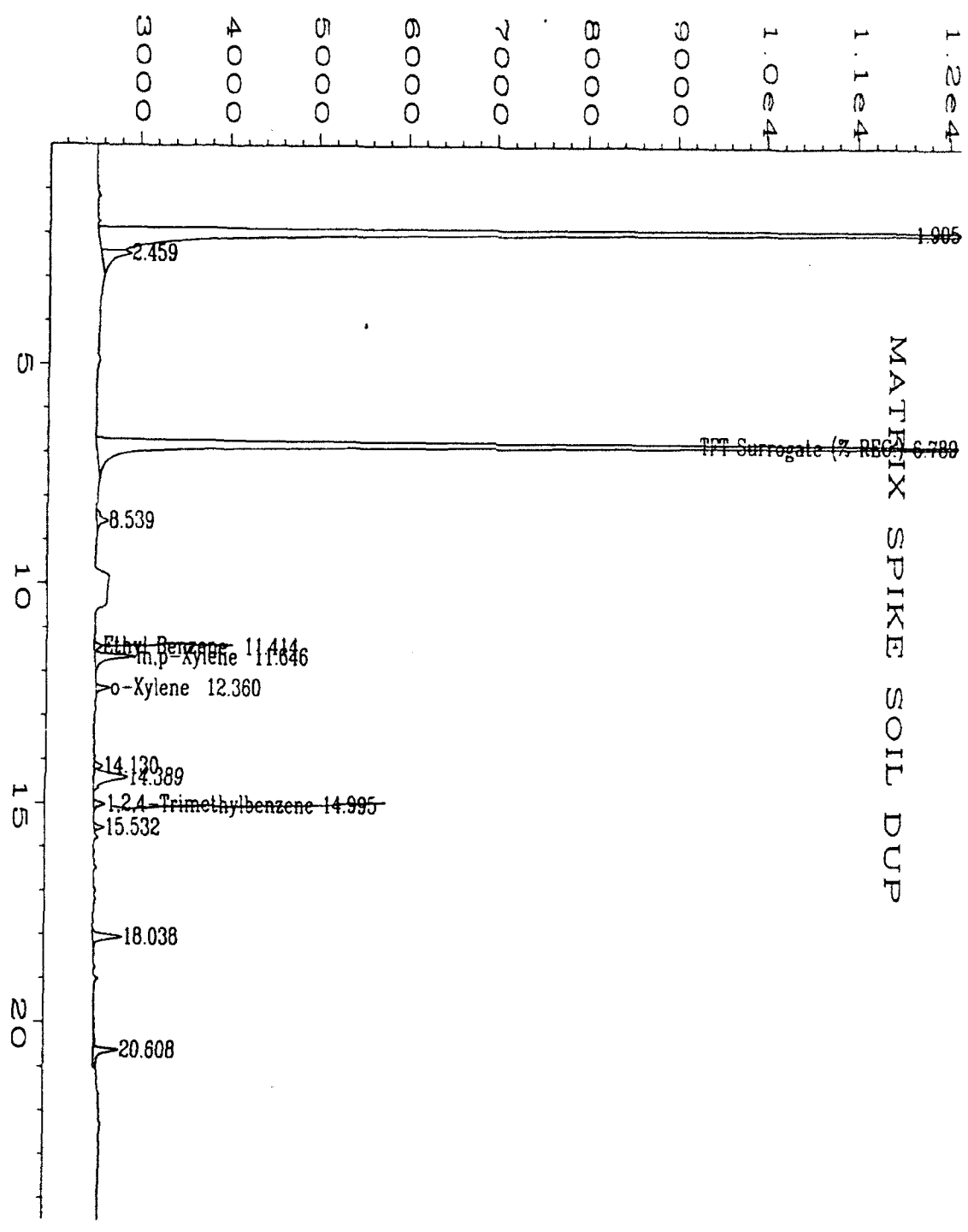
Surrogate Recovery (α,α,α-Trifluorotoluene):	111%	64%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.
* = Dry Weight Basis.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20328\017R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : X04565DUP;1;5
Run Time Bar Code:
Acquired on : 28 Mar 95 10:46 PM
Report Created on: 18 Apr 95 01:11 AM
Last Recalib on : 14 APR 95 00:39 AM
Multiplier : 1

Page Number : 1
Vial Number : 17
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20328.MTH
Analysis Method : BX20328B.MTH
Sample Amount : 0
ISTD Amount :

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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: Rinsate Blank		
Lab Sample Number	: X04559	Lab Project No.	: 95-0915
Date Sampled	: 3/17/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/30/95	Matrix	: Water
Date Analyzed	: 3/30/95	Lab File No.	: BX2033015
Methanol Extract?	: No	Method Blank No.	: MB033095
% Moisture	: NA		

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

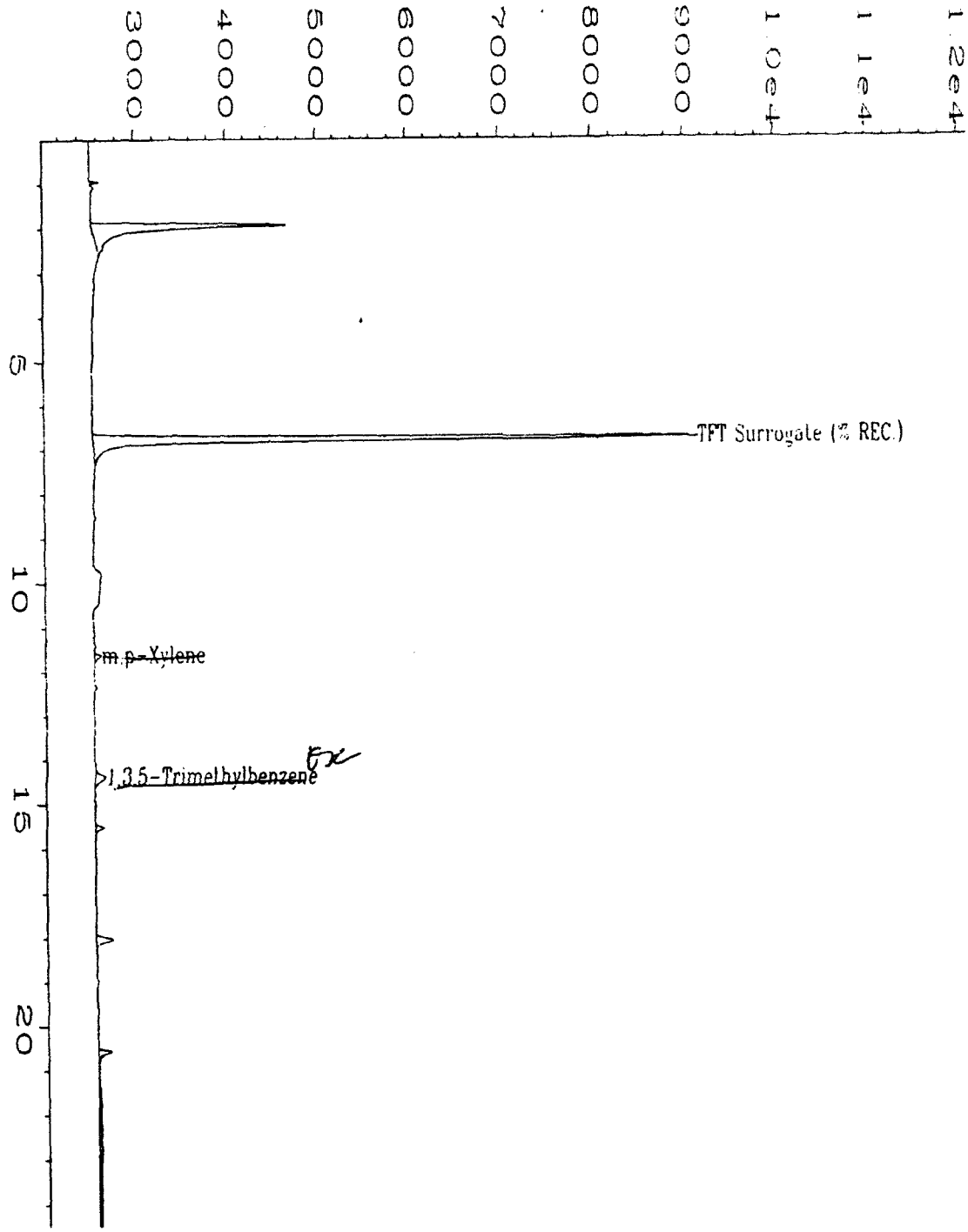
Surrogate Recovery (α,α,α-Trifluorotoluene):	93%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available/Not Applicable.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20330\015R0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 15
Sample Name	: X04559;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 09:41 PM	Instrument Method	: BX20330.MTH
Report Created on	: 31 Mar 95 08:45 AM	Analysis Method	: BX20330.MTH
Last Recalib on	: 31 MAR 95 08:24 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0915 Client#: Rinsate Blank Water		

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BTEX Data Report

		Client Project No.	: 722450.21020 MacDill AFB
Client Sample Number	: Trip Blank		
Lab Sample Number	: X04556	Lab Project No.	: 95-0915
Date Sampled	: 3/17/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/27/95	Matrix	: Water
Date Analyzed	: 3/27/95	Lab File No.	: BX2032713
Methanol Extract?	: No	Method Blank No.	: MB032795
% Moisture	NA		

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

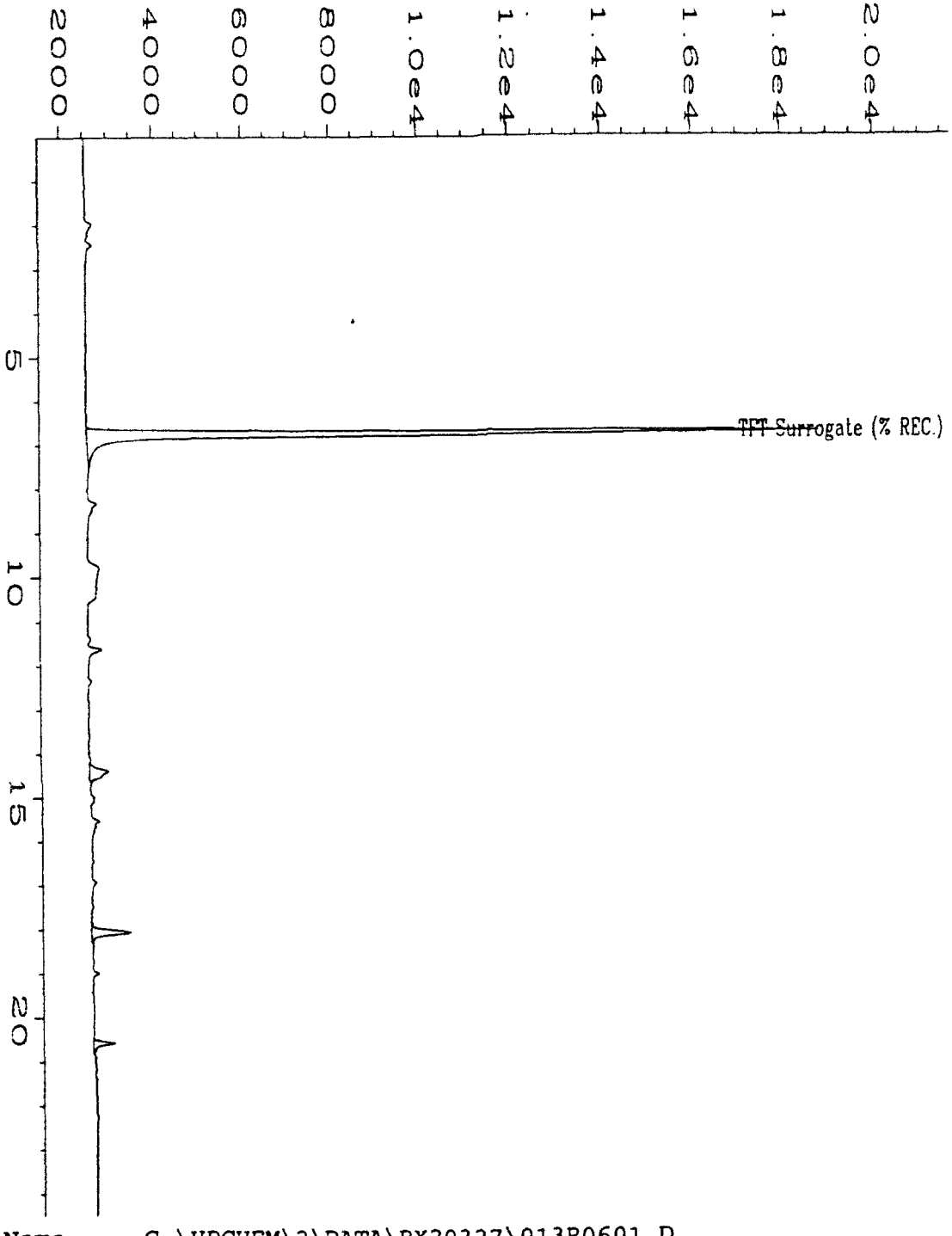
Surrogate Recovery (α,α,α-Trifluorotoluene):	95%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

P. McClellan
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20327\013R0601.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 13
Sample Name	: X04556;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
quired on	: 27 Mar 95 07:33 PM	Instrument Method	: BX20327.MTH
eport Created on	: 17 Apr 95 12:35 PM	Analysis Method	: BX20327A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-0915 Client#: Trip Blank Water		

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4036 Youngfield St. Wheat Ridge, CO 80033
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BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020 MacDill AFB
Method Blank Number	: MB032595		
Date Extracted/Prepared	: 3/25/95	Lab Project No.	: 95-0915
Date Analyzed	: 3/25/95	Dilution Factor	: 1.00
		Method	: 602
		Matrix	: Water
		Lab File No.	: BX2032509

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

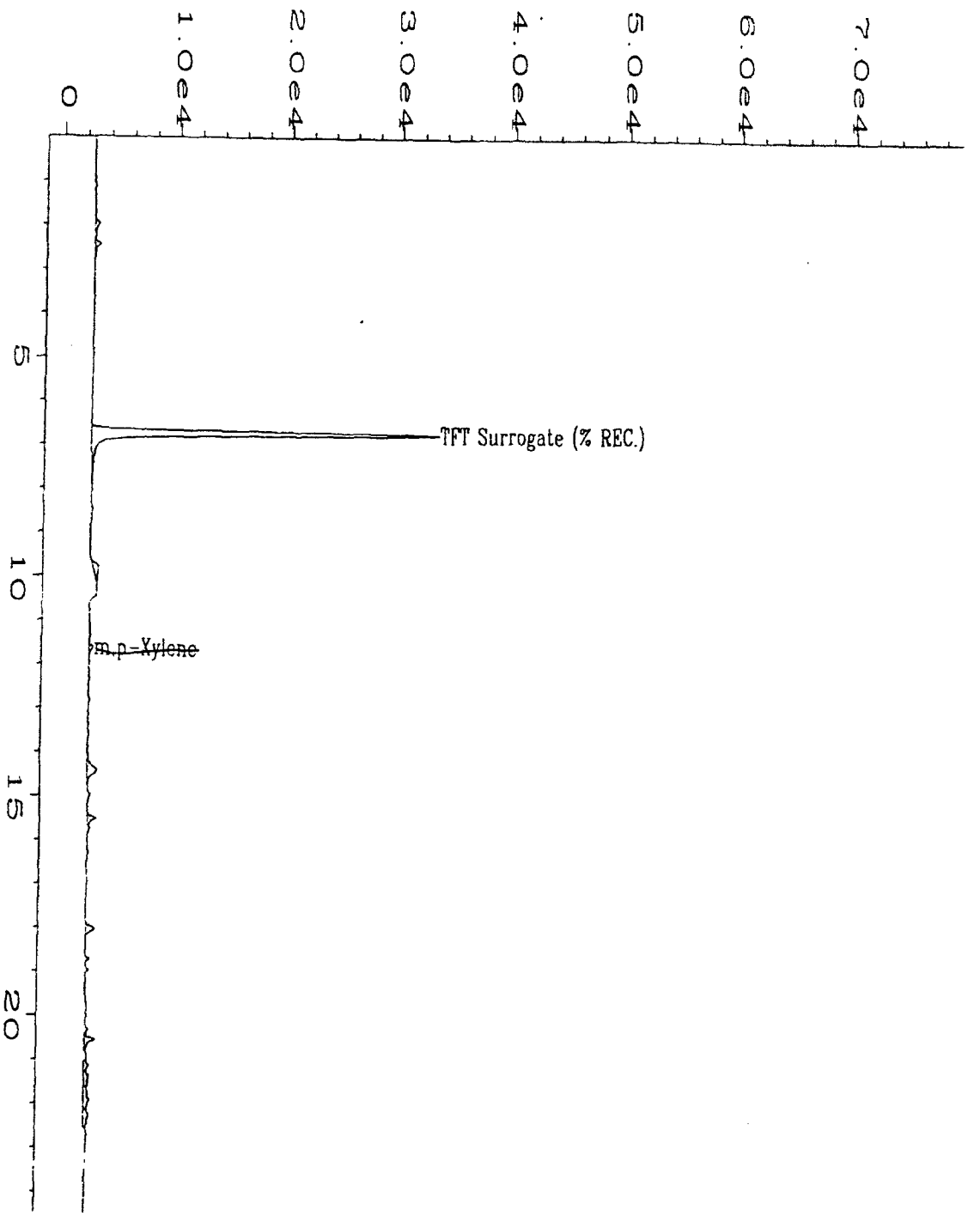
Surrogate Recovery (α,α,α-Trifluorotoluene):	102%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20325\009R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2 5	Vial Number	: 9
Sample Name	: MB032495-WATER	Injection Number	: 1
Run Time Bar Code:	t.y	Sequence Line	: 8
uired on	: 25 Mar 95 07:23 PM	Instrument Method	: BX20325.MTH
port Created on	: 17 Apr 95 01:01 PM	Analysis Method	: BX20325A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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EVERGREEN ANALYTICAL, INC.
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BTEX Data Report
Method Blank Report

Method Blank Number	: MB032695B	Client Project No.	: 722450.21020 MacDill AFB
Date Extracted/Prepared	: 3/26/95	Lab Project No.	: 95-0915
Date Analyzed	: 3/26/95	Dilution Factor	: 1.00
		Method	: 602
		Matrix	: Water
		Lab File No.	: BX2032610

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7	0.4	J	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

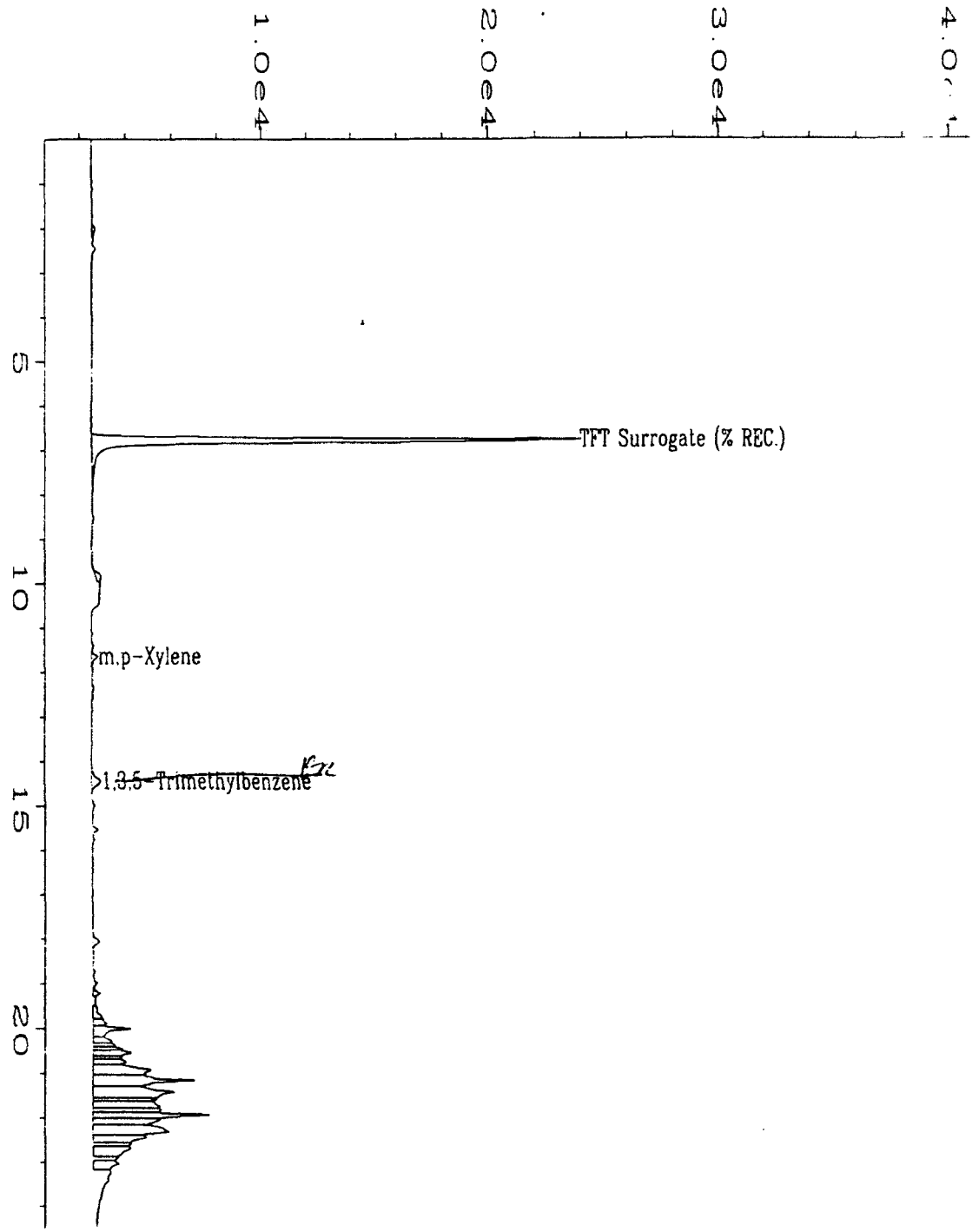
Surrogate Recovery (α,α,α-Trifluorotoluene):	111%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

K. Cone
Analyst

P. McClellan
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20326\010R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 10
Sample Name	: ~~Blank~~ MB032695B	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
uired on	: 26 Mar 95 06:45 PM	Instrument Method	: BX20326.MTH
ort Created on	: 17 Apr 95 02:05 PM	Analysis Method	: BX20326A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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(303) 425-6021

BTEX Data Report
Method Blank Report

Method Blank Number	: MB032795	Client Project No.	: 722450.21020 MacDill AFB
Date Extracted/Prepared	: 3/27/95	Lab Project No.	: 95-0915
Date Analyzed	: 3/27/95	Dilution Factor	: 1.00
		Method	: 602
		Matrix	: Water
		Lab File No.	: BX2032709

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

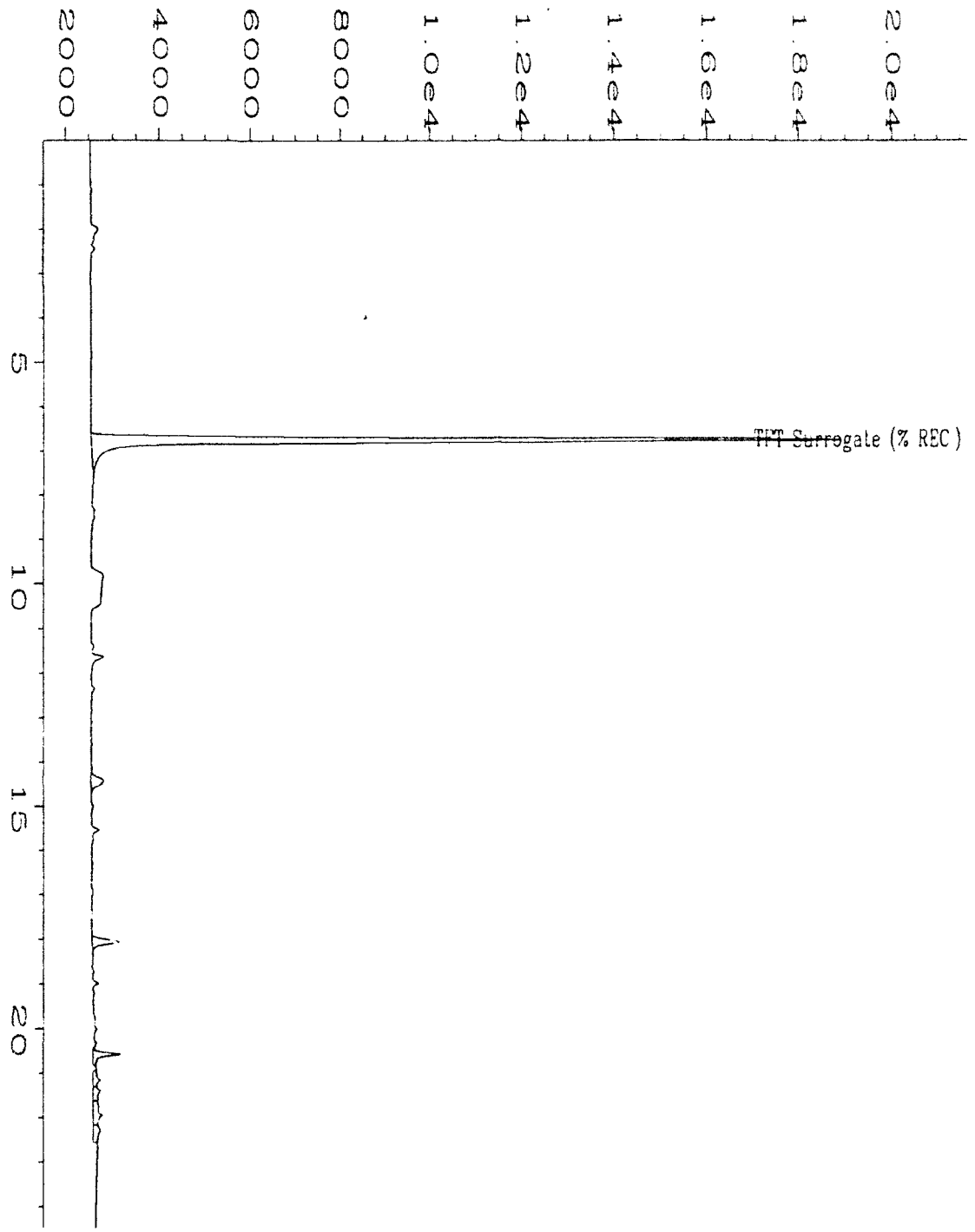
Surrogate Recovery (α,α,α-Trifluorotoluene):	98%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20327\009R0601.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 9
Sample Name	: MB032795-WATER	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 27 Mar 95 04:37 PM	Instrument Method	: BX20327.MTH
Report Created on	: 17 Apr 95 12:34 PM	Analysis Method	: BX20327A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020 MacDill AFB
Method Blank Number	: MB032895		
Date Extracted/Prepared	: 3/28/95	Lab Project No.	: 95-0915
Date Analyzed	: 3/28/95	Dilution Factor	: 1.00
		Method	: 602
		Matrix	: Water
		Lab File No.	: BX2032809

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

Surrogate Recovery (α,α,α-Trifluorotoluene):	61% *	70%-130% (QC limits)

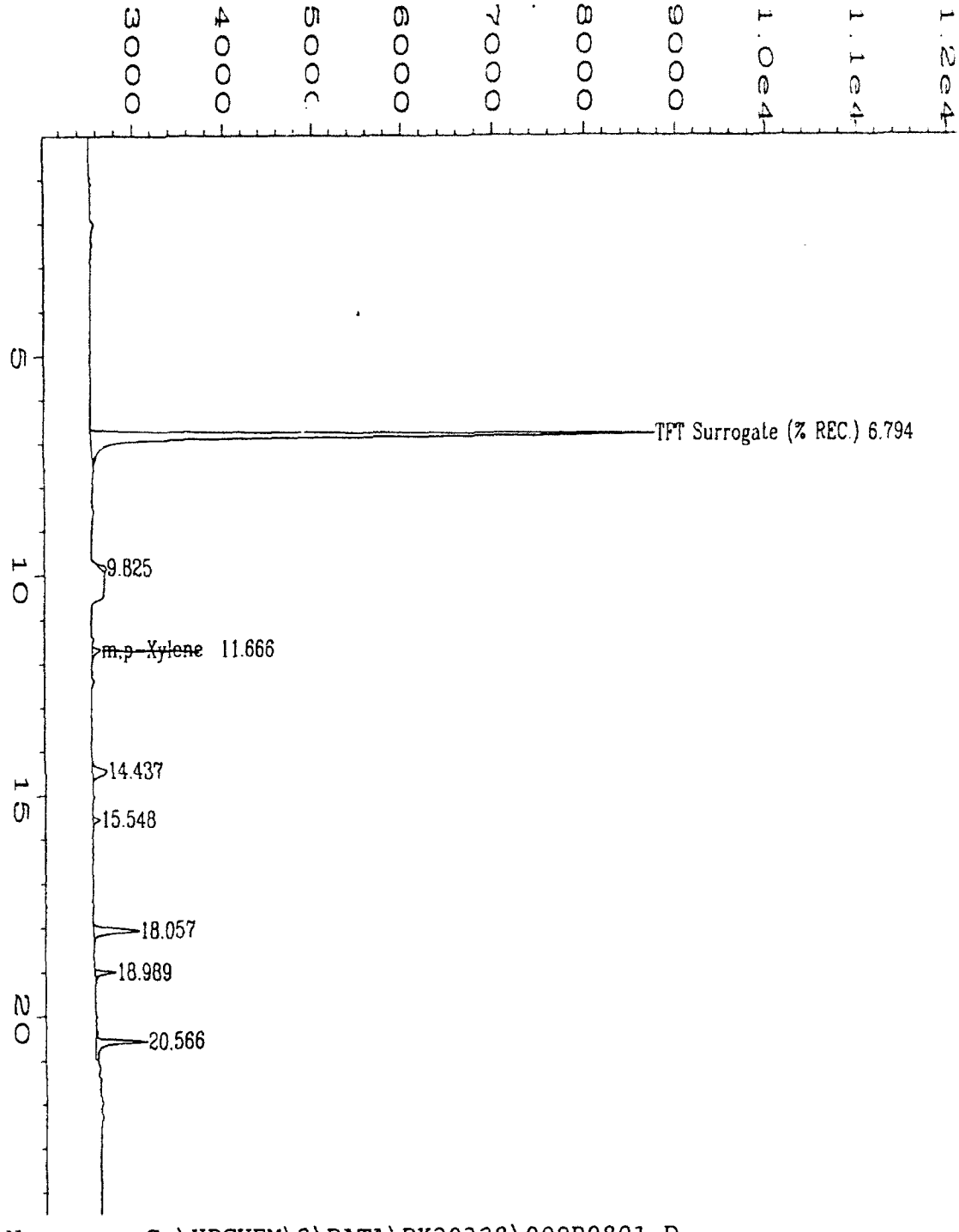
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

* SEE MEB032895 also.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cone
Approved



Data File Name : C:\HPCHEM\2\DATA\BX20328\009R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : MB032895-WATER
Run Time Bar Code:
Acquired on : 28 Mar 95 04:21 PM
Report Created on: 18 Apr 95 01:05 AM
Last Recalib on : 14 APR 95 00:39 AM
Multiplier : 1

Page Number : 1
Vial Number : 9
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20328.MTH
Analysis Method : BX20328B.MTH
Sample Amount : 0
ISTD Amount :

DRM 4/19/95

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(303) 425-6021

BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020 MacDill AFB
Method Blank Number	: MEB032895		
Date Extracted/Prepared	: 3/28/95	Lab Project No.	: 95-0915
Date Analyzed	: 3/29/95	Dilution Factor	: 1.00
		Method	: 8020
		Matrix	: MeOH/Water
		Lab File No.	: BX2032820

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7	0.8	J	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

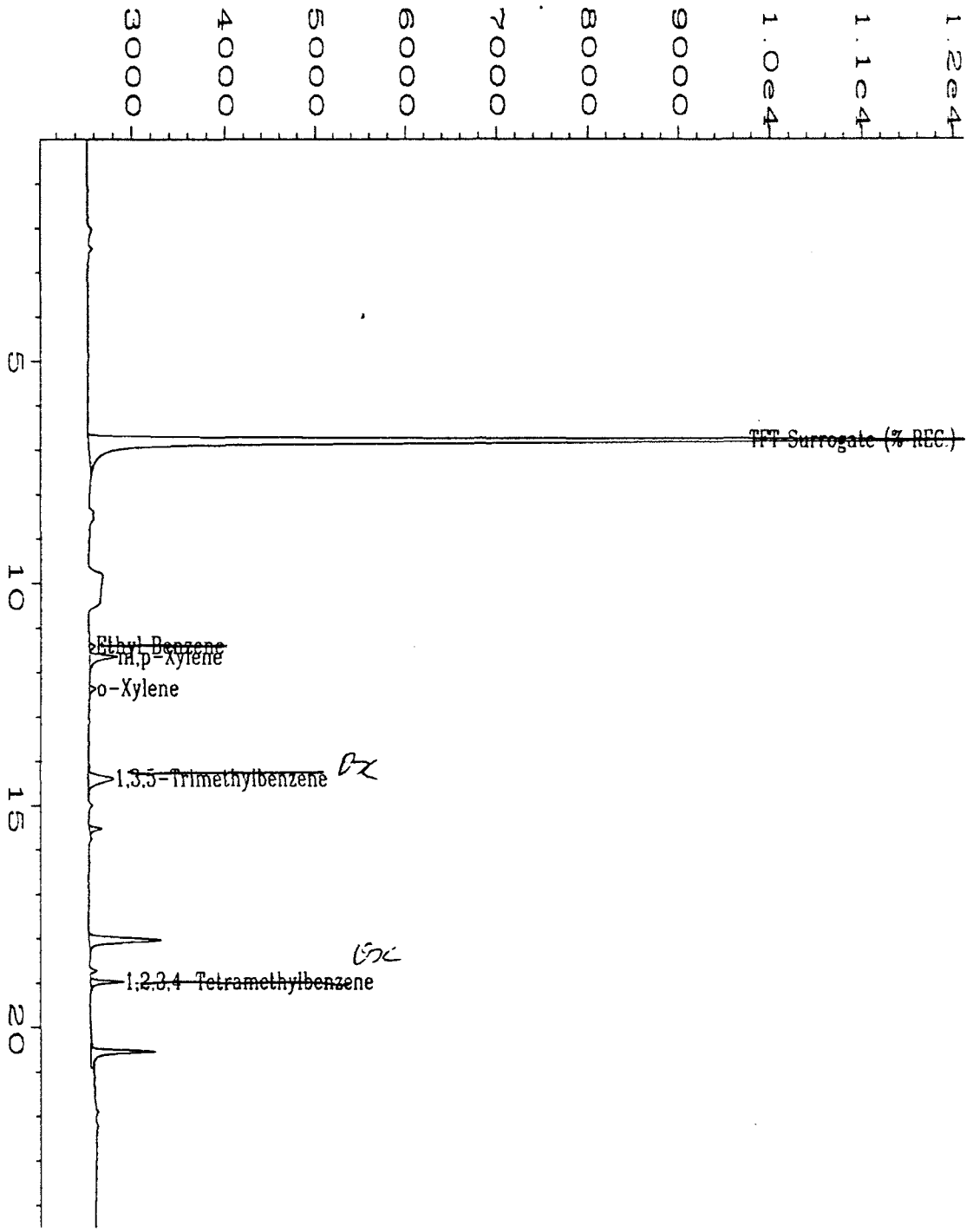
Surrogate Recovery (α,α,α-Trifluorotoluene):	97%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20328\020R0801.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 20
Sample Name	: MEB032895	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 29 Mar 95 01:06 AM	Instrument Method	: BX20328.MTH
Report Created on	: 18 Apr 95 01:00 AM	Analysis Method	: BX20328B.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

4/19/95

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BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020 MacDill AFB
Method Blank Number	: MEB032995		
Date Extracted/Prepared	: 3/29/95	Lab Project No.	: 95-0915
Date Analyzed	: 3/30/95	Dilution Factor	: 1.00
		Method	: 8020
		Matrix	: MeOH/Water
		Lab File No.	: BX2032923

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7	0.6	J	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

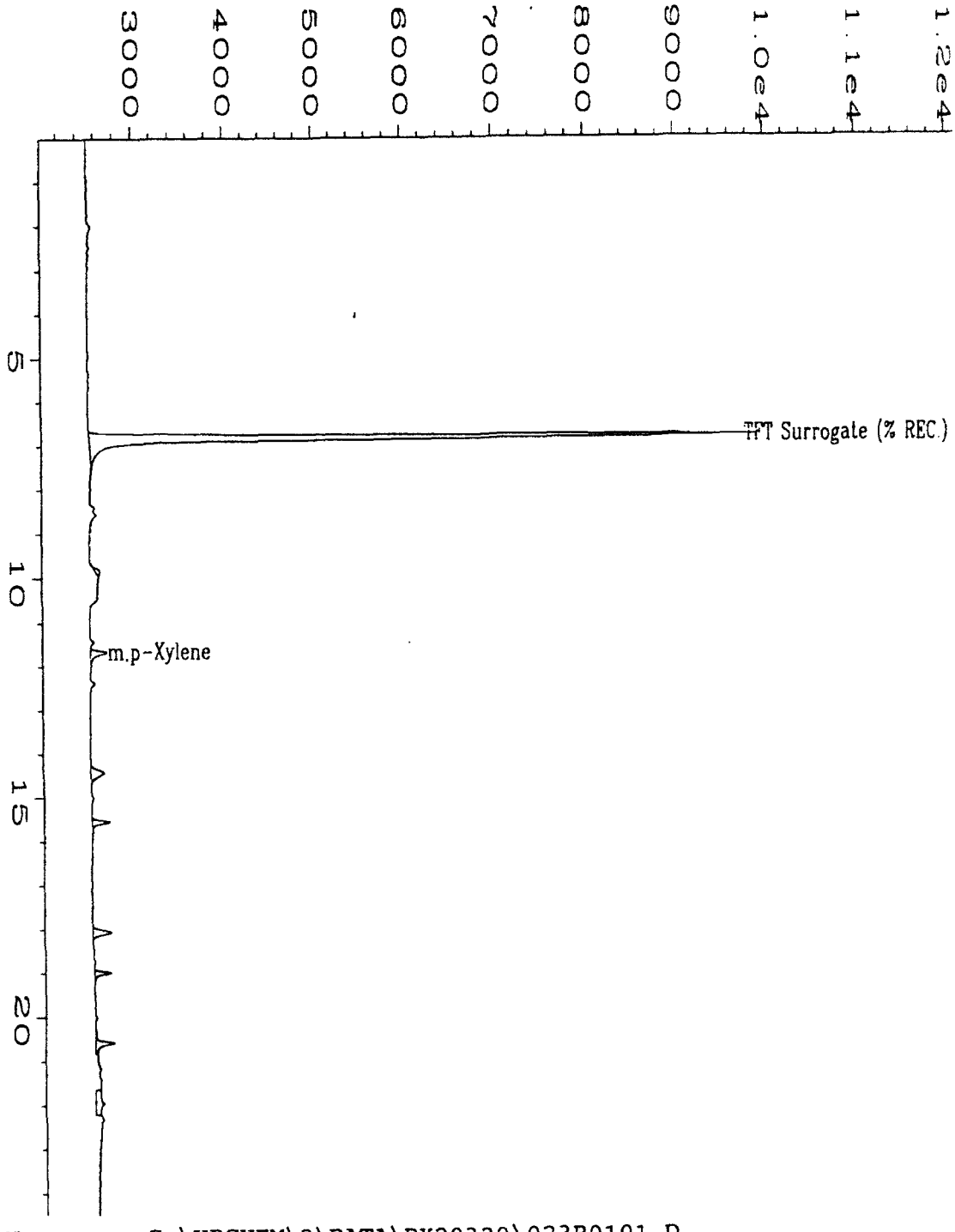
Surrogate Recovery (α,α,α-Trifluorotoluene):	79%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20329\023R0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 23
Sample Name	: MEB032995	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 04:31 AM	Instrument Method	: BX20329.MTH
Report Created on	: 17 Apr 95 09:49 PM	Analysis Method	: BX20329B.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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BTEX Data Report
Method Blank Report

Method Blank Number	: MB032995	Client Project No.	: 722450.21020 MacDill AFB
Date Extracted/Prepared	: 3/29/95	Lab Project No.	: 95-0915
Date Analyzed	: 3/29/95	Dilution Factor	: 1.00
		Method	: 8020/602
		Matrix	: Water
		Lab File No.	: BX2[illegible]2909

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7	0.8	J	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8		U	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

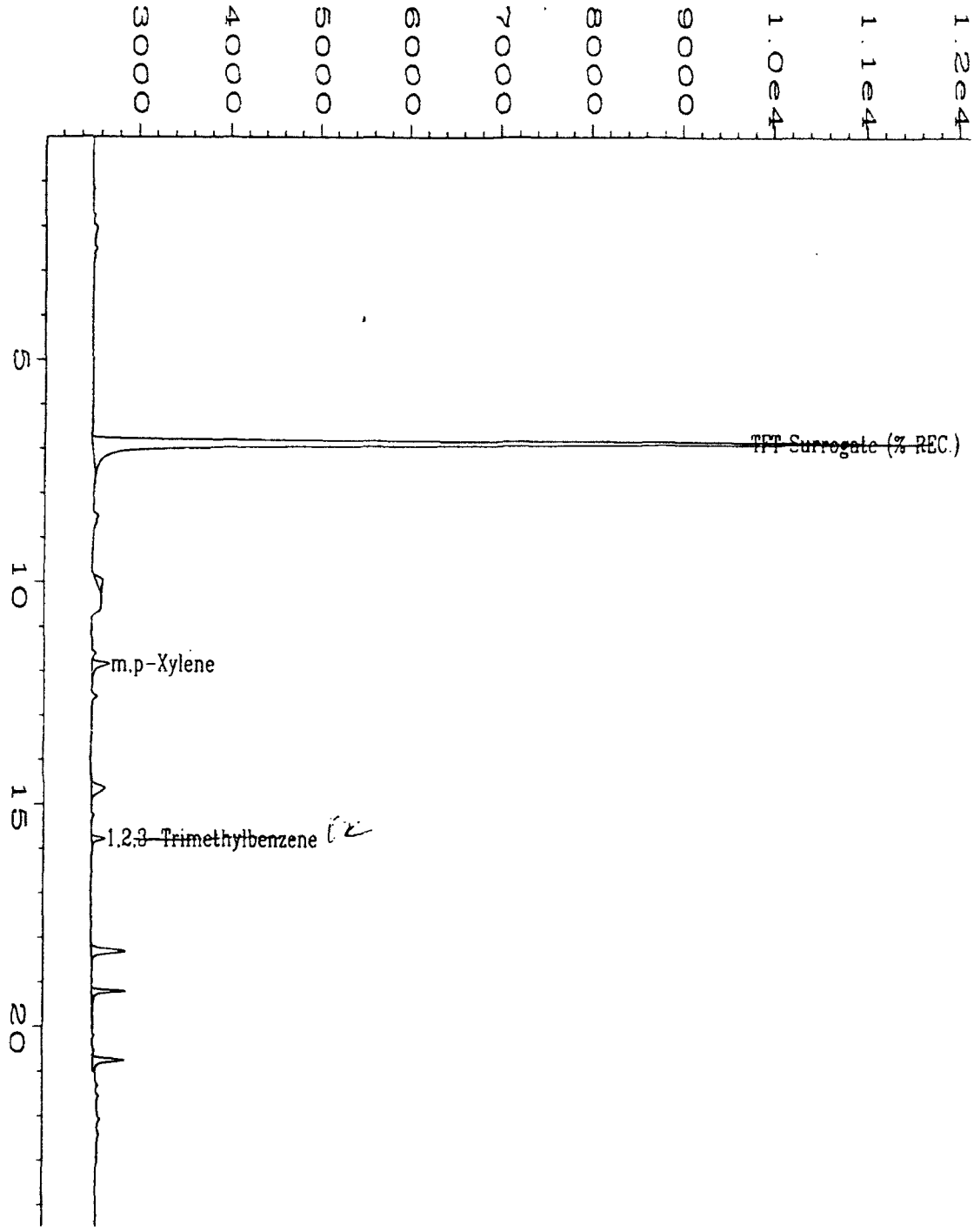
Surrogate Recovery (α,α,α-Trifluorotoluene):	101%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20329\009R0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 9
Sample Name	: MB032995-WATER	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 29 Mar 95 05.06 PM	Instrument Method	: BX20329.MTH
Report Created on	: 17 Apr 95 09:41 PM	Analysis Method	: BX20329B.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020 MacDill AFB
Method Blank Number	: MB033095		
Date Extracted/Prepared	: 3/30/95	Lab Project No.	: 95-0915
Date Analyzed	: 3/30/95	Dilution Factor	: 1.00
		Method	: 602
		Matrix	: Water
		Lab File No.	: NV-R0115

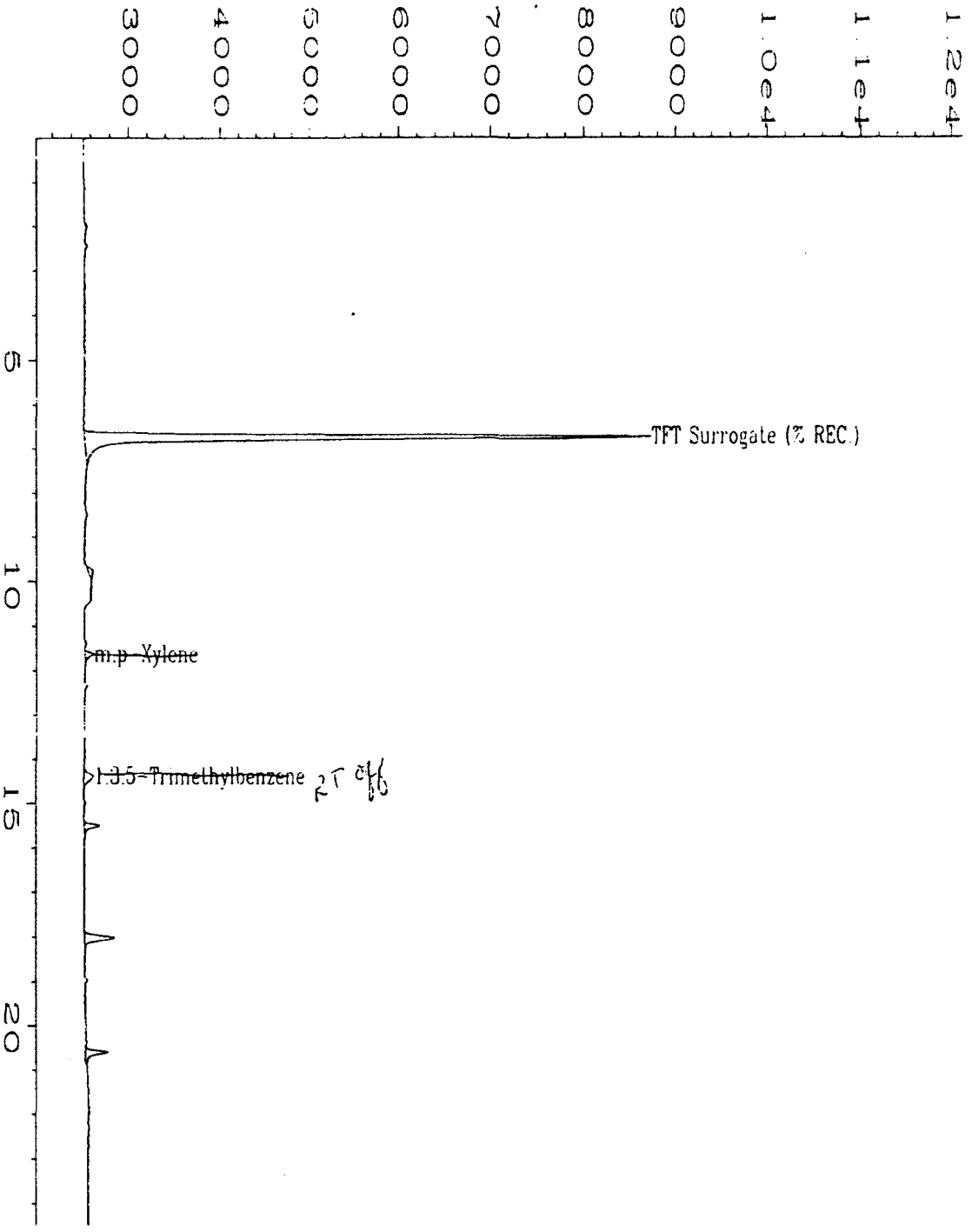
Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		91%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\2\DATA\NV-R0115.D		
Operator	:	Page Number	: 1
Instrument	: BTEX2	Vial Number	:
Sample Name	: MB033095 -WATER	Injection Number	:
n Time Bar Code:		Sequence Line	:
quired on	: 30 Mar 95 05:18 PM	Instrument Method	: BX20330.MTH
Report Created on	: 31 Mar 95 08:50 AM	Analysis Method	: BX20330.MTH
Last Recalib on	: 31 MAR 95 08:24 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 4/19/95

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BTEX Data Report
Method Blank Report

		Client Project No.	: 722450.21020 MacDill AFB
Method Blank Number	: MEB033095		
Date Extracted/Prepared	: 3/30/95	Lab Project No.	: 95-0915
Date Analyzed	: 3/30/95	Dilution Factor	: 1.00
		Method	: 8020
		Matrix	: MeOH/Water
		Lab File No.	: BX2033017

Compound Name	Cas Number	Sample Concentration ug/L		PQL ug/L
Benzene	71-43-2		U	4.0
Toluene	108-88-3		U	4.0
Ethyl Benzene	100-41-4		U	4.0
Total Xylenes	1330-20-7		U	4.0
Chlorobenzene	108-90-7		U	4.0
1,3,5-trimethylbenzene	108-67-8		U	4.0
1,2,4-trimethylbenzene	95-63-6		U	4.0
1,2,3-trimethylbenzene	526-73-8	2.1	J	4.0
1,2,3,4-tetramethylbenzene	488-23-3		U	4.0

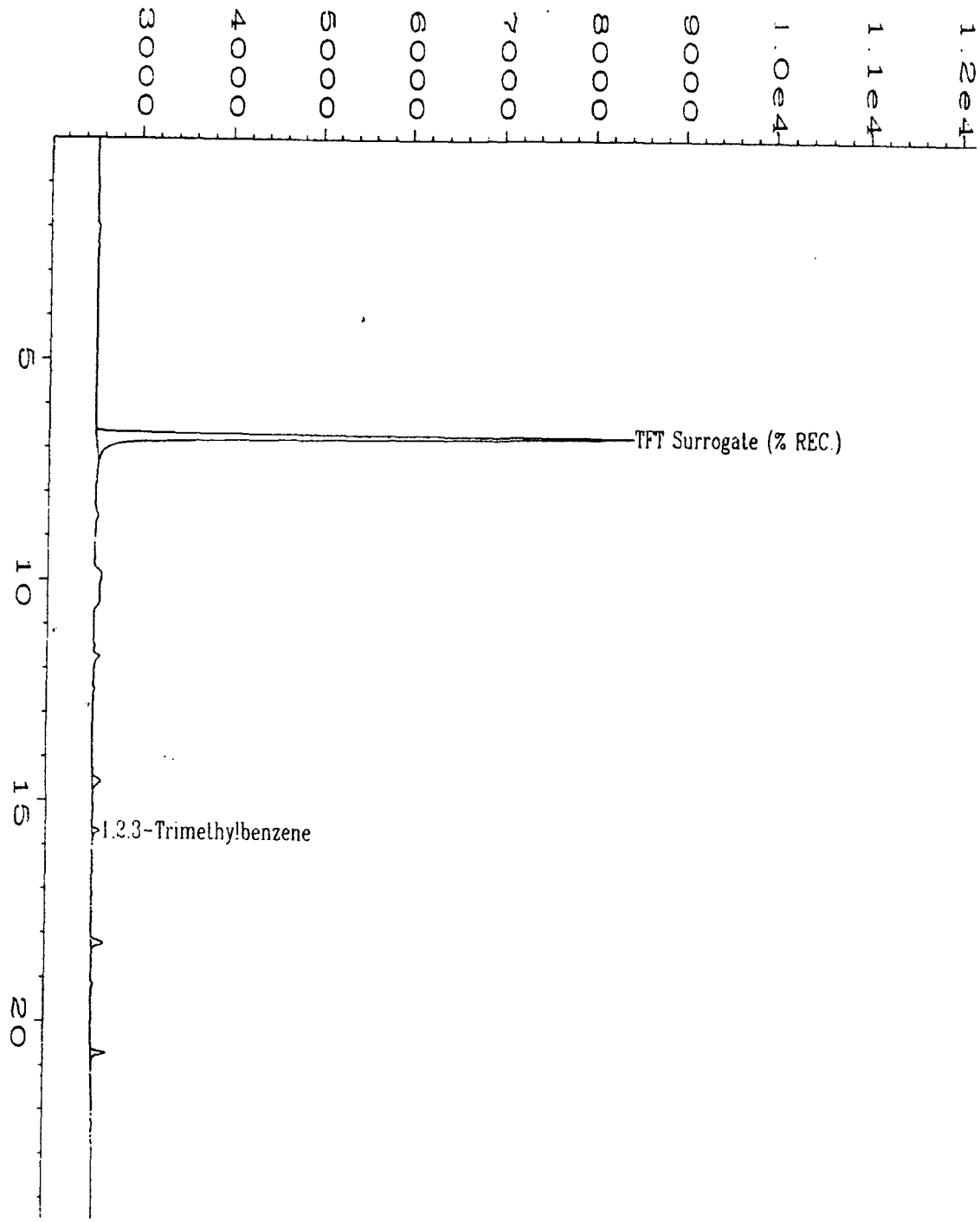
Surrogate Recovery (α,α,α-Trifluorotoluene):	86%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene PQL is for a single peak.

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.
NA = Not available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20330\017R0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 17
Sample Name	: MEB033095	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 11:11 PM	Instrument Method	: BX20330.MTH
Report Created on	: 31 Mar 95 08:46 AM	Analysis Method	: BX20330.MTH
Last Recalib on	: 31 MAR 95 08:24 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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BTEX Data Report
Laboratory Control Sample (LCS)

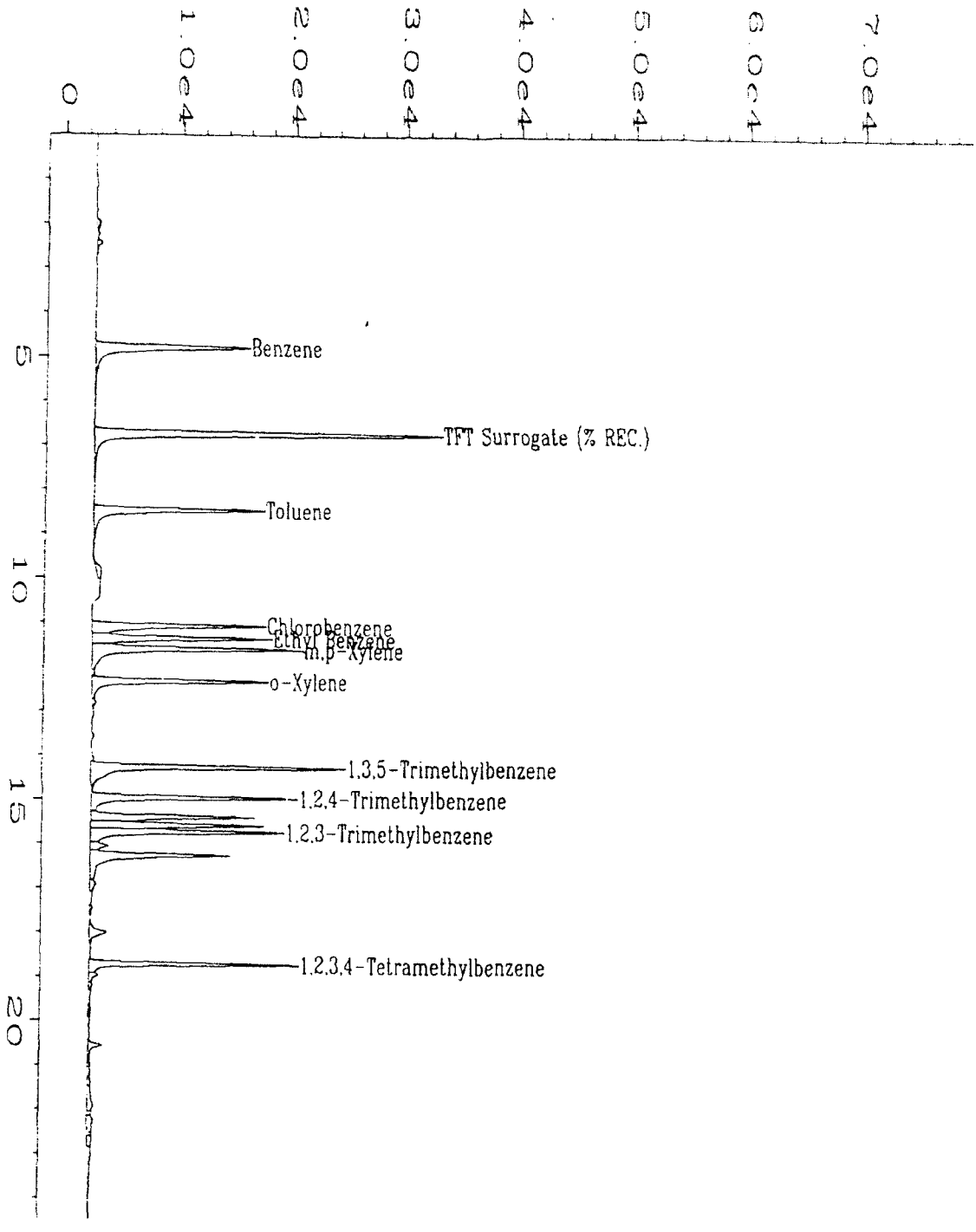
LCS Number	: LCS032595	**Dilution Factor**	: 1.00
Date Extracted/Prepared	: 3/25/95	**Method**	: 602
Date Analyzed	: 3/25/95	**Matrix**	: Water
Spike Amount (ug/L)	: 20.0	**Lab File No.**	: BX2032511

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.4	77.0	71.0-119.0
Toluene	108-88-3	15.7	78.5	73.0-111.0
Chlorobenzene	108-90-7	16.5	82.5	64.0-119.0
Ethyl Benzene	100-41-4	15.9	79.5	75.0-114.0
m,p-Xylene	108-38-3 106-42-3	16.8	84.0	75.0-114.0
o-Xylene	95-47-6	15.7	78.5	64.0-11
1,3,5-Trimethylbenzene	108-67-8	16.9	84.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.8	89.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.2	101.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	16.6	83.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		97%	70%-130% (QC limits)	

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20325\011R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 11
Sample Name	: LCS032495	Injection Number	: 1
Run Time Bar Code:	5 PK	Sequence Line	: 8
Acquired on	: 25 Mar 95 08:54 PM	Instrument Method	: BX20325.MTH
Report Created on	: 17 Apr 95 01:02 PM	Analysis Method	: BX20325A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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BTEX Data Report
Laboratory Control Sample (LCS)

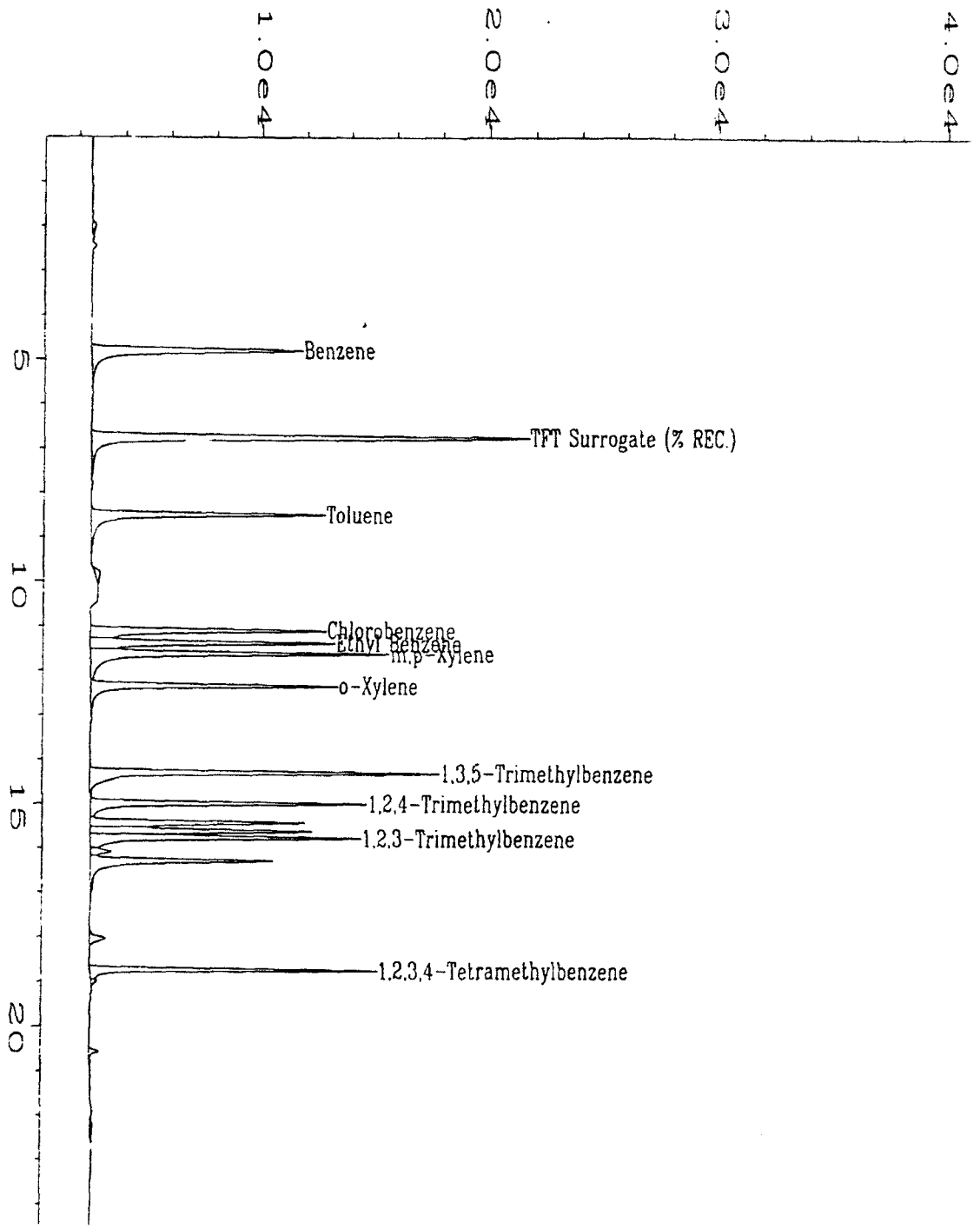
LCS Number	: LCS032695	Dilution Factor	: 1.00
Date Extracted/Prepared	: 3/26/95	Method	: 602
Date Analyzed	: 3/26/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX2032611

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	16.2	81.0	71.0-119.0
Toluene	108-88-3	16.4	82.0	73.0-111.0
Chlorobenzene	108-90-7	17.0	85.0	64.0-119.0
Ethyl Benzene	100-41-4	16.9	84.5	75.0-114.0
m,p-Xylene	108-38-3	18.2	91.0	75.0-114.0
o-Xylene	106-42-3 95-47-6	16.6	83.0	64.0-1
1,3,5-Trimethylbenzene	108-67-8	16.6	83.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	18.0	90.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	21.4	107.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.5	87.5	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		101%	70%-130% (QC limits)	

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Core
Analyst

P. McClella
Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20326\011R0801.D		
Operator	: T.L. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 11
Sample Name	: LCS032695	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
uired on	: 26 Mar 95 07:29 PM	Instrument Method	: BX20326.MTH
ort Created on	: 17 Apr 95 02:06 PM	Analysis Method	: BX20326A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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(303) 425-6021

BTEX Data Report
Laboratory Control Sample (LCS)

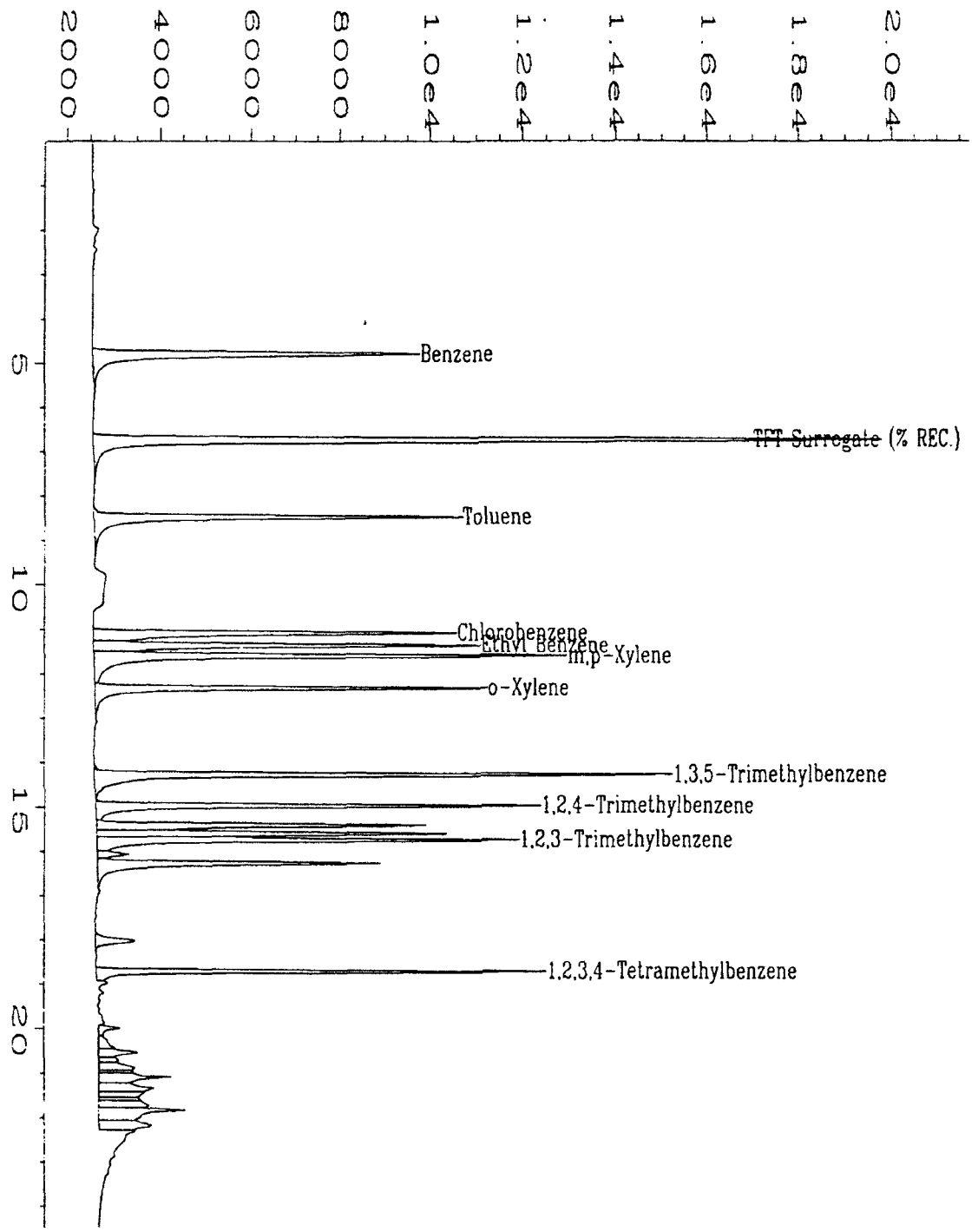
LCS Number	: LCS032795	Dilution Factor	: 1.00
Date Extracted/Prepared	: 3/27/95	Method	: 602
Date Analyzed	: 3/27/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX2032710

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	17.1	85.5	71.0-119.0
Toluene	108-88-3	16.6	83.0	73.0-111.0
Chlorobenzene	108-90-7	18.1	90.5	64.0-119.0
Ethyl Benzene	100-41-4	17.1	85.5	75.0-114.0
m,p-Xylene	108-38-3	18.3	91.5	75.0-114.0
o-Xylene	106-42-3 95-47-6	16.9	84.5	64.0-11[illegible]
1,3,5-Trimethylbenzene	108-67-8	17.8	89.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	18.2	91.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.2	101.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	18.4	92.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		99%	70%-130% (QC limits)	

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Cone
Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\BX20327\010R0601.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 10
Sample Name	: LCS032795	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 27 Mar 95 05:21 PM	Instrument Method	: BX20327.MTH
Report Created on	: 17 Apr 95 12:35 PM	Analysis Method	: BX20327A.MTH
Last Recalib on	: 14 APR 95 00:39 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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BTEX Data Report
Laboratory Control Sample (LCS)

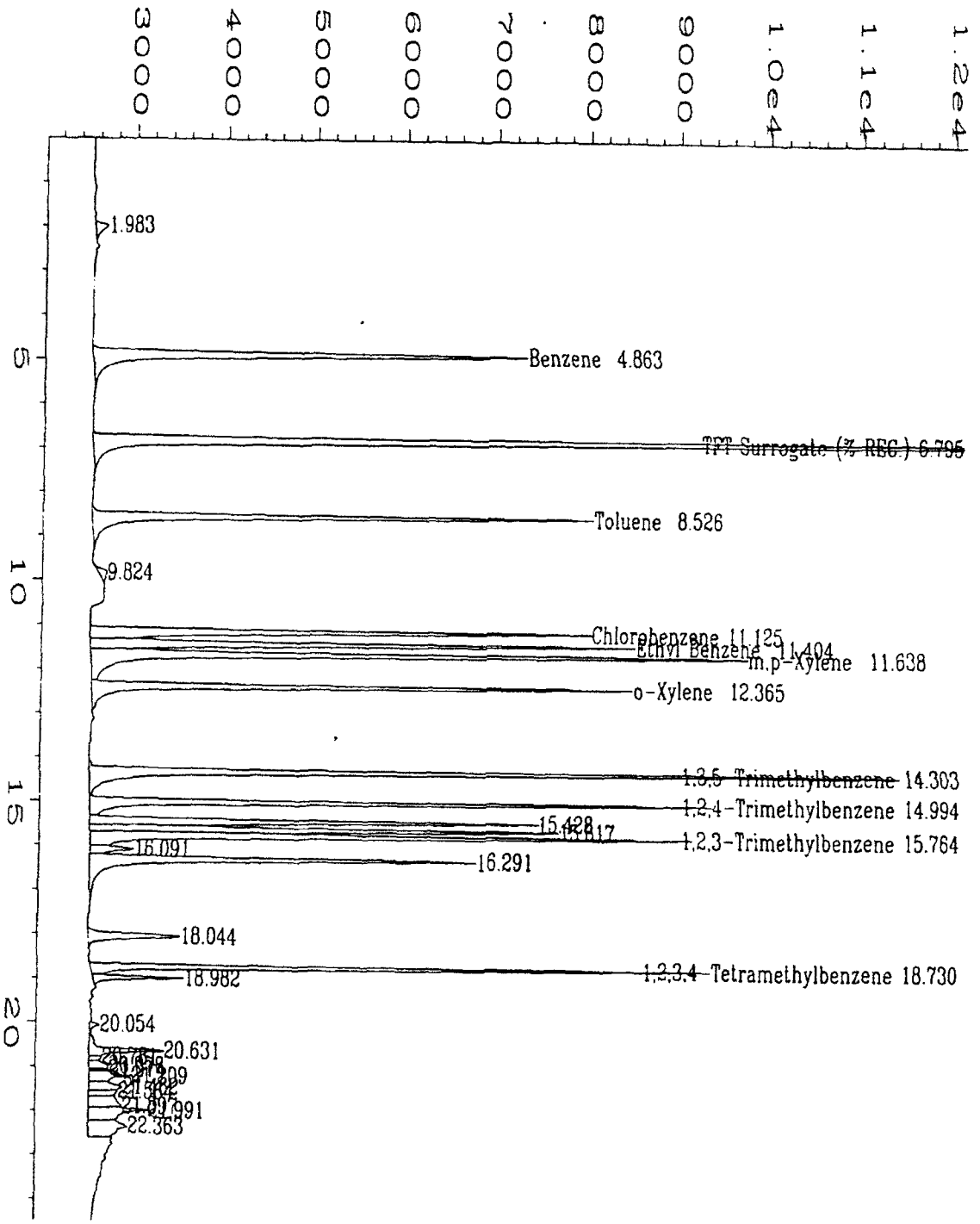
LCS Number	: LCS032895	Dilution Factor	: 1.00
Date Extracted/Prepared	: 3/28/95	Method	: 602
Date Analyzed	: 3/28/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX2032810

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.0	75.0	71.0-119.0
Toluene	108-88-3	16.3	81.5	73.0-111.0
Chlorobenzene	108-90-7	15.5	77.5	64.0-119.0
Ethyl Benzene	100-41-4	16.5	82.5	75.0-114.0
m,p-Xylene	108-38-3	18.0	90.0	75.0-114.0
o-Xylene	106-42-3 95-47-6	16.6	83.0	64.0-1[illegible]
1,3,5-Trimethylbenzene	108-67-8	15.9	79.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.7	88.5	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.6	103.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.2	86.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		107%	70%-130% (QC limits)	

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Cone
Analyst

P. McClellan
Approved



Data File Name : C:\HPCHEM\2\DATA\BX20328\010R0801.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : LCS032895
Run Time Bar Code:
Acquired on : 28 Mar 95 05:09 PM
Report Created on: 18 Apr 95 01:07 AM
Last Recalib on : 14 APR 95 00:39 AM
Multiplier : 1

Page Number : 1
Vial Number : 10
Injection Number : 1
Sequence Line : 8
Instrument Method: BX20328.MTH
Analysis Method : BX20328B.MTH
Sample Amount : 0
ISTD Amount :

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BTEX Data Report
Laboratory Control Sample (LCS)

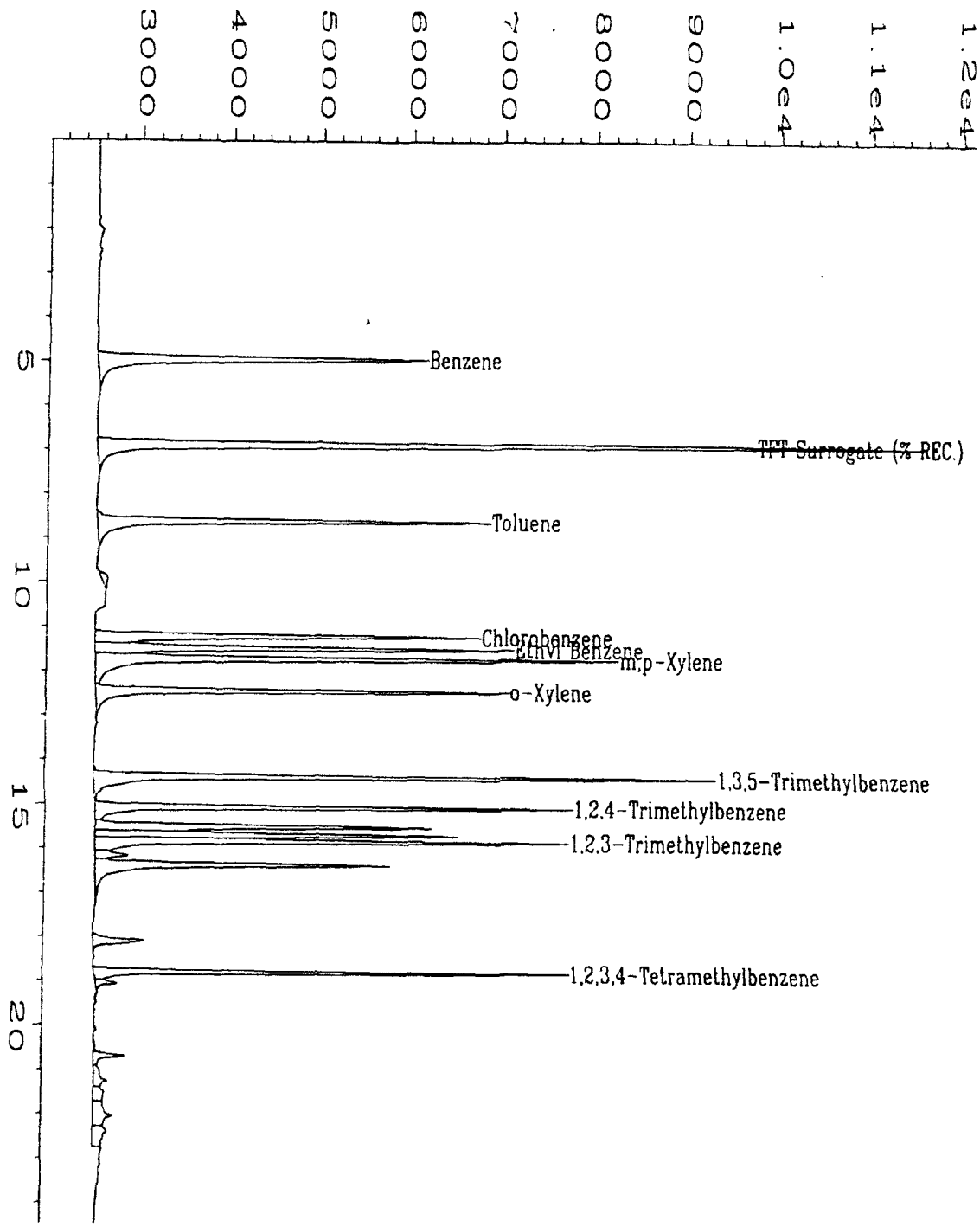
LCS Number	: LCS032995	**Dilution Factor**	: 1.00
Date Extracted/Prepared	: 3/29/95	**Method**	: 602
Date Analyzed	: 3/29/95	**Matrix**	: Water
Spike Amount (ug/L)	: 20.0	**Lab File No.**	: BX2032910

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	18.3	91.5	71.0-119.0
Toluene	108-88-3	18.1	90.5	73.0-111.0
Chlorobenzene	108-90-7	19.8	99.0	64.0-119.0
Ethyl Benzene	100-41-4	17.7	88.5	75.0-114.0
m,p-Xylene	108-38-3	18.8	94.0	75.0-114.0
o-Xylene	106-42-3 95-47-6	18.7	93.5	64.0-11
1,3,5-Trimethylbenzene	108-67-8	17.8	89.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	20.3	101.5	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	25.1	125.5	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	20.1	100.5	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		94%	70%-130% (QC limits)	

QUALIFIERS:
- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
- NA = Not available/Not analyzed.

