

DUNN CORPORATION

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92 JAN 16 10 06 AM '92



January 13, 1992

FIRST CLASS MAIL

Mr. Robert Weston
Hazardous Materials Specialist
Department of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

PK ✓

92 JAN 15 11 06 AM '92

Subject: American National Can Company
3801 E. 8th St., Oakland, California

In conjunction with the preparation of remediation work plans for Areas 2 and 4 at the subject site, additional soil borings were emplaced and monitoring wells installed during the week of September 23, 1991. Enclosed are the data generated as a result of those activities.

Two monitoring wells (MW-15 and TW-1) were installed in Area 2 to gather additional information for the design of a recovery and treatment system.

Five soil borings (SB-4-1, SB-4-2, SB-4-3, SB-4-4 and SB-4-5) and two monitoring wells (MW-14 and MW-16) were installed in Area 4 to gather additional information in support of our efforts in designing a remedial workplan. Soil samples from borings SB-4-3 and SB-4-6, and from the borings for wells MW-14, MW-15, MW-16 and TW-1, were selected for laboratory analyses based on field PID headspace analytical results. During the soil boring activities, a perched water layer with a solvent odor was encountered in the base fill material of the plant's concrete slab driveway. A grab sample (MW-1S) of this water was collected for analysis.

The data package submitted with this letter includes:

- Figures 1 and 2, which are maps showing the locations of monitoring wells and soil borings installed in Areas 2 and 4, respectively.
- Tables 1 and 2, which present a summary of soil sampling analytical results.
- Tables 3 and 4, which present a summary of groundwater analytical results from the third round of quarterly groundwater monitoring (submitted November 25, 1991). The grab sample (MW-1S) collected from the perched water zone discussed above has been included on Table 4.
- Soil boring and monitoring well completion logs completed for each drilling location.
- Complete laboratory analytical reports for all soil samples and the perched water sample.

January 13, 1992

Groundwater analytical reports for the four newly installed monitoring wells (MW-14, MW-15, MW-16 and TW-1) were submitted with the 3rd quarter groundwater monitoring results, dated November 25, 1991.

The data resulting from these activities are consistent with conclusions regarding the nature and extent of subsurface impact in these two areas. As such, a further detailed discussion of these results are, at this time, unwarranted.

Should you have any questions or concerns regarding this data package, or the project in general, please do not hesitate to contact me.

Very truly yours,

DUNN CORPORATION



Edward W. Alusow
Senior Project Manager

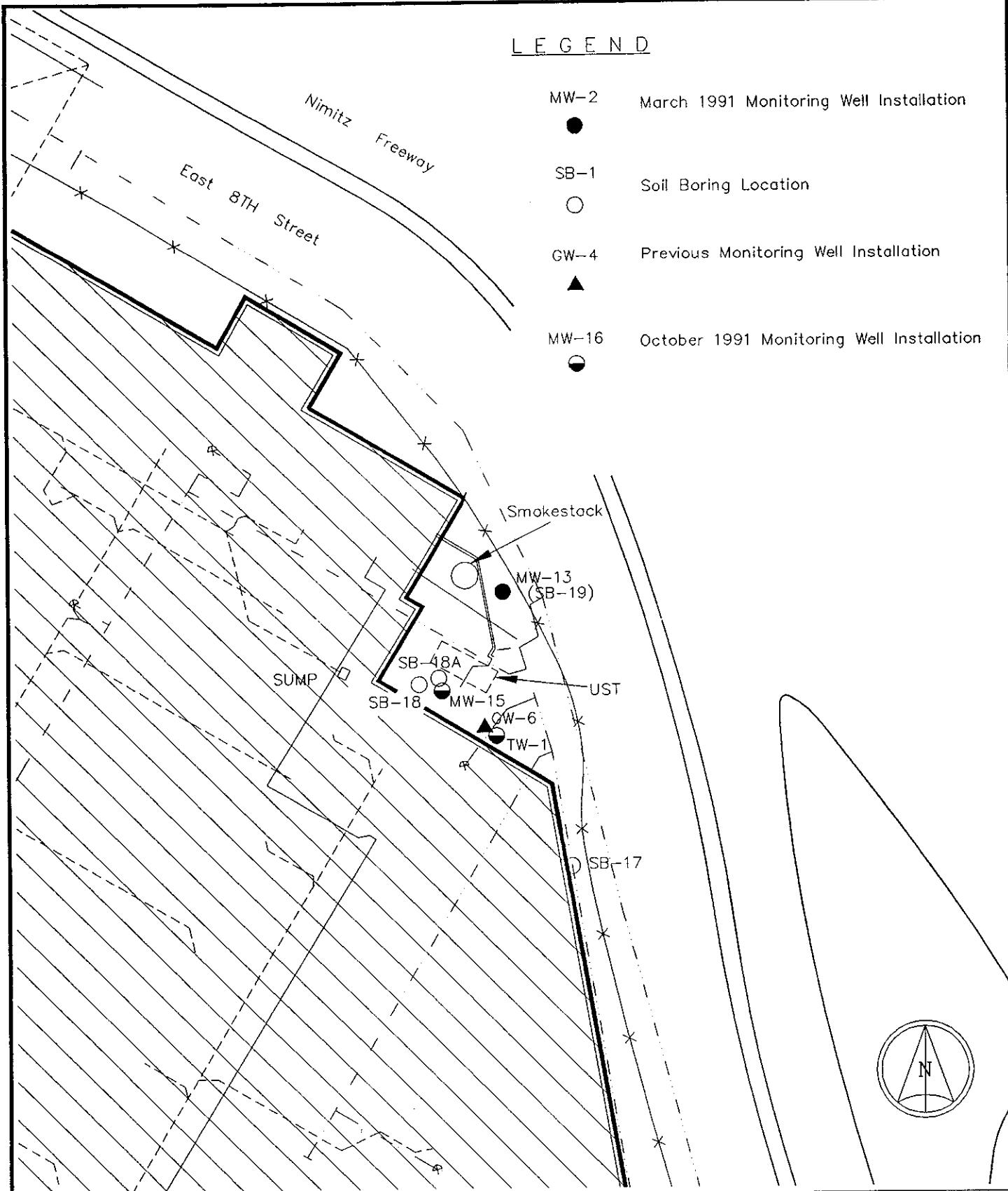
EWA:WOH/dlm

enclosures

cc: E. So, RWQCB
J. Peters, ANC
J. Moran, ANC

LEGEND

- MW-2 March 1991 Monitoring Well Installation
●
- SB-1 Soil Boring Location
○
- GW-4 Previous Monitoring Well Installation
▲
- MW-16 October 1991 Monitoring Well Installation
◐



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LOCATIONS OF SOIL BORINGS & MONITORING WELLS
AREA 2
October 1991

ANC - OAKLAND

PROJECT NO. 02345-01983

DATE Dec. 1991

SCALE IN FEET

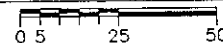
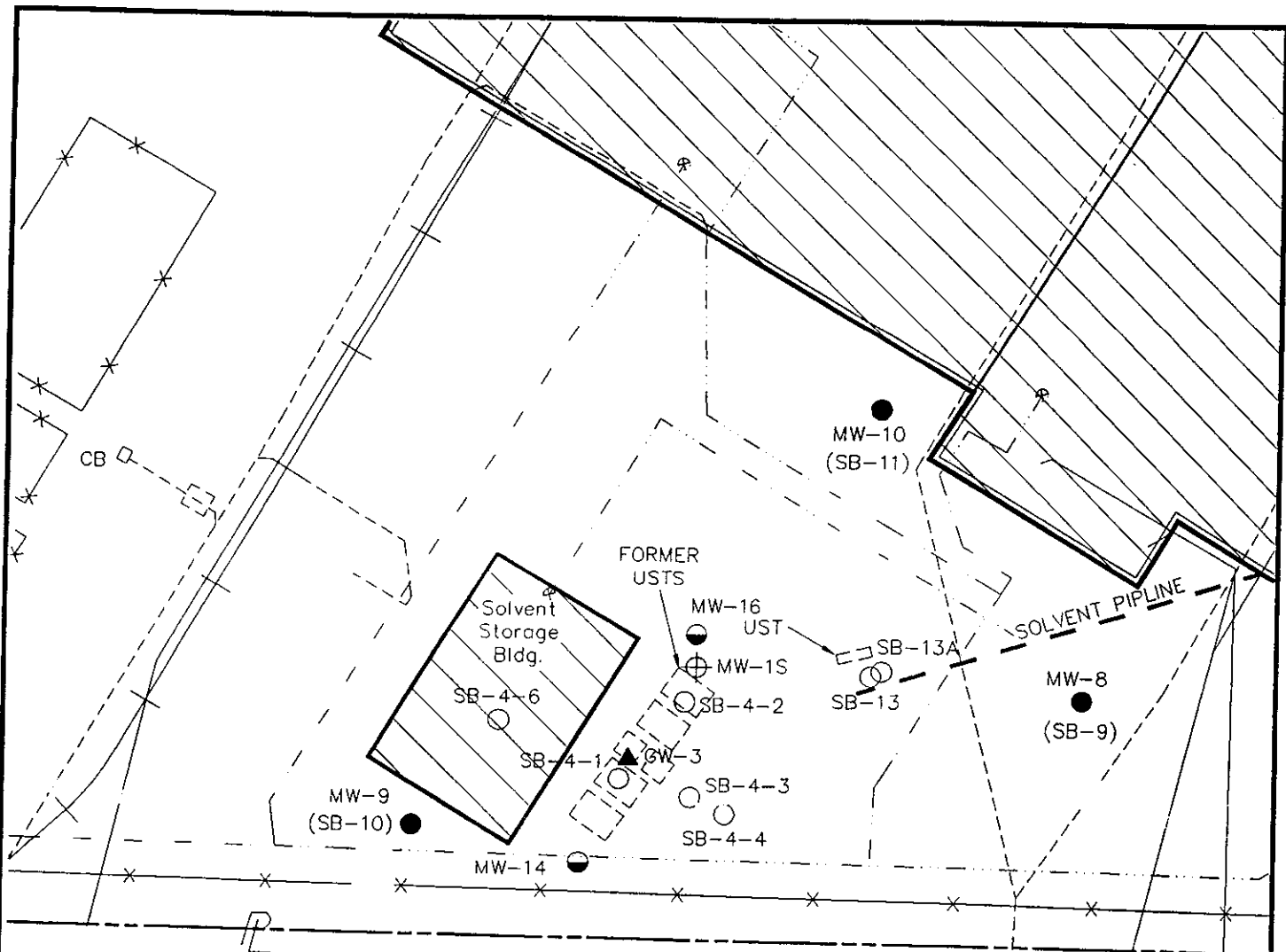


FIGURE NO. 1

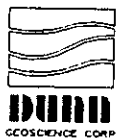
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LEGEND

- MW-2 ● March 1991 Monitoring Well Installation
- SB-1 ○ Soil Boring Location
- GW-4 ▲ Previous Monitoring Well Installation
- MW-16 ● October 1991 Monitoring Well Installation
- MW-1S ⊕ Location of Perched Water Sample

Alameda Ave.



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 Albany, NY 12205

LOCATION OF SOIL BORINGS & MONITORING WELLS
AREA 4
 October 1991

ANC - OAKLAND

PROJECT NO. 02345-01983

DATE Dec. 1991

SCALE IN FEET

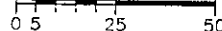


FIGURE NO. 2

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TABLE 1
AMERICAN NATIONAL CAN COMPANY
OAKLAND, CALIFORNIA, FACILITY

Summary of Soil Analytical Results - Area 2
September, 1991

<u>Analysis</u>	<u>Boring No./Sample No./Depth</u>			
	MW-15 S-2 9.25'	TW-1 S-1 5.75'	TW-1 S-2 9.25'	TW-1 S-4 12.25'
TPH as gasoline (EPA Method 5030) (mg/kg)	0.9	7.8	870	nd
BTEX (EPA Method 8020)(mg/kg)				
Benzene	nd	nd	nd	nd
Toluene	nd	nd	nd	nd
Ethylbenzene	nd	nd	nd	nd
Total Xylenes	0.9	0.018	3.9	nd
TPH as diesel (EPA Method 3550) (mg/kg)	nd	19	1,100	nd
PID Headspace (ppm)	--	82	106	5
NOTES:				
-- : Indicates compound was not analyzed for.				
nd : Indicates compound was not detected.				
Sample depth represents the midpoint of 6-inch long sample tube in feet below grade.				

TABLE 2
AMERICAN NATIONAL CAN COMPANY
OAKLAND, CALIFORNIA, FACILITY

Summary of Soil Analytical Results - Area 4
September, 1991

<u>Analysis</u>	<u>Boring No./Sample No./Depth</u>						
	SB-4-3	SB-4-6	SB-4-6	MW-14	MW-14	MW-16	MW-16
	S-3	S-2	S-3	S-2	S-3	S-2	S-3
	9.25'	6.25'	9.25'	5.75'	9.25'	6.25'	9.75'
BTEX (EPA Method 8020)(mg/kg)							
Benzene	nd	nd	nd	nd	nd	nd	nd
Toluene	0.006	nd	nd	nd	nd	nd	nd
Ethylbenzene	nd	nd	nd	nd	nd	nd	nd
Total Xylenes	0.013	nd	nd	0.015	nd	nd	nd
TPH as diesel (EPA Method 3550)(mg/kg)	nd	nd	nd	84	22	nd	nd
PID Headspace (ppm)	9	0.8	0.8	--	--	1.8	4.5
NOTES:							
-- : Indicates compound was not analyzed for.							
nd : Indicates compound was not detected.							
Sample depth represents the midpoint of 6-inch long sample tube in feet below grade.							

TABLE 3
AMERICAN NATIONAL CAN COMPANY
OAKLAND, CALIFORNIA, FACILITY
Summary of Groundwater Analytical Results - AREA 2
October, 1991

<u>Analysis</u>	<u>Monitoring Well Number</u>		
	MW-13	MW-15	TW-1
BTEX (EPA Method 624)(ug/l)			
Dilution Factor	1.00		
Benzene	nd		
Toluene	nd		
Ethylbenzene	nd		
Total Xylenes	nd		
TPH as diesel (EPA Method 3510) (ug/l)	200		
METALS (ug/l)			
Nickel (total)	1		
Nickel (filtered)	5		
Zinc (total)	10		
Zinc (filtered)	6		
nd indicates compound was not detected			

METALS

TABLE 4
AMERICAN NATIONAL CAN COMPANY
OAKLAND, CALIFORNIA, FACILITY
Summary of Groundwater Analytical Results - AREA 4
October, 1991

Analysis	Monitoring Well Number						**
	MW-8	MW-9	MW-10	MW-14	MW-16	GW-3	MW-1S
Volatile Organics (EPA Methods 624 & 8240)(ug/l)							
Dilution Factor	--	--	--	1.00	1.00	50.00	1,000.00
Ethylbenzene	--	--	--	nd	nd	3,800	6,000
Total Xylenes	--	--	--	nd	nd	12,000	50,000
Semi-Volatile Organics (EPA Methods 625 & 8270) (ug/l)							
Dilution Factor	--	--	--	1.00	1.00	1.00	1.00
4-Methylphenol	--	--	--	nd	nd	nd	45
2,4-Dimethylphenol	--	--	--	nd	nd	15	nd
Naphthalene	--	--	--	nd	nd	13	32
Acenaphthene	--	--	--	nd	nd	4J	nd
Fluorene	--	--	--	nd	nd	2J	nd
Phenanthrene	--	--	--	nd	nd	11	nd
Anthracene	--	--	--	nd	nd	3J	nd
Fluoranthene	--	--	--	nd	nd	7J	nd
Pyrene	--	--	--	nd	nd	7J	nd
Benzo(A)Anthracene	--	--	--	nd	nd	3J	nd
Chrysene	--	--	--	nd	nd	3J	nd
Bis (2-Ethylhexyl) Phthalate	--	--	--	nd	nd	nd	7J
TICs (total)	--	--	--	--	--	--	2,780J
METALS (ug/l)							
Arsenic (total)	nd	nd	nd	14.1	nd	20.0	--
Arsenic (filtered)	nd	nd	nd	12.3	nd	20.4	--
Barium (total)	nd	250	nd	232.0	255.0	282.0	--
Barium (filtered)	nd	nd	nd	nd	nd	244.0	--
Chromium (total)	nd	nd	nd	nd	nd	nd	--
Chromium (filtered)	nd	nd	11.1	nd	nd	nd	--
Nickel (total)	nd	56.7	nd	nd	96.5	nd	--
Nickel (filtered)	nd	42.6	nd	nd	nd	nd	--
Zinc (total)	nd	nd	nd	nd	46.2	nd	--
Zinc (filtered)	nd	nd	nd	nd	24.9	nd	--
Lead (total)	10.4	nd	nd	nd	10.1	5.0	--
Lead (filtered)	nd	3.5	nd	5.5	nd	3.1	--
Silver (total)	nd	nd	nd	nd	nd	nd	--
Silver (filtered)	nd	nd	nd	nd	nd	nd	--

NOTES:

** Sample MW-1S is a grab sample of perched water from a soil boring, not a monitoring well sample.
This sample was analyzed by EPA Methods 8240 and 8270

nd : Indicates compound was not detected.

-- : Indicates compound was not analyzed for

J : Indicates compound was detected below the reporting limit and should be considered an approximate value.



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TEST BORING LOG

BORING No. SB-4-1

PROJECT	OAKLAND SUBSURFACE INVEST.				SHEET 1 OF 1
CLIENT	AMERICAN NATIONAL CAN COMPANY				JOB No. 02345-01983
DRILLING CONTRACTOR	Exceltech Drilling				MEAS. PT. ELEV. NA
PURPOSE	Subsurface Soil Sampling				GROUND ELEV. 12.5
DRILLING METHOD	Hollow Stem Auger	SAMPLE	CORE	CASING	DATUM Ground Lvl
DRILL RIG TYPE	Mobile B-61	TYPE	CS	HSA	DATE STARTED 09/23/91
GROUNDWATER ELEV.		DIA.	3" OD	3 1/4" ID	DATE FINISHED 09/23/91
MEASURING POINT	NA	WEIGHT	140 #		DRILLER Don Jenkins
DATE OF MEASUREMENT	NA	FALL	30"		INSPECTOR Walter Howard

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
2	S-1	5	SP		Lt Gr mf(+) S; high qtz content, musty odor <u>Light Gray medium to fine (+) SAND.</u>		PID Background = 0.2 all readings in ppm Rec = 1.5' Dry PID Spoon = Bkgd HS = 4.4
		5					
		8					
4							
	S-2	6	SP		Same; becoming darker gr @ 5.5		Rec = 1.5' Dry PID Spoon = 1.0 HS = 14.0
		7					
6		13			6.3'; Yllw-Wht shallow cbbl fgmt		
8					<u>Black SILTY CLAY little, medium Gravel.</u>	5.0 7.5	
	S-3	6	GC		Blk \$yC l, m G; cbbl fgmt in spoon tip, lost recovery first attempt		Rec = 0.5' Damp PID Spoon = 19.0 HS = N/A
		8					
		14			(FILL) Bottom of Boring		



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TEST BORING LOG

BORING No. SB-4-2

PROJECT	OAKLAND SUBSURFACE INVEST.			SHEET 1 OF 1
CLIENT	AMERICAN NATIONAL CAN COMPANY			JOB No. 02345-01983
DRILLING CONTRACTOR	Exceltech Drilling			MEAS. PT. ELEV. NA
PURPOSE	Subsurface Soil Sampling			GROUND ELEV. 12.5
DRILLING METHOD	Hollow Stem Auger	SAMPLE	CORE	CASING
DRILL RIG TYPE	Mobile B-61	TYPE	CS	HSA
GROUNDWATER ELEV.		DIA.	3" OD	3 1/4" ID
MEASURING POINT	NA	WEIGHT	140 #	
DATE OF MEASUREMENT	NA	FALL	30"	
				DRILLER Don Jenkins
				INSPECTOR Walter Howard

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
2	S-1	3	SP		Lt Gr mf S; well sorted, slight solvent odor		PID Background = 0.2 all readings in ppm Rec = 1.5' Dry PID Spoon = 4.0 HS = 30
		4					
		4					
4	S-2	2	SP	Same	Light Gray Medium to fine SAND.		Rec = 1.5' Dry PID Spoon = 9.5 HS = 66
		1					
		4					
6	S-3	4	SC		Black dark gray Clayey Silt and coarse to fine sand, little medium to fine Gravel. Blk dk gr Cy\$ a, cmf S, l mf G; Strong Solvent like odor	5.0 7.5	Rec = 1.5' Moist/Wet PID Spoon = 150 HS = 450
		10					
		20					
8					(FILL)		Bottom of Boring



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TEST BORING LOG

BORING No. SB-4-3

PROJECT	OAKLAND SUBSURFACE INVEST.			SHEET 1 OF 1
CLIENT	AMERICAN NATIONAL CAN COMPANY			JOB No. 02345-01983
DRILLING CONTRACTOR	Exceltech Drilling			MEAS. PT. ELEV. NA
PURPOSE	Subsurface Soil Sampling			GROUND ELEV. 12.5
DRILLING METHOD	Hollow Stem Auger	SAMPLE	CORE	CASING
DRILL RIG TYPE	Mobile B-61	TYPE	CS	HSA
GROUNDWATER ELEV.		DIA.	3" OD	3 1/4" ID
MEASURING POINT	NA	WEIGHT	140 #	
DATE OF MEASUREMENT	NA	FALL	30"	
				DRILLER Don Jenkins
				INSPECTOR Walter Howard

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
2	S-1	6	SP		Lt gr mf S; well sorted		PID Background = 0.2 all readings in ppm Rec = 1.5' Dry PID Spoon = N/A HS = 7
		7			<u>Light gray medium to fine SAND.</u>		
		5			(FILL)		
4							
	S-2	6	SP		Same		Rec = 1.5' Dry PID Spoon = Bkgd HS = 19
6		8	SW		Br cmf S, l \$, lf G; hard	6.6	
		15			<u>Brown dark gray coarse to fine SAND, little Silt, little fine Gravel.</u> (FLUVIAL)	5.9	
8							
	S-3	22	GP		Dk gr mf G s, cmf S, l \$; compact hard		Rec = 1.5' Damp/Wet PID Spoon = Bkgd HS = 9
		28			<u>Lab analyzed 9.0' to 9.50'</u>		
		33			Bottom of Boring	2.5	



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TEST BORING LOG

BORING No. SB-4-4

PROJECT	OAKLAND SUBSURFACE INVEST.			SHEET 1 OF 1
CLIENT	AMERICAN NATIONAL CAN COMPANY			JOB No. 02345-01983
DRILLING CONTRACTOR	Exceltech Drilling			MEAS. PT. ELEV. NA
PURPOSE	Subsurface Soil Sampling			GROUND ELEV. 12.4
DRILLING METHOD	Hollow Stem Auger	SAMPLE	CORE	CASING
DRILL RIG TYPE	Mobile B-61	TYPE	CS	HSA
GROUNDWATER ELEV.		DIA.	3" OD	3 1/4" ID
MEASURING POINT	NA	WEIGHT	140 #	
DATE OF MEASUREMENT	NA	FALL	30"	
				DATUM Ground Lvl
				DATE STARTED 09/23/91
				DATE FINISHED 09/23/91
				DRILLER Don Jenkins
				INSPECTOR Walter Howard

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
					No spoon sample until 8.5'		PID Background = 0.2 all readings in ppm
					Sample descriptions from auger cuttings		
2					Blk \$yC; occ f g; No odor, appears to be native soil		
					<u>Black Silty Clay.</u>		
4							
					(TIDAL MARSH)	7.4	
						5.0	
6					No odor in cuttings		
					<u>Dark Gray-brown coarse to fine SAND, little silt, some medium to fine (+) Gravel.</u> (FLUVIAL)		
8					Dk Gr br cmf s, l \$, s mf(+)G; dense, compact, some solvent like odor		
	S-1	12	SW				Rec = 1.5' Damp PID Spoon = 5.0 HS = 250
		24					
		34			Bottom of Boring		



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TEST BORING LOG

BORING No. MW-14

PROJECT	OAKLAND SUBSURFACE INVEST.			SHEET 1 OF 2
CLIENT	AMERICAN NATIONAL CAN COMPANY			JOB No. 02345-01983
DRILLING CONTRACTOR	Exceltech Drilling			MEAS. PT. ELEV. 12.00
PURPOSE	Monitoring Well Installation			GROUND ELEV. 12.4
DRILLING METHOD	Hollow Stem Auger	SAMPLE	CORE	CASING
DRILL RIG TYPE	Mobile B-61	TYPE	CS	HSA
GROUNDWATER ELEV.	1.47'	DIA.	3" OD	6 1/4" ID
MEASURING POINT	Top of PVC	WEIGHT	140 #	
DATE OF MEASUREMENT	10/21/91	FALL	30"	
				DRILLER Don Jenkins
				INSPECTOR Walter Howard

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
					Asphalt Surface		PID Bkgd = 0.6 ppm all readings in ppm
2	S-1	2	SW		Lt Gr mf s; well sorted, no odor <u>Light Gray medium to fine SAND</u>		Rec = 1.5' Dry PID PID Spoon = Bkgd HS = N/A
		1	CH		(FILL)	9.4	
		3				3.0	
4					Blk \$yC; very plastic <u>Black SILTY CLAY</u>		
					(TIDAL MARSH)	7.9	
						4.5	
6	S-2	11	SW		Br dk gr cmf s, l \$, l fG; compact, no odor <u>Lab Analyzed 5.5'-6.0'</u>		Rec = 1.5' Dry Spoon = Bkgd HS = N/A
		21					
		32					
8					<u>Brown dark gray coarse to fine SAND, little silt, little fine Gravel.</u>		
					(FLUVIAL)		
					Grnsh gr \$ a, mf(+); no odor		
	S-3	6	ML		<u>Lab Analyzed 9.0'-9.5'</u>		Rec = 1.2' Dry PID Spoon = Bkgd HS = N/A
		9					
		12					



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TEST BORING LOG

BORING No. MW-14

PROJECT **OAKLAND SUBSURFACE INVEST.**

SHEET 2 OF 2

CLIENT **AMERICAN NATIONAL CAN COMPANY**

JOB No. **02345-01983**

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
12							
14	S-4	15 20 30	SW		Dk gr br cmf S, t\$, tf G; coarsening downward to: cmf S, t\$, a mf G at tip G Rdd-sbrdd; no odor		Rec = 1.4' Wet PID Spoon = Bkgd HS = N/A
16					<u>Dark Gray Brown coarse to fine SAND, trace Silt, some medium to fine Gravel</u>		
18					(FLUVIAL)		
20	S-5	20 24 28	SW		Br c (+) mfS, a cmf G		Rec = 1.4' Wet PID Spoon = Bkgd HS = N/A
20					Bottom of Boring Auger to 19.0'	-7.6 20.0	

MONITORING WELL LOG

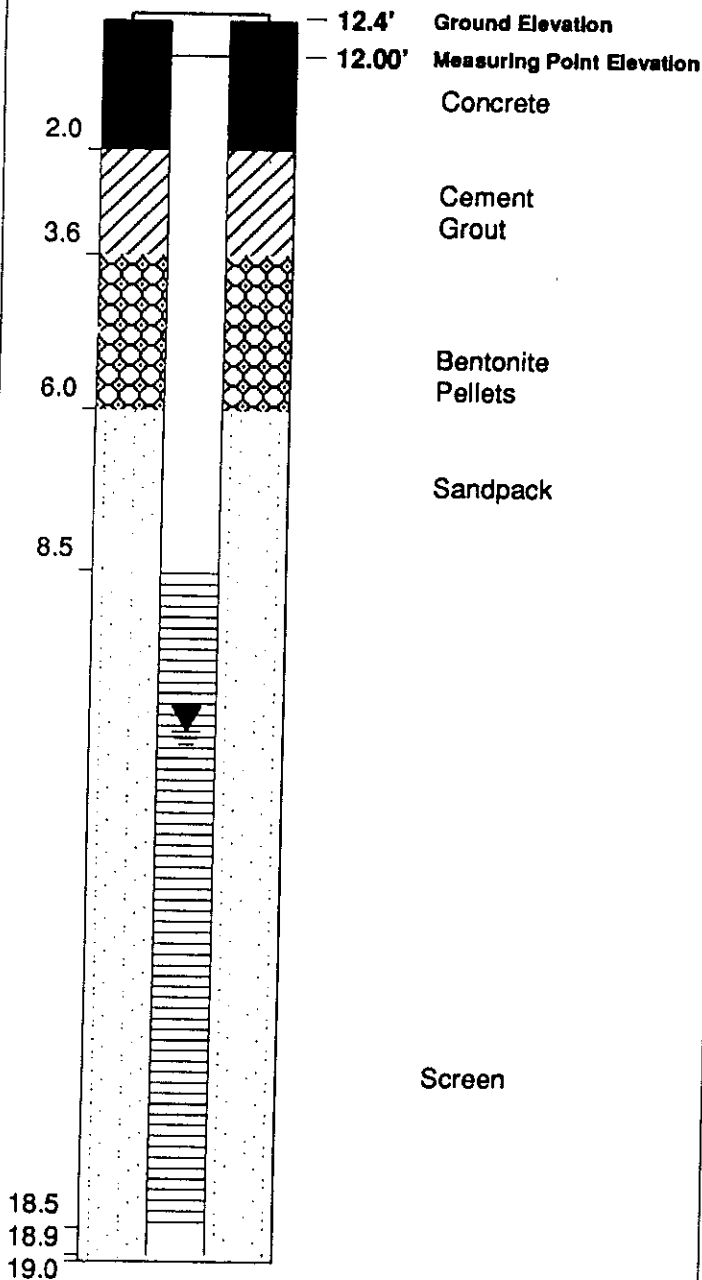
WELL NO. MW-14



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 ALBANY, NY 12205
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Project OAKLAND SUBSURFACE INVEST.
 Client AMERICAN NATIONAL CAN COMPANY
 Location OAKLAND, CA PLANT
 Project No. 02345-01983
 Date Drilled 09/24/91 to 09/24/91
 Date Developed 10/4/91

WELL CONSTRUCTION DETAIL



INSPECTION NOTES

Inspector Walter Howard
 Drilling Contractor Exceltech Drilling
 Type of Well Groundwater Monitoring
 Static Water Level Elev. 1.47' Date 10/21/91
 Measuring Point (M.P.) Top of PVC
 Total Depth of Well 18.9'
 Total Depth of Boring 19.0'
 Drilling Method
 Type Hollow Stem Auger Diameter 6 1/4" ID
 Casing HSA
 Sampling Method
 Type CS Diameter 3" OD
 Weight 140 # Fall 30"
 Interval Standard
 Riser Pipe Left in Place
 Material Sch 40 PVC Diameter 4 ID" ID
 Joint Type Flush Thread Length 8.0'
 Screen
 Material Sch 40 PVC Diameter 4 ID" ID
 Slot Size 0.020" Length 10.0'
 Strat. Unit Screened (Fluvial)
 Filter Pack
 Sand X Gravel Natural
 Grade RMSLonestr#2/12
 Amount 6 Bags Interval 6.0-19.0'
 Seal(s)
 Type Bentonite Pellets Interval 3.6-6.0'
 Type Interval
 Type Interval
 Locking Casing Yes

Notes:



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TEST BORING LOG

BORING No. MW-15

PROJECT	OAKLAND SUBSURFACE INVEST.				SHEET 1 OF 2
CLIENT	AMERICAN NATIONAL CAN COMPANY				JOB No. 02345-01983
DRILLING CONTRACTOR	Exceltech Drilling				MEAS. PT. ELEV. 17.88
PURPOSE	Monitoring Well Installation				GROUND ELEV. 18.2
DRILLING METHOD	Hollow Stem Auger	SAMPLE	CORE	CASING	DATUM Ground Lvl
DRILL RIG TYPE	Mobile B-61	TYPE	CS	HSA	DATE STARTED 09/25/91
GROUNDWATER ELEV.	4.72'	DIA.	3" OD	8 5/8" ID	DATE FINISHED 09/25/91
MEASURING POINT	Top of PVC	WEIGHT	140 #		DRILLER Don Jenkins
DATE OF MEASUREMENT	10/21/91	FALL	30"		INSPECTOR Walter Howard

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
2							PID Background = 0.2 all readings in ppm
4							
5.5	S-1	4	SM		Gr br cmf S, l \$yC, s mf G; disturbed; no odor		
6.0		4					
6.5		4					
7.0		4					
8.0					(FILL)		
9.0	S-2	3	SW/ML		Grn cmf S, t\$, l f G; no odor	Rec = 1.5 PID Spoon = Bkgd HS = N/A	
9.5		4					
9.5		4					

Lab Analyzed 9.0'-9.5'



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TEST BORING LOG

BORING No. MW-15

PROJECT OAKLAND SUBSURFACE INVEST.

SHEET 2 OF 2

CLIENT AMERICAN NATIONAL CAN COMPANY

JOB No. 02345-01983

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
		7			Br Cy\$ l, fS		Rec = 1/5' moist PID Spoon = N/A HS = N/A
	S-3	9	CL		10.7: Grn br blk \$yC l, fS, tf G; discolored, some odor; Lyr of peat and roots at 11.0'	7.2 11.0	
12		3			Br Cy\$ s(-), mf (+)S; dense, hard; grn stain on vertical seams, some odor		Rec = 1.5' Damp PID Spoon = 2.0 HS = 70
	S-4	7	SM				
		10					
		5			Same; coarsening downward to Lt br mf(+), S, a Cy\$ @ spoon tip		Rec = 2.0' Dry-Damp PID Spoon = 2.0 HS = 78
14		9					
	S-5	11	SM		<u>Brown medium to fine (+) SAND, and Clayey Silt.</u>		
		17					
		8			Lt br fS, a Cy\$; dry; some wet vert. seams w/blk stain & hydrocarbon odor, stain changes color to green away from seams		Rec = 1.5' Dry-Wet PID Spoon = N/A HS = 105
16		10					
	S-6	16	SM				
		6			Br Grn fS, a Cy\$; coarsening downward to Gr br fG a, cmf S, l \$; becoming wet at spoon tip		Rec = 1.5' Dry-Wet PID Spoon = 19.0 HS = 95
	S-7	11	SM				
		15					
18		20			Same; dense lyr of Lt br cmf S, a\$, lf G from 18.7'-19.0'		Rec = 2.0' Dry-Wet PID Spoon = Bkgd HS = 3.0
		32					
	S-8	43	SM		19.0': Rddsh br cmf S, t\$, l mf G; loose; no odor; G sbrdd		
		50					
20		10			Gr cmf S, t\$, l mf G		Rec = 1.3' Wet PID Spoon = Bkgd HS = N/A
		8				-2.3	
	S-9	8	SW		Br \$&C l, mf (+)S, tf G; very dense, no odor	20.5	
		10			(FLUVIAL)	-3.3	
					Bottom of Boring Auger to 21.0'	21.5	

MONITORING WELL LOG

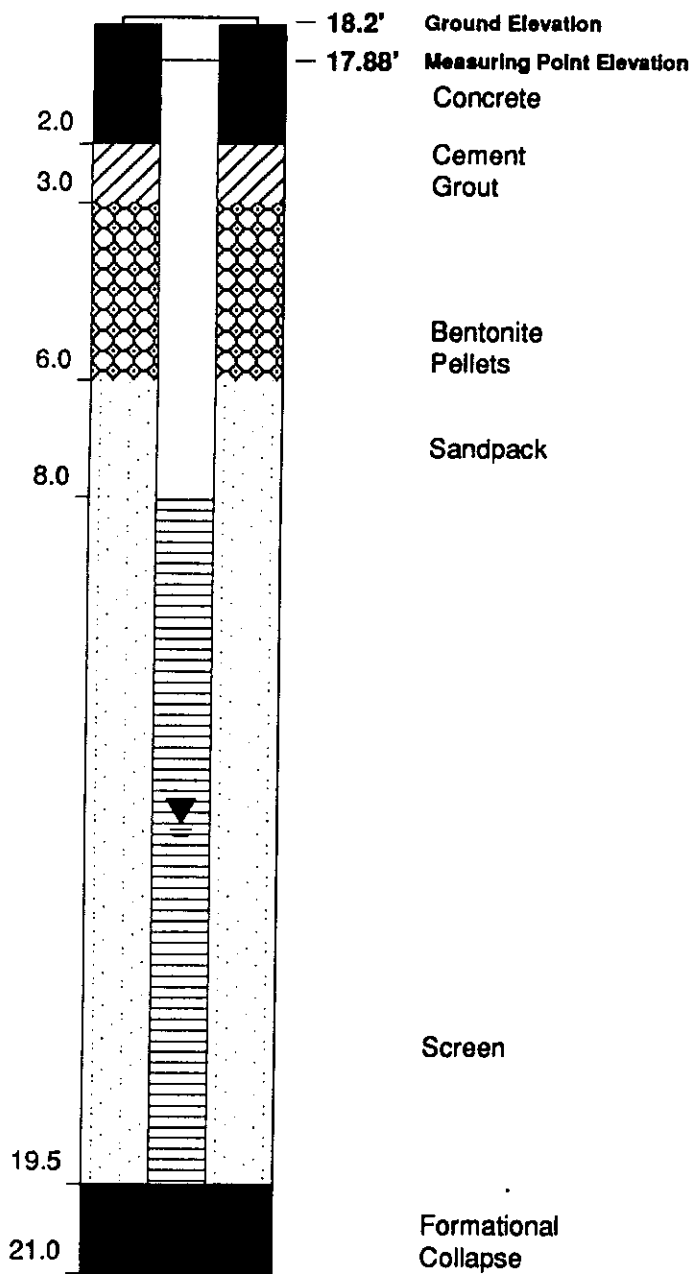
WELL NO. MW-15



DUNN GEOSCIENCE CORPORATION
 ALBANY, NY 12205
 (518) 458-1313

Project OAKLAND SUBSURFACE INVEST.
 Client AMERICAN NATIONAL CAN COMPANY
 Location OAKLAND, CA PLANT
 Project No. 02345-01983
 Date Drilled 09/25/91 to 09/25/91
 Date Developed 10/4/91

WELL CONSTRUCTION DETAIL



INSPECTION NOTES

Inspector Walter Howard
 Drilling Contractor Exceltech Drilling
 Type of Well Groundwater Monitoring
 Static Water Level Elev. 4.72' Date 10/21/91
 Measuring Point (M.P.) Top of PVC
 Total Depth of Well 19.5'
 Total Depth of Boring 21.0'

Drilling Method
 Type Hollow Stem Auger Diameter 8 5/8" ID
 Casing HSA

Sampling Method
 Type CS Diameter 3" OD
 Weight 140 # Fall 30"
 Interval 5.0-21.5 Std/Continuous

Riser Pipe Left in Place
 Material Sch 40 PVC Diameter 4 ID" ID
 Joint Type Flush Thread Length 8.0'

Screen
 Material Sch 40 PVC Diameter 4 ID" ID
 Slot Size 0.010" Length 11.5'
 Strat. Unit Screened (Fluvial)

Filter Pack
 Sand X Gravel Natural
 Grade RMSLonestr#2/12
 Amount 13 Bags Interval 6.0-19.5'

Seal(s)
 Type Bentonite Pellets Interval 3.0-6.0'
 Type Interval
 Type Interval

Locking Casing Yes

Notes:



Dunn Geoscience Corporation
Albany, NY 12205 (518)458-1313

TEST BORING LOG

BORING No. MW-16

PROJECT	OAKLAND SUBSURFACE INVEST.			SHEET	1 OF 2	
CLIENT	AMERICAN NATIONAL CAN COMPANY			JOB No.	02345-01983	
DRILLING CONTRACTOR	Exceltech Drilling			MEAS. PT. ELEV.	12.26	
PURPOSE	Monitoring Well Installation			GROUND ELEV.	12.7	
DRILLING METHOD	Hollow Stem Auger	SAMPLE	CORE	CASING	DATUM	Ground Lvl
DRILL RIG TYPE	Mobile B-61	TYPE	CS	HSA	DATE STARTED	09/24/91
GROUNDWATER ELEV.	1.77'	DIA.	3" OD	4 1/4" ID	DATE FINISHED	09/27/91
MEASURING POINT	Top of PVC	WEIGHT	140 #		DRILLER	Don Jenkins
DATE OF MEASUREMENT	10/21/91	FALL	30"		INSPECTOR	Walter Howard

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
					CONCRETE SLAB	11.7	Water found in base Fill Material. Grout 10" I.D. steel casing to 3.0'. Drill rest of boring through the 10" casing with 4 1/4" augers.
			GW		Brown coarse to fine GRAVEL and, coarse to fine Sand	1.0	
					(BASE FILL)	11.0	
2	S-1	4	CH		Blk \$yC; description from drill cuttings	1.7	Rec = 0
		5			Black SILTY CLAY		
		5					
4					(TIDAL MARSH)	8.7	PID Background = 0.2 all readings in ppm
						4.0	
	S-2	11	ML		Grn gr Cy\$ S, mf(+)S; occ f G; very dense, hard, no odor		Rec = 1.5' Dry PID Spoon = Bkgd HS = 1.8
6		18			Lab Analyzed 6.0'-6.5'		
		25					
					Green gray CLAYEY SILT some, medium to fine (+) Sand		
8					(FLUVIAL)		
					SAME; no odor throughout sample		Rec = 1.5' Damp PID Spoon = Bkgd HS = 4.5
	S-3	6	SM		Lab Analyzed 9.5'-10.0'		
		8			9.5': Gr blk cmfS, a Cy\$, l f G; dense		
		9			9.7': Grn mf(+)S, a \$; dense		



Dunn Geoscience Corporation
Albany, NY 12205 (518)458-1313

TEST BORING LOG

BORING No. MW-16

PROJECT **OAKLAND SUBSURFACE INVEST.**

SHEET 2 OF 2

CLIENT **AMERICAN NATIONAL CAN COMPANY**

JOB No. **02345-01983**

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6'	UNIFIED CLASSIFICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
12							
13.5	S-4	8	SW		Br cmf(+)S, a \$; coarsening downward to cmf s, t\$, l mf G(loose) at 13.5'; no odor		Rec = 1.5' Wet PID Spoon = Bkgd HS = Bkgd
13.5		9			13.5': Br cmf(+)S, s\$, t f G; loose; no odor		
14		13			<u>Brown coarse to fine SAND, little silt, trace (+) fine Gravel</u>		
16					(FLUVIAL)		
17.0	S-5	7	SW		Br cmf(+)S, l(-)\$; coarsening downward to c(+)mf S, tf G		Rec = 1.1' Wet PID Spoon = Bkgd HS = Bkgd
17.0		9			17.0': Br cmf S, l\$, tf G; alt lyrs of coarse and finer seds; loose, no odor		
18		24					
						-6.3	
					Bottom of Boring	19.0	

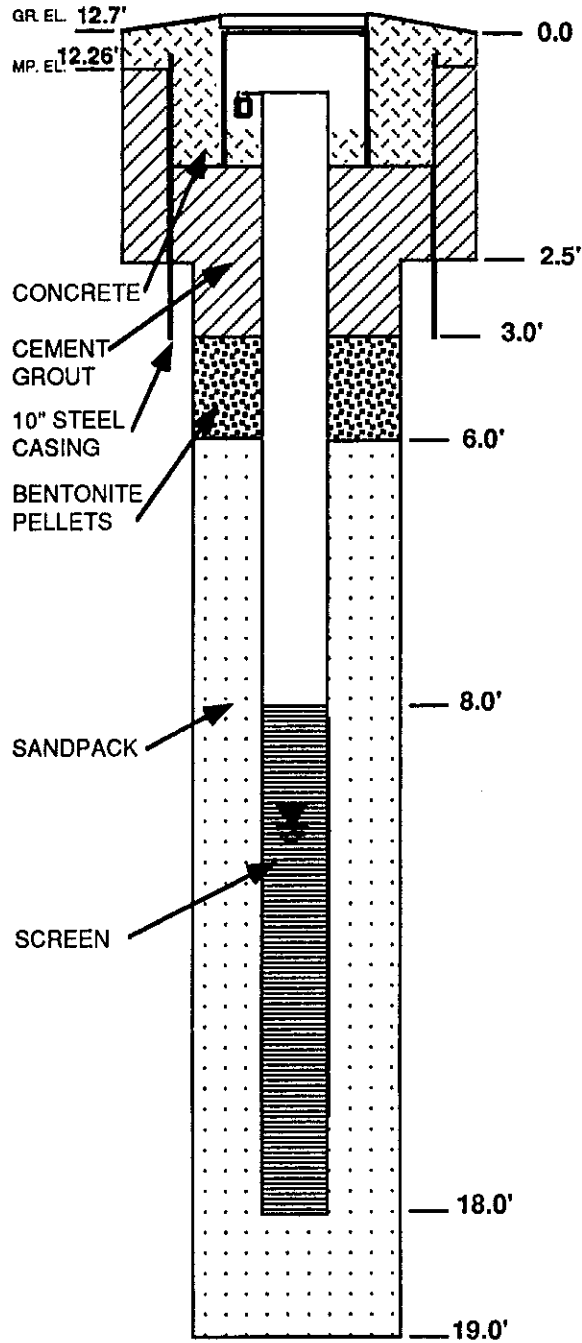
MONITORING WELL COMPLETION LOG WELL NO. MW-16



Dunn Geoscience Corporation
 12 Metro Park Road
 Albany, NY 12205
 (518) 458-1313

Project Oakland Subsurface Investigation
 Client American National Can Company
 Location Oakland, California Plant
 Project No. 02345-01983
 Date Drilled 9/27/91
 Date Developed 10/4/91

WELL CONSTRUCTION DETAIL



NOT TO SCALE

INSPECTION NOTES

Inspector Walter Howard
 Drilling Contractor Exceltech Drilling
 Type of Well Groundwater Monitoring
 Static Water Level Elev. 1.77' Date 10/21/91
 Measuring Point (M.P.) Top of PVC
 Total Depth of Well 18.0'
 Total Depth of Boring 19.0'
 Drilling Method
 Type Hollow Stem Auger Diameter 4 1/4" ID
 Casing 10" Steel Set from 0-3'
 Sampling Method
 Type Split Spoon Diameter 3" OD
 Weight 140# Fall 30"
 Interval Standard
 Riser Pipe Left in Place
 Material Sch 40 PVC Diameter 2" ID
 Length 8.0' Joint Type Flush Thread
 Screen
 Material Sch 40 PVC Diameter 2" ID
 Slot Size 0.020" Length 10.0'
 Stratigraphic Unit Screened Fluvial
 Filter Pack
 Sand Gravel Natural
 Grade RMS Lonestar # 2/12
 Amount 4 Bags Interval 6.0-19.0'
 Seal(s)
 Type Bentonite Pellets Interval 3.0-6.0'
 Type Interval
 Type Interval

Locking Casing Yes No
 Notes:



Dunn Corporation
Albany, NY 12205 (518)458-1313

TEST BORING LOG

BORING No. TW-1

PROJECT	OAKLAND SUBSURFACE INVEST.			SHEET 1 OF 3
CLIENT	AMERICAN NATIONAL CAN COMPANY			JOB No. 02345-01983
DRILLING CONTRACTOR	Exceltech Drilling			MEAS. PT. ELEV. 17.76'
PURPOSE	Test Well Installation			GROUND ELEV. 18.1'
DRILLING METHOD	Hollow Stem Auger	SAMPLE	CORE	CASING
DRILL RIG TYPE	Mobile B-61	TYPE	CS	HSA
GROUNDWATER ELEV.	4.75'	DIA.	3" OD	8 5/8" ID
MEASURING POINT	Top of PVC	WEIGHT	140 #	DRILLER Don Jenkins
DATE OF MEASUREMENT	10/21/91	FALL	30"	INSPECTOR Walter Howard

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
0					Auger to 5-feet before sampling. Auger cutting description 0-5' is Dk br blk \$yC; very dense;		PID Background = 0.2 all readings in ppm
2					Brown black SILTY CLAY little, fine Sand, trace fine Gravel		
4					Br blk \$yC l, fS, tf G; soft, moist, no odor		
5.5	S-1	5	CL		<u>Lab Analyzed 5.5'-6.0'</u>	12.1	Rec = 1.0' Damp PID Spoon = Bkgd HS = 82
6.0		4	SC		Grn gr cmf(+)S, a C&\$, tf G; soft, moist, some hydrocarbon odor	6.0	
8					<u>Green gray coarse to fine (+) SAND, and Clay & Silt, trace fine Gravel.</u>		
9.0					Same; distorted; some hydrocarbon odor		
9.5	S-2	2	SC		<u>Lab Analyzed 9.0'-9.5'</u>		Rec = 1.5' PID Spoon = 3.0 HS = 106
		4			(FILL)		
		5					



Dunn Corporation
Albany, NY 12205 (518)458-1313

TEST BORING LOG

BORING No. TW-1

PROJECT **OAKLAND SUBSURFACE INVEST.**

SHEET **2** OF 3

CLIENT **AMERICAN NATIONAL CAN COMPANY**

JOB No. **02345-01983**

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
10-12	S-3	4	GC		Grn mf G a, cmf(+) S, s \$&C; strong odor <u>Green medium to fine GRAVEL and, coarse to fine (+) Sand, some Silt & Clay.</u>		Rec = 1.0' Damp PID Spoon = N/A HS = 106
		4					
		5					
12-14	S-4	3	SC		Br cmf(+) S, s(-) Cy\$, tf G; mod stiff, no odor <u>Lab Analyzed 12.0'-12.5'</u>		Rec = 1.5' Damp PID Spoon = 1.5 HS = 5
		4					
		4					
14-16	S-5	5	SC		Same; slight odor		Rec = 0.8' Damp PID Spoon = Bkgd HS = 82
		8					
16-18	ST-1				Shelby Tube sample taken from 15.0'-17.0', max rig feed pressure; 200 psi <u>Gray brown coarse to fine Sand, and Clayey Silt, little fine Gravel.</u>		
18-20	S-6	7	SC		Gr br cmf S, a Cy\$, lf G; dense hard; moist product layden seams at 17.0' and 18.3', rest of same is damp; water came into spoon hole (FLUVIAL)		Rec = 2.0' Dry-Wet PID Spoon = 4.0 HS = 58
		11					
		14					
20-22	S-7	18	CL		Br rd \$&C a, c(-)mf(+)S, s(+)mf G; G sbrdd-sbang; dense, compact, much fe stain; no odor		Rec = 1.4' Damp PID Spoon = N/A HS = 3
		8					
		11					
22-24	S-8	13	CL		<u>Brown red Gray SILT & CLAY and, medium to fine (+) Sand, little fine Gravel.</u> Same 21.5': Gr C&\$ l, mf(+) S; occ f G; very dense, no odor (FLUVIAL)	-1.4 19.5	Rec = 1.8' Damp PID Spoon = Bkgd HS = 2.4
		4					
		7					
		11					



Dunn Corporation
Albany, NY 12205 (518)458-1313

TEST BORING LOG

BORING No. TW-1

PROJECT **OAKLAND SUBSURFACE INVEST.**

SHEET **3** OF **3**

CLIENT **AMERICAN NATIONAL CAN COMPANY**

JOB No. **02345-01983**

DEPTH FT.	INTERVAL, RECOVERY, SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSI- FICATION	GRAPHIC LOG	GEOLOGIC DESCRIPTION	ELEV. DEPTH	REMARKS
		17			Gray CLAY & SILT little, medium to fine (+) Sand (FLUVIAL) Bottom of Boring	-4.9 23.0	

MONITORING WELL LOG

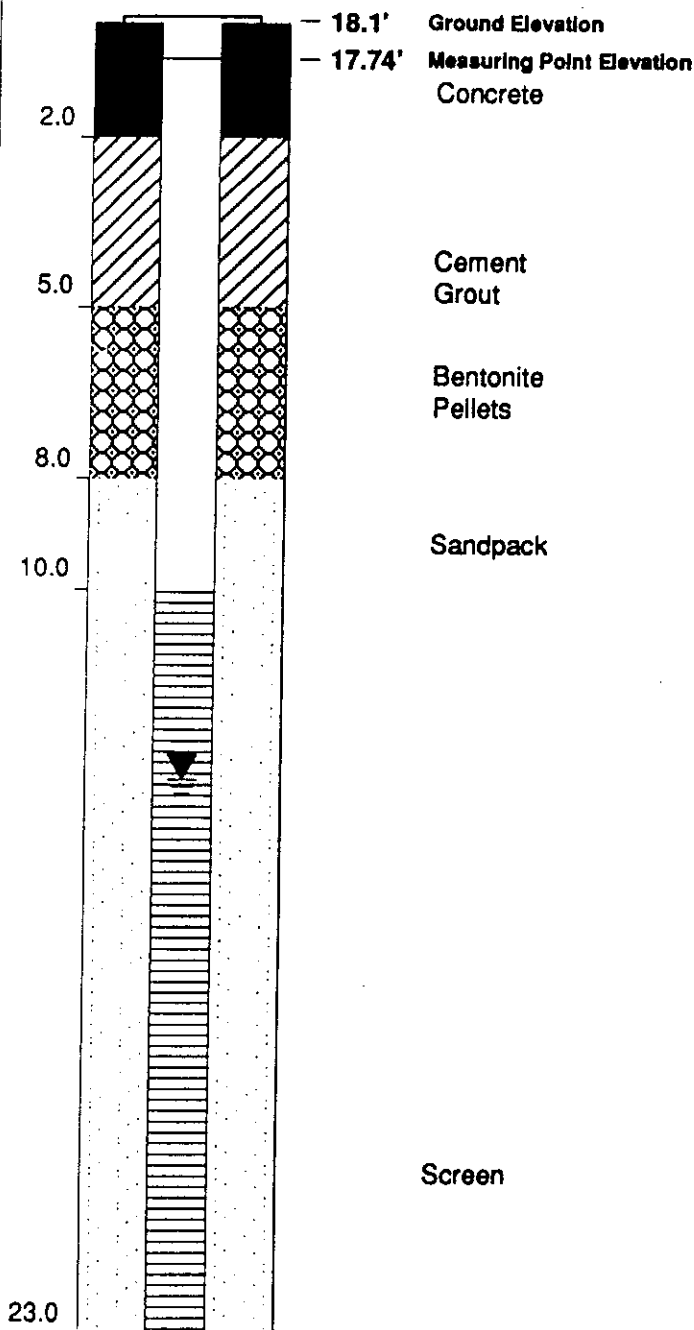
WELL NO. TW-1



DUNN GEOSCIENCE CORPORATION
 ALBANY, NY 12205
 (518) 458-1313

Project OAKLAND SUBSURFACE INVEST.
 Client AMERICAN NATIONAL CAN COMPANY
 Location OAKLAND, CA PLANT
 Project No. 02345-01983
 Date Drilled 09/26/91 to 09/26/91
 Date Developed 10/4/91

WELL CONSTRUCTION DETAIL



INSPECTION NOTES

Inspector Walter Howard
 Drilling Contractor Exceltech Drilling
 Type of Well Test Well
 Static Water Level Elev. 4.73' Date 10/21/91
 Measuring Point (M.P.) Top of PVC
 Total Depth of Well 23.0'
 Total Depth of Boring 23.0'
 Drilling Method
 Type Hollow Stem Auger Diameter 8 5/8" ID
 Casing HSA
 Sampling Method
 Type CS Diameter 3" OD
 Weight 140 # Fall 30"
 Interval Standard/Continuous
 Riser Pipe Left in Place
 Material Sch 40 PVC Diameter 6 ID" ID
 Joint Type Flush Thread Length 10.0'
 Screen
 Material Sch 40 PVC Diameter 6 ID" ID
 Slot Size 0.020" Length 13.0'
 Strat. Unit Screened (Fluvial)
 Filter Pack
 Sand X Gravel Natural
 Grade RMSLonestr#2/12
 Amount 11 Bags Interval 8.0-23.0'
 Seal(s)
 Type Bentonite Pellets Interval 5.0-8.0'
 Type Interval
 Type Interval
 Locking Casing Yes

Notes:

ANAMETRIX INC

Environmental & Analytical Chemistry
 1961 Concourse Drive, Suite E, San Jose, CA 95131
 (408) 432-8192 • Fax (408) 432-8198

**REPORT**

MR. EDWARD ALUSOW
 DUNN GEOSCIENCE CORP.
 12 METRO PARK ROAD
 ALBANY, NY 12205

Workorder # : 9109282
 Date Received : 09/27/91
 Project ID : 02345-01983
 Purchase Order: N/A

The following samples were received at Anamatrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9109282- 1	SB-4-6;S-2
9109282- 2	SB-4-6;S-3
9109282- 3	MW-16;S-2
9109282- 4	MW-16;S-3
9109282- 5	TRIP BLANK

This report consists of 7 pages not including the cover letter, and is organized in sections according to the specific Anamatrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anamatrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anamatrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anamatrix.

 Sarah Schoen, Ph.D.
 Laboratory Manager

10-10-91

 Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. EDWARD ALUSOW
DUNN GEOSCIENCE CORP.
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9109282
Date Received : 09/27/91
Project ID : 02345-01983
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9109282- 1	SB-4-6;S-2	SOIL	09/25/91	BTEX
9109282- 2	SB-4-6;S-3	SOIL	09/25/91	BTEX
9109282- 3	MW-16;S-2	SOIL	09/27/91	BTEX
9109282- 4	MW-16;S-3	SOIL	09/27/91	BTEX
9109282- 5	TRIP BLANK	WATER	09/27/91	BTEX
9109282- 1	SB-4-6;S-2	SOIL	09/25/91	TPHd
9109282- 2	SB-4-6;S-3	SOIL	09/25/91	TPHd
9109282- 3	MW-16;S-2	SOIL	09/27/91	TPHd
9109282- 4	MW-16;S-3	SOIL	09/27/91	TPHd

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. EDWARD ALUSOW
DUNN GEOSCIENCE CORP.
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9109282
Date Received : 09/27/91
Project ID : 02345-01983
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Charles B. Baker
Department Supervisor

10/10/91
Date

C. J. Far
Chemist

10.10.91
Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9109282
Matrix : SOIL
Date Sampled : 09/25 & 27/91

Project Number : 02345-01983
Date Released : 10/10/91

Reporting Limit	Sample I.D.# SB-4-6; S-2	Sample I.D.# SB-4-6; S-3	Sample I.D.# MW-16; S-2	Sample I.D.# MW-16; S-3	Sample I.D.# 21B1001A
COMPOUNDS (mg/Kg)	-01	-02	-03	-04	BLANK
Benzene	0.005	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND	ND
% Surrogate Recovery	90%	98%	96%	101%	100%
Instrument I.D.	HP21	HP21	HP21	HP21	HP21
Date Analyzed	10/01/91	10/01/91	10/01/91	10/02/91	10/01/91
RLMF	1	1	1	1	1

ND - Not detected at or above the practical quantitation limit for the method.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020.

RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

C. Fern
Analyst 10/10/91
Date

Cheryl Balmer
Supervisor 10/10/91
Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9109282
Matrix : SOIL
Date Sampled : 09/25 & 27/91

Project Number : 02345-01983
Date Released : 10/10/91

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# 21B1002A BLANK
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Total Xylenes	0.005	ND
% Surrogate Recovery		95%
Instrument I.D.		HP21
Date Analyzed		10/02/91
RLMF		1

ND - Not detected at or above the practical quantitation limit for the method.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020.
RLMF - Reporting Limit Multiplication Factor.
Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Ci Fan
Analyst 10/10/91
Date

Cheryl Balmer
Supervisor 10/10/91
Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9109282
Matrix : WATER
Date Sampled : 09/27/91

Project Number : 02345-01983
Date Released : 10/10/91

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# TRIP BLANK	Sample I.D.# 21B1001A
Benzene	0.5	ND	ND
Toluene	0.5	ND	ND
Ethylbenzene	0.5	ND	ND
Total Xylenes	0.5	ND	ND
% Surrogate Recovery		107%	100%
Instrument I.D.		HP21	HP21
Date Analyzed		10/01/91	10/01/91
RLMF		1	1

ND - Not detected at or above the practical quantitation limit for the method.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020.
RLMF - Reporting Limit Multiplication Factor.
Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

J. L. ... 5/1/91
Analyst Date

Cheryl ... 10/10/91
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anamatrix W.O.: 9109282
Matrix : SOIL
Date Sampled : 09/25 & 27/91
Date Extracted: 10/01/91

Project Number : 02345-01983
Date Released : 10/10/91
Instrument I.D.: HP23

Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9109282-01	SB-4-6;S-2	10/08/91	10	ND
9109282-02	SB-4-6;S-3	10/08/91	10	ND
9109282-03	MW-16;S-2	10/08/91	10	ND
9109282-04	MW-16;S-3	10/08/91	10	ND
DSBL100391	METHOD BLANK	10/08/91	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.

ND - Not detected at or above the practical quantitation limit for the method.

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Ci Fan
Analyst
10.10.91
Date

Christy Balman
Supervisor
10/10/91
Date

TOTAL EXTRACTABLE HYDROCARBON MATRIX SPIKE REPORT
 EPA METHOD 3550 WITH GC/FID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 02345-01983 SB-4-6;S-2
 Matrix : SOIL
 Date Sampled : 09/25/91
 Date Extracted: 10/01/91
 Date Analyzed : 10/08/91

Anamatrix I.D. : 9109282-02
 Analyst : C.F.
 Supervisor : *CXS*
 Date Released : 10/10/91
 Instrument I.D.: HP 23

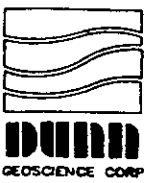
COMPOUND	SPIKE AMT. (mg/Kg)	MS (mg/Kg)	%REC MS	MSD (mg/Kg)	%REC MSD	RPD	%REC LIMITS
Diesel	125	100	80%	100	80%	0%	32-143

 * Limits established by Anamatrix, Inc.

AKRT 4 Samples

Dunn Geoscience Corp.
 12 Metro Park Road
 Albany, N.Y. 12205 (518) 458-1313

1107282 to 11
 F.B 16 #2



Client Name: AMERICAN NATIONAL CAN CO.	DGC Contact: EDWARD HURLOW
Project No.: 02345-0483	Laboratory Contact: JENNIFER PAYNE
Site Location: OAKLAND, CA	Lab Identification:
Sampler: Walter Howard	Date Report Required:

Sample Identification	Date	Time	Sample Matrix	Collection Vessel	Lowering Device	# Sample Containers	Preserv.	Comp. or Grab	ANALYSIS Comment
SB-4-6; S-2	9/25/91	0925	SOIL	BRASS Tube	—	1	N	Grab	TPH as Diesel GC FID (3550) BTEX (8020)
SB-4-6; S-3	9/25/91	0940	"	"	—	1	N	"	"
MW-16; S-2	9/27/91	0730	"	"	—	1	N	"	"
MW-16; S-3	9/27/91	0750	"	"	—	1	N	"	"
TRIP BLANK	9/27/91	—	WATER	—	—	2	HCL	—	BTEX (8020)
									NOTE: All Four soil sampler should be fully uncontaminated
									samples received: cold, proper container, no headspace
									#5 100a with 5mm bubbles

Name	Affiliation	Date	Time	Name	Date	Time
Relinquished by: Walter O. Howard	DUNN	9/27/91	1525	Received by Laboratory: Fash Badi	9-27-91	1715
Received by: Jay H. Mennel	ANANETRIX	9/27/91	1525	Samples Intact & Properly Preserved:	Yes	or (No)
Relinquished by: Jay H. Mennel	"	9/27/91	1715	Laboratory Comments:	cold, proper container, no headspace, ^{empty #4}	
Received by: Fash Badi	"	9-27-91	17:15		#5 100a with 5mm bubbles.	

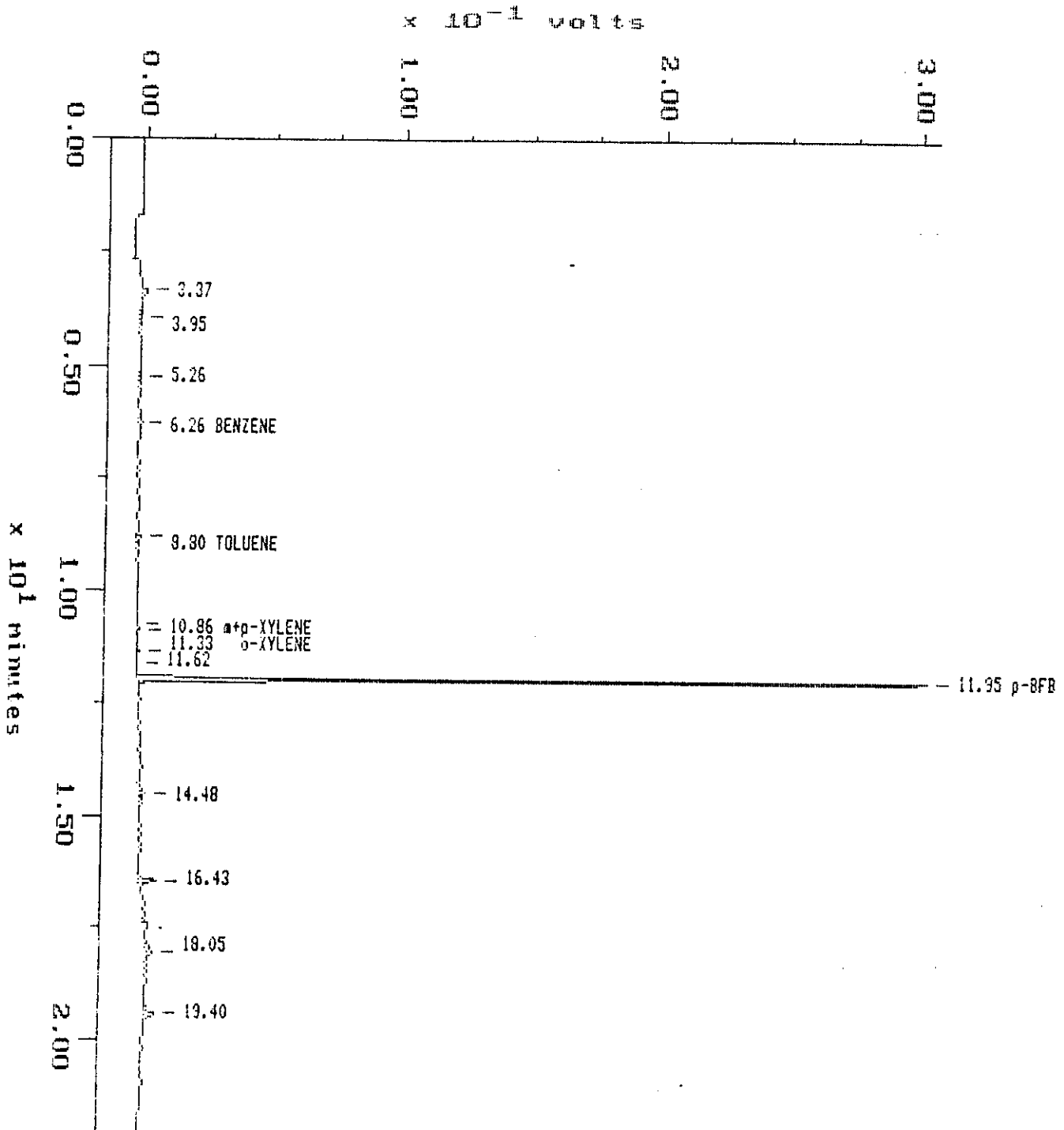
gasoline

SB-4-6; S-2

Sample: 9109282-01
Acquired: 01-OCT-91 15:54
Dilution: 1 : 2.000
Comments: HP21 30M D8624

Channel: PID 21
Method: C:\NAX\DATA21\503021

Filename: 09282-01
Operator: CF

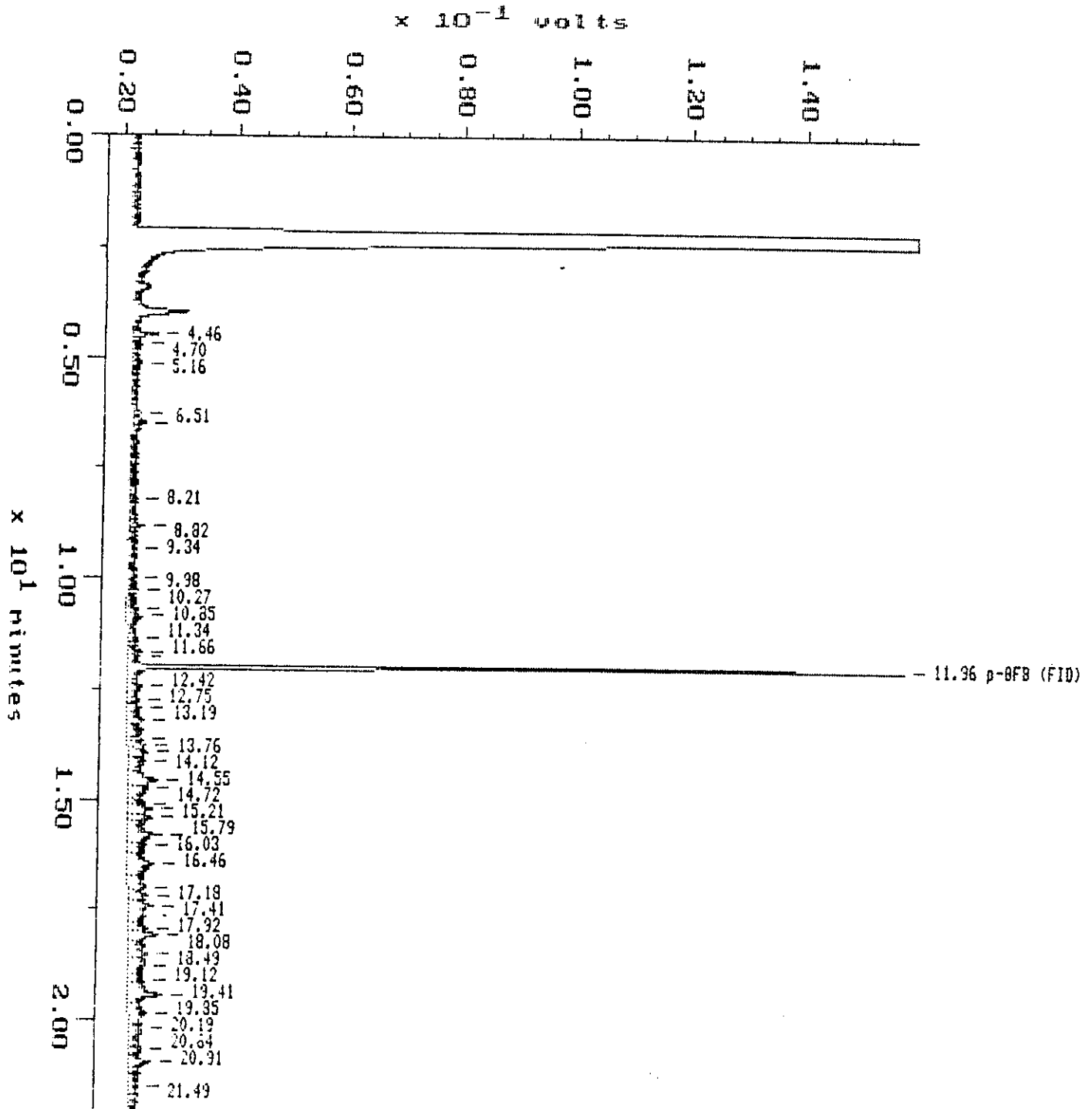


SB-4-6; S-2

Sample: 9109282-01
Acquired: 01-OCT-91 15:54
Dilution: 1 : 2.000
Comments: HP21 30M DB624

Channel: FID 21
Method: C:\MAX\DATA21\503021

Filename: 09282-01
Operator: CF



SB-4-6; S-2

8	9.344	PP	1179	15555			
9	9.976	PP	1376	11226			
10	10.272	PP	1641	24970			
11	10.680	PP	1976	12436			
12	10.852	PP	2866	34807			
13	11.336	PP	2056	16253			
14	11.656	PP	2634	24034			
15	11.748	PP	2099	14947			
16	7 11.960	PP	136713#	462652#	0.000	100.00000#	p-BFB (FID)
17	12.424	PP	2817	33361			
18	12.748	PP	2186	20034			
19	12.904	PP	2392	21545			
20	13.188	PP	2909	33243			
21	13.640	PP	2979	40261			
22	13.756	PP	3104	24638			
23	13.904	PP	3550	34600			
24	14.120	PP	3332	41388			
25	14.548	PP	5359	63663			
26	14.720	PP	3647	44262			
27	15.100	PP	3128	21841			
28	15.208	PP	4472	35643			
29	15.396	PP	4335	29546			
30	15.788	PP	6204	93346			
31	16.028	PP	3503	34352			
32	16.456	PP	4724	86787			
33	17.000	PP	3239	49252			
34	17.176	PP	3604	38449			
35	17.408	PP	4345	76206			
36	17.924	PP	3607	34145			
37	18.084	PP	5163	43090			
38	18.488	PP	3661	54807			
39	18.756	PP	3135	55333			
40	19.120	PP	2836	23189			
41	19.408	PP	6026	80422			
42	19.852	PP	3216	56438			
43	20.192	PP	2499	50898			
44	20.640	PP	2318	20739			
45	20.908	PP	3826	47975			
46	21.488	PB	1906	51019			
TOTAL			139480	1702594	0.00000	0.00000	

Value not included in TOTAL calculation.