K. Cone
Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20329\010R0101.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : LCS032995
Run Time Bar Code:
Acquired on : 29 Mar 95 05:55 PM
Report Created on: 17 Apr 95 09:41 PM
Last Recalib on : 14 APR 95 00:39 AM
Multiplier : 1

Page Number : 1
Vial Number : 10
Injection Number : 1
Sequence Line : 1
Instrument Method: BX20329.MTH
Analysis Method : BX20329B.MTH
Sample Amount : 0
ISTD Amount :

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BTEX Data Report
Laboratory Control Sample (LCS)

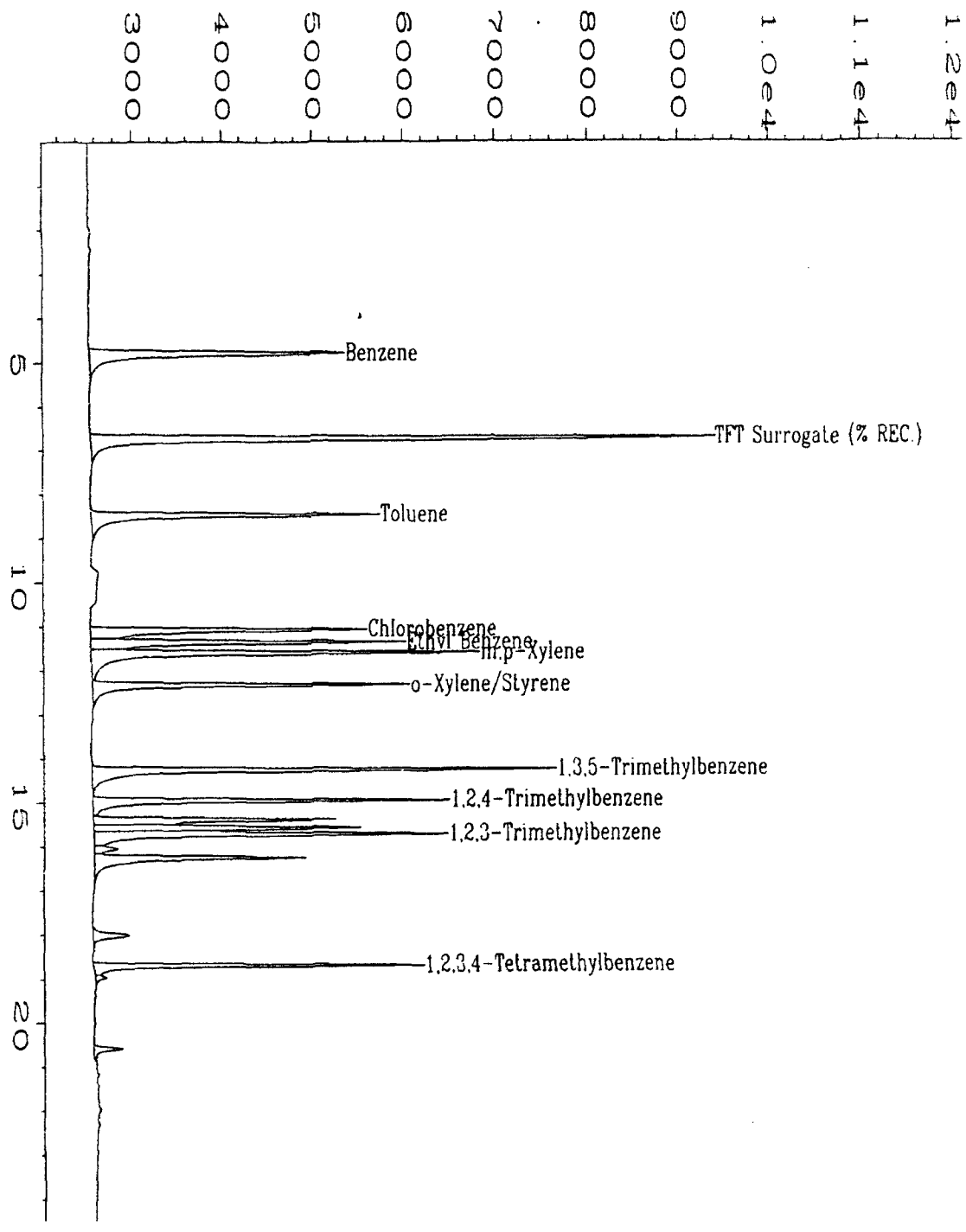
LCS Number	: LCS033095	Dilution Factor	: 1.00
Date Extracted/Prepared	: 3/30/95	Method	: 602
Date Analyzed	: 3/30/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX2033010

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	16.9	84.5	71.0-119.0
Toluene	108-88-3	17.2	86.0	73.0-111.0
Chlorobenzene	108-90-7	17.3	86.5	64.0-119.0
Ethyl Benzene	100-41-4	17.8	89.0	75.0-114.0
m,p-Xylene	108-38-3 106-42-3	19.1	95.5	75.0-114.0
o-Xylene	95-47-6	17.2	86.0	64.0-11[illegible]
1,3,5-Trimethylbenzene	108-67-8	18.1	90.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	18.4	92.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	22.4	112.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.4	87.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		95%	70%-130% (QC limits)	

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Cone
Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20330\010R0101.D
Operator : C.J. Cook
Instrument : BTEX2
Sample Name : LCS033095
Run Time Bar Code:
Acquired on : 30 Mar 95 06:02 PM
Report Created on: 31 Mar 95 08:44 AM
Last Recalib on : 31 MAR 95 08:24 AM
Multiplier : 1

Page Number : 1
Vial Number : 10
Injection Number : 1
Sequence Line : 1
Instrument Method: BX20330.MTH
Analysis Method : BX20330.MTH
Sample Amount : 0
ISTD Amount :

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TOTAL VOLATILE HYDROCARBONS (TVH)
Laboratory Control Sample (LCS)

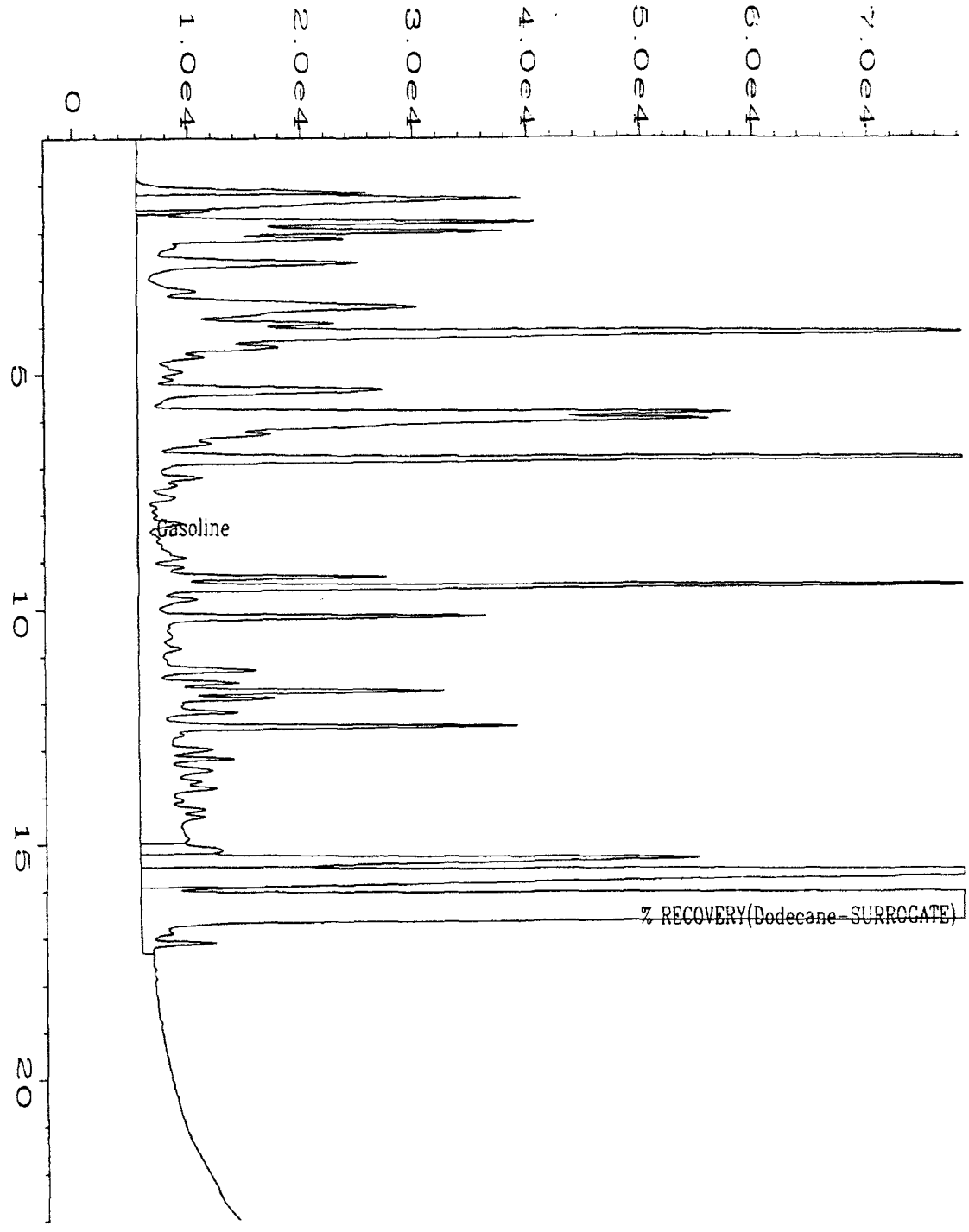
LCS Number	: LCS032995	Matrix	: WATER
Date Prepared	: 3/29/95	Method Number	: 8030/MOD.8015
Date Analyzed	: 3/29/95		
Sequence Number	: TVH19		

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	2.00	1.91	96%	70%-130%

QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

Approved



Data File Name	: C:\HPCHEM\1\DATA\tvh0329\019F0201.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 19
Sample Name	: LCS032995	Injection Number	: 1
n Time Bar Code:		Sequence Line	: 2
quired on	: 29 Mar 95 09:26 PM	Instrument Method	: TVH0329.MTH
Report Created on	: 29 Mar 95 09:50 PM	Analysis Method	: TVH0329.MTH
Last Recalib on	: 29 Mar 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH-GASOLINE)

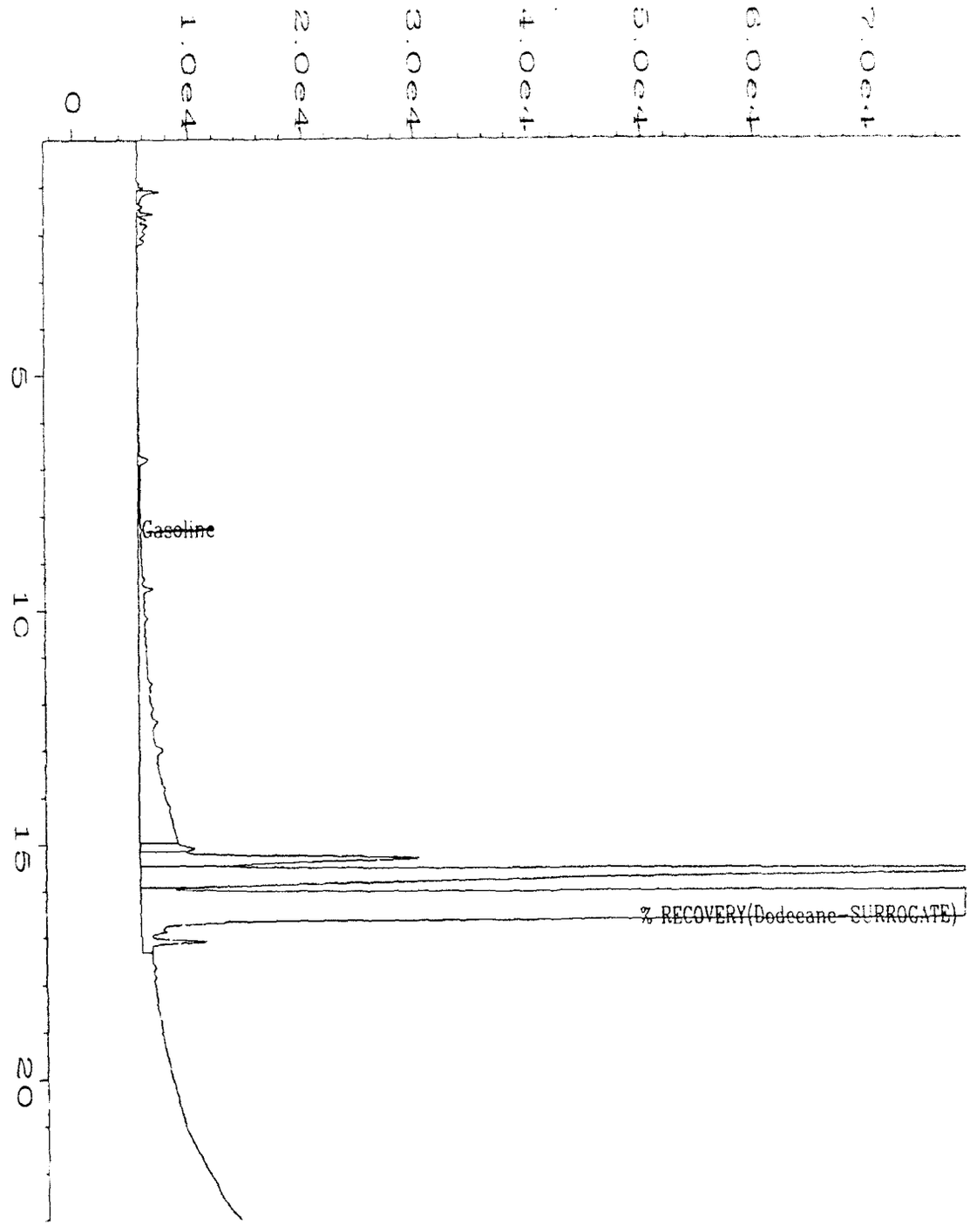
Date Sampled	: 3/20,21/95	Client Project Number	: 722450.21020/MACDILL
Date Received	: 3/22/95	Lab Project Number	: 95-0915
Date Prepared	: 3/29/95	Matrix	: Water
Date Analyzed	: 3/29,30/95	Method Number	: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH mg/L	RL mg/L
MB032995	METHOD BLANK	100%	U	0.1
MB033095	METHOD BLANK	100%	U	0.1
X04546	24MP-5S	97%	U	0.1
X04547	24MP-3S	97%	U	0.1
X04548	24MP-3D	82%	U	0.1
X04549	24MP-8D	87%	U	0.1
X04550	24MP-8S	98%	U	0.1
X04551	MD24-9	87%	U	0.1
X04552	MD24-10A	100%	U	0.1
X04553	MD24-10	88%	U	0.1
X04554	MD24-7	89%	U	0.1
X04555	MD24-7 (DUP)	87%	U	0.1

QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample.
E = Extrapolated value.
RL = Reporting Limit.

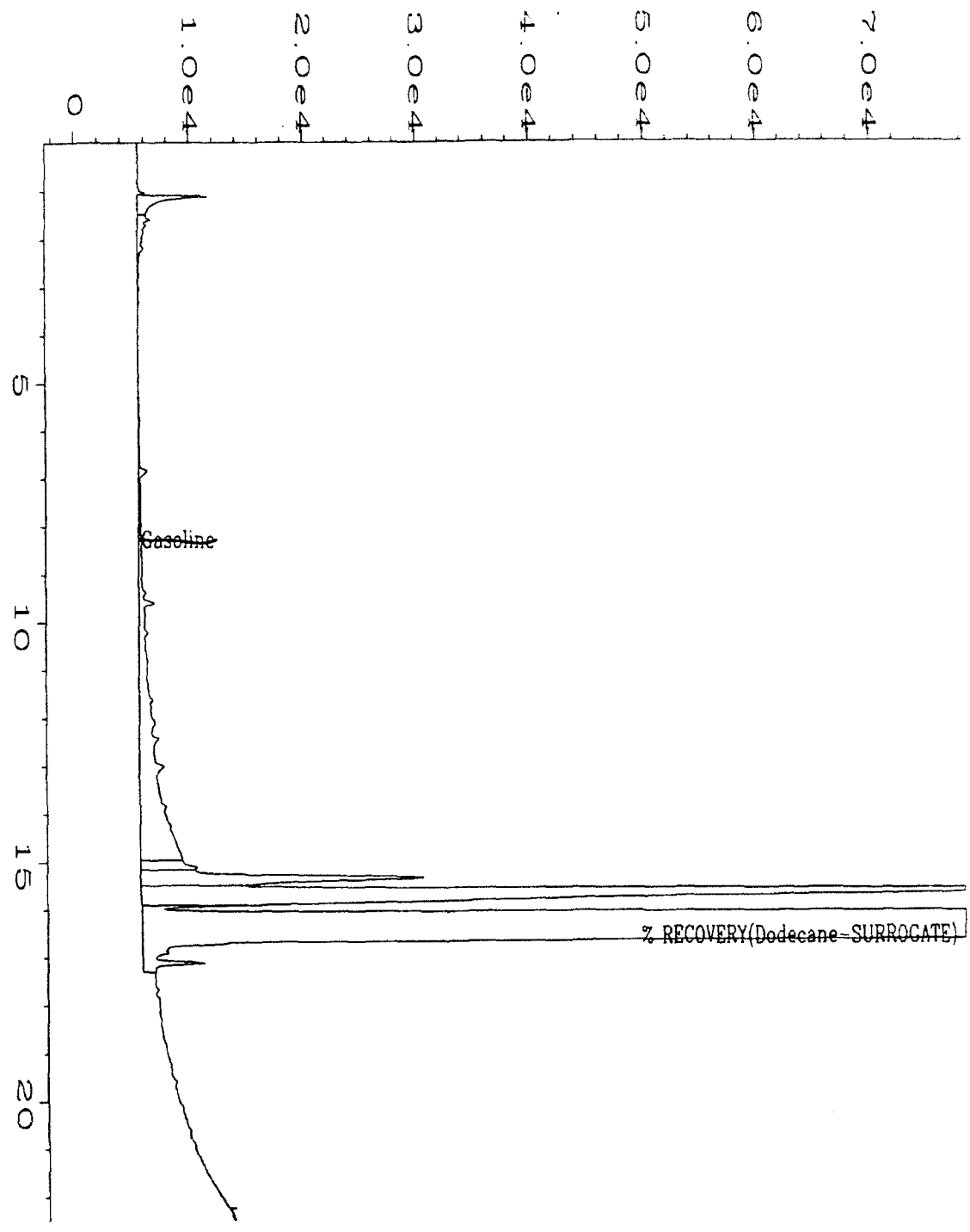
K. Cone
Analyst

Approved



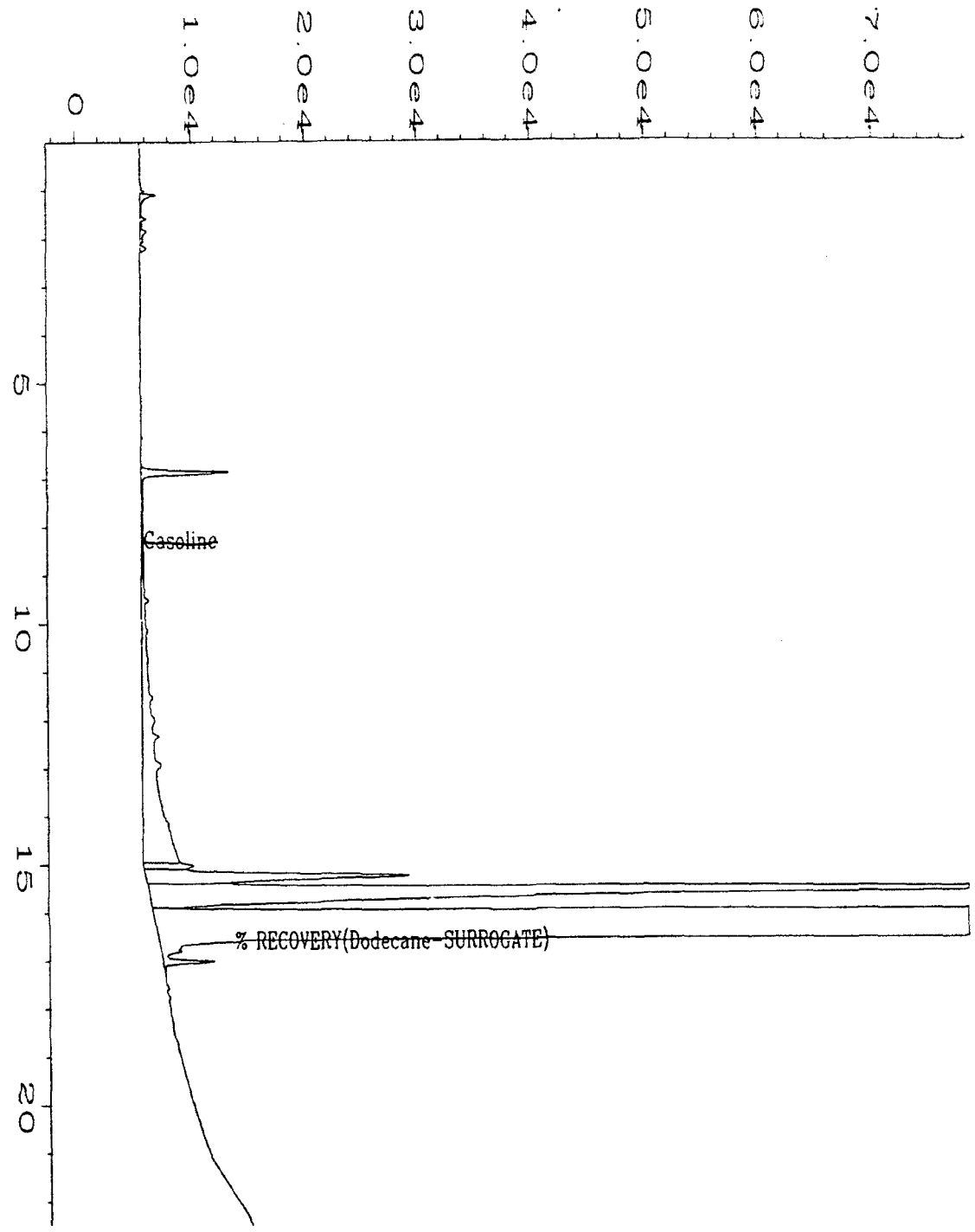
Data File Name	: C:\HPCHEM\1\DATA\tvh0329\018F0201.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 18
Sample Name	: MB032995	Injection Number	: 1
1 Time Bar Code:		Sequence Line	: 2
Acquired on	: 29 Mar 95 08:52 PM	Instrument Method	: TVH0329.MTH
Report Created on	: 29 Mar 95 09:15 PM	Analysis Method	: TVH0329.MTH
Last Recalib on	: 29 Mar 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 4/11/95



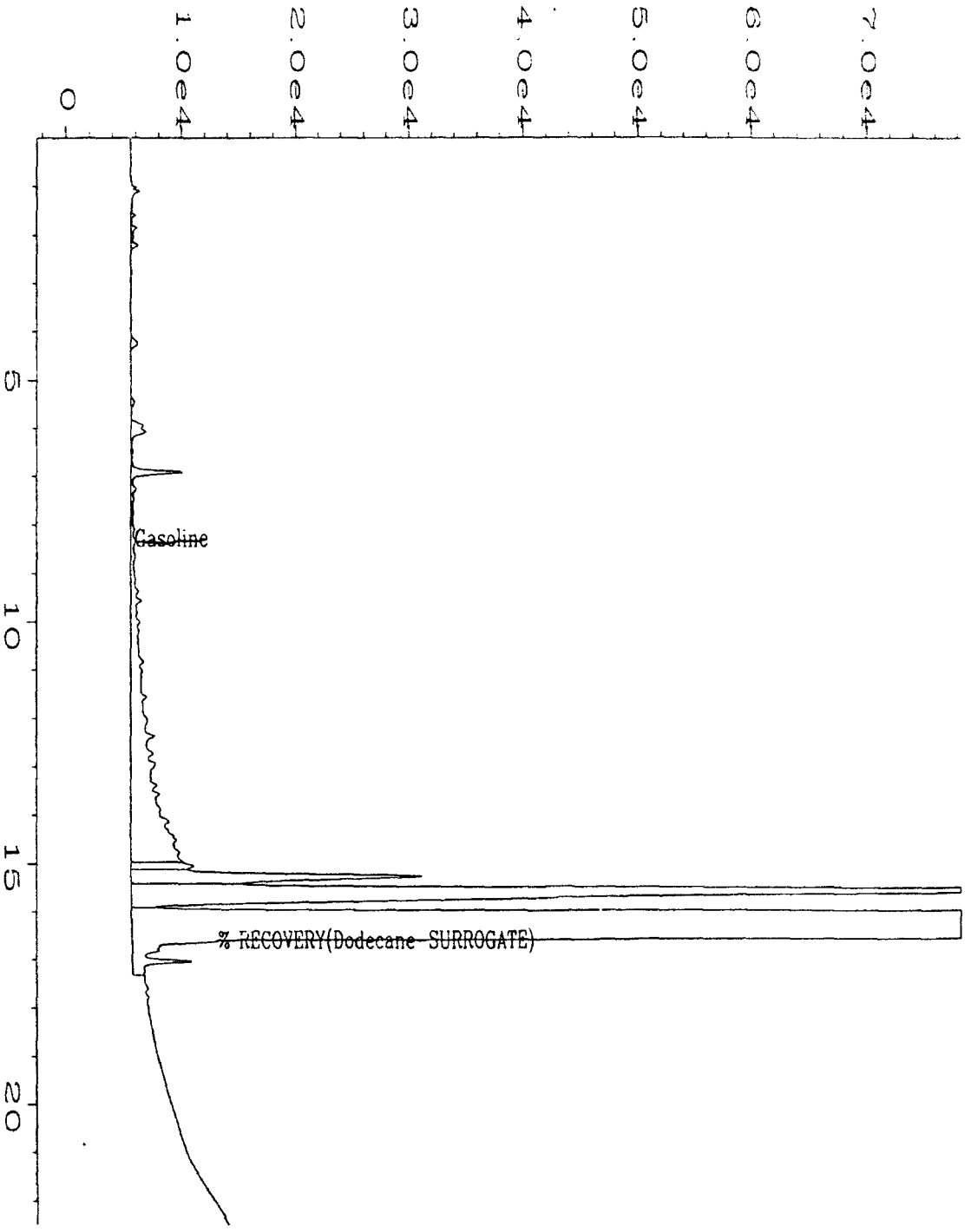
Data File Name	: C:\HPCHEM\1\DATA\tvh0329\044F0101.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 44
Sample Name	: MB033095	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 11:35 AM	Instrument Method	: TVH032. TH
Report Created on	: 30 Mar 95 11:58 AM	Analysis Method	: TVH0329.MTH
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 4/17/95



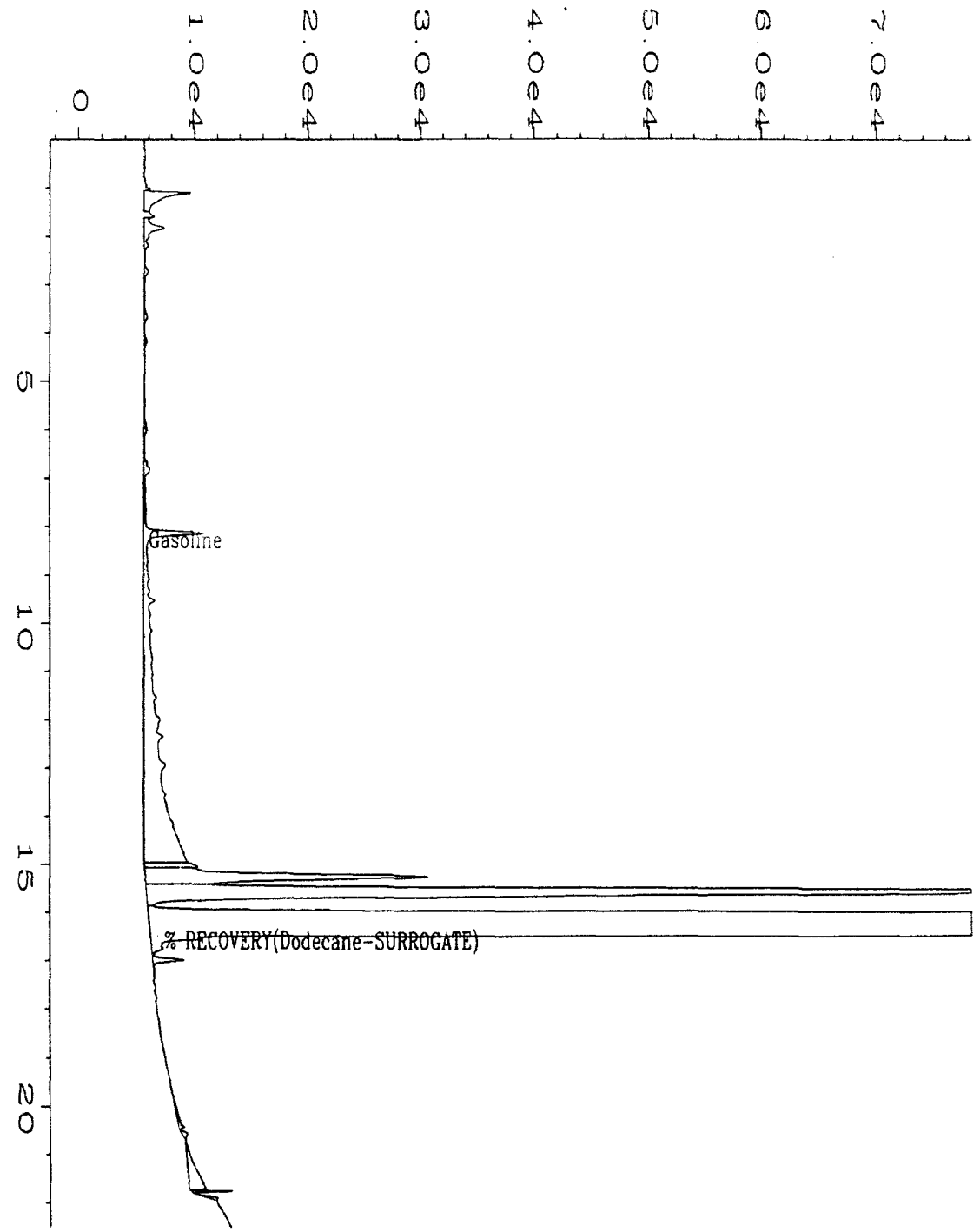
Data File Name	: C:\HPCHEM\1\DATA\tvh0329\033F0101.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 33
Sample Name	: X04546; 1; 5	Injection Number	: 1
Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 05:23 AM	Instrument Method	: TVH0329.MTH
Report Created on	: 30 Mar 95 05:46 AM	Analysis Method	: TVH0329.MTH
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-0915; PARSONS ES; CLIENT # 24MP-5S; 5 ML WATER		

pm 4/17/95

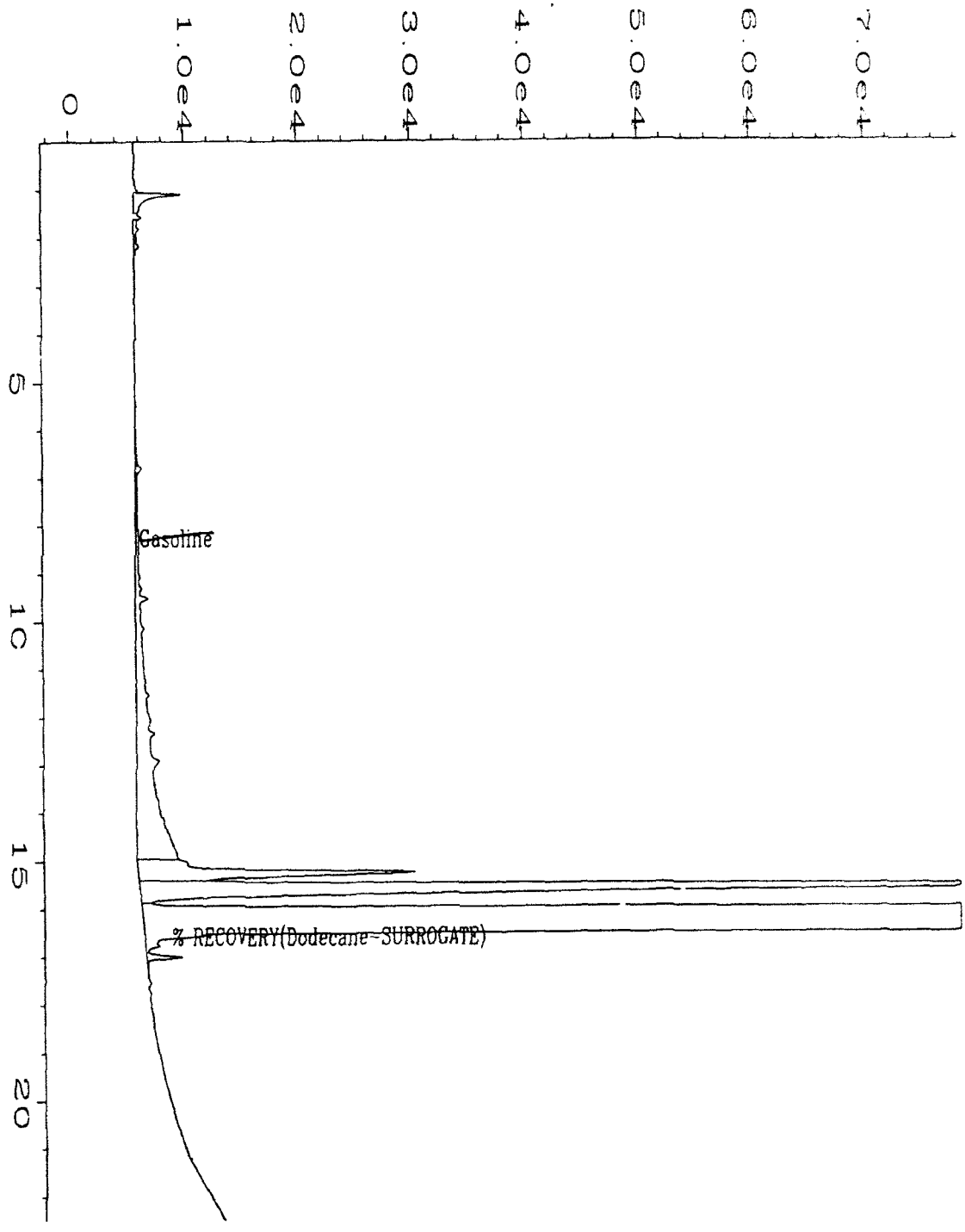


Data File Name	: C:\HPCHEM\1\DATA\tvh0329\034F0101.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 34
Sample Name	: X04547; 1; 5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 05:57 AM	Instrument Method	: TVH032[illegible]
Report Created on	: 30 Mar 95 06:20 AM	Analysis Method	: TVH0329.MTH
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-0915; PARSONS ES; CLIENT # 24MP-3S; 5 ML WATER		

pm 4/17/95

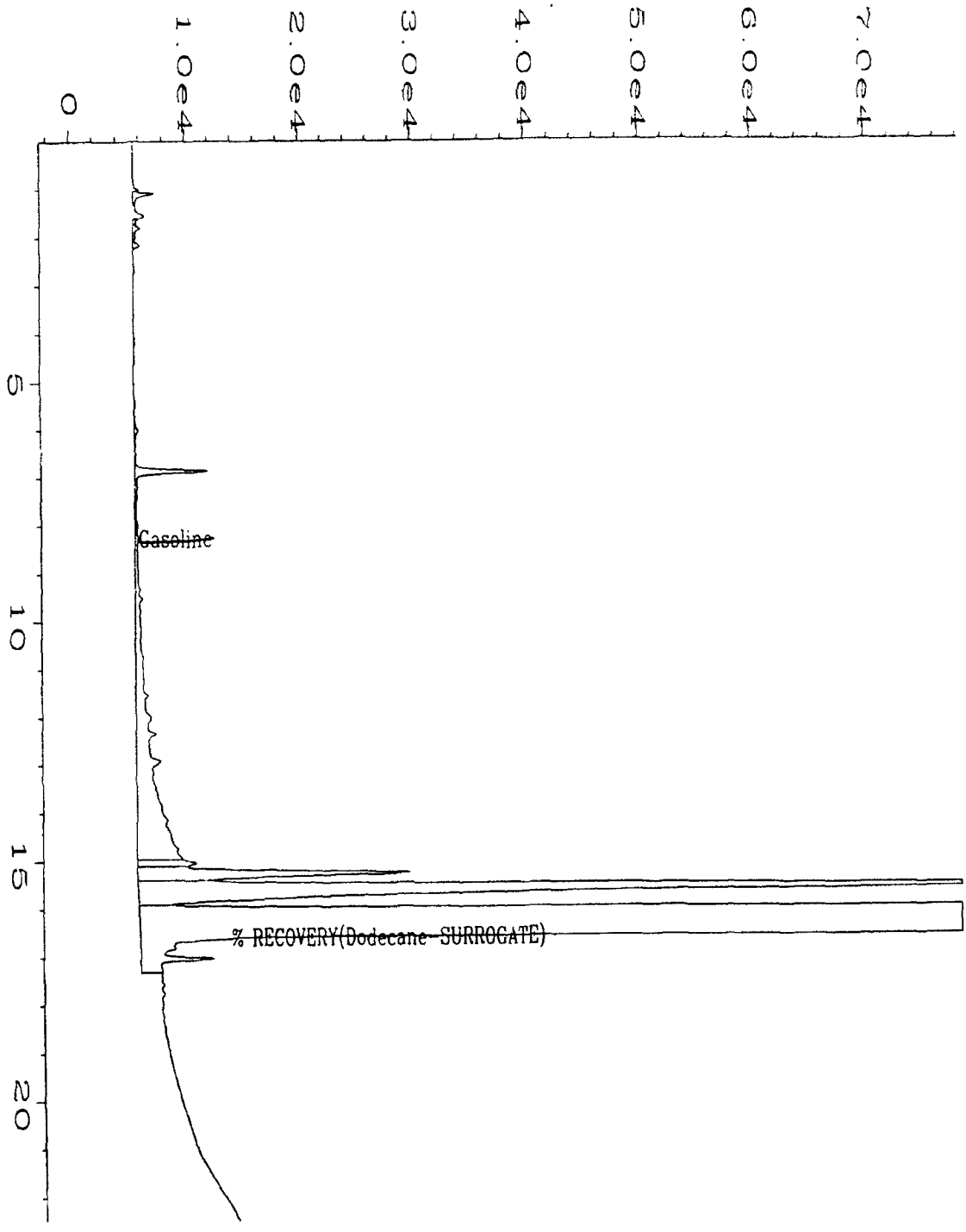


Data File Name	: C:\HPCHEM\1\DATA\tvh0329\046F0101.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 46
Sample Name	: X04548; 1; 5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 12:56 PM	Instrument Method	: TVH0329.MTH
Report Created on	: 30 Mar 95 01:22 PM	Analysis Method	: TVH0329.MTH
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-0915; PARSONS ES; CLIENT # 24MP-3D; 5 ML WATER		



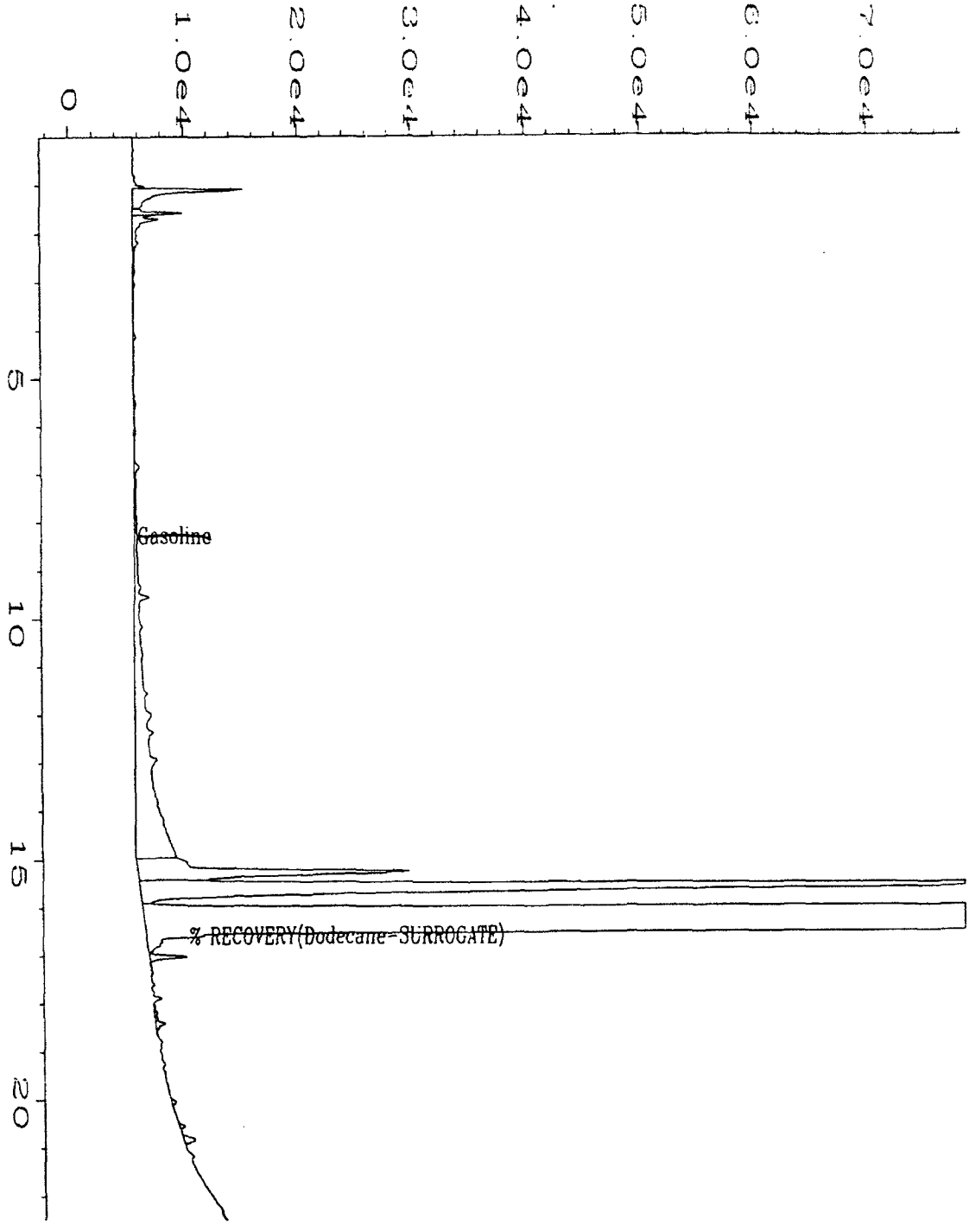
Data File Name	: C:\HPCHEM\1\DATA\tvh0329\047F0101.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 47
Sample Name	: X04549; 1; 5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 01:30 PM	Instrument Method	: TVH0329 H
Report Created on	: 30 Mar 95 01:53 PM	Analysis Method	: TVH0329.mH
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-0915; PARSONS ES; CLIENT # 24MP-8D; 5 ML WATER		

Dm 4/17/95



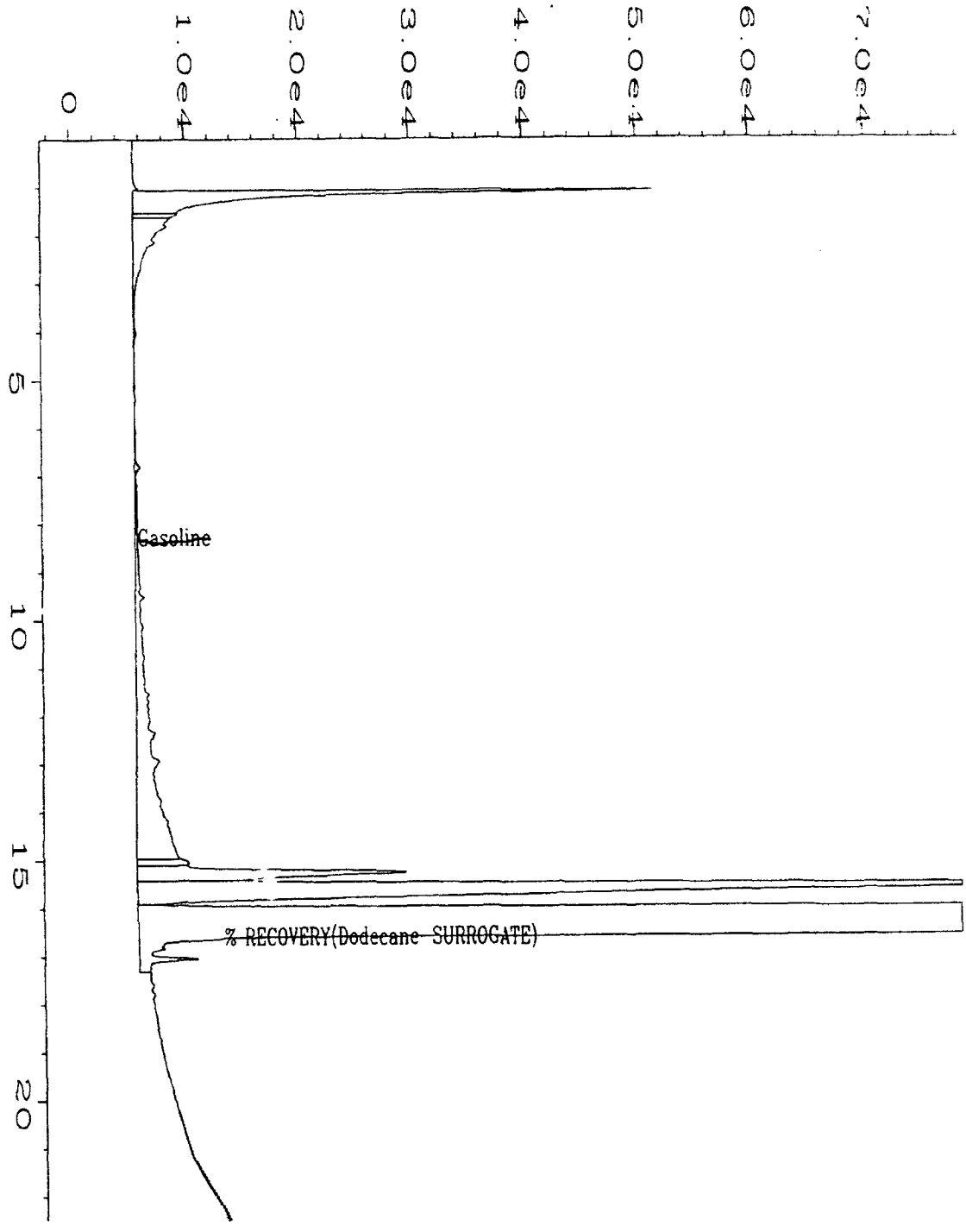
Data File Name	: C:\HPCHEM\1\DATA\tvh0329\037F0101.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 37
Sample Name	: X04550; 1; 5	Injection Number	: 1
Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 07:32 AM	Instrument Method	: TVH0329.MTH
Report Created on	: 30 Mar 95 07:55 AM	Analysis Method	: TVH0329.MTH
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-0915; PARSONS ES; CLIENT # 24MP-8S; 5 ML WATER		

pm 4/17/95



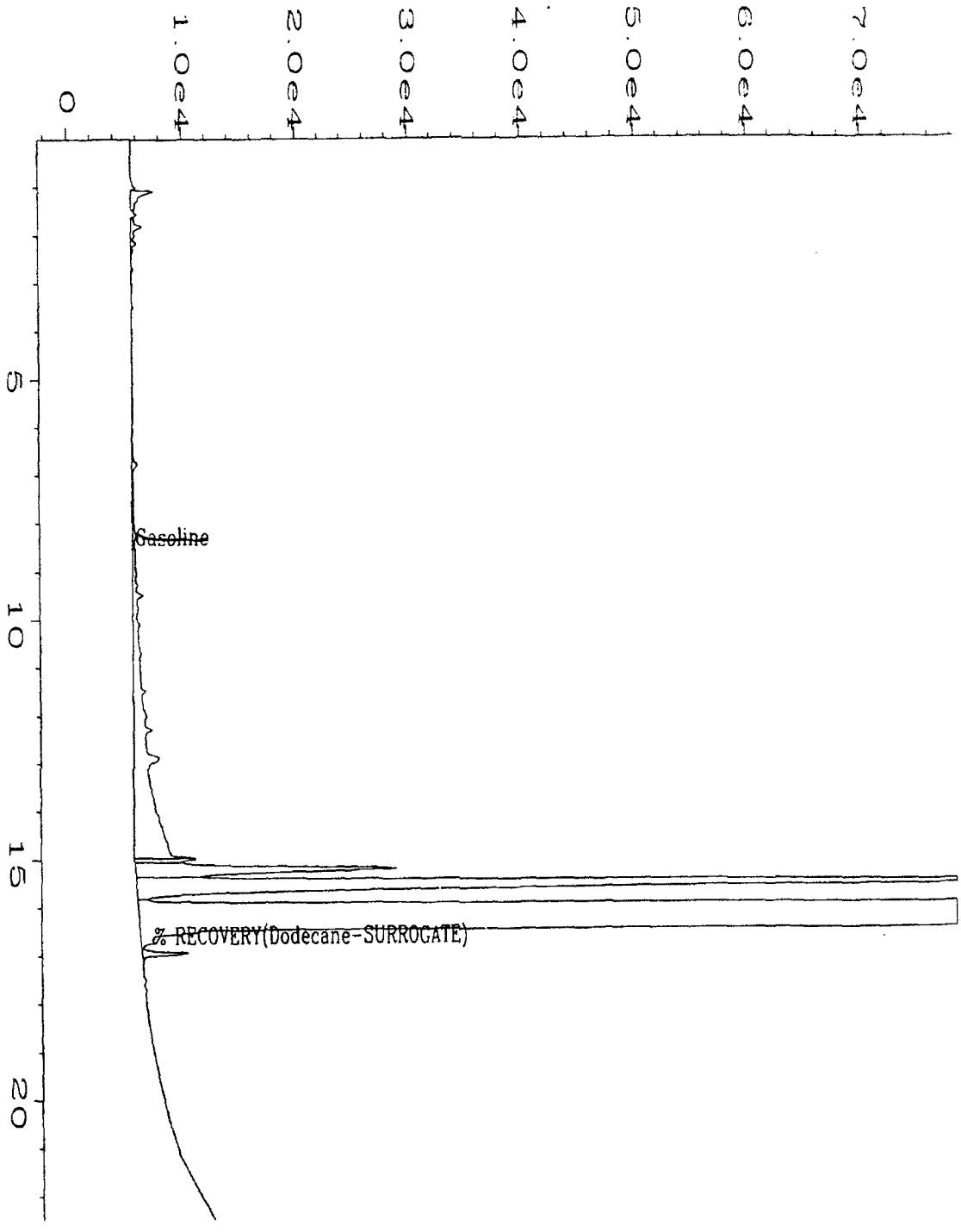
Data File Name	: C:\HPCHEM\1\DATA\tvh0329\048F0101.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 48
Sample Name	: X04551; 1; 5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 02:04 PM	Instrument Method	: TVH0329 H
Report Created on	: 30 Mar 95 02:27 PM	Analysis Method	: TVH0329.MTH
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-0915; PARSONS ES; CLIENT # ~~24MP~~ 9; 5 ML WATER		

MDJ4
5/1/95



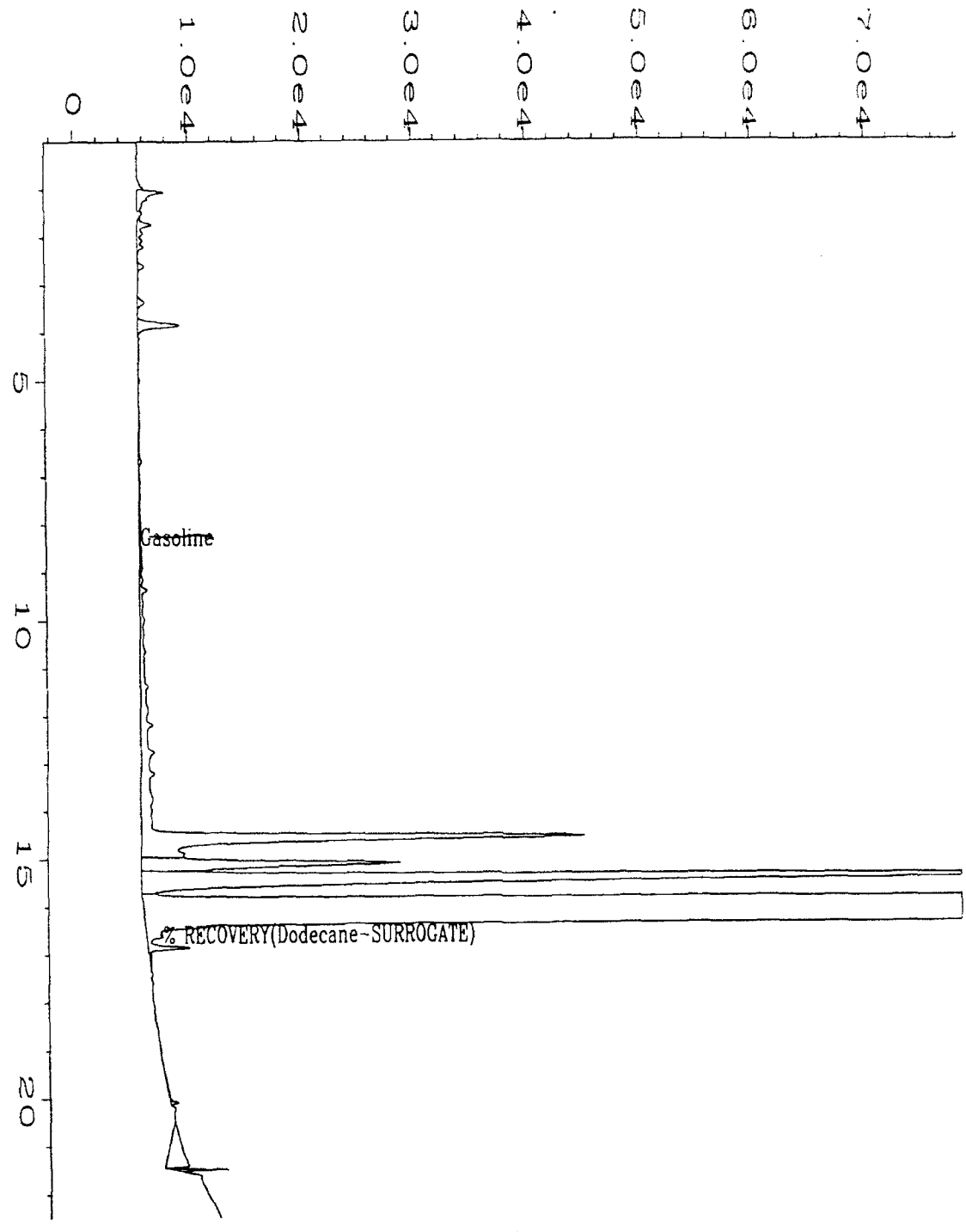
Data File Name	: C:\HPCHEM\1\DATA\tvh0329\040F0101.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 40
Sample Name	: X04552; 1; 5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 09:13 AM	Instrument Method	: TVH0329.MTH
Report Created on	: 30 Mar 95 09:39 AM	Analysis Method	: TVH0329.MTH
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-0915; PARSONS ES; CLIENT # ~~24MP~~-10A; 5 ML WATER		

MD24
pm 4/17/95



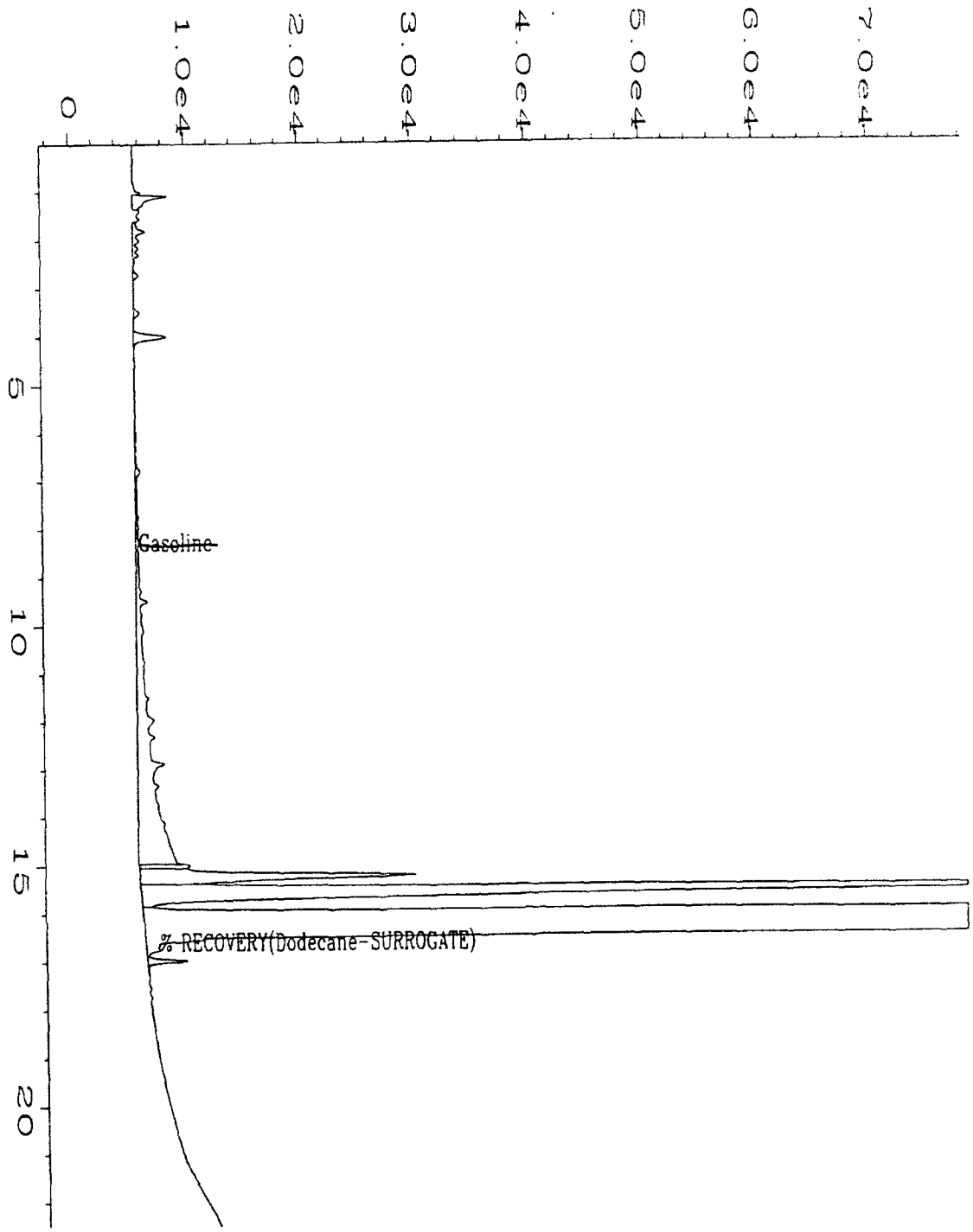
Data File Name	: C:\HPCHEM\1\DATA\tvh0329\053F0101.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 53
Sample Name	: X04553 DF=1,5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 04:54 PM	Instrument Method	: TVH0329 H
Report Created on	: 30 Mar 95 05:17 PM	Analysis Method	: TVH0329...H
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0915 CLIENT # MD24-10 WATER		

pm 4/17/95



Data File Name	: C:\HPCHEM\1\DATA\tvh0329\051F0101.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 51
Sample Name	: X04554 DF=1,5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 03:46 PM	Instrument Method	: TVH0329.MTH
Report Created on	: 30 Mar 95 04:09 PM	Analysis Method	: TVH0329.MTH
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0915 CLIENT # MD24-7 WATER		

pm 4/17/95



Data File Name	: C:\HPCHEM\1\DATA\tvh0329\052F0101.D		
Operator	: kaprie s. cone	Page Number	: 1
Instrument	: TVH	Vial Number	: 52
Sample Name	: X04555 DUP	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 30 Mar 95 04:20 PM	Instrument Method	: TVH0329 H
Report Created on	: 30 Mar 95 04:43 PM	Analysis Method	: TVH0329.mTH
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-0915 CLIENT # MD24-7 WATER		

DRM 4/17/95

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS
TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: MATRIX SPIKE	**Client Project No.**	: 722450.21020/MAC
Lab Sample No.	: X04571	**Lab Project No.**	: 95-0915
Date Sampled	: 3/20/95	**EPA Method No.**	: 5030/8015 Mod.
Date Received	: 3/22/95	**Matrix**	: SOIL
Date Prepared	: 4/2/95	**Method Blank**	: MB040295
Date Analyzed	: 4/2/95		

Compound	Spike Added (mg/kg)	Sample Concentration (mg/kg)	MS Concentration (mg/kg)	MS %REC	QC Limits %REC
Gasoline	2.00	0.00	2.05	103%	60-140

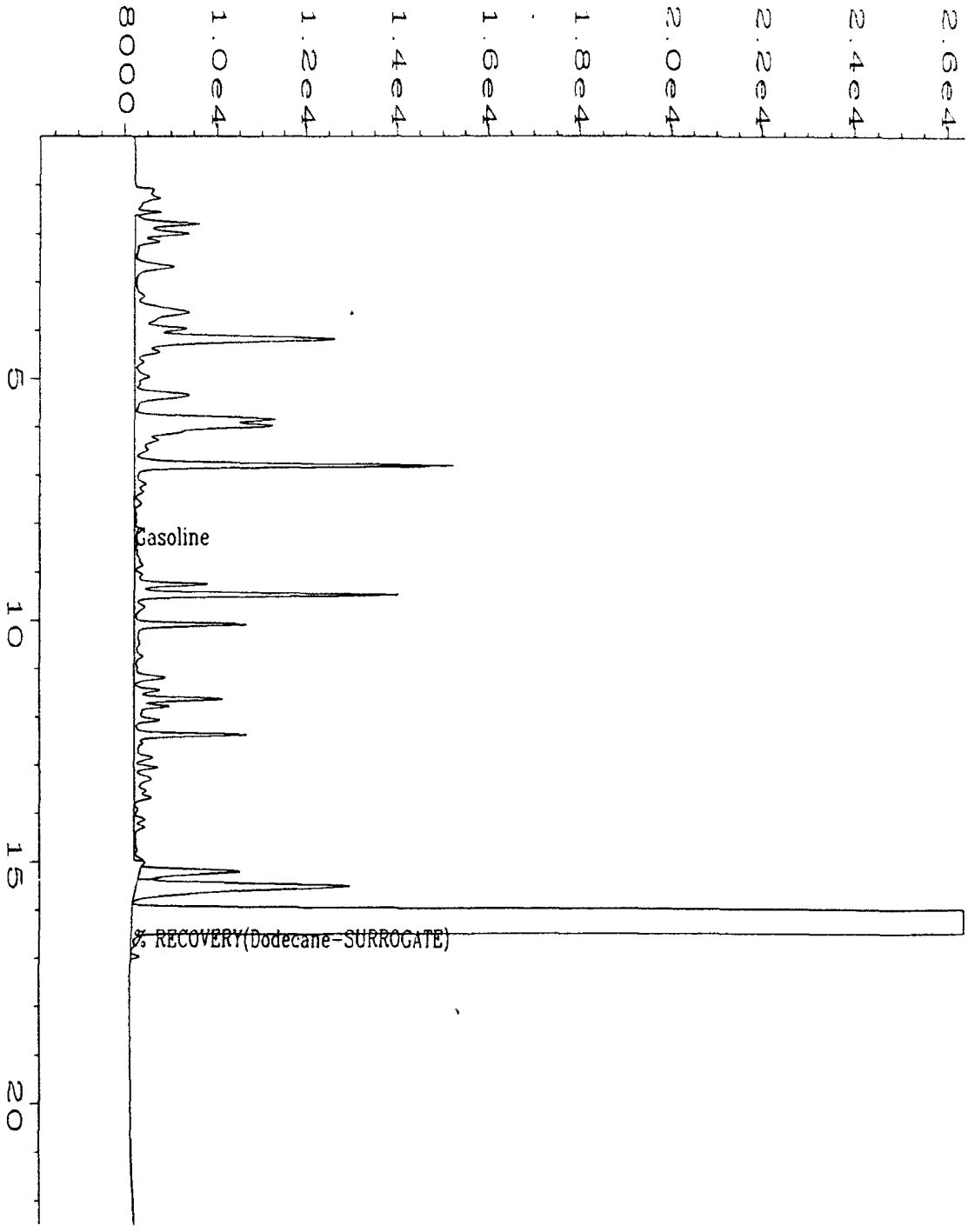
Compound	Spike Added (mg/kg)	MSD Concentration (mg/kg)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Gasoline	2.00	1.83	92%	11	50	60-140

* = Values outside of QC limits.

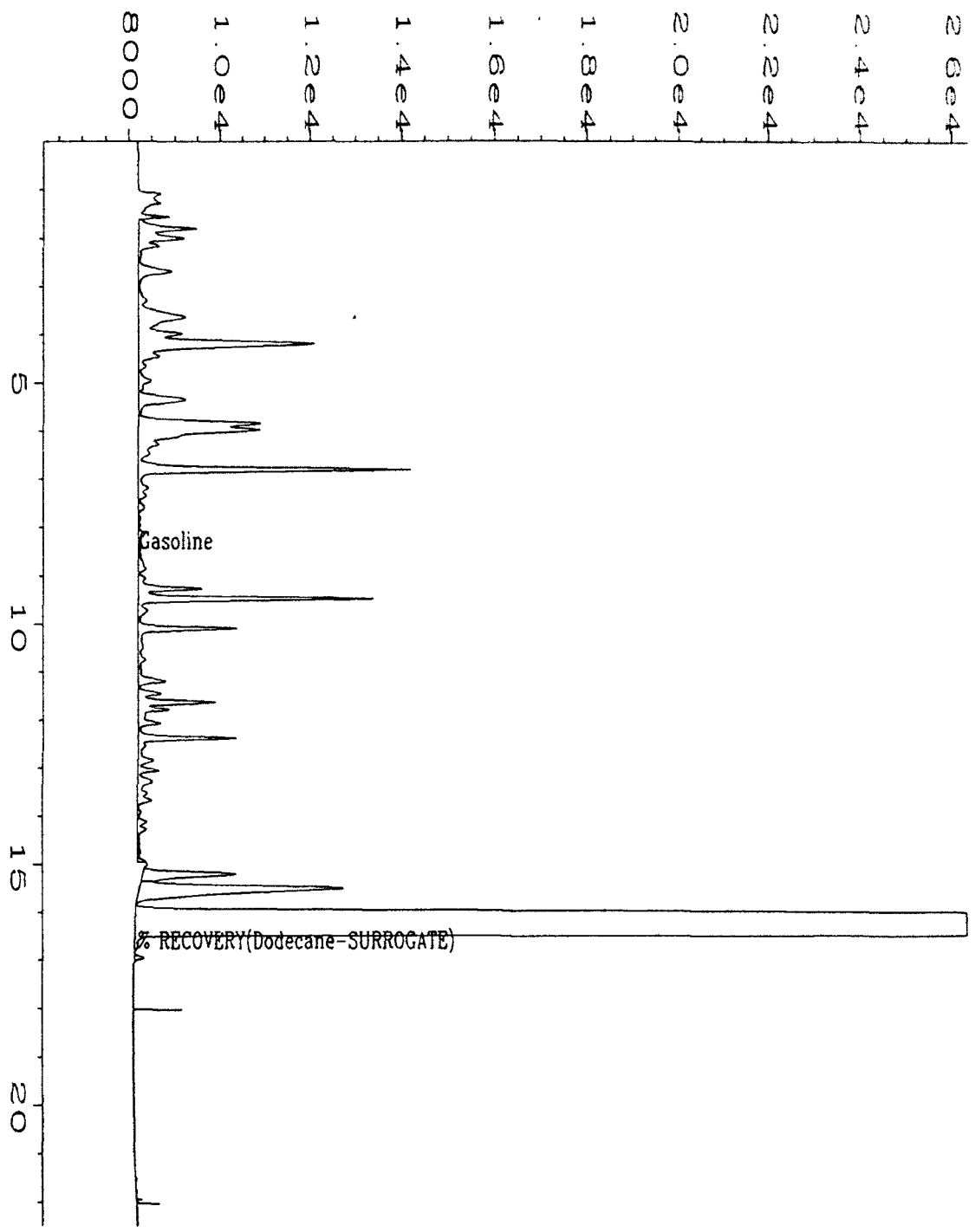
RPD: 0 out of (1) outside limits.

Spike Recovery: 0 out of (2) outside limits.

Comments: NA = Not analyzed/not applicable.