MAXIMA 820 CUSTOM REPORT

Printed: 1-OCT-1991 18:12:44

SAMPLE: 9109282-01 *SB-4-6; S-2*
 #18 in Method:
 Acquired: 1-OCT-1991 15:54
 Rate: 4.2 points/sec
 Duration: 22.000 minutes
 Operator: CF

Type: UNKN
 Instrument: HP 21
 Filename: 09282-01
 Index: 13
 Dilution: 2.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		3.368	BB	2362	21269				
2		3.952	BB	777	6414				
3		5.264	BB	369	1688				
4	1	6.256	BB	990	3953	0.021	0.00009	0.00017	BENZENE
5	2	8.804	BB	1654	5577	0.023	0.00013	0.00026	TOLUENE
6	3	10.716	BP	606	2122	0.026	0.00006	0.00011	ETHYLBENZENE
7	4	10.856	PB	1629	6511	0.022	0.00015	0.00029	m+p-XYLENE
8	5	11.328	BB	677	2901	0.027	0.00008	0.00016	o-XYLENE
9		11.616	BB	174	1130				
10	6	11.948	3B	305583#	987741#	0.000	100.00000#	90%	p-BFB
11		14.480	BB	1584	13247				
12		16.432	BB	6483	33587				
13		18.048	BB	2324	30484				
14		19.396	BB	4096	31098				
TOTAL				23726	159979		0.00050	0.00099	

Value not included in TOTAL calculation.

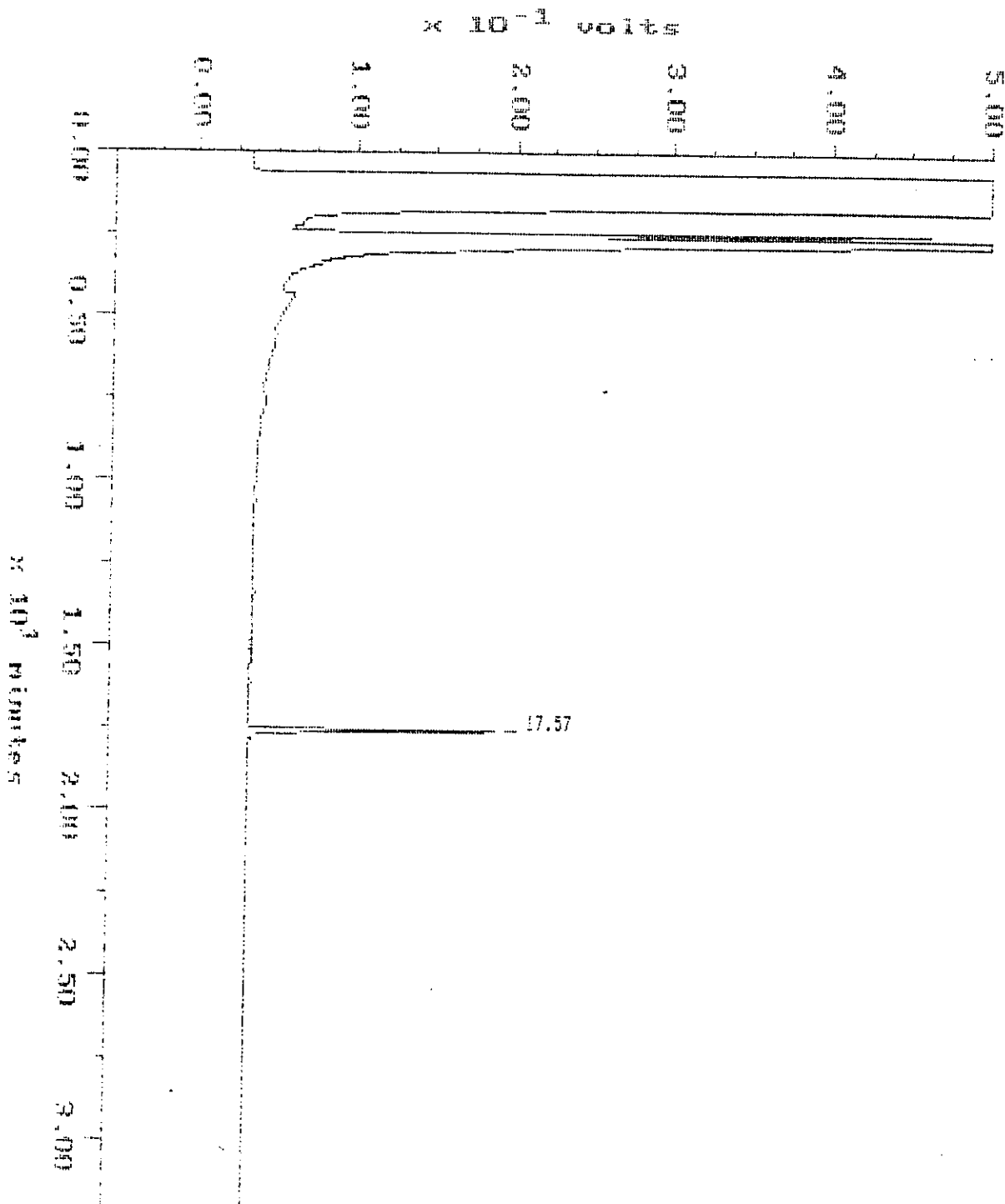
DETECTOR: FID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		4.460	BP	4289	28717				
2		4.700	PP	1633	10014				
3		5.156	PP	1700	17515				
4		6.250	PP	1447	24168				
5		6.508	PP	2475	36260				
6		8.208	PP	1488	59905				
7		8.320	PP	2599	31314				

SB-46;5-2 Diesel

Sample: 9109282-01A Channel: FID 23
Acquired: 08-OCT-91 14:52 Method: C:\MAX\DATA23\351023
Dilution: 1 : 1.000 Inj Vol: 3.00
Comments: Column: 30 M DB-5 HP23

Filename: 09282-1A
Operator: IV



MAXIMA 820 CUSTOM REPORT

Printed: 8-OCT-1991 16:29:45

SAMPLE: 9109282-01A *SB-4-6; S-2*
#5 in Method: 3510/3550 HIGH BOILING HC
Acquired: 8-OCT-1991 14:52
Rate: 4.2 points/sec
Duration: 32.000 minutes
Operator: IY

Type: UNKN
Instrument: HP23
Filename: 09282-1A
Index: 5
Injection Volume: 3.0
Dilution: 1.000

DETECTOR: FID 23

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Area Percent	Code	Base	Solution Conc	Component Name
1		17.57	BB	155082.36	903833.56	100.00				
TOTAL				155082.36	903833.56				0.00	

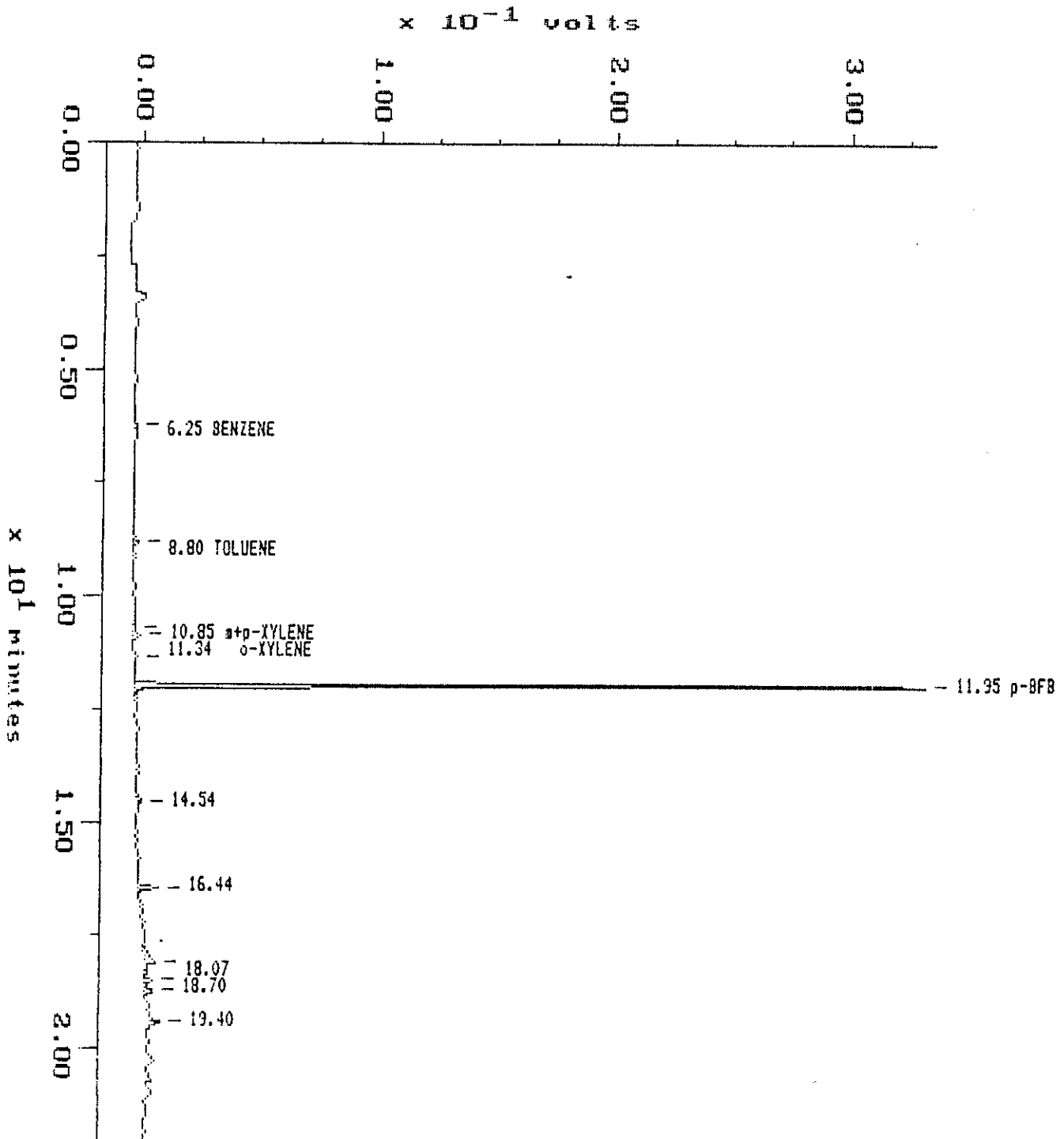
< 10 mg/kg

SB-46; S-3

Sample: 9109282-02
Acquired: 01-OCT-91 16:27
Dilution: 1 : 2.000
Comments: HP21 30M DB624

Channel: PID 21
Method: C:\MAX\DATA21\503021

Filename: 09282-02
Operator: CF

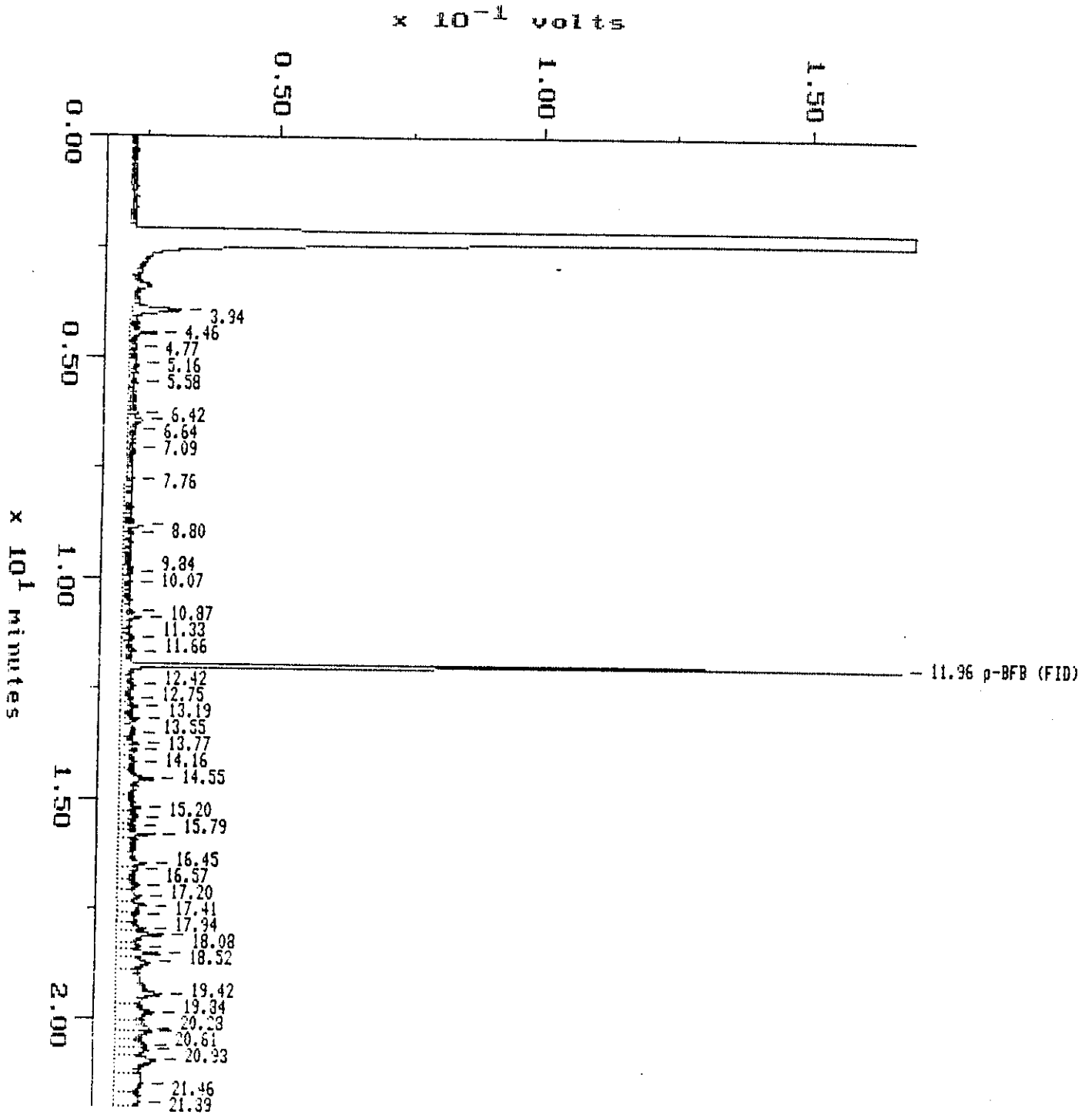


SB-4-6; 5-3

Sample: 9109282-02
Acquired: 01-OCT-91 16:27
Dilution: 1 : 2.000
Comments: HP21 30M DB624

Channel: FID 21
Method: C:\MAX\DATA21\503021

Filename: 09282-02
Operator: CF



MAXIMA (c)1987 Dynamic Solutions, Division of Millipore

MAXIMA 820 CUSTOM REPORT

Printed: 1-OCT-1991 18:18:17

SAMPLE: 9109282-02 *SB-4-6; S-3*
#19 in Method:
Acquired: 1-OCT-1991 16:27
Rate: 4.2 points/sec
Duration: 22.000 minutes
Operator: CF

Type: UNKN
Instrument: HP 21
Filename: 09282-02
Index: 14

Dilution: 2.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1	1	6.248	BB	805	3577	0.021	0.00007	0.00014	BENZENE
2	2	8.796	BB	2262	8191	0.023	0.00018	0.00035	TOLUENE
3	3	10.696	BP	739	3313	0.026	0.00008	0.00016	ETHYLBENZENE
4	4	10.852	PB	2501	9572	0.022	0.00019	0.00039	m+p-XYLENE
5	5	11.336	BB	1002	3671	0.027	0.00009	0.00018	o-XYLENE
6	6	11.952	BB	334822#	1081796#	0.000	100.00000#	98%	p-BFB
7		14.544	BB	1676	13881				
8		16.440	BB	8721	40467				
9		18.068	BB	4096	44590				
10		18.476	BP	2427	9005				
11		18.696	PB	2877	20585				
12		19.400	BB	4538	26420				
TOTAL				31645	183271		0.00061	0.00122	

Value not included in TOTAL calculation.

DETECTOR: FID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		3.936	BP	9377	124136				
2		4.464	PP	5194	39124				
3		4.768	PP	1585	21799				
4		5.164	PP	1825	26050				
5		5.580	PP	1774	23057				
6		6.298	PP	2025	22525				
7		6.416	PP	2828	23612				
8		6.640	PP	1598	11361				
9		7.289	PP	1646	25409				

SB-4-6; S-3

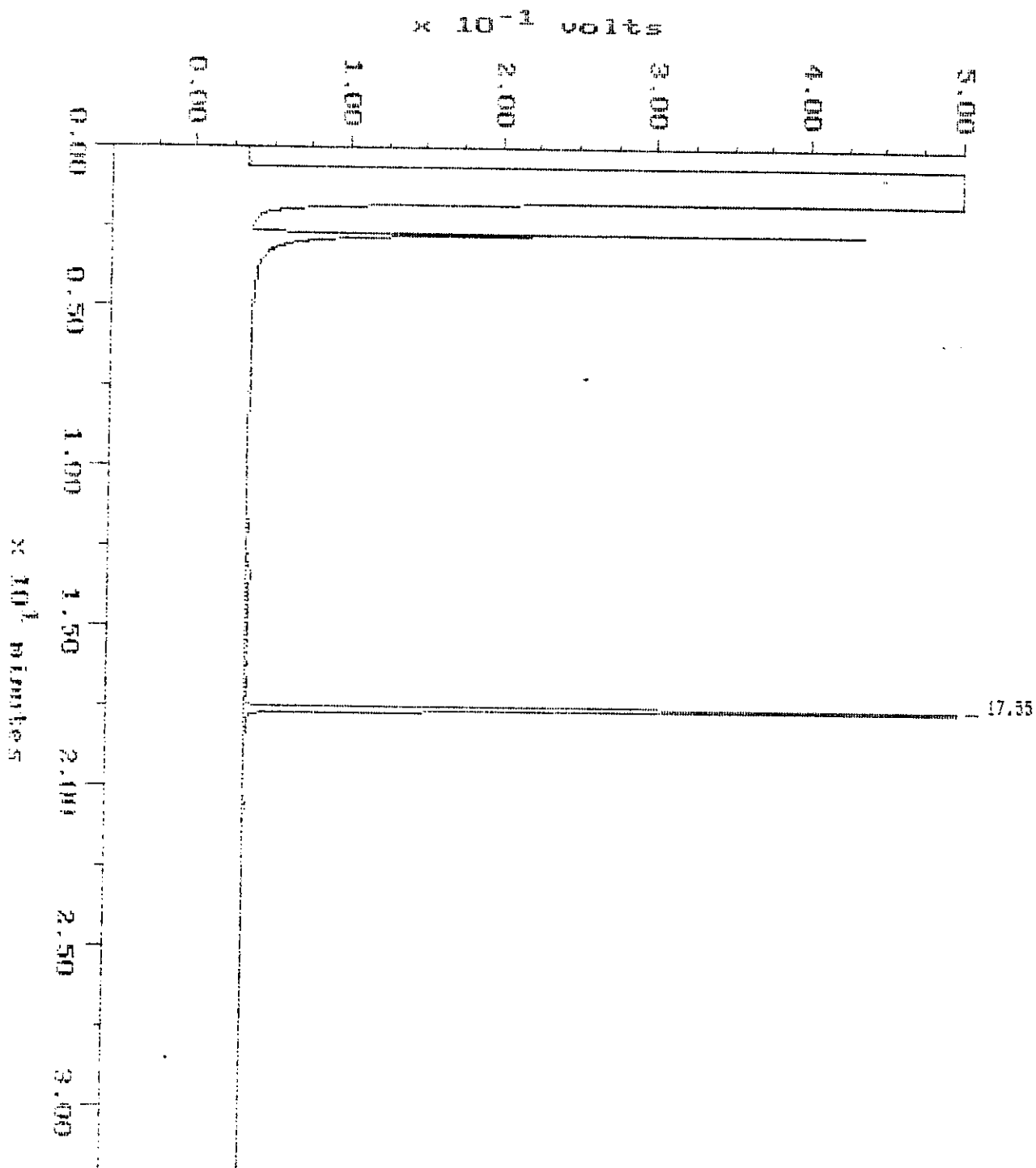
10	7.764	PP	1559	57763			
11	8.804	PP	3382	34456			
12	8.948	PP	1534	15619			
13	9.836	PP	1544	41192			
14	10.072	PP	1577	33480			
15	10.752	PP	1907	13214			
16	10.872	PP	3327	29384			
17	11.328	PP	2024	18065			
18	11.664	PP	2754	31231			
19	7 11.964	PP	146784#	490334#	0.000	100.00000#	p-BFB (FID)
20	12.420	PP	2688	39991			
21	12.748	PP	2190	19635			
22	12.924	PP	2915	24100			
23	13.192	PP	3352	19289			
24	13.548	PP	2655	45018			
25	13.772	PP	3314	25462			
26	13.912	PP	3245	33518			
27	14.156	PP	2960	36100			
28	14.552	PP	6396	103182			
29	15.204	PP	4171	57723			
30	15.416	PP	3723	41184			
31	15.612	PP	2907	22181			
32	15.788	PP	7012	44268			
33	16.452	PP	5491	107942			
34	16.572	PP	3583	50066			
35	16.948	PP	4031	41180			
36	17.204	PP	4423	45244			
37	17.412	PP	5552	59083			
38	17.616	PP	3734	41384			
39	17.940	PP	5280	44105			
40	18.084	PP	8525	75094			
41	18.348	PP	4585	31303			
42	18.516	PP	8036	54906			
43	18.700	PP	6114	82249			
44	19.416	PP	8639	226439			
45	19.840	PP	7195	113454			
46	20.200	PP	6475	64822			
47	20.276	PP	6640	59864			
48	20.608	PP	5890	59980			
49	20.696	PP	6170	60417			
50	20.932	PP	7970	129656			
51	21.456	PP	5303	108036			
52	21.392	PD	4911	87906			
TOTAL			213582	2650259	0.00000	0.00000	

Value not included in TOTAL calculation.

SB-4-6; 5-3

Sample: 9109282-02A Channel: FID 23
Acquired: 08-OCT-91 15:39 Method: C:\MAX\DATA23\351023
Dilution: 1 : 1.000 Inj Vol: 3.00
Comments: Column: 30 M DB-5 HP23

Filename: 09282-2A
Operator: IV



MAXIMA 820 CUSTOM REPORT

Printed: 8-OCT-1991 17:02:02

SAMPLE: 9109282-02A

SB-4-6; S-3

Method: 3510/3550 HIGH BOILING HC
Acquired: 8-OCT-1991 15:39
Rate: 4.2 points/sec
Duration: 32.000 minutes
Operator: IY

Type: UNKN
Instrument: HP23
Filename: 09282-2A
Index: 6
Injection Volume: 3.0
Dilution: 1.000

DETECTOR: FID 23

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Area Percent	Code	Base	Solution Conc	Component Name
1		17.55	BB	445272.14	5597339.39	100.00				
TOTAL				445272.14	5597339.39				0.00	

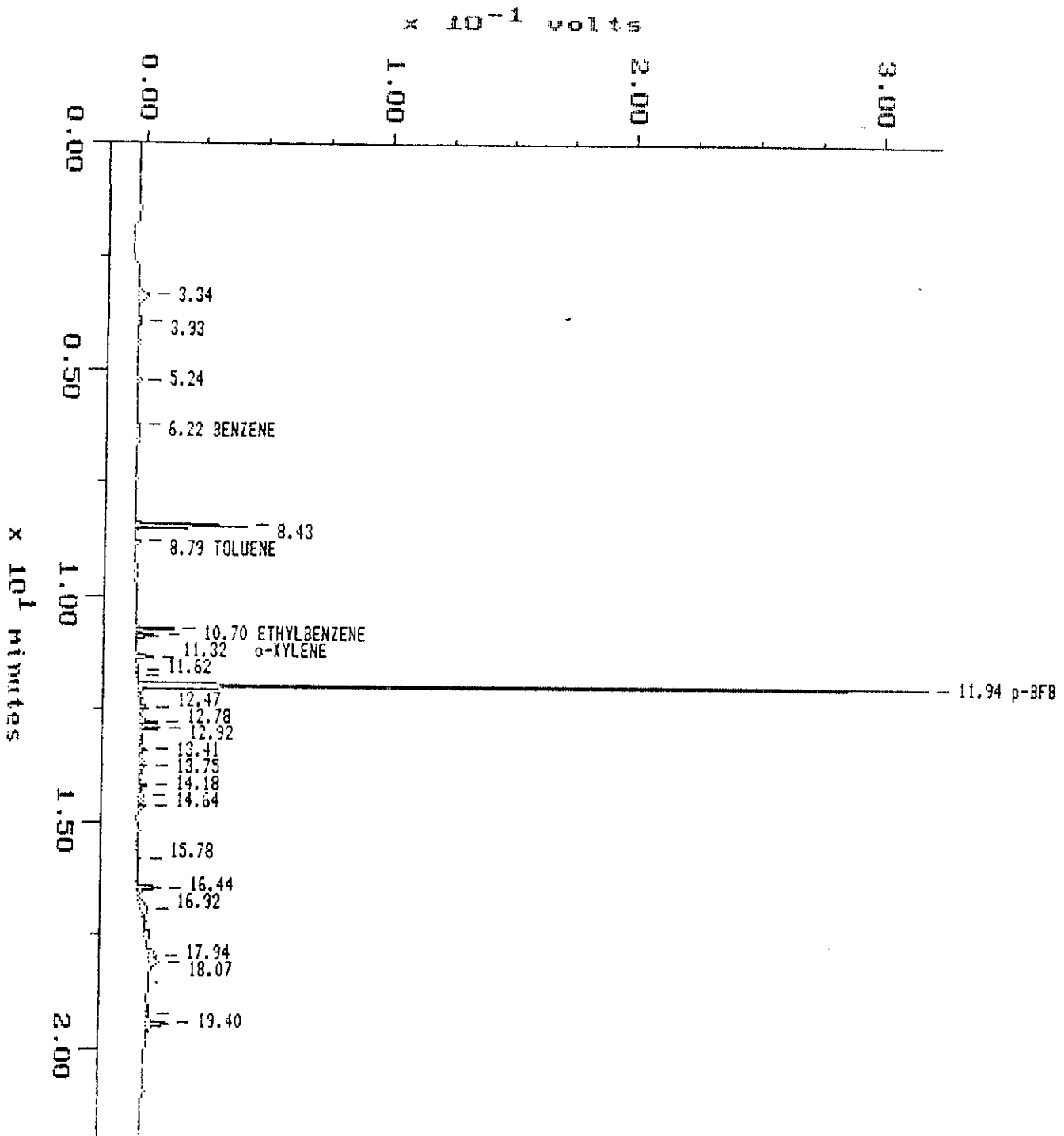
< 10 mg/kg

MW-16; S-2

Sample: 9109282-03
Acquired: 01-OCT-91 17:16
Dilution: 1 : 2.000
Comments: HP21 30M D8624

Channel: PID 21
Method: C:\MAX\DATA21\503021

Filename: 09282-03
Operator: CF

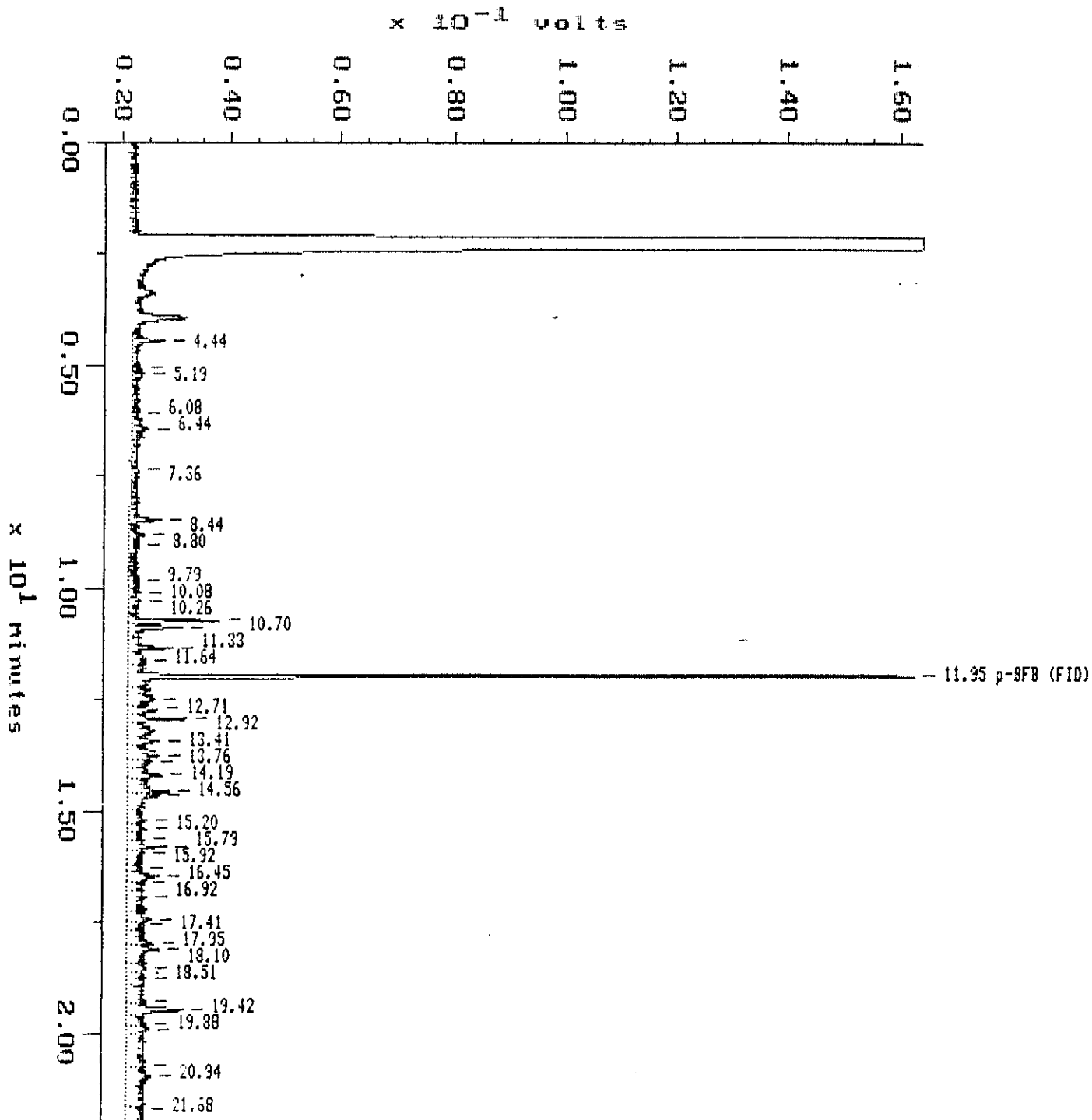


SB MW-16; 5-2

Sample: 9109282-03
Acquired: 01-OCT-91 17:16
Dilution: 1 : 2.000
Comments: HP21 30M DB624

Channel: FID 21
Method: C:\MAX\DATA21\503021

Filename: 09282-03
Operator: CF



MAXIMA 820 CUSTOM REPORT

Printed: 1-OCT-1991 18:29:23

SAMPLE: 9109282-03 MW-16; S-2

#20 in Method:

Acquired: 1-OCT-1991 17:16

Rate: 4.2 points/sec

Duration: 22.000 minutes

Operator: CF

Type: UNKN

Instrument: HP 21

Filename: 09282-03

Index: 15

Dilution: 2.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		3.340	BB	3903	35385				
2		3.932	BB	636	5345				
3		5.240	BB	1237	5356				
4	1	6.224	BB	968	3561	0.021	0.00007	0.00014	BENZENE
5		8.432	BB	45275	172963				
6	2	8.788	BB	1581	6738	0.023	0.00015	0.00030	TOLUENE
7	3	10.696	BP	15582	53493	0.026	0.00131	0.00262	ETHYLBENZENE
8	4	10.844	PB	9373	32045	0.022	0.00067	0.00134	m+p-XYLENE
9	5	11.320	BB	6624	23504	0.027	0.00060	0.00120	o-XYLENE
10		11.624	BP	595	3127				
11		11.772	PB	657	2647				
12	6	11.944	BB	322383*	1050949*	0.000	100.00000*	96%	p-BFB
13		12.472	BP	2837	19300				
14		12.780	PP	8027	34450				
15		12.916	PP	8409	39407				
16		13.408	PB	2675	9923				
17		13.748	BP	2786	26716				
18		14.184	PP	3456	16920				
19		14.404	PP	2528	26931				
20		14.640	PB	3291	14729				
21		15.784	BB	1794	9600				
22		16.440	BB	9354	44470				
23		16.920	BB	2784	54789				
24		17.940	BP	3690	53718				
25		18.072	PB	3479	20832				
26		19.220	BP	1631	20814				
27		19.404	PB	9140	59888				
TOTAL				152312	796650		0.00280	0.00560	

* Value not included in TOTAL calculation.