Data File Name	: C:\HPCHEM\1\DATA\tvh0402\021F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 21
Sample Name	: X04571MS;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 02 Apr 95 09:41 PM	Instrument Method	: TVH040[illegible]
Report Created on	: 02 Apr 95 10:05 PM	Analysis Method	: TVH040[illegible]
Last Recalib on	: 02 Apr 95 01:36 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Matrix Spike -2 ppm Gasoline		



Data File Name : C:\HPCHEM\1\DATA\tvh0402\022F0801.D
Operator : S.W. Tyson
Instrument : TVH
Sample Name : X04571MSD;1;5
Run Time Bar Code:
quired on : 02 Apr 95 10:15 PM
eport Created on: 02 Apr 95 10:38 PM
Last Recalib on : 02 Apr 95 01:36 PM
Multiplier : 1
Sample Info : Soil Spike Duplicate - 2 ppm Gasoline

Page Number : 1
Vial Number : 22
Injection Number : 1
Sequence Line : 8
Instrument Method: TVH0402.MTH
Analysis Method : TVH0402.MTH
Sample Amount : 0
ISTD Amount :

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TOTAL VOLATILE HYDROCARBONS (TVH)
Laboratory Control Sample (LCS)

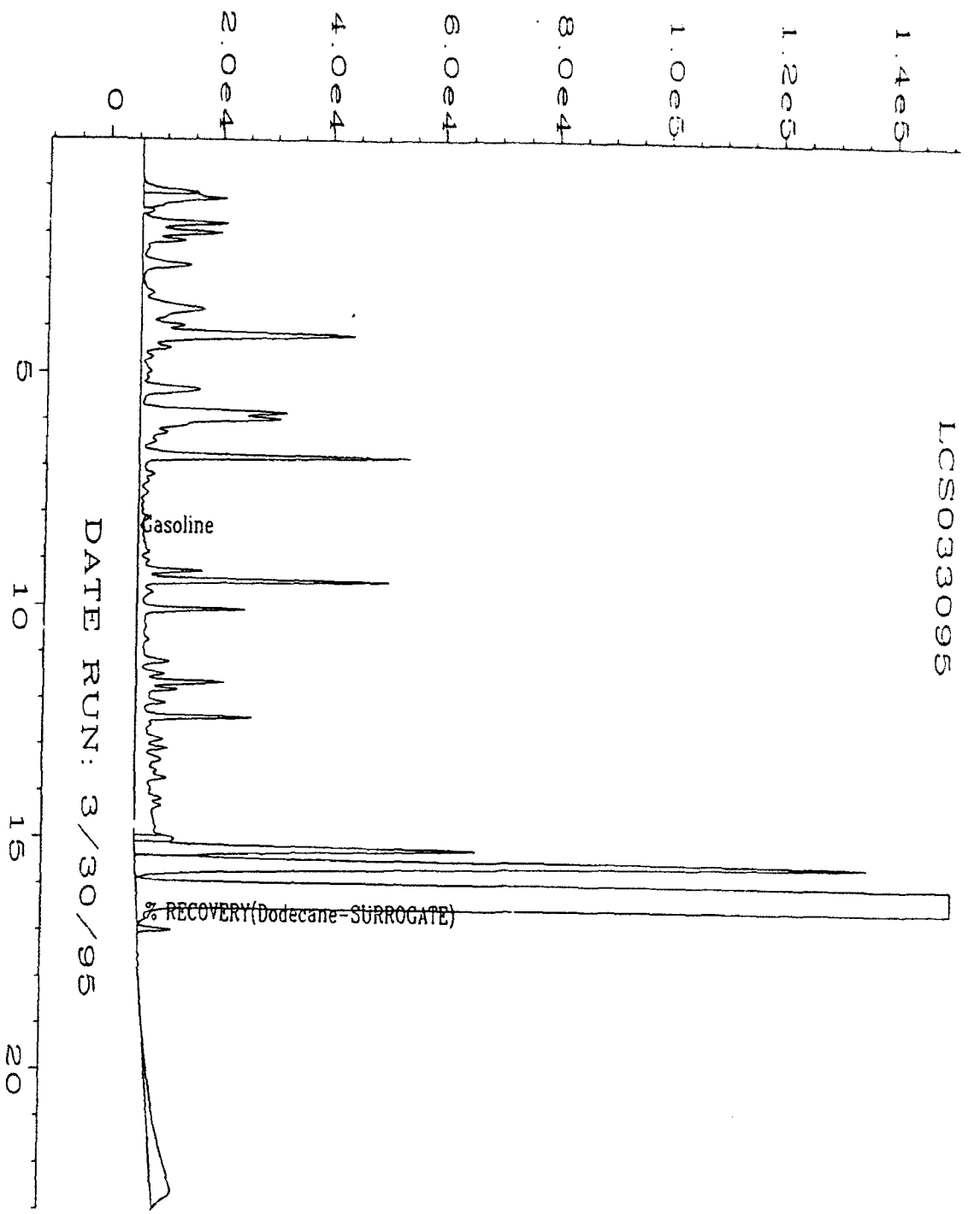
LCS Number	: LCS033095	Matrix	: SOIL
Date Prepared	: 3/30/95	Method Number	: 5030/MOD.8015
Date Analyzed	: 3/30/95		
Sequence Number	: TVH6		

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	1.00	0.87	87%	70%-130%

QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\1\DATA\TVH0330\006F0201.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TVH	Vial Number	: 6
Sample Name	: LCS033095	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 2
:quired on	: 30 Mar 95 08:43 PM	Instrument Method	: TVH0323.MTH
..eport Created on:	31 Mar 95 09:47 AM	Analysis Method	: TVH0330.MTH
Last Recalib on	: 29 MAR 95 08:06 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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TOTAL VOLATILE HYDROCARBONS (TVH)
Laboratory Control Sample (LCS)

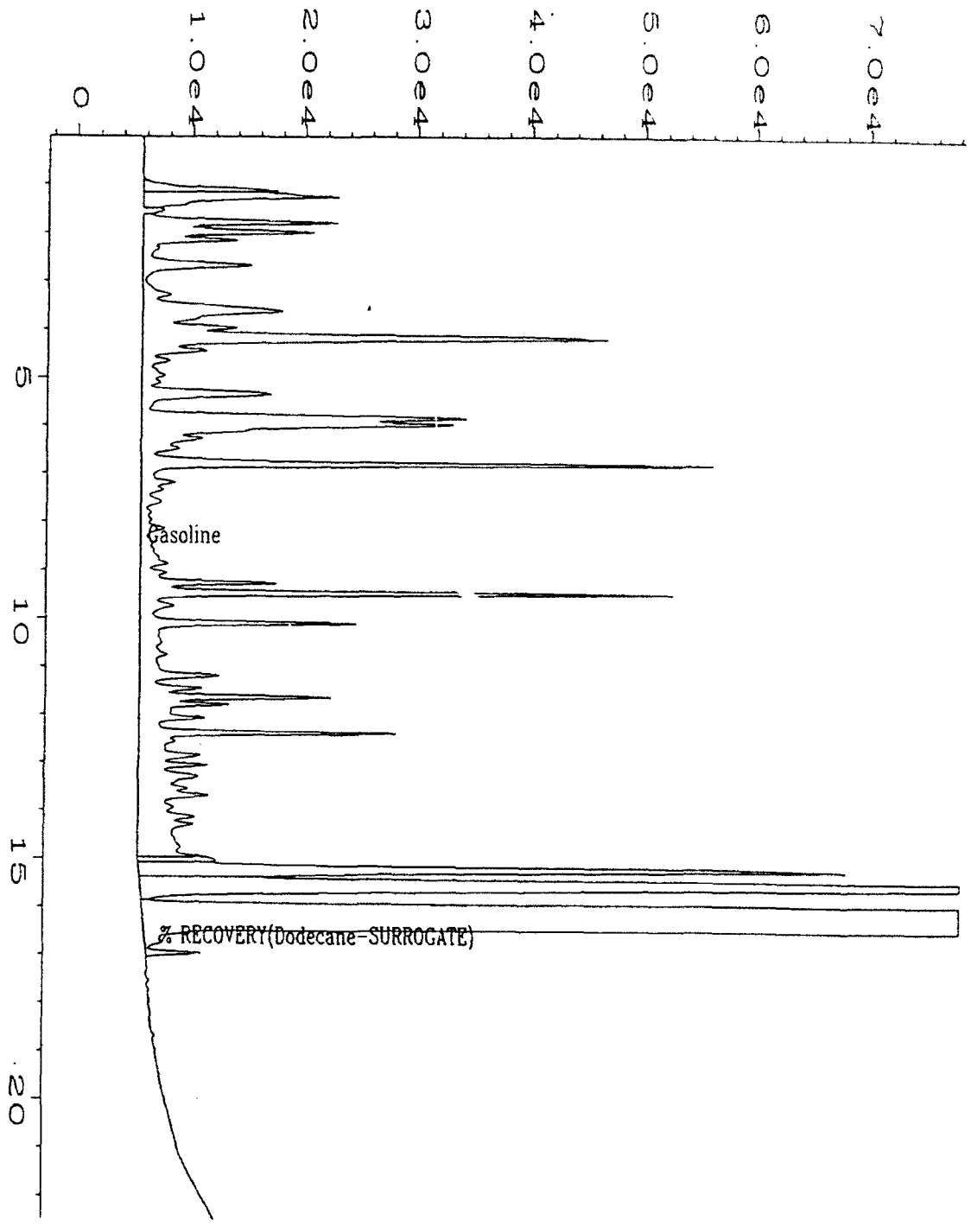
LCS Number	: LCS033195	Matrix	: SOIL
Date Prepared	: 3/31/95	Method Number	: 5030/MOD.8015
Date Analyzed	: 3/31/95		
Sequence Number	: TVH3		

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	1.00	0.75	75%	70%-130%

QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

K Cone
Approved



Data File Name	: C:\HPCHEM\1\DATA\tvh0331\003F0201.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TVH	Vial Number	: 3
Sample Name	: LCS033195	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 2
uired on	: 31 Mar 95 10:33 AM	Instrument Method	: TVH0331.MTH
port Created on	: 31 Mar 95 10:56 AM	Analysis Method	: TVH0331.MTH
Last Recalib on	: 31 Mar 95 09:48 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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TOTAL VOLATILE HYDROCARBONS (TVH)
Laboratory Control Sample (LCS)

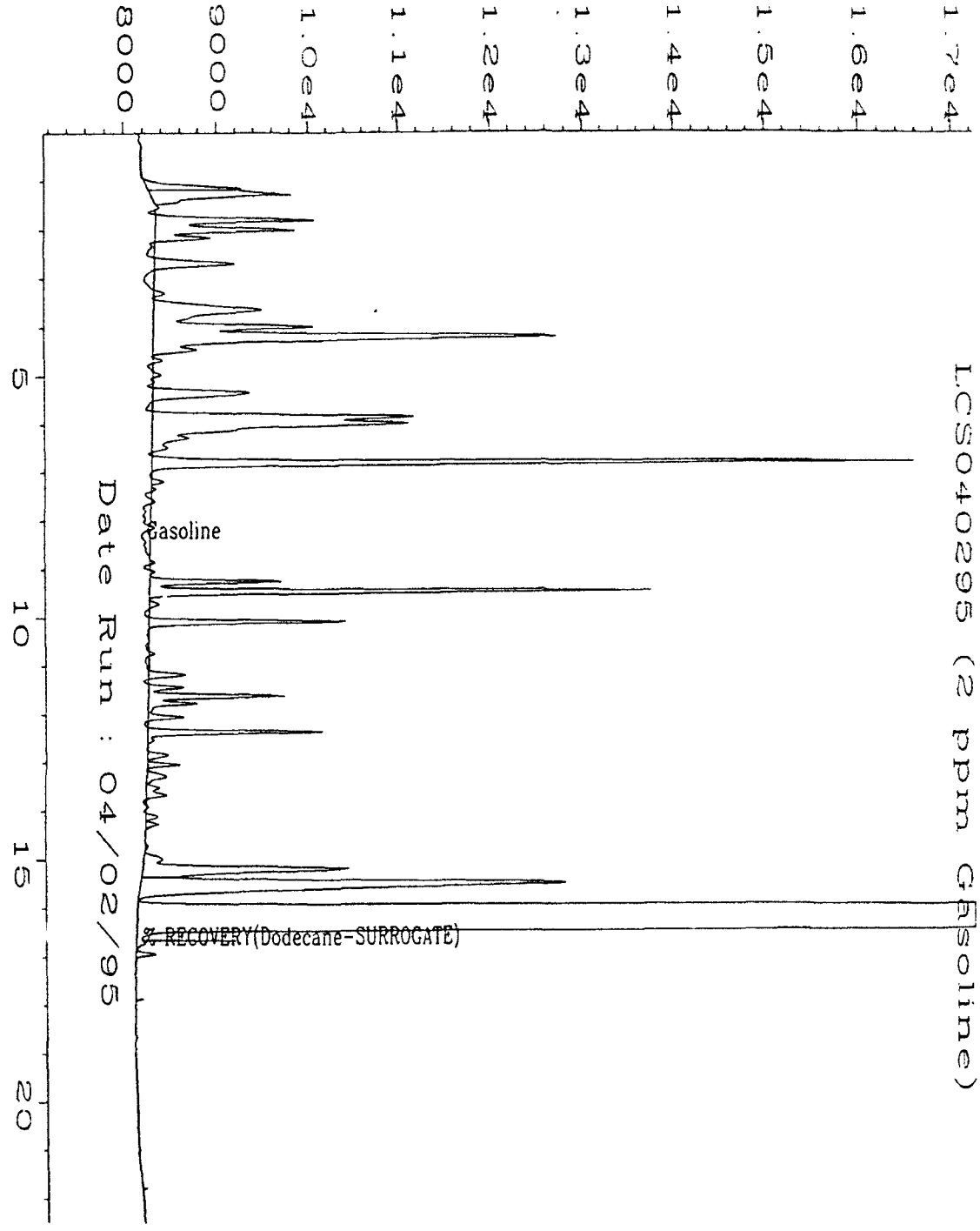
LCS Number	: LCS040295	Matrix	: SOIL
Date Prepared	: 4/2/95	Method Number	: 5030/MOD.8015
Date Analyzed	: 4/2/95		
Sequence Number	: TVH8		

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	2.00	1.75	88%	70%-130%

QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

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Data File Name	: C:\HPCHEM\1\DATA\TVH0402\008F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: TVH	Vial Number	: 8
Sample Name	: LCS040295	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 02 Apr 95 02:20 PM	Instrument Method	: TVH0402.MTH
Report Created on	: 02 Apr 95 04:17 PM	Analysis Method	: TVH0402.MTH
Last Recalib on	: 02 Apr 95 01:38 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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(303)425-6021

Anions

			722450.21020
Date Sampled	: 3/20,21/95	Client Project ID.	: /MacDill AFB
Date Received	: 3/22/95	Lab Project No.	: 95-0915
Date Prepared	: 3/22/95	Method	: EPA 300.0
Date Analyzed	: 3/22/95	Matrix	: Water
		Detection Limit	: 0.250 mg/L

Evergreen Sample #	Client Sample ID	Chloride (mg/L)
X04546	24MP-5S	9.06
X04547	24MP-3S	6.51
X04548	24MP-3D	384
X04549	24MP-8D	347
X04550	24MP-8S	98.2
X04551	MD24-9	30.6
X04552	MD24-10A	370
X04553	MD24-10	140
X04554	MD24-7	8.77
X04555	MD24-7(Dup)	8.19
Method Blank 3-22-95		<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04555	MD24-7(Dup) Matrix Spike	10.0	8.77	18.3	95.5
X04555	MD24-7(Dup) Matrix Spike Dup	10.0	8.77	19.2	104
	MS/MSD RPD				8.33
X04554/X04555 Dup RPD					6.84

Analyst

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0915tm.25

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Anions

Date Sampled	: 3/20,21/95	Client Project ID.	: 722450.21020 /MacDill AFB
Date Received	: 3/22/95	Lab Project No.	: 95-0915
Date Prepared	: 3/22/95	Method	: EPA 300.0
Date Analyzed	: 3/22/95	Matrix	: Water
		Detection Limit	: 0.076 mg/L

Evergreen Sample #	Client Sample ID	Nitrite-N (mg/L)
X04546	24MP-5S	<0.076
X04547	24MP-3S	<0.076
X04548	24MP-3D	<0.760*
X04549	24MP-8D	<0.760*
X04550	24MP-8S	<0.076
X04551	MD24-9	<0.076
X04552	MD24-10A	<0.760*
X04553	MD24-10	<0.760*
X04554	MD24-7	<0.076
X04555	MD24-7(Dup)	<0.076
Method Blank 3-22-95		<0.076

Quality Assurance **

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04555	MD24-7(Dup) Matrix Spike	10.0	<0.250	9.81	98.1
X04555	MD24-7(Dup) Matrix Spike Dup	10.0	<0.250	9.85	98.5
	MS/MSD RPD				0.407
X04554/X04555 Dup RPD					NC

* = Increased detection limit due to matrix interference.
** = Quality assurance results reported as Nitrite (NO_2).
NC = Not calculated because sample and/or duplication results below detection limit.

Analyst

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0915tm.25

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Anions

Date Sampled	: 3/20,21/95	Client Project ID.	: 722450.21020 /MacDill AFB
Date Received	: 3/22/95	Lab Project No.	: 95-0915
Date Prepared	: 3/22/95	Method	: EPA 300.0
Date Analyzed	: 3/22/95	Matrix	: Water
		Detection Limit	: 0.056 mg/L

Evergreen Sample #	Client Sample ID	Nitrate-N (mg/L)
X04546	24MP-5S	<0.056
X04547	24MP-3S	<0.056
X04548	24MP-3D	<0.056
X04549	24MP-8D	<0.056
X04550	24MP-8S	<0.056
X04551	MD24-9	<0.056
X04552	MD24-10A	1.09
X04553	MD24-10	<0.056
X04554	MD24-7	<0.056
X04555	MD24-7(Dup)	<0.056
Method Blank 3-22-95		<0.056

Quality Assurance **

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04555	MD24-7(Dup) Matrix Spike	10.0	<0.250	9.46	94.6
X04555	MD24-7(Dup) Matrix Spike Dup	10.0	<0.250	9.22	92.2
	MS/MSD RPD				2.57
X04554/X04555 Dup RPD					NC

** = Quality assurance results reported as Nitrate (NO_3).
NC = Not calculated because sample and/or duplication results below detection limit.

Analyst

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0915tm.2S

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Anions

Date Sampled	: 3/20,21/95	Client Project ID.	: 722450.21020 /MacDill AFB
Date Received	: 3/22/95	Lab Project No.	: 95-0915
Date Prepared	: 3/22/95	Method	: EPA 300.0
Date Analyzed	: 3/22/95	Matrix	: Water
		Detection Limit	: 0.250 mg/L

Evergreen Sample #	Client Sample ID	Sulfate (mg/L)
X04546	24MP-5S	37.4
X04547	24MP-3S	7.63
X04548	24MP-3D	30.5
X04549	24MP-8D	52.7
X04550	24MP-8S	38.9
X04551	MD24-9	28.0
X04552	MD24-10A	10.6
X04553	MD24-10	34.6
X04554	MD24-7	14.0
X04555	MD24-7(Dup)	13.6
Method Blank 3-22-95		<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04555	MD24-7(Dup) Matrix Spike	10.0	14.0	24.0	100
X04555	MD24-7(Dup) Matrix Spike Dup	10.0	14.0	23.5	95.0
	MS/MSD RPD				5.13
X04554/X04555 Dup RPD					2.53

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0915tm 25

EVERGREEN ANALYTICAL, INC.
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Miscellaneous Analyses

Date Sampled : 3/20,21/95
Date Received : 3/22/95
Date Prepared : 3/22/95
Date Analyzed : 3/22/95

Client Project ID. : Mac Dill AFB
Lab Project No. : 95-0915
Detection Limit : 5.00 $mgCaCO_3/L$
Method : EPA 310.1

Evergreen Sample #	Client Sample ID	Matrix	Total Alkalinity ($mgCaCO_3/L$)
X04546	24MP-5S	Water	333
X04547	24MP-3S	Water	202
X04548	24MP-3D	Water	188
X04549	24MP-8D	Water	232
X04550	24MP-8S	Water	215
X04552	MD24-10A	Water	206
X04552 Dup	MD24-10A Dup	Water	206
X04553	MD24-10	Water	252
Method Blank 3/22/95			<5.00

Quality Assurance

	True Value ($mgCaCO_3/L$)	Result ($mgCaCO_3/L$)	% Recovery
APG Reference Minerals Level 2 Lot #13862	11.8	10.8	91.5
X04552/04552 Dup RPD			0.19

Analyst

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0915tm.4

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LABORATORIES, INC.
Quality Analytical Services Since 1936
4630 Indiana Street • Golden, CO 80403

NON-CLP ANALYSIS RESULTS

Date: 04/04/95
Lab Name: Huffman Labs — Client: Evergreen Analytical
Contact: Sue Zeller — Contact: Patty McClellan
Sample Matrix: — Huffman Lab #: 147195

Client Smp#	Lab ID #	Analyte/ Compound	Dilution Factor	Results	Units	Prep Date	Analysis Date	Sample Size (g)	Method #	Instrument ID
56MP-3(4-6)	14719501	TC	NA	0.36	%	NA	03/31/95	0.412	Leco CR12	#7
56MP-3(4-6)	14719501	TC	NA	0.29	%	NA	03/31/95	0.820	Leco CR12	#7
56MP-6(4-6)	14719502	TC	NA	0.30	%	NA	03/31/95	0.611	Leco CR12	#7
56SS-2(4-6)	14719503	TC	NA	0.08	%	NA	03/31/95	0.952	Leco CR12	#7
56SS-12(4-6)	14719504	TC	NA	0.08	%	NA	03/31/95	0.925	Leco CR12	#7
56MP-3(4-6)	14719501	CC	NA	<0.02	%	NA	03/27/95	1.276	COU-02	tower
56MP-3(4-6)	14719501	CC	NA	<0.02	%	NA	03/27/95	1.407	COU-02	tower
56MP-6(4-6)	14719502	CC	NA	<0.02	%	NA	03/27/95	1.931	COU-02	tower
56SS-2(4-6)	14719503	CC	NA	<0.02	%	NA	03/27/95	1.271	COU-02	tower
56SS-12(4-6)	14719504	CC	NA	<0.02	%	NA	03/27/95	1.819	COU-02	tower
		% moisture			adjusted result					
56MP-3(4-6)	14719501	17.66 TOC	NA	0.36	0.44 %	NA	NA	NA	by calc	NA
56MP-3(4-6)	14719501	17.66 TOC	NA	0.29	0.35 %	NA	NA	NA	by calc	NA
56MP-6(4-6)	14719502	17.33 TOC	NA	0.30	0.36 %	NA	NA	NA	by calc	NA
56SS-2(4-6)	14719503	20.18 TOC	NA	0.08	0.10 %	NA	NA	NA	by calc	NA
56SS-12(4-6)	14719504	19.57 TOC	NA	0.08	0.10 %	NA	NA	NA	by calc	NA

Samples analyzed and results reported on as as received basis.
Soil samples are not homogeneous.
Values reported below Detection Limits are for reference only.
TC detection limit = 0.05%
CC detection limit = 0.02%
TOC detection limit = 0.05%

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LABORATORIES, INC.
Quality Analytical Services Since 1936
4630 Indiana Street • Golden, CO 80403

NON-CLP ANALYSIS RESULTS
LABORATORY CONTROL STANDARD

Date: 04/04/95 Client: Evergreen Analytical
Lab Name: Huffman Labs Contact: Patty McClellan
Contact: Sue Zeller Huffman Lab #: 147195

LABORATORY CONTROL STANDARD

Lab ID #	Source	Element/ Compound	True Value	Found Value	% R	Units	Date	Method #	Instrument ID
LCS	BN 4851	TC	3.35	3.41	102	%	03/31/95	Leco CR12	#7
LCS	BN 4056	CC	11.33	11.29	100	%	03/27/95	COU-02	tower

SPIKE RECOVERY

Lab ID #	Source	Element/ Compound	True Value	Found Value	% R	Units	Date	Method #	Instrument ID
SPIKE	BN 4712	TC	17280	16231	94	ug C	03/31/95	Leco CR12	#7
SPIKE DUP	BN 4712	TC	18000	17490	97	ug C	03/31/95	Leco CR12	#7
SPIKE	BN 4712	CC	1408	1410	100	ug C	03/27/95	COU-02	tower
SPIKE DUP	BN 4712	CC	1355	1344	99	ug C	03/27/95	COU-02	tower

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4630 Indiana Street • Golden, CO 80403

NON-CLP QA/QC ANALYSIS RESULTS
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Date: 04/04/95 Client: Evergreen Analytical
Lab Name: Huffman Labs Contact: Patty McClellan
Contact: Sue Zeller Huffman Lab #: 147195

INITIAL CALIBRATION

Lab ID #	Source	Element/ Compound	True Value	Found Value	% R	Units	Date	Method #	Instrument ID
ICS	BN 4712	TC	12.00	12.05	100	%	03/31/95	Leco CR12	#7
ICS	BN 4712	CC	12.00	11.97	100	%	03/27/95	COU-02	tower

Slope = NA
Intercept = NA Single point calibrations for this test.
95% Correlation Coefficient = NA

CONTINUING CALIBRATION VERIFICATION

Lab ID #	Source	Element/ Compound	True Value	Found Value	% R	Units	Date	Method #	Instrument ID
CCS	BN 4712	TC	12.00	11.83	99	%	03/31/95	Leco CR12	#7
CCS	BN 4712	TC	12.00	12.26	102	%	03/31/95	Leco CR12	#7
CCS	BN 4712	TC	12.00	12.23	102	%	03/31/95	Leco CR12	#7
CCS	BN 4712	CC	12.00	11.97	100	%	03/27/95	COU-02	tower
CCS	BN 4712	CC	12.00	11.92	99	%	03/27/95	COU-02	tower

HUFFMAN
LABORATORIES, INC.
Quality Analytical Services Since 1936
4630 Indiana Street · Golden, CO 80403

ANALYSIS	CARBONATE CARBON	METHOD	SOP COU-02
ANALYZER #	6	COULOMETER #	New Tower Annex
BALANCE #	10		

CALCIUM CARBONATE (STD # 3331) CaCO3	BOTTLE # 4712	% C THEORY = 12.00%	SODIUM CARBONATE Na2CO3	BOTTLE # 4056	%C THEORY = 11.33

SAMPLE NO.	TARE WT. GRAMS	TARE + SAMPLE WT.	SAMPLE WT. GRAMS	NOTES	COUNTS µ GRAMS	LESS BLANK 7.	% CARBON AS CARBONATE CARBON		% RECOVERY
BL	—	—	—		5.1	—	—	MB	
BL	—	—	—		7.2	—	—	MB	
BL	—	—	—	← blank	7.0	—	—	IB	
$CaCO_3$	0.483673	0.491952	0.008279		997.9	990.9	11.97	ICS	99.7
Na_2CO_3	0.549259	0.559053	0.009794		1112.5	1105.5	11.29	LCS	99.6
144301	4.203316	7.194362	2.991046	3cc SYRINGE BACKWEIGHED	433.0	426.0	0.0142	Dup ± 0.00%	521. mg/L CO_2
144301	4.210786	7.232688	3.021902		435.3	428.3	0.0143	OF MEAN	524. mg/L CO_2
144301	~~4.2053~~ 4.205293	7.202797	2.997504		1366.3	1359.3			
+ SPIKE Na_2CO_3	4.211001	7.201190	2.990189						
144301	4.204548	7.229002	3.024454		1383.1	1376.1			
+ SPIKE Na_2CO_3	4.206192	7.232466	3.026274						
SPIKE Na_2CO_3	4.206700	7.219944	3.013244		953.5	946.5	0.0316		1151. mg/L CO_2
SPIKE Na_2CO_3	4.207313	7.204383	2.997070		949.0	942.0	0.0314		1151. mg/L CO_2
144302	4.208907	7.239396	3.030489		534.9	527.9	0.0176		645. mg/L CO_2
144303	4.201825	7.206739	3.001914	↓	857.7	850.7	0.0284		1041. mg/L CO_2
~~LCS~~ 3-27 $CaCO_3$	0.557116	0.566900	0.009784		1177.8	1170.8	11.97	CCS	99.7

[redacted]

ANALYST Carla Simonek | DATE ~~3-27-95~~ 3-26-95 | REVIEWED [illegible] | DATE 3/28/95 | PAGE 1 OF 2

REVISED 10/93

SPIKE IS SODIUM BICARBONATE 2164 0.1% CO_2 / 0.03 % CO_3

Prep Date 9/21/94

Evergreen

CASE NARRATIVE

Evergreen Analytical Laboratory (EAL) Project #: 95-1063

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt

On April 1, 1995, twenty water samples and one trip blank were received in good condition at EAL with the following discrepancies: the samples arrived without a chain of custody. A copy of the chain of custody was faxed to EAL on April 3. Samples were received but not listed on the c.o.c. for MD24-26 TEPH, MD24-MW10A BTEX, MD24-MW10 BTEX, MD24-MW2 MS/MSD TEPH. These samples were analyzed as listed on the bottles per instruction from John Hicks of PES.

Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and PES sample identifications.

BTEX, Water Matrix, Method E602

Samples MD75-MW3, MD75-MW14 and MD75-MW4 were analyzed within holding time with low surrogate recovery. The samples were re-run outside holding time with surrogate recoveries within EAL control limits. The original data are reported.

Samples MD75-MW8, MD75-MW14, 75MP-4S, MD75-MW4 and MD75-MW24 were also analyzed within holding times, but due to the presence of target compounds beyond linear range, required dilutions. These dilutions were performed outside of holding times. The original data are reported with extrapolated values for compounds out of the linear range of the instrument. The external standard reports and chromatograms for the diluted analyses are included.

Total Volatile Hydrocarbons (TVH), Water Matrix, Method 8015M

The relative percent difference (RPD) for the MS/MSD percent recoveries was outside the EAL control criteria. Please refer to the Laboratory Control Sample for acceptable spike recovery data. There were no other quality control anomalies to report.

Total Extractable Hydrocarbons (TEH), Water Matrix, Method 8015M

One sample was submitted labeled MS/MSD for TEH analysis and was not associated with a normal sample. Due to a laboratory error, the sample was prepped without spiking. The MS/MSD sample was analyzed as a normal sample. John Hicks of PES was notified on April 4, 1995.

Samples 24MP-2S, MS24-MW6, MD24-MW2, MD24-MW26 and MS/MSD exhibited surrogate recoveries below the EAL control limits. The samples were injected a second time with similar recoveries, verifying that the results are not an instrument problem. The re-injected results are reported with an "R" qualifier. Samples should have been re-extracted but were not due to insufficient sample volume.

General Chemistry
There were no quality control anomalies to report.

Patricia A. McClellan, Project Manager

Evergreen Analytical Sample Log Sheet

Project # 95-1063

Date(s) Sampled: 3/31/95 COC

Date Due: 4/06/95-UST
4/17/95-OTHERS

Date Received: 4/01/95

Holding Time(s): 4/02-NO2, NO3
4/14-BTEX,TVH

Client Project I.D. 722450.21020/MAC DILL

Rush STANDARD

Client: PARSONS ENGINEERING SCIENCE

Shipping Charges N/A

Address: 1700 BROADWAY, SUITE 900

E.A. Cooler # 501

DENVER, CO. 80210

Airbill # H/D

Contact: TODD WIEDEMEIER

Custody Seal Intact? N
Cooler N/A Bottles N/A

Client P.O. _____

COC Present Y
Sample Tags Present? Y
Sample Tags Listed? Y
Sample(s) Sealed? Y

Phone #831-8100 Fax #831-8208

Special Instructions ALL BTEX AND VOA SAMPLES ARE TO INCLUDE CHLOROBENZENE, TMB AND TEMB UNLESS OTHERWISE NOTED. AN MS/MSD AND LAB DUPLICATE IS TO BE ANALYZED ON THIS CLIENT'S PROJECT. MS/MSD WILL BE REQUIRED FOR BTEX ONLY ON THIS PROJECT.

Lab #	Client ID#	Analysis	Mtx	Btl	Loc
X05167A/B	MD75-MW16	BTEX	W	40V	2
X05168A/B	75MP-2S	BTEX	W	40V	2
X05169A/B	MD75-MW12	BTEX	W	40V	2
X05170A	TRIP BLANK	BTEX	W	40V	2
X05171A/B	MD75-MW3	BTEX	W	40V	2
X05172A/B	MD75-MW8	BTEX	W	40V	2
X05173A/B	MD75-MW14	BTEX	W	40V	2
X05174A/B	75MP-4S	BTEX	W	40V	2
X05175A/B	MD75-MW4	BTEX	W	40V	2
X05176A/B	MD75-MW24	BTEX	W	40V	2
X05177A/B	MD75-MW6	BTEX	W	40V	2
X05179A/B	MD24-MW6	BTEX	W	40V	2
X05180A/B	MD24-MW6A	BTEX	W	40V	2
X05181A	FIELD BLANK	BTEX	W	40V	2

*Samples to be returned

Route GC/MS __ GC 2 Metals __ Wet Chem 2 SxPrep 1 SxRec 2

to
Acctg X Adm1 X Adm2 X QA/QC X Sales X File X

Page 1 of 3 Page(s)

Custodian/Date: SC 4/4/95
DM 4/5/95

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X05182A	RINSEATE BLANK	BTEX	W	40V	2
X05186A/B	MD24-MW10A	BTEX	W	40V	2
X05187A/B	MD24-MW10	BTEX	W	40V	2
X05167C/D	MD75-MW16	TVPH	W	40V	2
X05168C/D	75MP-2S	TVPH	W	40V	2
X05169C/D	MD75-MW12	TVPH	W	40V	2
X05171C/D	MD75-MW3	TVPH	W	40V	2
X05172C/D	MD75-MW8	TVPH	W	40V	2
X05173C/D	MD75-MW14	TVPH	W	40V	2
X05174C/D	75MP-4S	TVPH	W	40V	2
X05175C/D	MD75-MW4	TVPH	W	40V	2
X05176C/D	MD75-MW24	TVPH	W	40V	2
X05177C/D	MD75-MW6	TVPH	W	40V	2
X05169E	MD75-MW12	TEPH	W	1LA	C2
X05172E	MD75-MW8	TEPH	W	1LA	C2
X05175E	MD75-MW4	TEPH	W	1LA	C2
X05178E	24MP-2S	TEPH	W	1LA	C2
X05179E	MD24-MW6	TEPH	W	1LA	C2
X05183E	MD24-MW2	TEPH	W	1LA	C2
X05184E	MD24-26	TEPH	W	1LA	C2
X05185E	MD24-MW2 MS/MSD	TEPH	W	1LA	C2
X05167E	MD75-MW16	ANIONS	W	125P	C2
X05168E	75MP-2S	ANIONS	W	125P	C2
X05169F	MD75-MW12	ANIONS	W	125P	C2
X05171E	MD75-MW3	ANIONS	W	125P	C2
X05172F	MD75-MW8	ANIONS	W	125P	C2
X05173E	MD75-MW14	ANIONS	W	125P	C2
X05174E	75MP-4S	ANIONS	W	125P	C2
X05175F	MD75-MW4	ANIONS	W	125P	C2
X05176E	MD75-MW24	ANIONS	W	125P	C2
X05177E	MD75-MW6	ANIONS	W	125P	C2
X05169G	MD75-MW12	ALKALINITY	W	250P	C2
X05171F	MD75-MW3	ALKALINITY	W	250P	C2

PROJECT #1063

Lab ID	Client ID	ANALYSIS	MATRIX	BOTTLE	LOC
)5172G	MD75-MW-8	ALKALINITY	W	250P	C2
X05175G	MD75-MW-4	ALKALINITY	W	250P	C2
X05176F	MD75-MW-24	ALKALINITY	W	250P	C2

PROJECT #1063

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

Page 1 of 2

COMPANY: Parsons Engineering Science
ADDRESS: 1700 Broadway, Suite 900
CITY: Denver STATE: CO ZIP: 80290
PHONE #: 303-831-8100 FAX #: FAX RESULTS Y / N

CLIENT CONTACT (print): Todd Wiedemeier
PROJECT I.D.: 722450-21020
EAL QUOTE #: PO #:
TURNAROUND REQUIRED: 30 days
*expedited turnaround subject to additional fee

Sampler Name
Signature: Mark Lang
(print): MARK VESSELS
Evergreen Analytical Cooler No: 501
Cooler Received:

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen 40V	BTEX 8020/602 (circle)/MTBE (circle) 1 and 2 Tube EPA	TRPH 418.1/Oil & Grease 413.1 (circle)	GRO 8015mod. (Gasoline) 40V	DRO 8015mod. (Diesel) 1L4	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	SOME Arsenic	Alkalinity 125P	EAL Sample No.
MP 75-MW 10	3/3/95	8:15	5	X									X		X				X			X057167
MP-75	3/3/95	8:50	5	X									X		X				X			68
MP75-MW 12	3/3/95	9:30	7	X									X		X	X			X	X		69
T.B. Blank			1										X									70
MP 75-MW3	3/3/95	10:00	6	X									X		X				X	X		71
MP 75-MW8	3/3/95	11:15	7	X									X		X	X			X	X		72
MP 75-MW14	3/3/95	12:05	5	X									X		X				X			73
MP75-4BS	3/3/95	13:00	5	X									X		X				X			74
MP75-MW4	3/3/95	13:45	7	X									X		X	X			X	X		75
MP 75-MW 14	3/3/95	13:45	6	X									X		X				X	X		76

EAL use only
Do not write in shaded area

EAL Project # 1063
Custodian

Location 2, C2
Container Size

PO:

Instructions: samples packed in ICE
11-3.0C

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.

4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Rocky Engineering Service
ADDRESS 1700 Broadway, Suite 900
CITY Denver STATE CO ZIP 80290
PHONE # 303-831-8100 FAX # _____ FAX RESULTS Y / N

CLIENT CONTACT (print) _____
PROJECT I.D. 722-
EAL. QUOTE # _____
TURNAROUND REQUIRED* _____
*expedited turnaround subject to

Sample Name: _____
Signature: _____
(print) Mark Vesely
Evergreen Analytical Cooler No: _____
Cooler Received _____

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Groundwater (circle)	MATRIX: Soil / Solids	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen 40V	BTEX 8020/602 (circle) MTBE (circle) Method 8260	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015-mod. (Gasoline) 40V	EPH 8015mod. (Diesel) 1LA	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Arsenic 1ASD				
MD25-mw6	3/30/95	1430	5	X									X		X					X	X05177				
2-MP-25	3/31/95	1515	1	X												X									78
MD24-mw6	3/31/95	1530	3	X									X			X									79
MD24-mw6A	3/31/95	1545	2	X									X												80
Field Blank	3/31/95	1595	1	X									X												81
Trip Blank	3/31/95	1525	1	X									X												82
MD24-mw2	3/31/95	1500	1	X												X									83
MD24-mw26	3/31/95	1530	1	X												X									84
MS/MSD	3/31/95	1600	1	X												X									85
MD24-mw10A	3/31/95	1610	2	X									X												86
MD24-mw10	3/31/95	1620	2	X									X												87

Instructions: Samples Packed in Ice

4-3-95 1000

Evergreen Analytical Sample Receipt/Check-in Record

Date & Time Rec'd: 4/1/95 1000 Shipped Via: HD
(Airbill # if applicable)

Client : PARSONS

Client Project ID(s): ~~PARSONS~~ 722450-21020

EAL Project #(s): 95-1063 EAL Cooler(s): (Y)

Cooler#	501								
Ice packs	Y	N	Y	N	Y	N	Y	N	Y	N
Temperature °C									

	Y	N	N/A
1. Custody seal(s) present:		✓	✓
Seals on cooler intact			
Seals on bottle intact			
2. Chain of Custody present:	X send once later		
3. Containers broken or leaking: (Comment on COC if Y)		✓	
4. Containers labeled:	✓		
5. COC agrees w/ bottles received: (Comment on COC if N)		✓	
6. COC agrees w/ labels: (Comment on COC if N)		✓	
7. Headspace in VOA vials-waters only (comment on COC if Y)		✓	
8. VOA samples preserved:		✓	
9. pH measured on metals, cyanide or phenolics*:			✓
List discrepancies			
*Non-EAL provided containers only, water samples only.			✓
10. Metal samples present:			
Total _____ , Dissolved _____			
D or PD to be filtered:			
T,TR,D,PD to be Preserved:			
11. Short holding times:		✓	
Specify parameters			
12. Multi-phase sample(s) present:		✓	
13. COC signed w/ date/time:	✓		

4/3 1000 AM

Comments: _____

(Additional comments on back)

Custodian Signature/Date: Lee Connor 4/3/95

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons Engineering Science
ADDRESS 1700 Broadway, Suite 900
CITY Denver STATE CO ZIP 80290
PHONE# 303-831-8100 FAX # FAX RESULTS Y / N

CLIENT CONTACT (print) Todd Wedemeier
PROJECT I.D. 722450-21020
EAL. QUOTE # P.O.#
TURNAROUND REQUIRED* 30 DAYS
*expedited turnaround subject to additional fee

Sampler Name:
(signature) Mark Vessely
(print) MARK VESSELY
Evergreen Analytical Cooler No. 501
Cooler Received

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle) & 1,2 DCA & Ethene, DCE	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Anions (Cl, NO3, SO4, Alkalinity)						EAL Sample No.
MD75-MW16	3/31/95	8:15	5	X									X		X				X						
75MP-2S	3/31/95	8:50	5	X									X		X				X						
MD75-MW12	3/31/95	9:30	7	X									X		X	X			X	X					
Trip Blank			1										X												
MD75-MW3	3/31/95	10:20	6	X									X		X				X	X					
MD75-MW8	3/31/95	11:15	7	X									X		X	X			X	X					
MD75-MW14	3/31/95	12:15	5	X									X		X				X						
75MP-4DS	3/31/95	13:00	5	X									X		X				X						
MD75-MW4	3/31/95	13:45	7	X									X		X	X			X	X					
MD75-MW24	3/31/95	1345	6	X									X		X				X	X					
HT:																									Location
DD:																									Container Size

EAL use only
Do not write in shaded area

EAL
Project #
Custodian

Instructions: Samples packed in ICE

Samples Received 4-1-95 1030

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Mark Vessely	3/31/95	Fedex		Fedex			

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

COMPANY Parsons Engineering Science
ADDRESS 1700 Broadway, Suite 900
CITY Denver STATE CO ZIP 80290
PHONE# 303-831-8100 FAX # _____ FAX RESULTS Y / N

CLIENT CONTACT (print) Todd Wiedemeier
PROJECT I.D. 722450.21020
EAL QUOTE # _____ P.O.# _____
TURNAROUND REQUIRED* 30 DAYS
*expedited turnaround subject to additional fee

Sampler Name:
(signature) [signature]
(print) MARK VESSELY

Evergreen Analytical Cooler No. _____
Cooler Received _____

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle) +TMB/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Arsenic	EAL Sample No.
MO75-MW 6	3/31/95	14:30	5	X										X		X				X	
24MP-25	3/31/95	15:15	1	X													X				
MO24-MW 6	3/31/95	1530	3	X										X			X				
MO24-MW 6A	3/31/95	1545	2	X										X							
Field Blank	3/31/95	1595	1	X										X							
Rinsate Blank	3/31/95	1525	1	X										X							
HT:																					Location
DD:																					Container Size

EAL use only
Do not write in shaded area

EAL
Project # _____
Custodian _____

Instructions: SAMPLES Packed in Ice

Samples 4-1-95 Jennifer Sims
Received 1030

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

MD24-MW6
-don't understand
-can't QC this
#
-so can't QC Total BTEX

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-MW6	Client Project No.	: 722450.21020/Mac Dill
Lab Sample Number	: X05179	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	Dilution Factor	: 1.00
Date Received	: 4/1/95	Method	: 602
Date Prepared	: 4/14/95	Matrix	: Water
Date Analyzed	: 4/14/95	Lab File No.	: BX1041346
		Method Blank No.	: MB041495

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	>80 **	0.4
Toluene	108-88-3	2.2	0.4
Chlorobenzene	108-90-7	1.3	0.4
Ethyl Benzene	100-41-4	25	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	6.7	0.4
1,3,5-Trimethylbenzene	108-67-8	0.5	0.4
1,2,4-Trimethylbenzene	95-63-6	10	0.4
1,2,3-Trimethylbenzene	526-73-8	2.3	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	8.5	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		96%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

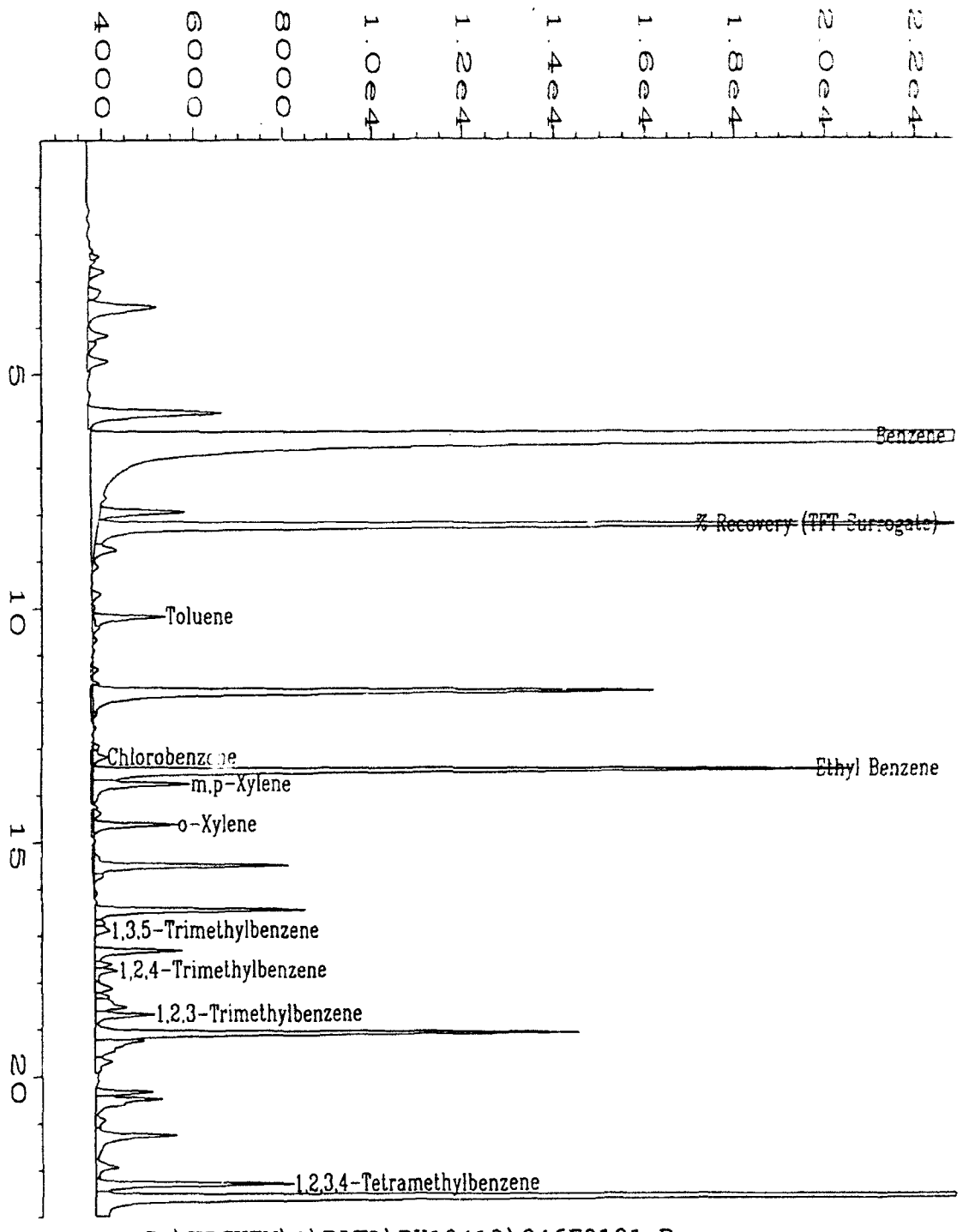
** = Greater than 10% of the calibration range.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K Cone
Analyst

Approved

BTEX1063.XLS



Data File Name	: C:\HPCHEM\1\DATA\BX10413\046F0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 46
Sample Name	: X05179;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 14 Apr 95 05:24 PM	Instrument Method	: BX10414
Report Created on	: 27 Apr 95 07:27 PM	Analysis Method	: BX10414B.MT
Last Recalib on	: 15 APR 95 01:55 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-1063 Client#: MD24-MW6 Water		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602/8020 Data Report

Client Sample Number	: MD24-MW6	Client Project No.	: 722450.21020/MAC DIL
Lab Sample Number	: X05179	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	Dilution Factor	: 100
Date Received	: 4/1/95	Matrix	: Water
Date Prepared	: 4/14/95	Lab File No.	: BX20415015R
Date Analyzed	: 4/14/95	Method Blank No.	: MB041495

Compound Name	Cas Number	Sample Concentration (ug/L)	Reporting Limit (ug/L)
Benzene	71-43-2	480	40

Surrogate Recovery:	77%	70%-130% (QC limits)

QUALIFIERS/NOTES:

E = Extrapolated value. Value exceeds calibration range.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
RL = Reporting Limit.
NA = Not Available/Not Applicable.
Total xylenes consist of three isomers, two of which co-elute. The xylene RL is for a single peak.

Analyst

Approved

602TMB.XLS: 11/21/95

External Standard Report

Data File Name : C:\HPCHEM\2\DATA\BX20415\015R0101.D
Operator : T. Lockwood
Instrument : BTEX2
Sample Name : X05179;100;0.05
Run Time Bar Code:
Acquired on : 15 Apr 95 09:21 PM
Report Created on: 16 Apr 95 04:43 PM
Last Recalib on : 16 Apr 95 03:38 PM
Multiplier : 1 x 160

Page Number : 1
Vial Number : 15
Injection Number : 1
Sequence Line : 1
Instrument Method: BX20415 MTH
Analysis Method : BX20415A.MTH
Sample Amount : 0
ISTD Amount :

Sig. 2 in C:\HPCHEM\2\DATA\BX20415\015R0101.D

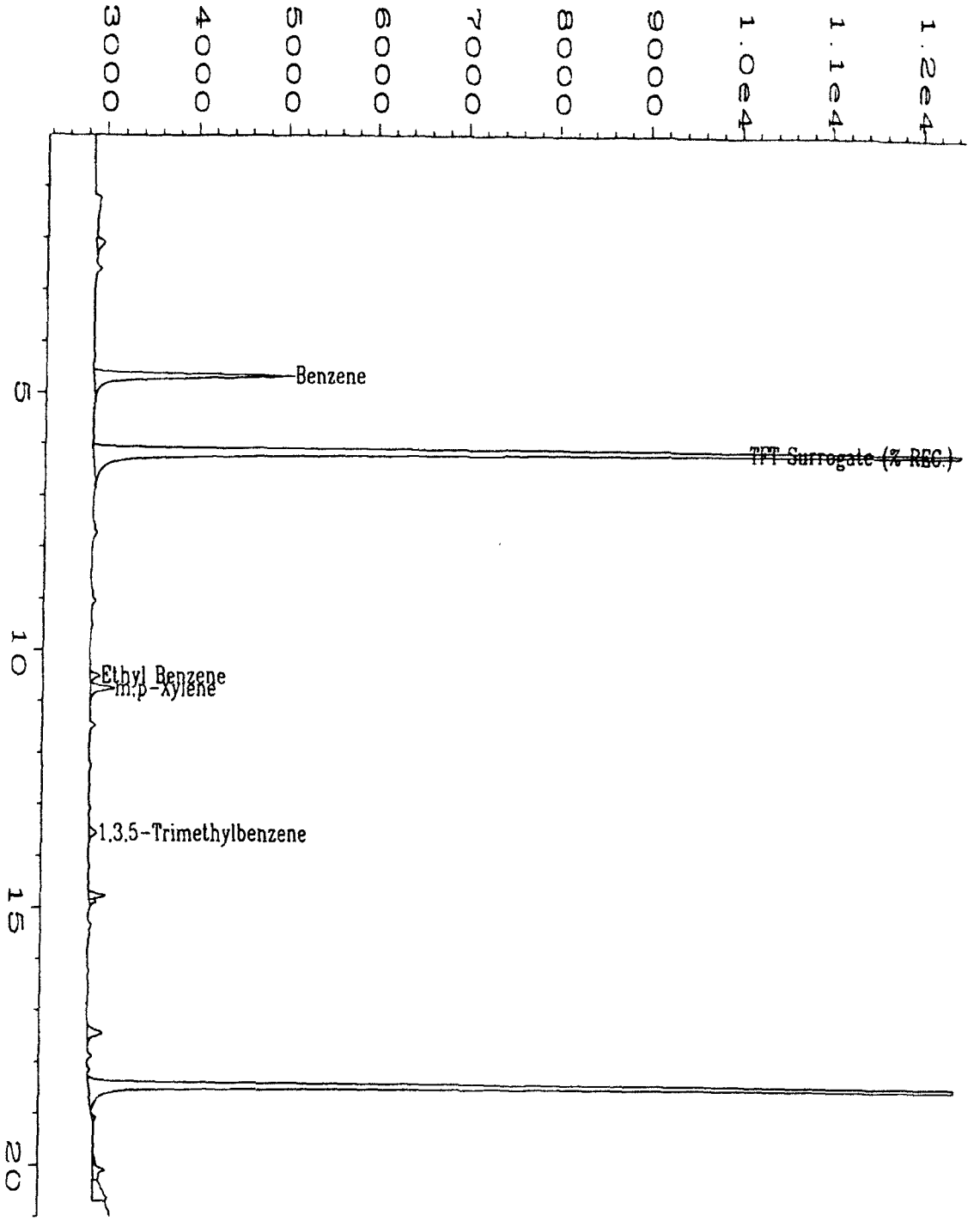
Ret Time	Area	Type	Width	Ref#	ug/L	Name
4.655	13992	BB	0.096	1	4.787	Benzene x 160 = 480
6.138	76837	BB	0.097	1-R	77.193	TFT Surrogate (% REC.)
7.729	* not found *			1		Toluene DF=50
10.248	* not found *			1		Chlorobenzene
10.495	656	BV	0.096	1	0.286	Ethyl Benzene DF=50
10.734	1691	VB	0.099	1	0.601	m,p-Xylene DF=50
11.474	* not found *			1		o-Xylene DF=50
13.542	640	BB	0.126	1	0.197	1,3,5-Trimethylbenzene
14.442	* not found *			1		1,2,4-Trimethylbenzene
15.390	* not found *			1		1,2,3-Trimethylbenzene DF=5
18.176	* not found *			1		1,2,3,4-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
2	6.120	6.138	0.018

Not all calibrated peaks were found

Holding Time up

not used



Data File Name	: C:\HPCHEM\2\DATA\BX20415\015R0101.D		
Operator	: T. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 15
Sample Name	: X05179;100;0.05	Injection Number	: 1
Time Bar Code	:	Sequence Line	: 1
Acquired on	: 15 Apr 95 09:21 PM	Instrument Method	: BX20415.MTH
Report Created on	: 16 Apr 95 04:43 PM	Analysis Method	: BX20415A.MTH
Last Recalib on	: 16 Apr 95 03:38 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
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(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-MW6	Client Project No.	: 722450.21020/Mac C
Lab Sample Number	: X05179	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	Dilution Factor	: 1.00
Date Received	: 4/1/95	Method	: 602
Date Prepared	: 4/14/95	Matrix	: Water
Date Analyzed	: 4/14/95	Lab File No.	: BX1041346
		Method Blank No.	: MB041495

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	>80 **	0.4
Toluene	108-88-3	2.2	0.4
Chlorobenzene	108-90-7	1.3	0.4
Ethyl Benzene	100-41-4	25	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	6.7	0.4
1,3,5-Trimethylbenzene	108-67-8	0.5	0.4
1,2,4-Trimethylbenzene	95-63-6	1.0	0.4
1,2,3-Trimethylbenzene	526-73-8	2.3	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	8.5	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		96%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

** = Greater than 10% of the calibration range.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K Cone
Analyst

AMcClella
Approved

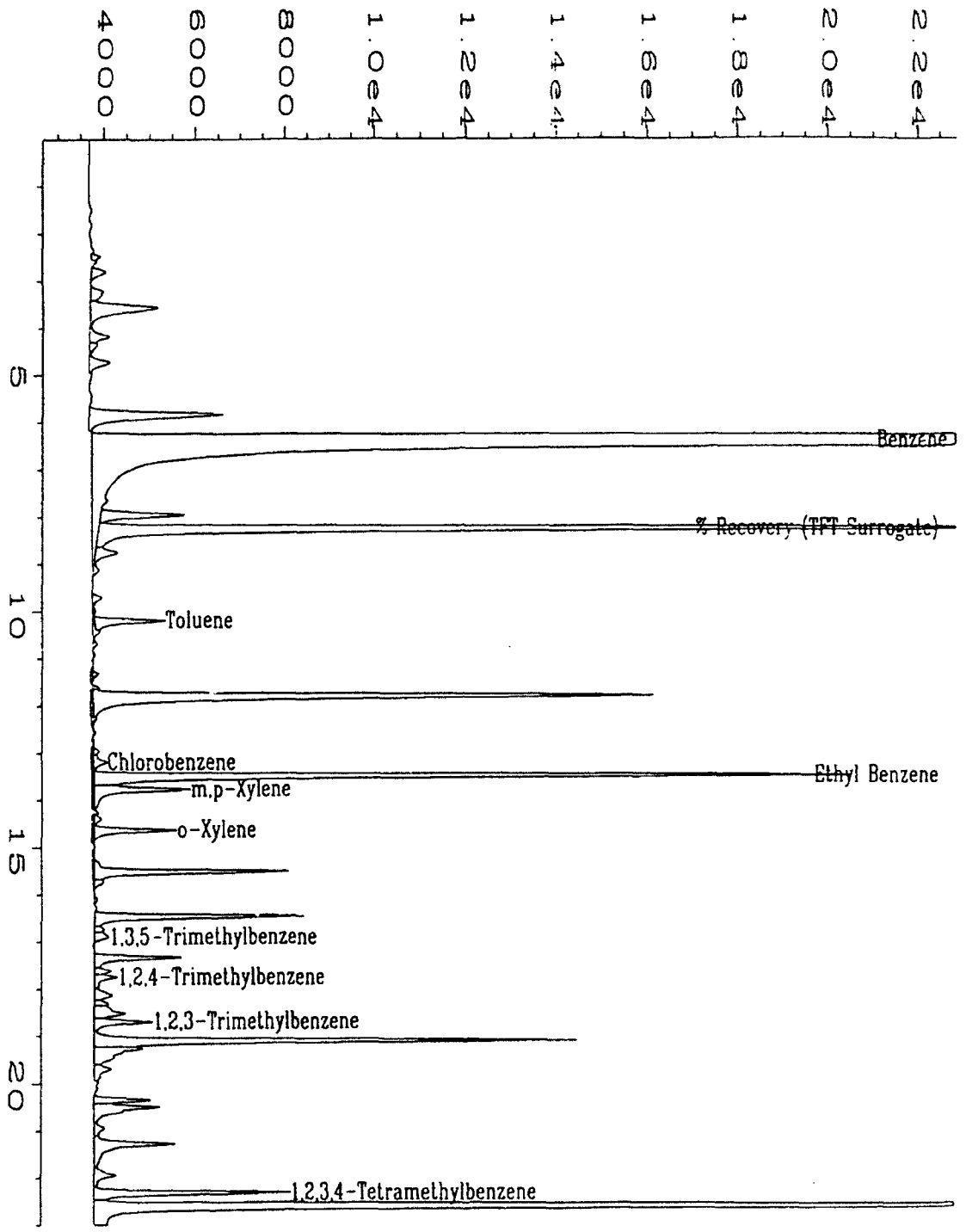
External Standard Report

File Name	: C:\HPCHEM\1\DATA\BX10413\046F0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 46
Sample Name	: X05179;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 14 Apr 95 05:24 PM	Instrument Method	: BX10414.MTH
Report Created on	: 27 Apr 95 07:27 PM	Analysis Method	: BX10414B.MTH
Last Recalib on	: 15 APR 95 01:55 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-1063 Client#: MD24-MW6 Water		

Sig. 1 in C:\HPCHEM\1\DATA\BX10413\046F0101.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
6.388	1.45276E+007	HBAS	0.099	1	3137.814	Benzene
8.245	149044	VV T	0.101	1-R	96.366	% Recovery (TFT Surrogate)
10.179	9490	PB T	0.096	1	2.190	Toluene
13.179	3482	VV T	0.143	1	1.324	Chlorobenzene
13.476	94526	VV T	0.087	1	25.389	Ethyl Benzene
13.756	17004	VV T	0.113	1	3.692	m,p-Xylene
14.621	11775	VV T	0.095	1	2.968	o-Xylene
16.887	2557	VV	0.121	1	0.514	1,3,5-Trimethylbenzene
17.745	3592	VV	0.105	1	0.987	1,2,4-Trimethylbenzene
18.687	7823	VV	0.091	1	2.339	1,2,3-Trimethylbenzene
22.301	24962	HH	0.088	1	8.549	1,2,3,4-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
2	8.228	8.245	0.017



Data File Name	: C:\HPCHEM\1\DATA\BX10413\046F0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 46
Sample Name	: X05179;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 14 Apr 95 05:24 PM	Instrument Method	: BX10414...TH
Report Created on	: 27 Apr 95 07:27 PM	Analysis Method	: BX10414B.MT
Last Recalib on	: 15 APR 95 01:55 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-1063 Client#: MD24-MW6 Water		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-MW10	Client Project No.	: 722450.21020/Mac Dill
Lab Sample Number	: X05187	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	Dilution Factor	: 1.00
Date Received	: 4/1/95	Method	: 602
Date Prepared	: 4/14/95	Matrix	: Water
Date Analyzed	: 4/14/95	Lab File No.	: BX1041354
		Method Blank No.	: MB041495

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		83%		70%-130% (QC limits)

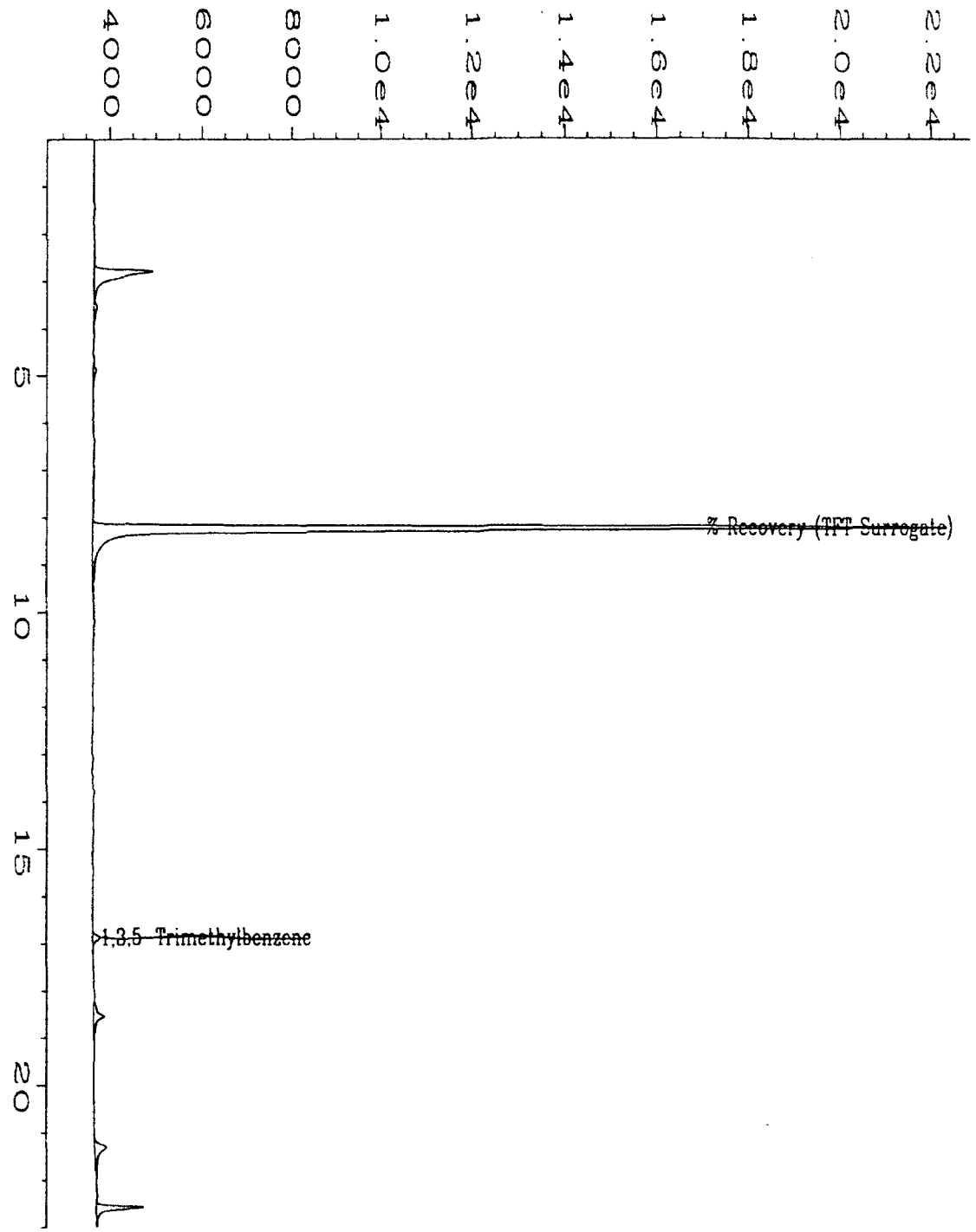
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

P. McClellan
Approved

BTEX1063.XLS



Data File Name : C:\HPCHEM\1\DATA\BX10413\054F0101.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X05187;1;5
Run Time Bar Code:
Acquired on : 14 Apr 95 10:40 PM
Report Created on: 27 Apr 95 08:05 PM
Last Recalib on : 15 APR 95 01:55 PM
Multiplier : 1
Sample Info : Project#: 95-1063 Client#: MD24-MW10 Water

Page Number : 1
Vial Number : 54
Injection Number : 1
Sequence Line : 1
Instrument Method: BX10414 H
Analysis Method : BX10414B.MT
Sample Amount : 0
ISTD Amount :

pm 4/28/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-MW10A	Client Project No.	: 722450.21020/Mac Dill
Lab Sample Number	: X05186	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	Dilution Factor	: 1.00
Date Received	: 4/1/95	Method	: 602
Date Prepared	: 4/14/95	Matrix	: Water
Date Analyzed	: 4/14/95	Lab File No.	: BX1041351
		Method Blank No.	: MB041495

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		84%	70%-130% (QC limits)

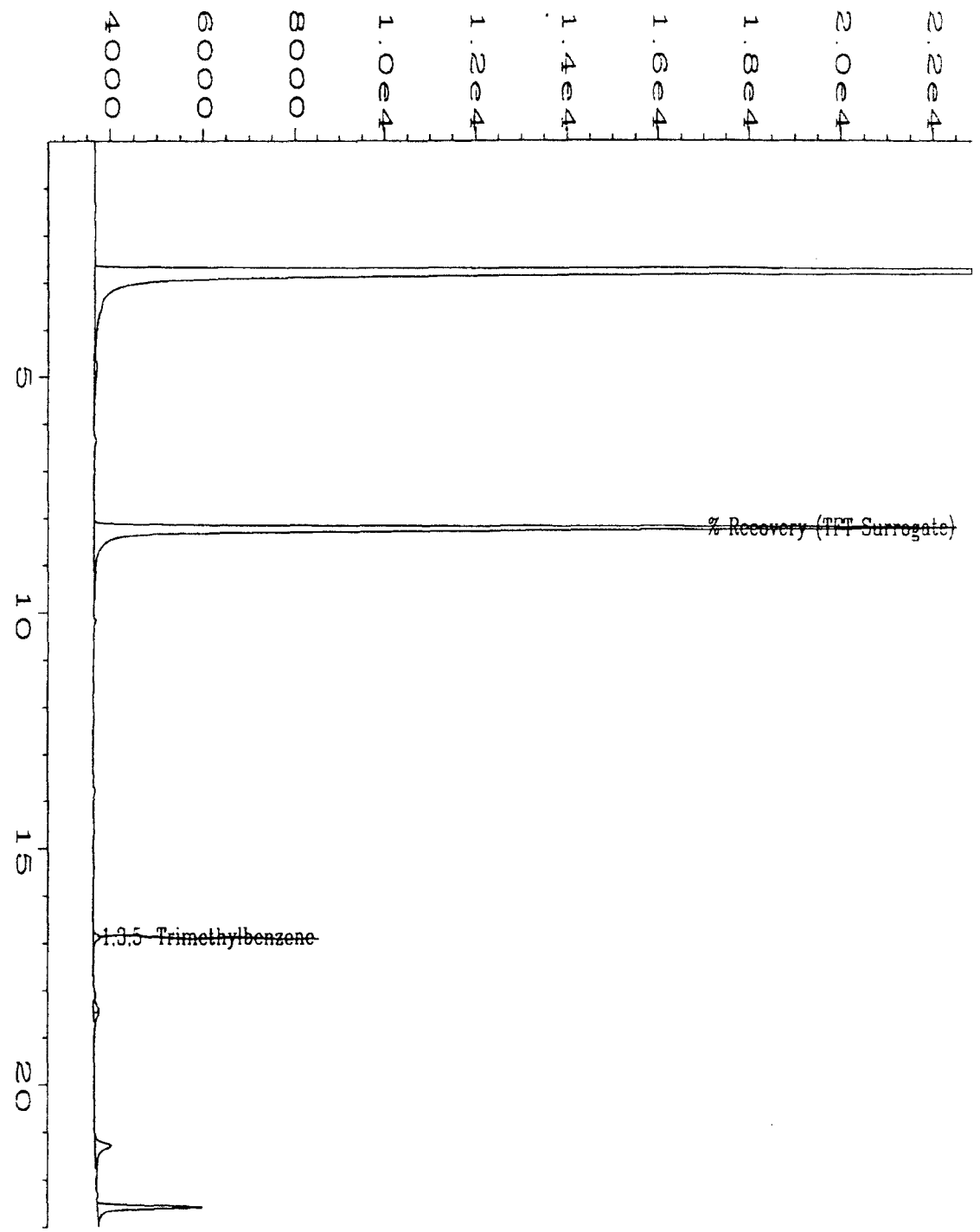
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

P. McClella
Approved

BTEX1063.XLS



Data File Name : C:\HPCHEM\1\DATA\BX10413\051F0101.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X05186;1;5
Run Time Bar Code:
Acquired on : 14 Apr 95 08:41 PM
Report Created on: 27 Apr 95 08:03 PM
Last Recalib on : 15 APR 95 01:55 PM
Multiplier : 1
Sample Info : Project#: 95-1063 Client#: MD24-MW10A Water

Page Number : 1
Vial Number : 51
Injection Number : 1
Sequence Line : 1
Instrument Method: BX10414.
Analysis Method : BX10414B.MTH
Sample Amount : 0
ISTD Amount :

fm 4/28/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: MD24-MW10A	Client Project No.	: 722450.21020/Mac Dill
Lab Sample Number	: X05186DUP	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	Dilution Factor	: 1.00
Date Received	: 4/1/95	Method	: 602
Date Prepared	: 4/14/95	Matrix	: Water
Date Analyzed	: 4/14/95	Lab File No.	: BX1041353
		Method Blank No.	: MB041495

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8	0.8		0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		79%		70%-130% (QC limits)

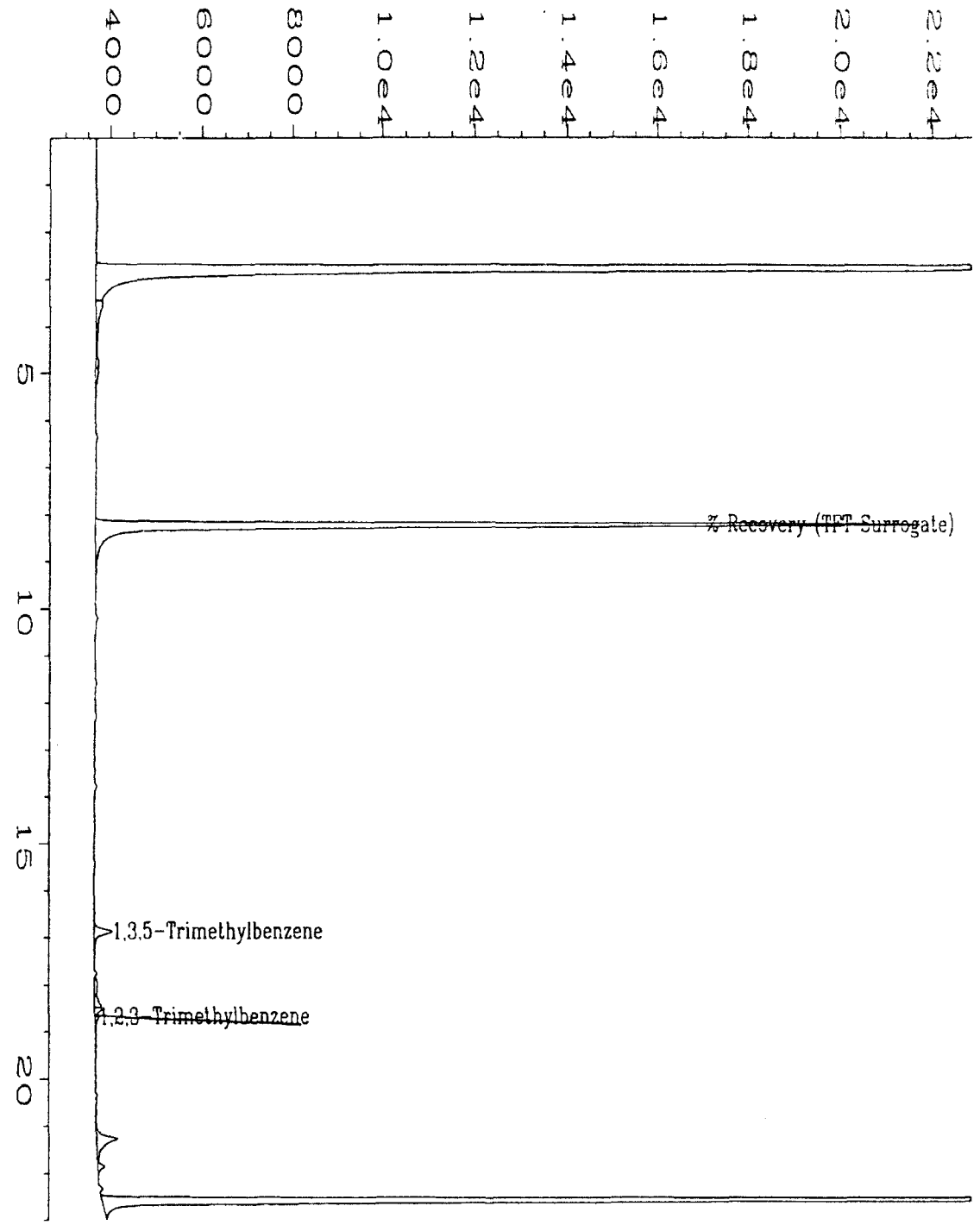
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

P. McClella
Approved

BTEX1063.XLS



Data File Name : C:\HPCHEM\1\DATA\BX10413\053F0101.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X05186DUP;1;5
Run Time Bar Code:
Acquired on : 14 Apr 95 10:00 PM
Report Created on: 27 Apr 95 08:04 PM
Last Recalib on : 15 APR 95 01:55 PM
Multiplier : 1
Sample Info : Project#: 95-1063 Client#: MD24-MW10A Water

Page Number : 1
Vial Number : 53
Injection Number : 1
Sequence Line : 1
Instrument Method: BX10414 'H
Analysis Method : BX10414B.MT
Sample Amount : 0
ISTD Amount :

dm 4/28/95

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

BTEX Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: MD75-MW16	Client Project No.	: 722450.21020
Lab Sample No.	: X05167	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	EPA Method No.	: 602
Date Received	: 4/1/95	Matrix	: Water
Date Prepared	: 4/13/95	Lab File Number(s)	: BX1041414,15
Date Analyzed	: 4/13/95	Method Blank	: MB041395

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	MS Concentration (ug/L)	MS %REC	QC Limits %REC
Benzene	20.0	44.8	58.9	70.5	50-150
Toluene	20.0	0.9	16.5	78.0	50-148
Ethyl Benzene	20.0	108.0 E	118.1 E	50.5	50-150
m,p-Xylene	40.0	2.7	36.2	83.7	50-150
o-Xylene	20.0	0.0	15.6	78.0	50-150
Chlorobenzene	20.0	0.7	16.6	79.5	55-135
1,3,5-TMB	20.0	0.0	16.3	81.4	50-150
1,2,4-TMB	20.0	1.4	20.3	94.5	50-150
1,2,3-TMB	20.0	0.9	18.0	85.7	50-150
1,2,3,4-TeMB	20.0	49.6	68.0 E	92.0	50-150

Compound	Spike Added (ug/L)	MSD Concentration (ug/L)	MSD %REC	RPD	QC Limits RPD	QC Limits %REC
Benzene	20.0	57.2	61.8	3.3	25	50-150
Toluene	20.0	16.1	76.2	0.6	25	50-148
Ethyl Benzene	20.0	114.7 E	33.4	10.2	25	50-150
m,p-Xylene	40.0	35.3	81.5	0.7	25	50-150
o-Xylene	20.0	15.3	76.5	0.5	25	50-150
Chlorobenzene	20.0	16.3	78.0	0.5	25	55-135
1,3,5-TMB	20.0	16.1	80.5	0.3	25	50-150
1,2,4-TMB	20.0	20.0	93.0	0.4	25	50-150
1,2,3-TMB	20.0	17.7	84.0	0.5	25	50-150
1,2,3,4-TeMB	20.0	66.9 E	86.5	1.5	25	50-150

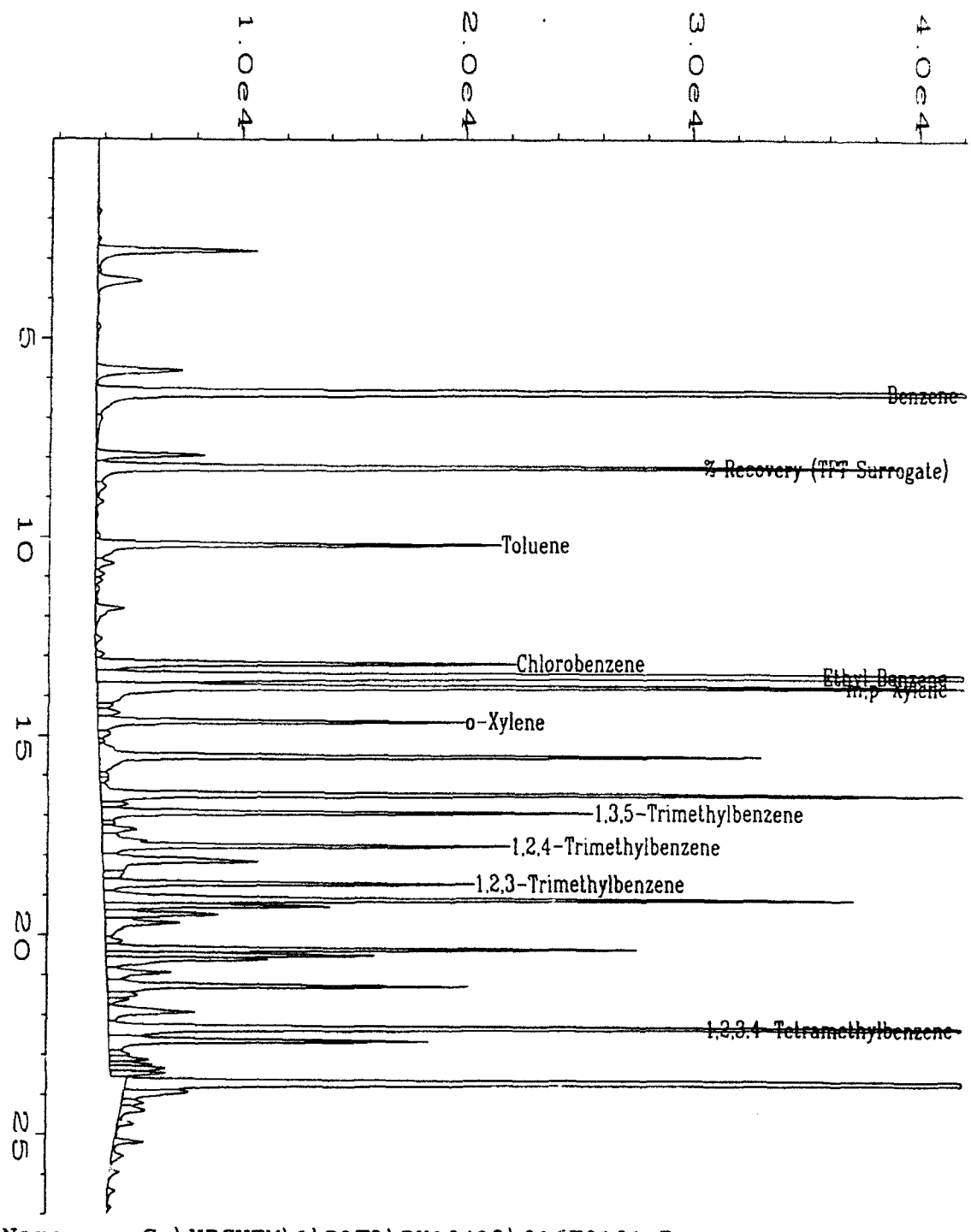
* = Values outside of QC limits.
RPD: 0 out of (10) outside limits.
Spike Recovery: 1 out of (20) outside limits.