DETECTOR: FID 21 MW-16; S-2

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		4.444	BP	5582	40468				
2		5.088	PP	2053	22513				
3		5.188	PP	2111	29367				
4		6.080	PP	1590	28673				
5		6.444	PP	3151	75325				
6		7.364	PP	1480	18229				
7		8.440	PP	5546	65442				
8		8.804	PP	2487	33395				
9		9.012	PP	1688	30843				
10		9.792	PP	1823	27688				
11		10.080	PP	1976	12147				
12		10.256	PP	1956	31339				
13		10.704	PP	16729	69149				
14		10.856	PP	10040	54182				
15		11.328	PP	8070	60321				
16		11.636	PP	3253	39325				
17	7	11.952	PP	141192#	510396#	0.000	100.00000#		p-8FB (FID)
18		12.496	PP	4718	83081				
19		12.712	PP	5097	37184				
20		12.920	PP	10526	54163				
21		13.412	PP	5826	96316				
22		13.756	PP	5648	72908				
23		13.896	PP	4240	29018				
24		14.188	PP	6274	55497				
25		14.556	PP	7619	73150				
26		14.644	PP	5773	60821				
27		15.204	PP	3507	46746				
28		15.408	PP	3309	26143				
29		15.624	PP	3075	27465				
30		15.788	PP	7123	46583				
31		15.924	PP	2866	36081				
32		16.264	PP	2744	18688				
33		16.448	PP	5903	50241				
34		16.616	PP	3088	24792				
35		16.924	PP	3436	69741				
36		17.412	PP	4362	41565				
37		17.532	PP	3143	23496				
38		17.952	PP	4626	62743				
39		18.096	PP	5982	73374				
40		18.512	PP	3332	33413				
41		18.712	PP	3286	45520				
42		19.264	PP	3665	67763				
43		19.424	PP	10307	95373				
44		19.748	PP	3352	33695				

MW-16; S-2

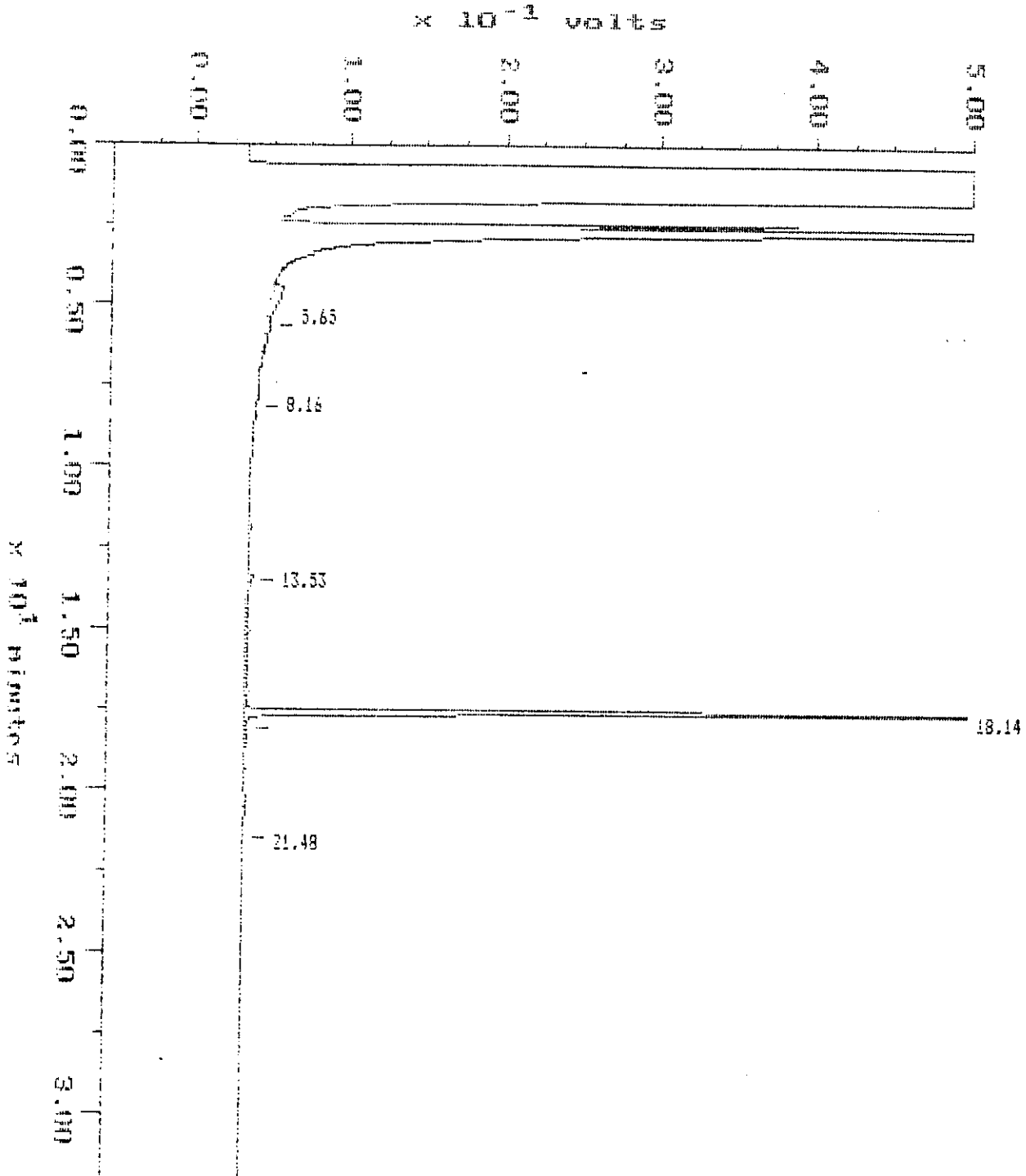
45	19.884	PP	4089	40726		
46	20.704	PP	3517	121525		
47	20.340	PP	4531	154242		
48	21.680	PD	3207	58888		
TOTAL			217767	2389347	0.00000	0.00000

Value not included in TOTAL calculation.

MW-16; S-2

Sample: 9109292-03A Channel: FID 23
Acquired: 08-OCT-91 16:26 Method: C:\MAX\DATA23\351023
Dilution: 1 : 1.000 Inj Vol: 3.00
Comments: Column: 30 M DB-5 HP25

Filename: 09292-30
Operator: IV



MAXIMA 820 CUSTOM REPORT

Printed: 8-OCT-1991 17:22:25

SAMPLE: 9109292-03A *MW-16; S-2*
#7 in Method: 3510/3550 HIGH BOILING HC
Acquired: 8-OCT-1991 16:26
Rate: 4.2 points/sec
Duration: 32.000 minutes
Operator: IV

Type: UNKN
Instrument: HP23
Filename: 09292-3A
Index: 7
Injection Volume: 3.0
Dilution: 1.000

DETECTOR: FID 23

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Area Percent	Code	Base	Solution Conc	Component Name
1		5.65	BB	2138.97	382568.63	6.03				
2		8.16	BB	140.07	33702.61	0.56				
3		13.53	BP	1770.97	206489.07	3.26				
4		18.14	PP	1278.88	5659517.02	39.23				
5		21.48	PB	32.07	38348.13	0.92				
TOTAL				5360.96	6342525.46				0.00	

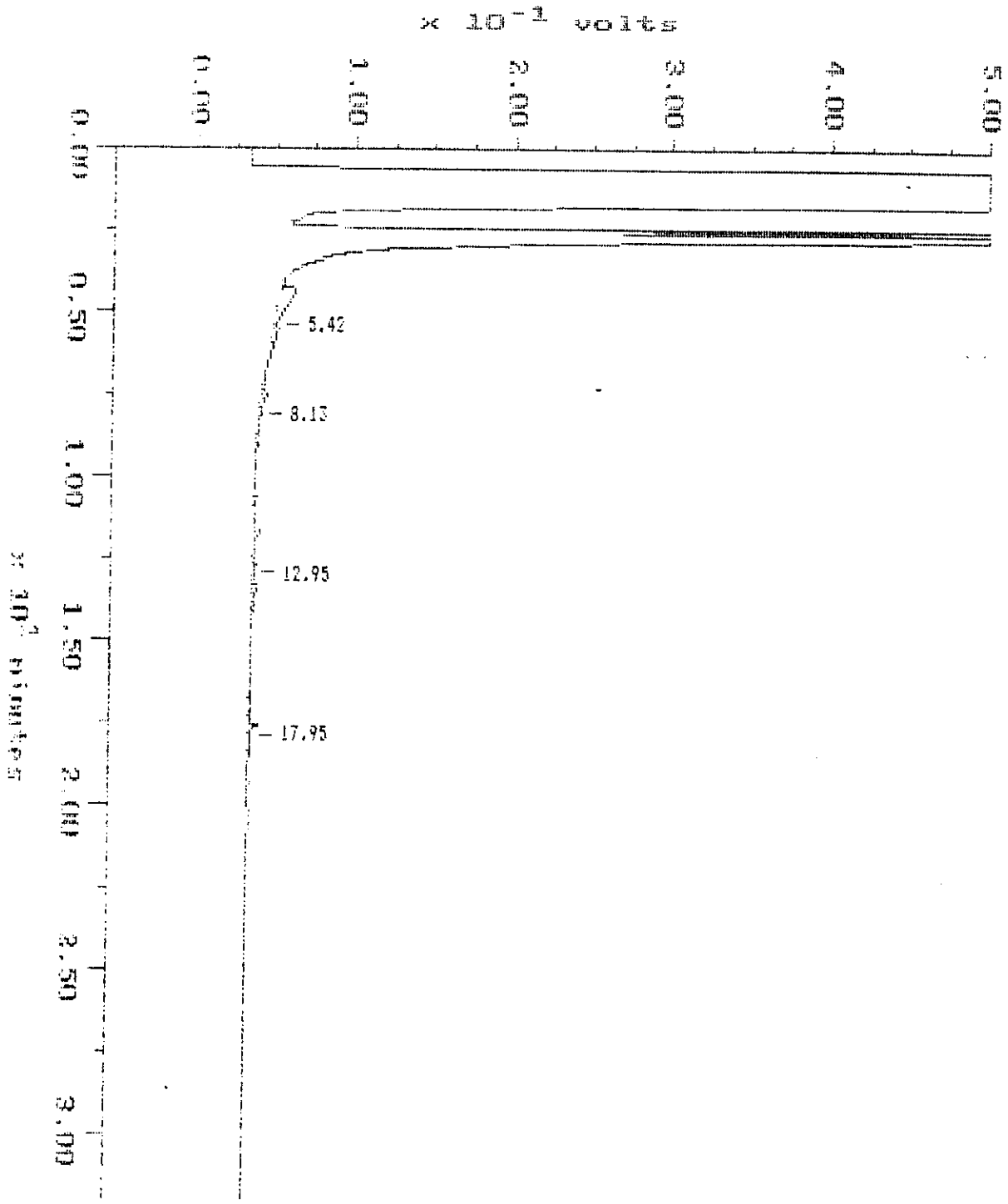
< 10 ug / kg

MW-16; S-3

Sample: 9109282-04A
Acquired: 08-OCT-91 17:26
Dilution: 1 : 1.000
Comments: Coluan: 30 M DB-5 HP23

Channel: FID 23
Method: C:\MAX\DATA23\351023
Inj Vol: 3.00

Filename: 09282-4A
Operator: IV



MAXIMA 820 CUSTOM REPORT

Printed: 8-OCT-1991 21:40:02

SAMPLE: 9109282-04A

MW-16; S-3

#4 in Method: 3510/3550 HIGH BOILING HC
Acquired: 8-OCT-1991 17:26
Rate: 4.2 points/sec
Duration: 32.000 minutes
Operator: IY

Type: UNKN
Instrument: HP23
Filename: 09282-4A
Index: Disk
Injection Volume: 3.0
Dilution: 1.000

DETECTOR: FID 23

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Area Percent	Code	Base	Solution Conc	Component Name
1		5.42	BB	900.27	458322.81	57.93				
2		8.13	BB	103.59	40495.26	5.12				
3		12.95	BB	656.84	248041.50	31.35				
4		17.95	BB	673.29	44264.33	5.60				
TOTAL				2334.00	791123.89				0.00	

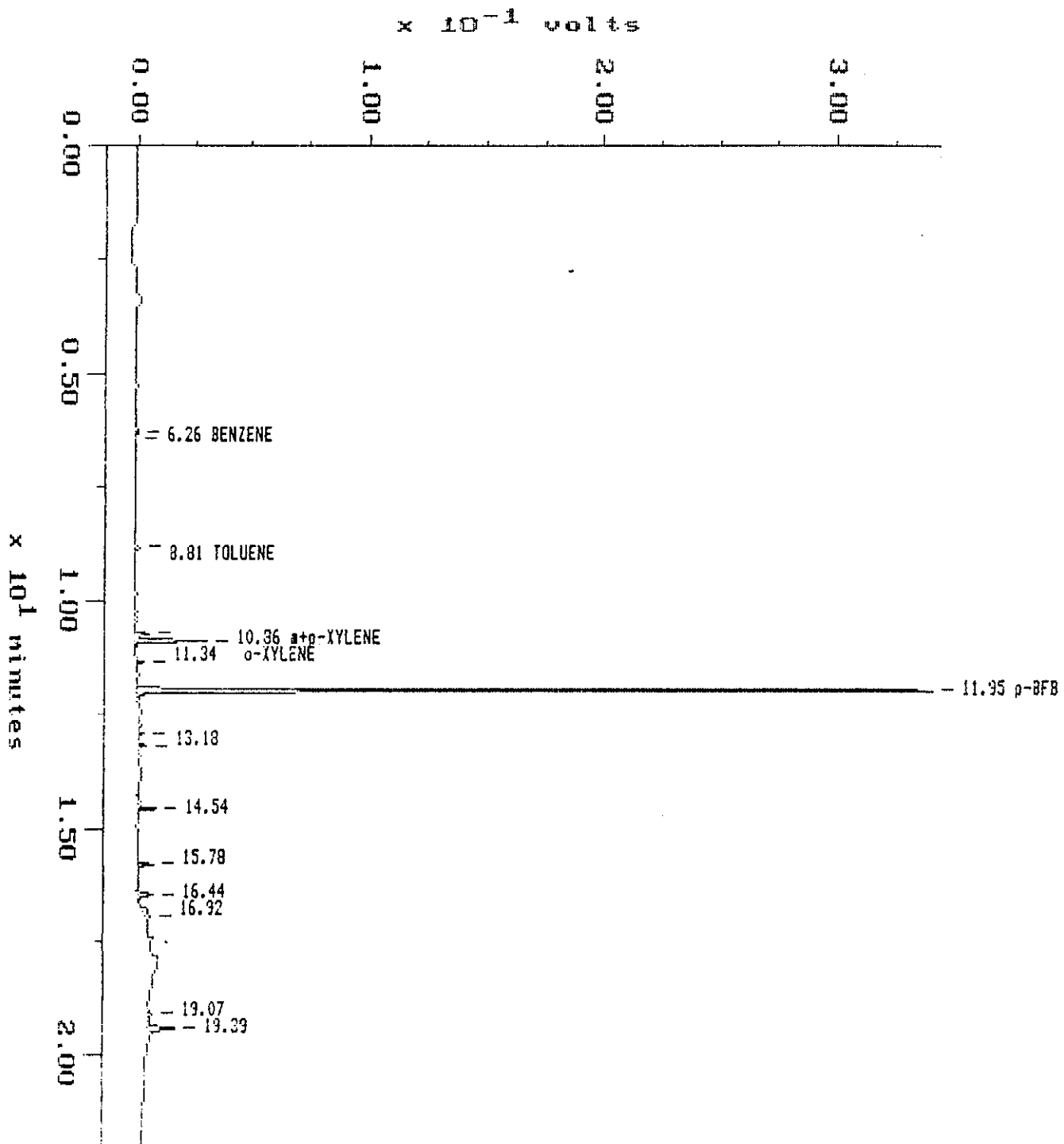
< 10 neg / kg

MW-16; S-3

Sample: 9109282-04A
Acquired: 02-OCT-91 10:12
Dilution: 1 : 5.000
Comments: HP21 30M DB624

Channel: PID 21
Method: C:\MAX\DATA21\503021

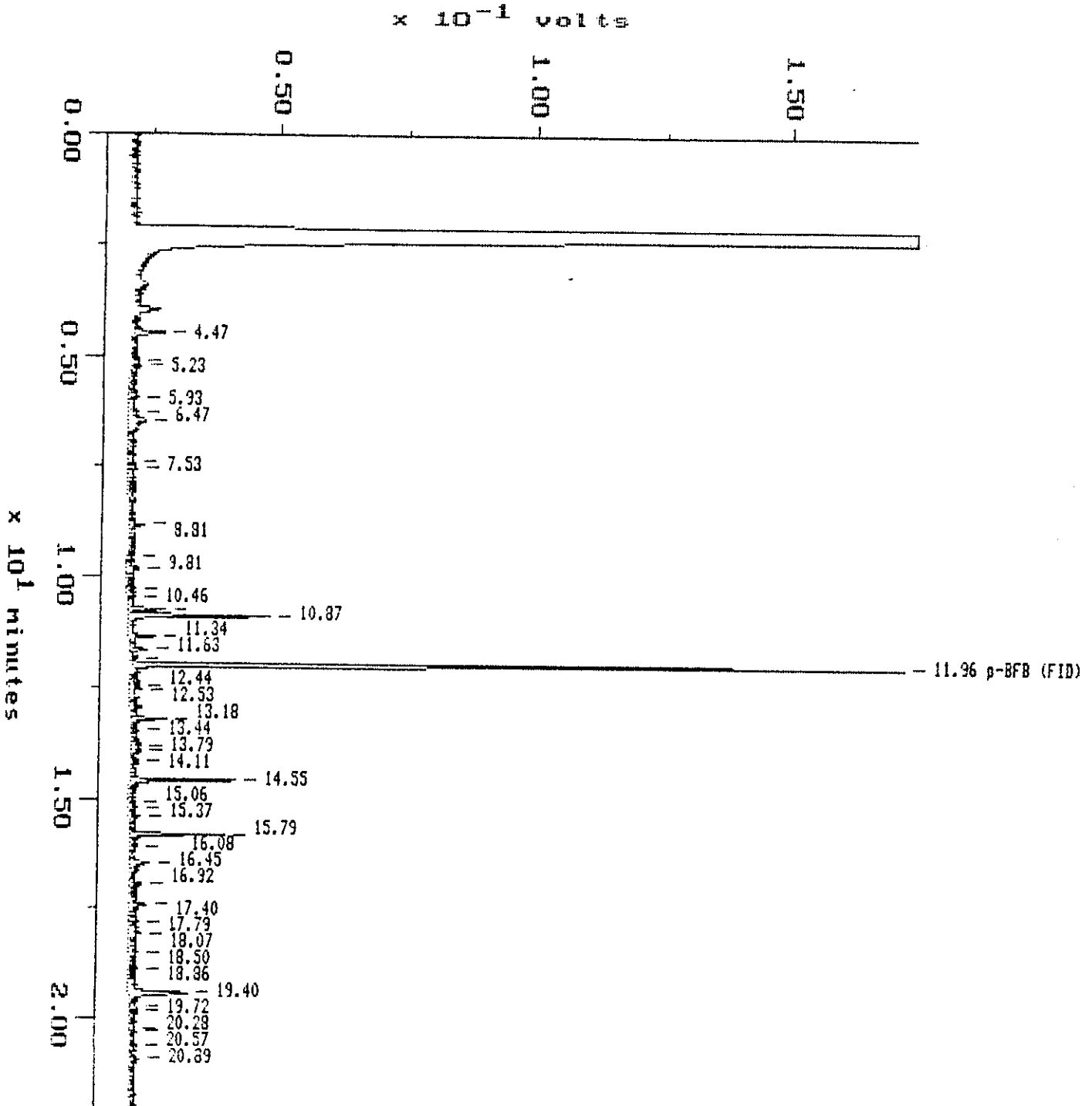
Filename: 09282-4A
Operator: CF



MW-16; S-3

Sample: 9109282-04A Channel: FID 21
Acquired: 02-OCT-91 10:12 Method: C:\MAX\DATA21\503021
Dilution: 1 : 5.000
Comments: HP21 30M DB624

Filename: 09282-4A
Operator: CF



MAXIMA 820 CUSTOM REPORT

Printed: 2-OCT-1991 11:57:48

SAMPLE: 9109282-04A *MW-16; S-3*
 #9 in Method:
 Acquired: 2-OCT-1991 10:12
 Rate: 4.2 points/sec
 Duration: 22.000 minutes
 Operator: CF

Type: UNKN
 Instrument: HP 21
 Filename: 09282-4A
 Index: 4
 Dilution: 5.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1	1	6.256	BP	945	3945	0.021	0.00008	0.00038	BENZENE
2		6.436	PB	514	2951				
3	2	8.808	BB	2067	6870	0.023	0.00015	0.00073	TOLUENE
4	3	10.708	BP	6396	22193	0.026	0.00052	0.00258	ETHYLBENZENE
5	4	10.856	PB	31591	110140	0.022	0.00219	0.01096	m+p-XYLENE
6	5	11.336	BB	3974	13408	0.027	0.00032	0.00162	o-XYLENE
7	6	11.952	BB	341692#	1105726#	0.000	100.00000#	101%	p-BFB
8		12.924	BB	1555	8523				
9		13.180	BB	2753	8462				
10		14.544	BB	8300	28448				
11		15.790	BB	6987	22437				
12		16.436	BB	6602	34078				
13		16.924	BB	2164	35311				
14		19.072	BP	1529	19989				
15		19.392	PB	11682	69228				
TOTAL				87061	385982		0.00325	0.01627	

Value not included in TOTAL calculation.

DETECTOR: FID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		4.472	BP	6339	52421				
2		5.120	PP	1807	14761				
3		5.228	PP	2054	33057				
4		5.328	PP	1646	9074				
5		6.272	PP	1756	15127				
6		6.468	PP	3374	65405				

MW-16; S-3

7	7.396	PP	1474	14230			
8	7.532	PP	1826	52141			
9	8.808	PP	2928	30949			
10	9.528	PP	1223	9198			
11	9.808	PP	2582	26074			
12	10.260	PP	1549	20470			
13	10.460	PP	1601	12131			
14	10.724	PP	7503	38193			
15	10.868	PP	27804	113748			
16	11.344	PP	5336	36215			
17	11.632	PP	3587	16020			
18	11.944	PB	1552	7658			
19	7 11.964	BB	150162#	473947#	0.000	100.00000#	p-BFB (FID)
20	12.436	BP	2039	15632			
21	12.528	PP	2033	10457			
22	13.184	PP	7230	57905			
23	13.440	PP	1406	7890			
24	13.792	PP	2195	18034			
25	13.900	PP	1970	17159			
26	14.108	PP	1826	11771			
27	14.552	PP	20762	99403			
28	15.056	PP	1437	7677			
29	15.184	PP	1846	9042			
30	15.372	PP	2012	14264			
31	15.788	PP	18749	83524			
32	16.080	PP	1528	7921			
33	16.448	PP	3778	38237			
34	16.924	PP	2602	19884			
35	17.396	PP	3202	42828			
36	17.792	PP	1688	17715			
37	18.068	PP	2163	29945			
38	18.496	PP	1578	34515			
39	18.860	PP	1668	11832			
40	19.404	PP	11624	86257			
41	19.720	PP	1700	9194			
42	19.788	PP	1612	16279			
43	20.208	PP	1142	8033			
44	20.280	PP	1633	6839			
45	20.572	PP	1403	15760			
46	20.888	PB	1738	15730			
TOTAL			178505	1290598	0.00000	0.00000	

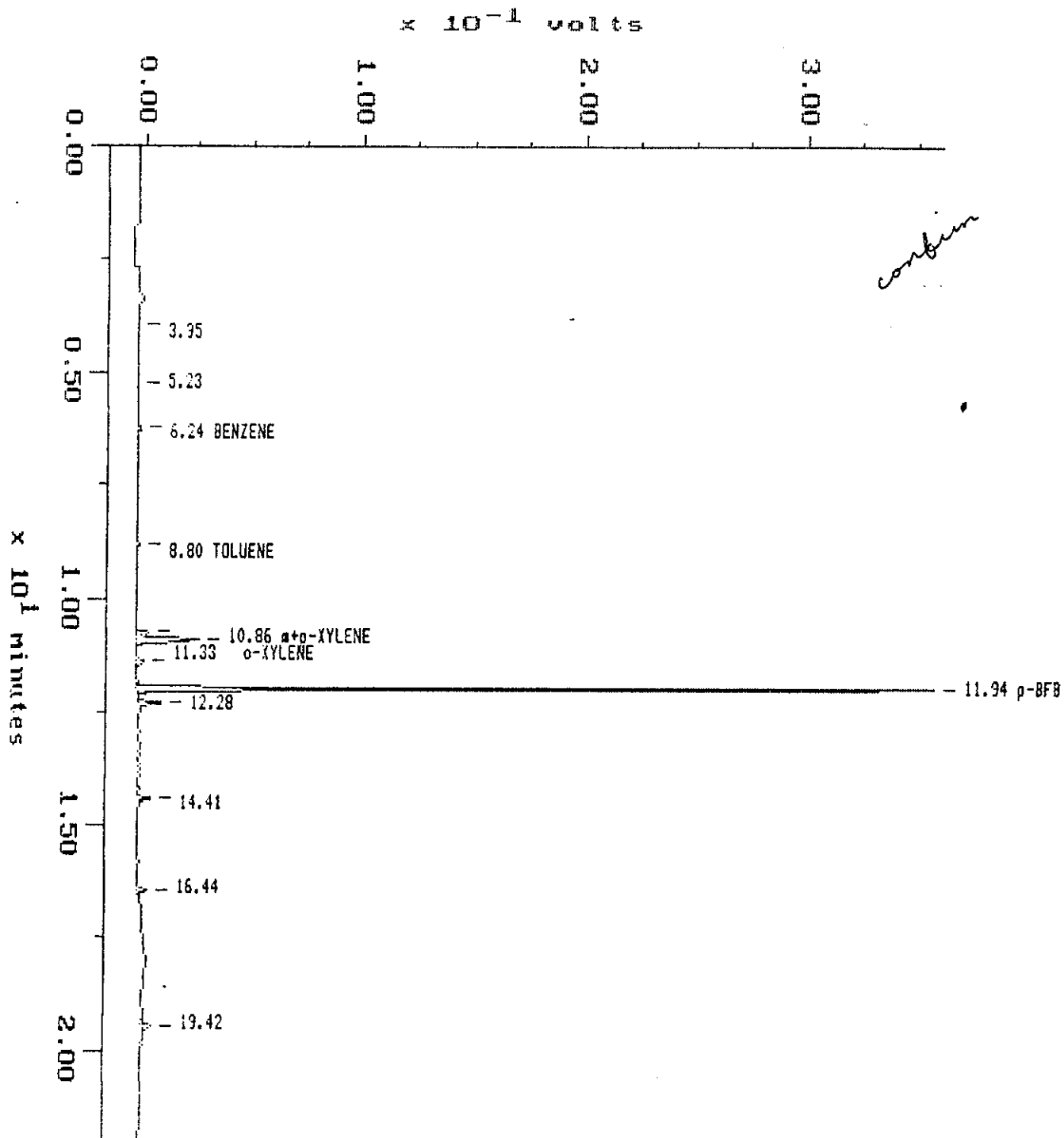
Value not included in TOTAL calculation.

TRIP BLANK

Sample: 9109282-05
Acquired: 01-OCT-91 18:27
Dilution: 1 : 1.000
Comments: HP21 30M D8624

Channel: PID 21
Method: C:\MAX\DATA21\503021

Filename: 09282-05
Operator: CF

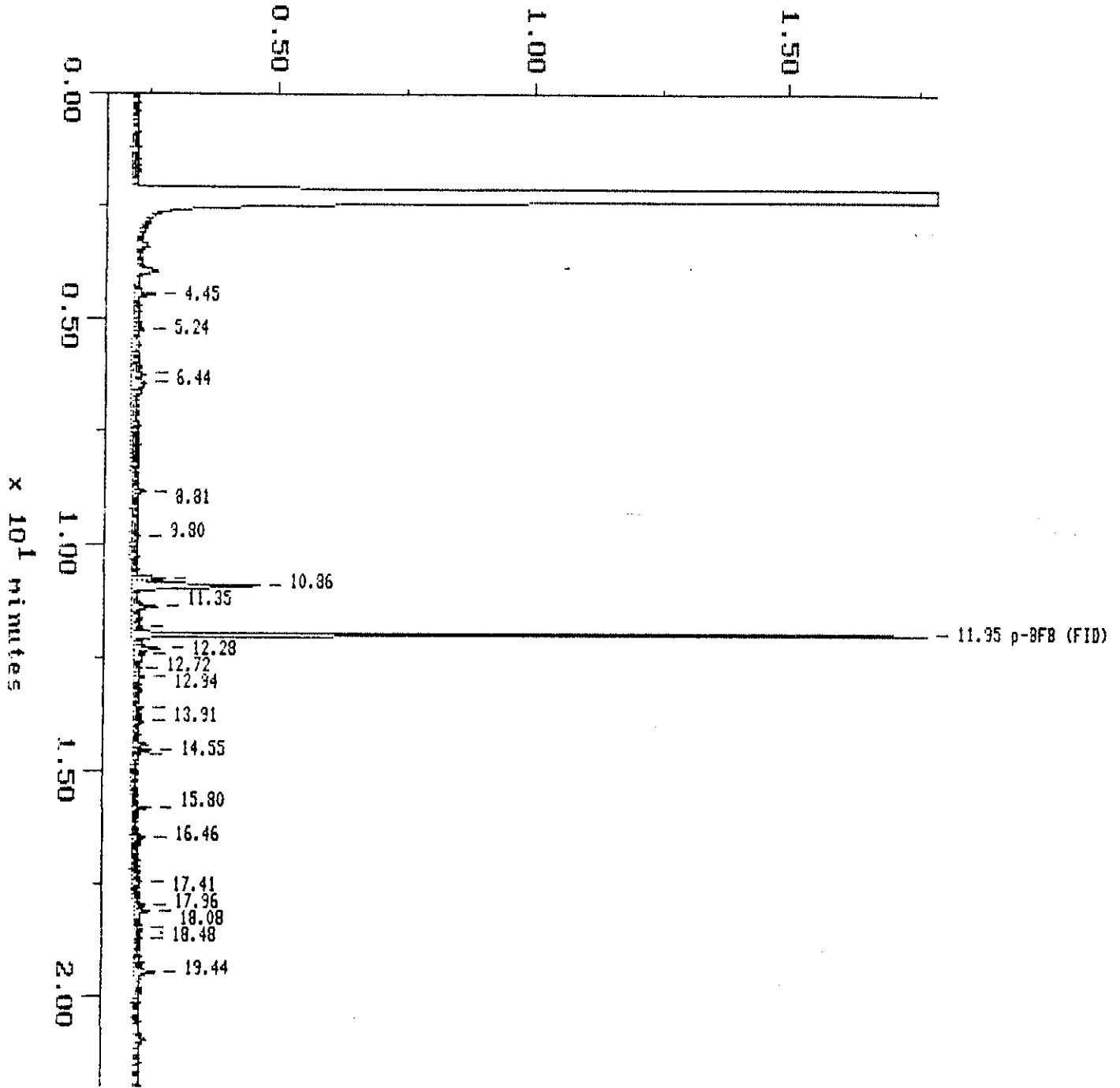


TRIP BLANK

Sample: 9109282-05 Channel: FID 21
Acquired: 01-OCT-91 18:27 Method: C:\MAX\DATA21\503021
Dilution: 1 : 1.000
Comments: HP21 30M DB624

Filename: 03282-05
Operator: CF

$\times 10^{-1}$ volts



MAXIMA 820 CUSTOM REPORT

Printed: 1-OCT-1991 19:19:01

SAMPLE: 9109282-05 **TRIP BLANK**
 #22 in Method:
 Acquired: 1-OCT-1991 18:27
 Rate: 4.2 points/sec
 Duration: 22.000 minutes
 Operator: CF

Type: UNKN
 Instrument: HP 21
 Filename: 09282-05
 Index: 17
 Dilution: 1.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		3.952	BB	340	3111				
2		5.232	BB	550	3011				
3	1	6.240	BB	1367	5166	0.021	0.00009	0.00009	BENZENE
4	2	8.796	BB	1570	5596	0.023	0.00011	0.00011	TOLUENE
5	3	10.708	BP	5629	27945	0.026	0.00061	0.00061	ETHYLBENZENE
6	4	10.856	PB	29082	175166	0.022	0.00326	0.00326	m+p-XYLENE
7	5	11.332	BB	3296	18141	0.027	0.00041	0.00041	o-XYLENE
8	6	11.944	BB	360578*	1181740*	0.000	100.00000*	107%	p-BFB
9		12.276	BB	10038	43791				
10		14.412	BB	5394	24397				
11		16.444	BB	4682	21593				
12		19.416	BB	3580	19430				
TOTAL				65528	347345		0.00449	0.00449	

* Value not included in TOTAL calculation.

DETECTOR: FID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		4.452	SP	4147	33966				
2		5.244	PP	2297	76021				
3		6.244	PP	2673	18748				
4		6.436	PP	2708	49848				
5		8.812	PP	2610	140666				
6		9.796	PP	1883	10952				
7		10.716	PP	6540	66701				
8		10.864	PP	24995	167739				
9		11.352	PP	4792	31432				

TRIP BLANK

10		11.808	PP	1637	25329			
11	7	11.952	PP	154780#	511822#	0.000	100.00000#	p-BFB (FID)
12		12.284	PP	5589	36886			
13		12.408	PP	2257	17772			
14		12.716	PP	1549	12238			
15		12.940	PP	2040	17084			
16		13.604	PP	1905	33940			
17		13.912	PP	1947	20087			
18		14.552	PP	3475	41328			
19		14.528	PP	1704	15500			
20		15.800	PP	3661	55438			
21		16.460	PP	2597	41706			
22		17.408	PP	1835	34834			
23		17.956	PP	2006	19708			
24		18.076	PP	2867	22662			
25		18.476	PP	1532	9086			
26		18.676	PP	1299	21852			
27		19.444	PB	3621	22924			
TOTAL				94166	1044447	0.00000	0.00000	

Value not included in TOTAL calculation.

ANAMETRIX INC

Environmental & Analytical Chemistry
 1961 Concourse Drive, Suite E, San Jose, CA 95131
 (408) 432-8192 • Fax (408) 432-8198

**REPORT**

MR. EDWARD ALUSOW
 DUNN GEOSCIENCE CORP.
 12 METRO PARK ROAD
 ALBANY, NY 12205

Workorder # : 9109281
 Date Received : 09/27/91
 Project ID : 02345-01983
 Purchase Order: N/A

The following samples were received at Anamatrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9109281- 1	MW-15;S-2
9109281- 2	TW-1;S-1
9109281- 3	TW-1;S-2
9109281- 4	TW-1;S-4

This report consists of 6 pages not including the cover letter, and is organized in sections according to the specific Anamatrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anamatrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anamatrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anamatrix.