Comments: E = Exceeds calibration range.

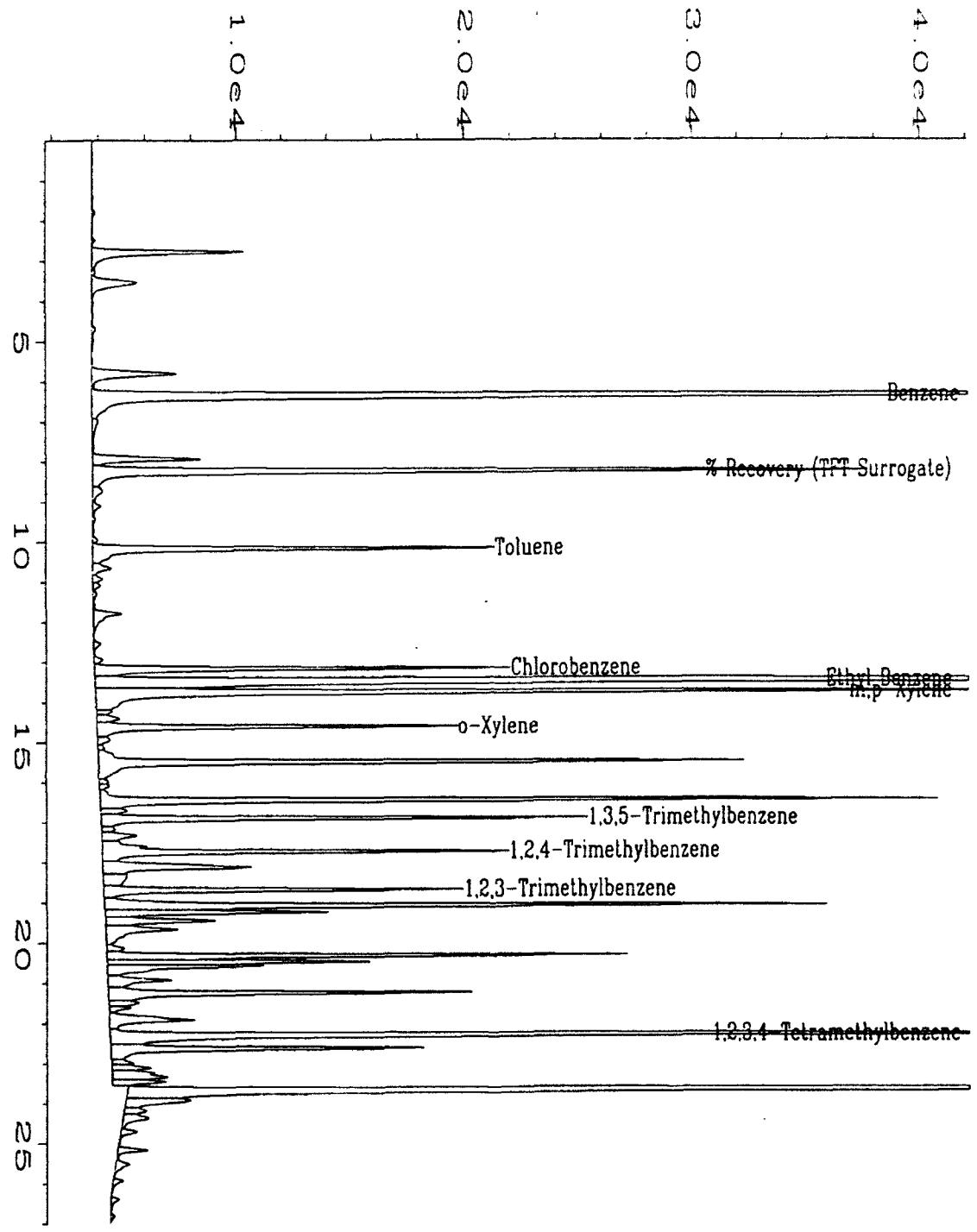
K. Cone
Analyst

P McClella
Approved

MS1063A.XLS



Data File Name	: C:\HPCHEM\1\DATA\BX10413\016F0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 16
Sample Name	: X05167MS;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 13 Apr 95 09:35 PM	Instrument Method	: BX10413 T
Report Created on	: 13 Apr 95 10:02 PM	Analysis Method	: BX10413A..T
Last Recalib on	: 13 APR 95 04:13 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-1063 Client#: MD75-MW16 Water		



Data File Name	: C:\HPCHEM\1\DATA\BX10413\017F0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 17
Sample Name	: X05167MSD;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
quired on	: 13 Apr 95 10:14 PM	Instrument Method	: BX10413A.MTH
port Created on	: 13 Apr 95 10:42 PM	Analysis Method	: BX10413A.MTH
Last Recalib on	: 13 APR 95 04:13 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-1063 Client#: MD75-MW16 Water		

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

BTEX Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: MD75-MW24	Client Project No.	: 722450.2102
Lab Sample No.	: X05176	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	EPA Method No.	: 602
Date Received	: 4/1/95	Matrix	: Water
Date Prepared	: 4/14/95	Lab File Number(s)	: BX1041443,44
Date Analyzed	: 4/14/95	Method Blank	: MB041495

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	MS Concentration (ug/L)		MS %REC	QC Limits %REC
Benzene	20.0	127.7 E	138.5	E	54.0	50-150
Toluene	20.0	3.1	19.6		82.5	50-148
Ethyl Benzene	20.0	**	**		**	50-150
m,p-Xylene	40.0	0.0	57.0		142.5	50-150
o-Xylene	20.0	0.7	15.4		73.5	50-150
Chlorobenzene	20.0	2.9	18.8		79.5	55-135
1,3,5-TMB	20.0	0.0	15.0		75.0	50-150
1,2,4-TMB	20.0	2.1	18.3		81.0	50-150
1,2,3-TMB	20.0	1.6	16.7		75.5	50-1[illegible]
1,2,3,4-TeMB	20.0	83.3 E	99.2	E	79.5	50-1[illegible]

Compound	Spike Added (ug/L)	MSD Concentration (ug/L)	MSD %REC	RPD	QC Limits RPD	QC Limits %REC
Benzene	20.0	NA	NA	NA	25	50-150
Toluene	20.0	NA	NA	NA	25	50-148
Ethyl Benzene	20.0	NA	NA	NA	25	50-150
m,p-Xylene	40.0	NA	NA	NA	25	50-150
o-Xylene	20.0	NA	NA	NA	25	50-150
Chlorobenzene	20.0	NA	NA	NA	25	55-135
1,3,5-TMB	20.0	NA	NA	NA	25	50-150
1,2,4-TMB	20.0	NA	NA	NA	25	50-150
1,2,3-TMB	20.0	NA	NA	NA	25	50-150
1,2,3,4-TeMB	20.0	NA	NA	NA	25	50-150

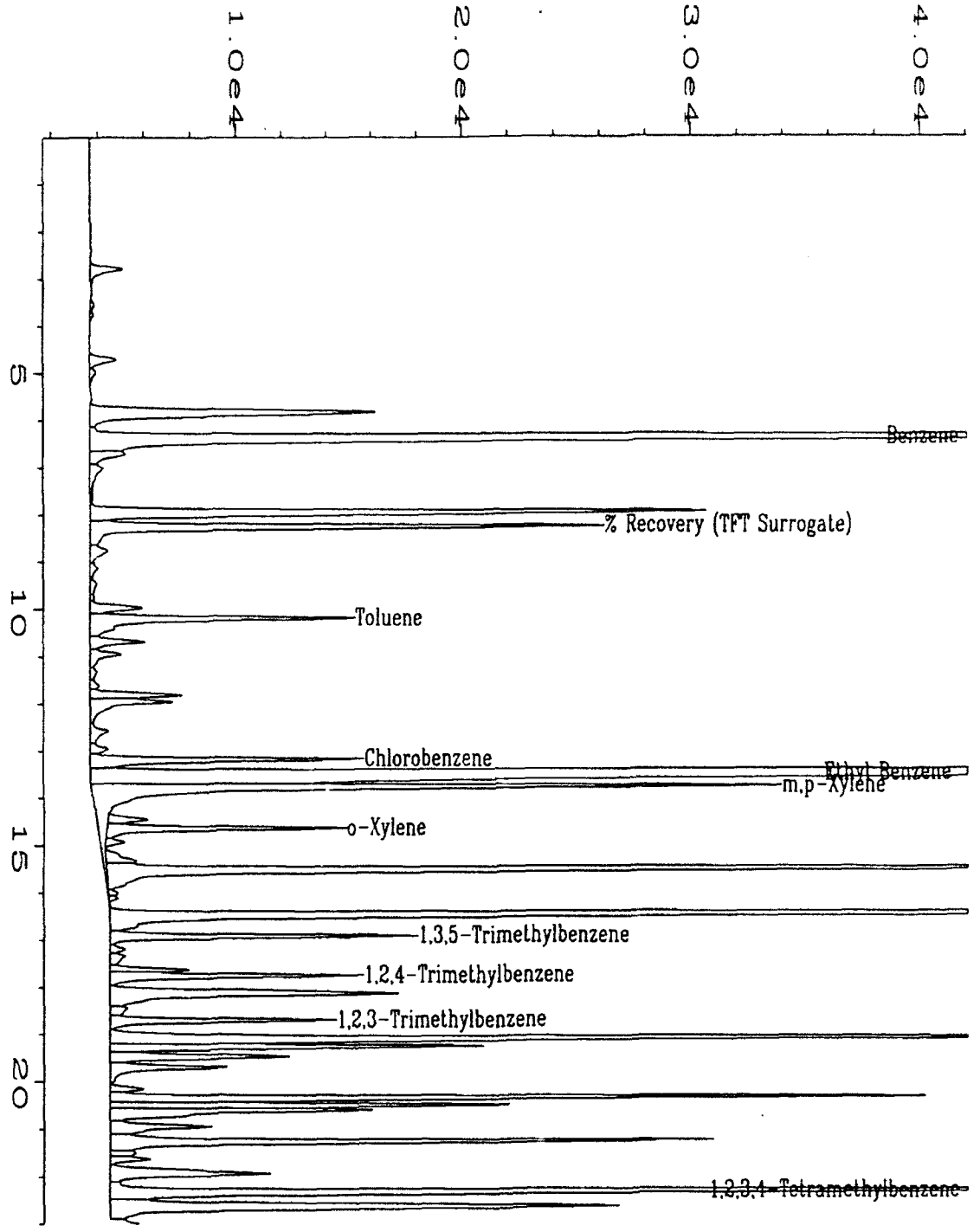
* = Values outside of QC limits.
RPD: 0 out of (0) outside limits.
Spike Recovery: 0 out of (10) outside limits.

Comments: MSD did not purge properly. The surrogate recovery was 36%. See MS/MSD MD75-MW16 and LCS041495. E= Exceeds the calibration range. ** = Results can not be used due to the high con[illegible]ntration in the sample.

K Cone
Analyst

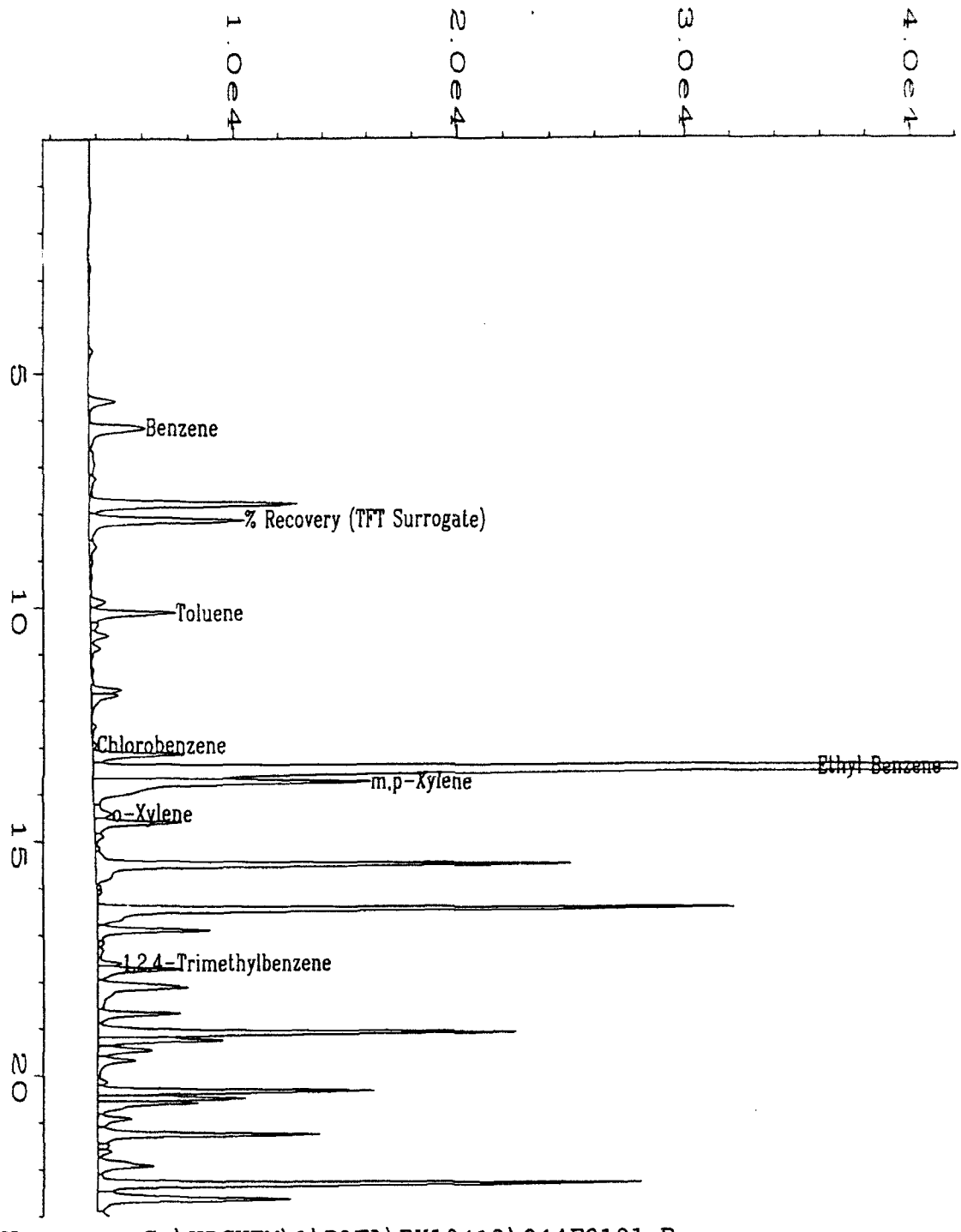
Approved

MS951063.XLS



Data File Name : C:\HPCHEM\1\DATA\BX10413\043F0101.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X05176MS;1;5
Run Time Bar Code:
Acquired on : 14 Apr 95 03:25 PM
Report Created on: 27 Apr 95 07:26 PM
Last Recalib on : 15 APR 95 01:55 PM
Multiplier : 1
Sample Info : Project#: 95-1063 Client#: MD75-MW24 Water

Page Number : 1
Vial Number : 43
Injection Number : 1
Sequence Line : 1
Instrument Method: BX10414.MTH
Analysis Method : BX10414B.MTH
Sample Amount : 0
ISTD Amount :



Data File Name : C:\HPCHEM\1\DATA\BX10413\044F0101.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X05176MSD;1;5
Run Time Bar Code:
Acquired on : 14 Apr 95 04:05 PM
Report Created on: 27 Apr 95 07:27 PM
Last Recalib on : 15 APR 95 01:55 PM
Multiplier : 1
Sample Info : Project#: 95-1063 Client#: MD75-MW24 Water

Page Number : 1
Vial Number : 44
Injection Number : 1
Sequence Line : 1
Instrument Method: BX1041[illegible]TH
Analysis Method : BX10414[illegible].MT
Sample Amount : 0
ISTD Amount :

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(303) 425-6021

TOTAL VOLATILE HYDROCARBONS
TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: MD75-MW24	**Client Project No.**	: 722450.21020/MAC
Lab Sample No.	: X05176	**Lab Project No.**	: 95-1063
Date Sampled	: 3/31/95	**EPA Method No.**	: 5030/8015 Mod.
Date Received	: 4/1/95	**Matrix**	: Water
Date Prepared	: 4/14/95	**Method Blank**	: MB041495
Date Analyzed	: 4/14/95		

Compound	Spike Added (mg/L)	Sample Concentration (mg/L)	MS Concentration (mg/L)	MS %REC	QC Limits %REC
Gasoline	2.00	3.50	4.62	56%	60-140

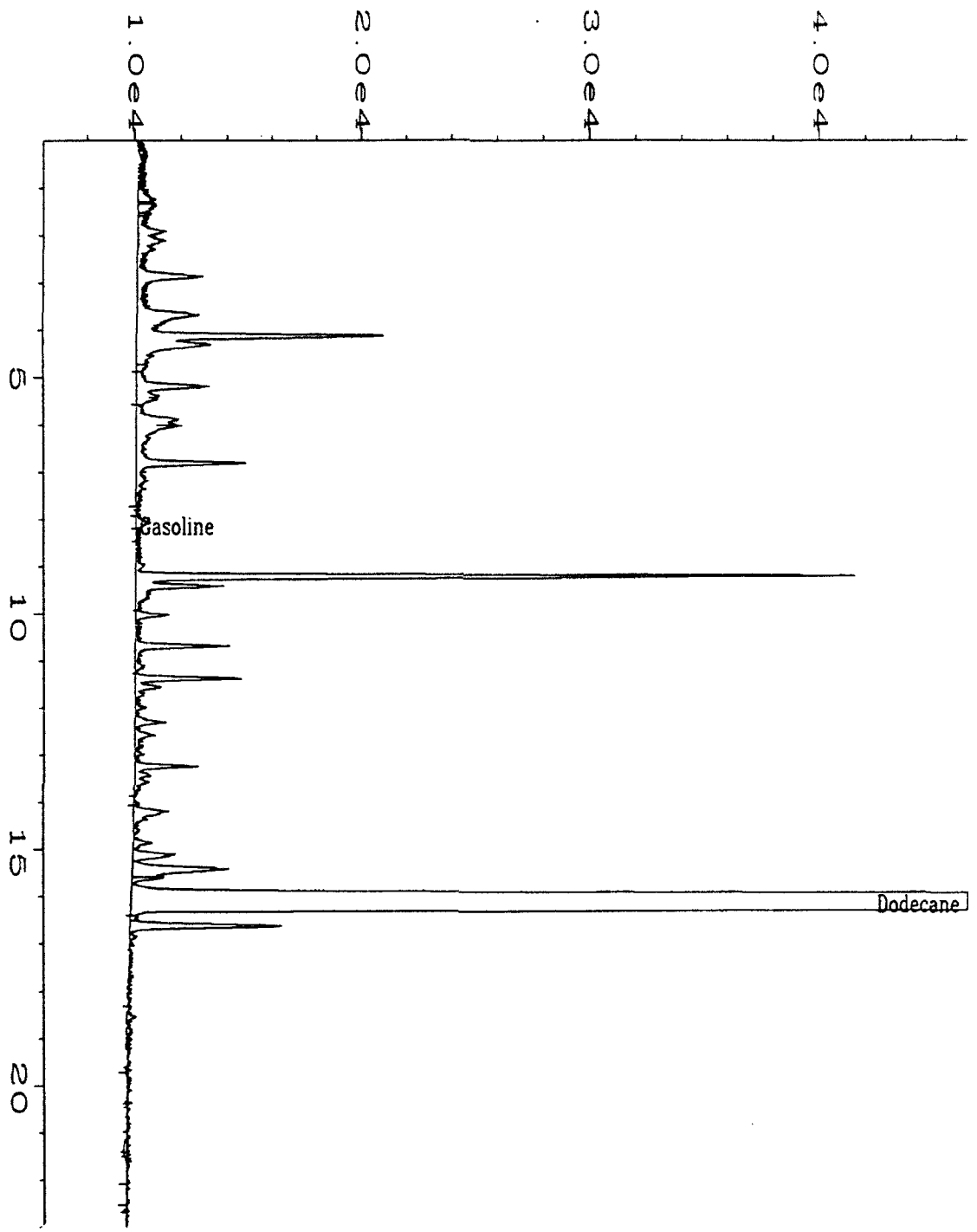
Compound	Spike Added (mg/L)	*MSD* Concentration (mg/L)	MS %REC	RPD	QC Limits RPD	QC Limits %REC
Gasoline	2.00	5.80	115%	69*	50	60-140

* = Values outside of QC limits.

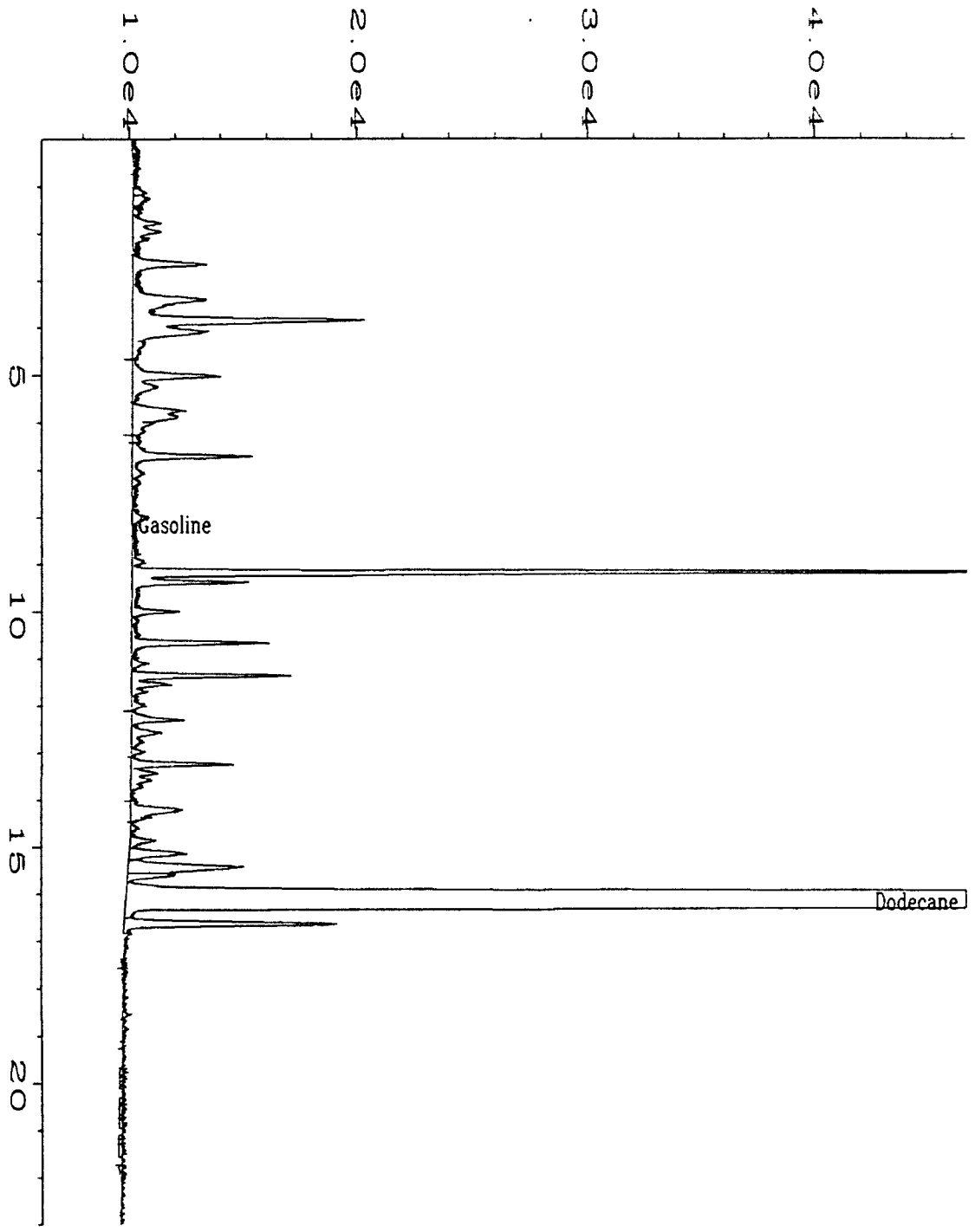
RPD: 1 out of (1) outside limits.

Spike Recovery: 0 out of (2) outside limits.

Comments: NA = Not analyzed/not applicable.



Data File Name	: C:\HPCHEM\1\DATA\tvh0414\022F0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TVH	Vial Number	: 22
Sample Name	: X05176 MS	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 14 Apr 95 11:59 PM	Instrument Method	: TVH1BA M
Report Created on	: 16 Apr 95 02:39 PM	Analysis Method	: TVH0415..T
Last Recalib on	: 16 APR 95 02:01 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:



Data File Name	: C:\HPCHEM\1\DATA\tvh0414\023F0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TVH	Vial Number	: 23
Sample Name	: X05176 MSD	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 15 Apr 95 00:35 AM	Instrument Method	: TVH1BASE.MTH
Report Created on	: 16 Apr 95 02:39 PM	Analysis Method	: TVH0415.MTH
Last Recalib on	: 16 APR 95 02:01 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

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(303) 425-6021

Method 602 Data Report

Client Sample Number	: RINSEATE BLANK	Client Project No.	: 722450.21020/Mac D
Lab Sample Number	: X05182	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	Dilution Factor	: 1.00
Date Received	: 4/1/95	Method	: 602
Date Prepared	: 4/14/95	Matrix	: Water
Date Analyzed	: 4/14/95	Lab File No.	: BX1041350
		Method Blank No.	: MB041495

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		94%		70%-130% (QC limits)

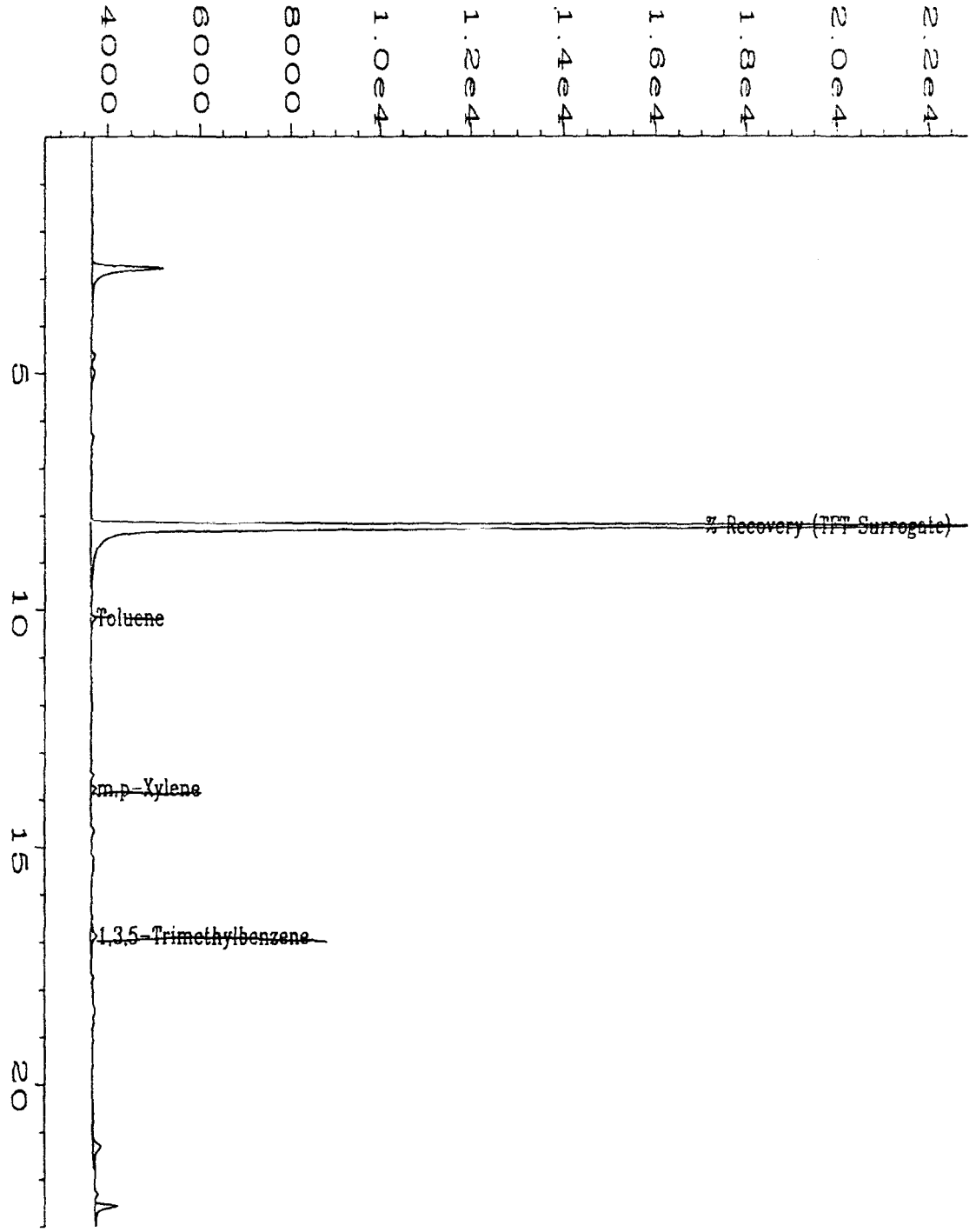
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

P. McClellan
Approved

BTEX1063.XLS



Data File Name : C:\HPCHEM\1\DATA\BX10413\050F0101.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X05182;1;5
Run Time Bar Code:
Acquired on : 14 Apr 95 08:02 PM
Report Created on: 27 Apr 95 08:03 PM
Last Recalib on : 15 APR 95 01:55 PM
Multiplier : 1
Sample Info : Project#: 95-1063 Client#: RINSEATE BLANK Water

Page Number : 1
Vial Number : 50
Injection Number : 1
Sequence Line : 1
Instrument Method: BX10414.MTH
Analysis Method : BX10414B.MTH
Sample Amount : 0
ISTD Amount :

DM 4/28/95

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Method 602 Data Report

Client Sample Number	: FIELD BLANK	**Client Project No.**	: 722450.21020/Mac D
Lab Sample Number	: X05181	**Lab Project No.**	: 95-1063
Date Sampled	: 3/31/95	**Dilution Factor**	: 1.00
Date Received	: 4/1/95	**Method**	: 602
Date Prepared	: 4/14/95	**Matrix**	: Water
Date Analyzed	: 4/14/95	**Lab File No.**	: BX1041348
		Method Blank No.	: MB041495

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		92%		70%-130% (QC limits)

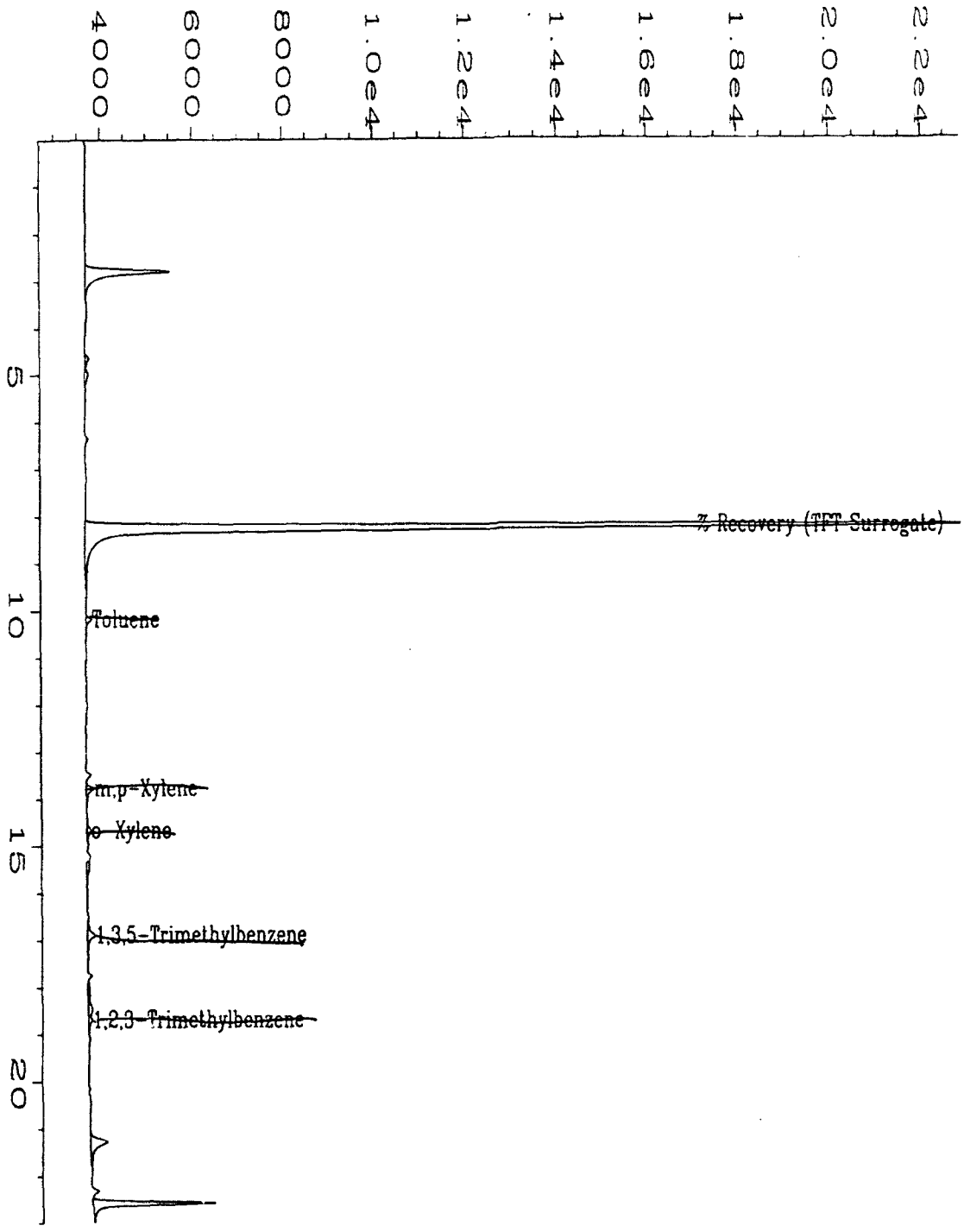
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cox
Analyst

P. McClellan
Approved

BTEX1063.XLS



Data File Name : C:\HPCHEM\1\DATA\BX10413\048F0101.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X05181;1;5
Run Time Bar Code:
quired on : 14 Apr 95 06:43 PM
port Created on: 27 Apr 95 08:27 PM
Last Recalib on : 15 APR 95 01:55 PM
Multiplier : 1
Sample Info : Project#: 95-1063 Client#: FIELD BLANK Water

Page Number : 1
Vial Number : 48
Injection Number : 1
Sequence Line : 1
Instrument Method: BX10414.MTH
Analysis Method : BX10414B.MTH
Sample Amount : 0
ISTD Amount :

dm 4/28/95

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Method 602 Data Report

Client Sample Number	: Trip Blank	Client Project No.	: 722450.21020/Mac D
Lab Sample Number	: X05170	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	Dilution Factor	: 1.00
Date Received	: 4/1/95	Method	: 602
Date Prepared	: 4/13/95	Matrix	: Water
Date Analyzed	: 4/14/95	Lab File No.	: BX1041322
		Method Blank No.	: MB041395

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		77%		70%-130% (QC limits)

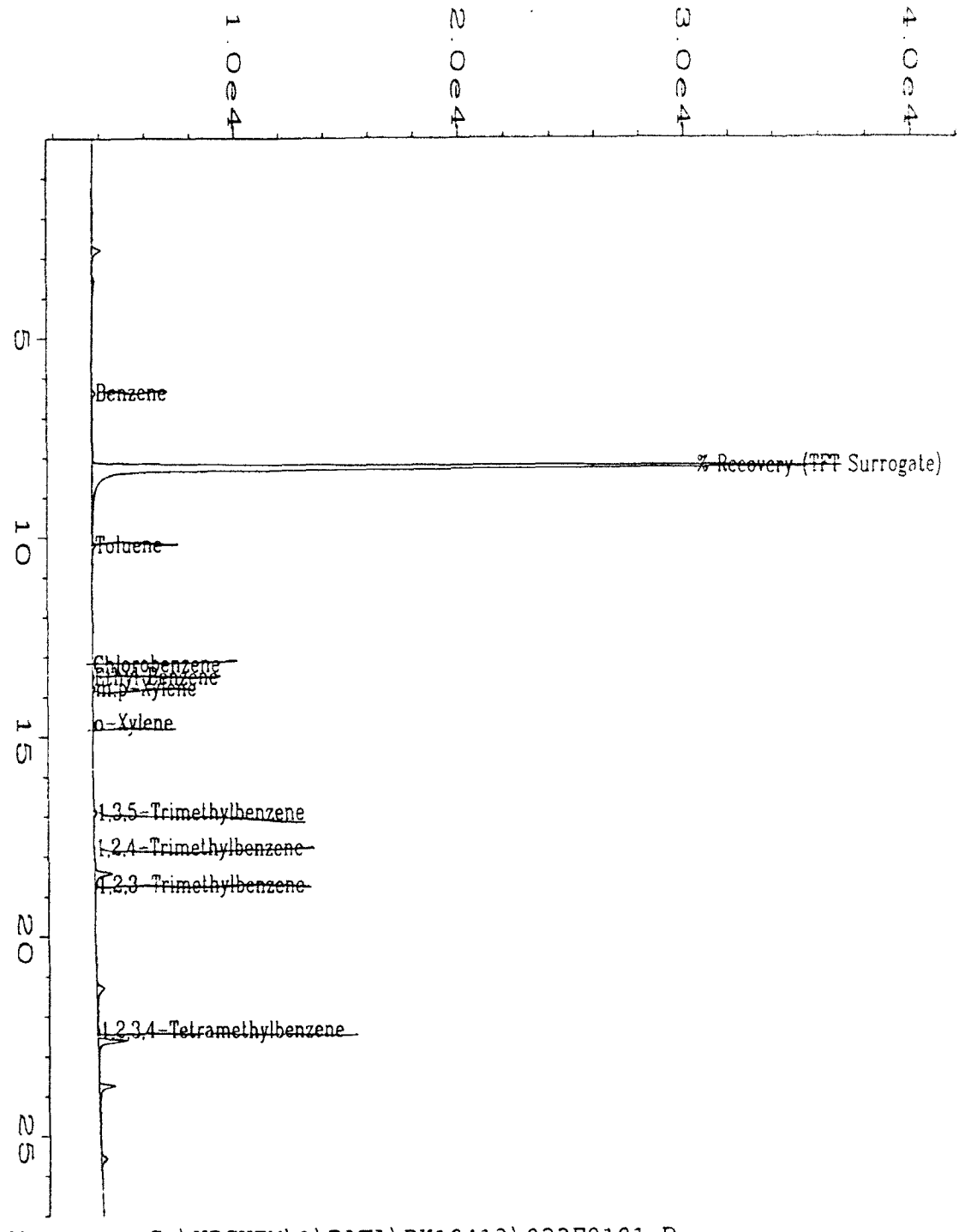
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved

BTEX1063.XLS



Data File Name	: C:\HPCHEM\1\DATA\BX10413\022F0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 22
Sample Name	: X05170;1;5	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Quired on	: 14 Apr 95 01:32 AM	Instrument Method	: BX10413A.MTH
Report Created on	: 14 Apr 95 01:59 AM	Analysis Method	: BX10413A.MTH
Last Recalib on	: 13 APR 95 04:13 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Project#: 95-1063 Client#: TRIP BLANK Water		

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(303) 425-6021

Method 602 Data Report
Method Blank Report

Method Blank Number	: MB041395	**Client Project No.**	: 722450.21020/Mac D
Date Prepared	: 4/13/95	**Lab Project No.**	: 95-1063
Date Analyzed	: 4/13/95	**Dilution Factor**	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: NV-F0101.D

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		94%		70%-130% (QC limits)

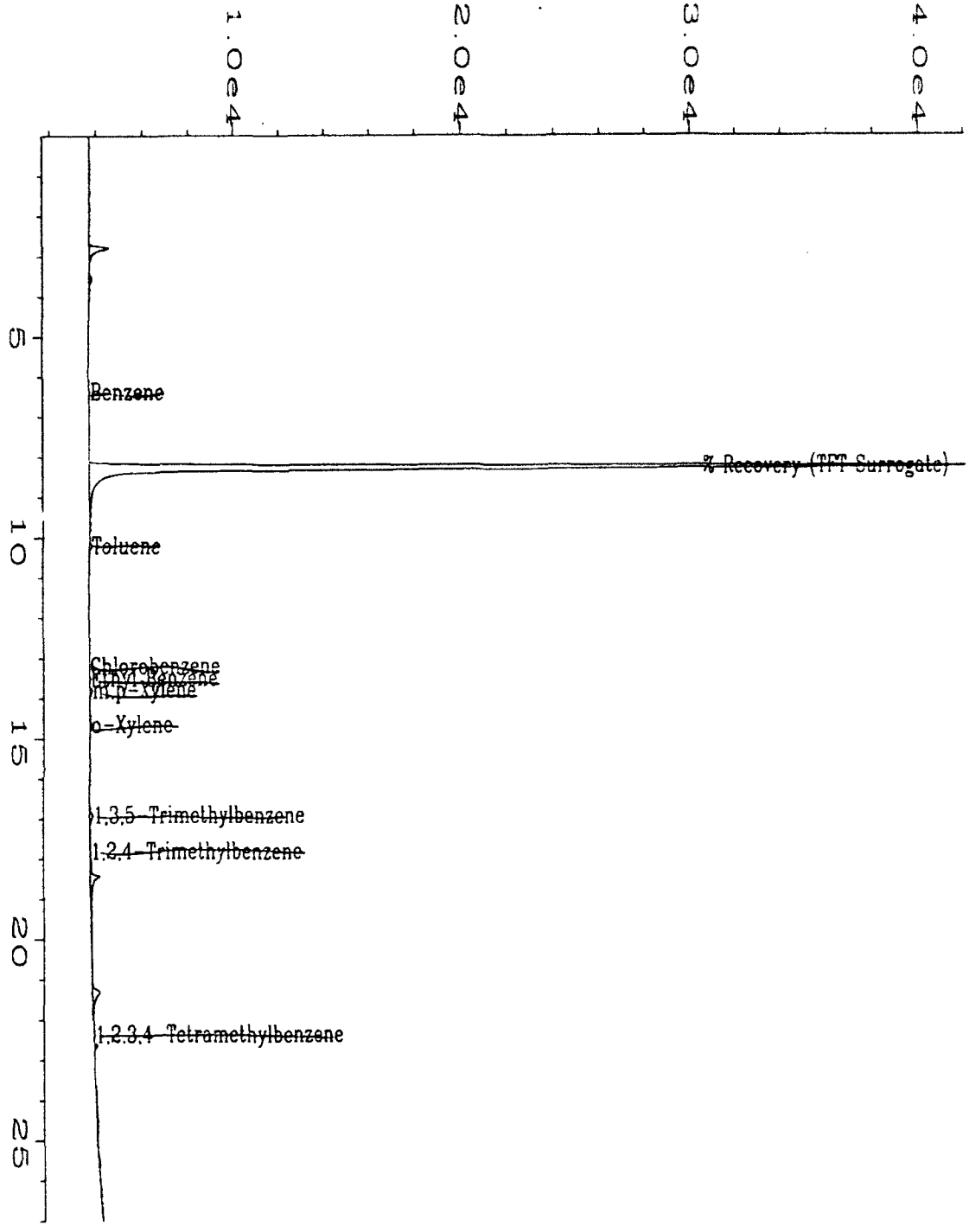
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved

BTEX1063.XLS



Data File Name : C:\HPCHEM\1\DATA\NV-F0101.D
Operator :
Instrument : BTEX1
Sample Name : MBCH1395 BM
Run Time Bar Code:
quired on : 13 Apr 95 04:58 PM
eport Created on: 20 Apr 95 01:04 PM
Last Recalib on : 13 APR 95 04:13 PM
Multiplier : 1

Page Number : 1
Vial Number :
Injection Number :
Sequence Line :
Instrument Method: BX10413A.MTH
Analysis Method : BX10413A.MTH
Sample Amount : 0
ISTD Amount :

pm 4/28/95

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(303) 425-6021

Method 602 Data Report
Method Blank Report

Method Blank Number	: MB041495	**Client Project No.**	: 722450.21020/Mac D
Date Prepared	: 4/14/95	**Lab Project No.**	: 95-1063
Date Analyzed	: 4/14/95	**Dilution Factor**	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX1041340

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4
Surrogate Recovery (α,α,α-Trifluorotoluene):		99%	70%-130% (QC limits)

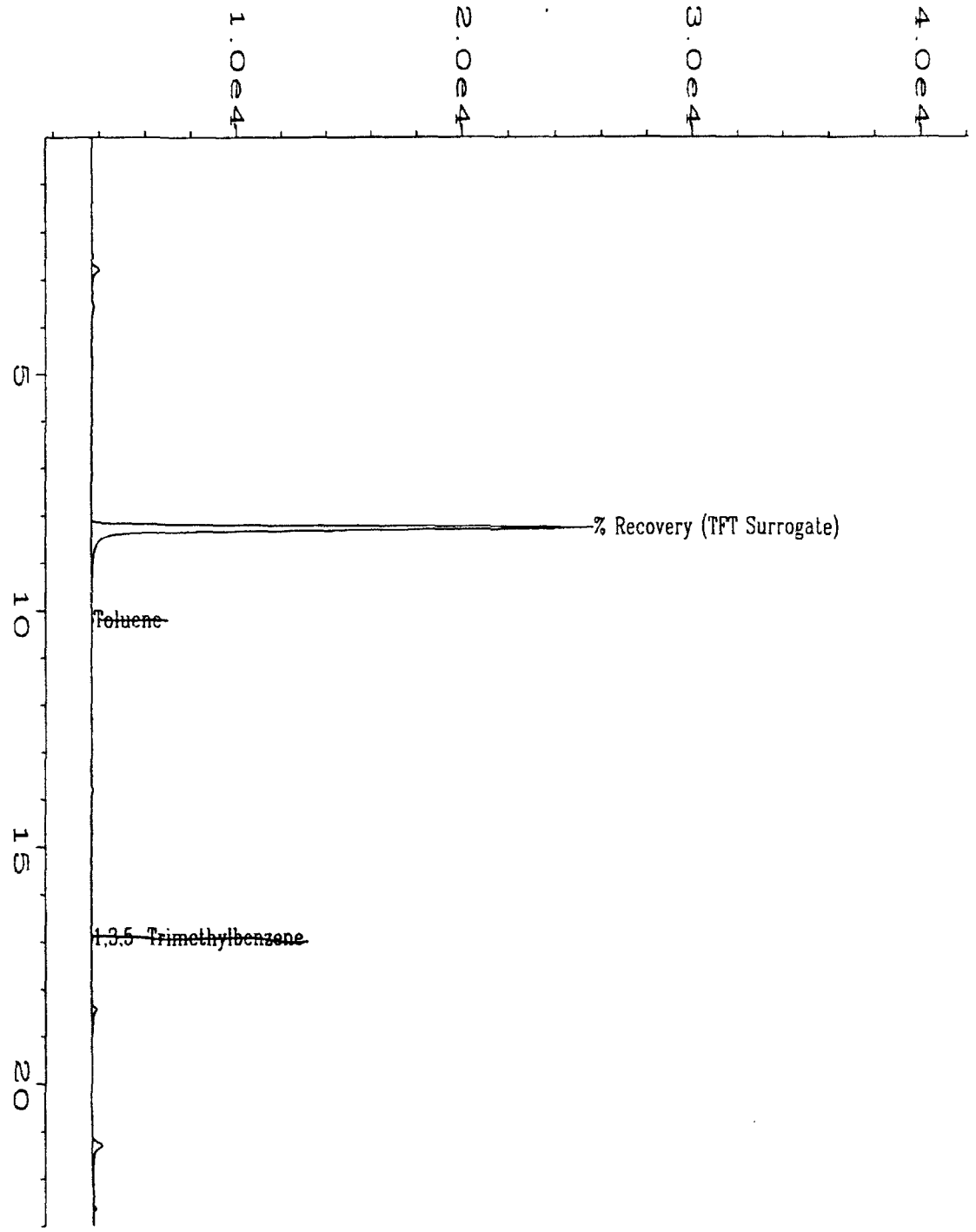
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

K. Cone
Analyst

Approved

BTEX1063.XLS



user modified

Data File Name	: C:\HPCHEM\1\DATA\BX10413\040F0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 40
Sample Name	: MB041495	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 14 Apr 95 01:24 PM	Instrument Method	: BX10414.MTH
Report Created on	: 27 Apr 95 07:31 PM	Analysis Method	: BX10414B.MTH
Last Recalib on	: 15 APR 95 01:55 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

pm 4/28/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS041395	Dilution Factor	: 1.00
Date Extracted/Prepared	: 4/13/95	Method	: 602
Date Analyzed	: 4/13/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX1041308

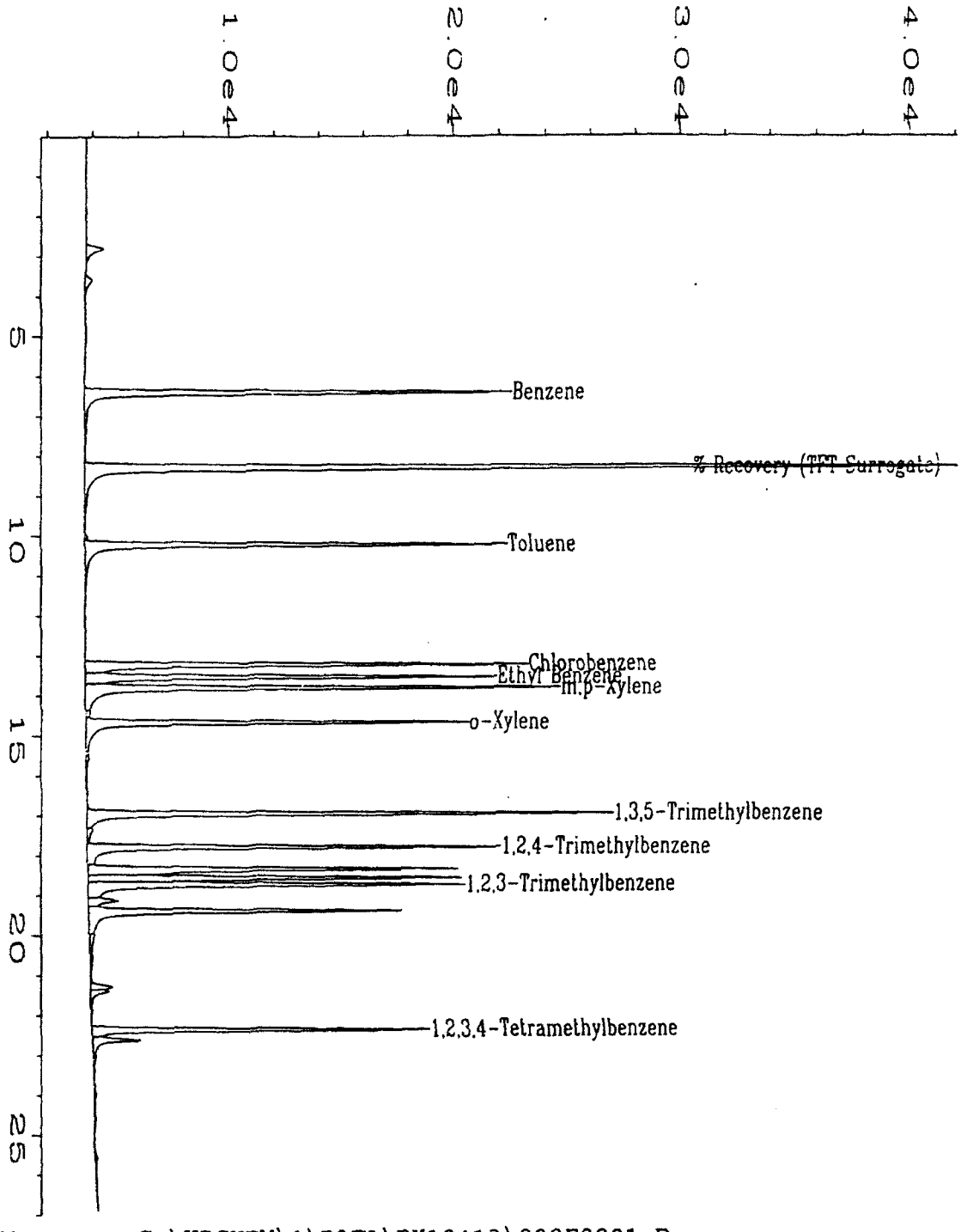
Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	16.3	81.5	71.0-119.0*
Toluene	108-88-3	17.0	85.0	73.0-111.0*
Chlorobenzene	108-90-7	17.3	86.5	64.0-119.0*
Ethyl Benzene	100-41-4	17.3	86.5	75.0-114.0*
m,p-Xylene	108-38-3	17.1	85.5	75.0-114.0*
o-Xylene	106-42-3 95-47-6	16.9	84.5	64.0-11[illegible]
1,3,5-Trimethylbenzene	108-67-8	17.8	89.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	18.4	92.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	21.3	106.5	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.8	89.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		91%	70%-130% (QC limits)	

* = Limits established 4/3/95 KSC

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Cone
Analyst

P. McClellan
Approved



ata File Name	: C:\HPCHEM\1\DATA\BX10413\008F0801.D		
perator	: C.J. Cook	Page Number	: 1
nstrument	: BTEX1	Vial Number	: 8
ample Name	: LCS041395	Injection Number	: 1
un Time Bar Code:		Sequence Line	: 8
co ired on	: 13 Apr 95 04:19 PM	Instrument Method	: BX10413.MTH
t Created on	: 13 Apr 95 05:01 PM	Analysis Method	: BX10413A.MTH
as Recalib on	: 13 APR 95 04:13 PM	Sample Amount	: 0
ltiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

BTEX Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS041495	**Dilution Factor**	: 1.00
Date Extracted/Prepared	: 4/14/95	**Method**	: 602
Date Analyzed	: 4/14/95	**Matrix**	: Water
Spike Amount (ug/L)	: 20.0	**Lab File No.**	: BX1041339

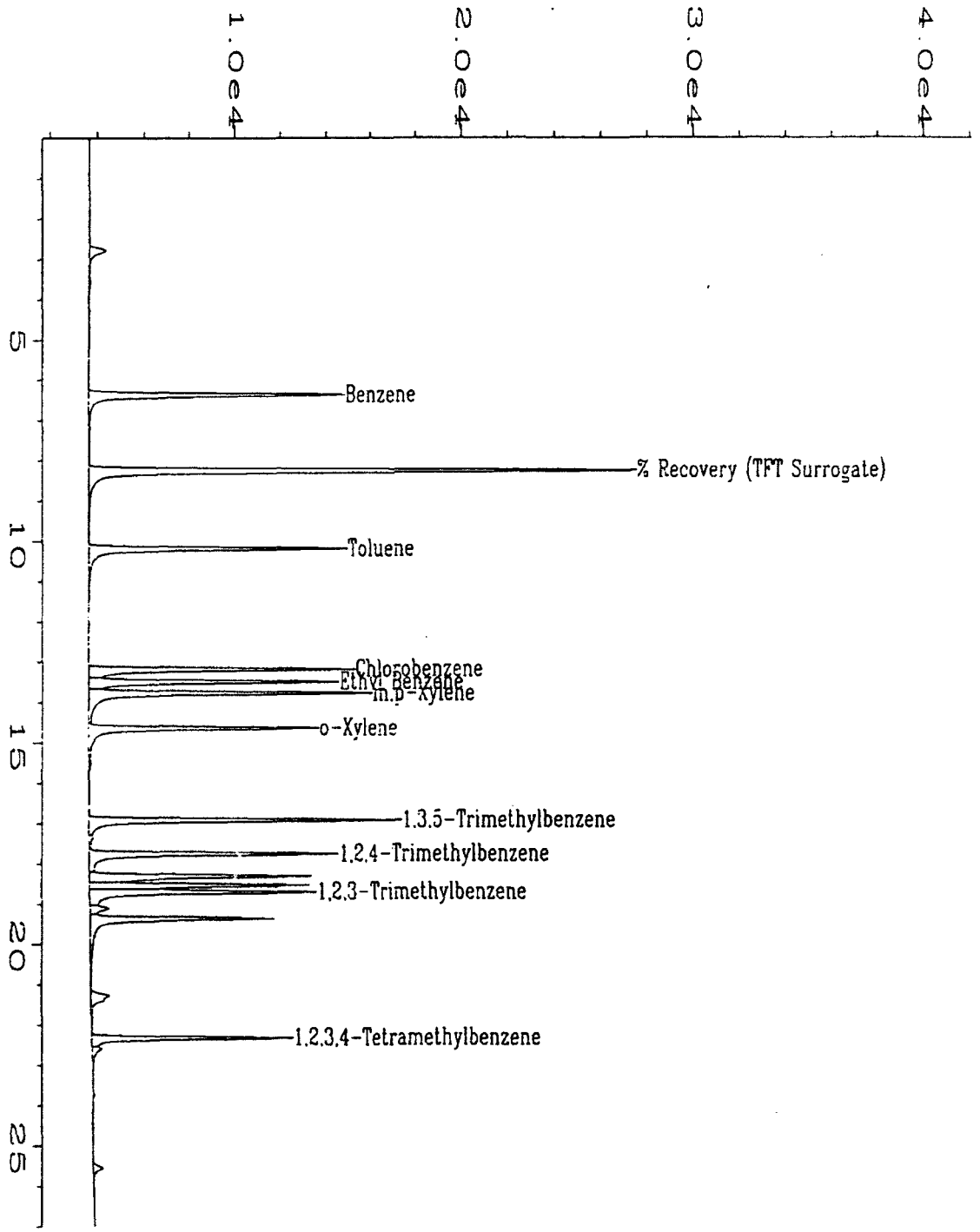
Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.8	79.0	71.0-119.0*
Toluene	108-88-3	16.3	81.5	73.0-111.0*
Chlorobenzene	108-90-7	16.1	80.5	64.0-119.0*
Ethyl Benzene	100-41-4	16.3	81.5	75.0-114.0*
m,p-Xylene	108-38-3 106-42-3	17.6	88.0	75.0-114.0*
o-Xylene	95-47-6	15.7	78.5	64.0-11'
1,3,5-Trimethylbenzene	108-67-8	16.5	82.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	16.8	84.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	19.5	97.5	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	15.0	75.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluorotoluene):		104%	70%-130% (QC limits)	

* = Limits established 4/3/95 KSC

QUALIFIERS:
E = Extrapolated value
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).
NA = Not available/Not analyzed.

K. Cone
Analyst

P. McClellan
Approved



Data File Name	: C:\HPCHEM\1\DATA\BX10413\039F0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 39
Sample Name	: LCS041495	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 14 Apr 95 12:45 PM	Instrument Method	: BX10413A.MTH
Report Created on	: 15 Apr 95 02:05 PM	Analysis Method	: BX10414A.MTH
Last Recalib on	: 15 APR 95 01:55 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH)
Laboratory Control Sample (LCS)

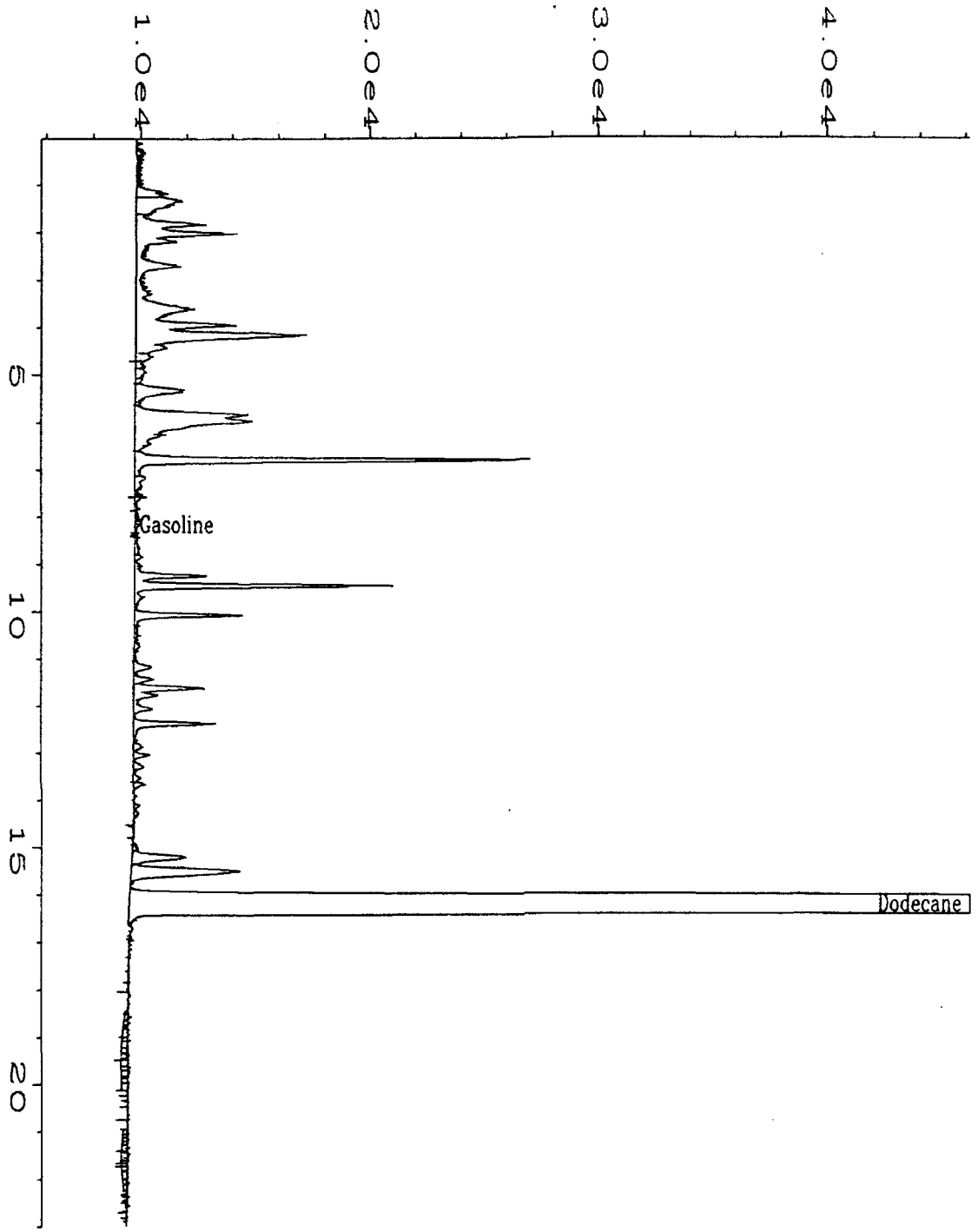
LCS Number	: LCS041495	Matrix	: WATER
Date Prepared	: 4/14/95	Method Number	: 5030/MOD.8015
Date Analyzed	: 4/14/95		
Sequence Number	: TVH7		

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	5.00	4.93	99%	70%-130%

QUALIFIERS
U = TVH analyzed for but not detected.
B = TVH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

Approved



Data File Name	: C:\HPCHEM\1\DATA\tvh0414\007F0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TVH	Vial Number	: 7
Sample Name	: LCS041495	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 14 Apr 95 02:59 PM	Instrument Method	: TVH1BASE.MTH
Report Created on	: 16 Apr 95 02:37 PM	Analysis Method	: TVH0415.MTH
Last Recalib on	: 16 APR 95 02:01 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH, as JET FUEL)

Date Sampled	: 3/31/95	Client Project Number	: 722450-21020
Date Received	: 4/1/95	Lab Project Number	: 95-1063
Date Prepared	: 4/3/95	Matrix	: Water
Date Analyzed	: 4/4,5,6/95	Method Number	: 3500/Mod.8015

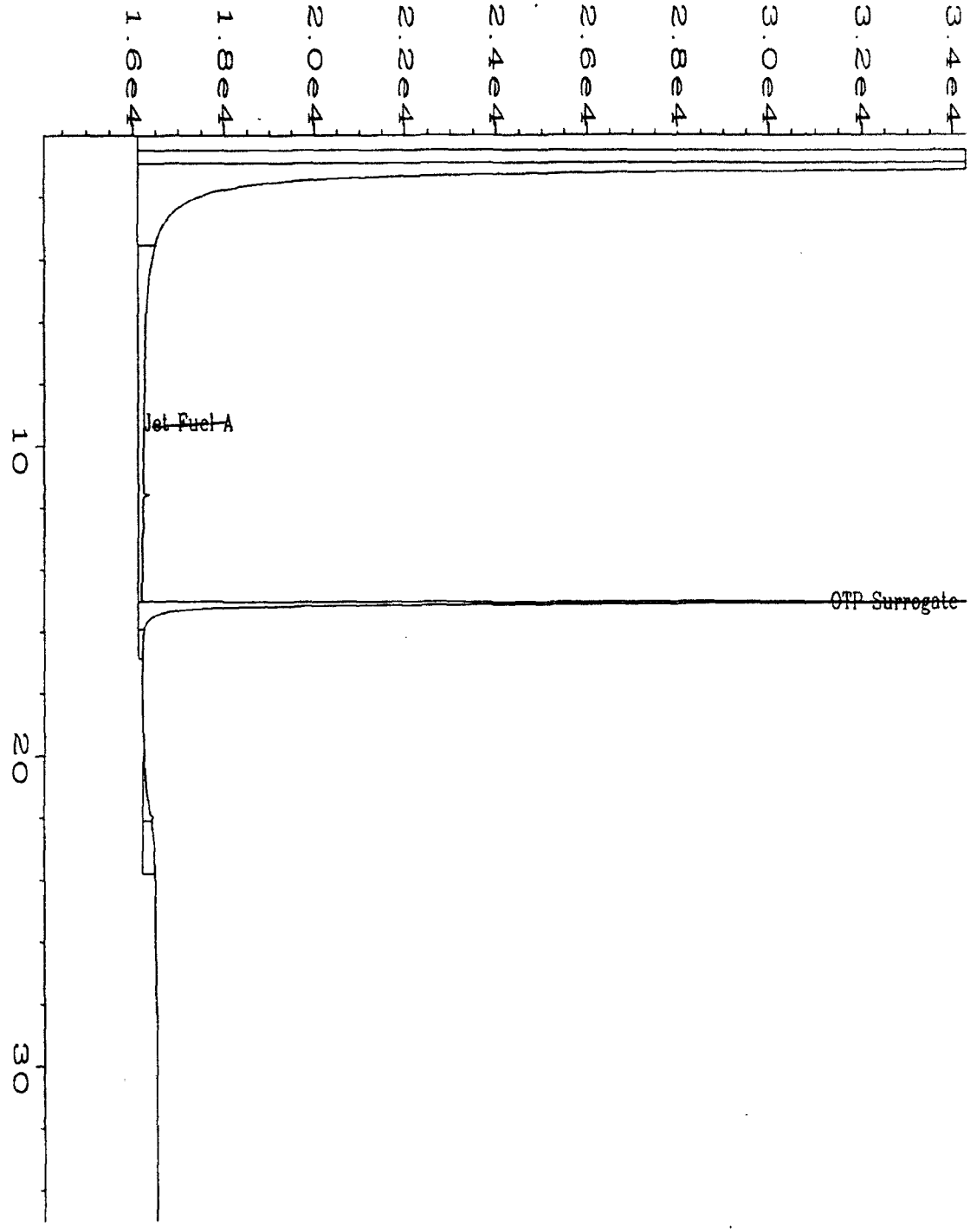
Evergreen Sample #	Client Sample #	Surrogate Recovery	TEH mg/L	RL mg/L
WB040395	WATER BLANK	75%	U	0.5
X05169	MD75-MW12	94%	3.1	0.5
X05172	MD75-MW8	110%	14	0.5
X05175	MD75-MW4	77%	15	0.5
X05178	24MP-2S	47%	4.0	0.5
X05178-R	24MP-2S	47%	3.9	0.5
X05179	MD24-MW6	61%	1.4	0.5
X05179-R	MD24-MW6	61%	1.3	0.5
X05183	MD24-MW2	45%	U	0.5
X05183-R	MD24-MW2	43%	U	0.5
X05184	MD24-MW26	53%	1.2	0.5
X05184-R	MD24-MW26	58%	1.4	0.5
X05185	MS/MSD	46%	U	0.5
X05185-R	MS/MSD	44%	U	0.5

QUALIFIERS
U = TEH analyzed for but not detected.
B = TEH found in blank.
E = Extrapolated value.
RL = Reporting Limit
R = Reanalysis of original sample extract.