Sarah Schoen, Ph.D.
 Laboratory Manager

10-10-91

Date

RECEIVED

OCT 15 1991

DUNN GEOSCIENCE CORP.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. EDWARD ALUSOW
DUNN GEOSCIENCE CORP.
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9109281
Date Received : 09/27/91
Project ID : 02345-01983
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9109281- 1	MW-15;S-2	SOIL	09/25/91	TPHd
9109281- 2	TW-1;S-1	SOIL	09/26/91	TPHd
9109281- 3	TW-1;S-2	SOIL	09/26/91	TPHd
9109281- 4	TW-1;S-4	SOIL	09/26/91	TPHd
9109281- 1	MW-15;S-2	SOIL	09/25/91	TPHg/BTEX
9109281- 2	TW-1;S-1	SOIL	09/26/91	TPHg/BTEX
9109281- 3	TW-1;S-2	SOIL	09/26/91	TPHg/BTEX
9109281- 4	TW-1;S-4	SOIL	09/26/91	TPHg/BTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. EDWARD ALUSOW
DUNN GEOSCIENCE CORP.
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9109281
Date Received : 09/27/91
Project ID : 02345-01983
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentrations reported as gasoline for samples MW-15;S-2, TW-1;S-1, and TW-1;S-2 are primarily due to the presence of a heavier petroleum product, possibly diesel fuel.

Cheryl Bealmer 10/10/91
Department Supervisor Date

Lina Shor 10/10/91
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9109281
Matrix : SOIL
Date Sampled : 09/25 & 26/91

Project Number : 02345-01983
Date Released : 10/09/91

	Reporting Limit	Sample I.D.# MW-15; S-2	Sample I.D.# TW-1; S-1	Sample I.D.# TW-1; S-2	Sample I.D.# TW-1; S-4	Sample I.D.# 21B1001A
COMPOUNDS	(mg/Kg)	-01	-02	-03	-04	BLANK
Benzene	0.005	ND	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND	ND
Total Xylenes	0.005	ND	0.018	3.9	ND	ND
TPH as Gasoline	0.5	0.9	7.8	870	ND	ND
% Surrogate Recovery		103%	82%	104%	84%	100%
Instrument I.D.		HP21	HP21	HP21	HP21	HP21
Date Analyzed		10/01/91	10/02/91	10/01/91	10/01/91	10/01/91
RLMF		1	2	250	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020.
- RLMF - Reporting Limit Multiplication Factor.
Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Laura Sher 10/9/91
Analyst Date

Chester Basma 10/9/91
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9109281
Matrix : SOIL
Date Sampled : 09/26/91

Project Number : 02345-01983
Date Released : 10/09/91

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# 21B1002A BLANK
Benzene	0.005	ND
Toluene	0.005	ND
Ethylbenzene	0.005	ND
Total Xylenes	0.005	ND
TPH as Gasoline	0.5	ND
% Surrogate Recovery		95%
Instrument I.D.		HP21
Date Analyzed		10/02/91
RLMF		1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020.
- RLMF - Reporting Limit Multiplication Factor.
Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Laura Star 10/9/91
Analyst Date

Cheryl Balmer 10/9/91
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anamatrix W.O.: 9109281
Matrix : SOIL
Date Sampled : 09/25 & 26/91
Date Extracted: 10/01/91

Project Number : 02345-01983
Date Released : 10/09/91
Instrument I.D.: HP23

Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9109281-01	MW-15;S-2	10/07/91	10	ND
9109281-02	TW-1;S-1	10/07/91	10	19
9109281-03	TW-1;S-2	10/08/91	50	1100
9109281-04	TW-1;S-4	10/07/91	10	ND
DSBL100191	METHOD BLANK	10/08/91	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.

ND - Not detected at or above the practical quantitation limit for the method.

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

C. Fan
Analyst
10.10.91
Date

Charles Balmer
Supervisor
10/10/91
Date

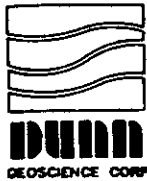
TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
 EPA METHOD 5030 WITH GC/FID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 02345-01983 TW-1;S-4
 Matrix : SOIL
 Date sampled : 09/26/91
 Date analyzed : 10/01/91

Anamatrix I.D. : 9109281-04
 Analyst : IS
 Supervisor : CA
 Date Released : 10/09/91

COMPOUND	SPIKE AMT. (mg/Kg)	MS (mg/Kg)	%REC MS	MSD (mg/Kg)	%REC MSD	RPD	%REC LIMITS
GASOLINE	1.0	0.83	83%	0.81	81%	-2%	48-145
P-BFB			94%		100%		53-147

* Limits established by Anamatrix, Inc.



Client Name: AMERICAN NATIONAL CAN Co.
 Project No.: 02345-01983
 Site Location: Oakland, CA.
 Sampler: WALTER HOWARD
 DGC Contact: EDWARD ALLISON
 Laboratory Contact: JENNIFER PAYNE
 Lab Identification:
 Date Report Required:

Sample Identification	Date	Time	Sample Matrix	Collection Vessel	Lowering Device	# Sample Containers	Preserv.	Comp. or Grab	Comment
1 MW-15; S-2	9/25/91	1425	SOIL	Brass Tube	—	1	N	Grab	TPH as reqd by GC FID (3550) TPH as Gasoline (5030) w/BTEX (8020)
2 TW-1; S-1	9/24/91	0840	"	"	—	1	N	"	"
3 TW-1; S-2 *	"	0910	"	"	—	1	N	"	"
4 TW-1; S-4	"	0935	"	"	—	1	N	"	"
									*NOTE: SAMPLE TW-1; S-2 MAY BE MODERATELY CONTAMINATED THE OTHERS SHOULD BE FAIRLY UNCONTAMINATED. SAMPLES ARE COLD, PROPER CONTAINERS, NO HEADSPACE

Name	Affiliation	Date	Time	Name	Date	Time
Relinquished by: Walter O. Howard	DUNN	9/27/91	1525	Received by Laboratory: Fadi Bachi	9-27-91	1715
Received by: Jayhi Mervin	ANAMETRIX	9/27/91	1525	Samples Intact & Properly Preserved:	Yes	or (No)
Relinquished by: Jayhi Mervin	"	9/27/91	17:15	Laboratory Comments:	cold, proper containers, no headspace.	
Received by: Fadi Bachi	"	9-27-91	17:15			

QA / QC PROBLEM SUMMARY

ANAMETRIX WORKORDER # 9109281 DEPARTMENT TPH

CLIENT PROJECT I.D. # _____ METHOD TPH₂

Problems: _____

Resolution: _____

ATTENTION DATA ENTRY: Add the following note to the report cover letter:

The concentrations reported as gasoline
for samples ~~TPH-15-1~~, TPH-15-1, and TPH-15-2
are primarily due to the presence of
a discrete hydrocarbon peak not
indicative of gasoline.
(b) a heavier petroleum product, possibly
diesel or kerosene.

TOTAL FUEL HYDROCARBON REPORT

TPH as Diesel

Workorder # 9109281

Client DOC

Date Extracted 10-01-91

Project # 02345-01983

Matrix SOIL

Instrument ID # 9

ANAMETRIX ID#	CLIENT ID#	DATE ANALYZED	DILUTION	AMOUNT FOUND
9109281-01	MW-15; S-2	10-07-91	1:1	< 10 ug/kg
-02	TW-1, S-1	10-07-91	1:1	19 ug/kg
-03	TW-1; S-2	10-08-91	1:5	1100 ^{ug/kg} 1200 ug/kg
-04	TW-1; S-4	10-07-91	1:1	< 10 ug/kg
BSBLR100191	Method Blank	10-08-91	1:1	< 10 ug/kg

Date: 10-08-91

Date: 10-8-91

Analyst: IT

Reviewer: CB

METHODS DONE ARE THOSE SPECIFIED BY CRWQCB.

TOTAL FUEL HYDROCARBON REPORT

TPHg with BTEX

Workorder # 9109281

Client Project # 02345-01983

ANAMETRIX ID #	-01	-02	-03	-04	218001A
CLIENT ID #	MW-1S; S-2	TW-1; S-1	TW-1; S-2	TW-1; S-4	Blank
CONCENTRATION UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BENZENE	<0.005	<0.01	<1.2	<0.005	<0.005
TOLUENE					
ETHYLBENZENE					
XYLENES		0.018	3.9		
GASOLINE	5 0.9	7.8	870	50 ^{<0.5}	550 ^{<0.5}
% SURROGATE RECOVERY	103%	82%	104%	84%	100%
INSTRUMENT #	HP21	HP21	HP21	HP21	HP21
DATE ANALYZED	1 Oct 91	2 Oct 91	1 Oct 91	1 Oct 91	1 Oct 91
RLMF *	1	2	250	1	1

Date: 2 Oct 91

Date: 10/2/91

Analyst: Ci Fan

Reviewer: AM

METHODS DONE ARE THOSE SPECIFIED BY CRWQCB.
 Anamatrix, Inc. GC Department Form 2-1

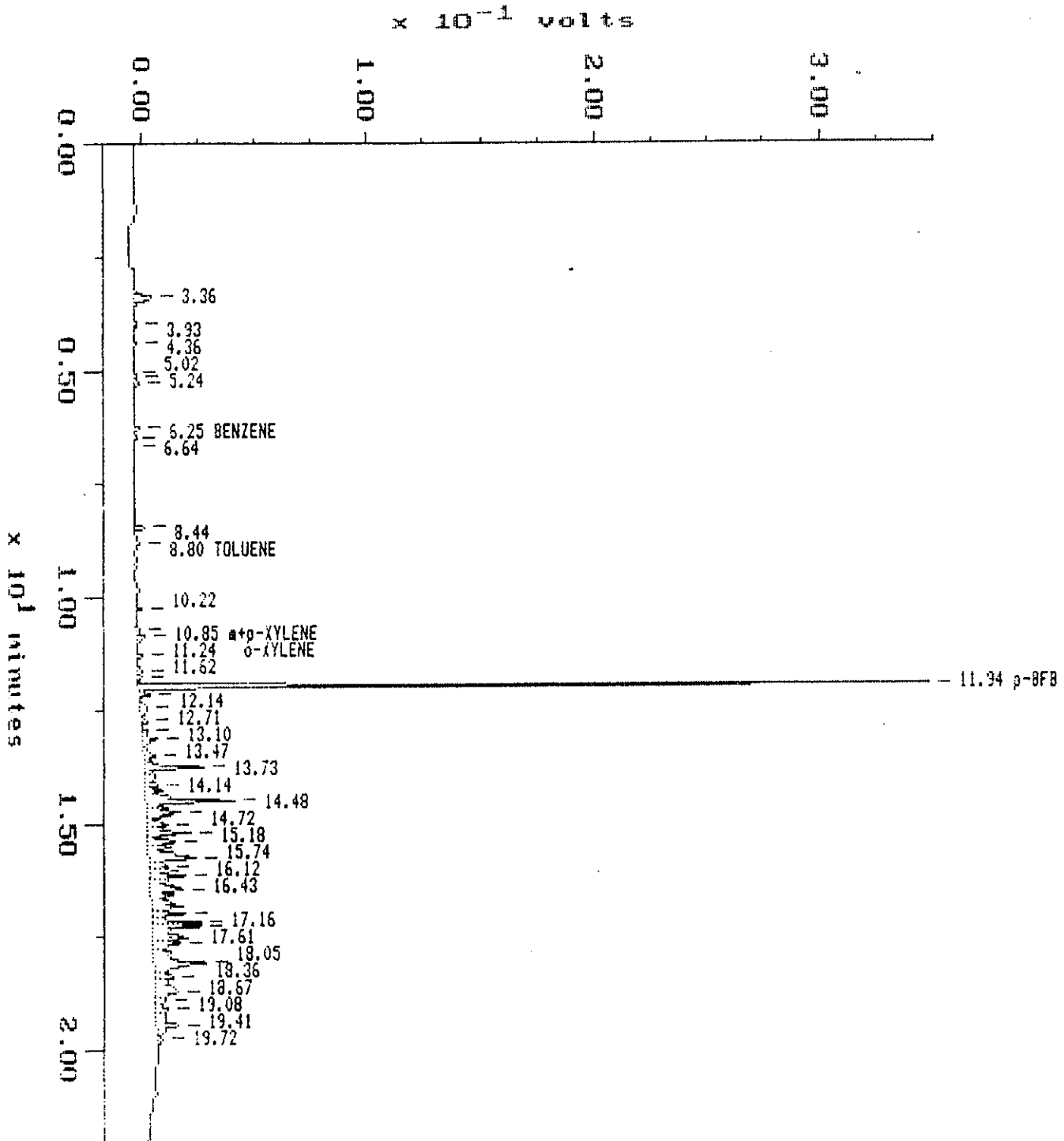
* RLMF - Reporting Limit Multiplication Factor

/1330(/2913)

MW-15; S-2

Sample: 9109281-01 Channel: PID 21
Acquired: 01-OCT-91 14:14 Method: C:\MAX\DATA21\503021
Dilution: 1: 5.000
Comments: HP21 30M JB624

Filename: 09281-01
Operator: CF

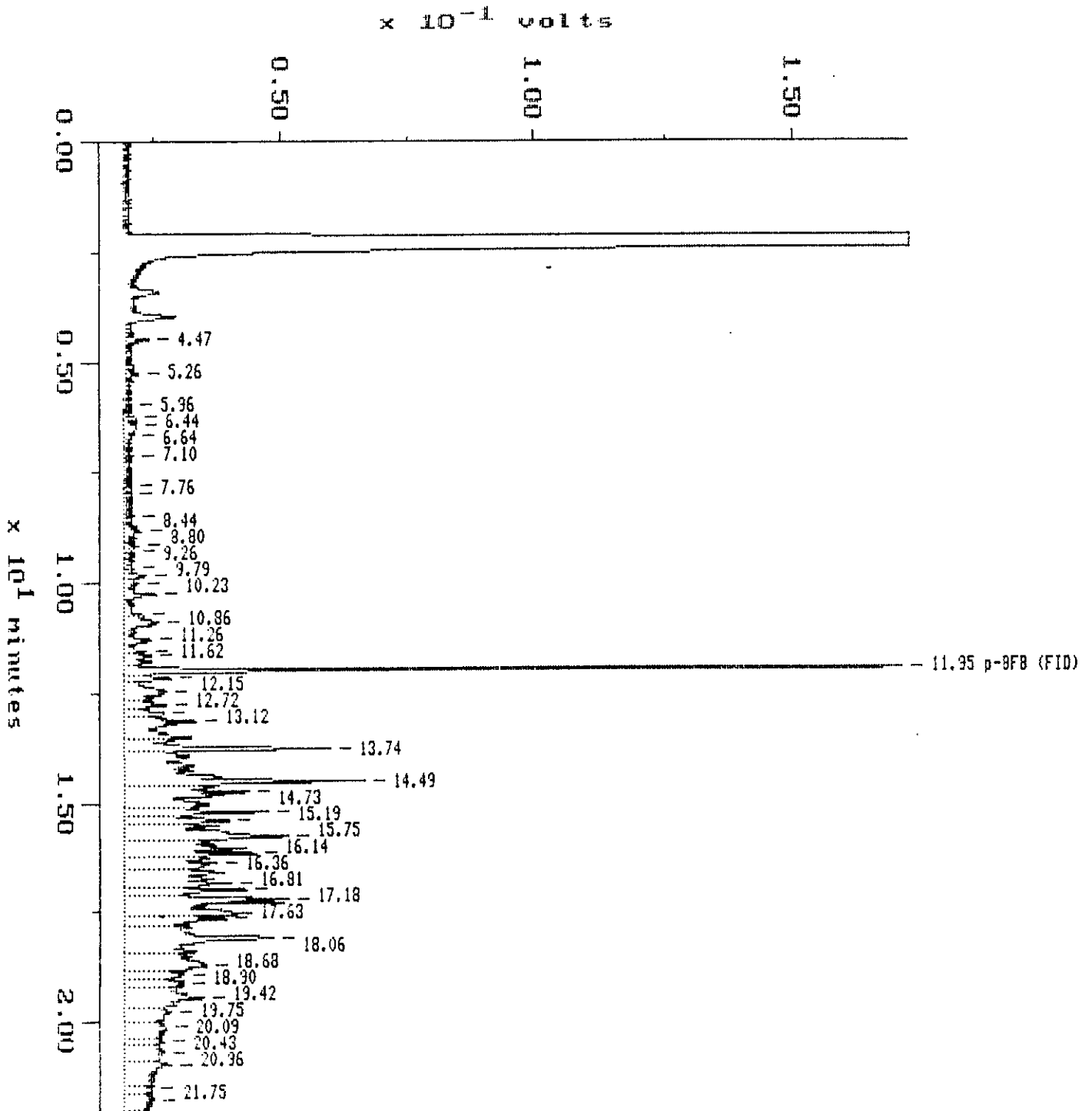


MW-15; S-2

Sample: 9109281-01
Acquired: 01-OCT-91 14:14
Dilution: 1 : 5.000
Comments: HP21 30M DB624

Channel: FID 21
Method: C:\MAX\DATA21\503021

Filename: 09281-01
Operator: CF



MW-15; S-2

MAXIMA (c)1987 Dynamic Solutions, Division of Millipore

MAXIMA 820 CUSTOM REPORT

Printed: 1-OCT-1991 14:54:40

SAMPLE: 9109281-01

#15 in Method:

Acquired: 1-OCT-1991 14:14

Rate: 4.2 points/sec

Duration: 22.000 minutes

Operator: CF

Type: JNKN

Instrument: HP 21

Filename: 09281-01

Index: 10

Dilution: 5.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		3.356	BB	7543	64194				
2		3.932	BB	702	5539				
3		4.360	BB	361	1594				
4		5.020	BP	180	1210				
5		5.112	PP	414	1473				
6		5.236	PB	1686	7116				
7	1	6.248	BP	1716	7968	0.021	0.00015	0.00075	BENZENE
8		6.460	PP	325	3268				
9		6.644	PB	178	894				
10		8.436	BB	4280	15606				
11	2	8.796	BB	1638	5387	0.023	0.00011	0.00056	TOLUENE
12		10.224	BB	2694	11679				
13	3	10.692	BP	1962	9623	0.026	0.00022	0.00109	ETHYLBENZENE
14	4	10.848	PB	3973	29034	0.022	0.00056	0.00282	m+p-XYLENE
15	5	11.240	BB	2403	14474	0.027	0.00034	0.00171	o-XYLENE
16		11.620	BP	1845	13465				
17		11.748	PP	1563	5897				
18	6	11.936	PP	348575*	1133471*	0.000	100.00000*	103%	p-BFB
19		12.136	PB	4217	20210				
20		12.432	BP	3278	35147				
21		12.712	PP	2780	12460				
22		12.920	PP	2295	11826				
23		13.100	PP	6008	45188				
24		13.468	PP	5285	44415				
25		13.728	PP	26481	159496				
26		14.140	PP	5306	65157				
27		14.476	PP	39081	310913				
28		14.720	PP	15284	109369				
29		15.004	PP	8723	65765				
30		15.184	PP	19871	121221				
31		15.368	PP	11911	79056				
32		15.736	PP	20973	230376				
33		15.944	PP	3529	58902				
34		16.124	PP	15638	139976				

MW-15; S-2

35	16.432	PP	14880	337928
36	16.960	PP	14620	78904
37	17.164	PP	22237	109333
38	17.244	PP	21693	234292
39	17.612	PP	12229	90068
40	18.052	PP	22604	292241
41	18.360	PP	8271	58344
42	18.668	PP	9830	153313
43	18.884	PP	4551	33885
44	19.076	PP	4988	42009
45	19.408	PP	9860	117510
46	19.720	PB	1791	11952

TOTAL			375677	3266676	0.00138	0.00692
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Value not included in TOTAL calculation.

DETECTOR: FID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		4.472	BP	4284	41908				
2		5.256	PP	2487	43877				
3		5.960	PP	1387	12431				
4		6.240	PP	2800	19177				
5		6.436	PP	2843	34640				
6		6.644	PP	2040	20984				
7		7.096	PP	1912	48113				
8		7.756	PP	1879	17993				
9		7.968	PP	1737	32320				
10		8.444	PP	2078	25847				
11		8.804	PP	3474	49544				
12		9.128	PP	3329	17010				
13		9.260	PP	2314	20812				
14		9.636	PP	2205	19330				
15		9.792	PP	4662	35202				
16		9.996	PP	2920	23279				
17		10.232	PP	6340	55690				
18		10.696	PP	4168	34598				
19		10.860	PP	7042	84077				
20		11.264	PP	5376	45683				
21		11.520	PP	4557	27733				
22		11.624	PP	5659	74730				
23	7	11.948	PP	152133#	515358#	0.000	100.00000#		p-3FB (FID)
24		12.148	PP	9214	58672				
25		12.444	PP	9558	136005				

MW-15; S-2

26	12.724	PP	8665	50373
27	12.924	PP	7947	50446
28	13.120	PP	14379	283639
29	13.740	PP	40487	276853
30	14.488	PP	47419	707095
31	14.732	PP	24439	502498
32	15.192	PP	28191	185471
33	15.372	PP	20744	160582
34	15.752	PP	32033	443987
35	16.136	PP	25960	418260
36	16.364	PP	18133	250695
37	16.812	PP	21309	376951
38	16.972	PP	23794	164524
39	17.176	PP	32082	569833
40	17.628	PP	20124	179289
41	18.064	PP	29399	554445
42	18.684	PP	16424	325829
43	18.900	PP	12065	104771
44	19.112	PP	12037	122095
45	19.424	PP	15722	309250
46	19.752	PP	9496	144485
47	20.092	PP	8596	167735
48	20.428	PP	7741	51956
49	20.688	PP	7958	150374
50	20.956	PP	9216	218262
51	21.484	PP	5737	52344
52	21.752	PD	5918	110100

TOTAL

599279

7951799

0.00000

0.00000

* Value not included in TOTAL calculation.

MW-15; S-2

Sample: 9109281-01A Channel: FID 23
Acquired: 07-OCT-91 17:05 Method: C:\MAX\DATA23\351023
Dilution: 1 : 1.000 Inj Vol: 3.00
Comments: Coluan: 30 M DB-5 HP23

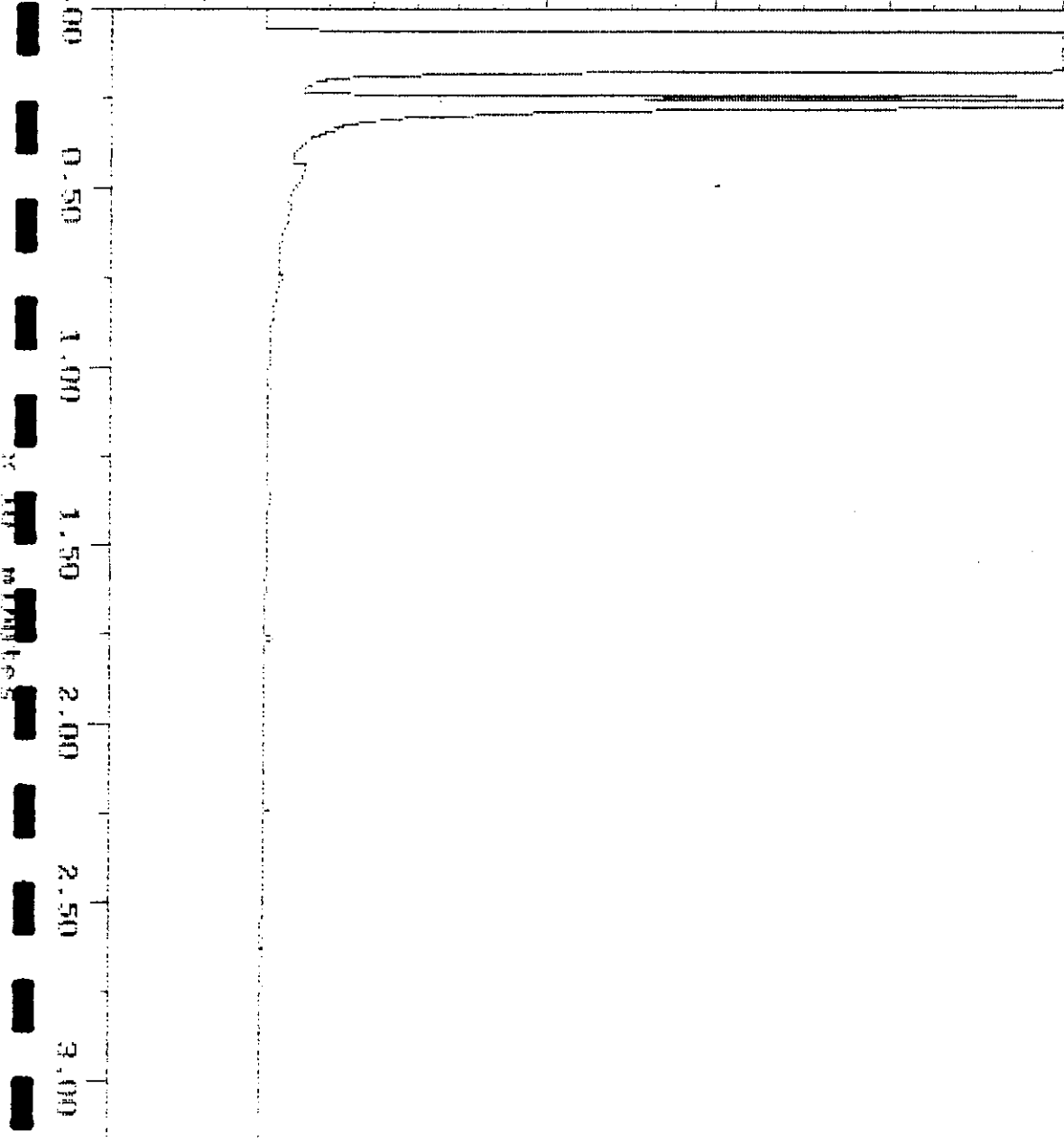
Filename: 09281-1A
Operator: IY

$\times 10^{-1}$ volts

0.00 1.00 2.00 3.00 4.00 5.00

0.00
0.50
1.00
1.50
2.00
2.50
3.00

$\times 10^{-1}$ minutes



MW-15; S-2

MAXIMA (c)1987 Dynamic Solutions. Division of Millipore

MAXIMA 820 CUSTOM REPORT

Printed: 8-OCT-1991 9:02:12

SAMPLE: 9109281-01A

#1 in Method: 3510/3550 HIGH BOILING HC
Acquired: 7-OCT-1991 17:05
Rate: 4.2 points/sec
Duration: 32.000 minutes
Operator: IV

Type: UNKN
Instrument: HP23
Filename: 09281-1A
Index: 1
Injection Volume: 3.0
Dilution: 1.000

DETECTOR: FID 23

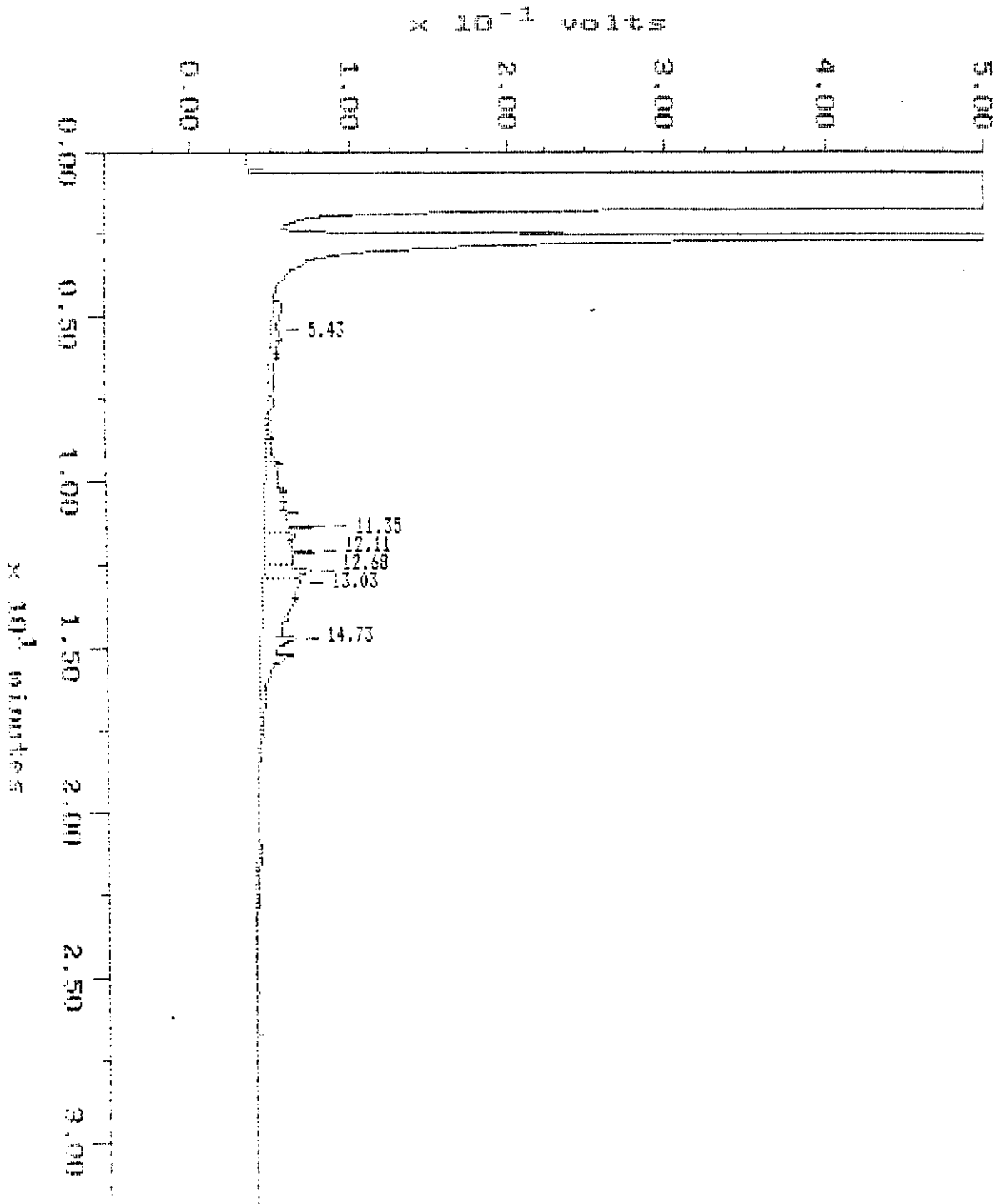
PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Area Percent	Code	Base	Solution Conc	Component Name
TOTAL				0.00	0.00				0.00	

< 10 ng / kg

TW-1; S-1

Sample: 9109281-02A Channel: FID 23
Acquired: 07-OCT-91 17:44 Method: C:\MAX\DATA23\351023
Dilution: 1 : 1.000 Inj Vol: 3.00
Comments: Column: 30 M DB-5 HP23

Filename: 09281-2A
Operator: IV



TW-1; S-1

MAXIMA (c)1987 Dynamic Solutions. Division of Millipore

MAXIMA 820 CUSTOM REPORT

Printed: 9-OCT-1991 12:07:45

SAMPLE: 9109281-02A

#2 in Method: 3510/3550 HIGH BOILING HC

Acquired: 7-OCT-1991 17:44

Rate: 4.2 points/sec

Duration: 32.000 minutes

Operator: IV

Type: UNKN

Instrument: HP23

Filename: 09281-2A

Index: Disk

Injection Volume: 3.0

Dilution: 1.000

DETECTOR: FID 23

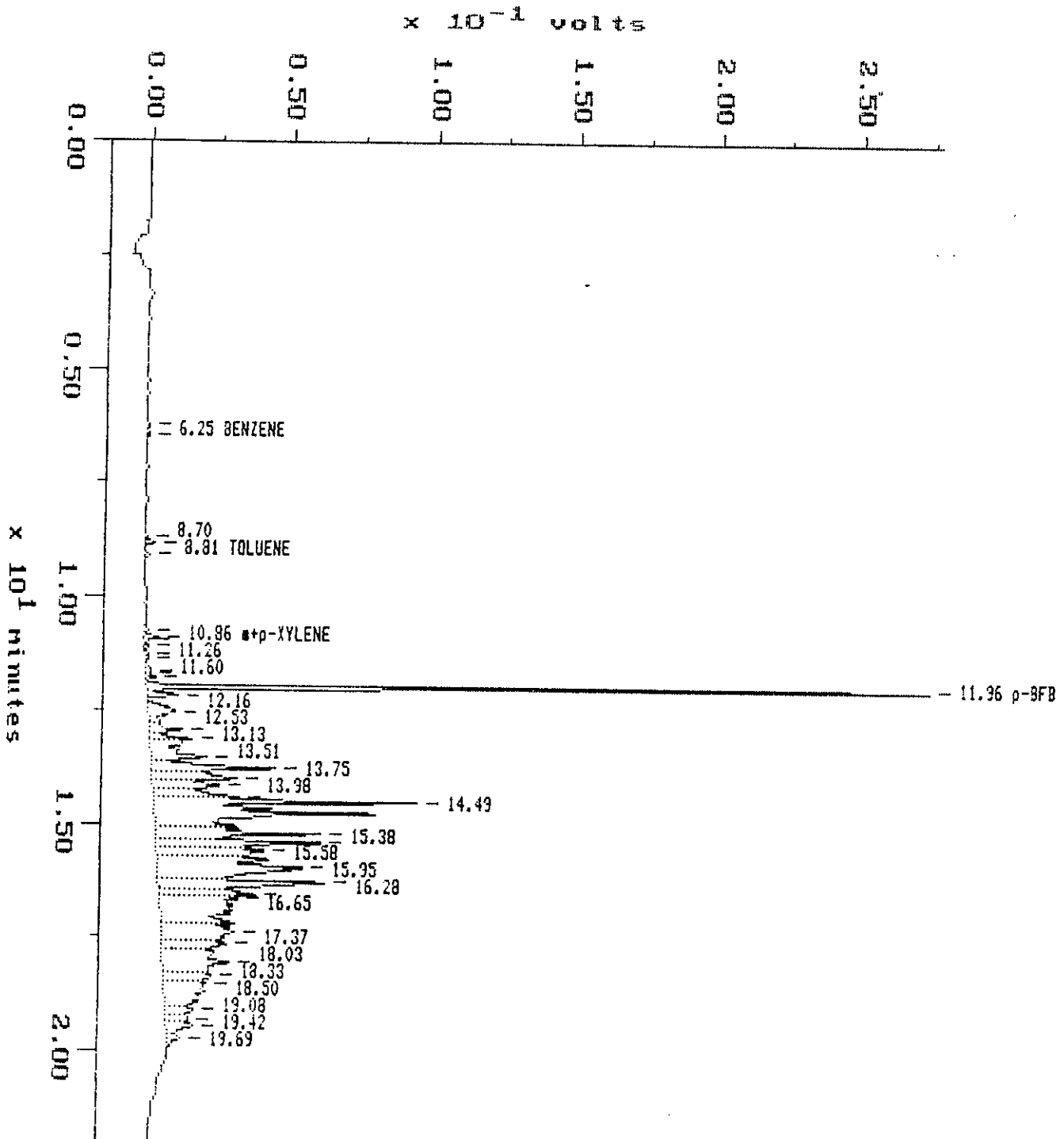
PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Area Percent	Code	Base	Solution Conc	Component Name
1		5.43	BB	2676.84	638683.97	9.63				
2		11.35	BP	36826.14	1529893.55	23.08				
3		12.11	PP	30237.92	1018899.86	15.37				
4		12.68	PP	30519.49	578382.23	8.73				
5		13.03	PP	22795.20	2776371.13	41.88				
6		14.73	PB	40577.77	86648.83	1.31				
TOTAL				163633.37	6628979.57				0.00	

$$\frac{6628979.57 \times 0.086}{10 \times 3} = 19 \text{ mg/kg}$$

TW-1; S-1

Sample: 9109281-02A Channel: PID 21
Acquired: 02-OCT-91 11:04 Method: C:\MAX\DATA21\503021
Dilution: 1 : 25.000
Comments: HP21 30M DB624