Analyst

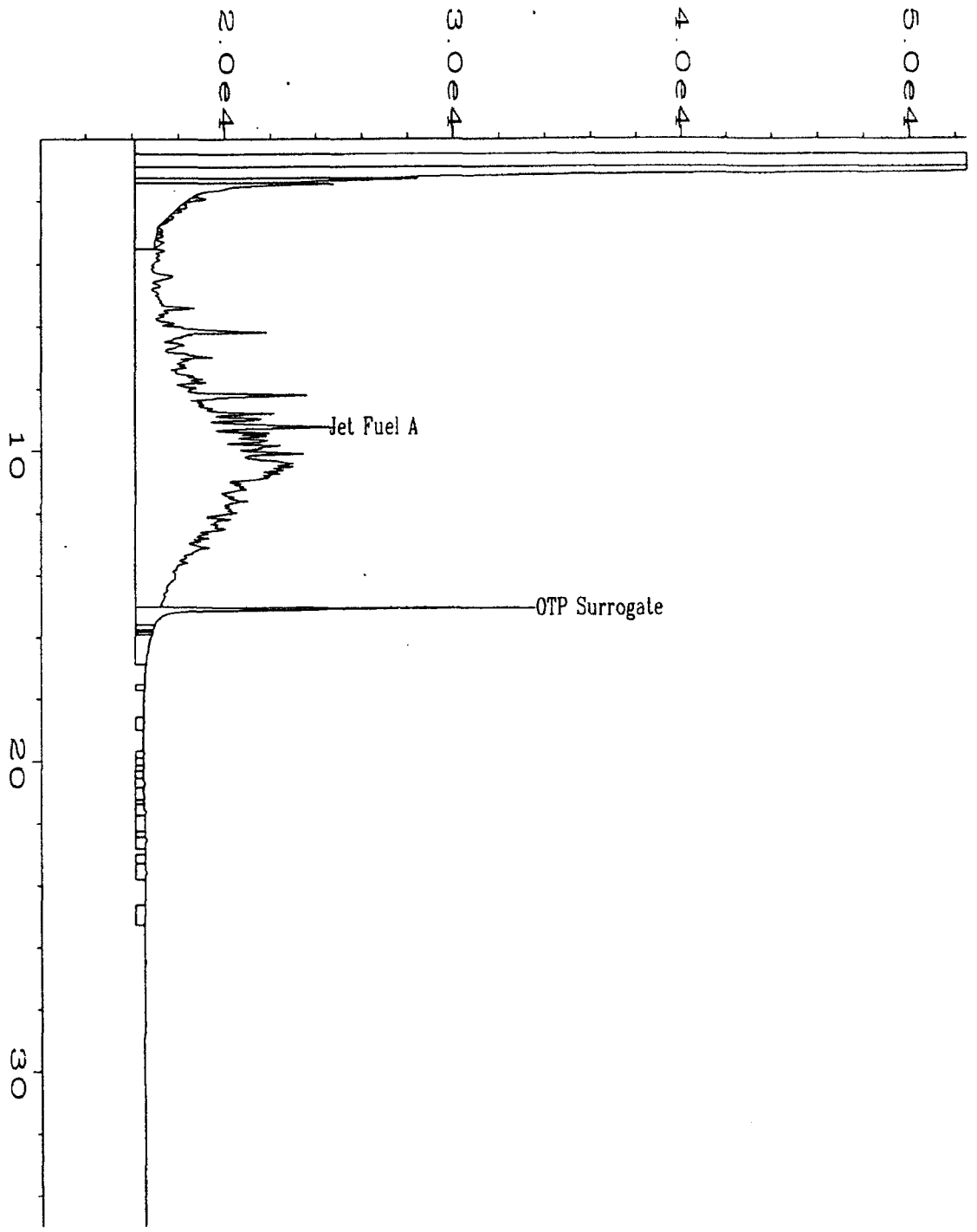
Approved

TEH1063.XLS

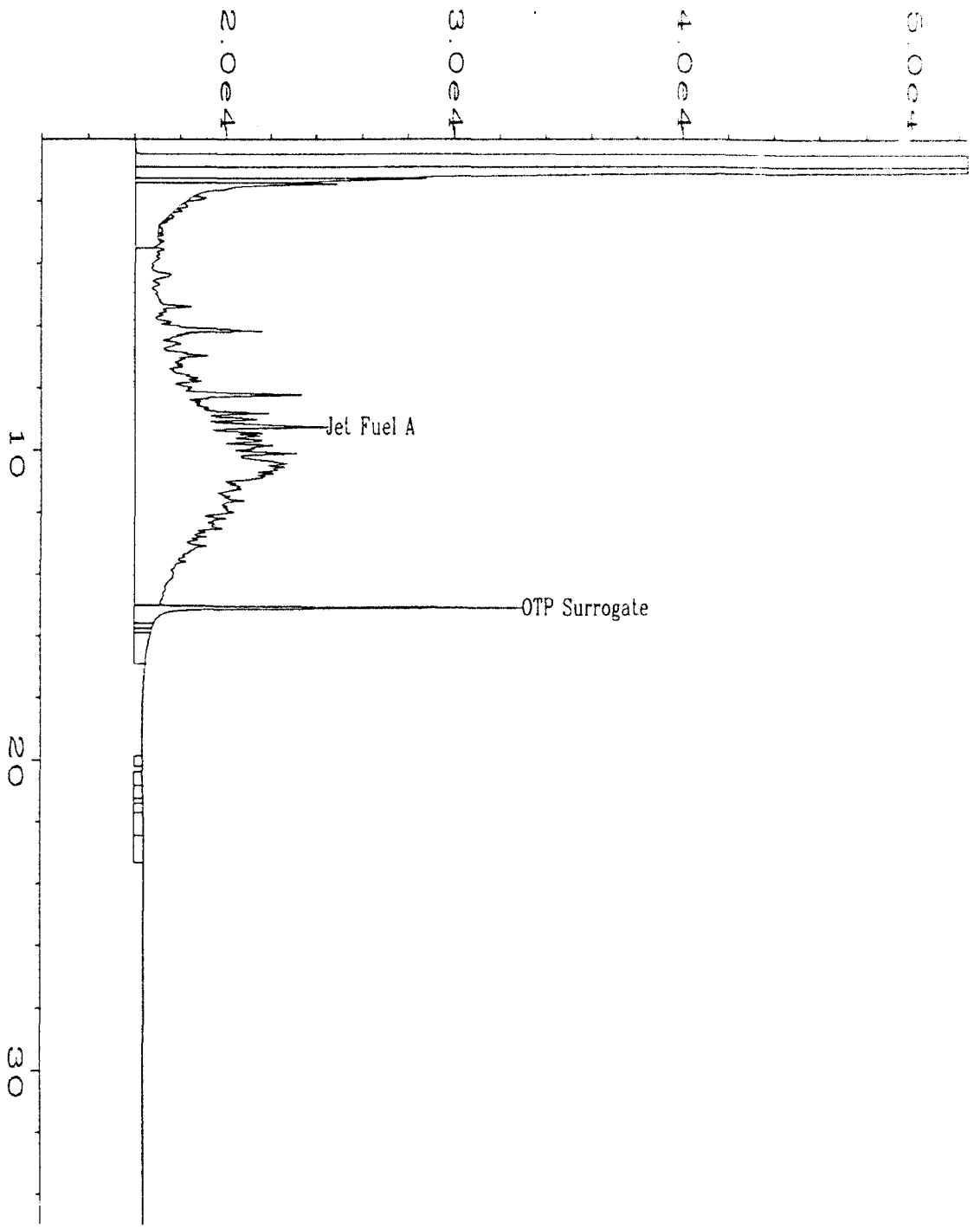


Data File Name	: C:\HPCHEM\2\DATA\JET0404\009R0801.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 9
Sample Name	: WB040395	Injection Number	: 1
In Time Bar Code:		Sequence Line	: 8
Acquired on	: 04 Apr 95 06:13 PM	Instrument Method	: JET0404.MTH
Report Created on	: 05 Apr 95 01:33 PM	Analysis Method	: JET0404.MTH
Last Recalib on	: 05 APR 95 10:34 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

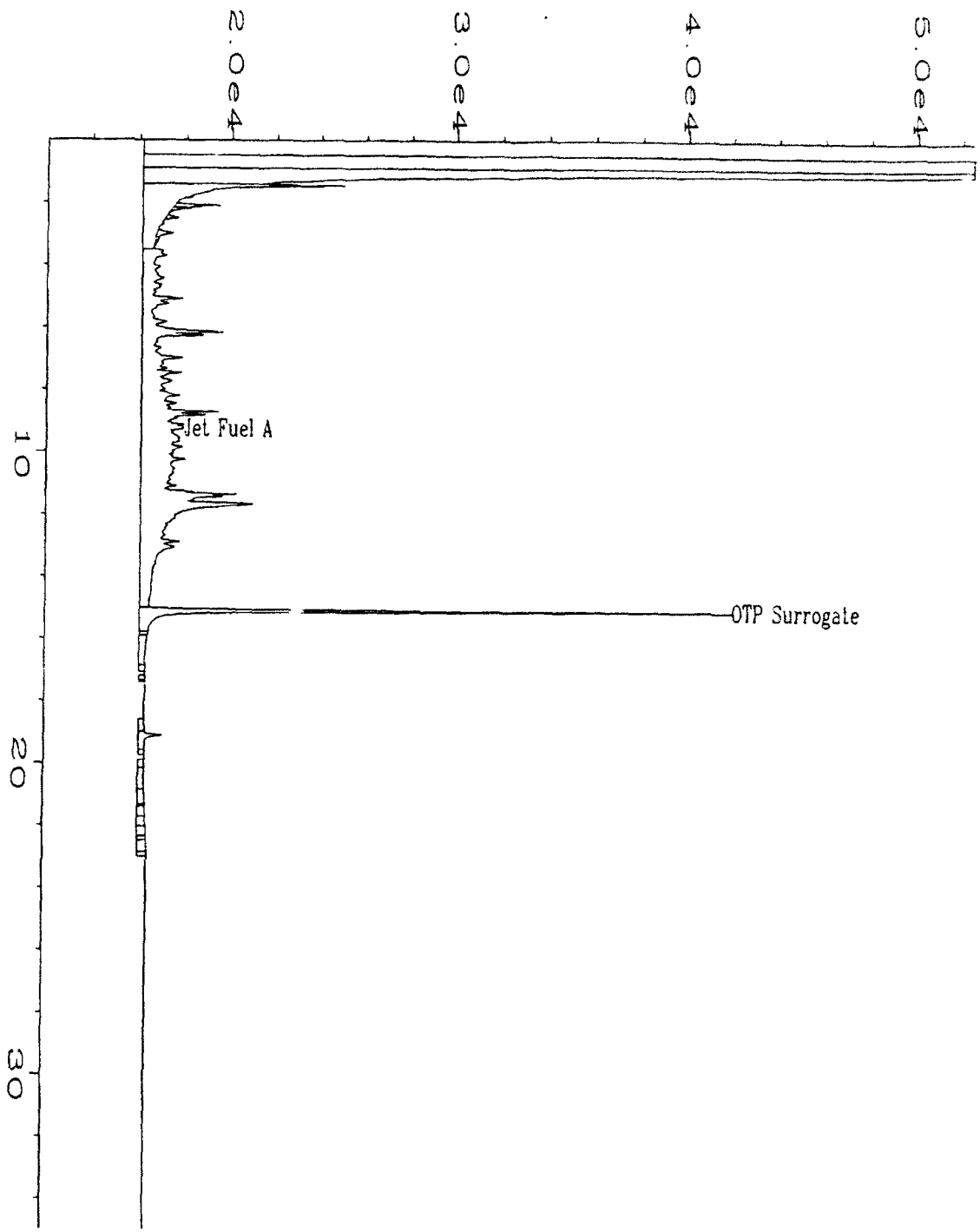
VS 4/22/95



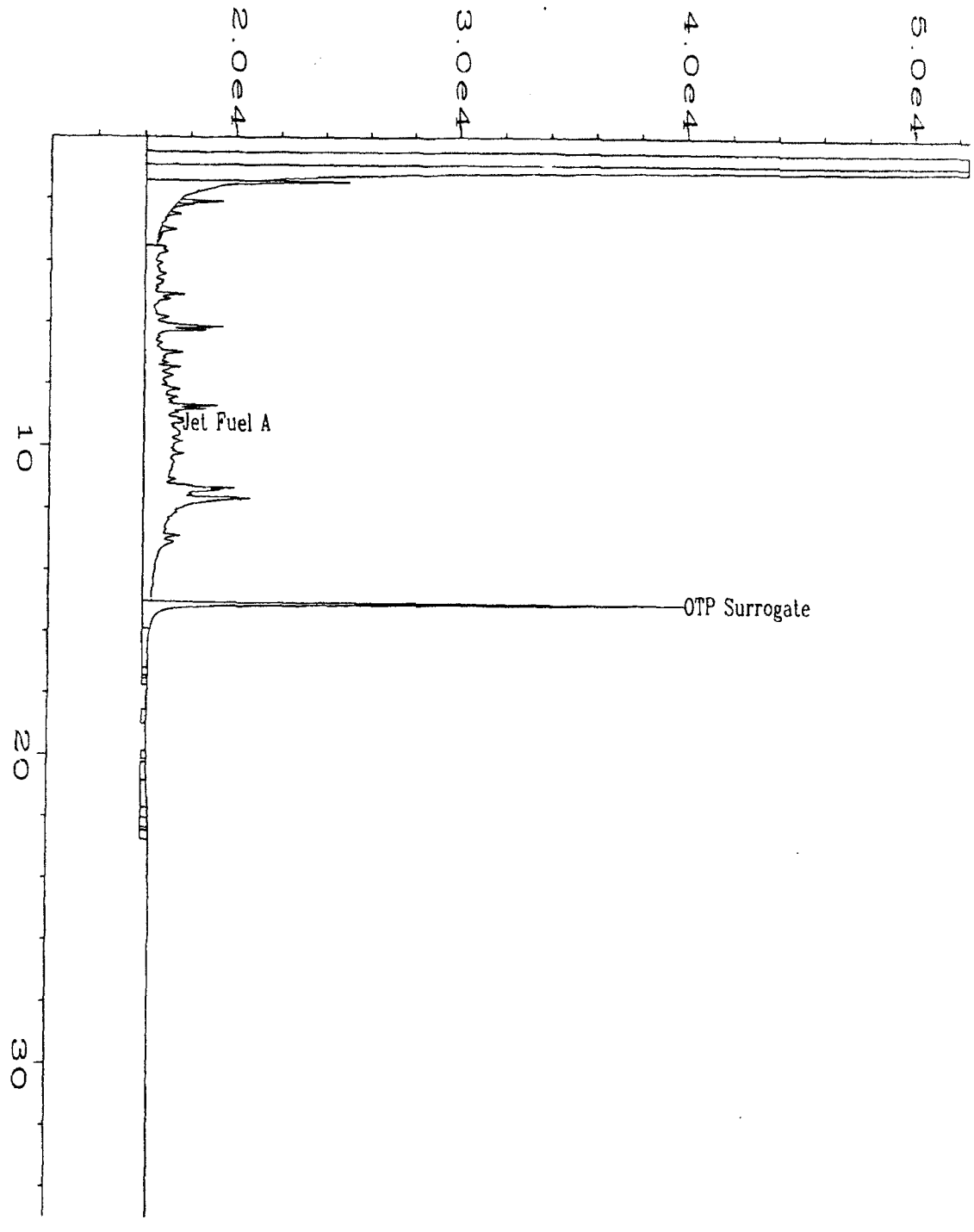
Data File Name	: C:\HPCHEM\2\DATA\jet0405\017R0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 17
Sample Name	: X05178 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 06 Apr 95 00:11 AM	Instrument Method	: FID1B .M
Report Created on	: 14 Apr 95 12:27 PM	Analysis Method	: JET0405.MT
Last Recalib on	: 06 APR 95 08:59 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-1063 CLIENT #24MP-25 WATER		



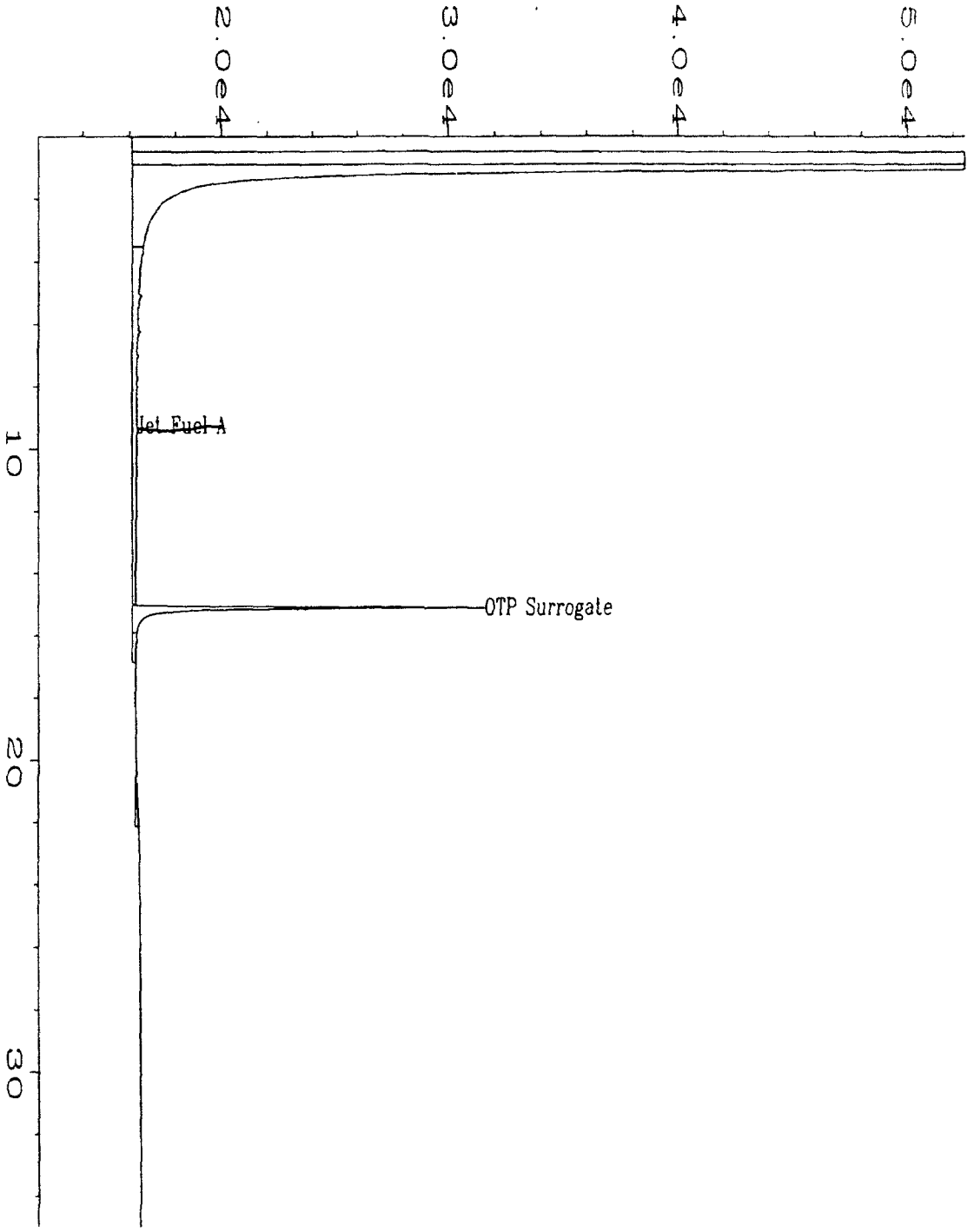
Data File Name	: C:\HPCHEM\2\DATA\jet0405\026R0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 26
Sample Name	: X05178 DF=1 -E	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 06 Apr 95 12:52 PM	Instrument Method	: FID1BASE.MTH
Report Created on	: 07 Apr 95 10:19 AM	Analysis Method	: JET0405.MTH
Last Recalib on	: 06 APR 95 08:59 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-1063 CLIENT #24MP-25 WATER		



Data File Name	: C:\HPCHEM\2\DATA\jet0405\018R0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 18
Sample Name	: X05179 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 06 Apr 95 01:01 AM	Instrument Method	: FID1B.
Report Created on	: 14 Apr 95 12:27 PM	Analysis Method	: JET040
Last Recalib on	: 06 APR 95 08:59 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-1063 CLIENT # MD24-MW6 WATER		



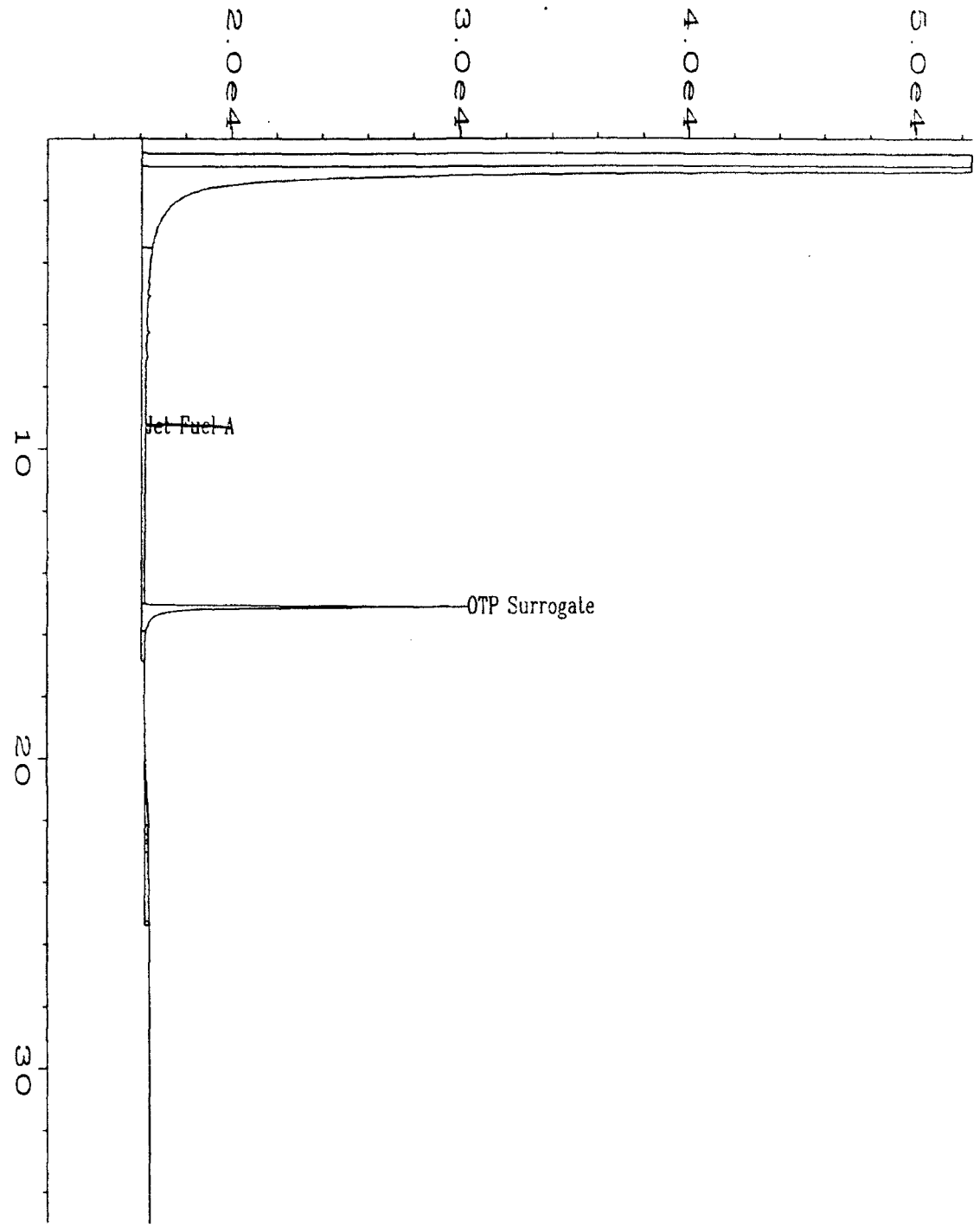
Data File Name	: C:\HPCHEM\2\DATA\jet0405\027R0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 27
Sample Name	: X05179 DF=1 —ℓ	Injection Number	: 1
un Time Bar Code:		Sequence Line	: 1
cquired on	: 06 Apr 95 01:42 PM	Instrument Method	: FID1BASE.MTH
Report Created on	: 07 Apr 95 10:19 AM	Analysis Method	: JET0405.MTH
Last Recalib on	: 06 APR 95 08:59 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-1063 CLIENT # MD24-MW6 WATER		



Data File Name : C:\HPCHEM\2\DATA\jet0405\019R0101.D
Operator : Dawn N. Guildner
Instrument : TEH
Sample Name : X05183 DF=1
Run Time Bar Code:
Acquired on : 06 Apr 95 01:51 AM
Report Created on: 14 Apr 95 12:27 PM
Last Recalib on : 06 APR 95 08:59 AM
Multiplier : 1
Sample Info : PROJECT # 95-1063 CLIENT # MD24-MW2 WATER

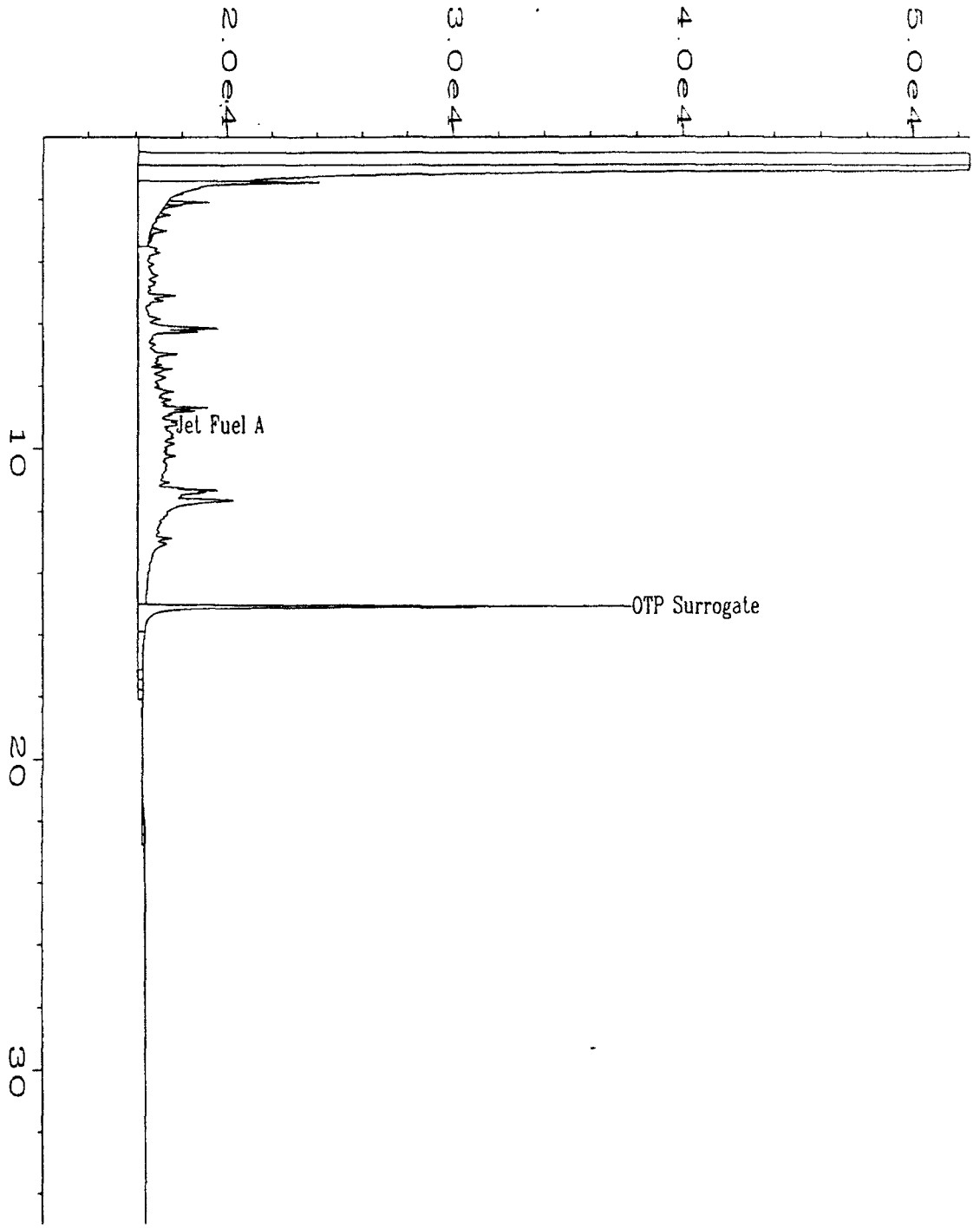
Page Number : 1
Vial Number : 19
Injection Number : 1
Sequence Line : 1
Instrument Method: FID1B .M
Analysis Method : JET040[illegible].MT
Sample Amount : 0
ISTD Amount :

DMM 4/22/95

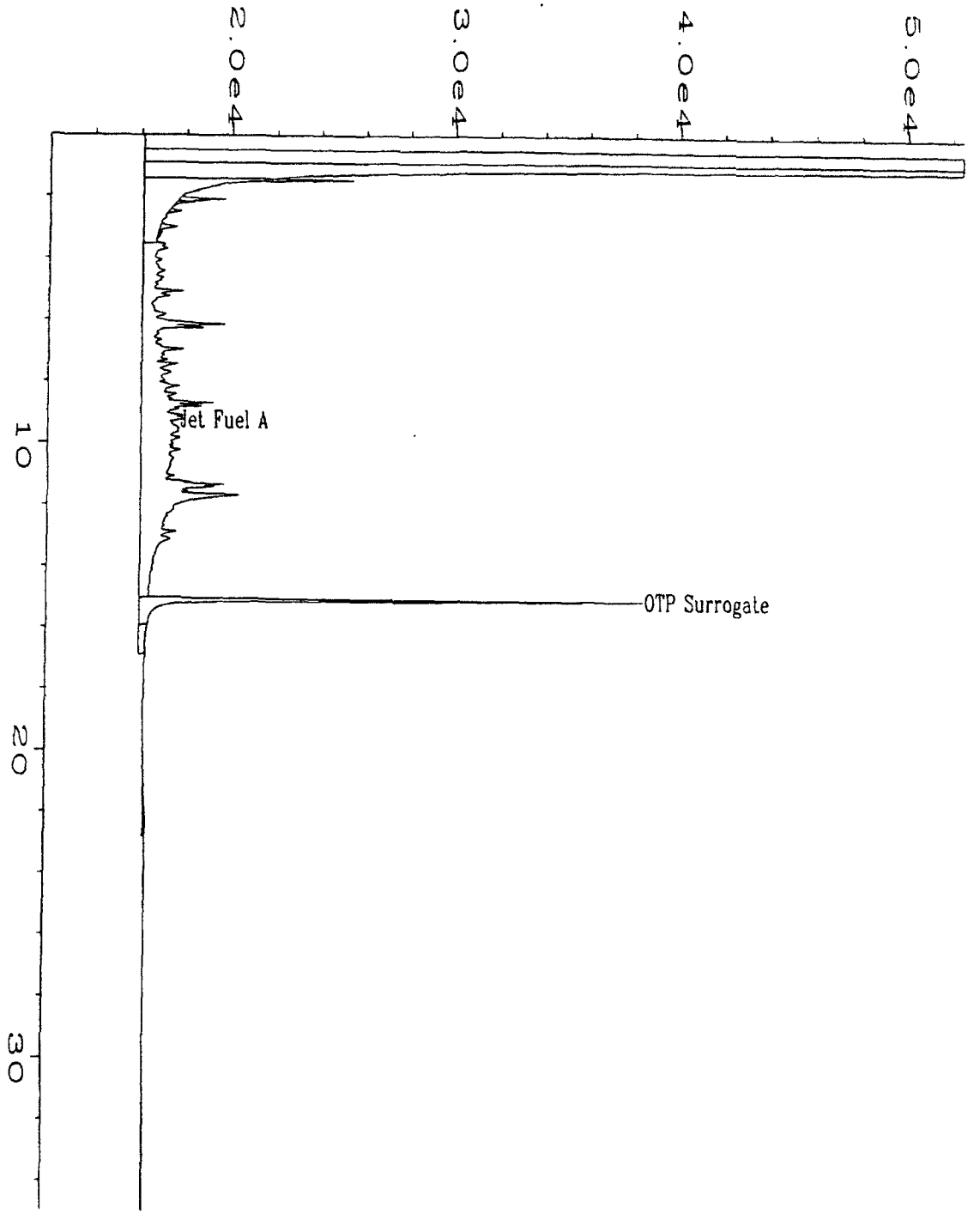


Data File Name	: C:\HPCHEM\2\DATA\jet0405\028R0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 28
Sample Name	: X05183 DF=1 R	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 06 Apr 95 02:32 PM	Instrument Method	: FID1BASE.MTH
Report Created on	: 07 Apr 95 10:19 AM	Analysis Method	: JET0405.MTH
Last Recalib on	: 06 APR 95 08:59 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-1063 CLIENT # MD24-MW2 WATER		

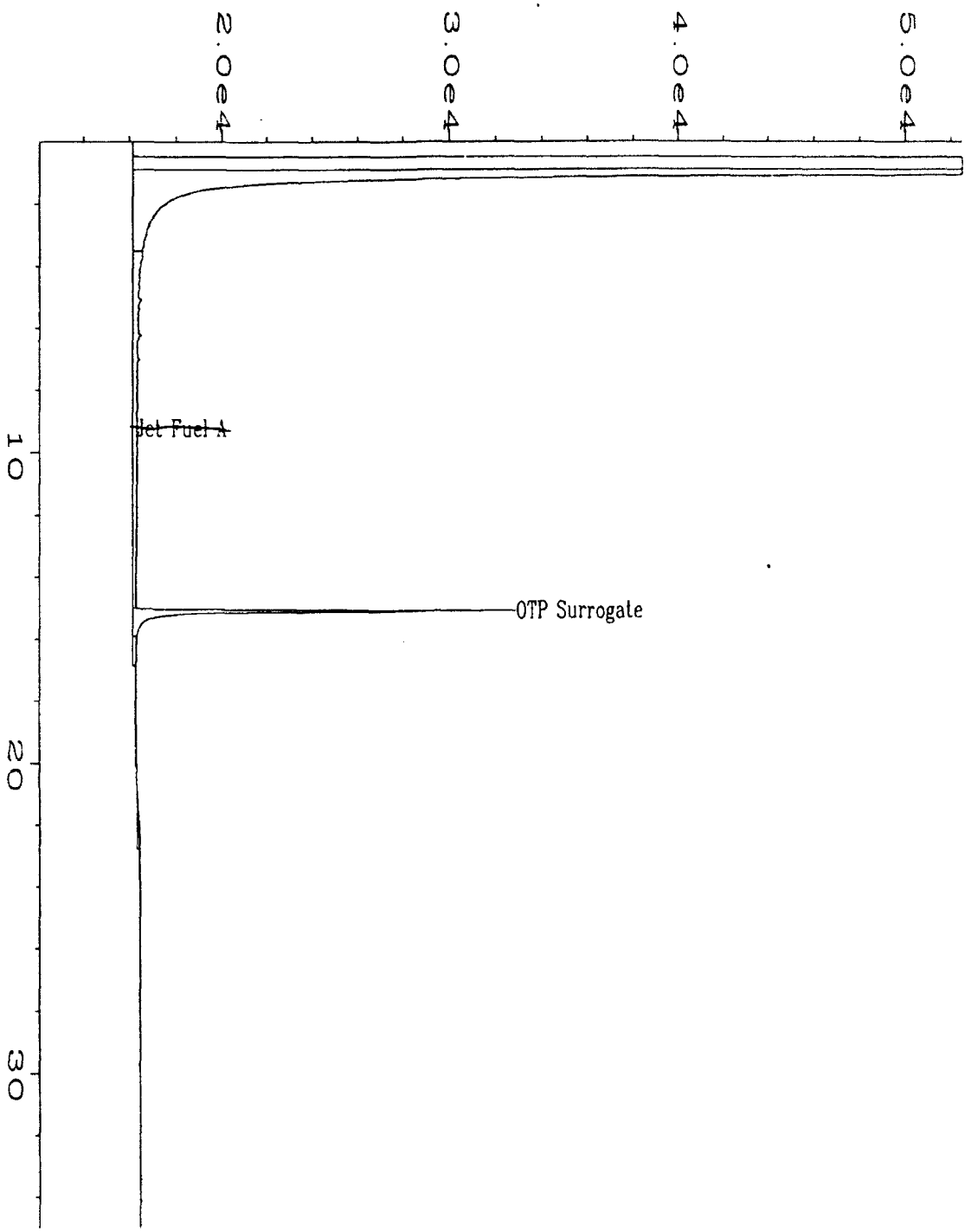
pm 4/20/95



Data File Name	: C:\HPCHEM\2\DATA\jet0405\020R0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 20
Sample Name	: X05184 DF=1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 06 Apr 95 02:40 AM	Instrument Method	: FID1E
Report Created on	: 14 Apr 95 12:27 PM	Analysis Method	: JET0405.M
Last Recalib on	: 06 APR 95 08:59 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-1063 CLIENT # MD24-MW26 WATER		



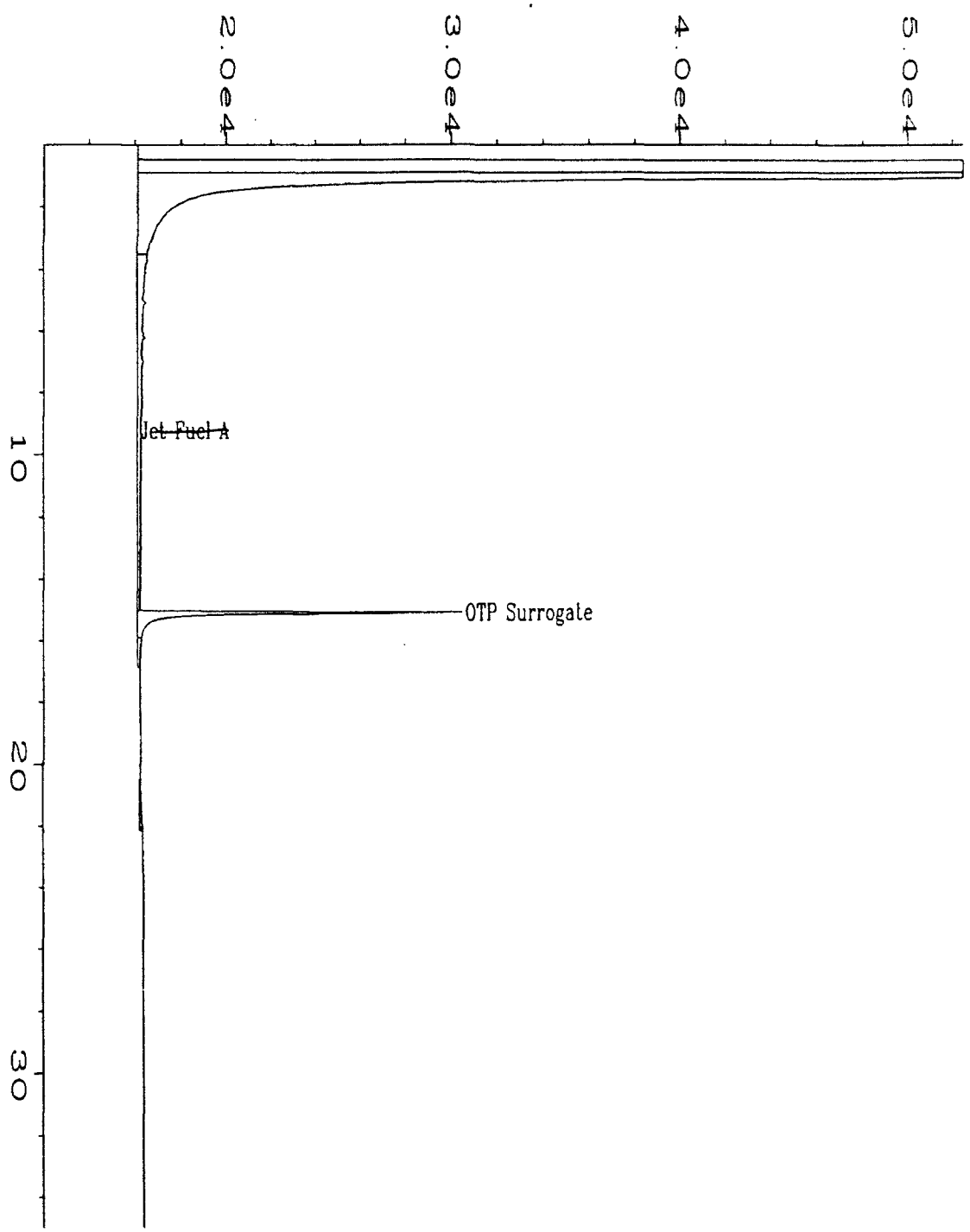
Data File Name	: C:\HPCHEM\2\DATA\jet0405\029R0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 29
Sample Name	: X05184 DF=1 ~f	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 06 Apr 95 03:22 PM	Instrument Method	: FID1BASE.MTH
Report Created on	: 07 Apr 95 10:19 AM	Analysis Method	: JET0405.MTH
Last Recalib on	: 06 APR 95 08:59 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-1063 CLIENT # MD24-MW26 WATER		



Data File Name : C:\HPCHEM\2\DATA\jet0405\021R0101.D
Operator : Dawn N. Guildner
Instrument : TEH
Sample Name : X05185 DF=1
Run Time Bar Code:
Acquired on : 06 Apr 95 03:30 AM
Report Created on: 14 Apr 95 12:27 PM
Last Recalib on : 06 APR 95 08:59 AM
Multiplier : 1
Sample Info : PROJECT # 95-1063 CLIENT # MS/MSD WATER

Page Number : 1
Vial Number : 21
Injection Number : 1
Sequence Line : 1
Instrument Method: FID1BA[illegible].MT
Analysis Method : JET0405.MT
Sample Amount : 0
ISTD Amount :

DNG 4/27/95



Data File Name	: C:\HPCHEM\2\DATA\jet0405\030R0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 30
Sample Name	: X05185 DF=1 – R	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 06 Apr 95 04:11 PM	Instrument Method	: FID1BASE.MTH
Report Created on	: 07 Apr 95 10:20 AM	Analysis Method	: JET0405.MTH
Last Recalib on	: 06 APR 95 08:59 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: PROJECT # 95-1063 CLIENT # MS/MSD WATER		

DM 4/27/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH)
Laboratory Control Sample (LCS)

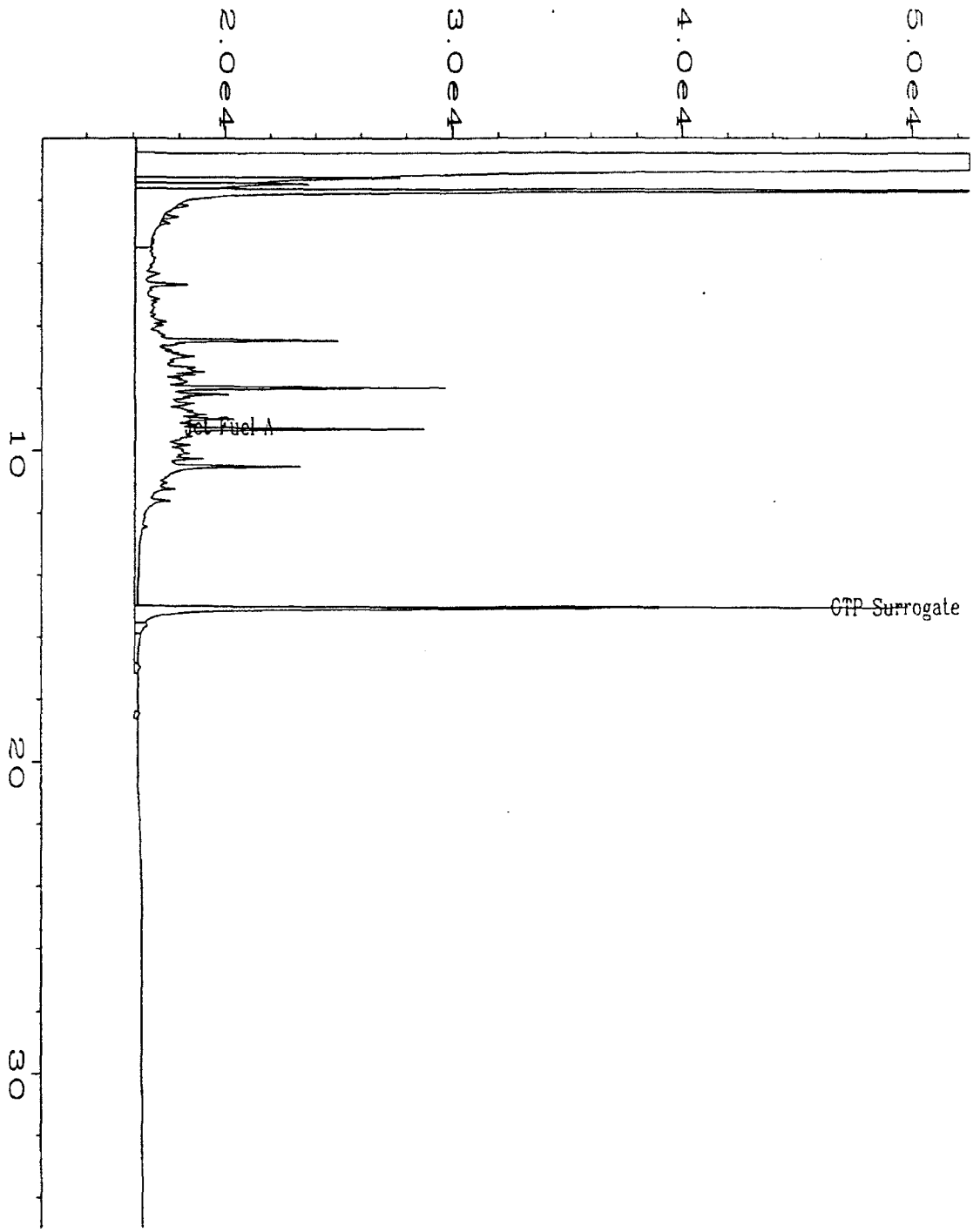
LCS Number	: LCS040495	Matrix	: WATER
Date Prepared	: 4/3/95	Method Number	: 3500/MOD.8015
Date Analyzed	: 4/5/95		
Sequence Number	: JET10		

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
JET FUEL	1000	855	86%	70%-130%

QUALIFIERS
U = TEH analyzed for but not detected.
B = TEH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\jet0405\010R0101.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 10
Sample Name	: LCS040495	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 05 Apr 95 06:22 PM	Instrument Method	: FID1BASE.MTH
Report Created on	: 06 Apr 95 08:56 AM	Analysis Method	: JET0405.MTH
Last Recalib on	: 06 APR 95 08:52 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH)
Laboratory Control Sample (LCS)

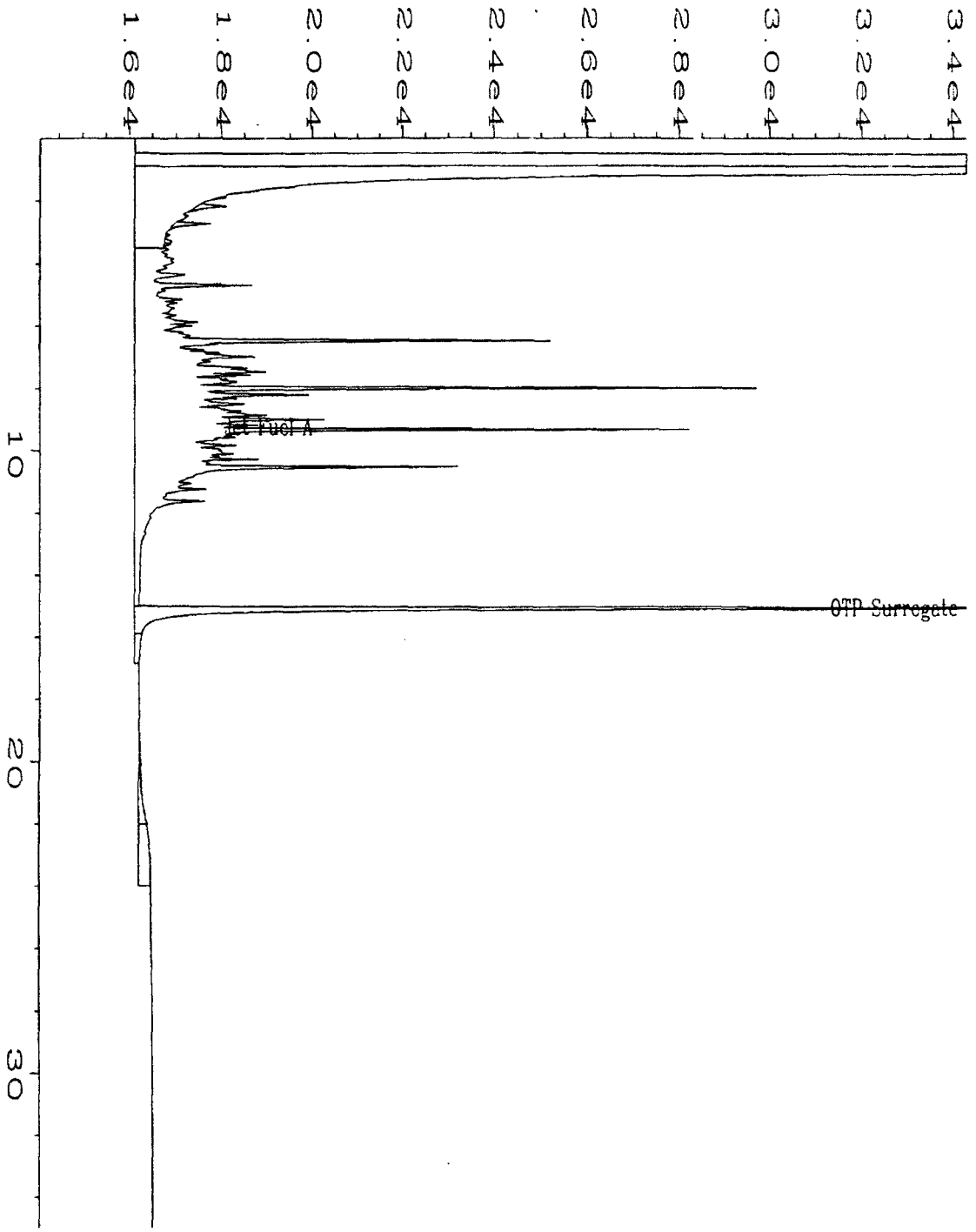
LCS Number	: LCS040495	Matrix	: WATER
Date Prepared	: 4/3/95	Method Number	: 3500/MOD.8015
Date Analyzed	: 4/4/95		
Sequence Number	: JET10		

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
JET FUEL	1000	834	83%	70%-130%

QUALIFIERS
U = TEH analyzed for but not detected.
B = TEH found in blank as well as sample (blank data should be compared).
E = Extrapolated value.
NA = Not Available.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\JET0404\010R0801.D		
Operator	: Dawn N. Guildner	Page Number	: 1
Instrument	: TEH	Vial Number	: 10
Sample Name	: LCS040495	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 04 Apr 95 07:03 PM	Instrument Method	: JET0404.MTH
Report Created on	: 05 Apr 95 01:33 PM	Analysis Method	: JET0404.MTH
Last Recalib on	: 05 APR 95 10:34 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

External Standard Report

Data File Name : C:\HPCHEM\2\DATA\BX20415\014R0101.D
Operator : T. Lockwood
Instrument : BTEX2
Sample Name : X05176;50;0.1
Run Time Bar Code:
Acquired on : 15 Apr 95 08:36 PM
Report Created on: 16 Apr 95 04:42 PM
Last Recalib on : 16 Apr 95 03:38 PM
Multiplier : 1 x50

Page Number : 1
Vial Number : 14
Injection Number : 1
Sequence Line : 1
Instrument Method: BX20415.MTH
Analysis Method : BX20415A.MT
Sample Amount : 0
ISTD Amount :

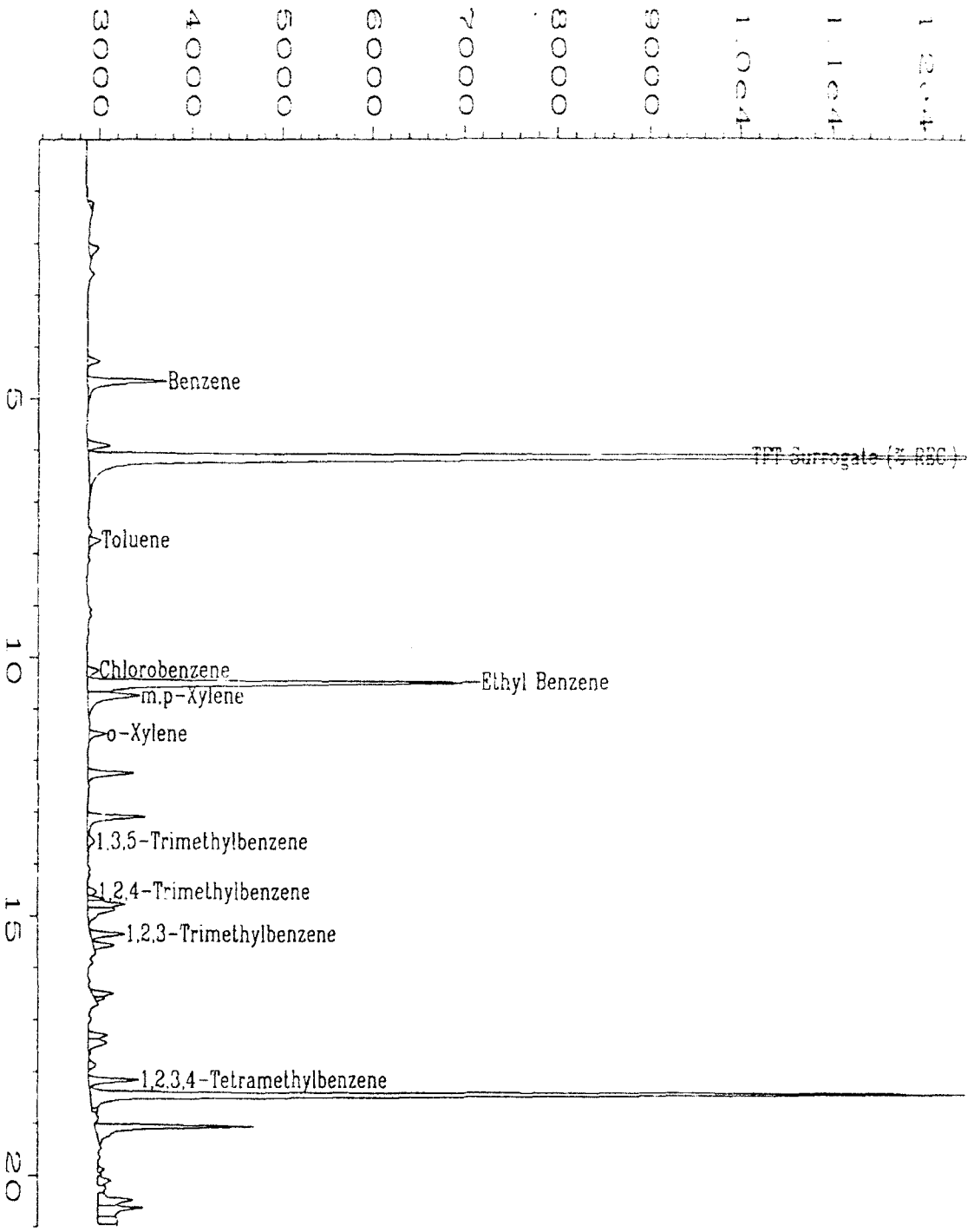
Sig. 2 in C:\HPCHEM\2\DATA\BX20415\014R0101.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
4.660	5594	BB	0.098	1	1.914	Benzene x50
6.143	86867	VB	0.096	1-R	87.270	TFT Surrogate (% REC.)
7.728	902	VB	0.104	1	0.350	Toluene
10.247	810	BV	0.102	1	0.373	Chlorobenzene
10.493	24823	VV	0.089	1	10.830	Ethyl Benzene x50
10.741	4517	VB	0.116	1	~~1.605~~	~~m,p-Xylene~~ x50 = B
11.477	958	BB	0.084	1	~~0.431~~	~~o-Xylene~~ ck mac
13.561	724	VB	0.149	1	0.223	1,3,5-Trimethylbenzene
14.531	656	BV	0.113	1	0.296	1,2,4-Trimethylbenzene
15.354	1942	PV	0.085	1	0.969	1,2,3-Trimethylbenzene
18.173	2698	PV	0.079	1	1.446	1,2,3,4-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
2	6.120	6.143	0.023

Holding time up

not used



Data File Name	: C:\HPCHEM\2\DATA\BX20415\014R0101.D		
Operator	: T. Lockwood	Page Number	: 1
Instrument	: BTEX2	Vial Number	: 14
Sample Name	: X05176;50;0.1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 15 Apr 95 08:36 PM	Instrument Method	: BX20415.MTH
Report Created on	: 16 Apr 95 04:42 PM	Analysis Method	: BX20415A.MTH
Last Recalib on	: 16 Apr 95 03:38 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

External Standard Report

Data File Name : C:\HPCHEM\1\DATA\BX10417\017F1001.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X05175;20;0.250
Run Time Bar Code:
Acquired on : 17 Apr 95 04:31 PM
Report Created on: 17 Apr 95 07:29 PM
Last Recalib on : 17 APR 95 07:07 PM
Multiplier : 20
Sample Info : Project#: 95-1063 Client#: MD75-MW4 Water

Page Number : 1
Vial Number : 17
Injection Number : 1
Sequence Line : 10
Instrument Method: BX10417A.M
Analysis Method : BX10417B.M
Sample Amount : 0
ISTD Amount :

Sig. 1 in C:\HPCHEM\1\DATA\BX10417\017F1001.D

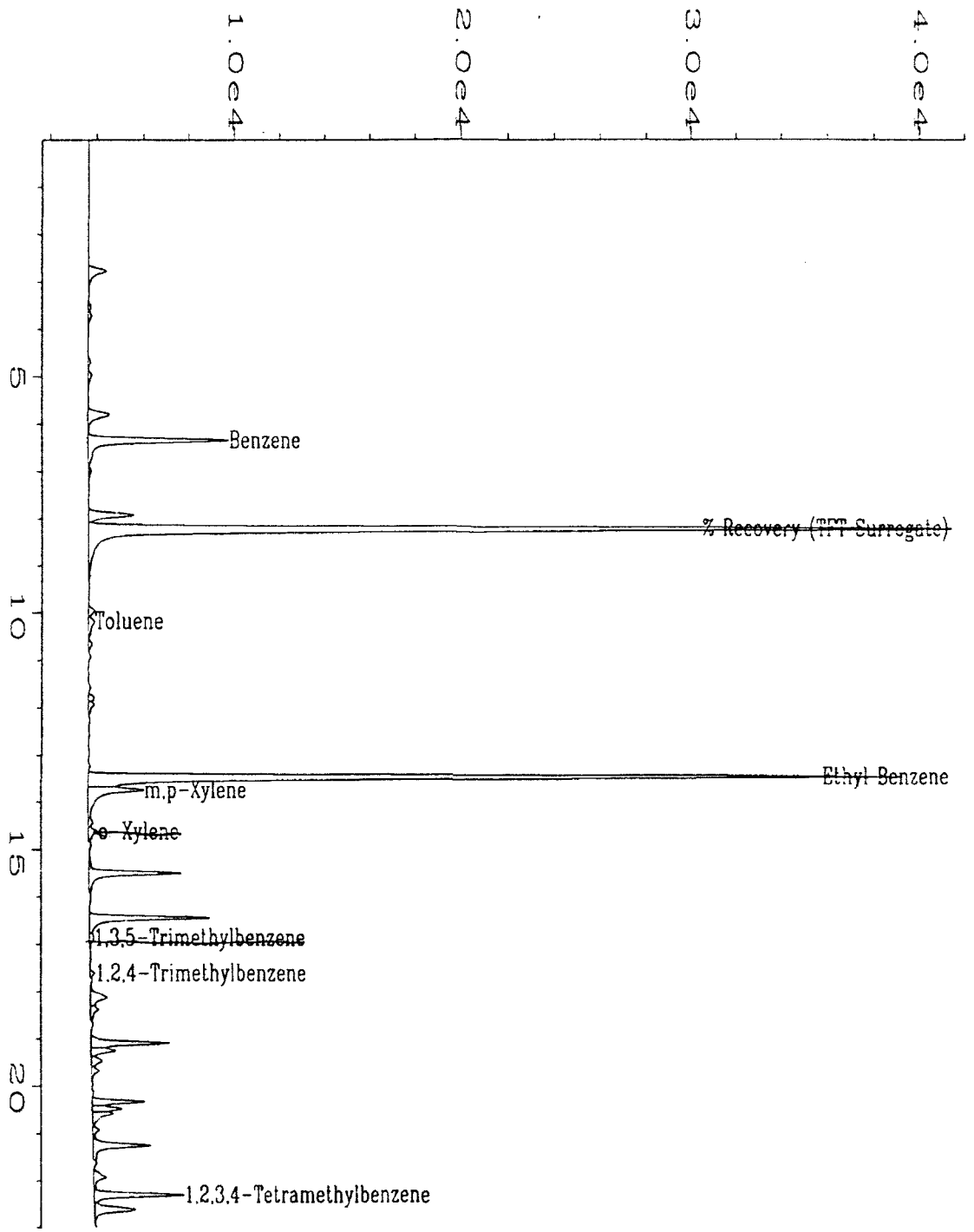
Ret Time	Area	Type	Width	Ref#	ug/L	Name
6.333	43572	VV	0.107	1	94.359	Benzene
8.218	261271	VV	0.106	1-R	1699.725	% Recovery (TFT Surrogate) 85%
10.172	3841	VV	0.196	1	9.015	Toluene
13.196	* not found *			1		Chlorobenzene
13.464	209657	VV	0.091	1	583.727	Ethyl Benzene
13.741	23300	VV	0.134	1	52.583	m,p-Xylene
14.613	3728	VV	0.129	1	9.673	o-Xylene
16.871	1985	VV	0.165	1	4.440	1,3,5-Trimethylbenzene
17.610	1119	PV	0.094	1	3.417	1,2,4-Trimethylbenzene
18.722	* not found *			1		1,2,3-Trimethylbenzene
22.301	22466	VV	0.089	1	92.176	1,2,3,4-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
2	8.275	8.218	-0.057

Not all calibrated peaks were found

Holding Time up

Not used for PC



Data File Name : C:\HPCHEM\1\DATA\BX10417\017F1001.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X05175;20;0.250
Run Time Bar Code:
Acquired on : 17 Apr 95 04:31 PM
Report Created on: 17 Apr 95 07:30 PM
Last Recalib on : 17 APR 95 07:07 PM
Multiplier : 20
Sample Info : Project#: 95-1063 Client#: MD75-MW4 Water

Page Number : 1
Vial Number : 17
Injection Number : 1
Sequence Line : 10
Instrument Method: BX10417A.MTH
Analysis Method : BX10417B.MTH
Sample Amount : 0
ISTD Amount :

PM 4/28/95

External Standard Report

Data File Name : C:\HPCHEM\1\DATA\BX10417\016F1001.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X05174;20;0.250
Run Time Bar Code:
Acquired on : 17 Apr 95 03:51 PM
Report Created on: 17 Apr 95 07:28 PM
Last Recalib on : 17 APR 95 07:07 PM
Multiplier : 20
Sample Info : Project#: 95-1063 Client#: 75MP-45 Water

Page Number : 1
Vial Number : 16
Injection Number : 1
Sequence Line : 10
Instrument Method: BX10417A.M
Analysis Method : BX10417B.M
Sample Amount : 0
ISTD Amount :

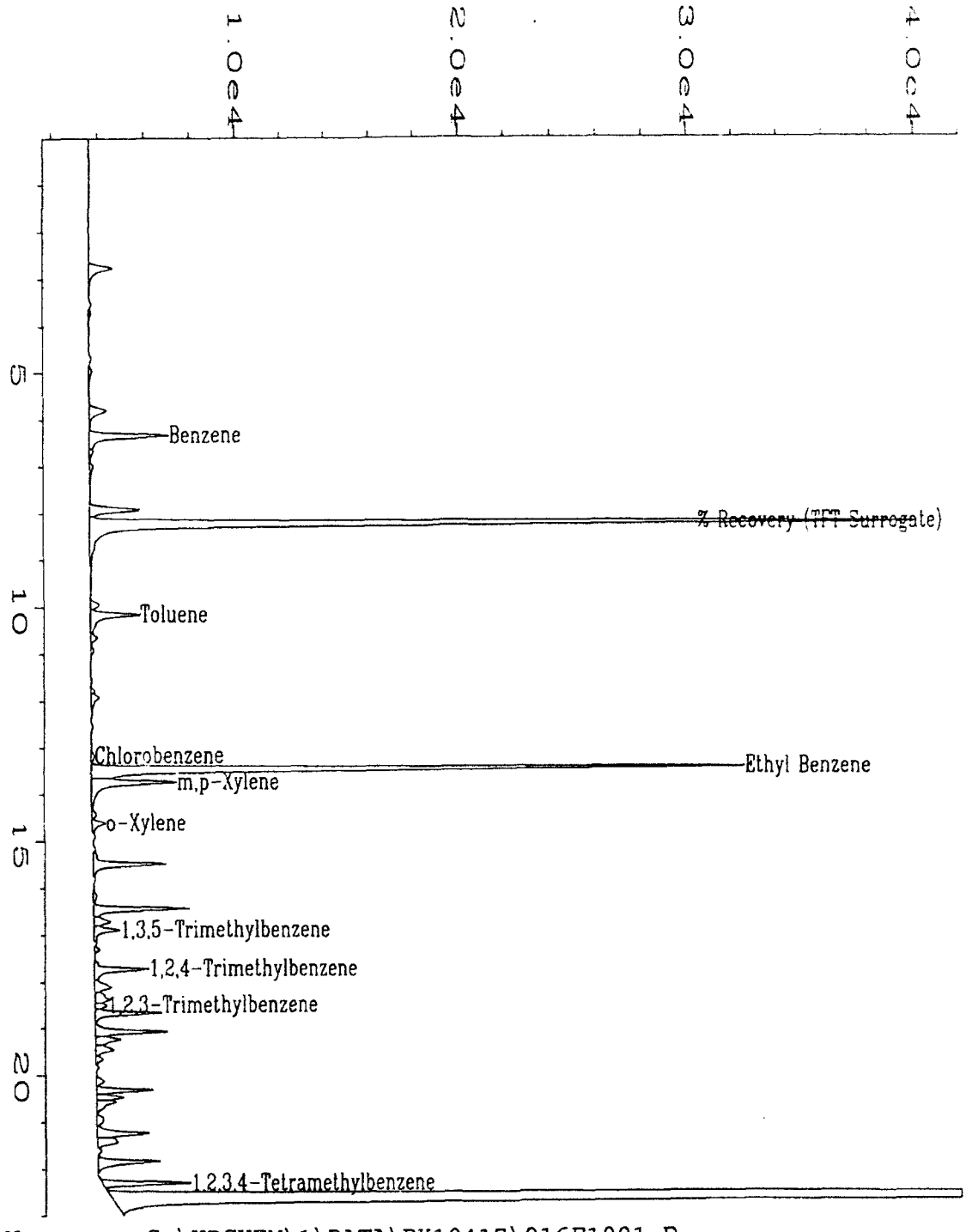
Sig. 1 in C:\HPCHEM\1\DATA\BX10417\016F1001.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
6.330	24882	VV	0.107	1	53.885	Benzene
8.213	252850	VV	0.106	1-R	1644.939	% Recovery (TFT Surrogate) 82%
10.151	16893	VV	0.114	1	39.647	Toluene
13.169	1325	VV	0.151	1	3.616	Chlorobenzene
13.456	165067	VV	0.088	1	459.579	Ethyl Benzene
13.738	29452	VV	0.115	1	66.467	m,p-Xylene
14.606	4565	VV	0.114	1	11.847	o-Xylene
16.889	7670	VV	0.102	1	17.154	1,3,5-Trimethylbenzene
17.726	15398	VV	0.096	1	47.038	1,2,4-Trimethylbenzene
18.503	2959	VV	0.087	1	9.089	1,2,3-Trimethylbenzene
22.302	19127	PV	0.079	1	78.479	1,2,3,4-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
2	8.275	8.213	-0.062

Holding Time Up

Not used per



Data File Name	: C:\HPCHEM\1\DATA\BX10417\016F1001.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 16
Sample Name	: X05174;20;0.250	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 17 Apr 95 03:51 PM	Instrument Method	: BX10417A.MTH
Report Created on	: 17 Apr 95 07:29 PM	Analysis Method	: BX10417B.MTH
Last Recalib on	: 17 APR 95 07:07 PM	Sample Amount	: 0
Multiplier	: 20	ISTD Amount	:
Sample Info	: Project#: 95-1063 Client#: 75MP-45 Water		

External Standard Report

Data File Name : C:\HPCHEM\1\DATA\BX10413\059F0101.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X05172;10;500ul
Run Time Bar Code:
Acquired on : 15 Apr 95 01:57 AM
Report Created on: 27 Apr 95 07:38 PM
Last Recalib on : 15 APR 95 01:55 PM
Multiplier : ~~0.5~~ 10
Sample Info : Project#: 95-1063 Client#: MD75-MW8 Water

Page Number : 1
Vial Number : 59
Injection Number : 1
Sequence Line : 1
Instrument Method: BX10414.MT
Analysis Method : BX10414B.M
Sample Amount : 0
ISTD Amount :

$\left(\frac{10}{0.5}\right) = 20$

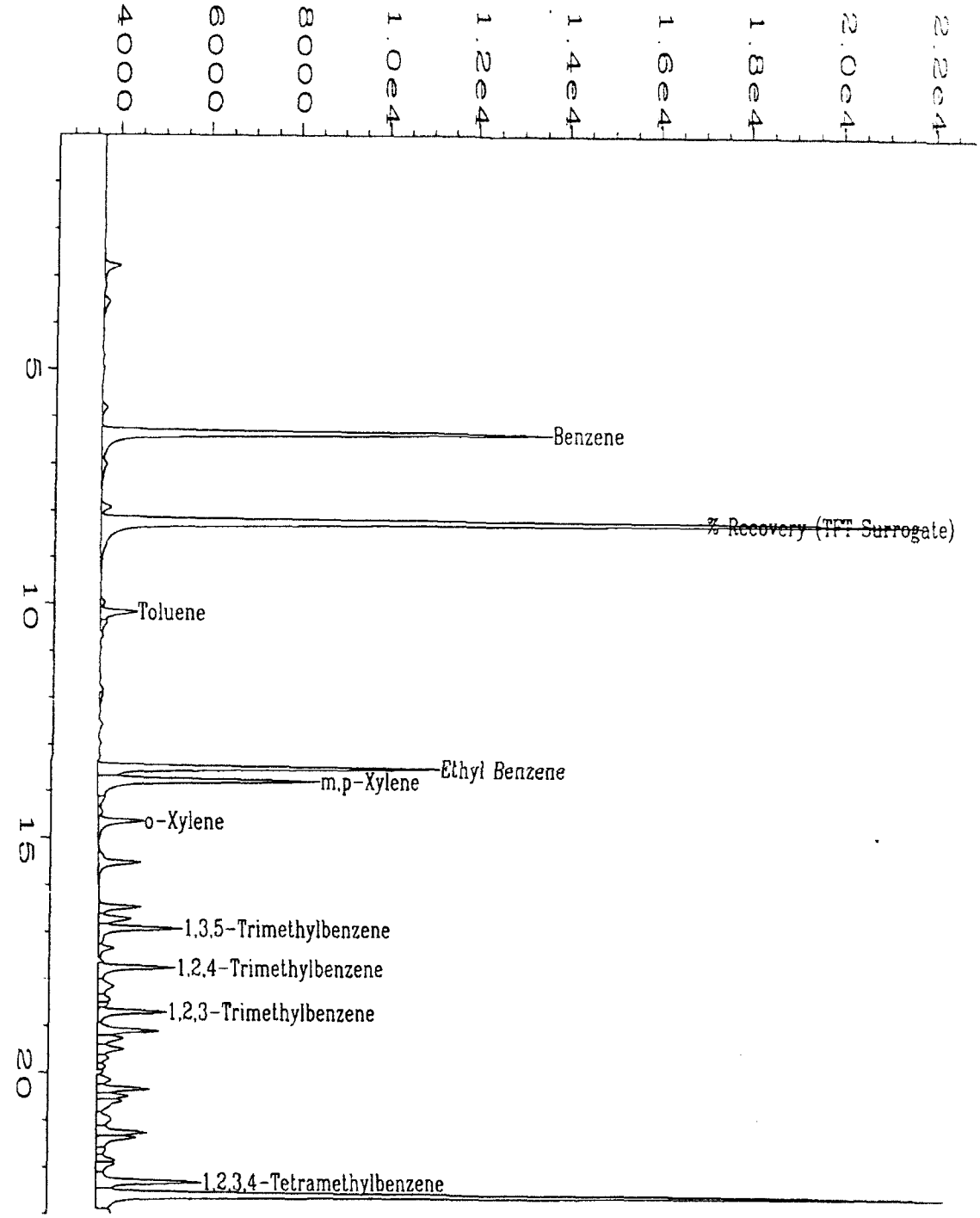
Sig. 1 in C:\HPCHEM\1\DATA\BX10413\059F0101.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
6.342	67582	VV	0.103	1	7.299	Benzene x20 x2
8.231	124091	VV	0.105	1-R	40.116	% Recovery (TFT Surrogate) 80
10.170	5850	VV	0.105	1	0.675	Toluene
13.189	* not found *			1		Chlorobenzene
13.484	43118	VV	0.086	1	5.791	Ethyl Benzene x20
13.764	32604	VV	0.099	1	3.539	m,p-Xylene
14.632	7187	VV	0.106	1	0.906	o-Xylene
16.917	12049	VV	0.096	1	1.211	1,3,5-Trimethylbenzene
17.754	10787	VV	0.094	1	1.481	1,2,4-Trimethylbenzene
18.694	9541	VV	0.093	1	1.426	1,2,3-Trimethylbenzene
22.309	15804	HH	0.101	1	2.847	1,2,3,4-Tetramethylbenzene

Time Reference Peak	Expected RT	Actual RT	Difference
2	8.228	8.231	0.003

Not all calibrated peaks were found

Past holding time
Det DF = 1



Data File Name	: C:\HPCHEM\1\DATA\BX10413\059F0101.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 59
Sample Name	: X05172;10;500ul	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 15 Apr 95 01:57 AM	Instrument Method	: BX10414.MTH
Report Created on	: 27 Apr 95 07:38 PM	Analysis Method	: BX10414B.MTH
Last Recalib on	: 15 APR 95 01:55 PM	Sample Amount	: 0
Multiplier	: 0.5	ISTD Amount	:
Sample Info	: Project#: 95-1063 Client#: MD75-MW8 Water		

External Standard Report

Data File Name : C:\HPCHEM\1\DATA\BX10417\015F1001.D
Operator : C.J. Cook
Instrument : BTEX1
Sample Name : X05173;20;0.250
Run Time Bar Code:
Acquired on : 17 Apr 95 03:12 PM
Report Created on: 17 Apr 95 07:28 PM
Last Recalib on : 17 APR 95 07:07 PM
Multiplier : 20
Sample Info : Project#: 95-1063 Client#: MD75-MW14 Water

Page Number : 1
Vial Number : 15
Injection Number : 1
Sequence Line : 10
Instrument Method: BX10417A.M
Analysis Method : BX10417B.M
Sample Amount : 0
ISTD Amount :

Sig. 1 in C:\HPCHEM\1\DATA\BX10417\015F1001.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
6.329	80094	VV	0.108	1	173.451	Benzene
8.214	279353	VV	0.107	1-R	1817.356	% Recovery (TFT Surrogate)
10.158	2133	VV	0.192	1	5.006	Toluene
13.196	* not found *			1		Chlorobenzene
13.453	118673	VV	0.090	1	330.408	Ethyl Benzene
13.732	14373	VV	0.144	1	32.436	m,p-Xylene
14.603	2380	VV	0.141	1	6.176	o-Xylene
16.876	2003	VV	0.149	1	4.479	1,3,5-Trimethylbenzene
17.775	* not found *			1		1,2,4-Trimethylbenzene
18.670	1658	VV	0.120	1	5.092	1,2,3-Trimethylbenzene
22.293	15313	PV	0.089	1	62.829	1,2,3,4-Tetramethylbenzene

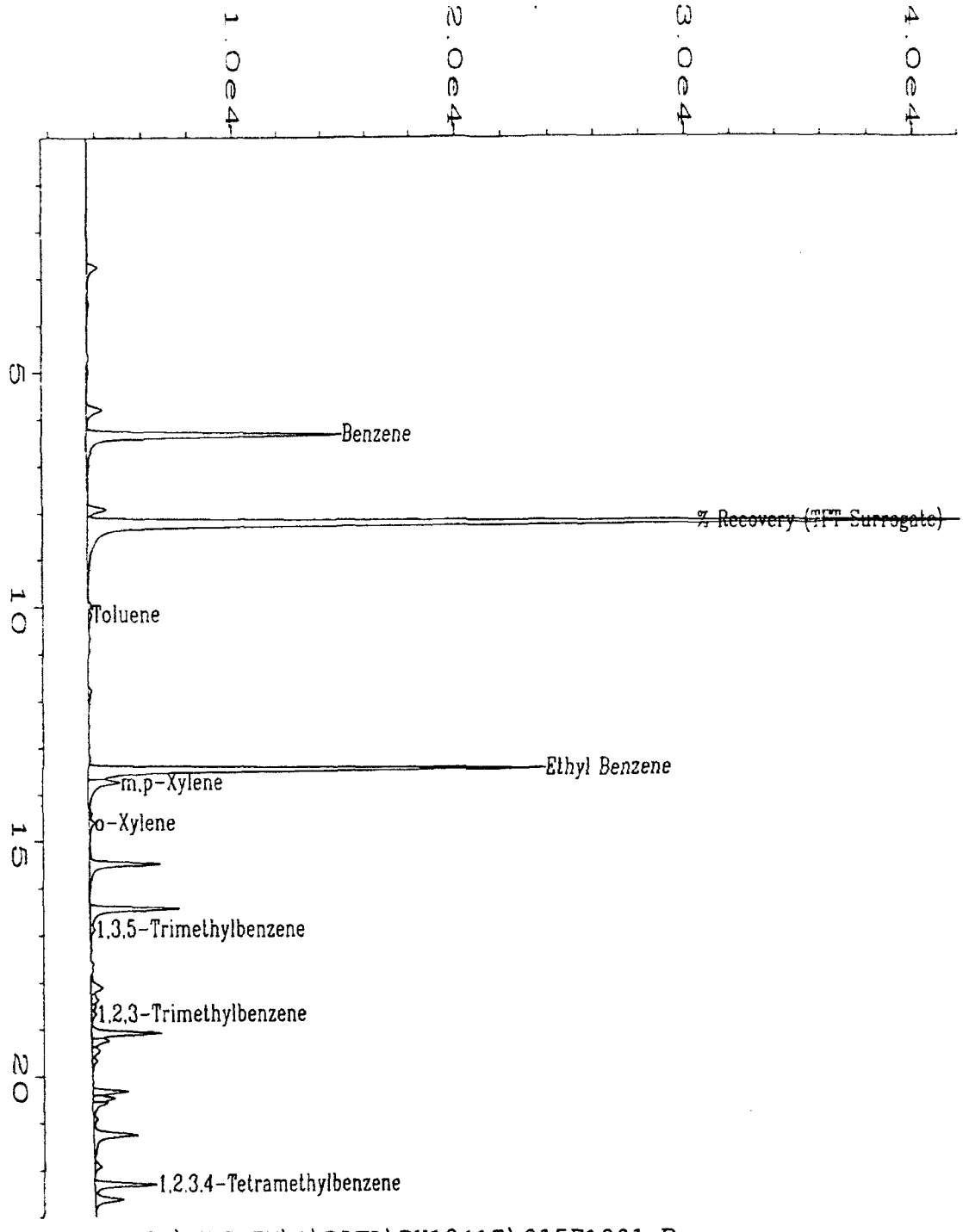
Time Reference Peak	Expected RT	Actual RT	Difference
2	8.275	8.214	-0.061

Not all calibrated peaks were found

Holding Time

up

not cond



Data File Name	: C:\HPCHEM\1\DATA\BX10417\015F1001.D		
Operator	: C.J. Cook	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 15
Sample Name	: X05173;20;0.250	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 17 Apr 95 03:12 PM	Instrument Method	: BX10417A.MTH
Report Created on	: 17 Apr 95 07:40 PM	Analysis Method	: BX10417B.MTH
Last Recalib on	: 17 APR 95 07:07 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Evergreen

August 9, 1995

MR TODD WIEDEMEIER
PARSONS ENGINEERING SCIENCE INC
1700 BROADWAY SUITE 900
DENVER CO 80290

Data Report : 95-2330
Client Project : MacDILL/
722450.21020

Dear Mr. Wiedemeier:

Enclosed are the analytical results for the samples shown in the Sample Log Sheet. The enclosed data have been reviewed for quality assurance. If you have any questions concerning the reported information, please contact Patty McClellan, Program Manager, or me.

Please Note: Samples marked for return on the Sample Log Sheet are considered hazardous, unsuitable for municipal disposal or were placed on hold at your request. Samples considered hazardous or unsuitable for municipal disposal will be returned to you immediately. Samples placed on hold will be returned and samples not considered hazardous will be disposed of one (1) month from the date of this letter.

The invoice for this work will be mailed to your Accounts Payable department shortly.

Thank you for using the services of Evergreen Analytical.

Sincerely,

Jack Barney
President

™

Evergreen

CASE NARRATIVE

Evergreen Analytical Laboratory (EAL) Project: 95-2330

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB
722450.21020

Sample Receipt

On July 22, 1995, ten groundwater samples were received at EAL for analysis under Subcontract 722450.SC02. Refer to the EAL Check-in Record for specific information regarding the condition of samples upon receipt. Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and PES identifications.

Data Package

All data are reported from one EAL project. Each EAL project represents a group of samples received on a given day.

An invoice will be generated that references this project number.

All required matrix spike/matrix spike (MS/MSD) samples were analyzed. Laboratory Control Samples (LCS) and Method Blanks were analyzed when required and also are included in the data package.

BTEX, Trimethylbenzenes, Tetramethylbenzene, Chlorobenzene, Method SW8020

All samples were analyzed for BTEX within holding time.

Sample 24PZ-1S was analyzed at a dilution factor of 10 due to the presence of target compounds beyond the linear range of the calibartion curve. The reporting limits were increased accordingly.

Matrix spike/matrix spike duplicate analysis was performed on sample 24PZ-3 with acceptable recoveries.

The spike recovery for 1,3,5-TMB was above the EAL acceptance criteria. All associated samples were non-detect for this compound.

There are no other quality control anomalies to report.

Methane, RSKSOP175
Samples 24PZ-3S, 24PZ-5S and 24PZ-1S were analyzed at dilutions ranging from DF = 10 to DF = 50 due to contamination in the sample. The reporting limits have been adjusted accordingly.

There are no quality assurance anomalies to report.

Anions, Method EPA300.0
Sample 24PZ-3D was analyzed at dilutions for sulfate, chloride and nitrite analyses do to concentrations of target analytes in the sample. The reporting limits were adjusted accordingly.

Samples 24PZ-3MS1 and 24PZ-3MS2 were analyzed upon receipt as discrete samples rather than as the MS/MSD for sample 24PZ-3S. The samples had holding times which would have expired if the analysts had not analyzed them over the weekend, and the spike criteria for this sample was not apparent to them. Please see sample 24PZ-2S for MS/MSD results.

There are no other quality control anomalies to report.

Disk Deliverables
The disk deliverables are included with the hard copy data package. Quality control samples are not included on the disk. Please note that blank spaces in the laboratory detection limit and/or practical quantitation limit (PQL) column indicate that there is not detection limit or PQL for that analyte.

A hard copy of the spreadsheet is included.

Patricia A. McClellan

Patricia A. McClellan, Program Manager

Evergreen Analytical Sample Log Sheet

Project # 95-2330

Date(s) Sampled: 7/21/95 COC

Date Due: 7/31/95-BTEX
8/7/95 -OTHERS

Date Received: 7/22/95 0900

Holding Time(s): 7/23-NO2,NO3
7/28-BTEX,METHANE

Client Project I.D. MacDILL/722450.21020

Rush STANDARD

Client: PARSONS ENGINEERING SCIENCE

Address: 1700 BROADWAY SUITE 900
DENVER, CO 80290

Contact: JOHN HICKS/TODD WIEDEMEIER

Client P.O. 722450.SC02

Phone #831-8100 **Fax #**831-8208

Shipping Charges N/A

E.A. Cooler # 434

Airbill # FEDEX 4389548376

Custody Seal Intact? Y
Cooler X Bottles ___
COC Present Y
Sample Tags Present? Y
Sample Tags Listed? Y
Sample(s) Sealed? Y

Special Invoicing/Billing

Special Instructions***INCLUDES TMB's, TeMB, AND CHLOROBENZENE. HOLD METHANE & ANIONS ON X09250D-G (24PZ-E01).***

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X09242A-C	24PZ-3S	BTEX 602*	W	40V	2
X09242MSA-C	24PZ-3MS1	"	"	"	"
X09242MSDA-C	24PZ-3MS2	"	"	"	"
X09245A-C	24PZ-3D	"	"	"	"
X09246A-C	24PZ-5S	"	"	"	"
X09247A-C	24PZ-4S	"	"	"	"
X09248A-C	24PZ-2S	"	"	"	"
X09249A-C	24PZ-2R	"	"	"	"
X09250A-C	24PZ-E01	"	"	"	"
X09451A-C	24PZ-1S	"	"	"	"
X09252A/B	TRIP BLANK	"	"	"	"
X09242D-F	24PZ-3S	METHANE	W	40V	2
X09242MSD-F	24PZ-3MS1	"	"	"	"
X09242MSDD-F	24PZ-3MS2	"	"	"	"
X09245D-F	24PZ-3D	"	"	"	"
X09246D-F	24PZ-5S	"	"	"	"

R=Sample to be returned

Route To: GC/MS ___ GC 3 Metals ___ Wet Chem 1 SxPrep ___ Acct 1
SxRec C QA/QC C Sales C File Orig

Custodian/Date: MJM 7/25/
Dmd 7/25/9

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X09247D-F	24PZ-4S	METHANE	"	"	"
X09248D-F	24PZ-2S	"	"	"	"
X09249D-F	24PZ-2R	"	"	"	"
X09451D-F	24PZ-1S	"	"	"	"
X09250D-F	24PZ-E01	HOLD	"	"	"
X09242G	24PZ-3S	ANIONS-Cl, NO2, NO3, SO4	W	125P	B5
X09242MSG	24PZ-3MS1	"	"	"	"
X09242MSDG	24PZ-3MS2	"	"	"	"
X09245G	24PZ-3D	"	"	"	"
X09246G	24PZ-5S	"	"	"	"
X09247G	24PZ-4S	"	"	"	"
X09248G	24PZ-2S	"	"	"	"
X09249G	24PZ-2R	"	"	"	"
X09451G	24PZ-1S	"	"	"	"
X09250G	24PZ-E01	HOLD	"	"	"

Project # 95-2330

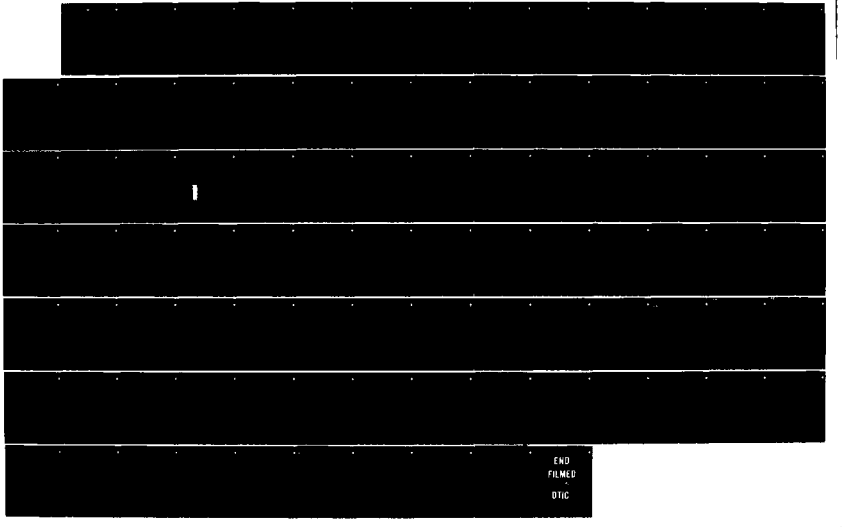
R=Sample to be returned

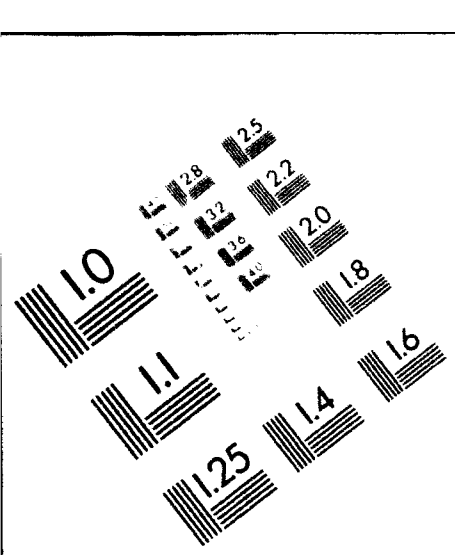
AD-A206 946 TREATABILITY STUDY IN SUPPORT OF INTRINSIC REMEDIATION FOR SITE OT 24 AT MACDILL AIR FORCE BASE FLORIDA VOLUME 2(U) PARSONS ENGINEERING SCIENCE INC DENVER CO JAN 97 XC-AFCEE

10/10

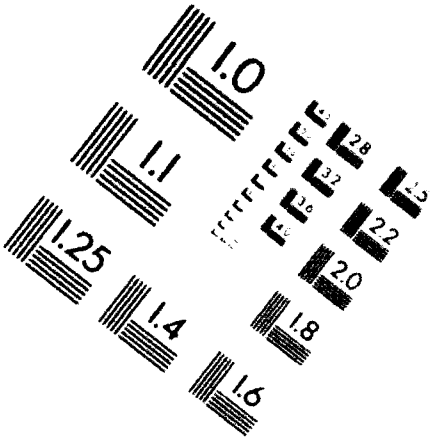
UNCLASSIFIED

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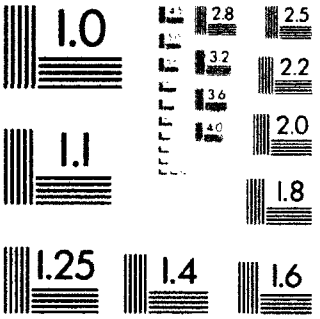
Association for Information and Image Management
1100 Wayne Avenue Suite 1100
Silver Spring, Maryland 20910
301/587-8202

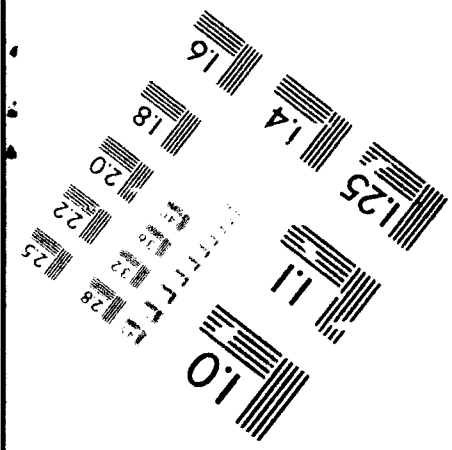


Centimeter

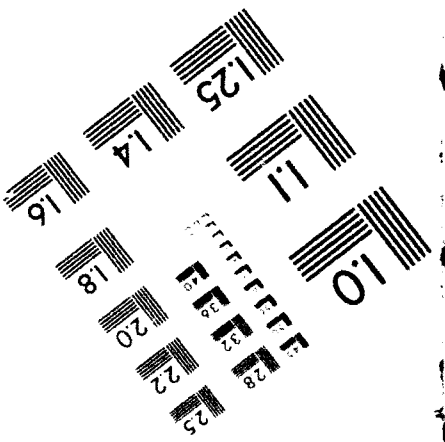


Inches





MANUFACTURED TO AIIM STANDARDS
BY APPLIED IMAGE, INC.



CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Evergreen Analytical Inc.
4036 Youngfield St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

Page 1 of ____

COMPANY PARSONS Engineering Science
ADDRESS 1700 Broadway Suite 900
CITY Denver STATE CO ZIP 80290
PHONE# 303-831-8100 FAX # 303-831-8208 FAX RESULTS (Y) / N

CLIENT CONTACT (print) John Hicks
PROJECT I.D. 722450.21020
EAL. QUOTE # - P.O.# -
TURNAROUND REQUIRED* ☐ STD (2 wks) ☐ STD UST (7 day)
☑ Other (Specify) 30 days
*expedited turnaround subject to additional fee

Sampler Name: (signature) _____
(print) Robert Sorvillo / Federico Arioli

Evergreen Analytical Cooler No. 484
Cooler Received _____

Please **PRINT** all information:

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME	No. of Containers	MATRIX: Water-Drinking/Discharge/Ground (circle)	MATRIX: Soil / Solid	MATRIX: Oil / Sludge	ANALYSIS REQUESTED: TCLP VOA/BNA/Pest/Herb/Metals (circle)	VOA 8260/624/524.2 (circle)	BNA 8270/625 (circle)	Pesticides 8080/608 (circle)	Pest/PCBs 8080/608/508 (circle)	Herbicides 8150/515 (circle)	PCB Screen	BTEX 8020/602 (circle)/MTBE (circle)	TRPH 418.1/Oil & Grease 413.1 (circle)	TVPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW846 (circle & list metals below)	Dissolved Metals - DW / SW846 (circle & list metals below)	Anion (Cl^-, NO_2, NO_3, SO_4)	Methane (RSK SOP-175)					EAL Sample No.
24PZ-3S	7-21-95	0915	7	✓										3						1	3					
24PZ-3MS1	7-21-95	0935	7	✓										3						1	3					
24PZ-3MS2	7-21-95	0940	7	✓										3						1	3					
24PZ-3D	7-21-95	1400	7	✓										3						1	3					
24PZ-5S	7-21-95	1030	7	✓										3						1	3					
24PZ-4S	7-21-95	1115	7	✓										3						1	3					
24PZ-2S	7-21-95	1230	7	✓										3						1	3					
24PZ-2R	7-21-95	1235	7	✓										3						1	3					
24PZ-E01	7-21-95	1050	7	✓										3												
24PZ-1S	7-21-95	1330	7	✓										3						1	3					
HT:																										Location
DD:																										Container Size

EAL use only
Do not write in shaded area

EAL
Project # _____
Custodian _____

Instructions: For sample 24PZ-E01 only sample for BTEX E602
* Trip Blank included sample for (BTEX 602)

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X09247D-F	24PZ-4S	METHANE	"	"	"
X09248D-F	24PZ-2S	"	"	"	"
X09249D-F	24PZ-2R	"	"	"	"
X09451D-F	24PZ-1S	"	"	"	"
X09250D-F	24PZ-E01	HOLD	"	"	"
X09242G	24PZ-3S	ANIONS-Cl, NO2, NO3, SO4	W	125P	B5
X09242MSG	24PZ-3MS1	"	"	"	"
X09242MSDG	24PZ-3MS2	"	"	"	"
X09245G	24PZ-3D	"	"	"	"
X09246G	24PZ-5S	"	"	"	"
X09247G	24PZ-4S	"	"	"	"
X09248G	24PZ-2S	"	"	"	"
X09249G	24PZ-2R	"	"	"	"
X09451G	24PZ-1S	"	"	"	"
X09250G	24PZ-E01	HOLD	"	"	"

Project # 95-2330

R=Sample to be returned

Evergreen Analytical Sample Receipt/Check-in Record

Date & Time Rec'd: 7/22/95 0900 Shipped Via: FEDEX 4389548
(Airbill # if applicable)

Client : PARSONS ES

Client Project ID(s): 722452 21020

EAL Project #(s): 95-2330 EAL Cooler(s): (Y) N

Cooler#	2/3/4								
Ice packs	(Y)	N	Y	N	Y	N	Y	N	Y	N
Temperature °C	6								

	Y	N	N/A
1. Custody seal(s) present:	✓		
Seals on cooler intact	✓		
Seals on bottle intact			✓
2. Chain of Custody present:	✓		
3. Samples Radioactive: (Comment on COC if >0.5mr/h)		✓	
4. Containers broken or leaking: (Comment on COC if Y)		✓	
5. Containers labeled:	✓		
6. COC agrees w/ bottles received: (Comment on COC if N)		✓	
7. COC agrees w/ labels: (Comment on COC if N)		✓	
8. Headspace in vials-waters only: (Comment on COC if Y)	✓		
9. VOA samples preserved:			
10. pH measured on metals, cyanide or phenolics*:			✓
List discrepancies			

*Non-EAL provided containers only, water samples only.

11. Metal samples present:		✓	
Total _____ , Dissolved _____ , TCLP _____			
D or PD to be filtered:			
T,TR,D,PD to be Preserved:			
12. Short holding times:	✓		
Specify parameters NO2, NO3			
13. Multi-phase sample(s) present:		✓	
14. COC signed w/ date/time:	✓		

Comments: #6 #7 Bottles labeled 24P2-3SMS1 + 3SMS2. C.O.C reads 24P2-3MS1 + 3MS2.
We received bottles for 24P2-E01 for anion + methane analyses - not on C.O.C.

(Additional comments on back)

Custodian Signature/Date: Theresa Black 7/22/95

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report
Method Blank Report

Method Blank Number	: MB1072795	Client Project No.	: MacDill/722450.2102
Date Prepared	: 7/27/95	Lab Project No.	: 95-2330
Date Analyzed	: 7/27/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX1072712

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.5
Surrogate Recovery (α,α,α-Trifluorotoluene):		92%		70%-130% (QC limits

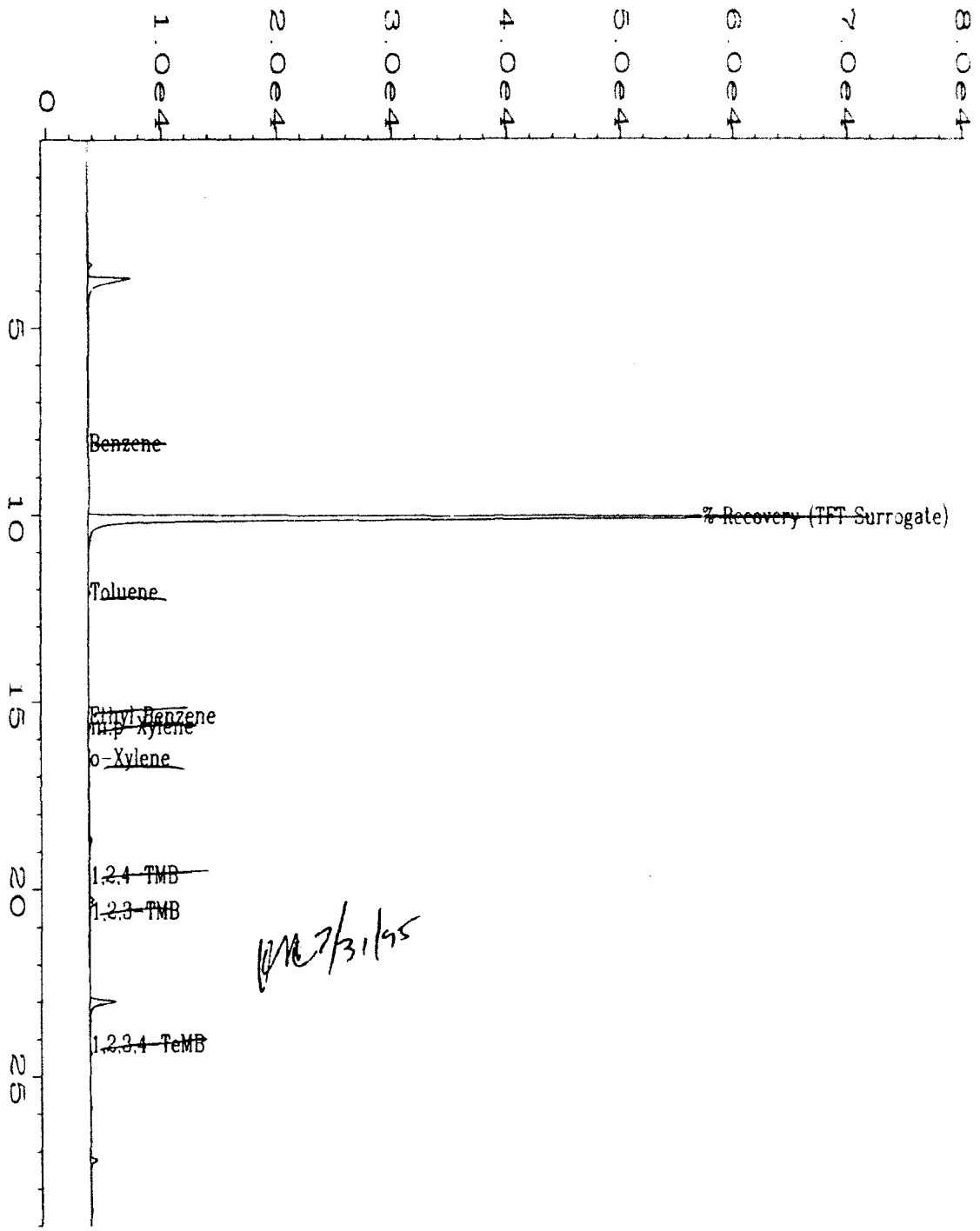
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved

BTEX2330.XLS



7/31/95

Data File Name	: D:\HPCHEM\1\DATA\BX10727\012F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 12
Sample Name	: MB1072795	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 27 Jul 95 04:14 PM	Instrument Method	: BX10727.MTH
Report Created on	: 01 Aug 95 10:10 AM	Analysis Method	: BX10727.MTH
Last Recalib on	: 27 JUL 95 02:46 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report
Method Blank Report

Method Blank Number	: MB1072895	**Client Project No.**	: MacDill/722450.2102
Date Prepared	: 7/28/95	**Lab Project No.**	: 95-2330
Date Analyzed	: 7/28/95	**Dilution Factor**	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX1072810

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.5
Surrogate Recovery (α,α,α-Trifluorotoluene):		96%		70%-130% (QC limit

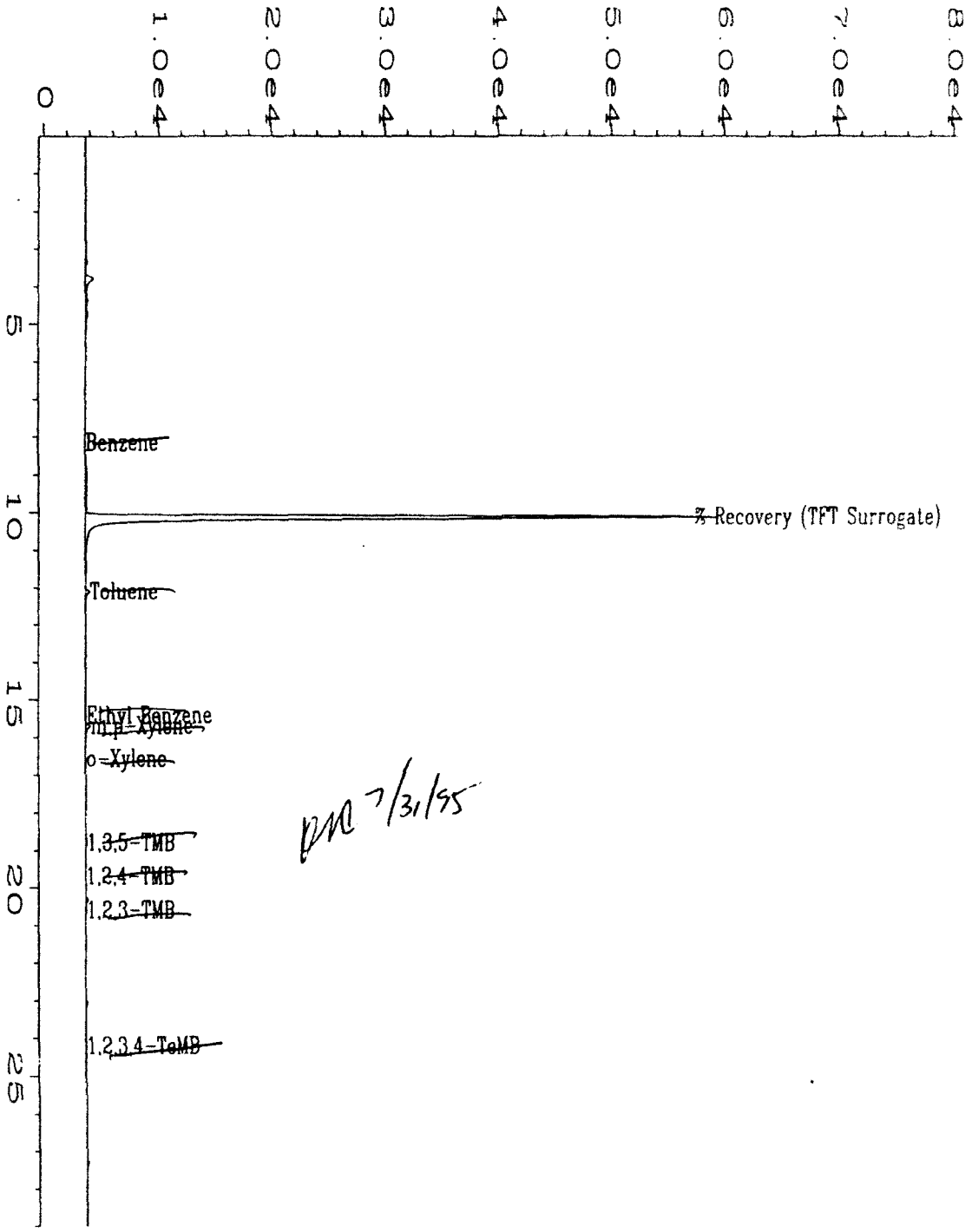
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved

BTEX2330.XLS



pm 7/31/95

Data File Name : C:\HPCHEM\1\DATA\BX10728\010F0801.D
Operator : S.W. Tyson
Instrument : BTEX1
Sample Name : MB1072895
Run Time Bar Code:
quired on : 28 Jul 95 02:44 PM
port Created on: 30 Jul 95 12:11 PM
Last Recalib on : 29 JUL 95 09:09 AM
Multiplier : 1

Page Number : 1
Vial Number : 10
Injection Number : 1
Sequence Line : 8
Instrument Method: BX10728.MTH
Analysis Method : BX10728.MTH
Sample Amount : 0
ISTD Amount :

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report
Method Blank Report

Method Blank Number	: MB1072995	Client Project No.	: MacDill/722450.2102
Date Prepared	: 7/29/95	Lab Project No.	: 95-2330
Date Analyzed	: 7/29/95	Dilution Factor	: 1.00
		Method	: 602/8020
		Matrix	: Water
		Lab File No.	: BX1072903

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.5
Surrogate Recovery (α,α,α-Trifluorotoluene):		79%		70%-130% (QC limits)

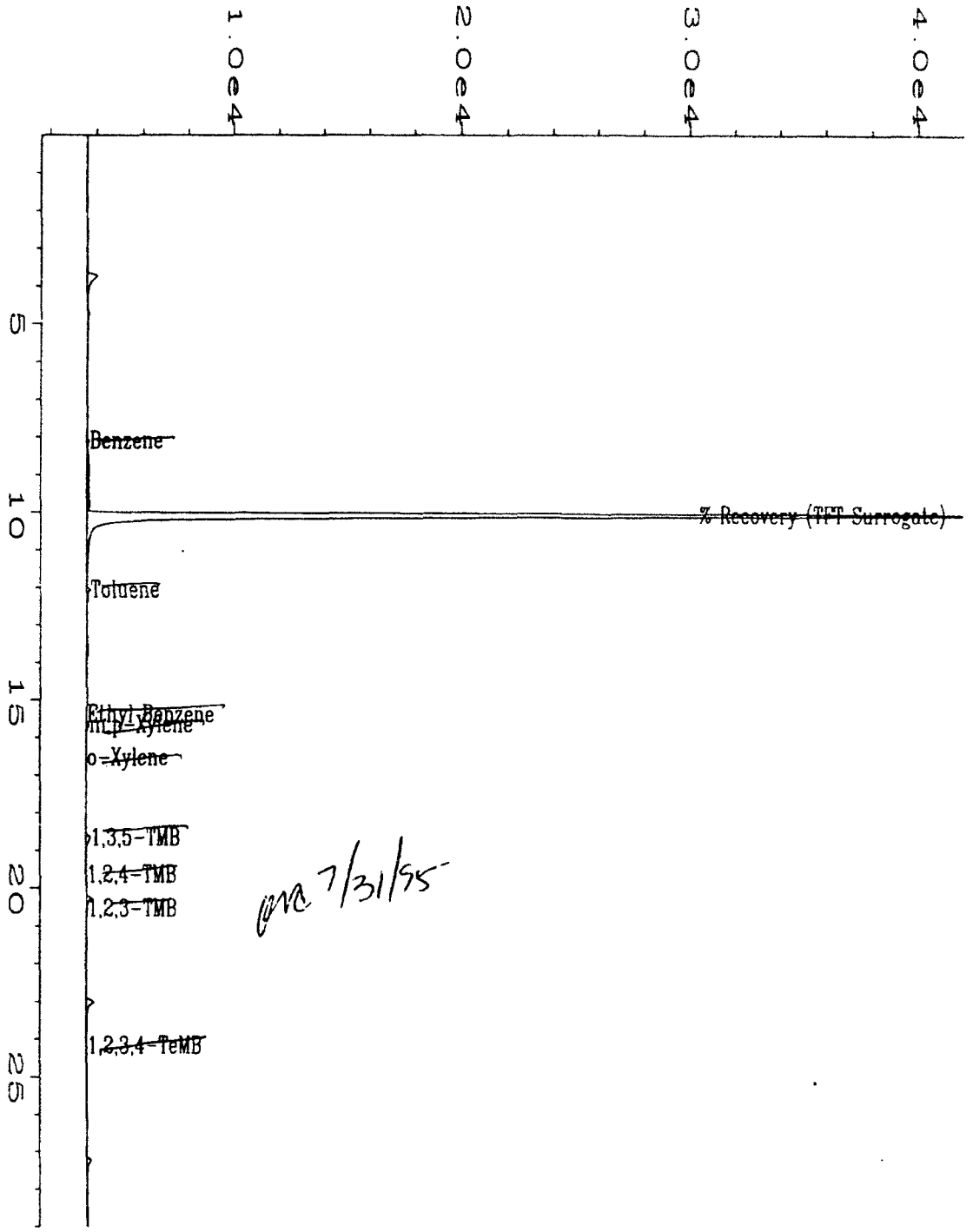
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved

BTEX2330.XLS



pmc 7/31/95

Data File Name	: C:\HPCHEM\1\DATA\BX10729\003F0101.D		
Operator	: T.Lockwood	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 3
Sample Name	: MB1072995	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 29 Jul 95 11:08 AM	Instrument Method	: BX10728.MTH
Report Created on	: 30 Jul 95 12:55 PM	Analysis Method	: BX10728.MTH
Last Recalib on	: 29 JUL 95 09:09 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
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(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24PZ-3S	**Client Project No.**	: MacDill/722450.2102
Lab Sample Number	: X09242	**Lab Project No.**	: 95-2330
Date Sampled	: 7/21/95	**Dilution Factor**	: 1.00
Date Received	: 7/22/95	**Method**	: 602
Date Prepared	: 7/27/95	**Matrix**	: Water
Date Analyzed	: 7/27/95	**Lab File No.**	: BX1072718
		Method Blank No.	: MB1072795

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.5
Surrogate Recovery (α,α,α-Trifluorotoluene):		89%		70%-130% (QC limits

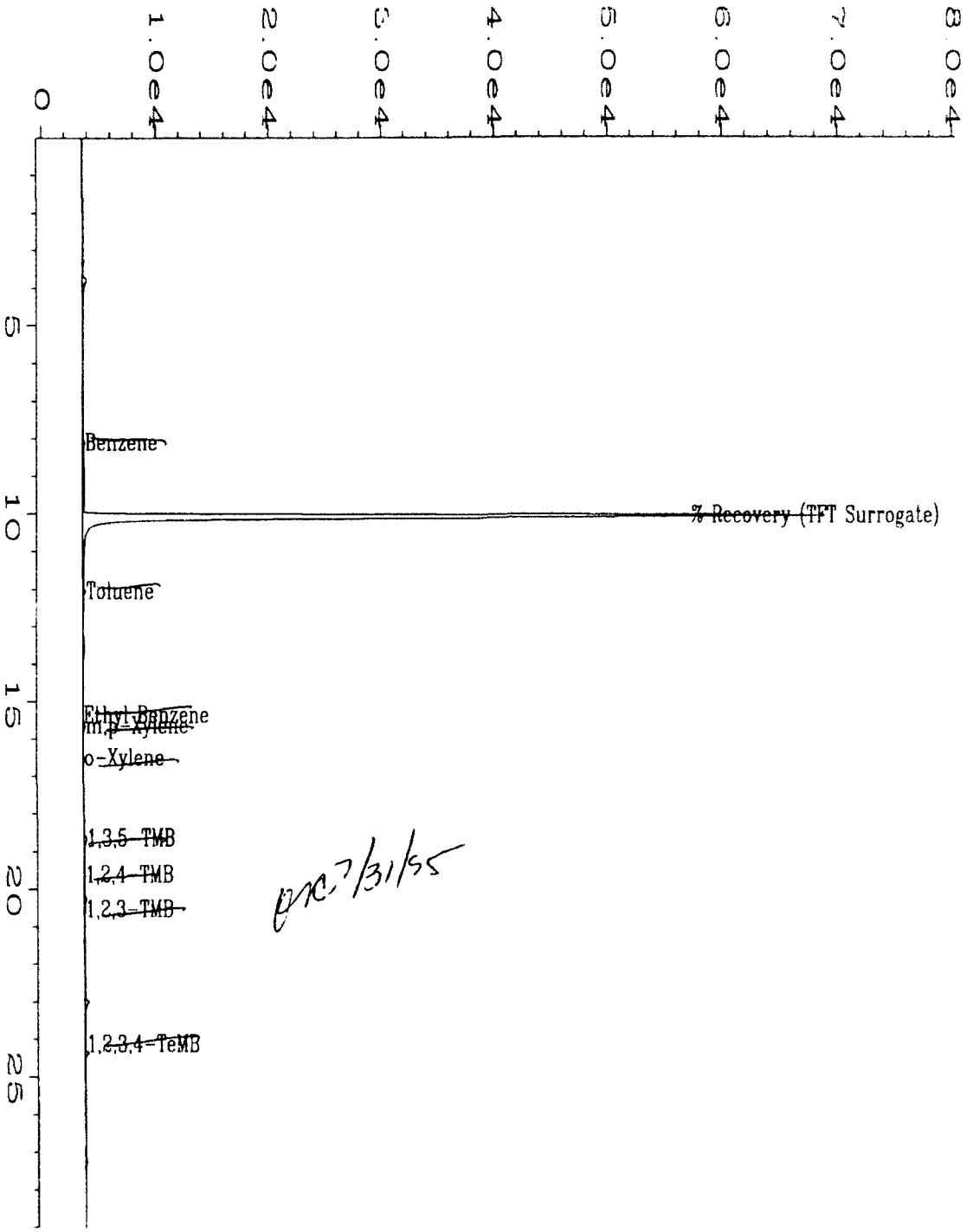
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved

BTEX2330.XLS



pnc 7/31/95

Data File Name : C:\HPCHEM\1\DATA\BX10727\018F0801.D
Operator : S.W. Tyson
Instrument : BTEX1
Sample Name : X09242;1
Run Time Bar Code:
Acquired on : 27 Jul 95 08:23 PM
Report Created on: 27 Jul 95 11:21 PM
Last Recalib on : 27 Jul 95 02:46 PM
Multiplier : 1

Page Number : 1
Vial Number : 18
Injection Number : 1
Sequence Line : 8
Instrument Method: BX10727.MTH
Analysis Method : BX10727.MTH
Sample Amount : 0
ISTD Amount :

Client ID: 24PZ-35

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24PZ-3D	Client Project No.	: MacDill/722450.2102(
Lab Sample Number	: X09245	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/27/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: BX1072726
		Method Blank No.	: MB1072795

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.5
Surrogate Recovery (α,α,α-Trifluorotoluene):		81%		70%-130% (QC limits.

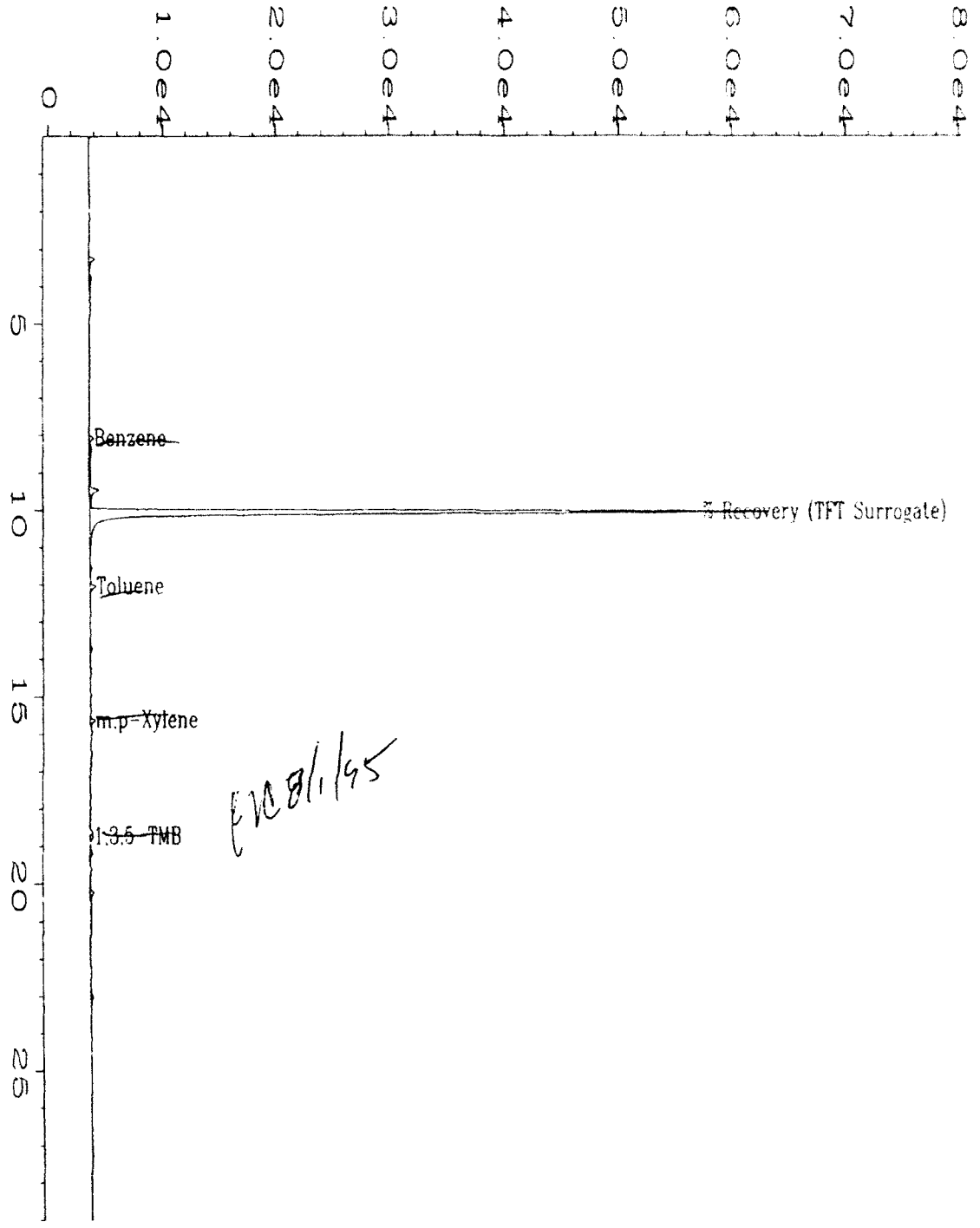
Note: *Total Xylenes consist of three isomers, two of which co-elute.*
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved

BTEX2330 XLS



FID 8/1/95

Data File Name : D:\HPCHEM\1\DATA\BX10727\026F0801.D
Operator : S.W. Tyson
Instrument : BTEX1
Sample Name : X09245;1
Run Time Bar Code:
Acquired on : 28 Jul 95 01:55 AM
Report Created on: 01 Aug 95 11:37 AM
Last Recalib on : 27 JUL 95 02:46 PM
Multiplier : 1

Page Number : 1
Vial Number : 26
Injection Number : 1
Sequence Line : 8
Instrument Method: BX10727.MTH
Analysis Method : BX10727.MTH
Sample Amount : 0
ISTD Amount :

Client ID: 24PZ-3D

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24PZ-5S	Client Project No.	: MacDill/722450.2102
Lab Sample Number	: X09246	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/27/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: BX1072727
		Method Blank No.	: MB1072795

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.5
Surrogate Recovery (α,α,α-Trifluorotoluene):		75%	70%-130% (QC limits)

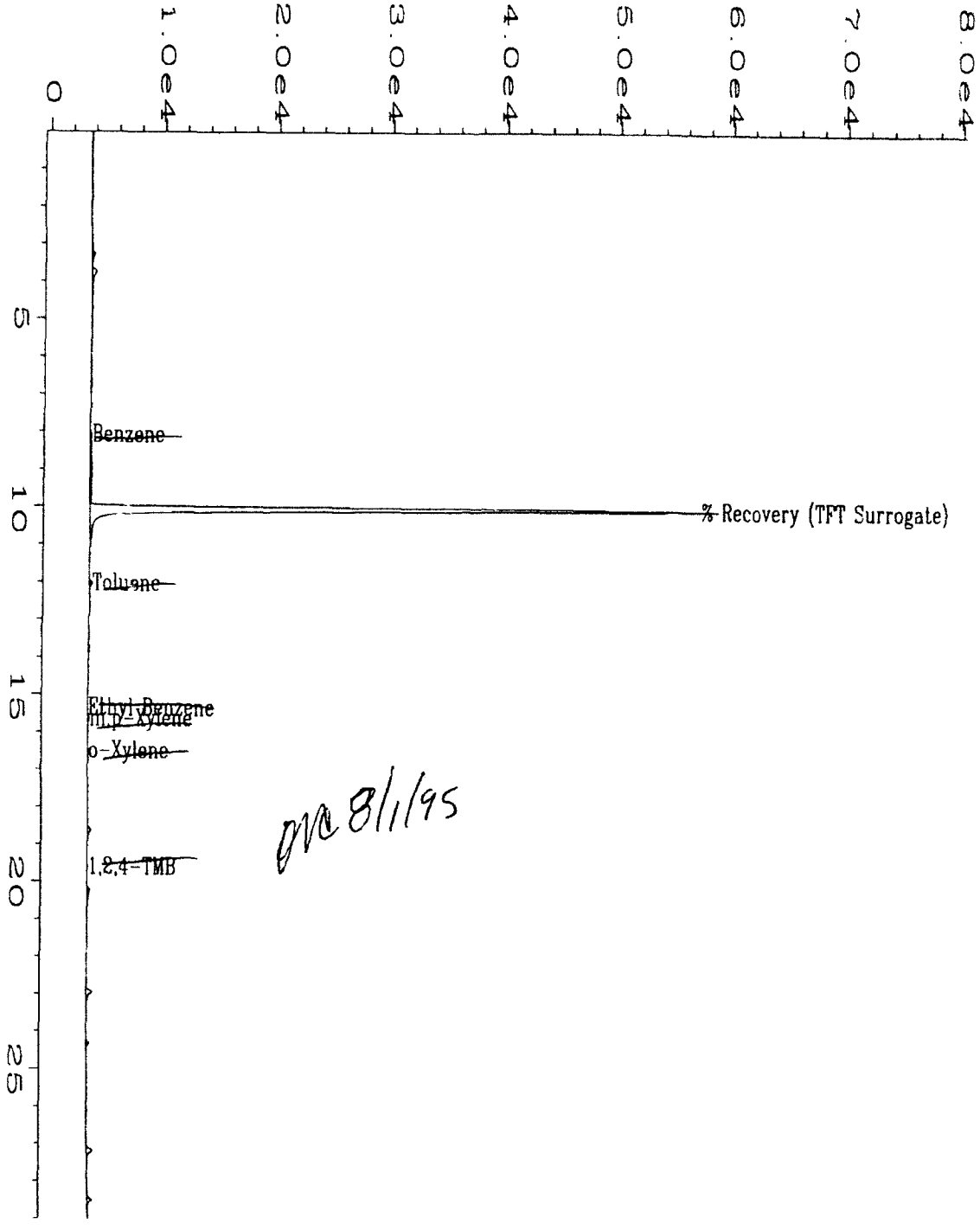
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved

BTEX2330.XLS



pva 8/1/95

Data File Name	: C:\HPCHEM\1\DATA\BX10727\027F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 27
Sample Name	: X09246;1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 28 Jul 95 02:37 AM	Instrument Method	: BX10727.MTH
Report Created on	: 01 Aug 95 11:13 AM	Analysis Method	: BX10727.MTH
Last Recalib on	: 27 JUL 95 02:46 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-2330;24PZ-5S;5ml Water		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24PZ-4S	Client Project No.	: MacDill/722450.2102
Lab Sample Number	: X09247	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/27/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: BX1072728
		Method Blank No.	: MB1072795

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.5
Surrogate Recovery (α,α,α-Trifluorotoluene):		73%		70%-130% (QC limits

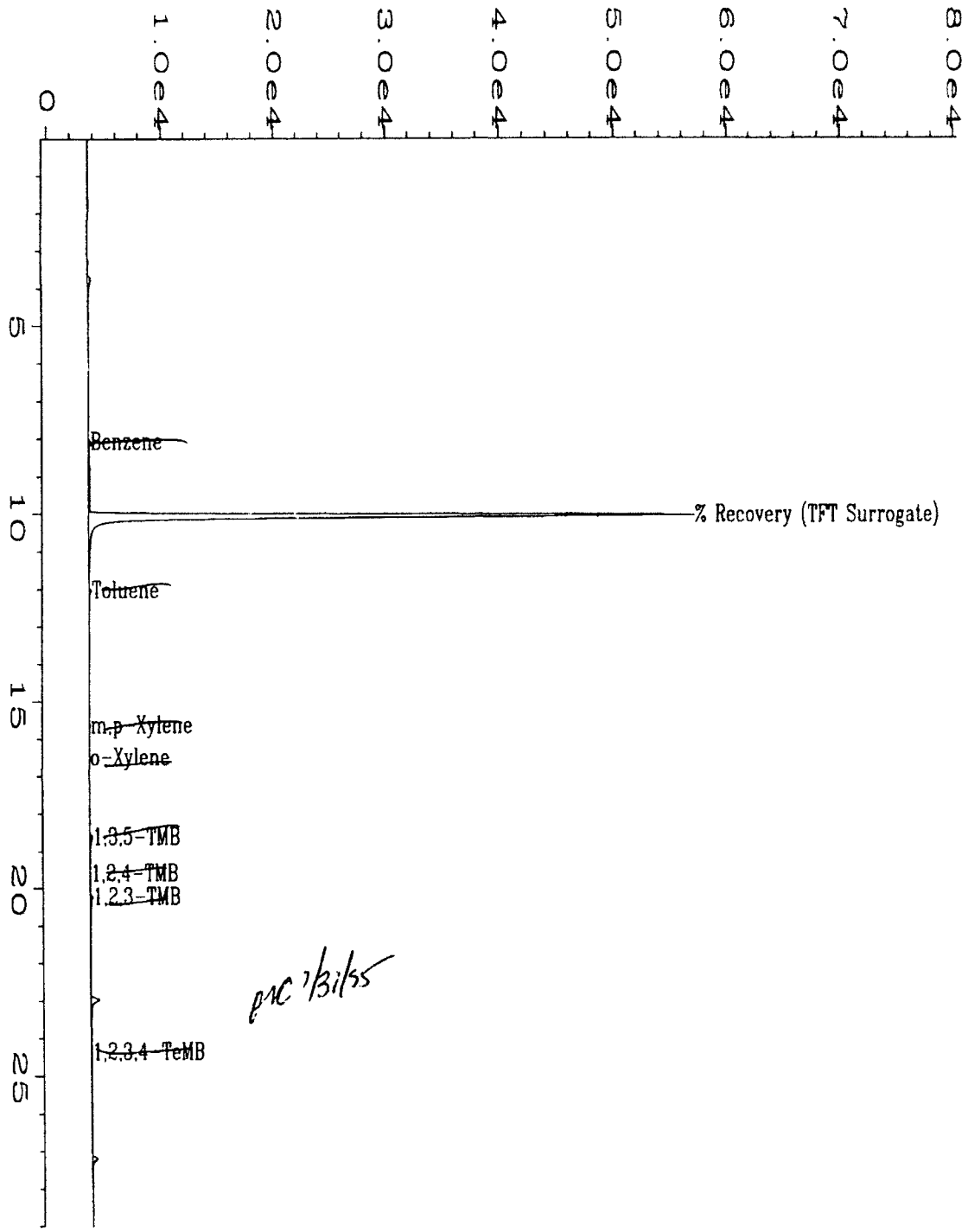
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved

BTEX2330.XLS



pac 7/31/95

Data File Name : C:\HPCHEM\1\DATA\BX10727\028F0801.D
Operator : S.W. Tyson
Instrument : BTEX1
Sample Name : X09247;1
Run Time Bar Code:
Acquired on : 28 Jul 95 03:18 AM
Report Created on: 28 Jul 95 07:55 AM
Last Recalib on : 27 Jul 95 02:46 PM
Multiplier : 1

Page Number : 1
Vial Number : 28
Injection Number : 1
Sequence Line : 8
Instrument Method: BX10727.MTH
Analysis Method : BX10727.MTH
Sample Amount : 0
ISTD Amount :

Client ID: 24PZ-45

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24PZ-2S	Client Project No.	: MacDill/722450.2102
Lab Sample Number	: X09248	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/29/95	Matrix	: Water
Date Analyzed	: 7/29/95	Lab File No.	: BX1072909
		Method Blank No.	: MB1072995

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.5
Surrogate Recovery (α,α,α-Trifluorotoluene):		82%		70%-130% (QC limits

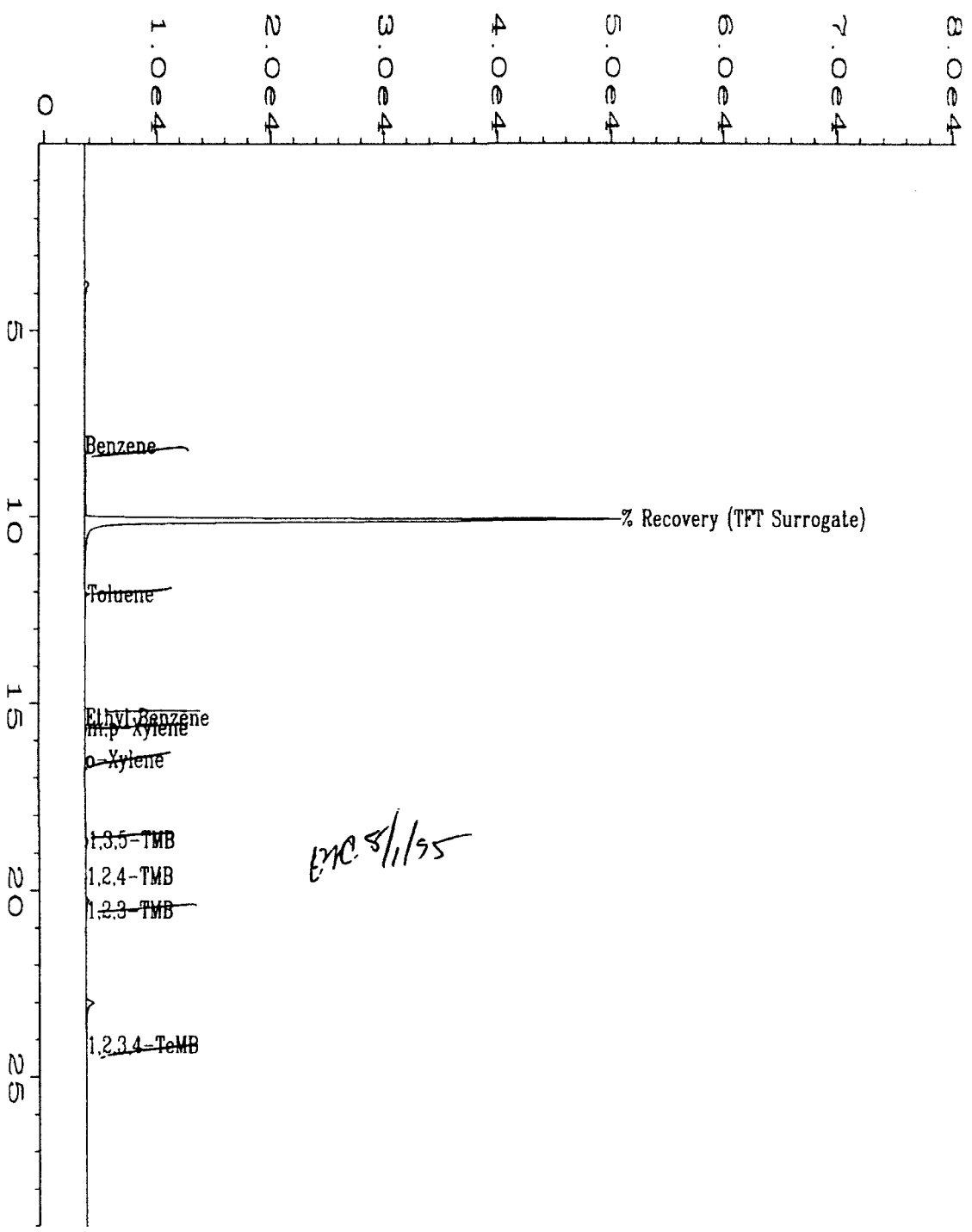
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved

BTEX2330.XLS



EMC 8/1/95

Data File Name : C:\HPCHEM\1\DATA\BX10729\009F0101.D
Operator : T.Lockwood
Instrument : BTEX1
Sample Name : X09248;1
Run Time Bar Code:
Acquired on : 29 Jul 95 03:17 PM
Report Created on: 30 Jul 95 02:06 PM
Last Recalib on : 29 JUL 95 09:09 AM
Multiplier : 1

Page Number : 1
Vial Number : 9
Injection Number : 1
Sequence Line : 1
Instrument Method: BX10728.MTH
Analysis Method : BX10728.MTH
Sample Amount : 0
ISTD Amount :

Client ID: 24PZ-2S

EVERGREEN ANALYTICAL, INC.
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(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24PZ-2R	Client Project No.	: MacDill/722450.2102(
Lab Sample Number	: X09249	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: BX1072811
		Method Blank No.	: MB1072895

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.5
Surrogate Recovery (α,α,α-Trifluorotoluene):		94%		70%-130% (QC limits)

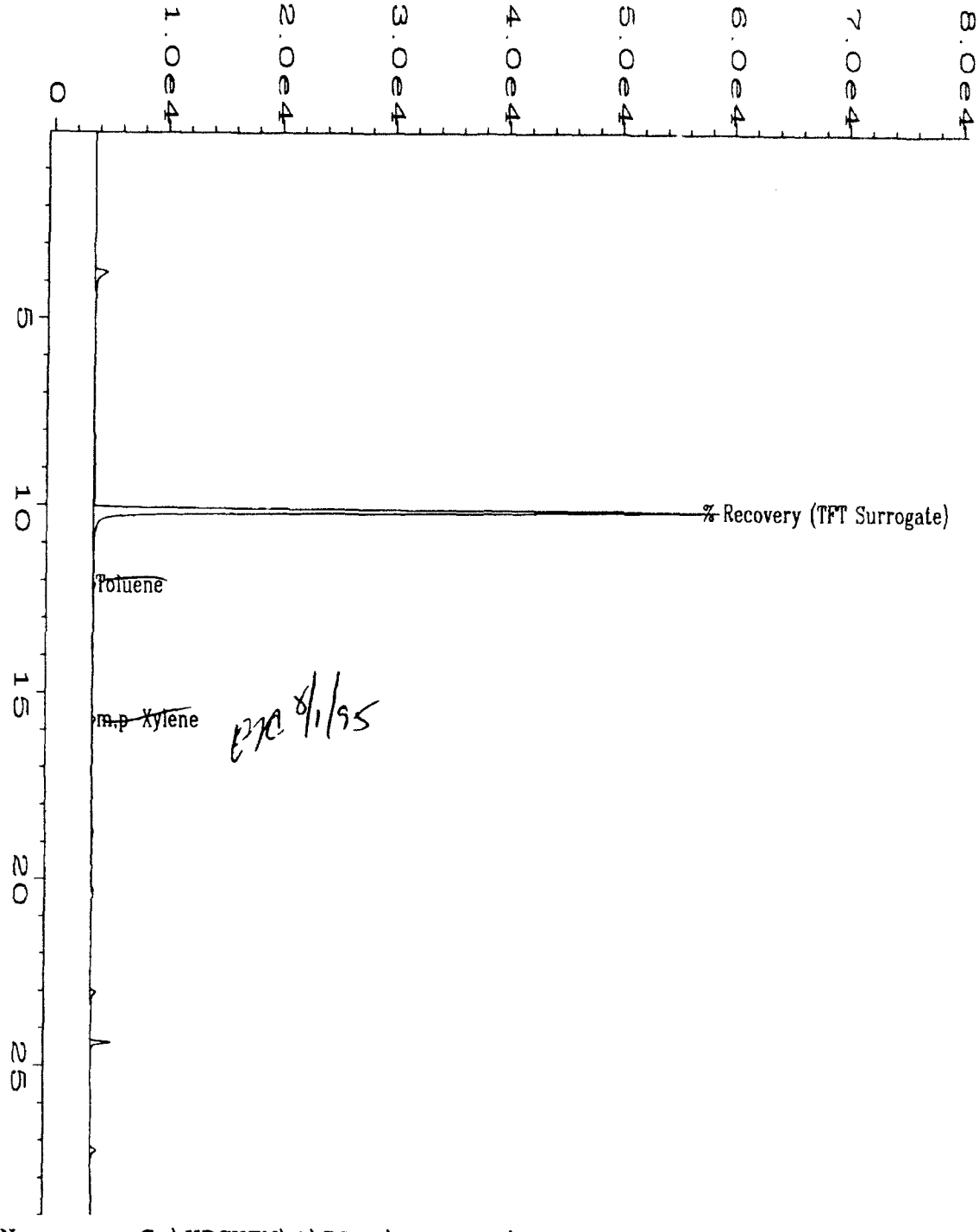
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved

BTEX2330.XLS



EPC 8/1/95

Data File Name	: C:\HPCHEM\1\DATA\BX10728\011F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 11
Sample Name	: X09249;1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 28 Jul 95 03:26 PM	Instrument Method	: BX10728.MTH
Report Created on	: 01 Aug 95 11:47 AM	Analysis Method	: BX10728.MTH
Last Recalib on	: 29 JUL 95 09:09 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-2330;24PZ-2R; 5ml water		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24PZ-E01	Client Project No.	: MacDill/722450.2102(
Lab Sample Number	: X09250	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: BX1072812
		Method Blank No.	: MB1072895

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.5
Surrogate Recovery (α,α,α-Trifluorotoluene):		98%		70%-130% (QC limits

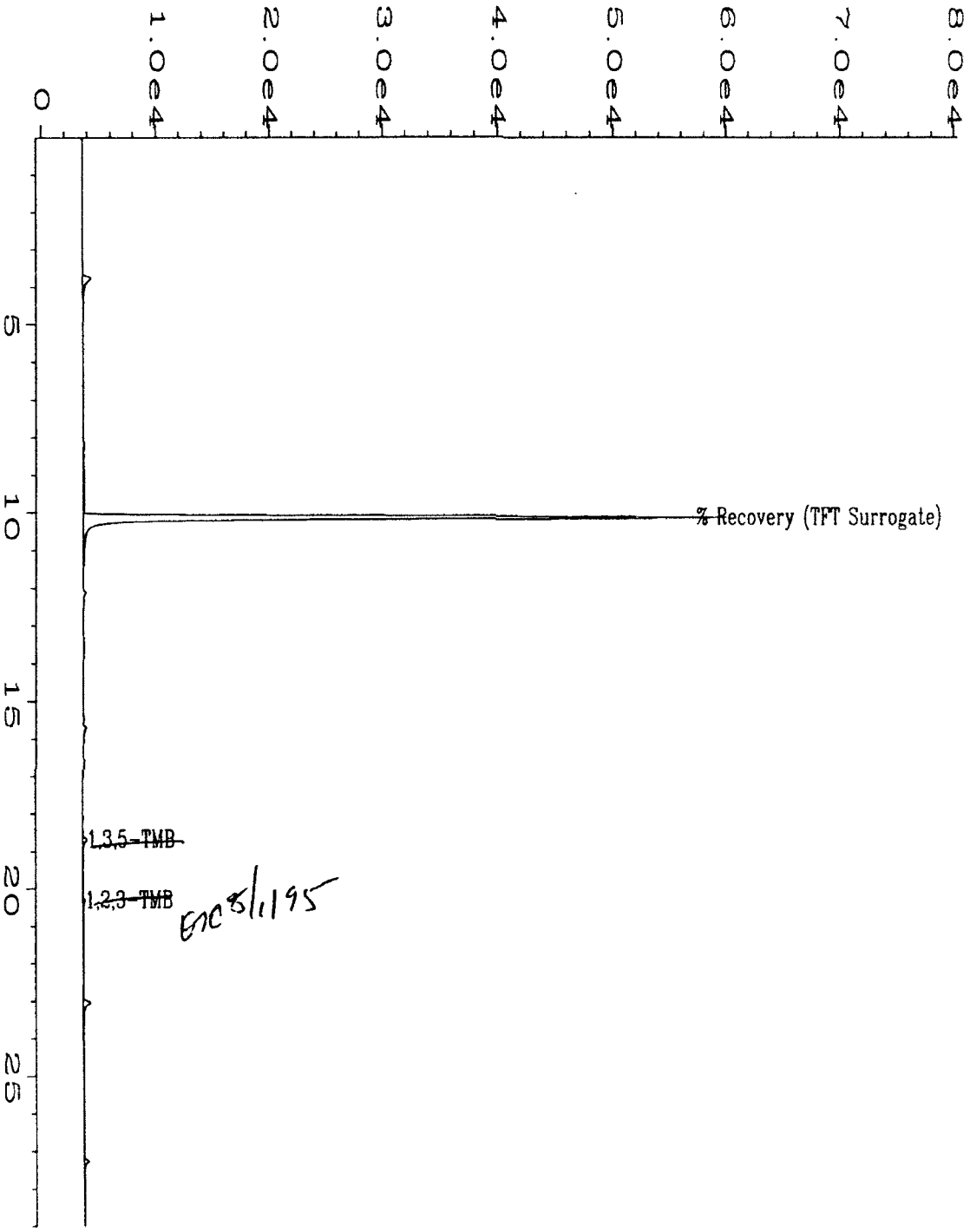
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved

BTEX2330.XLS



EIC 8/1/95

Data File Name : C:\HPCHEM\1\DATA\BX10728\012F0801.D
Operator : S.W. Tyson
Instrument : BTEX1
Sample Name : X09250;1
Run Time Bar Code:
:quired on : 28 Jul 95 04:07 PM
..eport Created on: 29 Jul 95 11:37 AM
Last Recalib on : 29 JUL 95 09:09 AM
Multiplier : 1
Client ID : 24PZ-E01

Page Number : 1
Vial Number : 12
Injection Number : 1
Sequence Line : 8
Instrument Method: BX10728.MTH
Analysis Method : BX10728.MTH
Sample Amount : 0
ISTD Amount :

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24PZ-1S	Client Project No.	: MacDill/722450.2102
Lab Sample Number	: X09251	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: BX1072813
		Method Blank No.	: MB1072895

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2	**		**
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7	0.6		0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6	0.6		0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.5
Surrogate Recovery (α,α,α-Trifluorotoluene):		94%		70%-130% (QC limits

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

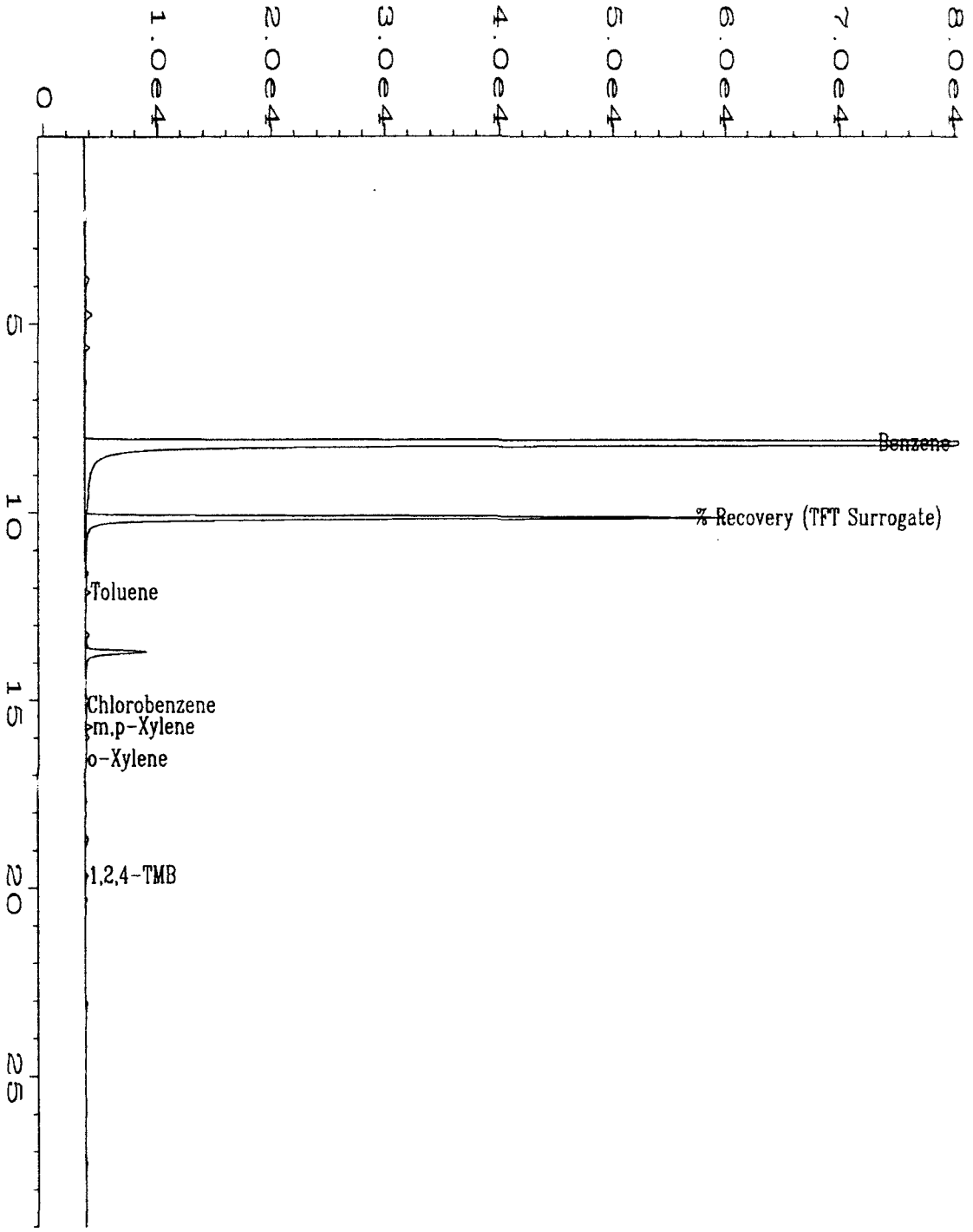
** = See BX1072905 for noted value, df = 10, 07/29/95.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved

BTEX2330.XLS



Data File Name	: C:\HPCHEM\1\DATA\BX10728\013F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 13
Sample Name	: X09251;1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
cquired on	: 28 Jul 95 04:49 PM	Instrument Method	: BX10728.MTH
Report Created on	: 01 Aug 95 11:47 AM	Analysis Method	: BX10723.MTH
Last Recalib on	: 29 JUL 95 09:09 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-2330;24PZ-1S; 5 ml water		

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(303) 425-6021

Method 602 Data Report

Client Sample Number	: 24PZ-1S	Client Project No.	: MacDill/722450.2102
Lab Sample Number	: X09251	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 10.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/29/95	Matrix	: Water
Date Analyzed	: 7/29/95	Lab File No.	: BX1072905
		Method Blank No.	: MB1072995

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	210	4.0
Toluene	108-88-3	**	**
Chlorobenzene	108-90-7	**	**
Ethyl Benzene	100-41-4	**	**
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	**	**
1,3,5-Trimethylbenzene	108-67-8	**	**
1,2,4-Trimethylbenzene	95-63-6	**	**
1,2,3-Trimethylbenzene	526-73-8	**	**
1,2,3,4-Tetramethylbenzene	488-23-3	**	**
Surrogate Recovery (α,α,α-Trifluorotoluene):		92%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

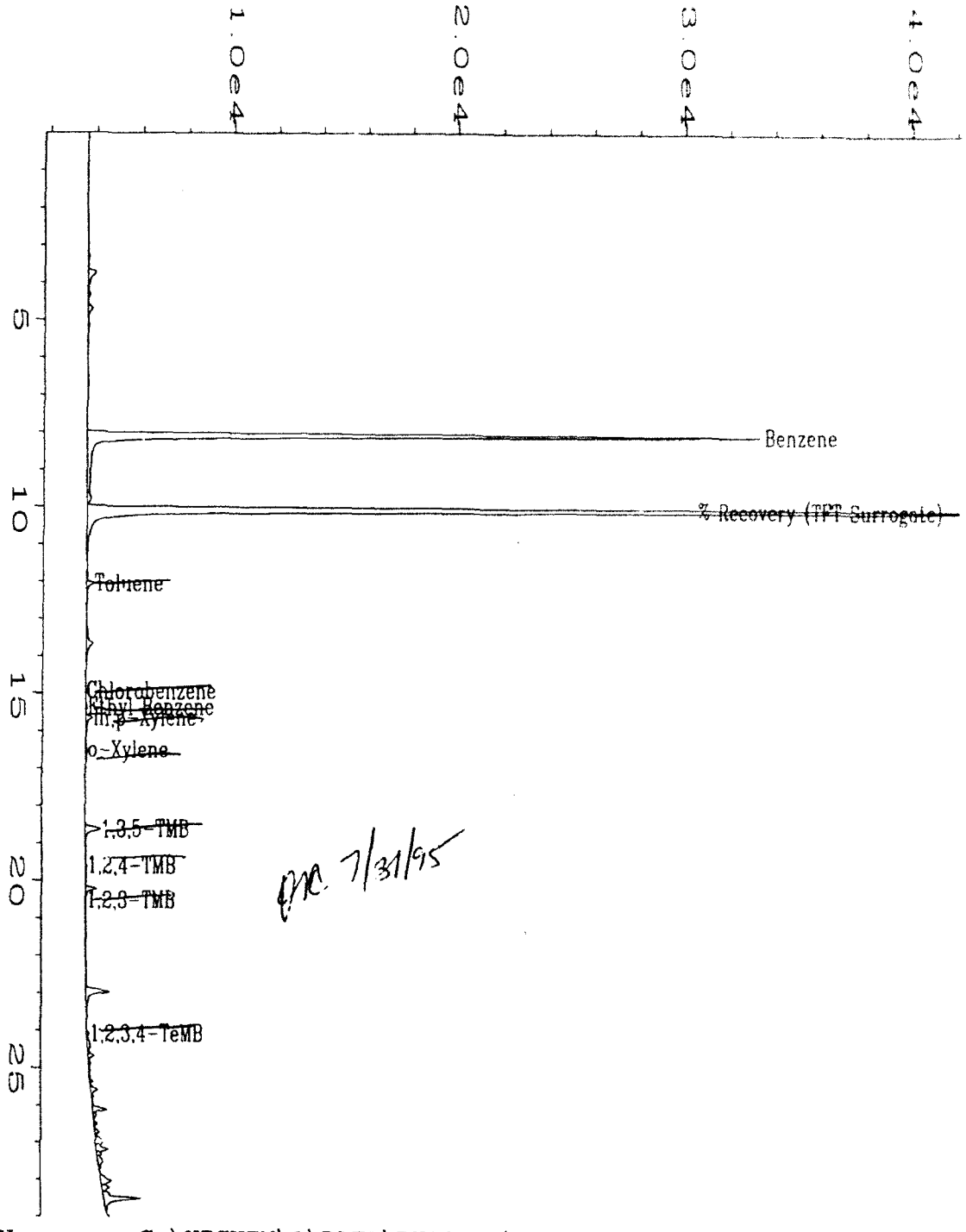
** = See BX1072813 for noted value, df = 1, 07/28/95.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved

BTEX2330.XLS



EAC 7/31/95

Data File Name : C:\HPCHEM\1\DATA\BX10729\005F0101.D
Operator : T.Lockwood
Instrument : BTEX1
Sample Name : X09251;10
Run Time Bar Code:
cquired on : 29 Jul 95 12:31 PM
Report Created on: 30 Jul 95 02:04 PM
Last Recalib on : 29 JUL 95 09:09 AM
Multiplier : 1
Client ID : 24P2-15

Page Number : 1
Vial Number : 5
Injection Number : 1
Sequence Line : 1
Instrument Method: BX10728.MTH
Analysis Method : BX10728.MTH
Sample Amount : 0
ISTD Amount :

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Method 602 Data Report

Client Sample Number	: Trip Blank	Client Project No.	: MacDill/722450.2102
Lab Sample Number	: X09252	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: BX1072814
		Method Blank No.	: MB1072895

Compound Name	Cas Number	Sample Concentration ug/L		RL ug/L
Benzene	71-43-2		U	0.4
Toluene	108-88-3		U	0.4
Chlorobenzene	108-90-7		U	0.4
Ethyl Benzene	100-41-4		U	0.4
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6		U	0.4
1,3,5-Trimethylbenzene	108-67-8		U	0.4
1,2,4-Trimethylbenzene	95-63-6		U	0.4
1,2,3-Trimethylbenzene	526-73-8		U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.5
Surrogate Recovery (α,α,α-Trifluorotoluene):		99%		70%-130% (QC limits

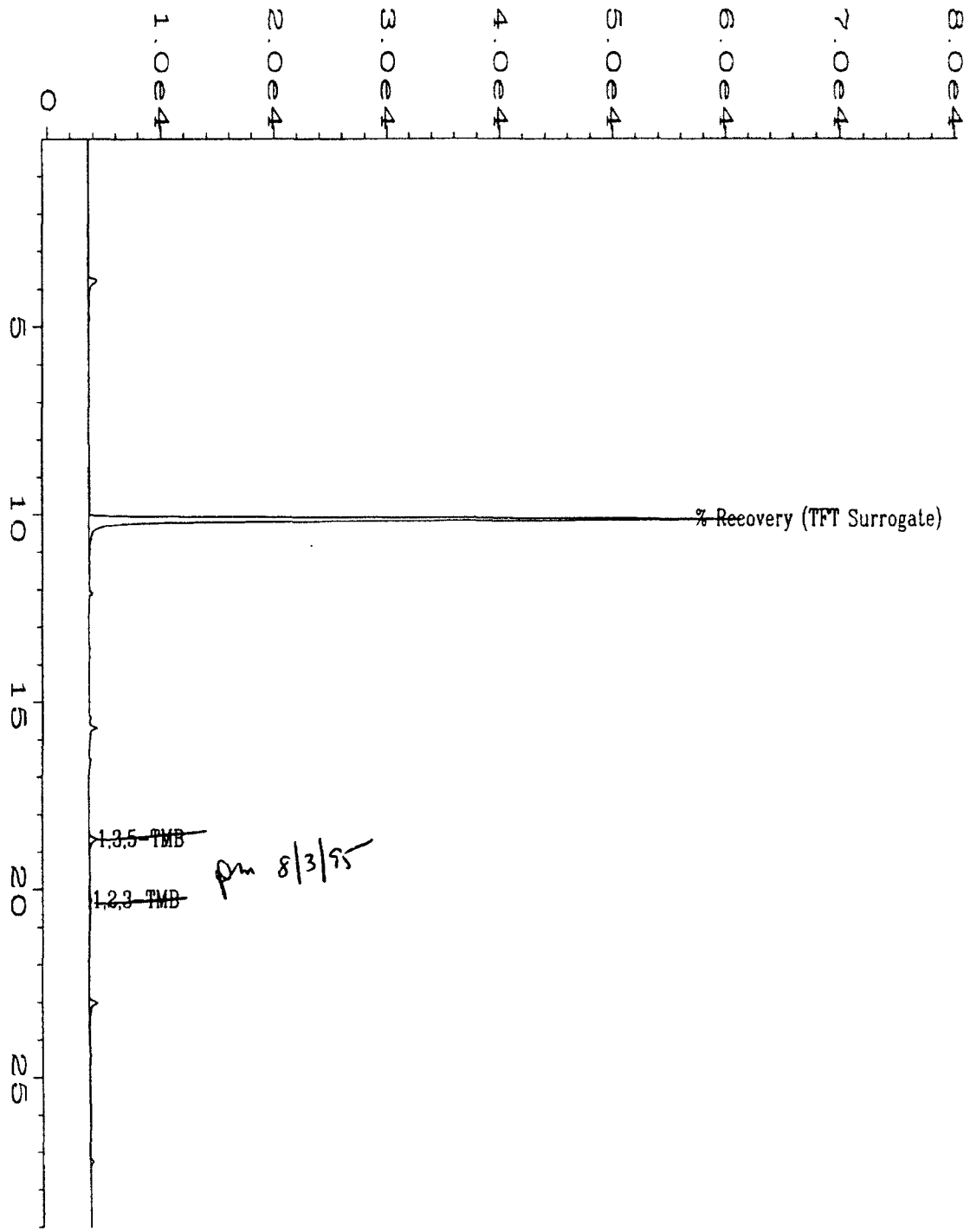
Note: Total Xylenes consist of three isomers, two of which co-elute.
The Xylene RL is for a single peak.