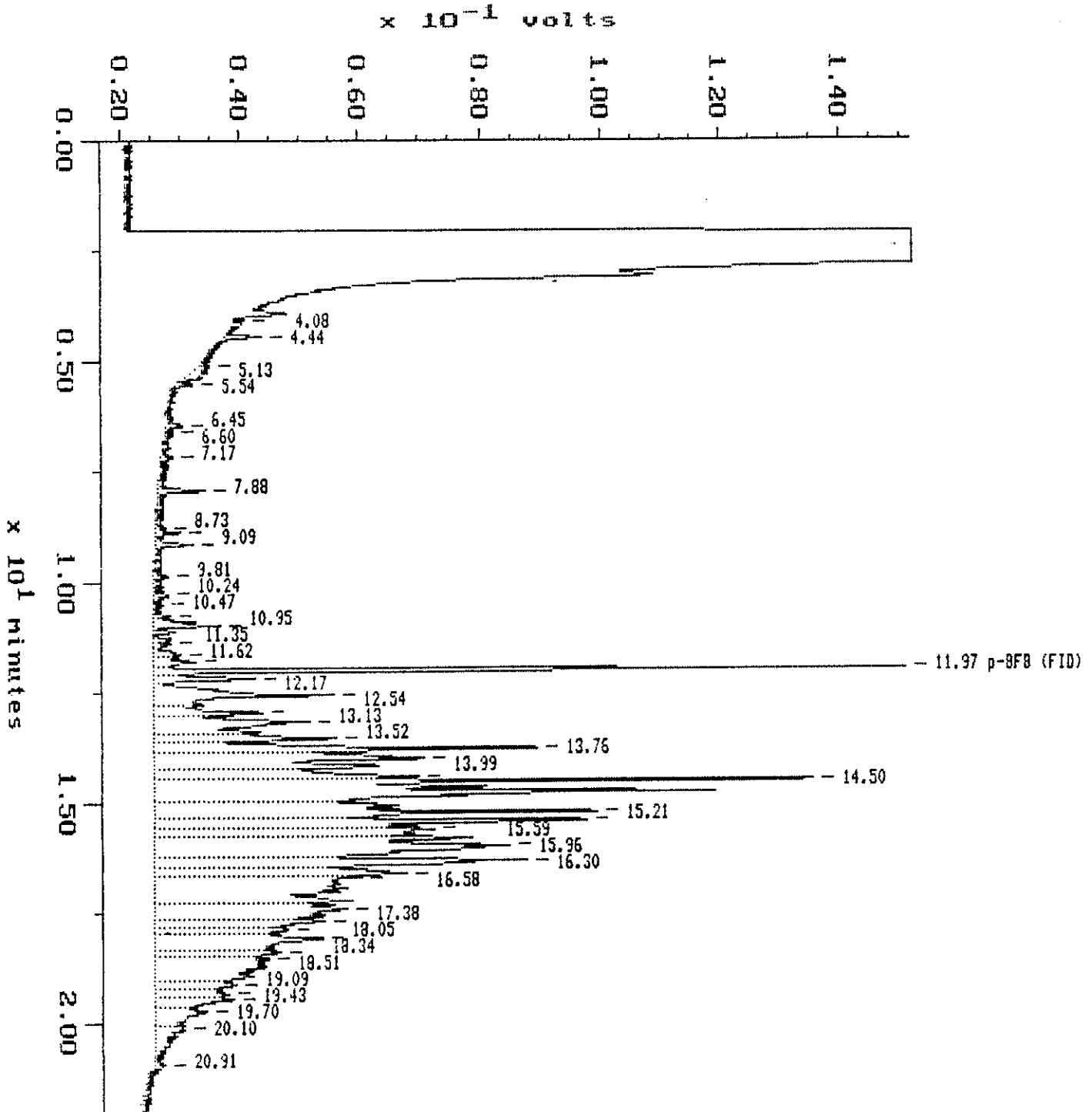
Filename: 09281-2A
Operator: CF



TTW-1; S-1

Sample: 9109281-02A Channel: FID 21
Acquired: 02-OCT-91 11:04 Method: C:\MAX\DATA21\503021
Dilution: 1 : 25.000
Comments: HP21 30M DB624

Filename: 09281-2A
Operator: CF



MAXIMA 820 CUSTOM REPORT

Printed: 2-OCT-1991 12:01:52

SAMPLE: 9109281-02A

TW-1;S-1

#10 in Method:

Acquired: 2-OCT-1991 11:04

Rate: 4.2 points/sec

Duration: 22.000 minutes

Operator: CF

Type: UNKN

Instrument: HP 21

Filename: 09281-2A

Index: 5

Dilution: 25.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1	1	6.248	BB	719	2549	0.021	0.00006	0.00151	BENZENE
2		6.440	BB	643	3098				
3		8.700	BP	552	1990				
4	2	9.812	PB	3502	14092	0.023	0.00037	0.00919	TOLUENE
5		9.080	BB	1261	4641				
6	3	10.716	BP	1380	4879	0.026	0.00014	0.00350	ETHYLBENZENE
7	4	10.864	PP	5176	22266	0.022	0.00055	0.01366	m+p-XYLENE
8		10.932	PB	1806	4127				
9		11.084	BB	1581	6809				
10		11.256	BP	1472	6691				
11	5	11.348	PB	1222	5546	0.027	0.00017	0.00413	o-XYLENE
12		11.604	BP	1719	10875				
13		11.680	PP	1293	5077				
14		11.772	PP	3270	13360				
15	6	11.956	PP	274359#	897097#	0.000	100.00000#	82%	p-BFB
16		12.156	PP	10891	52897				
17		12.528	PP	9896	155138				
18		12.924	PP	11273	78306				
19		13.128	PP	14796	92657				
20		13.508	PP	19983	285610				
21		13.752	PP	43911	307690				
22		13.976	PP	30453	289684				
23		14.140	PP	23937	198525				
24		14.400	PP	30926	284612				
25		14.492	PP	92467	1460360				
26		15.196	PP	58229	498322				
27		15.384	PP	58544	525204				
28		15.580	PP	38639	382323				
29		15.952	PP	51041	1041261				
30		16.284	PP	59071	508816				
31		16.364	PP	34339	310570				
32		16.648	PP	28264	362839				
33		17.368	PP	26556	480821				
34		17.540	PP	22873	225049				

TW-1; S-1

35	18.028	PP	23316	534941		
36	18.328	PP	16994	166054		
37	18.496	PP	14767	393801		
38	19.076	PP	9849	89975		
39	19.284	PP	7892	71575		
40	19.416	PP	9128	92171		
41	19.692	PB	4252	35677		
TOTAL			777924	9530880	0.00128	0.03199

‡ Value not included in TOTAL calculation.

DETECTOR: FID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		4.080	SP	1535	16367				
2		4.440	PP	5445	31716				
3		5.132	PP	2211	48195				
4		5.540	PP	3083	13722				
5		6.448	PP	2729	27706				
6		6.604	PP	1253	7159				
7		7.172	PP	2186	27077				
8		7.980	PP	7730	82856				
9		8.728	PP	1722	9890				
10		8.812	PP	4154	21290				
11		9.092	PP	6376	36900				
12		9.812	PP	2131	40007				
13		10.240	PP	2383	20239				
14		10.472	PP	1624	10376				
15		10.716	PP	2881	15598				
16		10.948	PP	11558	111442				
17		11.352	PP	2871	15855				
18		11.620	PP	4689	40168				
19		11.776	PP	7278	55471				
20	7	11.968	PP	125247‡	425483‡	0.000	100.00000‡		p-BFB (FID)
21		12.168	PP	17092	96698				
22		12.540	PP	30573	330520				
23		12.932	PP	18521	148975				
24		13.132	PP	26128	395148				
25		13.516	PP	30810	249797				
26		13.764	PP	64011	456557				
27		13.988	PP	45303	767171				
28		14.412	PP	44657	449975				
29		14.504	PP	110095	1702905				
30		15.208	PP	74086	397092				

TW-1; S-1

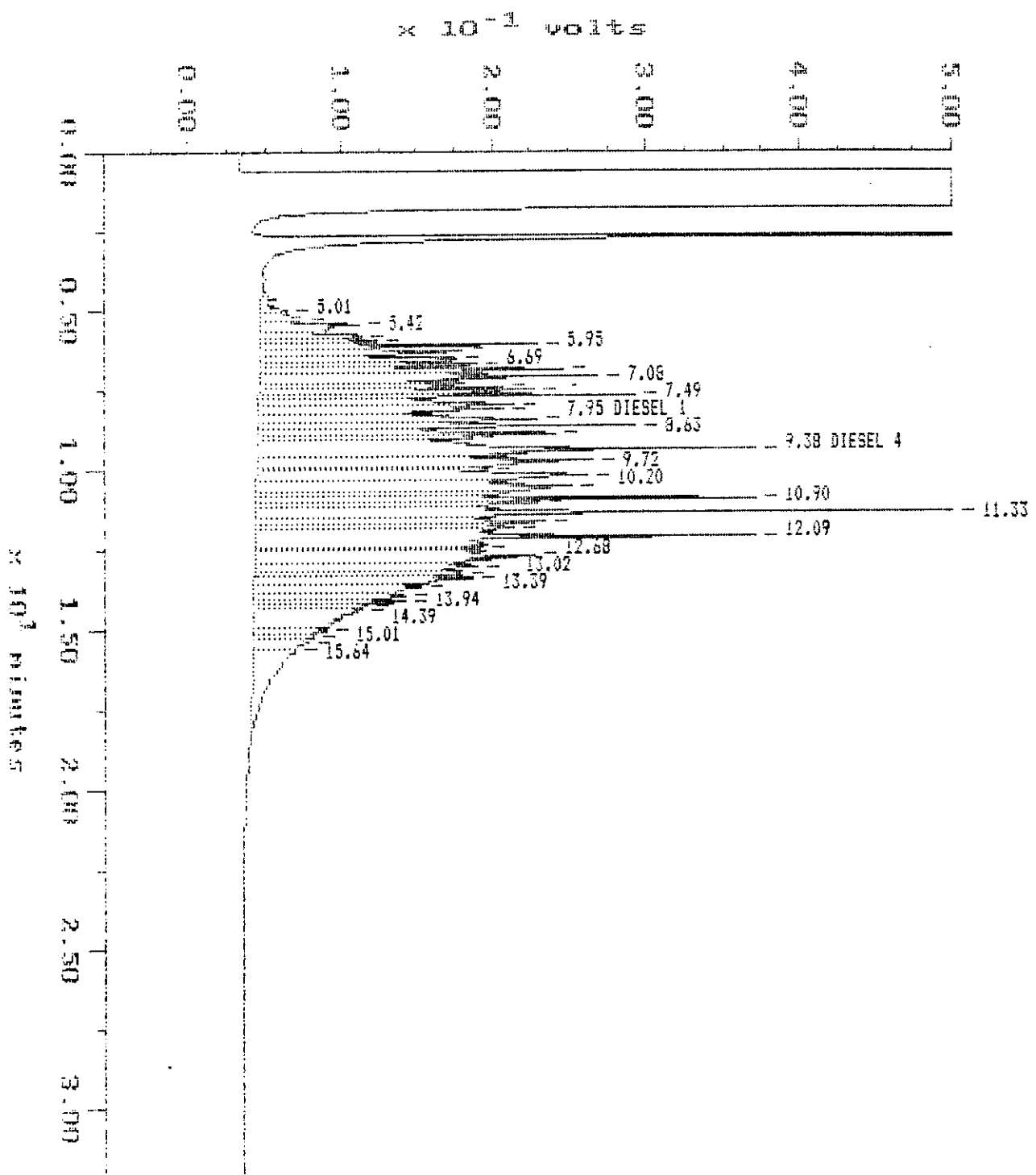
31	15.392	PP	72522	697635		
32	15.588	PP	46936	465963		
33	15.964	PP	59283	1306307		
34	16.296	PP	62261	583700		
35	16.576	PP	42653	390503		
36	16.664	PP	35006	1082184		
37	17.380	PP	32389	613496		
38	17.652	PP	28648	271431		
39	17.828	PP	22733	231724		
40	18.052	PP	28259	434380		
41	18.344	PP	21489	184350		
42	18.512	PP	19419	542062		
43	19.088	PP	13926	128839		
44	19.312	PP	12479	132722		
45	19.428	PP	13593	142935		
46	19.700	PP	8667	144720		
47	20.096	PP	5043	108695		
48	20.912	PB	1879	14519		
			-----	-----	-----	-----
TOTAL			1063303	13603037	0.00000	0.00000

* Value not included in TOTAL calculation.

TW-1; S-2

Sample: 9109291-03 Channel: FID 23
Acquired: 08-DEC-91 14:05 Method: C:\MAX\DATA23\351023
Dilution: 1 : 5.000 Inj Vol: 3.00
Comments: Column: 30 M DB-5 HP23

Filename: 09291-38
Operator: IY



MAXIMA 820 CUSTOM REPORT

Printed: 8-OCT-1991 15:02:17

SAMPLE: 9109281-03

TW-1; S-2

44 in Method: 3510/3550 HIGH BOILING HC
 Acquired: 8-OCT-1991 14:05
 Rate: 4.2 points/sec
 Duration: 32.000 minutes
 Operator: IY

Type: UNKN
 Instrument: HP23
 Filename: 09281-38
 Index: 4
 Injection Volume: 3.0
 Dilution: 5.000

DETECTOR: FID 23

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Area Percent	Code	Base	Solution Conc	Component Name
1		5.01	BP	16933.44	312007.32	0.39				
2		5.26	PP	27170.90	338784.78	0.43				
3		5.42	PP	65022.83	946410.34	1.19				
4		5.81	PP	66804.06	490633.09	0.62				
5		5.95	PP	77001.58	660866.11	0.83				
6		6.07	PP	182254.46	1091999.02	1.38				
7		6.25	PP	133514.42	1234963.90	1.56				
8		6.49	PP	129158.51	1367346.78	1.73				
9		6.69	PP	142963.90	946962.17	1.19				
10		6.84	PP	200658.82	1489975.52	1.88				
11		7.08	PP	222089.32	2739076.43	3.46				
12		7.39	PP	161531.35	1293040.28	1.63				
13		7.49	PP	180969.62	1530392.85	1.93				
14		7.56	PP	245496.18	1277222.94	1.61				
15	1	7.95	PP	167355.91	1942012.43	2.45	EXT	AREA	Invalid	DIESEL 1
16	2	8.10	PP	161613.84	1667655.84	2.10	EXT	AREA	Invalid	DIESEL 2
17		8.40	PP	183949.49	2163588.63	2.73				
18		8.63	PP	246225.39	1890223.78	2.38				
19	3	8.86	PP	195588.97	1631134.53	2.06	EXT	AREA	Invalid	DIESEL 3
20		9.00	PP	142258.07	1171589.60	1.48				
21	4	9.38	PP	324985.54	5426350.47	6.85	EXT	AREA	Invalid	DIESEL 4
22		9.72	PP	219991.95	3262345.50	4.12				
23	5	10.00	PP	152320.88	978111.40	1.23	EXT	AREA	Invalid	DIESEL 5
24		10.20	PP	217453.86	3350449.01	4.23				
25		10.53	PP	207870.75	3245773.77	4.10				
26	6	10.71	PP	166516.32	1526304.11	1.93	EXT	AREA	Invalid	DIESEL 6
27		10.90	PP	326982.78	2048369.04	2.58				
28		11.02	PP	186520.72	1555072.04	1.96				
29		11.33	PP	467239.67	4102056.37	5.18				
30		11.53	PP	191445.73	1972515.06	2.49				
31		11.81	PP	170033.00	1386766.84	1.75				
32		12.09	PP	327114.62	5490957.42	6.93				
33		12.44	PP	149915.83	925523.55	1.17				
34		12.68	PP	185249.71	3753448.20	4.74				

TW-1; S-2

35	13.92	PP	147732.63	1816139.30	2.29
36	13.27	PP	137741.94	1318466.54	1.66
37	13.39	PP	144273.06	2008496.21	2.53
38	13.66	PP	109920.87	1622865.48	2.05
39	13.94	PP	99476.83	970679.83	1.22
40	14.12	PP	99458.11	656023.72	0.83
41	14.24	PP	74828.28	497130.14	0.63
42	14.39	PP	71080.22	2184333.34	2.76
43	15.01	PP	48730.38	546459.73	0.69
44	15.21	PP	40349.37	273759.44	0.35
45	15.40	PP	36672.12	548063.79	0.69
46	15.64	PB	28230.91	1605180.70	2.03
TOTAL			7280697.14	79257527.34	0.00

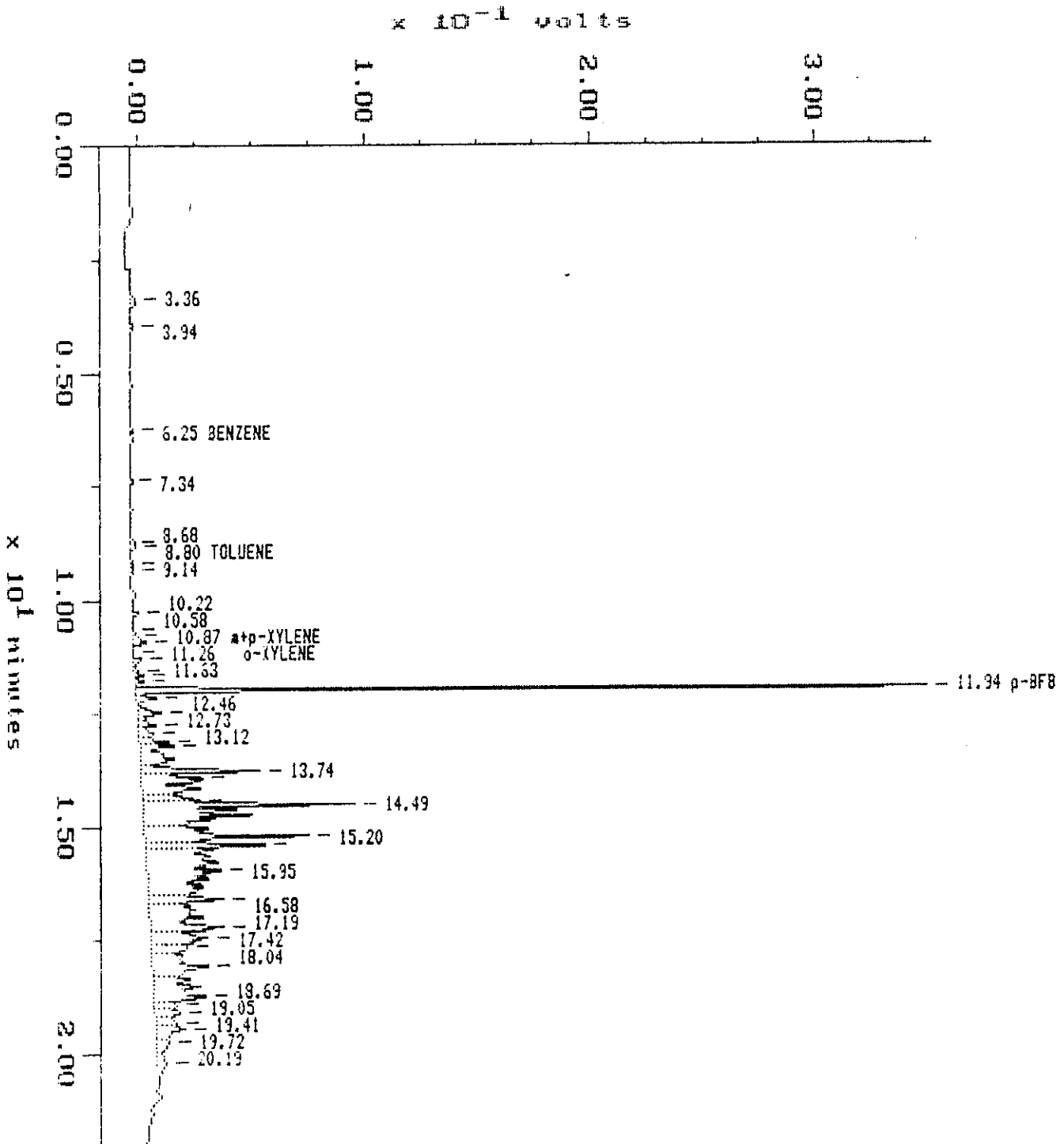
$$\frac{5 \times (79257 \times 0.036)}{10 \times 3} = \overset{1100}{1200} \text{ mg / kg}$$

TW-1; S-2

Sample: 9109281-03
Acquired: 01-OCT-91 15:20
Dilution: 1 : 2500.000
Comments: HP21 30M 08624

Channel: PID 21
Method: C:\MAX\DATA21\503021

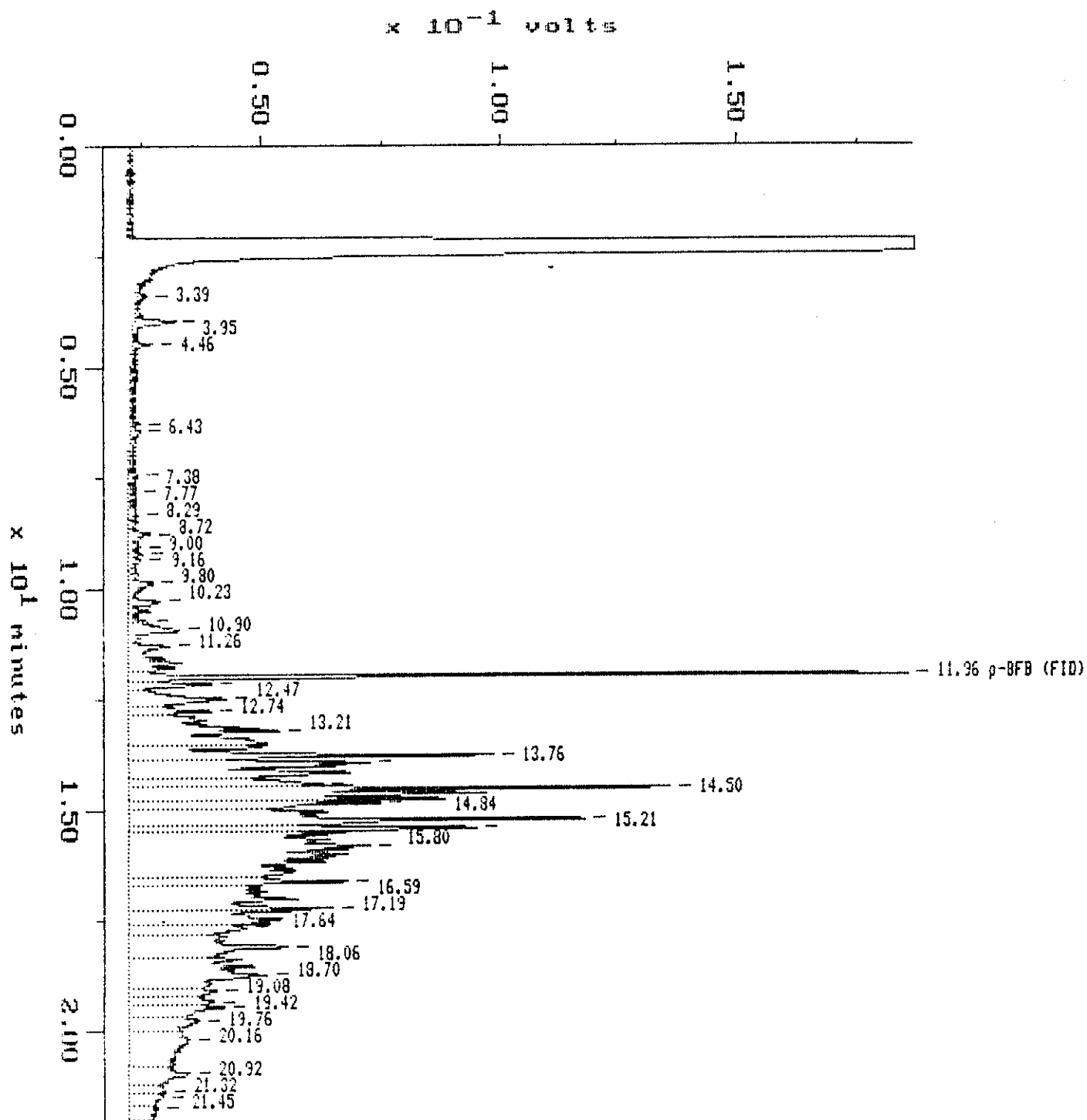
Filename: 09281-03
Operator: CF



TW-1; S-2

Sample: 9109281-03 Channel: FID 21
Acquired: 01-OCT-91 15:20 Method: C:\MAX\DATA21\503021
Dilution: 1 : 2500.000
Comments: HP21 30M DB624

Filename: 09281-03
Operator: CF



MAXIMA 820 CUSTOM REPORT

Printed: 1-OCT-1991 16:22:53

TW-1; S-2

SAMPLE: 9109281-03

#17 in Method:

Acquired: 1-OCT-1991 15:20

Rate: 4.2 points/sec

Duration: 22.000 minutes

Operator: CF

Type: UNKN

Instrument: HP 21

Filename: 09281-03

Index: 12

Dilution: 2500.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		3.360	BB	2413	21040				
2		3.936	BB	792	6296				
3	1	6.248	BB	964	3752	0.021	0.00007	0.17532	BENZENE
4		7.340	BB	257	3256				
5		9.684	BP	1400	8226				
6	2	8.800	PB	1681	7480	0.023	0.00015	0.38363	TOLUENE
7		9.144	BP	891	4584				
8		9.288	PB	872	4808				
9		10.224	BB	3032	17711				
10		10.584	BB	26	-110				
11	3	10.724	BP	1764	6979	0.026	0.00016	0.39376	ETHYLBENZENE
12	4	10.872	PP	6004	50602	0.022	0.00098	2.44208	m+p-XYLENE
13		11.088	PP	174	954				
14	5	11.260	PB	4020	24819	0.027	0.00058	1.45606	o-XYLENE
15		11.508	BP	1374	6139				
16		11.628	PP	3434	16876				
17		11.760	PB	3788	13579				
18	6	11.944	BP	349792*	1140102*	0.000	100.00000*	104%	p-BFB
19		12.140	PP	8777	45203				
20		12.460	PP	10164	96429				
21		12.728	PP	7602	44843				
22		12.936	PP	6418	54784				
23		13.116	PP	13312	75953				
24		13.196	PP	15324	275478				
25		13.744	PP	51999	292975				
26		13.904	PP	26646	511875				
27		14.400	PP	25163	191538				
28		14.488	PP	93494	1110030				
29		15.196	PP	71551	680171				
30		15.388	PP	52710	332859				
31		15.952	PP	32393	1499891				
32		16.580	PP	33075	219933				
33		17.188	PP	32745	700936				
34		17.416	PP	25694	302465				

TW-1; S-2

35	17.632	PP	16297	158589		
36	18.044	PP	24381	440168		
37	18.692	PP	22370	483060		
38	18.884	PP	9444	78129		
39	19.052	PP	11090	104940		
40	19.296	PP	9873	90616		
41	19.412	PP	12249	129763		
42	19.724	PP	6060	79007		
43	20.188	PB	3787	65970		
TOTAL			655504	8262876	0.00194	4.85085

‡ Value not included in TOTAL calculation.

DETECTOR: FID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		3.388	BP	1960	17196				
2		3.952	PP	8786	87383				
3		4.460	PP	4001	55964				
4		6.256	PP	1886	23243				
5		6.432	PP	2412	53545				
6		7.376	PP	2131	22358				
7		7.772	PP	1531	10323				
8		8.288	PP	1696	33223				
9		8.716	PP	4357	51144				
10		9.004	PP	2256	17917				
11		9.160	PP	3049	17101				
12		9.300	PP	2579	27274				
13		9.804	PP	5290	77858				
14		10.232	PP	6477	72528				
15		10.712	PP	4255	30114				
16		10.896	PP	11024	117778				
17		11.256	PP	8604	231515				
18	7	11.956	PP	163589‡	576378‡	0.000	100.00000‡		p-BFB (FID)
19		12.140	PP	17868	123178				
20		12.472	PP	20920	245984				
21		12.740	PP	17667	119099				
22		13.208	PP	31944	842220				
23		13.756	PP	76574	597503				
24		13.916	PP	50804	943691				
25		14.412	PP	40736	342425				
26		14.500	PP	114192	1296374				
27		14.333	PP	32377	384465				
28		15.208	PP	35958	1031925				

TW-1; S-2

29	15.396	PP	72904	493801
30	15.796	PP	50814	2243196
31	16.588	PP	45743	421180
32	17.188	PP	42587	908261
33	17.264	PP	33699	569428
34	17.640	PP	25192	256777
35	18.060	PP	33450	668094
36	18.700	PP	28923	865630
37	19.076	PP	18890	199906
38	19.316	PP	18245	174045
39	19.424	PP	20025	274138
40	19.760	PP	14936	226084
41	20.156	PP	12828	495209
42	20.924	PP	12975	245146
43	21.324	PP	7551	72613
44	21.452	PP	7368	98697
45	21.708	PD	6261	106266

TOTAL

1044226

15191720

0.00000

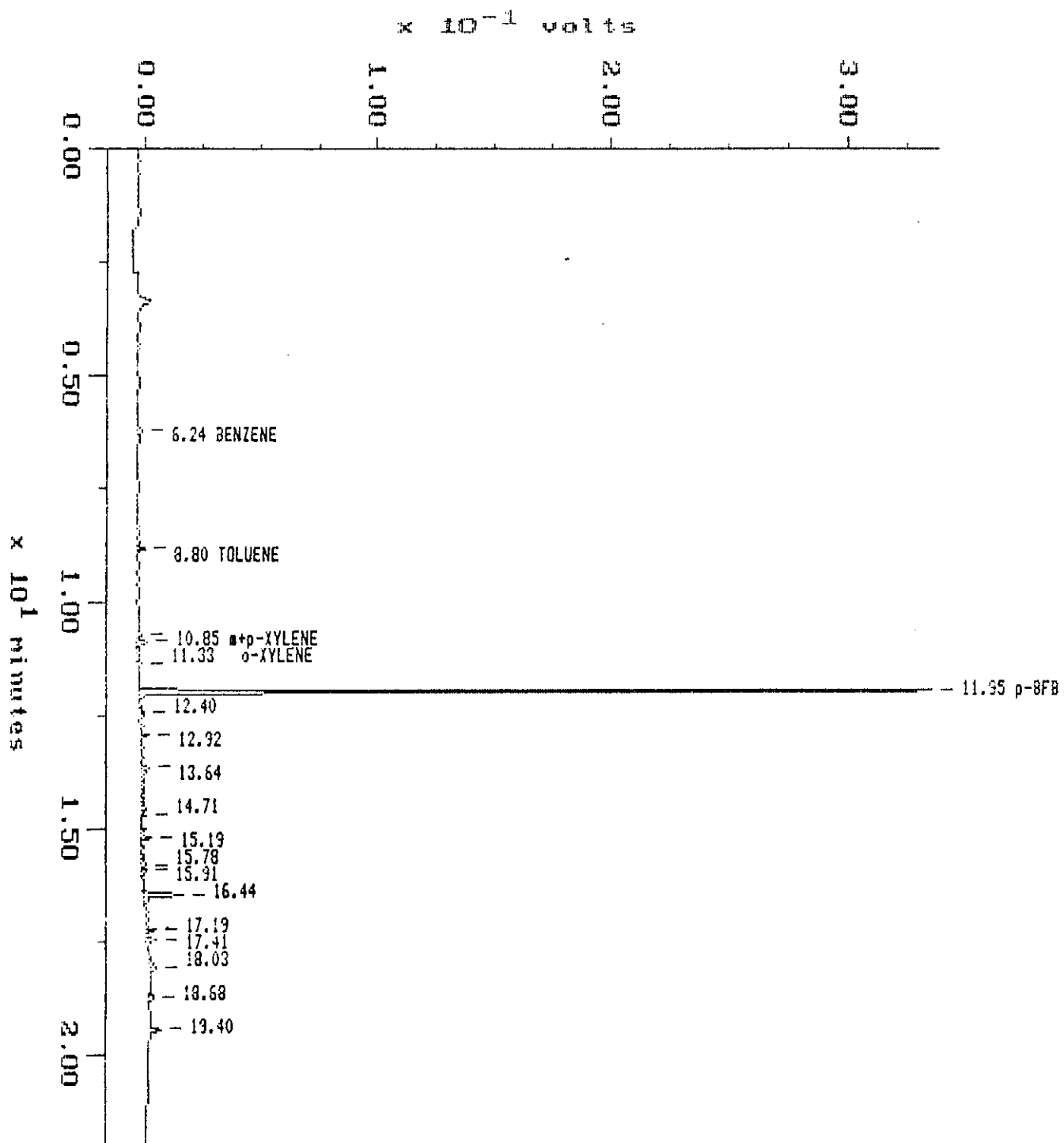
0.00000

* Value not included in TOTAL calculation.