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved

BTEX2330.XLS



pm 8/3/95

Data File Name : C:\HPCHEM\1\DATA\BX10728\014F0101.D
Operator : S.W. Tyson
Instrument : BTEX1
Sample Name : X09252;1
Run Time Bar Code:
cquired on : 28 Jul 95 06:36 PM
Report Created on: 29 Jul 95 11:39 AM
Last Recalib on : 29 JUL 95 09:09 AM
Multiplier : 1

Page Number : 1
Vial Number : 14
Injection Number : 1
Sequence Line : 1
Instrument Method: BX10728.MTH
Analysis Method : BX10728.MTH
Sample Amount : 0
ISTD Amount :

Client ID : Trip Blank

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

EPA 602/8020 Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.	: 24PZ-3S	Client Project No.	: MacDill/ 722450.21020
Lab Sample No.	: X09242	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	EPA Method No.	: 602
Date Received	: 7/22/95	Matrix	: Water
Date Prepared	: 7/27/95	Lab File Number(s)	: BX1072721,22
Date Analyzed	: 7/27/95	Method Blank	: MB1072795
		Dilution Factor	: 1

Compound	Spike Added (ug/L)	Sample Concentration (ug/L)	Concentration (ug/L) MS	MSD	Comments
Benzene	20.0	0.0	14.0	15.1	
Toluene	20.0	0.0	13.9	15.0	
Chlorobenzene	20.0	0.0	13.7	14.8	
Ethylbenzene	20.0	0.0	14.1	15.2	
m,p-Xylene	40.0	0.0	28.6	30.9	
o-Xylene	20.0	0.0	13.9	15.0	
1,3,5-TMB	20.0	0.0	13.8	14.9	
1,2,4-TMB	20.0	0.0	13.2	14.4	
1,2,3-TMB	20.0	0.0	13.6	14.7	
1,2,3,4-TeMB	20.0	0.0	14.2	15.2	
Surrogate	100.0	89%	72%	75%	% RECOVERY

Compound		MS % RECOVERY	MSD % RECOVERY	RPD	QC# Limits RPD	%REC
Benzene		70.0	75.5	7.6	25	50 - 150
Toluene		69.5	75.0	7.6	25	50 - 148
Chlorobenzene		68.5	74.0	7.7	25	55 - 135
Ethylbenzene		70.5	76.0	7.5	25	50 - 150
m,p-Xylene		71.5	77.3	7.7	25	50 - 150
o-Xylene		69.5	75.0	7.6	25	50 - 150
1,3,5-TMB		69.0	74.5	7.7	25	50 - 150
1,2,4-TMB		66.0	72.0	8.7	25	50 - 150
1,2,3-TMB		68.0	73.5	7.8	25	50 - 150
1,2,3,4-TeMB		71.0	76.0	6.8	25	50 - 150
Surrogate		72.0	75.0	NA	NA	70 - 130

= Values taken from EPA methods 602/8020.
* = Values outside of QC limits.

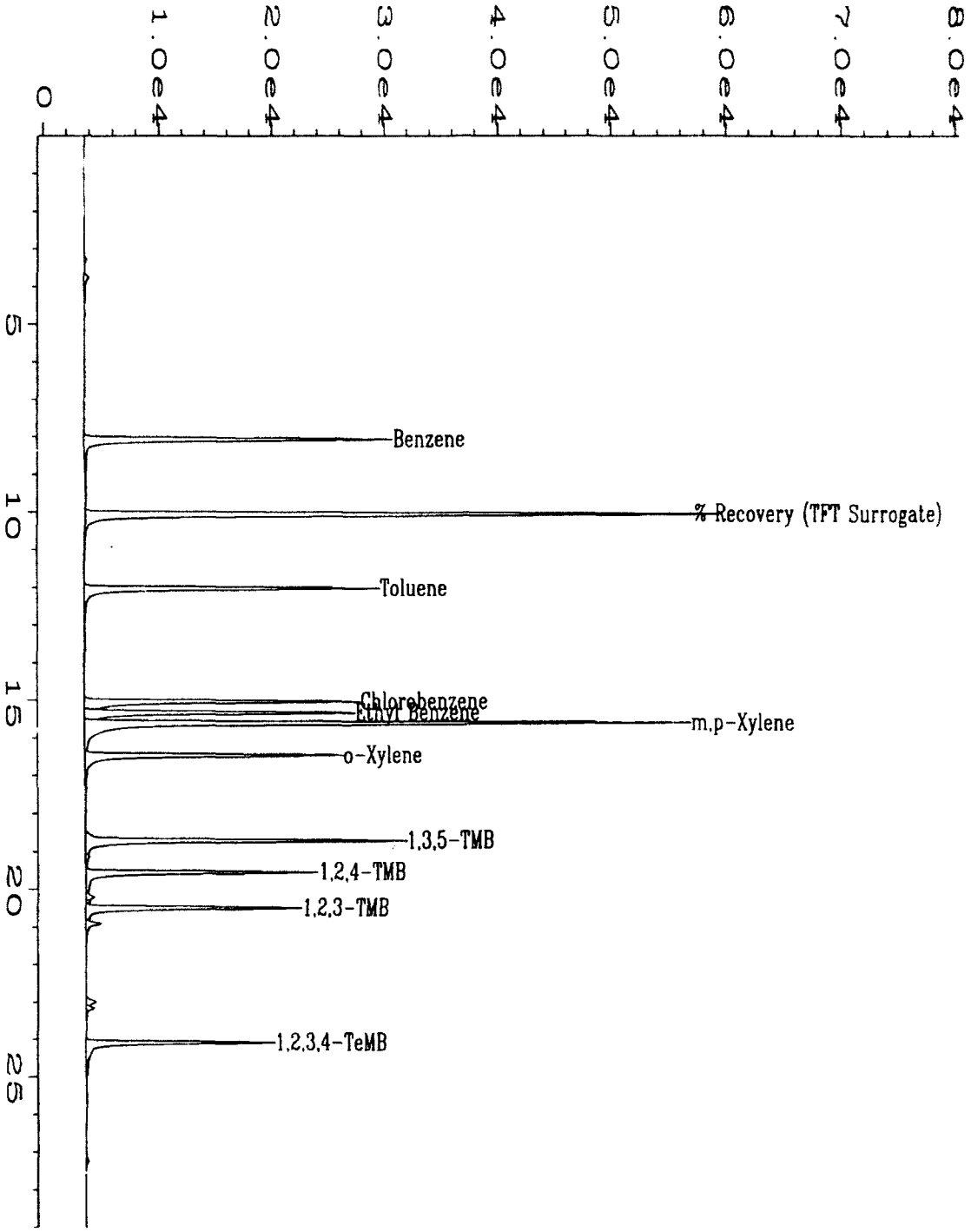
RPD: 0 out of (10) outside limits.
Spike Recovery: 0 out of (20) outside limits.

Comments:

Analyst

K. Cone
Approved

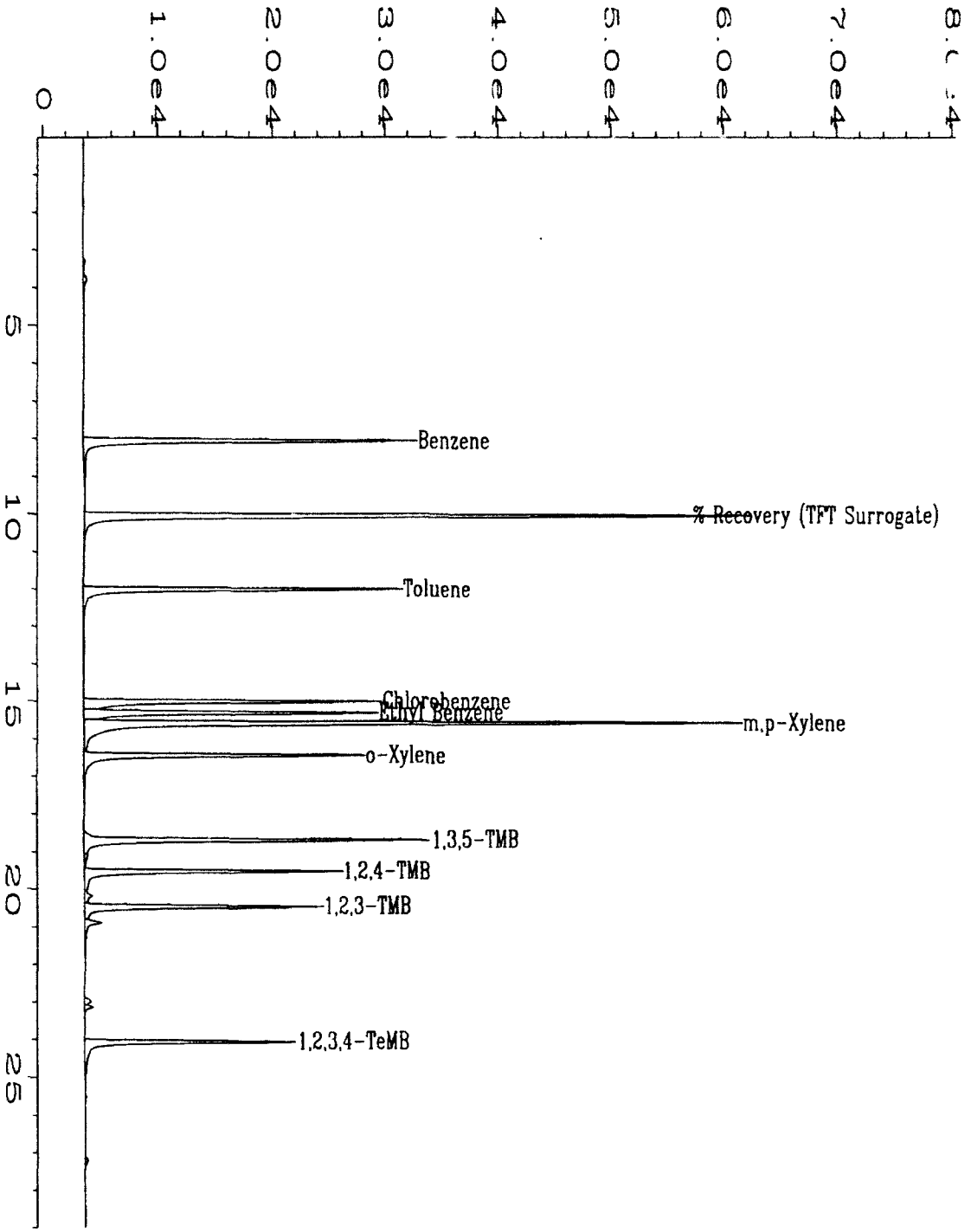
MS2330.XLS; 8/1/95



Data File Name : C:\HPCHEM\1\DATA\BX10727\021F0801.D
Operator : S.W. Tyson
Instrument : BTEX1
Sample Name : X09242MS
Run Time Bar Code:
Acquired on : 27 Jul 95 10:28 PM
Report Created on: 01 Aug 95 11:12 AM
Last Recalib on : 27 JUL 95 02:46 PM
Multiplier : 1
Sample Info : 20 ppb Matrix Spike- Std. #1727

Page Number : 1
Vial Number : 21
Injection Number : 1
Sequence Line : 8
Instrument Method: BX10727.MTH
Analysis Method : BX10727.MTH
Sample Amount : 0
ISTD Amount :

Client ID : 24PZ-35



Data File Name : C:\HPCHEM\1\DATA\BX10727\022F0801.D
Operator : S.W. Tyson
Instrument : BTEX1
Sample Name : X09242MSD
Run Time Bar Code:
Acquired on : 27 Jul 95 11:09 PM
Report Created on: 01 Aug 95 11:12 AM
Last Recalib on : 27 JUL 95 02:46 PM
Multiplier : 1
Sample Info : 20 ppb Spike Duplicate- Std. # 1727

Page Number : 1
Vial Number : 22
Injection Number : 1
Sequence Line : 8
Instrument Method: BX10[illegible] M
Analysis Method : BX10727.M
Sample Amount : 0
ISTD Amount :

Client ID: MPZ-35

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St.
Wheat Ridge, CO 80033
(303) 425-6021

EPA 602/8020 Data Report
Laboratory Control Sample (LCS)

LCS Number	: LC S1072795	Dilution Factor	: 1.00
Date Extracted/Prepared	: 7/27/95	Method	: 602/8020
Date Analyzed	: 7/27/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX1072710

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	18.4	92.0	68-111*
Toluene	108-88-3	19.4	97.0	71-111*
Chlorobenzene	108-90-7	20.1	100.5	65-115*
Ethyl Benzene	100-41-4	20.2	101.0	75-115*
m,p-Xylene	108-38-3	21.3	106.5	74-113*
o-Xylene	106-42-3 95-47-6	19.4	97.0	65-115*
1,3,5-Trimethylbenzene	108-67-8	21.5	107.5	69-109*
1,2,4-Trimethylbenzene	95-63-6	21.8	109.0	68-110*
1,2,3-Trimethylbenzene	526-73-8	24.7	123.5	71-127*
1,2,3,4-Tetramethylbenzene	488-23-3	21.5	107.5	65-115*
Surrogate Recovery (α,α,α-Trifluorotoluene):		97%	70%-130% (QC limits)	

NOTES:

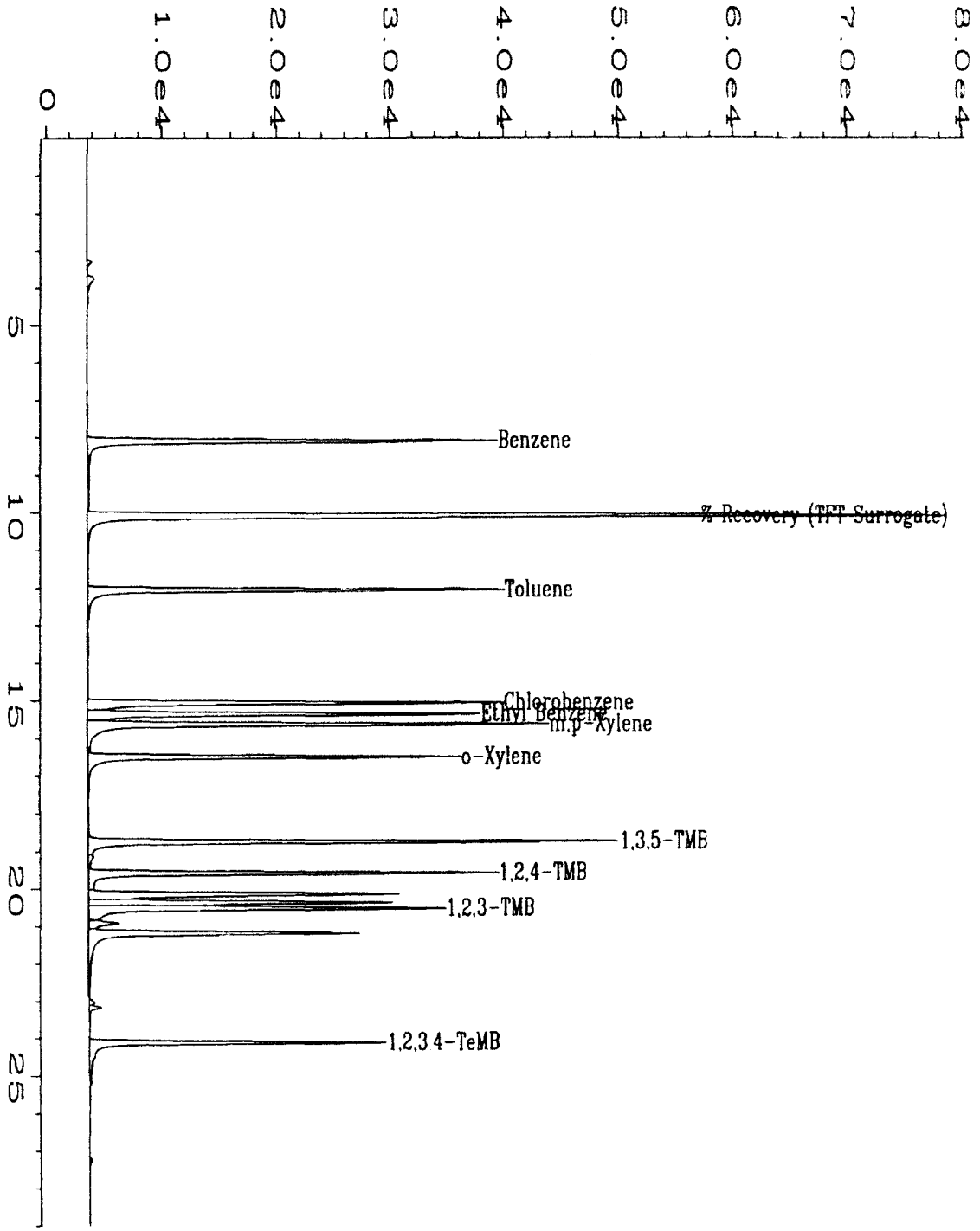
* = Limits established 7/5/95 KSC

QUALIFIERS:

E = Extrapolated value. Value exceeds that of the calibration range.
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
NA = Not available/Not analyzed.

Analyst

Approved



Data File Name : C:\HPCHEM\1\DATA\BX10727\010F0801.D
Operator : S.W. Tyson
Instrument : BTEX1
Sample Name : LCS1072795
Run Time Bar Code:
Acquired on : 27 Jul 95 02:51 PM
Report Created on: 01 Aug 95 11:11 AM
Last Recalib on : 27 JUL 95 02:46 PM
Multiplier : 1
Sample Info : Std. # 1667

Page Number : 1
Vial Number : 10
Injection Number : 1
Sequence Line : 8
Instrument Method: BX107[illegible] IT
Analysis Method : BX1072[illegible].MT
Sample Amount : 0
ISTD Amount :

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St.
Wheat Ridge, CO 80033
(303) 425-6021

EPA 602/8020 Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS1072895	Dilution Factor	: 1.00
Date Extracted/Prepared	: 7/28/95	Method	: 602/8020
Date Analyzed	: 7/28/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX10728008

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	17.9	89.5	68-111*
Toluene	108-88-3	19.6	98.0	71-111*
Chlorobenzene	108-90-7	20.0	100.0	65-115*
Ethyl Benzene	100-41-4	20.0	100.0	75-115*
m,p-Xylene	108-38-3	20.6	103.0	74-113*
o-Xylene	106-42-3 95-47-6	19.4	97.0	65-115*
1,3,5-Trimethylbenzene	108-67-8	21.9	109.5#	69-109*
1,2,4-Trimethylbenzene	95-63-6	22.0	110.0	68-110*
1,2,3-Trimethylbenzene	526-73-8	24.6	123.0	71-127*
1,2,3,4-Tetramethylbenzene	488-23-3	23.0	115.0	65-115*
Surrogate Recovery (α,α,α-Trifluorotoluene):		100%	70%-130% (QC limits)	

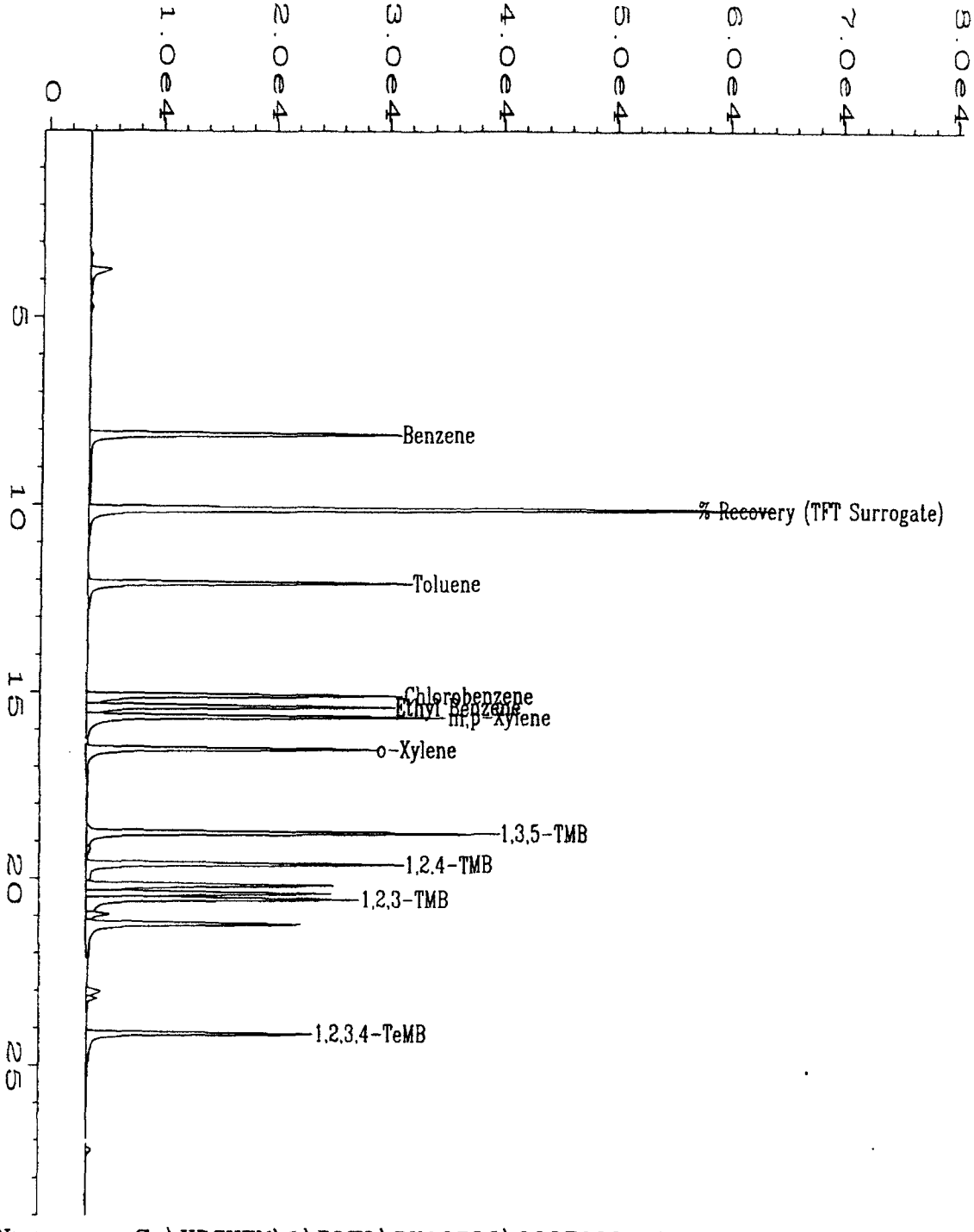
NOTES: # = Value outside QC limits, but all samples associated with this LCS are non-detect for this compound.

* = Limits established 7/5/95 KSC

QUALIFIERS:
E = Extrapolated value. Value exceeds that of the calibration range.
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
NA = Not available/Not analyzed.

Analyst

Approved



Data File Name	: C:\HPCHEM\1\DATA\BX10728\008F0801.D		
Operator	: S.W. Tyson	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 8
Sample Name	: LCS2072895	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 8
Acquired on	: 28 Jul 95 01:21 PM	Instrument Method	: BX10728 H
Report Created on	: 28 Jul 95 01:52 PM	Analysis Method	: BX10728.MTH
Last Recalib on	: 28 Jul 95 12:43 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St.
Wheat Ridge, CO 80033
(303) 425-6021

EPA 602/8020 Data Report
Laboratory Control Sample (LCS)

LCS Number	: LCS1072995	Dilution Factor	: 1.00
Date Extracted/Prepared	: 7/29/95	Method	: 602/8020
Date Analyzed	: 7/29/95	Matrix	: Water
Spike Amount (ug/L)	: 20.0	Lab File No.	: BX1072902

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	16.2	81.0	68-111*
Toluene	108-88-3	17.1	85.5	71-111*
Chlorobenzene	108-90-7	17.8	89.0	65-115*
Ethyl Benzene	100-41-4	17.8	89.0	75-115*
m,p-Xylene	108-38-3	17.9	89.5	74-113*
o-Xylene	106-42-3 95-47-6	17.0	85.0	65-115*
1,3,5-Trimethylbenzene	108-67-8	19.4	97.0	69-109*
1,2,4-Trimethylbenzene	95-63-6	19.3	96.5	68-110*
1,2,3-Trimethylbenzene	526-73-8	21.8	109.0	71-127*
1,2,3,4-Tetramethylbenzene	488-23-3	20.0	100.0	65-115*
Surrogate Recovery (α,α,α-Trifluorotoluene):		85%	70%-130% (QC limits)	

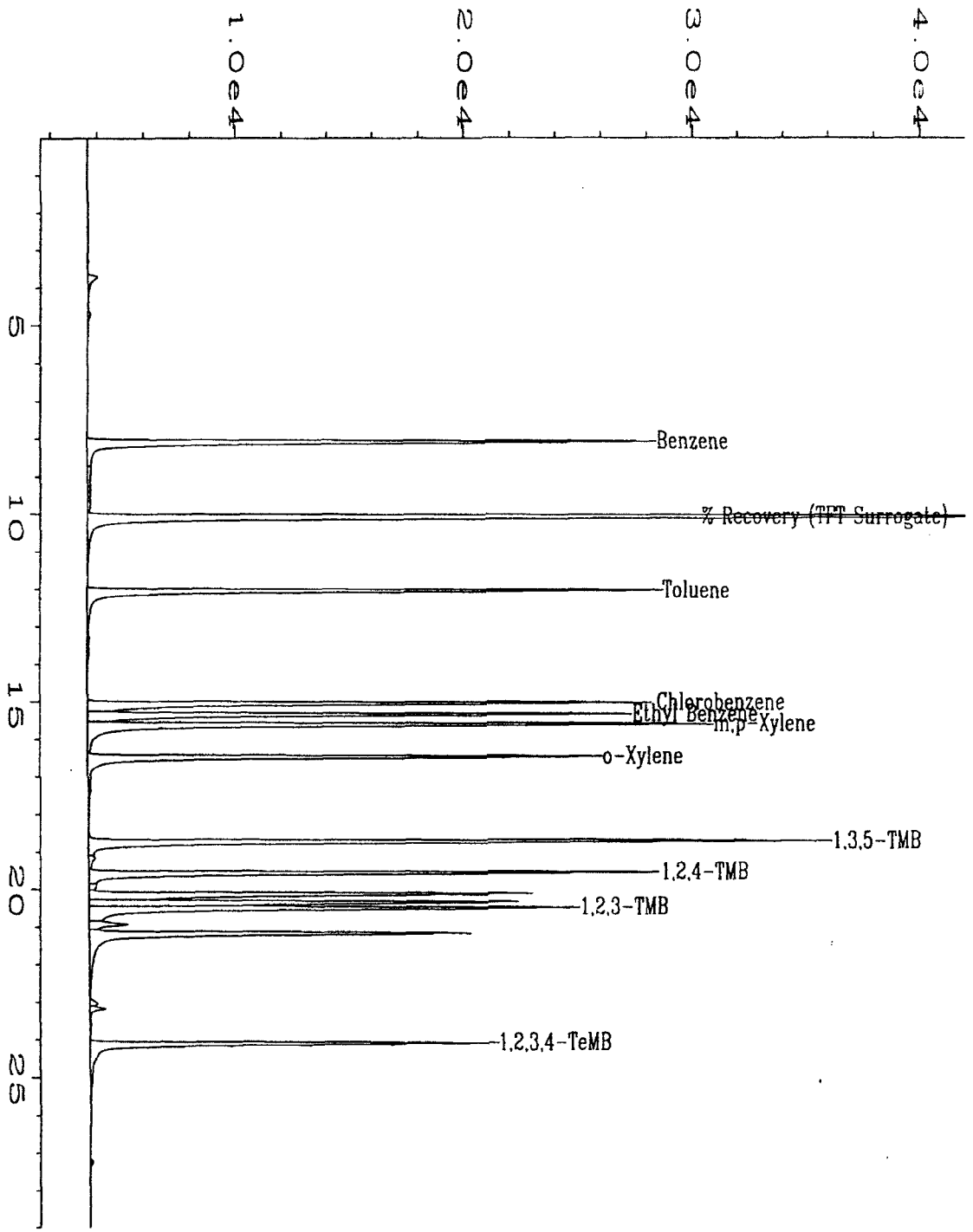
NOTES:

* = Limits established 7/5/95 KSC

QUALIFIERS:
E = Extrapolated value. Value exceeds that of the calibration range.
U = Compound analyzed for, but not detected.
B = Compound found in blank and sample. Compare blank and sample data.
NA = Not available/Not analyzed.

Analyst

K. Cone
Approved



Data File Name	: C:\HPCHEM\1\DATA\BX10729\002F0101.D		
Operator	: T.Lockwood	Page Number	: 1
Instrument	: BTEX1	Vial Number	: 2
Sample Name	: LCS2072995	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 29 Jul 95 10:27 AM	Instrument Method	: BX10728. H
Report Created on	: 30 Jul 95 12:36 PM	Analysis Method	: BX10728.MTH
Last Recalib on	: 29 JUL 95 09:09 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Methane Report Form
Method Blank Report

Method Blank Number	: GB072895	Client Project No.	: MacDill/722450.21020
Date Extracted/Prepared	: 7/28/95	Lab Project No.	: 95-2330
Date Analyzed	: 7/28/95	Dilution Factor	: 1.00
		Method	: RSKSOP-175
		Matrix	: Water
		Lab File No.	: GAS0728002

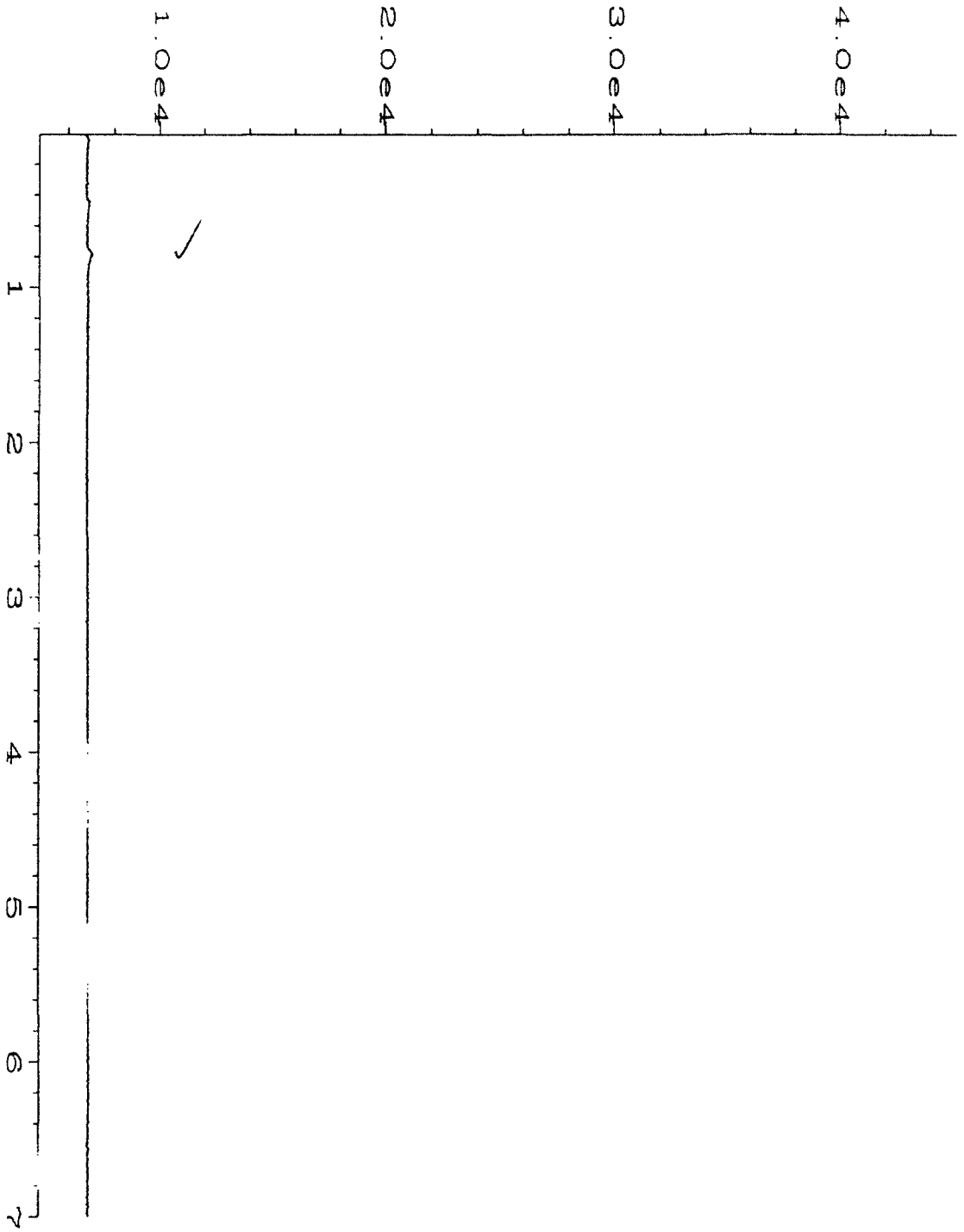
Compound Name	Cas Number	Sample Concentration mg/L	RL mg/L
Methane	74-82-8	U	0.004

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved

AF2330.XLS



Data File Name	: C:\HPCHEM\2\DATA\GAS0728\002R0101.D		
Operator	: Bill Michener	Page Number	: 1
Instrument	: ALC/GAS	Vial Number	: 2
Sample Name	: GB072895	Injection Number	: 1
Run Time Bar Code	:	Sequence Line	: 1
Acquired on	: 28 Jul 95 06:56 AM	Instrument Method	: GASES.M
Report Created on	: 01 Aug 95 11:53 AM	Analysis Method	: METH0728.MT
Last recalib on	: 28 JUL 95 09:46 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303) 425-6021

Methane Report Form

Client Sample Number	: 24PZ-3S	**Client Project No.**	: MacDill/722450.21020
Lab Sample Number	: X09242	**Lab Project No.**	: 95-2330
Date Sampled	: 7/21/95	**Dilution Factor**	: 10.00
Date Received	: 7/22/95	**Method**	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	**Matrix**	: Water
Date Analyzed	: 7/28/95	**Lab File No.**	: GAS0728011

Compound Name	Cas Number	Sample Concentration mg/L	RL mg/L
Methane	74-82-8	0.21	0.04

Temperature	: 74.3 F	Saturation	Meth	0.051042584
Amount Injected	: 0.05 ml	Concentration		
Total Volume of Sample	: 43 ml	Concentration	Meth	0.16013086
Head space created	: 4 ml	in Head Space		
Methane Area	: 118.697 ug			

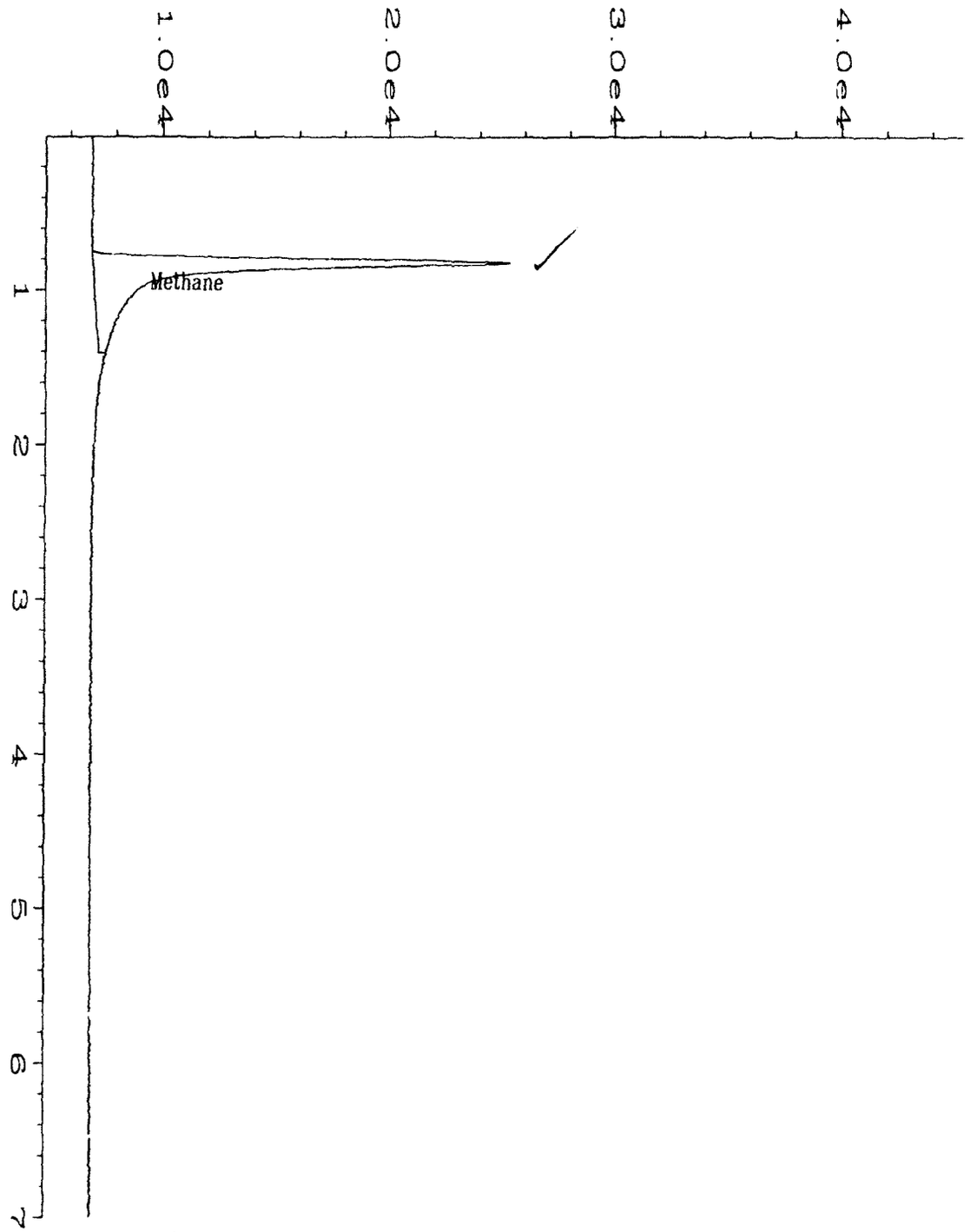
Atomic weight(Methane) : 16 g

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Crie
Approved

AF2330.XLS



Data File Name	: C:\HPCHEM\2\DATA\GAS0728\011R0101.D		
Operator	: Bill Michener	Page Number	: 1
Instrument	: ALC/GAS	Vial Number	: 11
Sample Name	: X09242;10	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 28 Jul 95 11:06 AM	Instrument Method	: GASES. I
Report Created on	: 01 Aug 95 11:54 AM	Analysis Method	: METH0728.M
Last Recalib on	: 28 JUL 95 09:46 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-2330;24PZ-3S;Water(inject 50 ul)		

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Methane Report Form

Client Sample Number	: 24PZ-3D	Client Project No.	: MacDill/722450.21020
Lab Sample Number	: X09245	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: GAS0728014

Compound Name	Cas Number	Sample Concentration mg/L	RL mg/L
Methane	74-82-8	0.020	0.004

Temperature	: 75.9 F	Saturation Concentration	Meth	0.004814293
Amount Injected	: 0.5 ml			
Total Volume of Sample	: 43 ml	Concentration in Head Space	Meth	0.015058263
Head space created	: 4 ml			
Methane Area	: 111.954 ug			

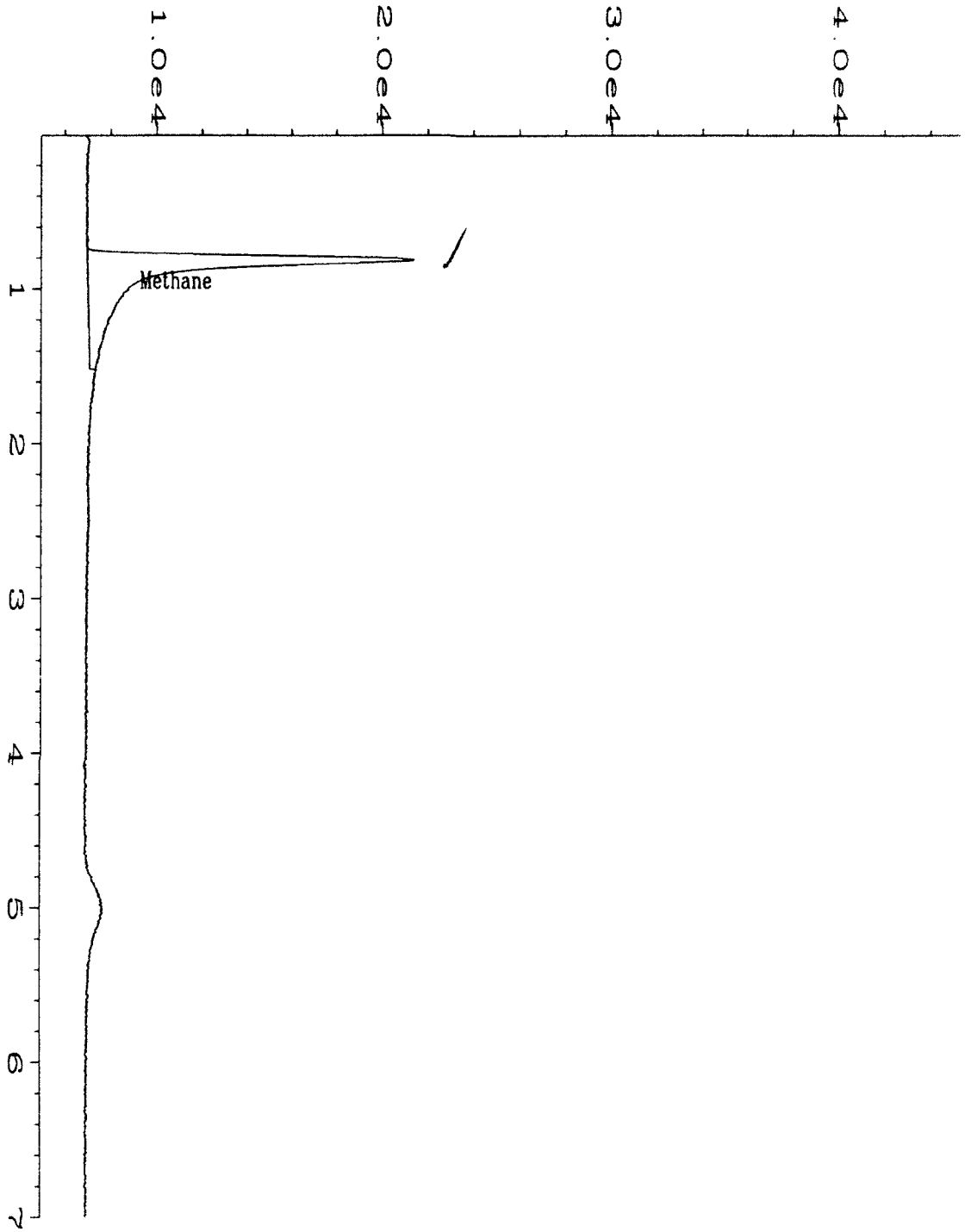
Atomic weight(Methane) : 16 g

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved

AF2330.XLS



Data File Name	: C:\HPCHEM\2\DATA\GAS0728\014R0101.D		
Operator	: Bill Michener	Page Number	: 1
Instrument	: ALC/GAS	Vial Number	: 14
Sample Name	: X09245;1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 28 Jul 95 11:55 AM	Instrument Method	: GASES H
Report Created on	: 01 Aug 95 11:54 AM	Analysis Method	: METH0728.M
Last Recalib on	: 28 JUL 95 09:46 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-2330;24PZ-3D;Water(inject 500 ul)		

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Methane Report Form

Client Sample Number	: 24PZ-5S	**Client Project No.**	: MacDill/722450.21020
Lab Sample Number	: X09246	**Lab Project No.**	: 95-2330
Date Sampled	: 7/21/95	**Dilution Factor**	: 10.00
Date Received	: 7/22/95	**Method**	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	**Matrix**	: Water
Date Analyzed	: 7/28/95	**Lab File No.**	: GAS0728015

Compound Name	Cas Number	Sample Concentration mg/L	RL mg/L
Methane	74-82-8	0.34	0.04

Temperature	: 75.4 F	Saturation Concentration	Meth		0.082642483
Amount Injected	: 0.05 ml				
Total Volume of Sample	: 43 ml	Concentration in Head Space	Meth		0.258732835
Head space created	: 4 ml				
Methane Area	: 192.181 ug				

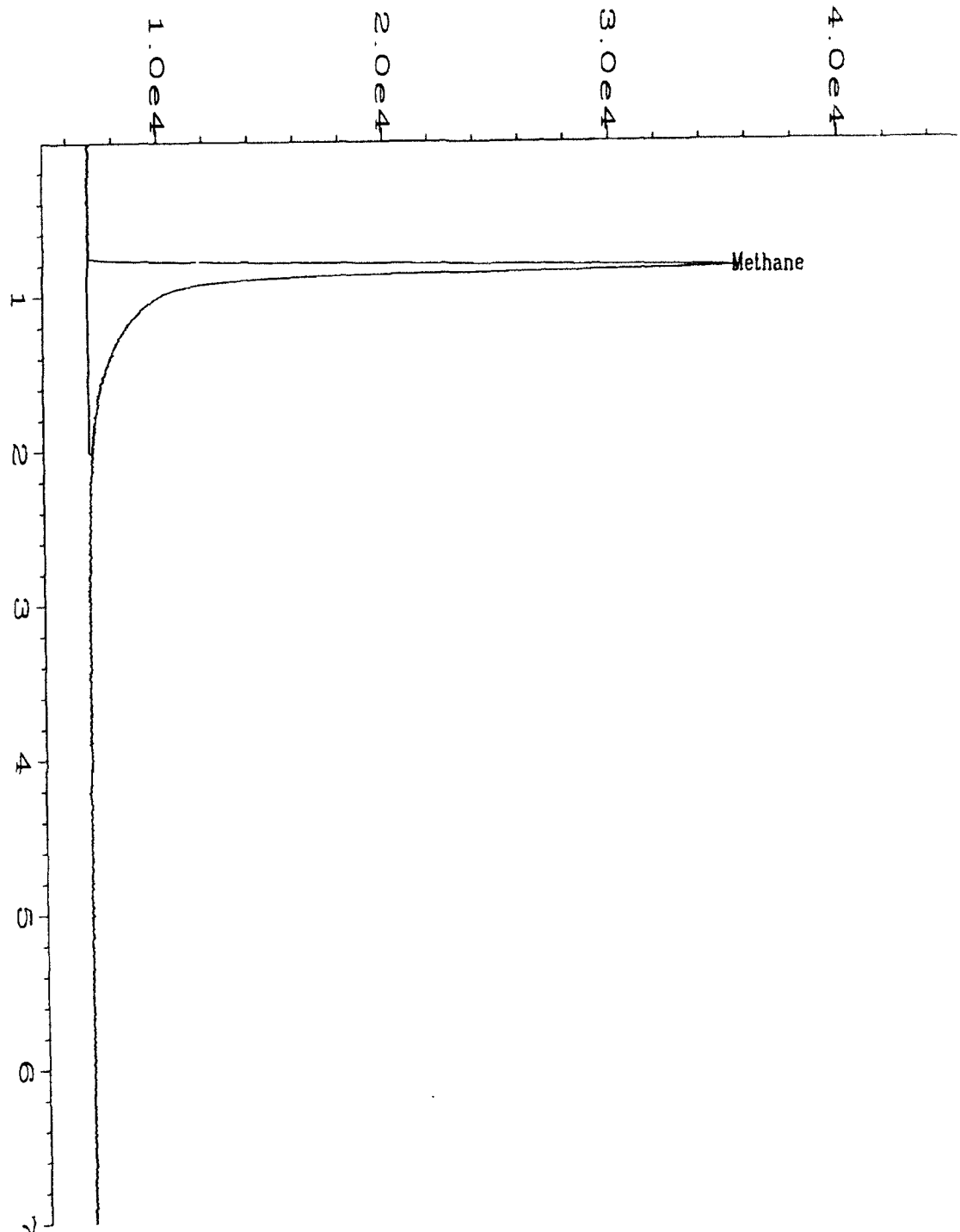
Atomic weight(Methane) : 16 g

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved

AF2330.XLS



Data File Name	: C:\HPCHEM\2\DATA\GAS0728\015R0101.D		
Operator	: Bill Michener	Page Number	: 1
Instrument	: ALC/GAS	Vial Number	: 15
Sample Name	: X09246;10	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 28 Jul 95 12:02 PM	Instrument Method	: GASES H
Report Created on	: 01 Aug 95 02:22 PM	Analysis Method	: METH0728.M
Last Recalib on	: 28 JUL 95 09:46 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-2330;24PZ-5S;Water(inject 50 ul)		

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Methane Report Form

Client Sample Number	: 24PZ-4S	**Client Project No.**	: MacDill/722450.21020
Lab Sample Number	: X09247	**Lab Project No.**	: 95-2330
Date Sampled	: 7/21/95	**Dilution Factor**	: 1.00
Date Received	: 7/22/95	**Method**	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	**Matrix**	: Water
Date Analyzed	: 7/28/95	**Lab File No.**	: GAS0728016

Compound Name	Cas Number	Sample Concentration mg/L	RL mg/L
Methane	74-82-8	0.033	0.004

Temperature	:	76.5	F	Saturation Concentration	Meth	0.008066953
Amount Injected	:	0.5	ml			
Total Volume of Sample	:	43	ml	Concentration in Head Space	Meth	0.025203762
Head space created	:	4	ml			
Methane Area	:	187.593	ug			

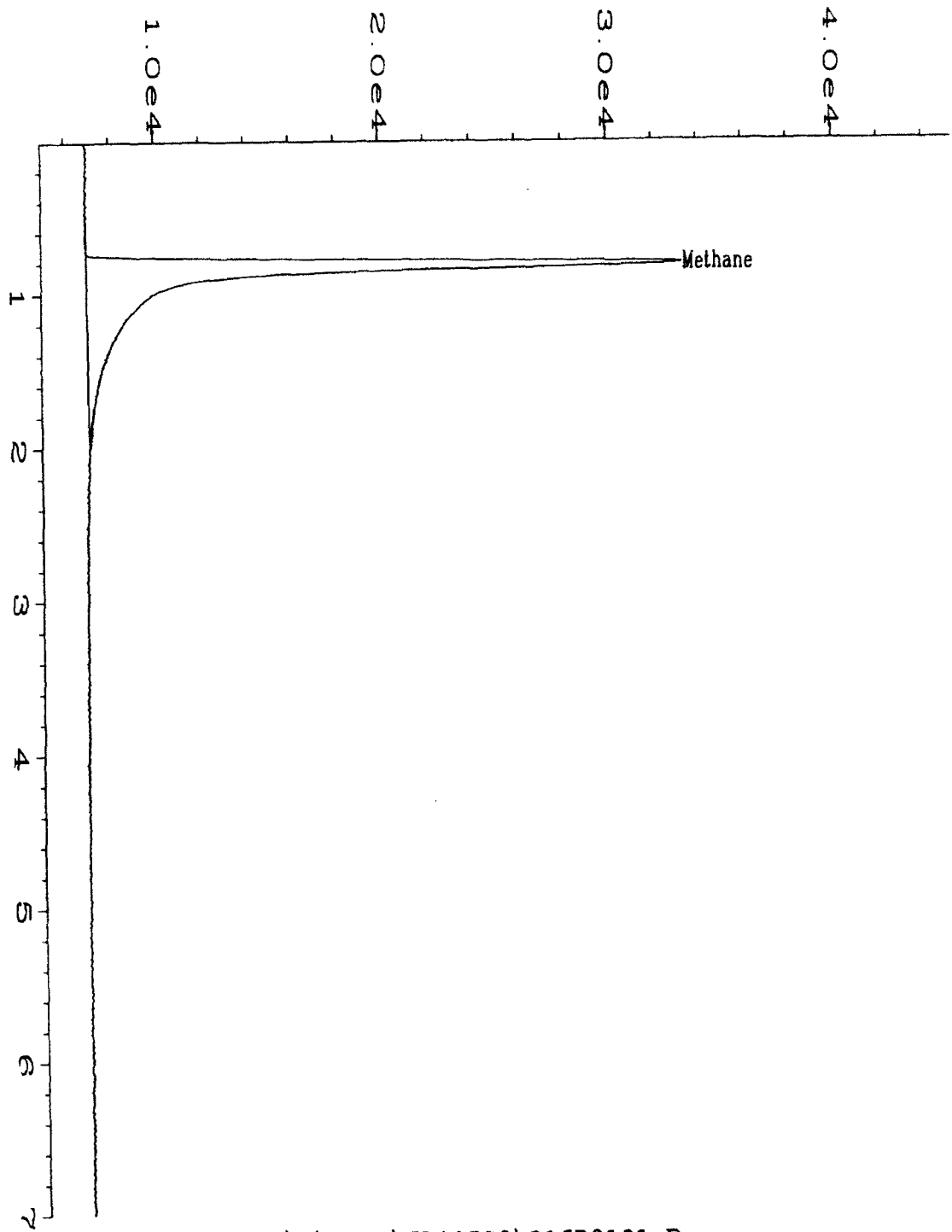
Atomic weight(Methane) : 16 g

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved

AF2330.XLS



Data File Name	: C:\HPCHEM\2\DATA\GAS0728\016R0101.D		
Operator	: Bill Michener	Page Number	: 1
Instrument	: ALC/GAS	Vial Number	: 16
Sample Name	: X09247;1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 28 Jul 95 12:13 PM	Instrument Method	: GASES H
Report Created on	: 01 Aug 95 02:22 PM	Analysis Method	: METH0728.M
Last Recalib on	: 28 JUL 95 09:46 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-2330;24PZ-4S;Water(inject 500 ul)		

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Methane Report Form

Client Sample Number	: 24PZ-2S	**Client Project No.**	: MacDill/722450.21020
Lab Sample Number	: X09248	**Lab Project No.**	: 95-2330
Date Sampled	: 7/21/95	**Dilution Factor**	: 1.00
Date Received	: 7/22/95	**Method**	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	**Matrix**	: Water
Date Analyzed	: 7/28/95	**Lab File No.**	: GAS0728017

Compound Name	Cas Number	Sample Concentration mg/L	RL mg/L
Methane	74-82-8	0.008	0.004

Temperature	: 76.5 F	Saturation Concentration	Meth		0.00200301
Amount Injected	: 0.5 ml				
Total Volume of Sample	: 43 *ml*	*Concentration* in Head Space	Meth		0.006258048
Head space created	: 4 ml				
Methane Area	: 46.579 ug				

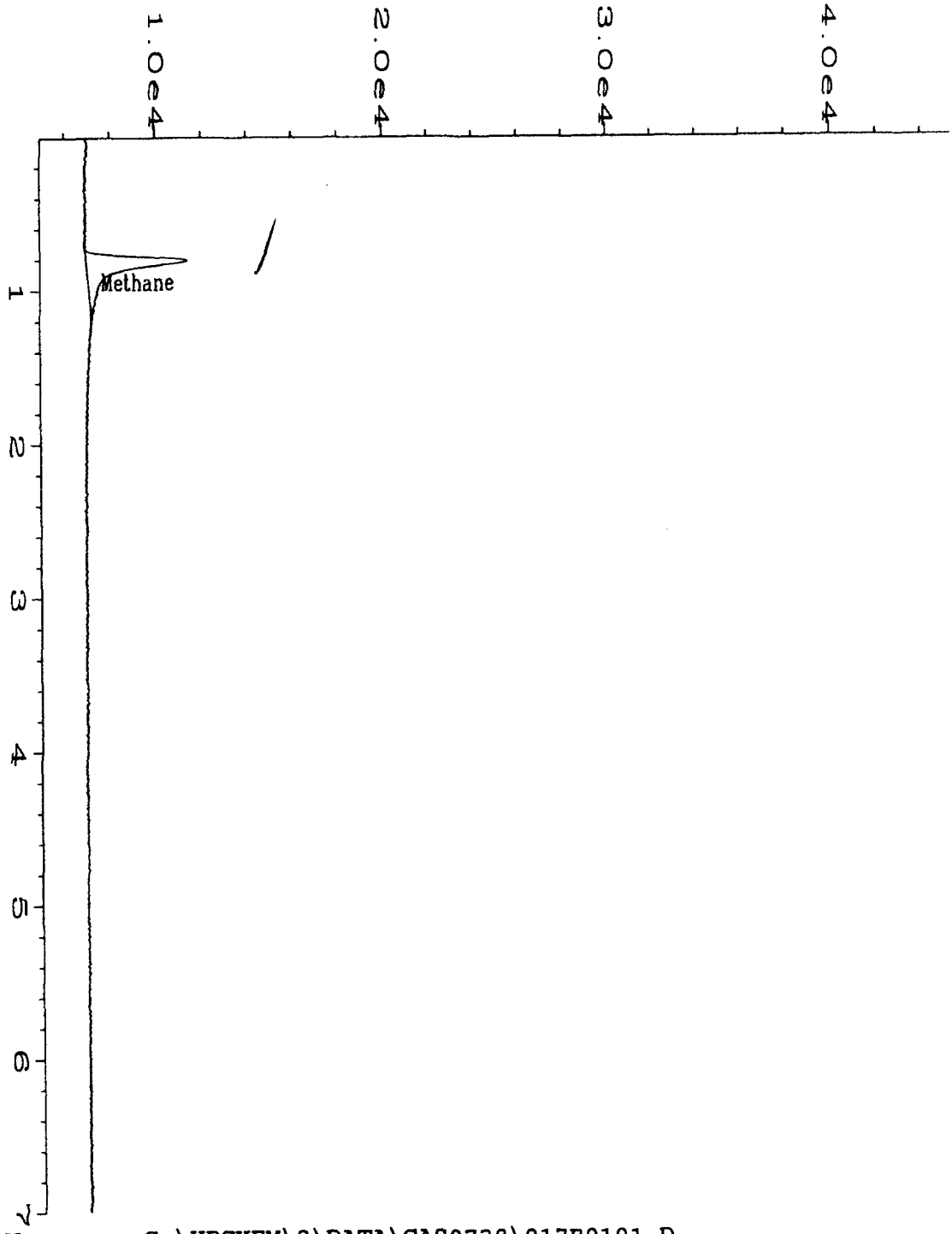
Atomic weight(Methane) : 16 g

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone
Approved

AF2330.XLS



Data File Name	: C:\HPCHEM\2\DATA\GAS0728\017R0101.D		
Operator	: Bill Michener	Page Number	: 1
Instrument	: ALC/GAS	Vial Number	: 17
Sample Name	: X09248;1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 28 Jul 95 12:34 PM	Instrument Method	: GASES. H
Report Created on	: 01 Aug 95 11:54 AM	Analysis Method	: METH0728.M
Last Recalib on	: 28 JUL 95 09:46 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-2330;24PZ-2S;Water(inject 500 ul)		

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Methane Report Form

Client Sample Number	: 24PZ-2R	**Client Project No.**	: MacDill/722450.21020
Lab Sample Number	: X09249	**Lab Project No.**	: 95-2330
Date Sampled	: 7/21/95	**Dilution Factor**	: 1.00
Date Received	: 7/22/95	**Method**	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	**Matrix**	: Water
Date Analyzed	: 7/28/95	**Lab File No.**	: GAS0728013

Compound Name	Cas Number	Sample Concentration mg/L	RL mg/L
Methane	**74-82-8**	0.009	0.004

Temperature	:	77.1	F	Saturation Concentration	Meth	0.002197037
Amount Injected	:	0.5	ml			
Total Volume of Sample	:	43	ml	Concentration in Head Space	Meth	0.006856574
Head space created	:	4	ml			
Methane Area	:	51.091	ug			

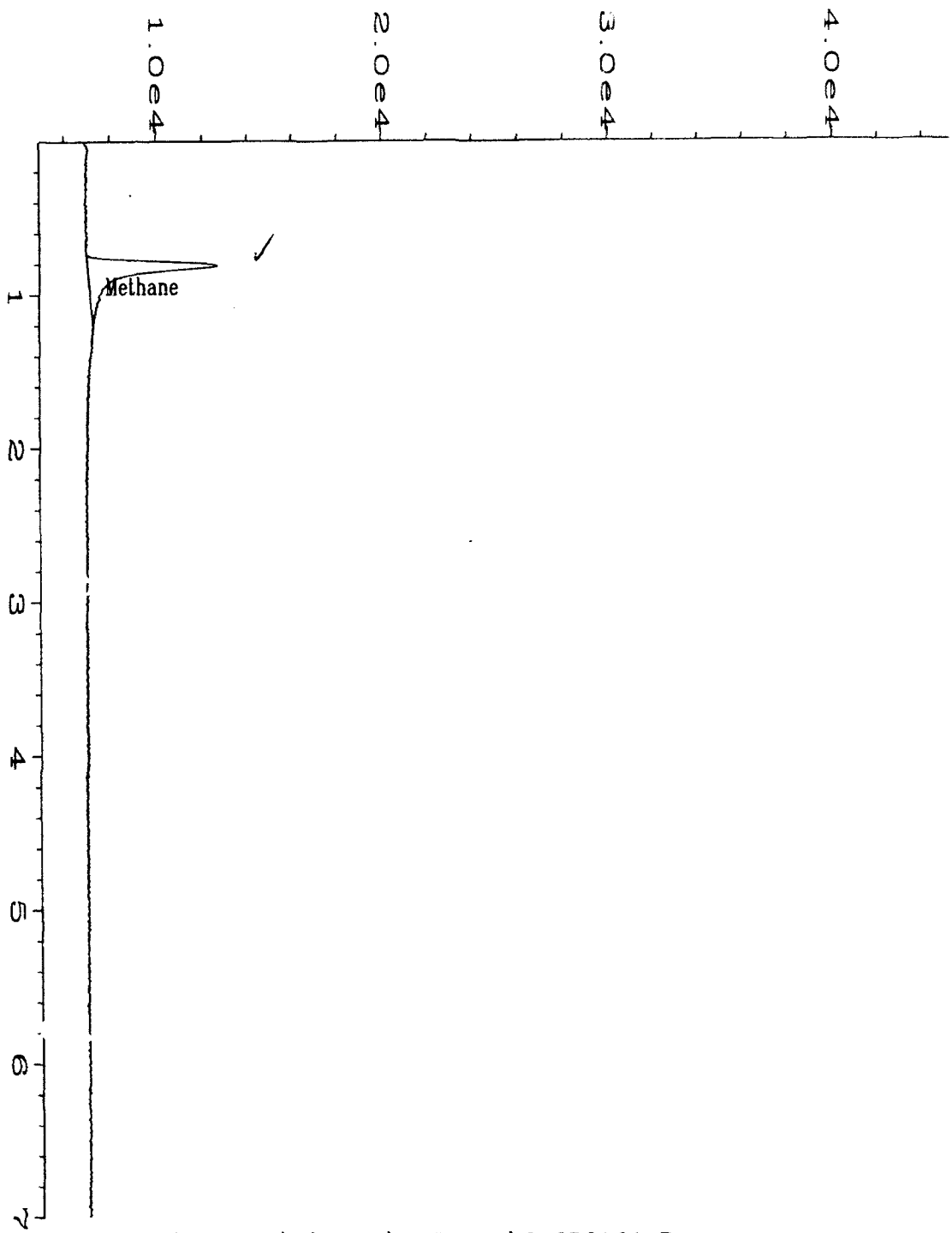
Atomic weight(Methane) : 16 g

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

Approved

AF2330.XLS



Data File Name	: C:\HPCHEM\2\DATA\GAS0728\018R0101.D		
Operator	: Bill Michener	Page Number	: 1
Instrument	: ALC/GAS	Vial Number	: 18
Sample Name	: X09249;1	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 28 Jul 95 12:59 PM	Instrument Method	: GASES H
Report Created on	: 01 Aug 95 11:54 AM	Analysis Method	: METH0728.M
Last Recalib on	: 28 JUL 95 09:46 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-2330;24PZ-2R;Water(inject 500 ul)		

EVERGREEN ANALYTICAL, INC.
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Methane Report Form

Client Sample Number	: 24PZ-1S	**Client Project No.**	: MacDill/722450.21020
Lab Sample Number	: X09251	**Lab Project No.**	: 95-2330
Date Sampled	: 7/21/95	**Dilution Factor**	: 50.00
Date Received	: 7/22/95	**Method**	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	**Matrix**	: Water
Date Analyzed	: 7/28/95	**Lab File No.**	: GAS0728020

Compound Name	Cas Number	Sample Concentration mg/L	RL mg/L
Methane	**74-82-8**	3.1	0.2

Temperature	: 78.4 F	Saturation Concentration	Meth		0.750164339
Amount Injected	: 0.01 ml				
Total Volume of Sample	: 43 ml	Concentration in Head Space	Meth		2.335474898
Head space created	: 4 ml				
Methane Area	: 348.894 ug				

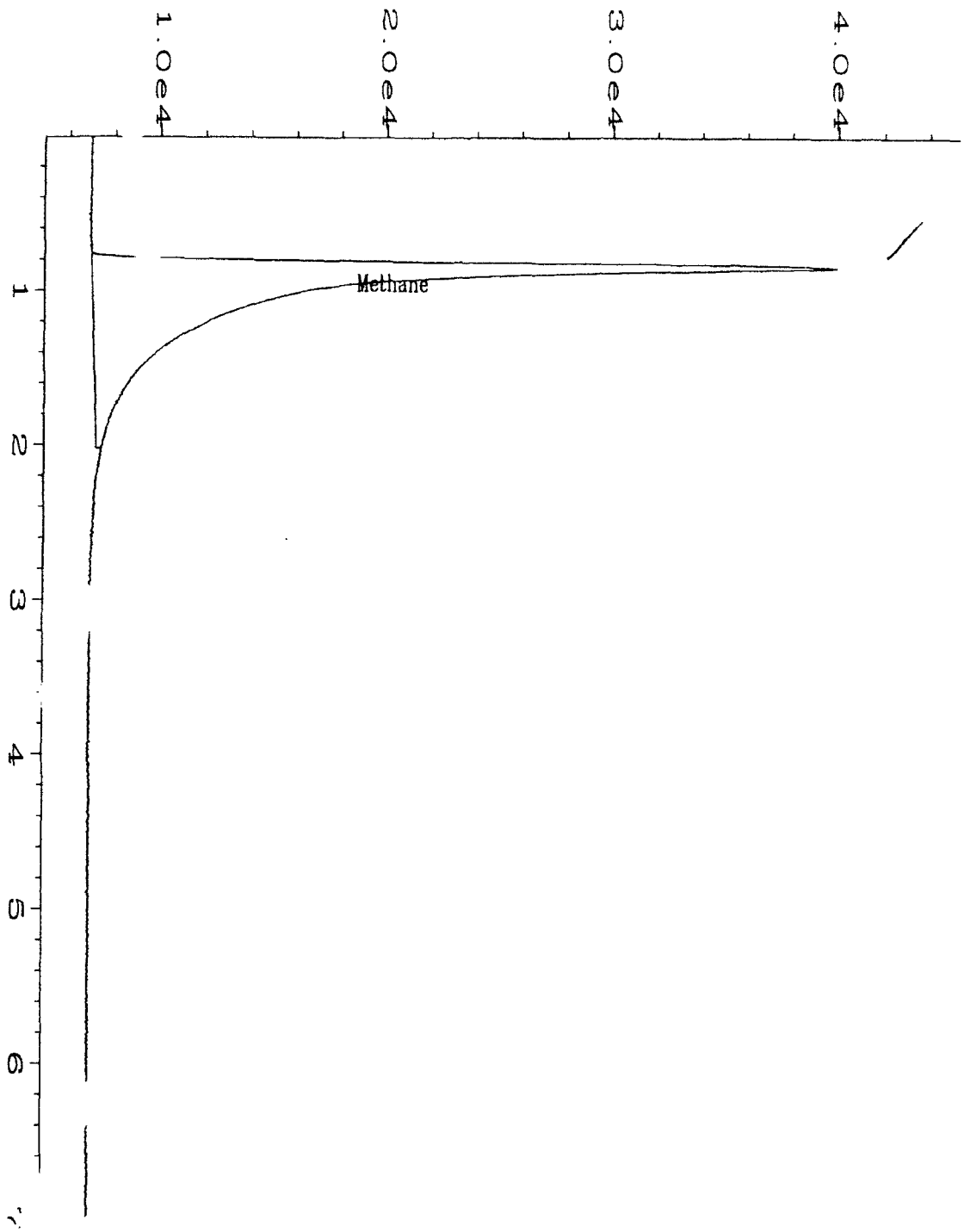
Atomic weight(Methane) : 16 g

QUALIFIERS:
E = Extrapolated value.
U = Compound analyzed for, but not detected.
B = Compound also found in the blank.
RL = Reporting Limit.
NA = Not Available/Not Applicable.