TW-1; S-4

Sample: 9109281-04 Channel: PID 21
Acquired: 01-OCT-91 12:34 Method: C:\MAX\DATA21\503021
Dilution: 1 : 2.000
Comments: HP21 30M DB624

Filename: 09281-04
Operator: CF

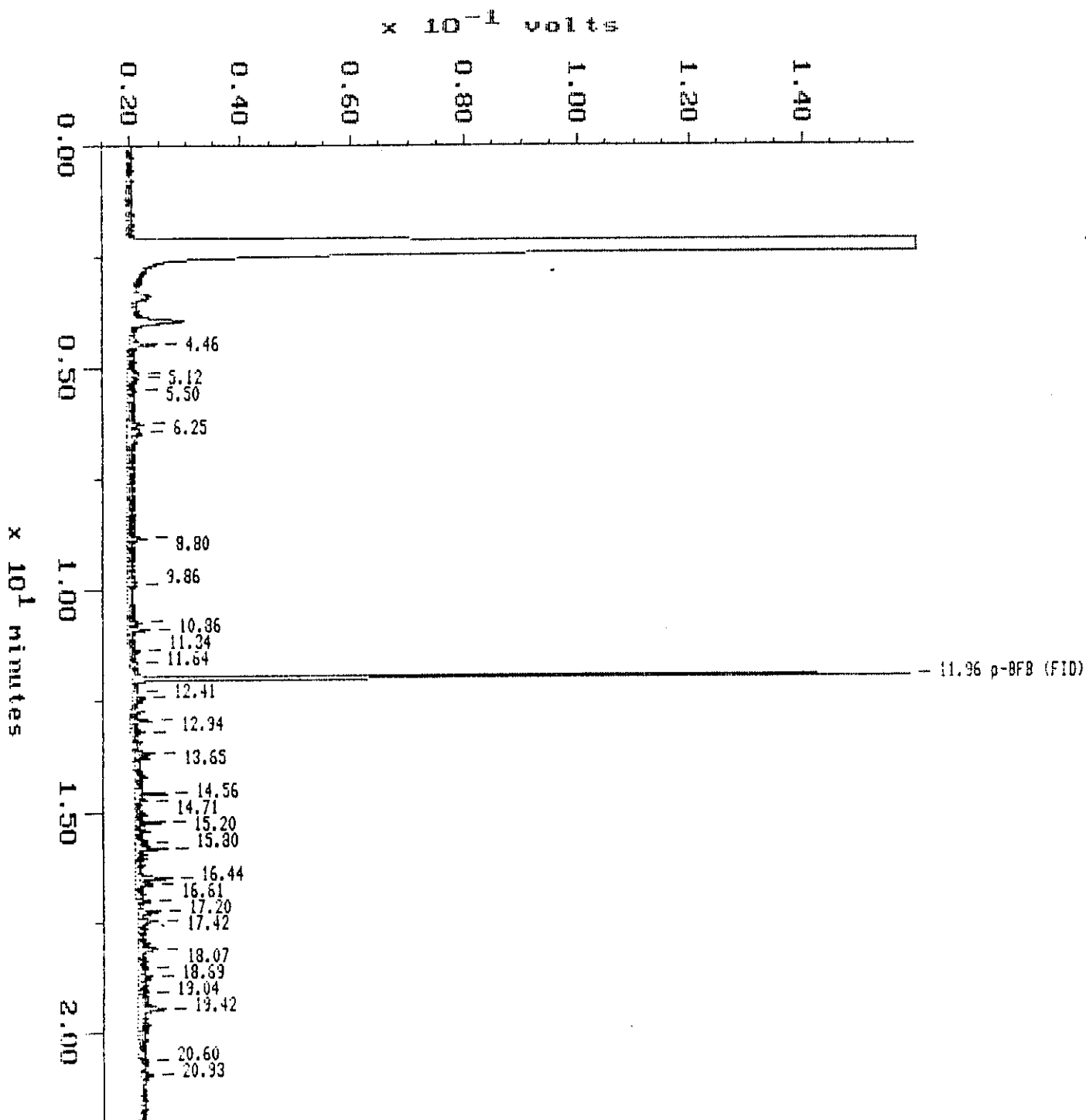


TW-1; S-4

Sample: 9109281-04
Acquired: 01-OCT-91 12:34
Dilution: 1 : 2.000
Comments: HP21 30M DB624

Channel: FID 21
Method: C:\MAX\DATA21\503021

Filename: 09281-04
Operator: CF



MAXIMA 820 CUSTOM REPORT

Printed: 1-OCT-1991 13:12:43

SAMPLE: 9109281-04

TW-1; S-4

#12 in Method:

Acquired: 1-OCT-1991 12:34

Rate: 4.2 points/sec

Duration: 22.000 minutes

Operator: CF

Type: UNKN

Instrument: HP 21

Filename: 09281-04

Index: 7

Dilution: 2.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1	1	6.240	BB	1978	7969	0.021	0.00016	0.00031	BENZENE
2	2	8.796	BB	2529	9566	0.023	0.00020	0.00041	TOLUENE
3	3	10.708	BP	1527	5347	0.026	0.00013	0.00025	ETHYLBENZENE
4	4	10.852	PB	4003	15660	0.022	0.00032	0.00063	m+p-XYLENE
5	5	11.328	BB	1234	3944	0.027	0.00010	0.00019	o-XYLENE
6	6	11.948	BB	337287*	1093310*	0.000	100.00000*	84%	p-BFB
7		12.404	BB	1528	4608				
8		12.924	BB	3166	9875				
9		13.636	BP	3709	60091				
10		14.708	PB	1854	10132				
11		15.192	BP	4755	23040				
12		15.784	PP	2757	28709				
13		15.908	PB	2235	10835				
14		16.436	BB	17984	92921				
15		17.192	BP	4128	16378				
16		17.412	PB	3319	14420				
17		18.032	BB	2386	26082				
18		18.680	BB	2326	13098				
19		19.404	BB	4365	23389				
TOTAL				65783	376063		0.00090	0.00180	

* Value not included in TOTAL calculation.

DETECTOR: FID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		4.456	BP	4775	51663				
2		5.124	PP	2144	14944				

TW-1; S-4

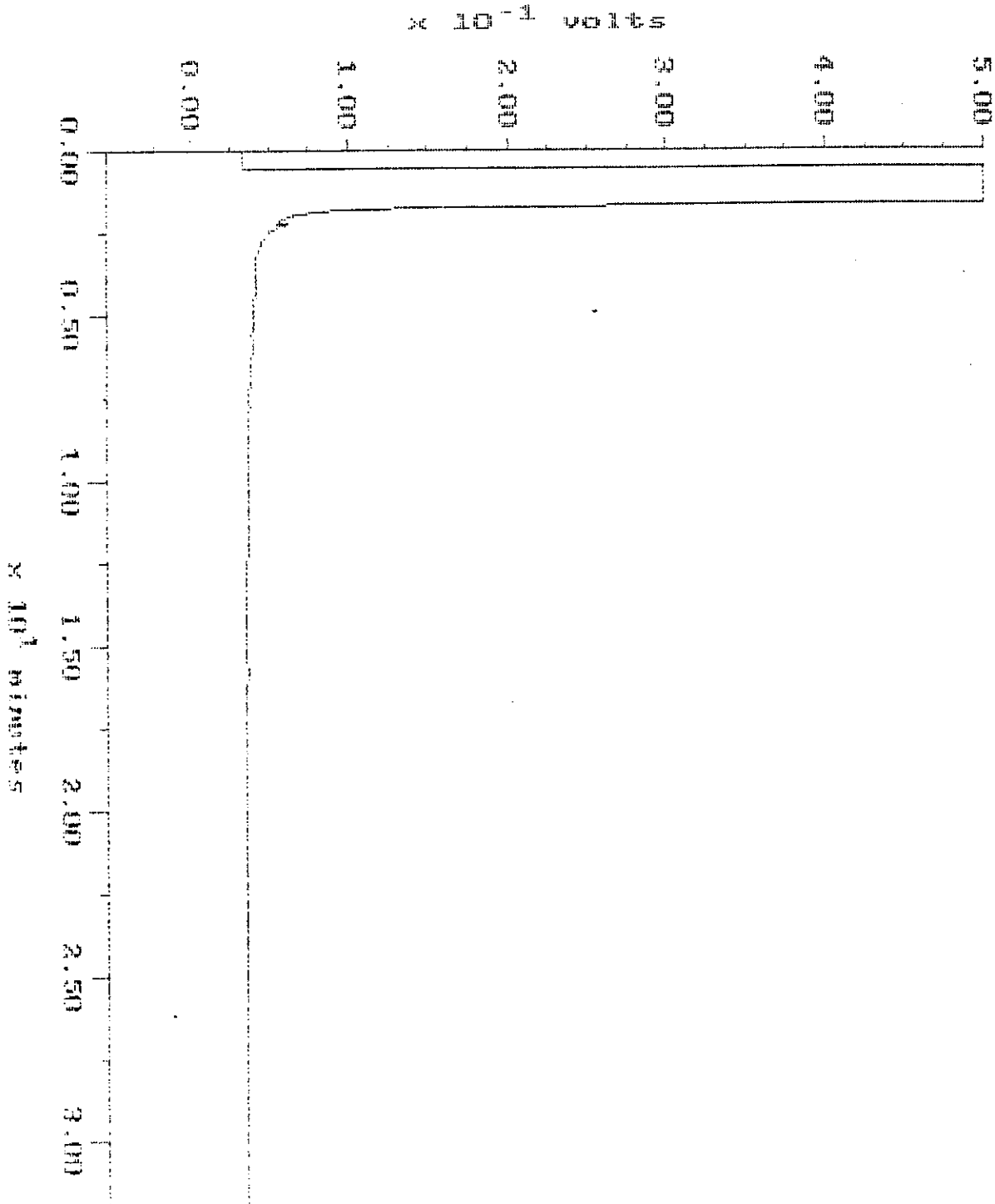
3	5.220	PP	2136	20258			
4	5.496	PP	1630	40937			
5	6.248	PP	2920	15434			
6	6.424	PP	2653	26251			
7	8.804	PP	3375	117805			
8	9.860	PP	1685	76656			
9	10.704	PP	2811	13913			
10	10.856	PP	4064	27522			
11	11.344	PP	2063	14740			
12	11.636	PB	1400	14522			
13	7 11.960	BB	138035#	439923#	0.000	100.00000#	p-8FB (FID)
14	12.272	BP	1239	7341			
15	12.412	PP	2388	31452			
16	12.936	PP	3753	13785			
17	13.188	PB	2256	19155			
18	13.652	BP	3770	47296			
19	14.556	PP	5836	37196			
20	14.712	PP	2234	24711			
21	15.196	PP	5356	30395			
22	15.644	PP	2349	13988			
23	15.796	PP	5867	25690			
24	16.444	PP	6370	55142			
25	16.608	PP	3027	17742			
26	16.988	PP	2525	22050			
27	17.196	PP	3970	21398			
28	17.420	PP	3528	26187			
29	18.068	PP	3381	35055			
30	18.480	PP	1940	16590			
31	18.692	PP	2501	25262			
32	19.044	PP	1511	8870			
33	19.424	PP	4964	99275			
34	20.596	PP	1561	20435			
35	20.928	PB	2104	32514			
TOTAL			104088	1086174	0.00000	0.00000	

Value not included in TOTAL calculation.

TW-1;S-4

Sample: 9109281-04 Channel: FID 25
Acquired: 07-OCT-91 15:51 Method: C:\MAX\DATA23\351025
Dilution: 1 : 1.000 Inj Vol: 3.00
Comments: Coluan: 30 M DB-5 HP25

Filename: 09281-4
Operator: IV



TW-1; S-4

MAXIMA (c)1987 Dynamic Solutions. Division of Millipore

MAXIMA 820 CUSTOM REPORT

Printed: 7-OCT-1991 16:37:54

SAMPLE: 9109281-04

44 in Method: 3510/3550 HIGH BOILING HC
Acquired: 7-OCT-1991 15:51
Rate: 4.2 points/sec
Duration: 32.000 minutes
Operator: IY

Type: UNKN
Instrument: HP23
Filename: 09281-4A
Index: 4
Injection Volume: 3.0
Dilution: 1.000

DETECTOR: FID 23

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Area Percent	Code	Base	Solution Conc	Component Name
				0.00	0.00				0.00	
TOTAL										

< 10 ng / kg

ANAMETRIX INC

Environmental & Analytical Chemistry
 1961 Concourse Drive, Suite E, San Jose, CA 95131
 (408) 432-8192 • Fax (408) 432-8198

**REPORT**

MR. EDWARD ALUSOW
 DUNN GEOSCIENCE CORP.
 12 METRO PARK ROAD
 ALBANY, NY 12205

Workorder # : 9109235
 Date Received : 09/24/91
 Project ID : 02345-01983
 Purchase Order: N/A

The following samples were received at Anamatrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9109235- 1	SB-4-3;S-3
9109235- 2	MW-14;S-2
9109235- 3	MW-14;S-3
9109235- 4	TRIP BLANK

This report consists of 6 pages not including the cover letter, and is organized in sections according to the specific Anamatrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anamatrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anamatrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anamatrix.

Sarah Schoen, Ph.D.
 Laboratory Manager

10-11-91
 Date

RECEIVED

OCT 15 1991

DUNN GEOSCIENCE CORP.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. EDWARD ALUSOW
DUNN GEOSCIENCE CORP.
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9109235
Date Received : 09/24/91
Project ID : 02345-01983
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9109235- 1	SB-4-3;S-3	SOIL	09/23/91	BTEX
9109235- 2	MW-14;S-2	SOIL	09/24/91	BTEX
9109235- 3	MW-14;S-3	SOIL	09/24/91	BTEX
9109235- 4	TRIP BLANK	WATER	09/24/91	BTEX
9109235- 1	SB-4-3;S-3	SOIL	09/23/91	TPHd
9109235- 2	MW-14;S-2	SOIL	09/24/91	TPHd
9109235- 3	MW-14;S-3	SOIL	09/24/91	TPHd

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. EDWARD ALUSOW
DUNN GEOSCIENCE CORP.
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9109235
Date Received : 09/24/91
Project ID : 02345-01983
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentration reported as diesel for sample MW-14;S-2 is due to the presence of a combination of diesel and a lighter petroleum product, possibly gasoline or kerosene.
- The concentration reported as diesel for sample MW-14;S-3 is primarily due to the presence of a heavier petroleum product, possibly motor oil.

Cheryl Balmer
Department Supervisor

10/1/91
Date

C. Fan
Chemist

10.11.91
Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9109235
Matrix : SOIL
Date Sampled : 09/23 & 24/91

Project Number : 02345-01983
Date Released : 10/07/91

Reporting Limit	Sample I.D.# SB-4-3; S-3	Sample I.D.# MW-14; S-2	Sample I.D.# MW-14; S-3	Sample I.D.# 21B1001A	
COMPOUNDS	(mg/Kg)	-01	-02	-03	BLANK
Benzene	0.005	ND	ND	ND	ND
Toluene	0.005	0.006	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND
Total Xylenes	0.005	0.013	0.015	ND	ND
% Surrogate Recovery	95%	86%	102%	100%	
Instrument I.D.	HP21	HP21	HP21	HP21	
Date Analyzed	10/01/91	10/01/91	10/01/91	10/01/91	
RLMF	1	1	1	1	

ND - Not detected at or above the practical quantitation limit for the method.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020.
RLMF - Reporting Limit Multiplication Factor.
Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Linda Stier 10/8/91
Analyst Date

Cheryl Balmer 10/8/91
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9109235
Matrix : WATER
Date Sampled : 09/24/91

Project Number : 02345-01983
Date Released : 10/07/91

	Reporting Limit	Sample I.D.# TRIP BLANK	Sample I.D.# 21B1001A
COMPOUNDS	(ug/L)	-04	BLANK
Benzene	0.5	ND	ND
Toluene	0.5	ND	ND
Ethylbenzene	0.5	ND	ND
Total Xylenes	0.5	ND	ND
% Surrogate Recovery		116%	100%
Instrument I.D.		HP21	HP21
Date Analyzed		10/01/91	10/01/91
RLMF		1	1

ND - Not detected at or above the practical quantitation limit for the method.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020.
RLMF - Reporting Limit Multiplication Factor.
Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Anna Suer 10/10/91
Analyst Date

Cheryl Balmer 10/10/91
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anamatrix W.O.: 9109235
Matrix : SOIL
Date Sampled : 09/23 & 24/91
Date Extracted: 10/01/91

Project Number : 02345-01983
Date Released : 10/07/91
Instrument I.D.: HP9

Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9109235-01	SB-4-3;S-3	10/01/91	10	ND
9109235-02	MW-14;S-2	10/01/91	10	84
9109235-03	MW-14;S-3	10/02/91	10	22
DSBL100191	METHOD BLANK	10/01/91	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.

ND - Not detected at or above the practical quantitation limit for the method.

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Ci Fan 10.11.91
Analyst Date

Cheryl Balman 10/11/91
Supervisor Date

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
 EPA METHOD 5030 WITH GC/FID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 02345-01983 MW-14;S-3
 Matrix : SOIL
 Date Sampled : 09/24/91
 Date Analyzed : 10/01/91

Anamatrix I.D. : 9109235-03
 Analyst : *iy*
 Supervisor : *us*
 Date Released : 10/07/91

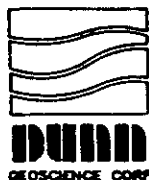
COMPOUND	SPIKE AMT. (mg/Kg)	MS (mg/Kg)	%REC MS	MSD (mg/Kg)	%REC MSD	RPD	%REC LIMITS
GASOLINE	1.0	0.81	81%	0.86	86%	6%	48-145
P-BFB			138%		130%		53-147

* Limits established by Anamatrix, Inc.

Dunn Geoscience Corp.
 12 Metro Park Road
 Albany, N.Y. 12205 (518) 458-1313

9109235

10/28/91
 1650 TT



Client Name: AMERICAN NATIONAL CAN COMPANY
 Project No.: 02345-01983
 Site Location: OAKLAND, CA.
 Sampler: WALTER O. HOWARD

DGC Contact: EDWARD ALLSW
 Laboratory Contact: JENNIFER PAYNE
 Lab Identification:
 Date Report Required:

Sample Identification	Date	Time	Sample Matrix	Collection Vessel	Lowering Device	# Sample Containers	Preserv.	Comp. or Grab	Comment
SB-4-3; S-3	9/23/91	1645	SOIL	BRASS TUBE	—	1	N	Grab	ANALYSIS of these three
MW-14; S-2	9/24/91	0730	SOIL	"	—	1	N	"	Sample has yet to have
MW-14; S-3	9/24/91	0750	SOIL	"	—	1	N	"	been decided, DUNN will
TRIP BLANK	9/24/91	1500	WATER	—	—	2	HCL	—	call with instructions.
Walter O. Howard 9/24/91									NOTE: See Attached letter to
									All soils no head space cold.
									2VOAs w/ 1 mm, 2.5 mm

CUSTODY SEAL
 Signature: Walter O. Howard
 Date: 9/24/91



CUSTODY SEAL
 Date: 9/24/91
 Signature: Walter O. Howard

Name	Affiliation	Date	Time	Name	Date	Time
Relinquished by: Walter O. Howard	DUNN GEO.	9/24/91	1540	Received by Laboratory: JENNIFER PAYNE	09/24/91	1635
Received by: JENNIFER PAYNE	ANALYTICAL	9/24/91	1540	Samples Intact & Properly Preserved:	(Yes) or No	
Relinquished by: JENNIFER PAYNE	ANALYTICAL	9/24/91	1635	Laboratory Comments:		
Received by:						

QA / QC PROBLEM SUMMARY

ANAMETRIX WORKORDER # 9109235 DEPARTMENT OC
CLIENT PROJECT I.D. # _____ METHOD TPH d

Problems: _____

Resolution: _____

ATTENTION DATA ENTRY: Add the following note to the report cover letter:

The concentrations reported as diesel
for samples SB-4-3; 3-3 and MW-14; S-2
are primarily due to the presence of
a) a discrete hydrocarbon peak not
indicative of diesel fuel
b) a heavier petroleum product,
possibly motor oil.
c) a lighter petroleum product,

7/16/13

(c)

TOTAL FUEL HYDROCARBON REPORT

TPH as Diesel

Workorder # 9109235

Client JGC

Date Extracted 10-01-91

Project # 02345-01983

Matrix SOIL

Instrument ID # 9

ANAMETRIX ID#	CLIENT ID#	DATE ANALYZED	DILUTION	AMOUNT FOUND
9109235-01	S2-4-3; S-3	10-01-91	1:1	50 mg/kg
-02	MW-14; S-2	10-01-91	1:1	120 mg/kg
-03	MW-14; S-3	10-02-91	1:1	54 mg/kg
JSBCK100191	Method blank	10-01-91	1:1	< 10 mg/kg

Date: 10-02-91

Date: 10-2-91

Analyst: IZ

Reviewer: clg

METHODS DONE ARE THOSE SPECIFIED BY CRWQCB.

A A

TOTAL FUEL HYDROCARBON REPORT

TPHg with BTEX

Workorder # 9109235

Client Project # 02345-01983

ANAMETRIX ID #	-01	-02	-03	21B1001 A -04	
CLIENT ID #	S8-4-3; S-3	MW-14; S-2	MW-14; S-3	Blank	
CONCENTRATION UNITS	mg/kg	mg/kg	mg/kg	mg/kg	
BENZENE	<0.005	<0.005	<0.005	<0.005	
TOLUENE	0.006	↓	↓	↓	
ETHYLBENZENE	<0.005	↓	↓	↓	
XYLENES	0.013	0.015	↓	↓	
GASOLINE	-	-	-	-	
% SURROGATE RECOVERY	95%	86%	102%	100%	
INSTRUMENT #	HP21	HP21	HP21	HP21	
DATE ANALYZED	1 Oct 91	1 Oct 91	1 Oct 91	1 Oct 91	
RLMF *	1	1	1	1	

Date: 2 Oct 91

Date: 10/2/91

Analyst: C. Fern

Reviewer: CO

METHODS DONE ARE THOSE SPECIFIED BY CRWQCB,
 Anamatrix, Inc. GC Department Form 2-1

* RLMF - Reporting Limit Multiplication Factor

/1330(72913)

TOTAL FUEL HYDROCARBON REPORT

TPHg with BTEX

Workorder # 9109235

Client Project # 02345-01983

ANAMETRIX ID #	-04	2181001A			
CLIENT ID #	Trip Blank	Blank			
CONCENTRATION UNITS	19/2	19/2			
BENZENE	<0.5	<0.5			
TOLUENE	↓	↓			
ETHYLBENZENE					
XYLENES	↓	↓			
GASOLINE	-	-			
% SURROGATE RECOVERY	116%	100%			
INSTRUMENT #	HP21	HP21			
DATE ANALYZED	1 Oct 91	1 Oct 91			
RLMF *	1	1			

Date: 2 Oct 91

Date: 10/2/91

Analyst: Ci Fan

Reviewer: OB

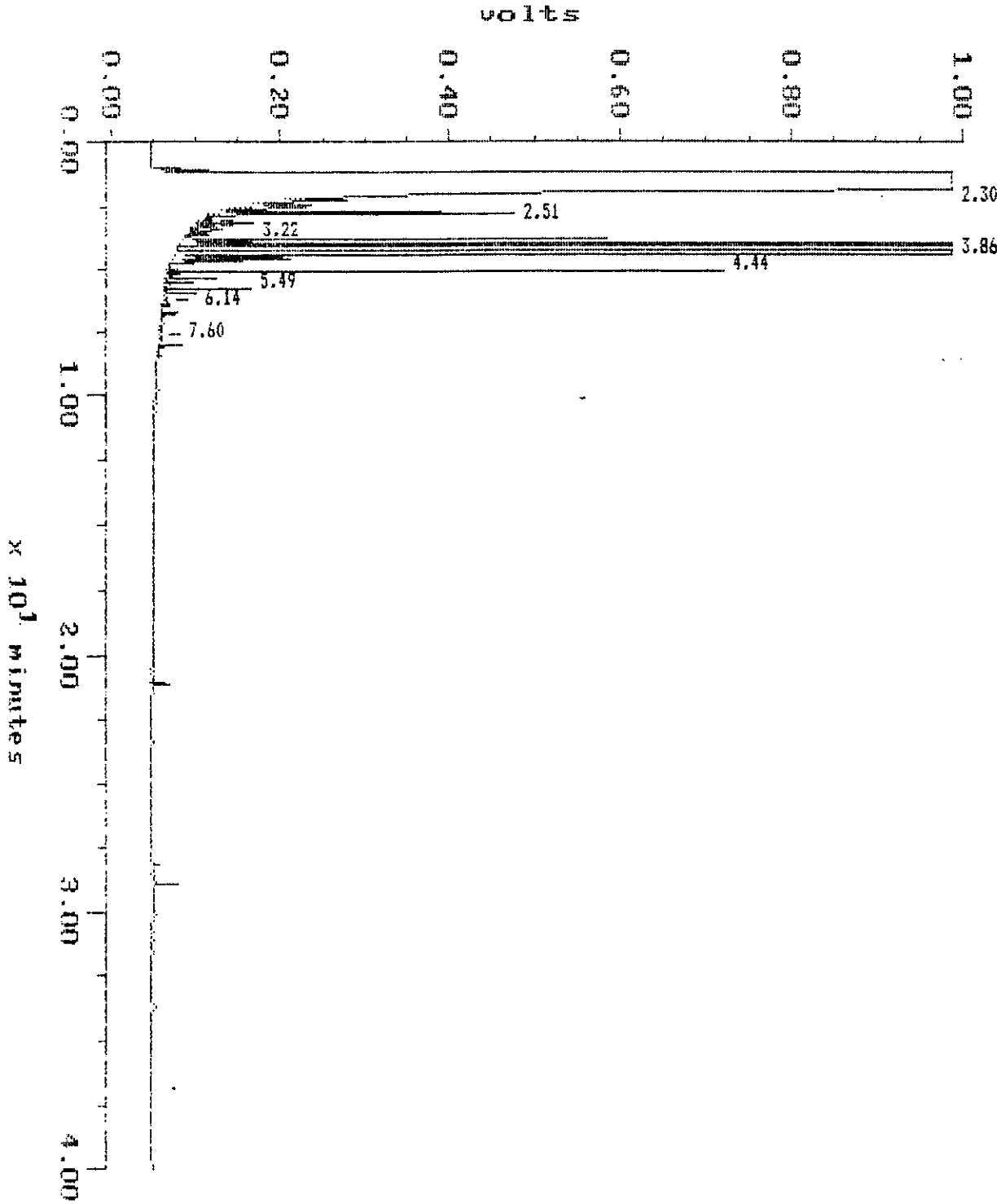
METHODS DONE ARE THOSE SPECIFIED BY CRWQCB.
Anamatrix, Inc. GC Department Form 2-1

* RLMF - Reporting Limit Multiplication Factor

/1330(/2913)

SB-4-3; S-3
Sample: 9109235-01 Channel: FID 9
Acquired: 01-OCT-91 18:04 Method: C:\MAX\DATA9\35109
Dilution: 1 : 1.000 Inj Vol: 3.00
Comments: Coluan: 30 M DB-1 HP9

Filename: 09235-01
Operator: IY



MAXIMA 820 CUSTOM REPORT

Printed: 2-OCT-1991 9:58:42

SAMPLE: 9109235-01 *SB-43; S-3*
#6 in Method: 3510/3550 HIGH BOILING HC
Acquired: 1-OCT-1991 18:04
Rate: 4.2 points/sec
Duration: 40.320 minutes
Operator: IY

Type: UNKN
Instrument: HP9
Filename: 09235-01
Index: 5
Injection Volume: 3.0
Dilution: 1.000

DETECTOR: FID 9

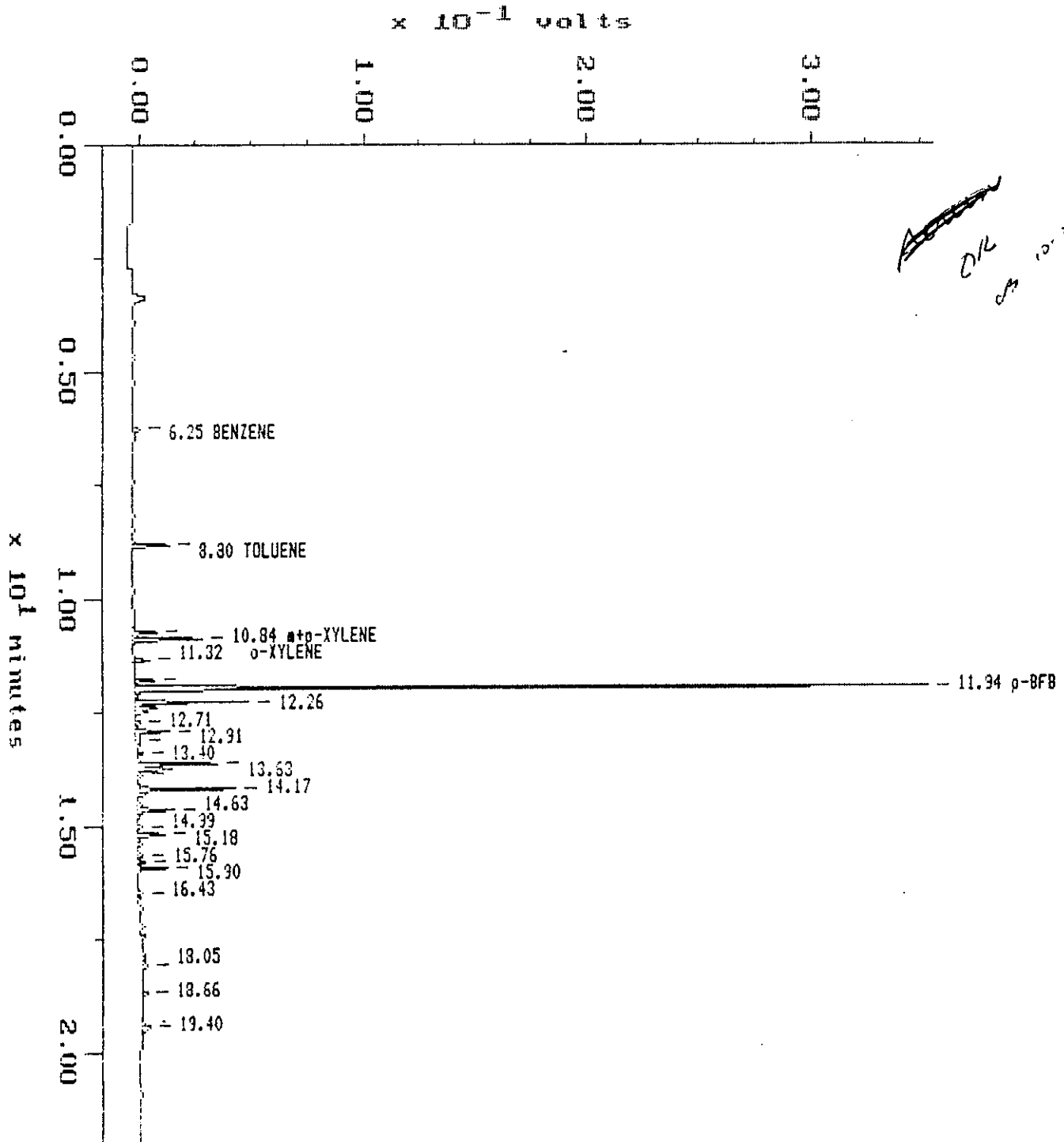
PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Area Percent	Code	Base	Solution Conc	Component Name
1		2.30	BP	5636.22	123934.19	0.66				
2		2.51	PP	45094.85	399318.32	2.12				
3		2.77	PP	45973.43	1436390.83	7.64				
4		3.04	PP	9082.80	184086.49	0.98				
5		3.22	PP	21810.30	67085.39	0.36				
6		3.42	PB	13948.68	190454.85	1.01				
7		3.86	BP	17367.96	4946255.16	26.31				
8		4.44	PB	104542.39	9560169.24	50.85				
9		5.07	BP	1235.84	1209673.72	6.43				
10		5.49	PP	10270.36	76125.26	0.40				
11		6.14	PP	5157.95	368425.68	1.96				
12		7.60	PB	325.08	239209.03	1.27				
TOTAL				290445.85	18801128.16				0.00	

$$\frac{18801128.16 \times 0.079}{10 \times 3} = 50 \text{ mg/kg}$$

SB-4-3; 5-3

Sample: 9109235-01 Channel: PID 21
Acquired: 01-OCT-91 22:22 Method: C:\MAX\DATA21\503021
Dilution: 1 : 5.000
Comments: HP21 30M 08624

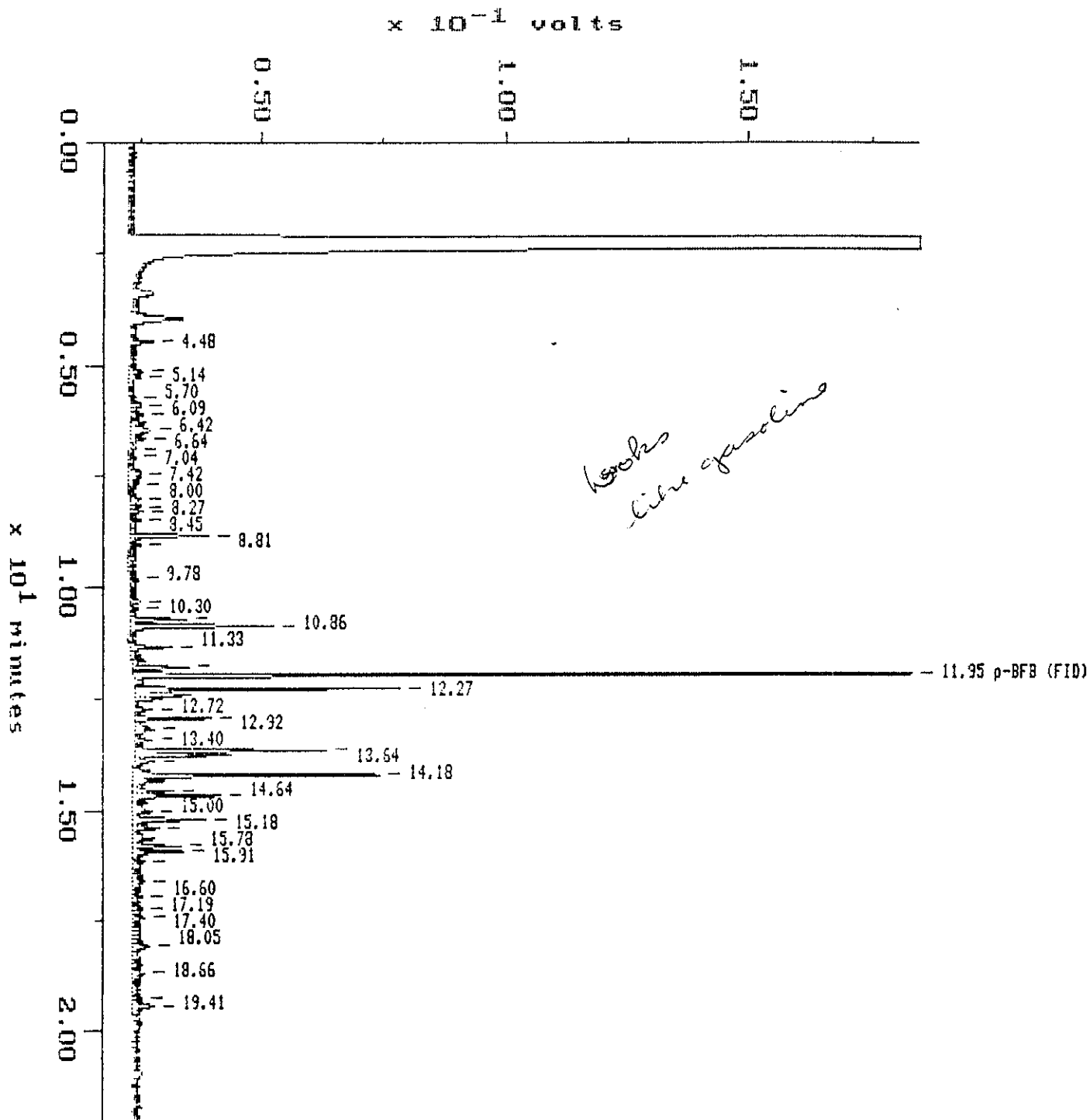
Filename: 09235-01
Operator: CF



SB-4-3; S-3

Sample: 9109235-01 Channel: FID 21
Acquired: 01-OCT-91 22:22 Method: C:\MAX\DATA21\503021
Dilution: 1 : 5.000
Comments: HP21 30M DB624

Filename: 09235-01
Operator: CF



MAXIMA 820 CUSTOM REPORT

Printed: 2-OCT-1991 7:17:11

SAMPLE: 9109235-01 *SB-4-3; S-3*
 #28 in Method:
 Acquired: 1-OCT-1991 22:22
 Rate: 4.2 points/sec
 Duration: 22.000 minutes
 Operator: CF

Type: UNKN
 Instrument: HP 21
 Filename: 09235-01
 Index: 23
 Dilution: 5.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1	1	6.248	BB	2514	10059	0.021	0.00019	0.00094	BENZENE
2	2	8.796	BB	16603	61374	0.023	0.00125	0.00627	TOLUENE
3	3	10.700	BP	10990	37148	0.026	0.00083	0.00417	ETHYLBENZENE
4	4	10.844	PB	32074	110026	0.022	0.00211	0.01057	m+p-XYLENE
5	5	11.316	BB	7306	24629	0.027	0.00058	0.00288	o-XYLENE
6		11.772	BP	9453	31803				
7	6	11.940	PB	355854#	1145357#	0.000	100.00000#	95%	p-8FD
8		12.260	BB	51606	233386				
9		12.708	BP	2617	9497				
10		12.912	PP	16031	58561				
11		13.108	PP	1950	18754				
12		13.400	PB	2530	8949				
13		13.632	BP	36549	179129				
14		13.868	PP	2325	9235				
15		14.172	PB	44393	146009				
16		14.628	BP	17507	72349				
17		14.992	PP	2507	10234				
18		15.176	PP	13330	54251				
19		15.612	PP	2927	23002				
20		15.764	PP	4383	19162				
21		15.896	PB	13832	45638				
22		16.432	BB	1741	9063				
23		18.052	BB	1953	22503				
24		18.660	BB	2437	10032				
25		19.400	BB	3550	19642				
TOTAL				301108	1224436		0.00496	0.02482	

Value not included in TOTAL calculation.