Analyst

K. Cone.
Approved

AF2330.XLS



Data File Name	: C:\HPCHEM\2\DATA\GAS0728\020R0101.D		
Operator	: Bill Michener	Page Number	: 1
Instrument	: ALC/GAS	Vial Number	: 20
Sample Name	: X09251;50	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 28 Jul 95 01:29 PM	Instrument Method	: GASES.. I
Report Created on	: 01 Aug 95 11:54 AM	Analysis Method	: METH0728.M
Last Recalib on	: 28 JUL 95 09:46 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-2330;24PZ-1S;Water(inject 10 ul)		

Evergreen Analytical, Inc.
4036 Youngfield, Wheat Ridge, CO 80033
(303) 425-6021

RSK-175 Gas Method
Methane Gas Matrix Spike / Matrix Spike Duplicate Report

Client Sample No.	: 24PZ-3S	Client Project No.	: MacDill/722450.21020
Lab Sample No.	: X09242	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	EPA Method No.	: RSKSOP-175
Date Received	: 7/22/95	Matrix	: Water
Date Prepared	: 7/28/95	Method Blank	: GB072895
Date Analyzed	: 7/28/95	Lab File No's.	: GAS0728012,013
E.A. MS/MSD Spike Source No.	: 1719		

Compound	Spike Added (mg/L)	Sample Concentration (mg/L)	MS Concentration (mg/L)	MS %REC	QC Limits %REC
Methane Gas	500	119	690	114	N/A

Compound	Spike Added (mg/L)	MSD Concentration (mg/L)	MSD %REC	RPD	QC Limits RPD	QC Limits %REC
Methane Gas	500	681	113	2.1	N/A	N/A

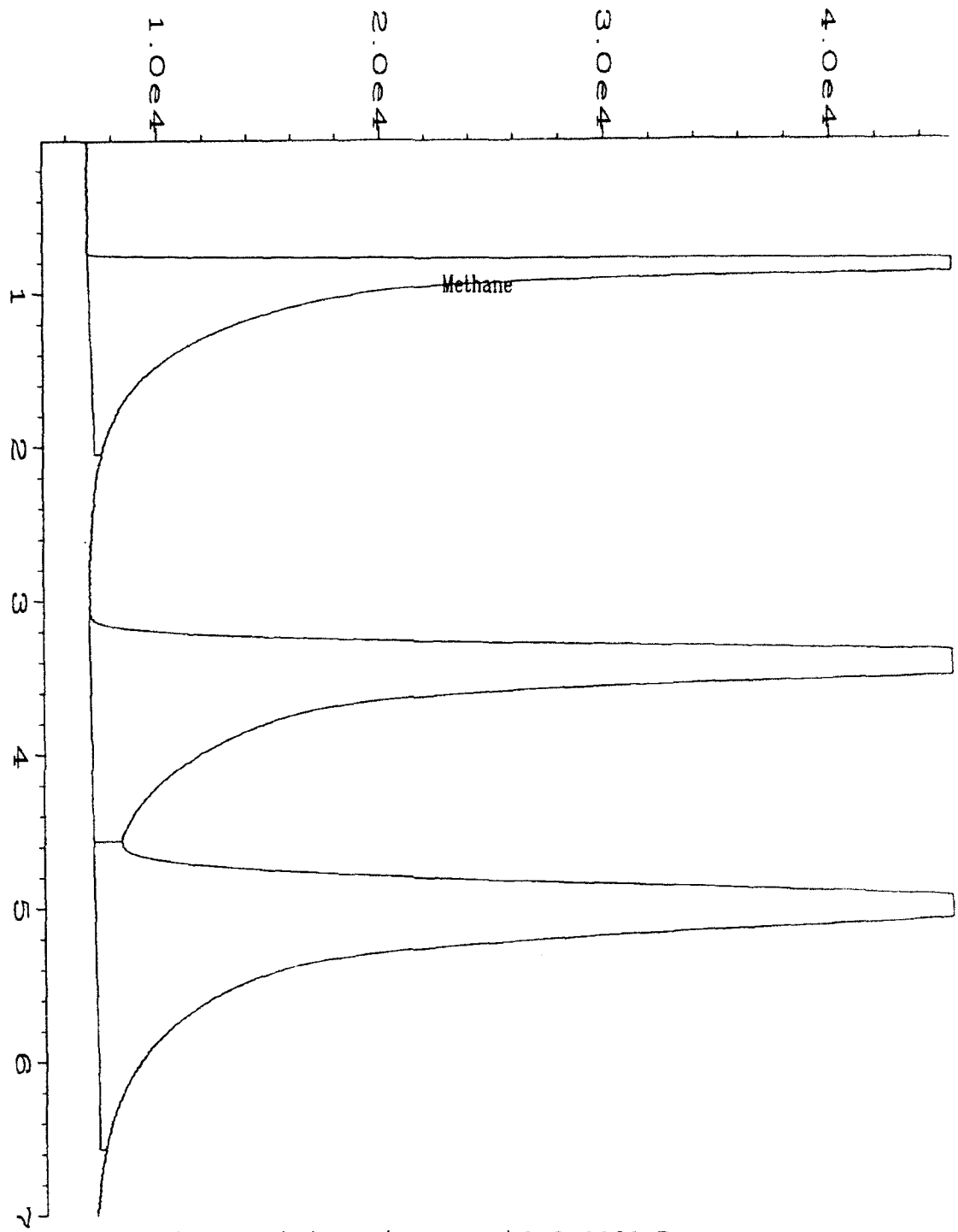
RPD: 0 out of (1) outside limits.
Spike Recovery: 0 out of (2) outside limits.

NOTES:
* = Values outside of QC limits.
NA = Not analyzed/not available

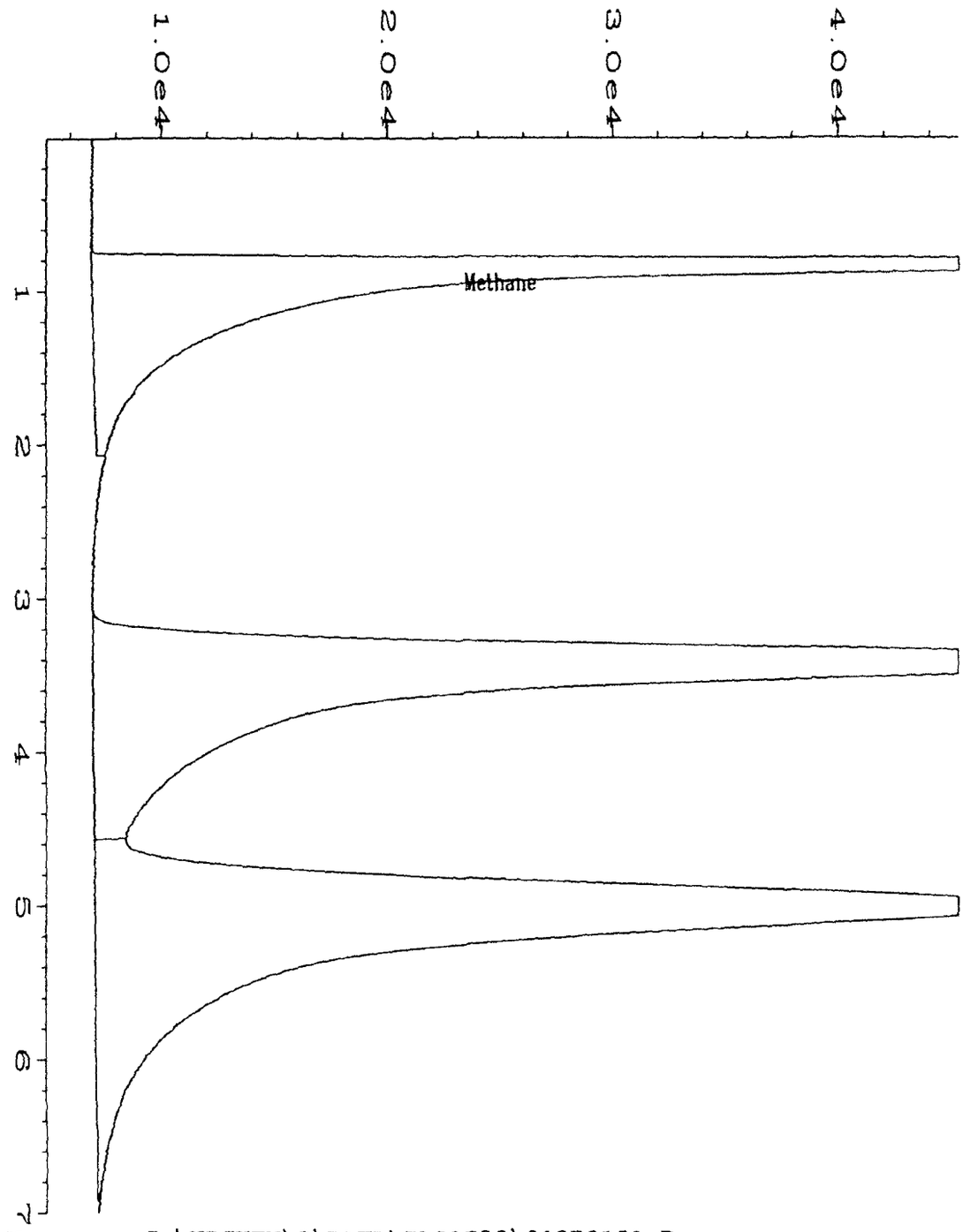
Note: The Spike was made by taking the sample and displacing 4ml of headspace with helium, Then with drawing 50ul of headspace + 50ul of a 1% methane,ethane,ethene mixture #1719 into a needle and injecting into the GC resulting in a theoretical spike concentration of 500 ppm.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\GAS0728\012R0101.D		
Operator	: Bill Michener	Page Number	: 1
Instrument	: ALC/GAS	Vial Number	: 12
Sample Name	: X09242MS;10	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 28 Jul 95 11:17 AM	Instrument Method	: GASE. .H
Report Created on	: 01 Aug 95 11:54 AM	Analysis Method	: METH0728..
Last Recalib on	: 28 JUL 95 09:46 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-2330;24PZ-3MS1;50 ul of sample + 50 ul of a 1% methane,ethane,ethene 500 ppm spike #1719		



Data File Name	: C:\HPCHEM\2\DATA\GAS0728\013R0101.D		
Operator	: Bill Michener	Page Number	: 1
Instrument	: ALC/GAS	Vial Number	: 13
Sample Name	: X09242MSDupl;10	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 28 Jul 95 11:41 AM	Instrument Method	: GASES.MTH
Report Created on	: 01 Aug 95 11:54 AM	Analysis Method	: METH0728.MTH
Last Recalib on	: 28 JUL 95 09:46 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: 95-2330;24PZ-3MS2;50 ul of sample + 50 ul of a 1% methane,ethane,ethene 500 ppm spike #1719		

Evergreen Analytical, Inc.
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RSK-175 Gas Method
Methane LCS Report Form

LCS No.	: LCS072895	EPA Method No.	: RSKSOP-175
Date Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Method Blank	: GB072895
E.A. LCS Source No.	: 1719	Lab File No.	: GAS0728010

Compound	Spike Added (mg/L)	Method Blank Concentration (mg/L)	LCS Concentration (mg/L)	LCS %REC	QC Limits %REC
Methane Gas	500	0	516	103	N/A

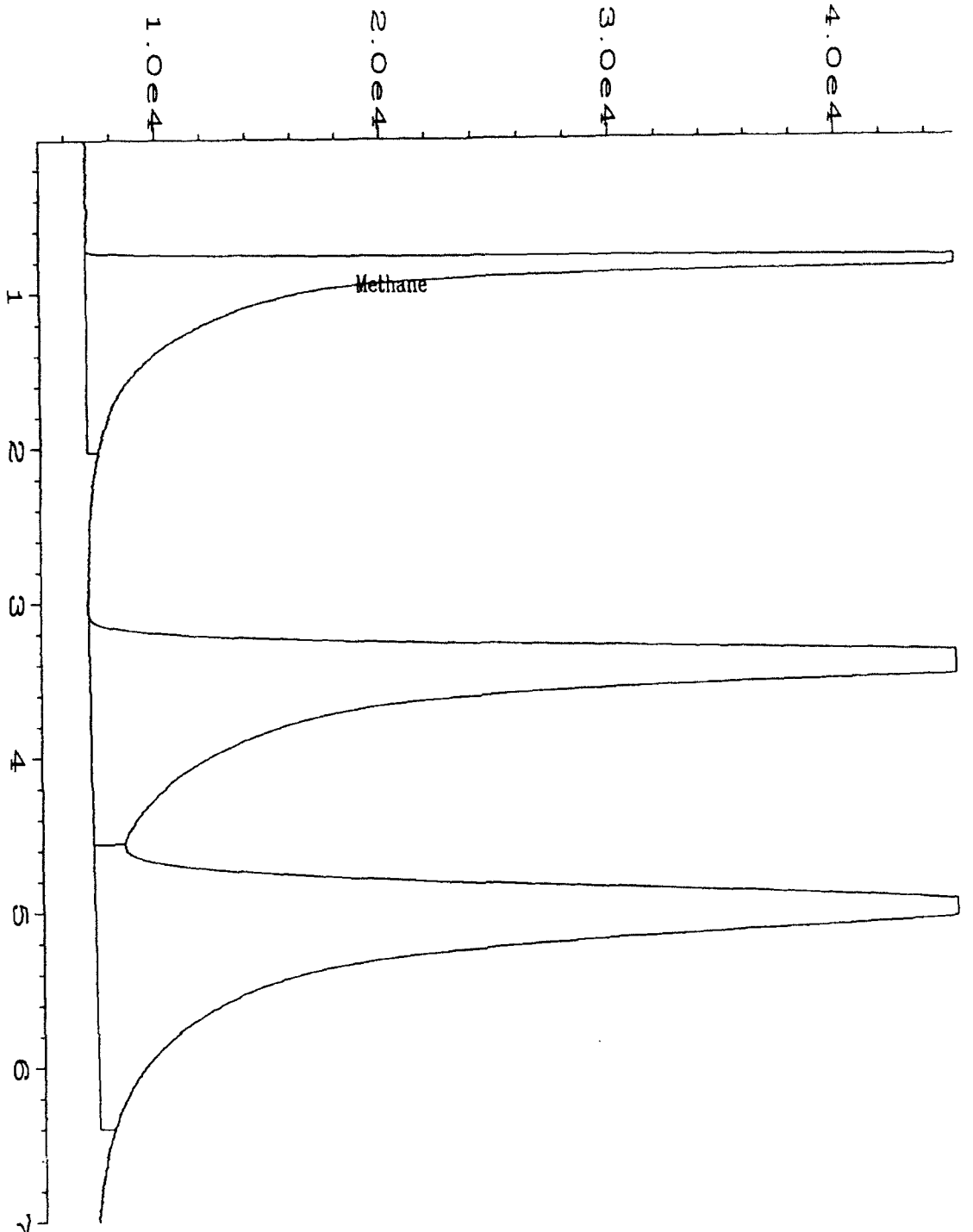
Spike Recovery: 0 out of (1) outside limits.

Note: The LCS was made by taking the sample and displacing 4ml of headspace with helium, Then with drawing 450ul of headspace + 50ul of a 1% methane,ethane,ethene mixture #1719 into a needle and injecting into the GC resulting in a theoretical concentration of 500 ppm.

NOTES:
* = Values outside of QC limits.
NA = Not analyzed/not applicable.

Analyst

Approved



Data File Name	: C:\HPCHEM\2\DATA\GAS0728\010R0101.D		
Operator	: Bill Michener	Page Number	: 1
Instrument	: ALC/GAS	Vial Number	: 10
Sample Name	: LCS072895;Gas	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 28 Jul 95 10:06 AM	Instrument Method	: GASES.MTH
Report Created on	: 01 Aug 95 11:54 AM	Analysis Method	: METH0728.MTH
Last Recalib on	: 28 JUL 95 09:46 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:
Sample Info	: Laboratory Control Sample		
	Displaced 4 ml of Water from Water filled VOA with Helium,		
	withdrawled 450ul + 50 ul of a 1% methane ethane ethene		

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled : 7/21/95
Date Received : 7/22/95
Date Prepared : 7/22/95
Date Analyzed : 7/23/95

Client Project ID. : MacDill/ 722450.21020
Lab Project No. : 95-2330
Method : EPA 300.0
Matrix : Water
Detection Limit : 0.25 mg/L

Evergreen Sample #	Client Sample ID	Sulfate (mg/L)	Dilution Factor
X09242	24PZ-3S	5.2	1X
X09243	24PZ-3MS1	5.5	1X
X09244	24PZ-3MS2	5.3	1X
X09245	24PZ-3D	164	10X
X09246	24PZ-5S	5.0	1X
X09247	24PZ-4S	18.4	1X
X09248	24PZ-2S	34.9	1X
X09249	24PZ-2R	36.8	1X
X09251	24PZ-1S	0.86	1X
Method Blank (7/23/95)		<0.25	

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X09248	24PZ-2S Matrix Spike	10.0	34.9	46.5	116
X09248	24PZ-2S Matrix Spike Dup	10.0	34.9	45.9	109
	MS/MSD RPD				5.7

Analyst

Approved

2330tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled : 7/21/95
Date Received : 7/22/95
Date Prepared : 7/22/95
Date Analyzed : 7/23/95

Client Project ID. : MacDill/ 722450.21020
Lab Project No. : 95-2330
Method : EPA 300.0
Matrix : Water
Detection Limit : 0.25 mg/L

Evergreen Sample #	Client Sample ID	Chloride (mg/L)	Dilution Factor
X09242	24PZ-3S	6.5	1X
X09243	24PZ-3MS1	7.4	1X
X09244	24PZ-3MS2	6.5	1X
X09245	24PZ-3D	1490	100X
X09246	24PZ-5S	8.1	1X
X09247	24PZ-4S	6.9	1X
X09248	24PZ-2S	9.5	1X
X09249	24PZ-2R	12.1	1X
X09251	24PZ-1S	27.2	1X
Method Blank (7/23/95)		<0.25	

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X09248	24PZ-2S Matrix Spike	10.0	9.5	20.8	112
X09248	24PZ-2S Matrix Spike Dup	10.0	9.5	20.8	112
	MS/MSD RPD				0.080

Analyst

Approved

2330tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled : 7/21/95
Date Received : 7/22/95
Date Prepared : 7/22/95
Date Analyzed : 7/23/95

Client Project ID. : MacDill/ 722450.21020
Lab Project No. : 95-2330
Method : EPA 300.0
Matrix : Water
Detection Limit : 0.076 mg/L

Evergreen Sample #	Client Sample ID	Nitrite-N(mg/L)	Dilution Factor
X09242	24PZ-3S	<0.076	1X
X09243	24PZ-3MS1	<0.076	1X
X09244	24PZ-3MS2	<0.076	1X
X09245	24PZ-3D	<0.76*	10X
X09246	24PZ-5S	<0.076	1X
X09247	24PZ-4S	<0.076	1X
X09248	24PZ-2S	0.084	1X
X09249	24PZ-2R	0.089	1X
X09251	24PZ-1S	<0.076	1X
Method Blank (7/23/95)		<0.076	

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X09248	24PZ-2S Matrix Spike	10.0	0.28	10.2	100
X09248	24PZ-2S Matrix Spike Dup	10.0	0.28	9.8	95
	MS/MSD RPD				4.5

* Increased detection limit due to matrix interference.
** Quality assurance results reported an Nitrite (NO_2).

Analyst

Approved

2330tm.25

EVERGREEN ANALYTICAL, INC.
4036 Youngfield St. Wheat Ridge, CO 80033
(303)425-6021

Anions

Date Sampled : 7/21/95
Date Received : 7/22/95
Date Prepared : 7/22/95
Date Analyzed : 7/23/95

Client Project ID. : MacDill/ 722450.21020
Lab Project No. : 95-2330
Method : EPA 300.0
Matrix : Water
Detection Limit : 0.056 mg/L

Evergreen Sample #	Client Sample ID	Nitrate-N(mg/L)	Dilution Factor
X09242	24PZ-3S	<0.056	1X
X09243	24PZ-3MS1	0.068	1X
X09244	24PZ-3MS2	<0.056	1X
X09245	24PZ-3D	<0.056	1X
X09246	24PZ-5S	<0.056	1X
X09247	24PZ-4S	1.3	1X
X09248	24PZ-2S	8.2	1X
X09249	24PZ-2R	8.9	1X
X09251	24PZ-1S	<0.056	1X
Method Blank (7/23/95)		<0.056	

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X09248	24PZ-2S Matrix Spike	10.0	36.5	47.8	113
X09248	24PZ-2S Matrix Spike Dup	10.0	36.5	46.8	103
	MS/MSD RPD				9.0

** Quality assurance results reported an Nitrate (NO_3).

Deborah L. Byrne
Analyst

Approved

2330tm.25

APPENDIX D

MODEL INPUT PARAMETERS AND RELATED CALCULATIONS

LNAPL WEATHERING CALCULATIONS

Analyte	fresh JP-4 (A.D. Little, 1987) (mg/L)	OT-24 product sample (mg/L)	OT-24 theoretical product BTEX content [a/] (mg/L)
benzene	3750	4.93	84
toluene	9975	0.1	2115
ethylbenzene	2775	2.45	538
xylenes	17400	18.01	3307
total BTEX	33900	25.49	6044

Weathering rate #1: Assume that product introduced soon after EMTL operations began, and has been weathering for 40 years.

Weathering rate #2: Assume that product introduced in 1988, just before discharge to drain fields ceased in 1989, and has been weathering for 7 years.

	weathering rate 1 (mg/L per year)	weathering rate 1 (percent per year)	weathering rate 2 (mg/L per year)	weathering rate 2 (percent per year)
benzene	91.65	2.44	523.71	13.97
toluene	196.50	1.97	1122.86	11.26
ethylbenzene	55.93	2.02	319.57	11.52
xylenes	352.33	2.02	2013.29	11.57
total BTEX	696.40	2.05	3979.43	11.74

a/ BTEX content required to produce observed dissolved BTEX concentration in groundwater based on partitioning calculations.

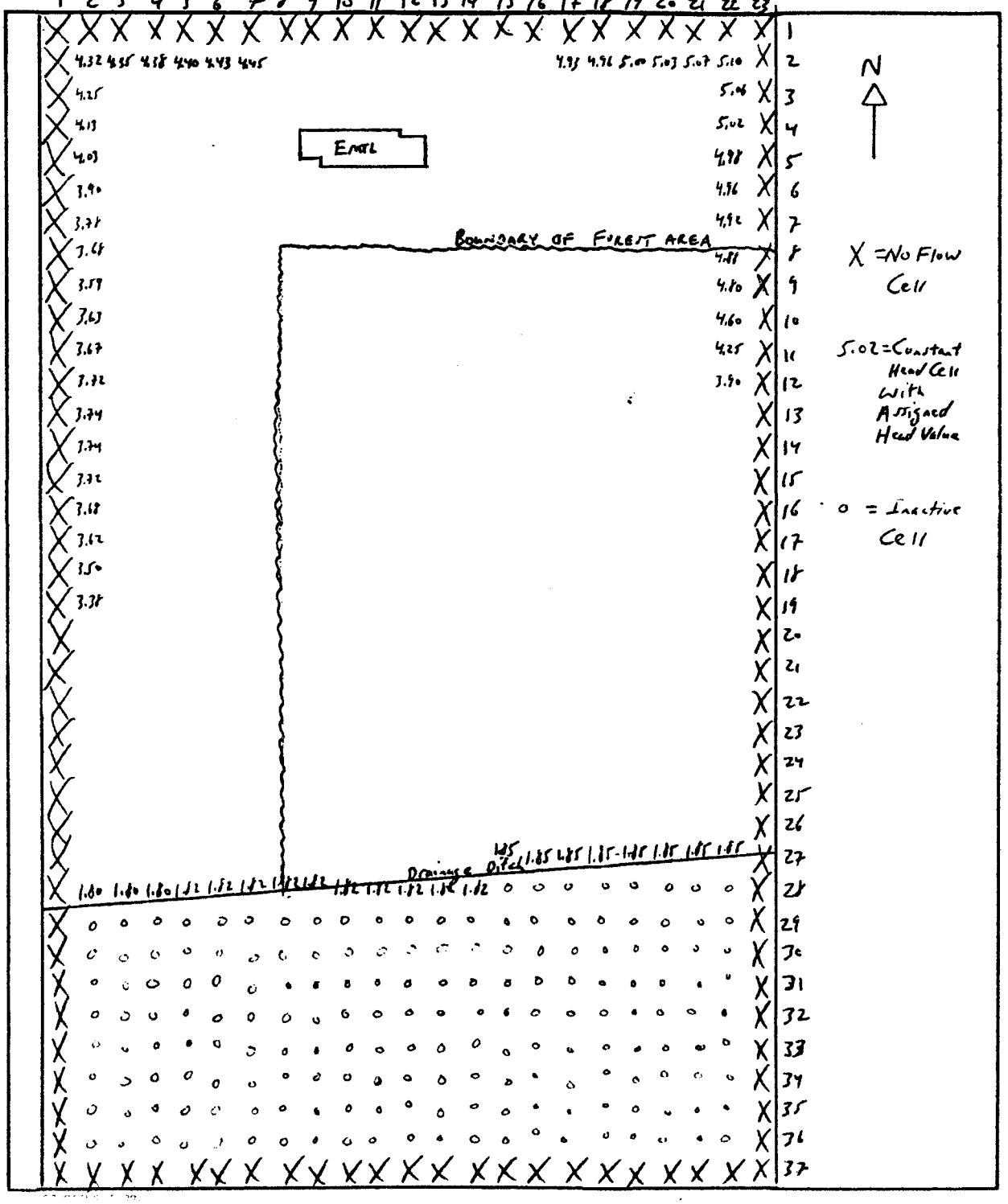
I:\45021\tables\ot24\weather.xls

ES ENGINEERING-SCIENCE, INC.

Client AFCEE/MACDILL AFB Job No. 72245 : 21050 Sheet 1 of 1

Subject Model Grid with Boundary Conditions By JRH Date 1/4/96

Checked Rev.

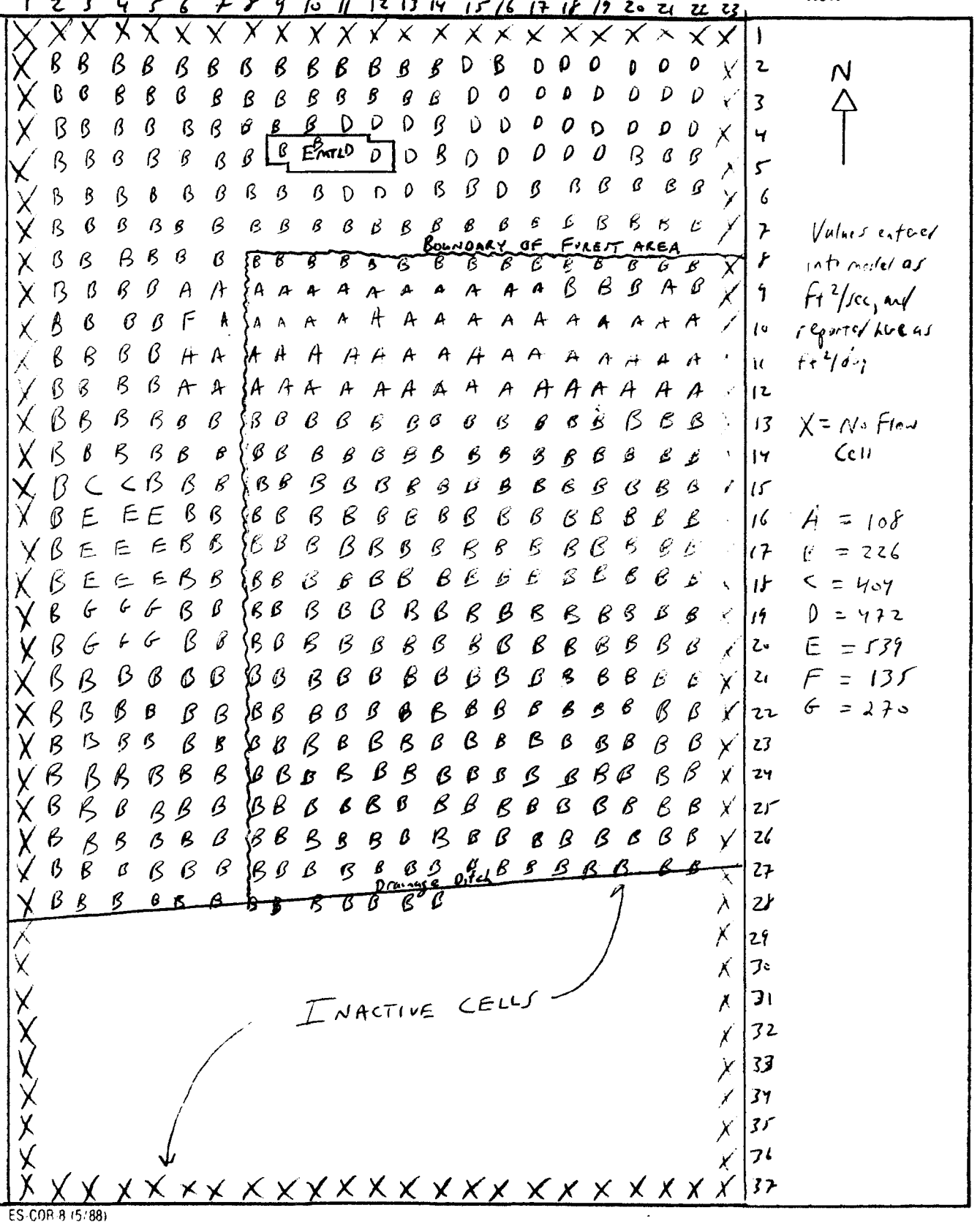


ENGINEERING-SCIENCE, INC.

Client AFCEE/MACDILL AFB Job No. 72245.21050 Sheet 1 of 1

Subject Model Grid with Calibrated Transmissivity Array By JRH Date 1/4/96

Checked Rev.



Values entered into model as ft^2/sec, and reported here as ft^2/day

X = No Flow Cell

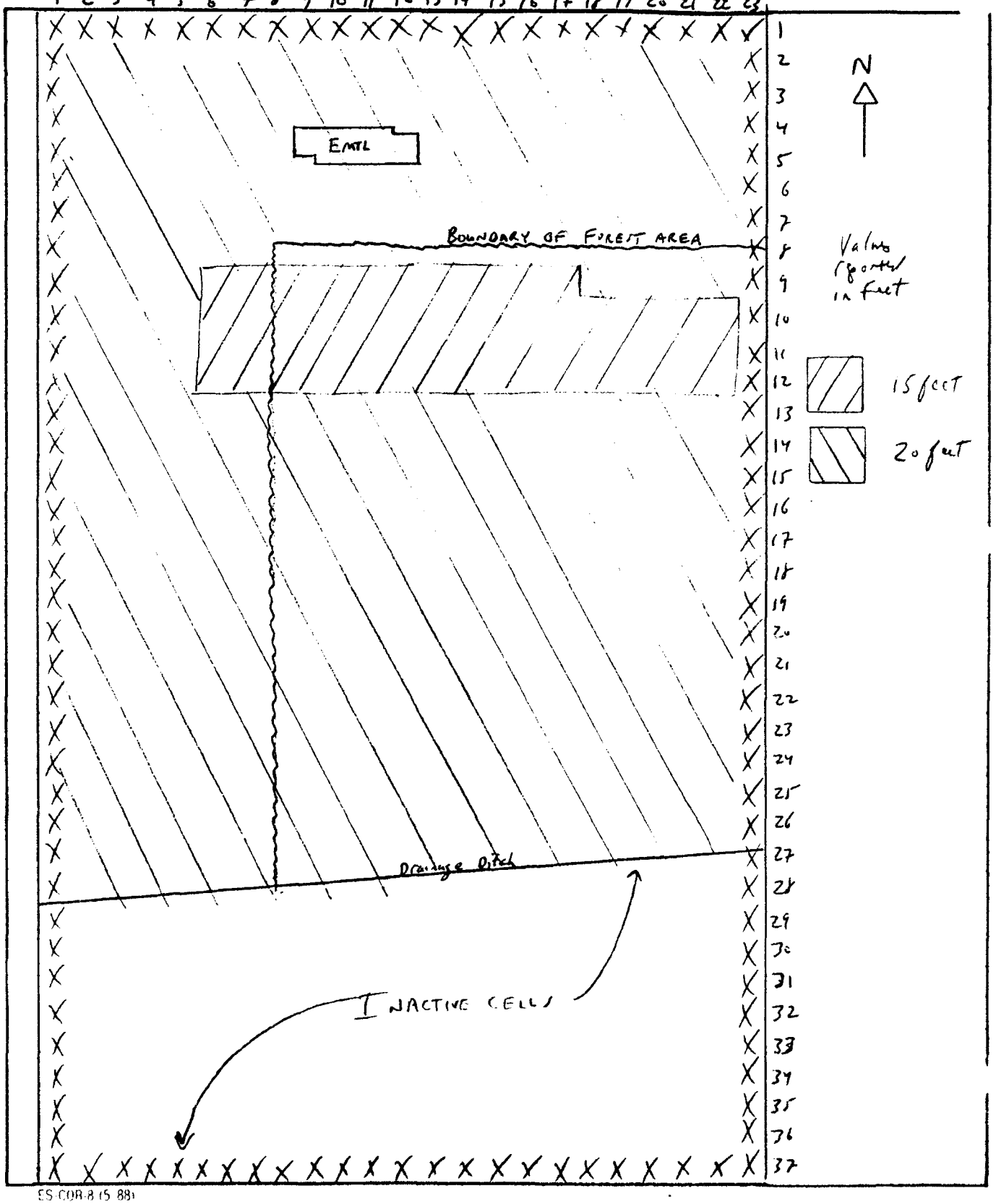
A = 108
B = 226
C = 404
D = 472
E = 539
F = 135
G = 270

ES ENGINEERING-SCIENCE, INC.

Client AFCEE/MACDILL AFB Job No. 72245.21050 Sheet 1 of 1

Subject Model Grid with Aquifer Thickness By JRH Date 1/4/95

Checked Rev.



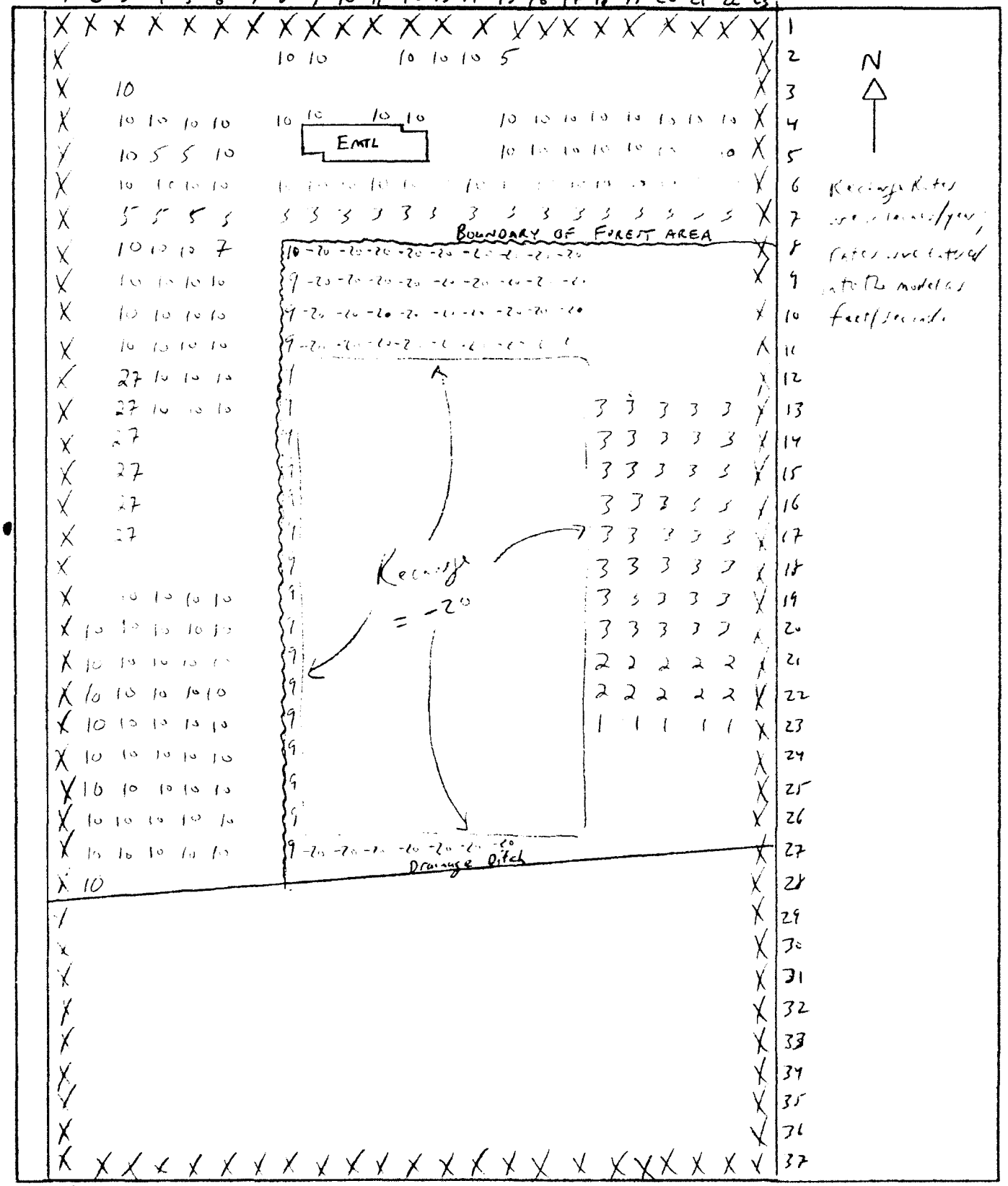
ES COR-8 (5-88)

ES ENGINEERING-SCIENCE, INC.

Client AFCEE/MACDILL AFB Job No. 72245.21050 Sheet 1 of 1

Subject Model Grid with Recharge Rates By JRH Date 1/4/96

Checked Rev.



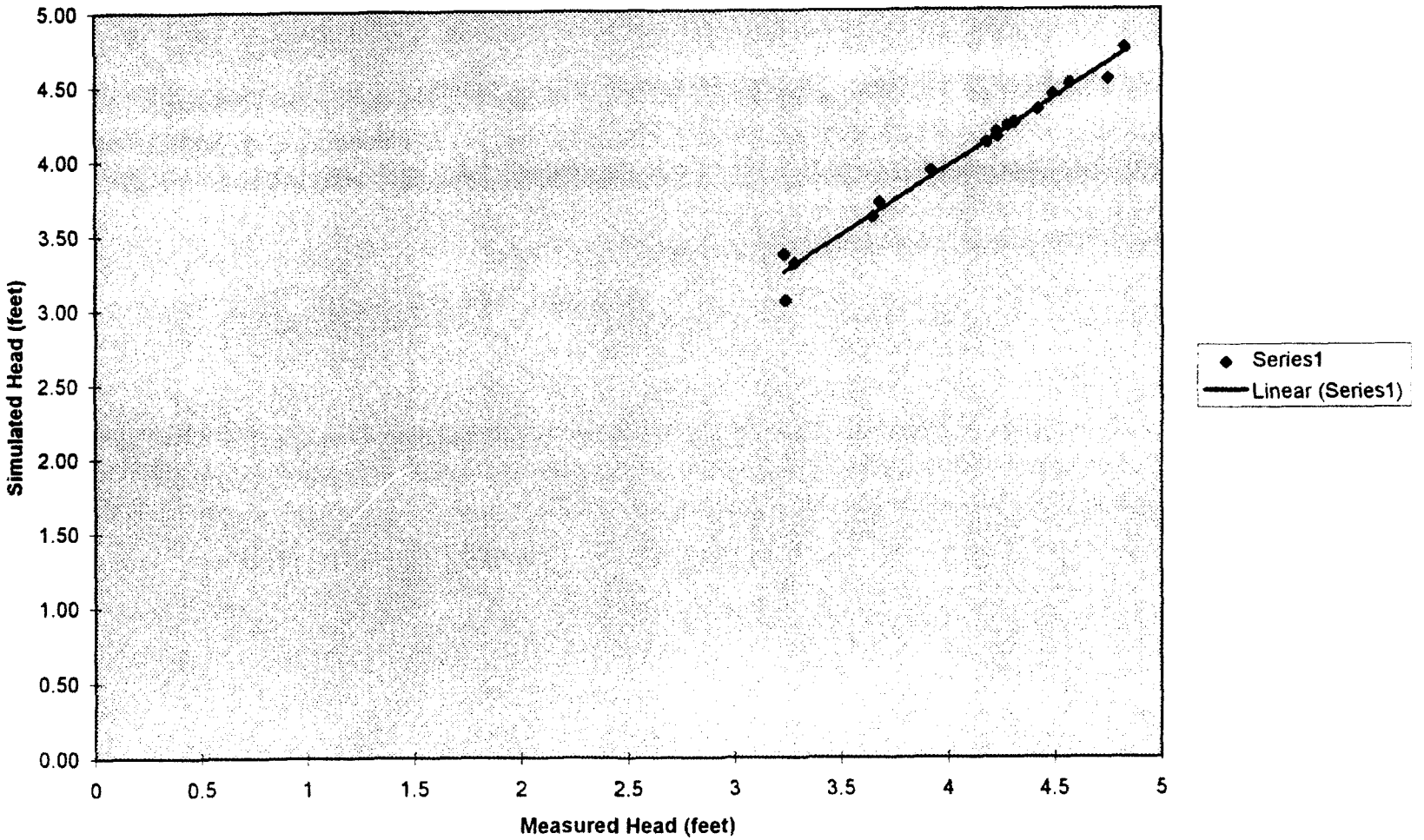
FS 008 8/15/88

RMS Error Calculations for Calibrated Flow Model
MacDill AFB, Site OT 24

Well	Cell Location	Measured Head	Simulated Head	Hm-Hs	(Hm-Hs)2
	x,y	Hm	Hs		
24MP-4S	(17,4) (17,5) (16,4) (16,5)	4.83	4.74	0.09	0.0081
MD24-5	(14,5) (14,6) (15,5) (15,6)	4.75	4.53	0.22	0.0484
MD24-1	(7,6) (8,6)	4.23	4.18	0.05	0.0025
MD24-2	(12,5) (12,6) (13,5) (13,6)	4.49	4.43	0.06	0.0036
MD24-3	(7,4) (8,4)	4.42	4.33	0.09	0.0081
MD24-4	(12,4)	4.57	4.50	0.07	0.0049
24MP-2S	(9,6) (9,7) (10,6) (10,7)	4.28	4.22	0.06	0.0036
MD24-6	(11,7) (11,8)	4.23	4.15	0.08	0.0064
MD24-7	(7,8) (7,9) (8,8) (8,9)	3.92	3.92	0	0.0000
MD24-9	(6,6)	4.18	4.11	0.07	0.0049
24MP-5S	(6,4) (6,5)	4.31	4.24	0.07	0.0049
24PZ-1S	(10,11) (10,12)	3.23	3.36	-0.13	0.0169
MD24-10	(5,10) (6,10)	3.68	3.71	-0.03	0.0009
24PZ-2S	(4,13) (4,14)	3.65	3.61	0.04	0.0016
24PZ-3S	(7,15)	3.28	3.3	-0.02	0.0004
24PZ-5S	(6,19)	3.24	3.05	0.19	0.0361
		Sum of Squares of Differences			0.1513
		Average of Squares of Differences			0.009456
		RMS (square root of average of squares of differences)			0.097243
		RMS as a percentage of the head drop over the model domain (about 1.8 feet)			5.402403

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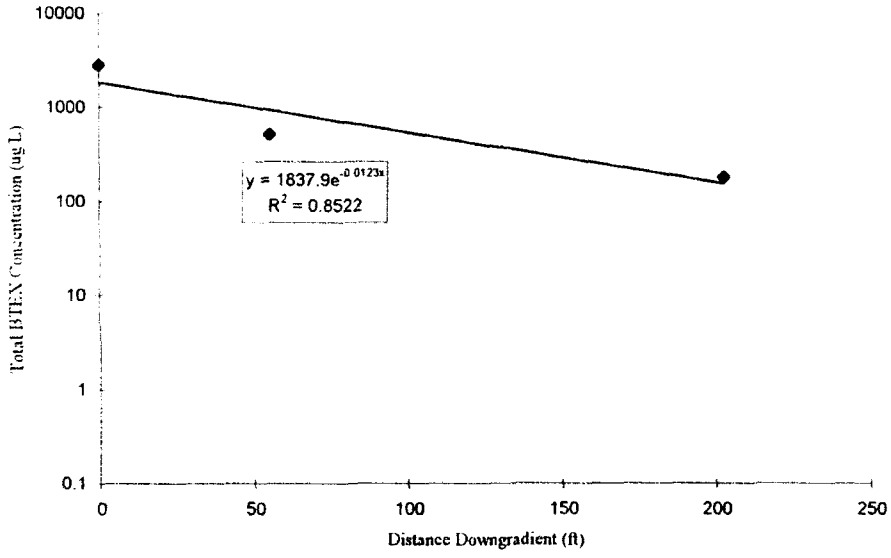
Simulated Vs. Measured Head, Calibrated Flow Model, Site OT 24, MacDill AFB



FIRST-ORDER RATE CONSTANT CALCULATION
USING THE METHOD OF BUSCHECK AND ALCANTAR (1995)
SITE OT 24
INTRINSIC REMEDIATION TS
MACDILL AFB, FLORIDA

Point	Distance Downgradient	B, T, E, & X (µg/L) Mar-95
24MP-1S	0	2840
MD24-6	55.2	514
24PZ-1S	202.9	180

PLOT OF TOTAL T, E, & X CONCENTRATION VERSUS DISTANCE



$$\lambda = v_c/4\alpha_x([1+2\alpha_x(k/v_x)]^2-1)$$

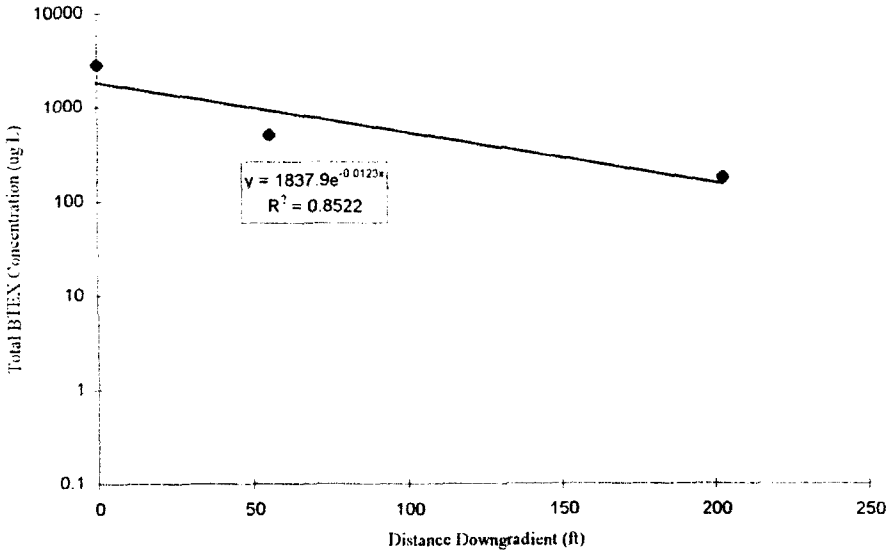
where v_c = 0.022
α_x = 30
k/v = 0.0123

therefore λ = 3.70E-04

FIRST-ORDER RATE CONSTANT CALCULATION
USING THE METHOD OF BUSCHECK AND ALCANTAR (1995)
SITE OT 24
INTRINSIC REMEDIATION TS
MACDILL AFB, FLORIDA

Point	Distance Downgradient	B, T, E, & X (µg/L) Mar-95
24MP-1S	0	2840
MD24-6	55.2	514
24PZ-1S	202.9	180

PLOT OF TOTAL T, E, & X CONCENTRATION VERSUS DISTANCE



$$\lambda = v_c/4\alpha_x([1+2\alpha_x(k/v_x)]^2-1)$$

where v_c = 0.057
α_x = 30
k/v = 0.0123

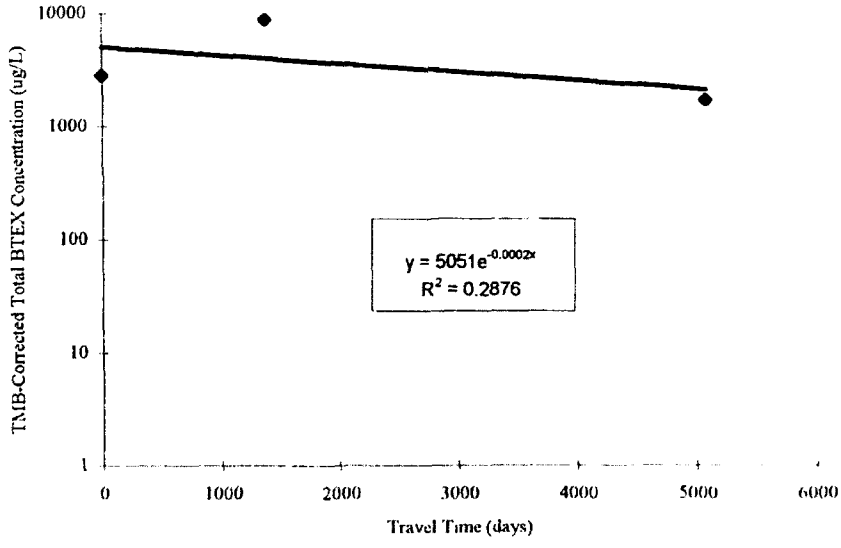
therefore λ = 9.60E-04

FIRST-ORDER RATE CONSTANT CALCULATION
USING TMB AS A CONSERVATIVE TRACER
SITE OT 24
INTRINSIC REMEDIATION TS
MACDILL AFB, FLORIDA

Point	Distance Downgradient (ft)	Travel Time Between Upgradient and Downgradient Point (days)	Measured Total BTEX Concentration (µg/L)	Total Trimethylbenzene Concentration (µg/L)	Trimethylbenzene-Corrected Total BTEX Concentration (µg/L)
24MP-1S	0	0	2840	65	2840
MD24-6	55	1375	514	3.8	8792
24PZ-1S	203	5075	180	0.4	1710

v_c = 0.04 ft/day

PLOT OF TMB-CORRECTED TOTAL BTEX CONCENTRATION VERSUS TIME



BTEX Partitioning Calculations

	K_{fw}	C_f JP-4 (mg/L)	C_w JP-4 (mg/L)	C_f OT 24 (mg/L)	C_w OT 24 (mg/L)
Benzene	382	3750	9.817	5	0.013
Toluene	1175	9975	8.489	1	0.001
Ethylbenzene	4142	2775	0.670	2.5	0.001
o-Xylene		7575		4.7	
m-Xylene		7200		7.3	
p-Xylene		2625		6.1	
Total Xylenes	4793	17400	3.630	18.1	0.004
Total			22.606		0.018

What is the BTEX concentration of LNAPL that could cause a dissolved BTEX concentration of 2,840 ug/L?

	K(fw)	C(w)	C(f)
benzene	382	0.22	84
toluene	1175	1.8	2115
ethylbenzene	4142	0.13	538
xylenes	4793	0.69	3307
total BTEX		2.84	6045

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22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

Knowns:

a) Linear GW velocity = ~0.15 ft/day = 0.046 m/day

b) porosity = ~0.30

c) Soil Bulk density = ~1.6 g/cm³

d) Distribution Coefficients (kd) (for BTEX)

B	0.221
T	0.532
E	1.310
X	1.105 (average of m, o, & p xylenes)

e) Starting Concentration (C_{ow}) are as follows: (for groundwater)

B	220 mg/L
T	1800 mg/L
E	130 mg/L
X	690 mg/L

Assumptions:

a) 10% of equilibrium will be reached with each flush. A value of 100% was not selected because of limited contact time and because some contaminant mass will be in contact with flowing pore water with each flush. Choosing a value less than 100% is also more conservative.

b.) Simulated Volume = 1 m³

$$\text{Mass of soil} = \left(1.6\ g/cm^3\right)\left(\frac{10^6\ cm^3}{m^3}\right)\left(\frac{1\ kg}{1000\ g}\right) = 1{,}600\ kg/m^3$$

$$\text{Mass of water} = \left(1\ g/cm^3\right)\left(\frac{0.3\ cm^3\ H_2O}{cm^3\ aquifer}\right) = \frac{0.3\ g}{cm^3} = 300\ kg/m^3$$

c.) New Volume of H_2O will pass through soil mass approximately 17 times per year

$$\frac{1}{V} = \frac{1}{0.046\ m/day} = 21.7\ day = 0.06\ yr$$

Compute Pore Volumes exchanged per day using larger aquifer volume (This is should be more accurate than using a $1 m^3$ volume)

Assume average GW pumping rate of 2.5 gpm (from CH2M Hill, 1996) (CH2M Hill assumed 2 wells pumping total of 5 gpm) assumes pumping of only 1 well

The area of contaminated soil can be approximated by a circle with a diameter of 60 feet. Therefore, the volume of aquifer that we want to flush with fresh water is a cylinder with a diameter of 60' & a height of 20'.

The Volume of water in this cylinder = $V = \pi r^2 h \times$ porosity

$= \pi (30 ft)^2 (20 ft)(0.30)$
$= 16,961 ft^3$
$= 1$ pore volume

Pore Volumes exchanged per day at the perimeter of this Cylinder:

$$\frac{2.5 \frac{gal}{min} \times \frac{1 ft^3}{7.48 gal} \times 1440 \frac{min}{day}}{16,961 ft^3/\text{pore volume}} = 0.028 \text{ pore vol/day}$$

$= 10.2$ pore vol/year

This is conservative, because the number of pore volume exchanges per year will increase as the groundwater moves closer to the extraction well. For example, at a radial distance of 15 feet from the extraction well:

$V = \pi (15 ft)^2 (20)(0.30)$
$= 4,240 ft^3$

and the number of pore volumes per year increases to 41

The remediation time decreases as you approach the extraction well.

Select an average rate of 25 pore volumes per year = 0.07/day
(= 1 pore volume every 14 days)

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

Equations:

a) $K_d = \frac{mg/kg}{mg/L} = \frac{\text{mass adsorbed to soil}}{\text{mass dissolved in GW}}$

$\therefore mg/L = mg/kg \times 0.10 / K_d$ (w/ efficiency factor)

b) $m_{s_{new}}$ = mass of contaminant in $1 m^3$ of aquifer

$m_{s_{old}}$ = " " " " soil

m_w = " " " " water

$m_{s_{new}} = m_{s_{old}} - m_w$

$mg/kg = (mg/kg - mg/L) \rightarrow$ need to correct for density

remember: $\frac{350 \ell/m^3}{1700 kg/m^3} = 0.18 \ell/kg$

$\therefore mg/kg \text{ (remaining)} = mg/kg_{initial} - [(mg/L_{leached})(0.18 \ell/kg)]$

The following spreadsheet shows these calculations for BTEX. Note that leaching efficiency was defined to get from C_{os} to C_{ow}.

Batch Flush model

PUMP-AND-TREAT CONTAMINANT REMOVAL EFFICIENCIES

SITE OT 24

INTRINSIC REMEDIATION TS

MACDILL AIR FORCE BASE, FLORIDA

Days	1m3 Pore Volume	Benzene Soil Concen.	Water Concen.	Toluene Soil Concen.	Water Concen.	Ethylbenzene Soil Concen.	Water Concen.	Total Xylenes Soil Concen.	Water Concen.
0	0	486.2	220.0	9576.0	1800.0	1703.0	130.0	7624.5	698.0
14	1	446.6	202.1	9252.0	1739.1	1679.6	128.2	7500.3	678.8
28	2	410.2	185.6	8939.0	1680.3	1656.5	126.5	7378.1	667.7
42	3	376.8	170.5	8636.5	1623.4	1633.8	124.7	7257.9	656.8
56	4	346.1	156.6	8344.3	1568.5	1611.3	123.0	7139.7	646.1
70	5	317.9	143.9	8062.0	1515.4	1589.2	121.3	7023.4	635.6
84	6	292.0	132.1	7789.2	1464.1	1567.3	119.6	6909.0	625.2
98	7	268.3	121.4	7525.7	1414.6	1545.8	118.0	6796.5	615.1
112	8	246.4	111.5	7271.0	1366.7	1524.6	116.4	6685.7	605.0
126	9	226.3	102.4	7025.0	1320.5	1503.6	114.8	6576.8	595.2
140	10	207.9	94.1	6787.3	1275.8	1483.0	113.2	6469.7	585.5
448	32	32.1	14.5	3183.0	598.3	1093.8	83.5	4507.8	407.9
462	33	29.5	13.3	3075.3	578.1	1078.8	82.3	4434.4	401.3
476	34	27.1	12.2	2971.2	558.5	1063.9	81.2	4362.1	394.8
490	35	24.9	11.2	2870.7	539.6	1049.3	80.1	4291.1	388.3
504	36	22.8	10.3	2773.6	521.3	1034.9	79.0	4221.2	382.0
518	37	21.0	9.5	2679.7	503.7	1020.7	77.9	4152.4	375.8
532	38	19.3	8.7	2589.1	486.7	1006.7	76.8	4084.8	369.7
546	39	17.7	8.0	2501.5	470.2	992.8	75.8	4018.2	363.6
560	40	16.3	7.4	2416.8	454.3	979.2	74.7	3952.8	357.7
2492	178	0.0	0.0	20.9	3.9	145.1	11.1	409.8	37.1
2506	179	0.0	0.0	20.2	3.8	143.1	10.9	403.1	36.5
2520	180	0.0	0.0	19.5	3.7	141.1	10.8	396.6	35.9
2534	181	0.0	0.0	18.9	3.5	139.2	10.6	390.1	35.3
2548	182	0.0	0.0	18.2	3.4	137.3	10.5	383.8	34.7
2562	183	0.0	0.0	17.6	3.3	135.4	10.3	377.5	34.2

Shaded boxes show when total BTEX is less than 1,000 and 50 micrograms per liter.

APPENDIX E

MODEL INPUT AND OUTPUT FILES

APPENDIX F

REMEDIAL ALTERNATIVE COST CALCULATIONS

MacDill AFB Calculations--Site OT 24

Alternative 1: Long-term Monitoring

Misc calculations (new LTM/POC wells outside of forest)		
Number of shallow LTM/POC wells:		
Number of wells:	3	
Depth each:	13	ft

Cost calculations

Description	Unit	Qty.	Unit Price	Subtotal	Total	Source (If applicable)
Well Installation					$ 4,850	
Mobilization	ea	2	$ 1,000	$ 2,000		
Well Installation	ln ft	39	$ 50	$ 1,950		
Soil Disposal	drum	3	$ 100	$ 300		
Soil Samples	ea	3	$ 200	$ 600		

Note: Soil samples analyzed for BTEX, TPH, reactivity, and corrosivity for disposal purposes.

Costs for Manually-Driven Wellpoints (in forest)		
Number of shallow wellpoints:		
Number of wellpoints:	7	
Depth each:	8	ft

Wellpoint Installation					$1,750
Well Materials	ea	7	$250		

Alternative 1: Long-Term Monitoring and Institutional Controls

Standard Rate Schedule

Billing Category Cost Code/(Billing Category)	Billing Rate	Task 1 (hrs)	Install New LTM/POC Wells ($)	Task 2 (hrs)	Sampling ($)	Task 3 (hrs)	Reporting & PM ($)
Word Processor 88/(15)	$30	0	$0	0	$0	20	$600
CADD Operator 58/(25)	$47	0	$0	0	$0	20	$940
Technician 42/(50)	$40	50	$2,000	30	$1,200	30	$1,200
Staff Level 16/(65)	$57	50	$2,850	30	$1,710	60	$3,420
Project Level 12/(70)	$65	8	$520	5	$325	40	$2,600
Senior Level 10/(80)	$85	2	$170	1	$85	5	$425
Principal 02/(85)	$97	0	$0	0	$0	0	$0
Total Labor (hrs $)		110	$5,540	66	$3,320	175	$9,185
ODCs							
Phone			$20		$10		$40
Photocopy			$10		$5		$100
Mail			$100		$200		$50
Computer			$100		$0		$400
CAD			$0		$0		$200
WP			$0		$0		$200
Travel			$200		$200		$0
Per Diem			$100		$200		$0
Eqpt. & Supplies			$700		$1,000		$0
Total ODCs			$1,230		$1,615		$990
Outside Services							
LTM/POC Well Installation Costs			$6,600		$0		$0
Laboratory Fees		6 wells	$1,600	8 wells	$3,300		$0
Other: Maintain Institutional Controls			$0		$0		$5,000
Total Outside Services			$8,200		$3,300		$5,000

Proposal Estimate	Task 1	Task 2	Task 3
Labor	$5,540	$3,320	$9,185
ODC's	$1,230	$1,615	$990
Outside Services	$8,200	$3,300	$5,000
Total by Task	$14,970	$8,235	$15,175

Total Labor	$18,045
Total ODCs	$3,835
Total Outside Services	$16,500
Total Project	$38,380

Task 1: Install New LTM/POC Wells

Task 2: Sampling per Event

Task 3: Reporting/PM per Event.

Notes for Alternative 1 Cost Spreadsheet, Continued.

See attached sheet for well installation details.
Lab fees for task 1 assume offsite analysis of 6 wells for aromatic/halogenated VOCs plus 2 QC samples.
Lab fees for task 2 assume offsite analysis of 8 wells for aromatic/halogenated VOCs and methane, plus 3 QC samples for VOCs.

OT 24, MacDill AFB, Alternative 1 Present Worth Costs

Assume Annual Inflation Factor = 7%

Present Worth Factor (PWF) 1yr = [(1+0.07)-1]/(0.07)(1+0.07) = 0.93

PWF (10 years) = [(1+0.07)10-1]/(0.07)(1+0.07)10 =7.02

PWF (26 years) = $[(1+0.07)^{26}-1]/(0.07)(1+0.07)^{26}$ =11.83

PW Cost for 1st 10 years of annual sampling: PW = (7.02)(8,235) = $57,810

Biannual Groundwater Sampling Costs from year 11 to year 25 (assume 8 sampling events):

Year	Cost	Cum. Sum	Cum. PW
10	4136	57,810	57,810
11	3846.48	61656.48	
12	**3577.2264**	**65233.7064**	61,387
13	3326.82055	68560.527	
14	**3093.94311**	**71654.4701**	64,481
15	2877.3671	74531.8372	
16	**2675.9514**	**77207.7886**	67,157
17	2488.6348	79696.4234	
18	**2314.43036**	**82010.8537**	69,472
19	2152.42024	84163.274	
20	**2001.75082**	**86165.0248**	71,473
21	1861.62826	88026.6531	
22	**1731.31429**	**89757.9673**	73,205
23	1610.12229	91368.0896	
24	**1497.41373**	**92865.5034**	74,702
25	1392.59477	94258.0981	
26	**1295.11313**	**95553.2112**	75,997

Maintain Institutional Controls: PW = (11.83) (5,000) =	$59,150
Install New Wells: PW = (0.93) (14,970) =	$13,922
Groundwater Sampling (see above) =	$75,997

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Reporting/PM: assume that annual PM = $3,000 of total annual task cost, and that it is incurred annually.								
			(11.83) (3,000) =			$35,490		
	Assume that Reporting costs = $7,175, and that it is incurred annually for years 1-10, then biananually thereafter.							
		years 1-10: (7.02) (7,175) = $50,368						
		years 11-25: (see below)						
	Year	Cost	Cum. Sum	Cum. PW				
	10	3603	50368	50,368				
	11	3351	53719					
	12	**3116**	**56835**	53,484				
	13	2898	59733					
	14	**2695**	**62428**	56,179				
	15	2507	64935					
	16	**2331**	**67266**	58,511				
	17	2168	69434					
	18	**2016**	**71450**	60,527				
	19	1875	73325					
	20	**1744**	**75069**	62,271				
	21	1622	76691					
	22	**1508**	**78199**	63,779				
	23	1403	79602					
	24	**1304**	**80906**	65,083				
	25	1213	82119					
	26	**1128**	**83247**	66,211				
Total PW = 59,150+76,997+13,922+35,490+66,211 = $250,770								

Site OT 24, MacDill AFB						
Alternative 2 Costs						
Assumptions:						
20-ft long horizontal bioventing/biosparging well						
Power Available within 100 ft of well						
Well installed in 4-ft-deep trench						
4 vapor monitoring points installed						
Base provides daily 10-min. check during system operation						
Capital Costs:						
Design, Remedial Action Plan, Regulatory Approval						$15,000
Trench Construction (20 feet x $100/ft) + (100 feet x $70/ft)						$9,000
Well Installation						$1,000
Blower, Blower House, manifold, piping, gauges						$2,500
Monitoring Points						$1,000
System Installation Oversight						
	Labor (1 person x 150 hr x $60/hr)					$9,000
	ODCs					$2,000
System Testing/Optimization						$5,000
Subcontracting						$2,000
				Total		$46,500
Annual Costs		$15,435	for annual testing/reporting (see attached spreadsheet)			
		$6,000	for semiannual testing/reporting			
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Alternative 2

Option One
Extended Testing of Existing Bioventing Systems, Cost Per Site
Title I A Services (For Work Completed in 1994 - 1997)

20-Jul-94
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Task Description	Labor Hours					Total Hours	Total Cost
Task 1: Administration	6	6	6	6	8	32	$824.34
Task 2: Extended Testing	2	8	60	20	15	105	$2,339.66
Task 3: Letter Report Preparation	4	12	8	8	10	42	$1,033.00
Total Labor Hours	12	26	74	34	33	179	
Labor Hourly Rates (CY 1996)	$43.75	$30.02	$23.39	$17.83	$16.80		$4,197.00
Total Labor Costs	$525.00	$780.52	$1,730.86	$606.22	$554.40		

A Direct Labor Cost	$4,197.00
B Home Office Overhead Including Fringe 139.61%	$5,859.43
C Total Labor Cost	$10,056.43
D Other Direct Costs	$3,726.00
E Total C and D	$13,782.43
F Profit on Item E at 11.99%	$1,652.51
Total Cost (CONUS)	$15,434.95
Total Cost (AK/HI/Johnston Atoll)	$19,758.88

By: JRH 2/12/96 | Checked by: JCE 2-14-96

SITE OT 24, MacDill AFB
Alternative 2 Present Worth Costs

(1) PW = Capital Costs + (Annual Costs x Present Worth Factor)

PWF (4 yrs) = 3.39 ✓

PW (Closure/Biosparge) = ($46,500) + (3.39)(21,435)
= $119,165 ✓

(2) For LTM / Institutional Controls

Assume 10 years annual sampling + 6 biannual events thereafter
= $73,205 (from Alternative 1 spreadsheet)

Assume annual PM and reporting on same annual/biannual schedule as for sampling above:

PM = 22 yrs annually

Reporting = Annually for 10 yrs, Then biannually for 6 more sampling events

$$PWF(22\ yrs) = \frac{(1+0.07)^{22}-1}{0.07(1+0.07)^{22}} = 11.06$$

Annual PM (22 yrs) = ($3,000)(11.06) = $33,180

Reporting = $63,779 ✓ (from Alternative 1 spreadsheet)

Institutional Controls = ($5,000)(11.06) = $55,300

Install new wells (from Alternative 1) = $13,922 (Capital Cost)

Total PW for LTM/Institutional Controls = $73,205 + $13,922
$33,180 + $63,779 + $55,300 = $239,386

Total PW = $119,165 + 234,386 $358,551

SITE OT 24, MacDill AFB
Alternative 3, Present Worth Costs

Capital Costs

Make current recovery + treatment system operational (e.g., replace pump + wiring, repair air stripper, etc.)	Assume $20,000
Bioventing System Installation (from Alternative 2)	$46,500 ✓
Install New GTm/PoC Wells (from Alternative 1)	$13,922 ✓
Water Discharge Permitting	$5,000
Air Emissions Permitting	$5,000
Total	$90,422 ✓

Annual Costs

GW Extraction System O&m		
- Labor (24 visits x 6 hr/visit x $60/hr)	$8,640	} 2 yrs
- ODCs (20 effluent samples x $500/sample + $2000 misc)	$12,000	
Quarterly System Performance Reports		
- Labor (4 reports x 20 hr/report x $60/hr)	$4,800	} 2 yrs
- ODCs (4 reports x $200/report)	$800	
Air Stripper Maintenance	$7,000	2 yrs
GTm (Annual for 10 yrs, followed by 4 biannual events) (From Alternative 1 spreadsheet)	$8,235	18 yrs
LTm PM + Reporting (Alternative 1)	$15,175	18 yrs
Semiannual + Annual Testing/Reporting for bioventing/biosparging system	$21,435	(3 yrs)

SITE OT 24, MacDill AFB
Alternative 3, Present Worth Costs

PW = Capital Costs + [(annual costs) x (Present Worth factor)]

PWF 18 yrs = $\frac{(1+0.07)^{18}-1}{(0.07)(1+0.07)^{18}}$ = 10.06

PWF 2 yrs = $\frac{(1+0.07)^{2}-1}{(0.07)(1+0.07)^{2}}$ = 1.81 ✓

PWF 3 yrs = 2.62 ✓

PW = (20,640)[a/](1.81) + (5,600)[b/](1.81) + (7,000)[c/](1.81)
+ 69,472[d/] + 60,527[e/] + (5,000)[f/](10.06) + (3,000)[g/](10.06)
+ 90,422[h/] + (21,435)[i/](2.62) = $417,225

a/ GW extraction System O&M
b/ Quarterly GW Extraction System Reports
c/ Air Stripper Maintenance
d/ LTM of 6 wells (from Alternative 1 spreadsheet)
e/ LTM Reporting (from Alternative 1 spreadsheet)
f/ Institutional Controls
g/ LTM PM
h/ Capital Costs (previous page)
i/ Semiannual + Annual Bioventing/biosparging system testing/reporting

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