DETECTOR: PID 21

SB-4-3; S-3

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		4.476	BP	4350	23971				
2		5.136	PP	2763	33972				
3		5.240	PP	2230	13481				
4		5.696	PP	1193	9182				
5		5.888	PP	2490	14550				
6		6.088	PP	2811	20615				
7		6.424	PP	4441	59258				
8		6.640	PP	3045	17044				
9		6.860	PP	1537	9778				
10		7.036	PP	1608	11875				
11		7.420	PP	2796	35371				
12		7.656	PP	1919	13666				
13		7.996	PP	2225	17016				
14		8.180	PP	2177	14027				
15		8.272	PP	2557	12697				
16		8.452	PP	1996	14071				
17		8.812	PP	16397	72942				
18		9.016	PP	1957	13432				
19		9.780	PP	1529	28126				
20		10.300	PP	2058	14407				
21		10.456	PP	1639	7026				
22		10.712	PP	11997	48271				
23		10.856	PP	29925	122389				
24		11.332	PP	8804	44584				
25		11.780	PP	11691	63182				
26	7	11.948	PB	159113#	504838#	0.000	100.00000#		p-BFB (FID)
27		12.272	BP	54700	228883				
28		12.476	PP	5723	23956				
29		12.716	PP	3788	14363				
30		12.920	PP	15238	61570				
31		13.172	PP	4239	34740				
32		13.404	PP	3878	18615				
33		13.640	PP	39741	217864				
34		13.880	PP	4344	26668				
35		14.184	PP	50622	216024				
36		14.536	PP	8417	33551				
37		14.644	PP	18440	85008				
38		14.996	PP	3928	28182				
39		15.184	PP	15326	71855				
40		15.376	PP	5359	49938				
41		15.780	PP	10094	41953				
42		15.908	PP	10944	45716				
43		16.128	PP	2392	17863				
44		16.596	PP	2376	44189				
45		16.328	PP	2103	13770				
46		17.188	PP	2316	19868				

SB-4-3; S-3

47	17.404	PP	2813	37497
48	18.052	PP	3345	54059
49	18.656	PP	2396	21678
50	19.236	PP	1739	22042
51	19.412	PB	4393	37056

TOTAL

405790

2200843

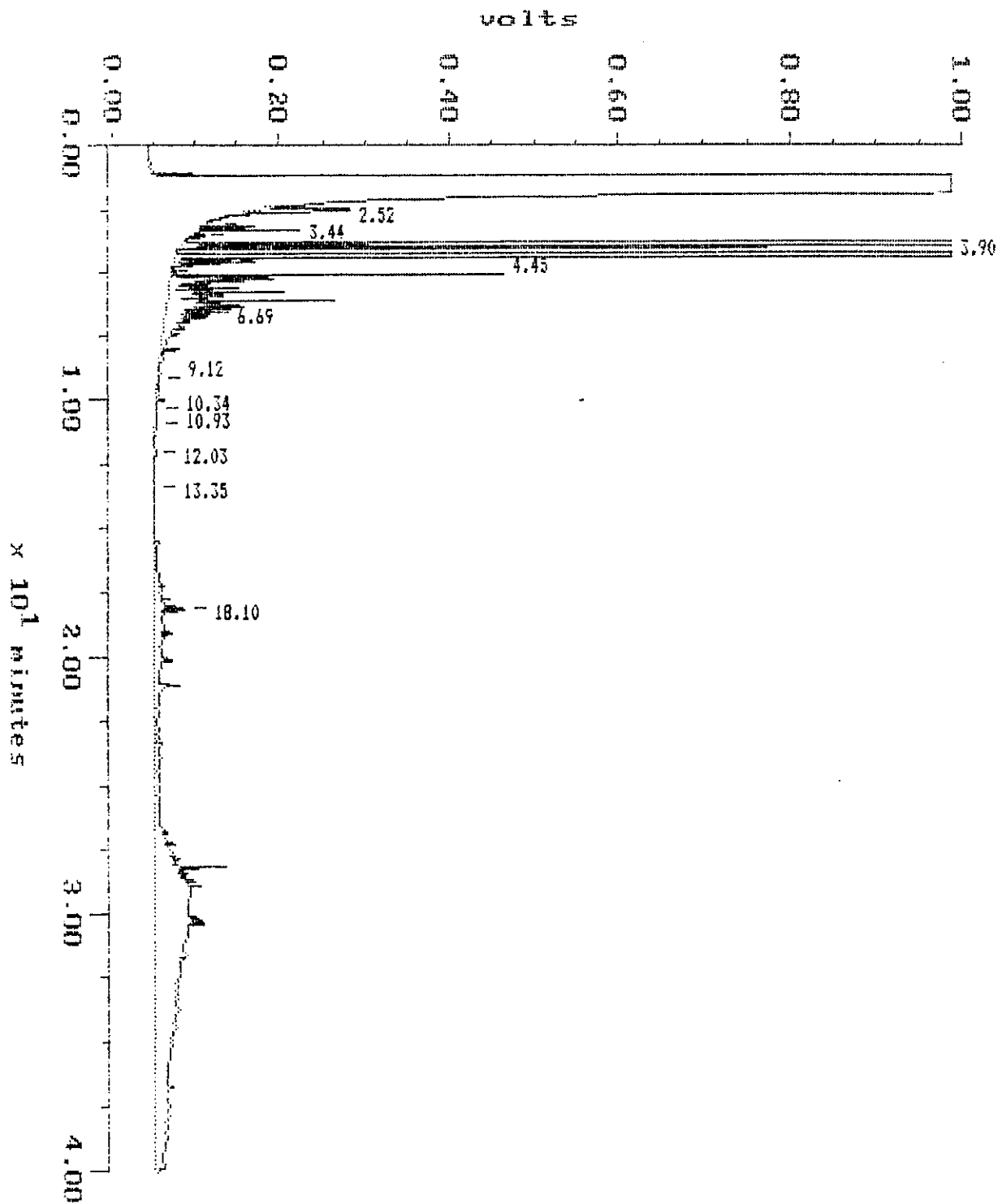
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0.00000

Value not included in TOTAL calculation.

MW-14; S-2
Sample: 9109235-02 Channel: FID 9
Acquired: 01-0CT-71 18:49 Method: C:\MAX\DATA9\35109
Dilution: 1 : 1.000 Inj Vol: 3.00
Comments: Column: 30 M DB-1 HP9

Filename: 09235-02
Operator: IY



MAXIMA 820 CUSTOM REPORT

Printed: 2-OCT-1991 10:06:23

SAMPLE: 9109235-02 *NW-14; S-2*
#7 in Method: 3510/3550 HIGH BOILING HC
Acquired: 1-OCT-1991 18:49
Rate: 4.2 points/sec
Duration: 40.320 minutes
Operator: iY

Type: UNKN
Instrument: HP9
Filename: 09235-02
Index: 6
Injection Volume: 3.0
Dilution: 1.000

DETECTOR: FID 9

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Area Percent	Code	Base	Solution Conc	Component Name
1		2.52	BP	80366.26	697160.71	1.53				
2		2.74	PB	4136.56	23578.15	0.05				
3		3.06	BP	15135.05	140157.07	0.31				
4		3.44	PP	13593.08	435845.92	0.95				
5		3.90	PP	22484.78	3088701.17	11.15				
6		4.45	PP	68922.65	7243720.24	15.87				
7		6.69	PP	24251.46	6652884.54	14.57				
8		9.12	PP	1250.27	65739.00	0.14				
9		10.54	PP	399.59	57449.12	0.13				
10		10.93	PB	365.50	14473.60	0.03				
11		12.03	BP	617.86	45548.07	0.10				
12		13.35	PB	258.21	10625.36	0.02				
13		18.10	BD	37194.85	25176232.69	35.15				
TOTAL				268976.12	45652145.64				0.00	

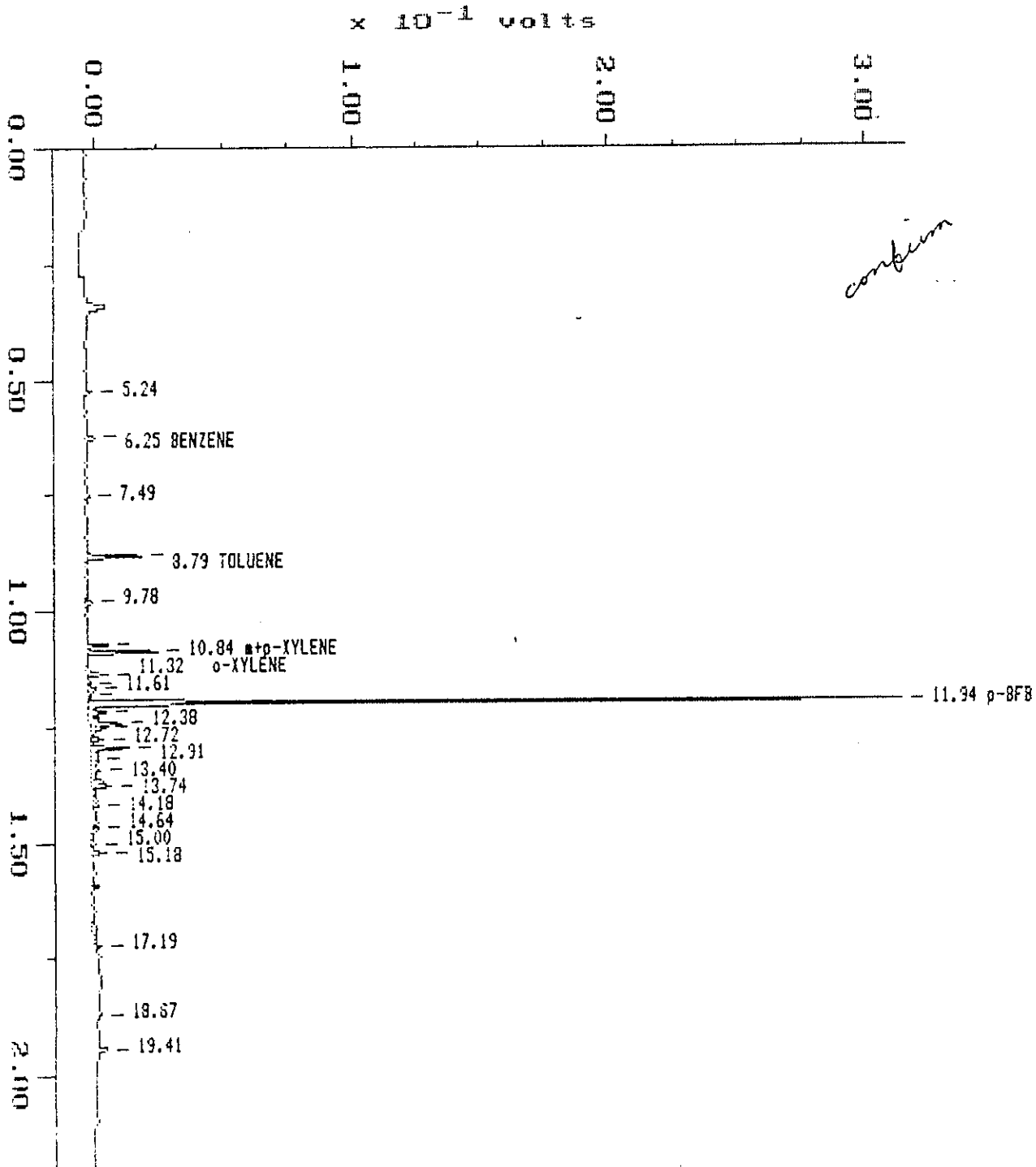
$$\frac{45652 \times 0.079}{10 \times 3} = 120 \text{ mg/kg}$$

MW-14; S-2

Sample: 9109235-02
Acquired: 01-OCT-91 21:48
Dilution: 1 : 5.000
Comments: HP21 30M DB624

Channel: PID 21
Method: C:\MAX\DATA21\503021

Filename: 09235-02
Operator: CF

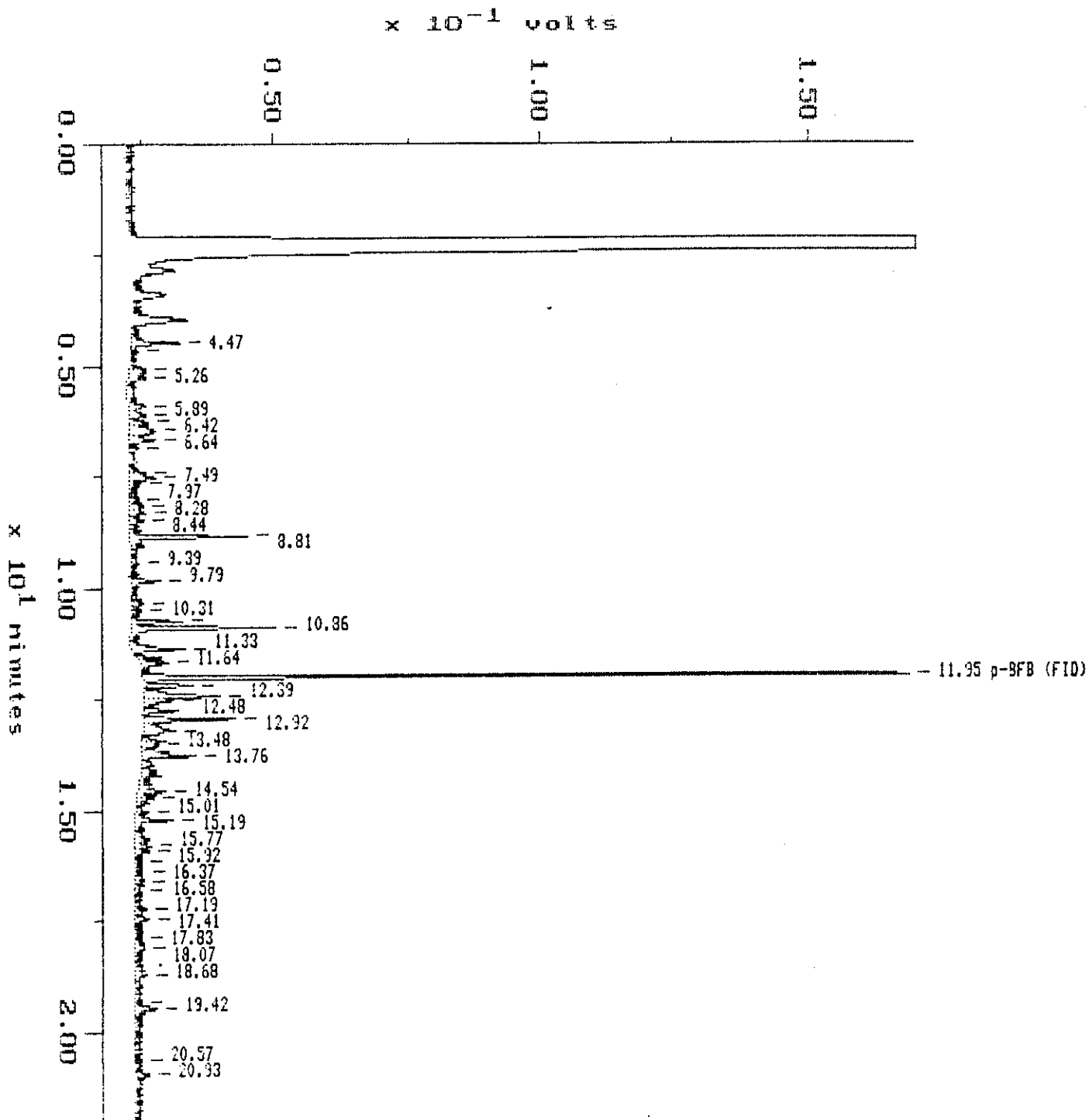


MW-14; S-2

Sample: 9109235-02
Acquired: 01-OCT-91 21:48
Dilution: 1 : 5.000
Comments: HP21 30M DB624

Channel: FID 21
Method: C:\MAX\DATA21\503021

Filename: 09235-02
Operator: CF



MAXIMA 820 CUSTOM REPORT

Printed: 2-OCT-1991 7:12:29

SAMPLE: 9109235-02

MW-14; S-2

#27 in Method:

Acquired: 1-OCT-1991 21:48

Rate: 4.2 points/sec

Duration: 22.000 minutes

Operator: CF

Type: UNKN

Instrument: HP 21

Filename: 09235-02

Index: 22

Dilution: 5.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		5.244	BB	2422	9693				
2	1	6.248	BB	3270	13333	0.021	0.00027	0.00137	BENZENE
3		7.488	BB	1727	7517				
4	2	8.792	BB	22316	84093	0.023	0.00190	0.00951	TOLUENE
5		9.776	BB	2463	8985				
6	3	10.700	BP	8610	29318	0.026	0.00073	0.00365	ETHYLBENZENE
7	4	10.844	PB	28386	97523	0.022	0.00207	0.01037	m+p-XYLENE
8	5	11.320	BP	9050	38454	0.027	0.00099	0.00497	o-XYLENE
9		11.508	PP	1596	7881				
10		11.612	PP	2687	17081				
11		11.768	PP	1051	6072				
12	6	11.940	PP	316914*	1034520*	0.000	100.00000*	26%	p-BFB
13		12.144	PP	7256	36605				
14		12.380	PP	12936	77138				
15		12.476	PP	6572	39096				
16		12.716	PP	4975	21850				
17		12.912	PP	15847	70344				
18		13.160	PP	3163	29198				
19		13.396	PP	3339	40829				
20		13.740	PP	7884	62179				
21		14.176	PB	2205	16093				
22		14.636	BB	1754	9099				
23		14.996	BP	1612	5035				
24		15.180	PB	5837	23732				
25		17.188	BB	2749	38286				
26		18.672	BB	1560	5842				
27		19.408	BB	3470	18622				
TOTAL				164737	814901		0.00597	0.02987	

Value not included in TOTAL calculation.

DETECTOR: FID 21

MW-14; S-2

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		4.468	BP	9691	54680				
2		4.664	PP	1546	10790				
3		5.068	PP	3291	16751				
4		5.256	PP	3629	43694				
5		5.888	PP	3531	52097				
6		6.092	PP	3393	24148				
7		6.240	PP	4056	23463				
8		6.420	PP	5216	51838				
9		6.644	PP	4950	28165				
10		6.812	PB	1604	6442				
11		7.388	BP	3635	18341				
12		7.492	PP	5419	35729				
13		7.620	PP	2231	19070				
14		7.972	PP	2007	14791				
15		8.144	PP	2718	19594				
16		8.280	PP	2936	16178				
17		8.444	PP	2728	21254				
18		8.808	PP	22170	116125				
19		9.392	PP	1585	22048				
20		9.788	PP	5778	39292				
21		10.312	PP	2101	15657				
22		10.472	PP	1696	10650				
23		10.708	PP	9684	38507				
24		10.856	PP	27163	119917				
25		11.332	PP	10117	73049				
26		11.636	PB	5422	30538				
27	7	11.952	BB	143076#	454178#	0.000	100.00000#		p-BFB (FID)
28		12.160	BP	8917	37395				
29		12.388	PP	14275	83318				
30		12.484	PP	5759	34231				
31		12.920	PP	17237	102297				
32		13.184	PP	6413	71320				
33		13.480	PP	3219	18450				
34		13.756	PP	10209	78473				
35		14.544	PP	5189	83403				
36		14.708	PP	3205	19952				
37		15.008	PP	2673	14019				
38		15.188	PP	7139	35041				
39		15.268	BP	3035	50063				
40		15.316	PP	2828	13151				
41		16.140	PP	1580	13151				
42		16.368	PP	1736	9112				
43		16.580	PP	1854	21356				
44		16.800	PP	1398	15613				

MW-14; S-2

45	17.192	PP	2442	18442
46	17.408	PP	2750	21724
47	17.832	PP	1509	15374
48	18.068	PP	2111	34936
49	18.684	PP	2125	37127
50	19.276	PP	1522	9883
51	19.420	PP	4063	66390
52	20.572	PP	1374	17800
53	20.928	PB	2559	27627

TOTAL

265571 1876676

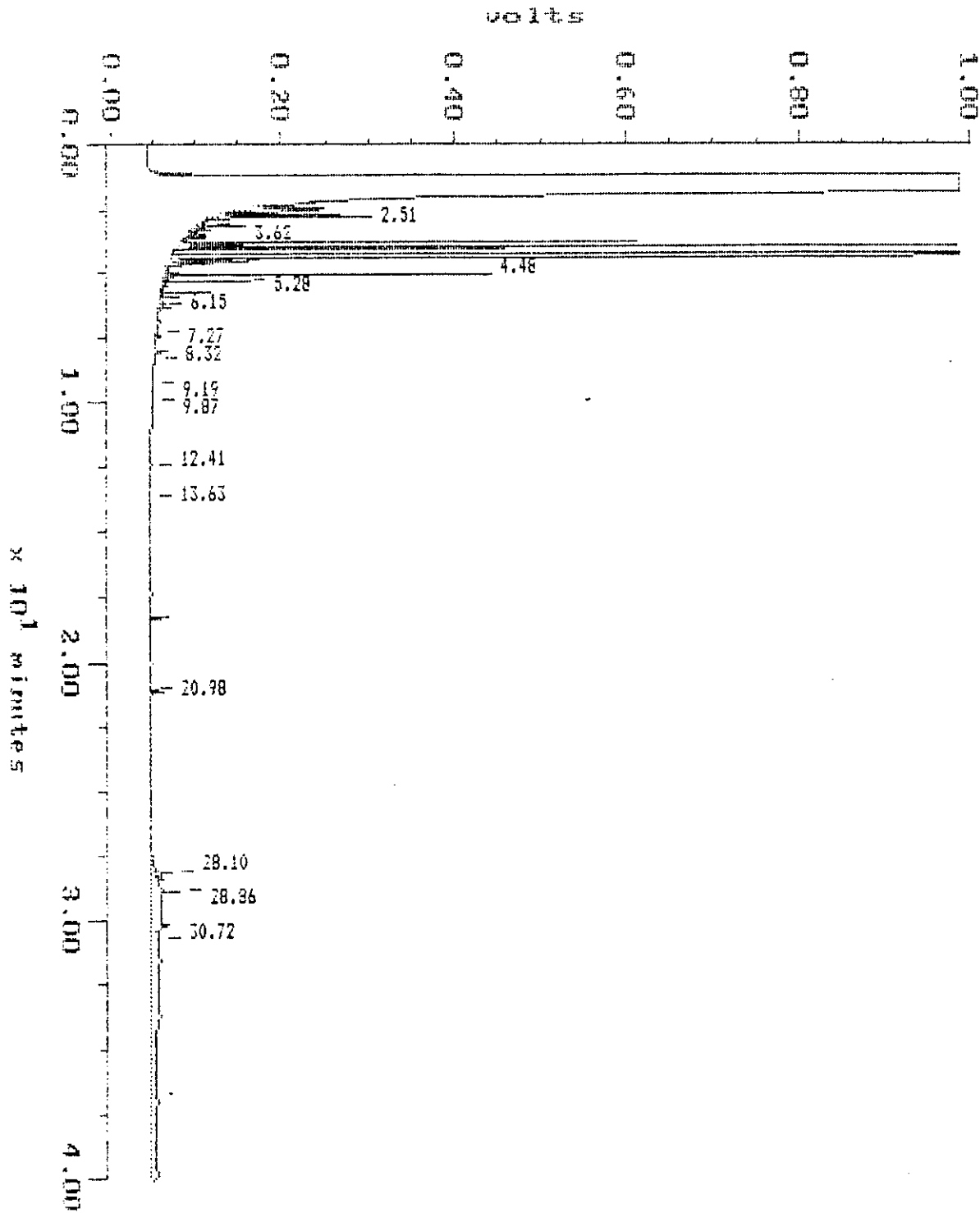
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0.00000

* Value not included in TOTAL calculation.

MW-14; S-3
Sample: 9109235-03 Channel: FID 9
Acquired: 02-OCT-91 9:34 Method: C:\MAX\DATA9\35109
Dilution: 1 : 1.000 Inj Vol: 3.00
Comments: Column: 30 M DB-1 HP9

Filename: 09235-01
Operator: IV



MAXIMA 820 CUSTOM REPORT

Printed: 2-OCT-1991 10:40:20

SAMPLE: 9109235-03

MW-14; S-3

#8 in Method: 3510/3550 HIGH BOILING HC
 Acquired: 2-OCT-1991 9:34
 Rate: 4.2 points/sec
 Duration: 40.320 minutes
 Operator: IY

Type: UNKN
 Instrument: HP9
 Filename: 09235-03
 Index: 7
 Injection Volume: 3.0
 Dilution: 1.000

DETECTOR: FID 9

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Area Percent	Code	Base	Solution Conc	Component Name
1		2.51	BP	47257.91	457677.71	2.23				
2		2.78	PP	39668.92	778040.13	3.78				
3		3.05	PP	11472.58	131622.22	0.64				
4		3.62	PP	2326.85	3678217.02	17.88				
5		4.48	PP	78089.96	7259599.60	35.30				
6		5.28	PP	72059.04	860643.72	4.18				
7		6.15	PP	2055.17	235073.91	1.14				
8		7.27	PP	1597.76	59903.25	0.29				
9		8.32	PP	117.06	60548.33	0.29				
10		9.19	PP	149.25	9532.70	0.05				
11		9.87	PB	-7.63	9228.46	0.04				
12		12.41	BB	582.34	14850.63	0.07				
13		13.63	BB	84.76	2319.32	0.01				
14		20.98	BB	632.76	515428.10	2.51				
15		28.10	BP	24539.71	384993.03	1.87				
16		28.66	PP	35107.86	1645782.64	8.00				
17		30.72	PB	11406.07	4463793.66	21.70				
TOTAL				327155.63	20566224.43				0.00	

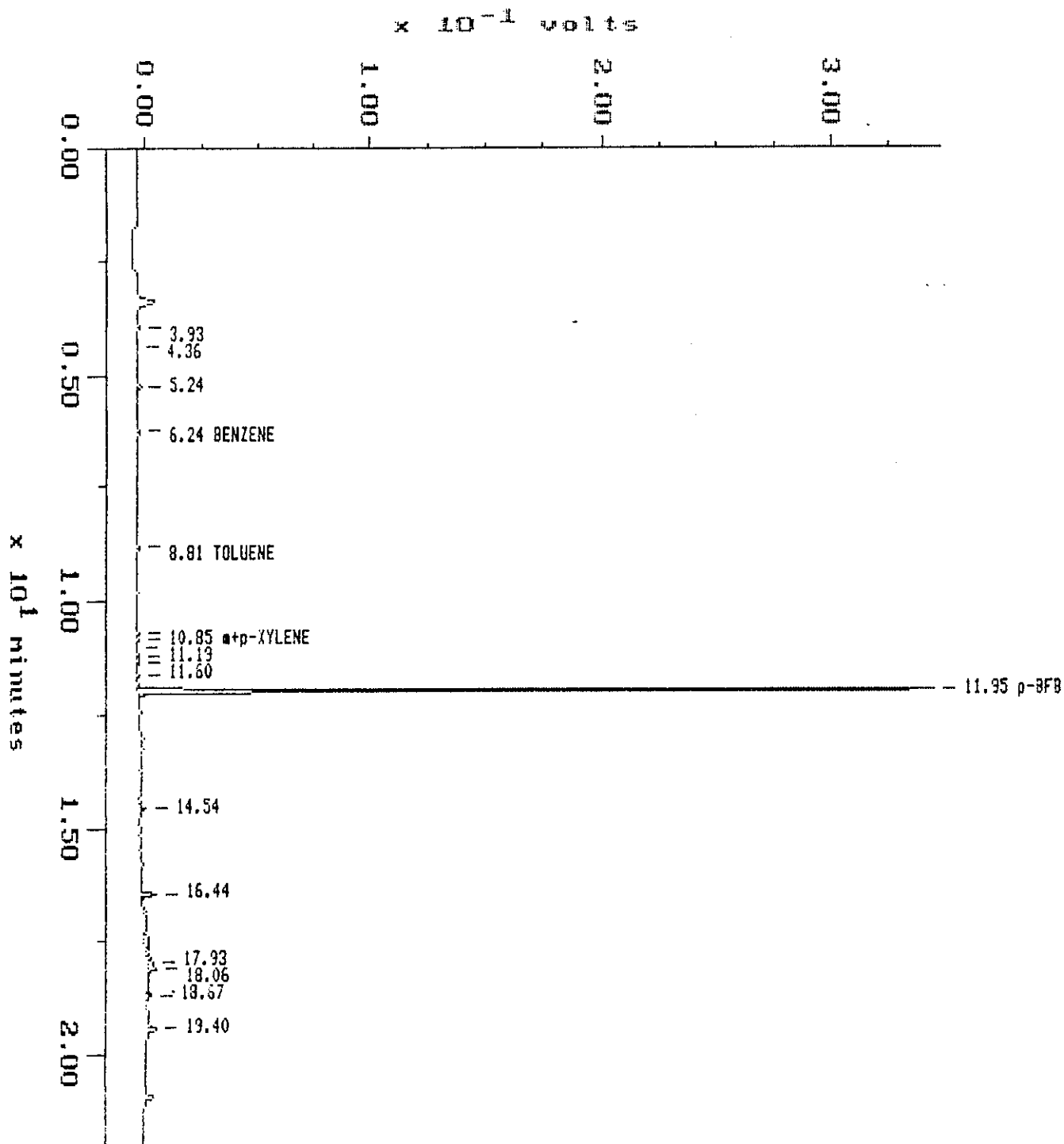
$$\frac{20566 \times 0.079}{10 \times 3} = 54 \text{ mg/kg}$$

MW-14; S-3

Sample: 9109235-03
Acquired: 01-OCT-91 20:09
Dilution: 1 : 2.000
Comments: HP21 30M DB624

Channel: PID 21
Method: C:\MAX\DATA21\503021

Filename: 09235-03
Operator: CF

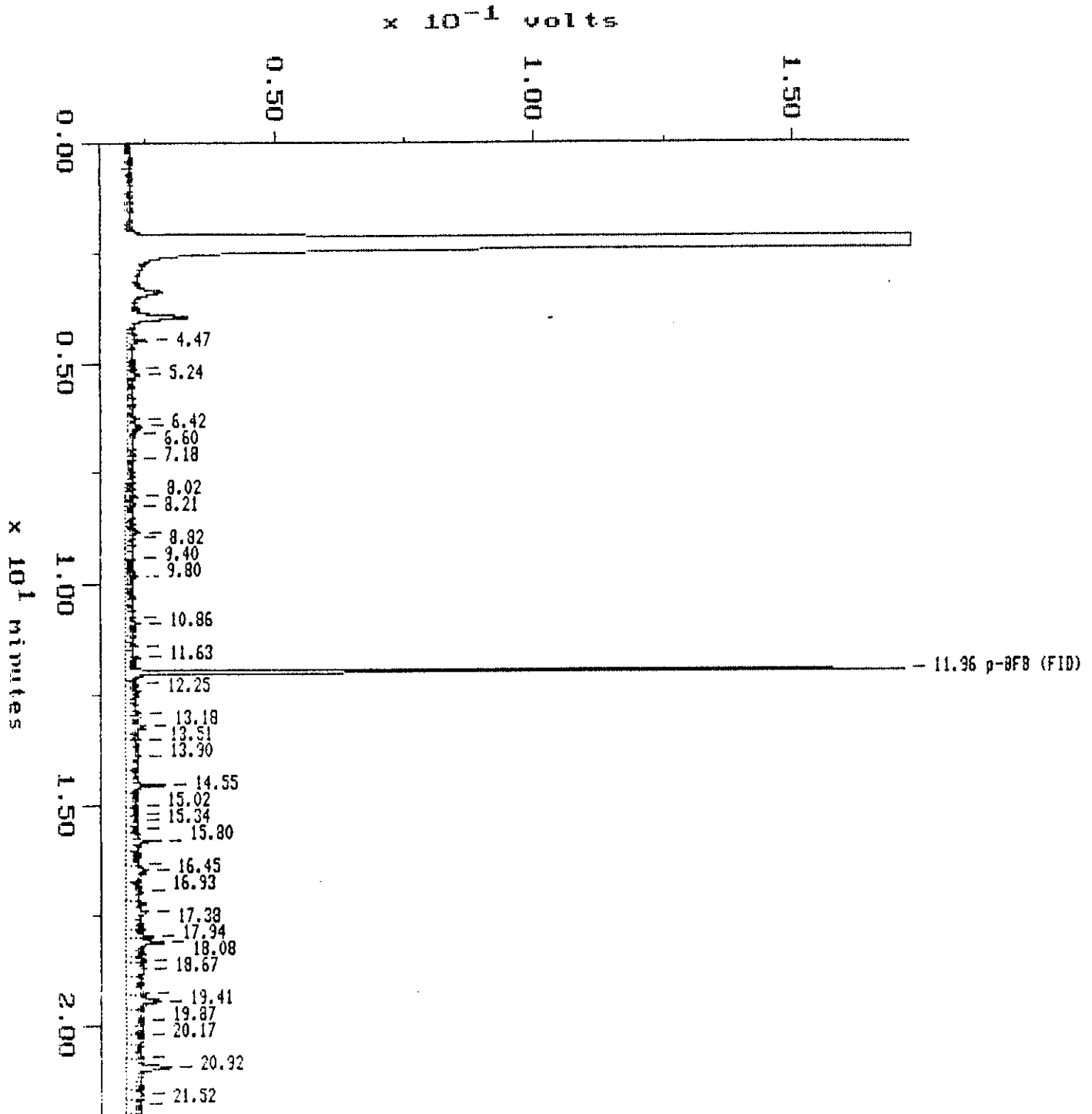


MW-14 ; S-3

Sample: 9109235-03
Acquired: 01-OCT-91 20:09
Dilution: 1 : 2.000
Comments: HP21 30M DB624

Channel: FID 21
Method: C:\MAX\DATA21\503021

Filename: 09235-03
Operator: CF



MAXIMA 820 CUSTOM REPORT

Printed: 1-OCT-1991 20:48:48

SAMPLE: 9109235-03

MW-14, S-3

#24 in Method:

Acquired: 1-OCT-1991 20:09

Rate: 4.2 points/sec

Duration: 22.000 minutes

Operator: CF

Type: UNKN

Instrument: HP 21

Filename: 09235-03

Index: 19

Dilution: 2.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		3.928	BB	892	6698				
2		4.356	BB	299	1621				
3		5.240	BB	1666	6585				
4	1	6.244	BB	1046	3496	0.021	0.00007	0.00013	BENZENE
5	2	8.808	BB	1414	6949	0.023	0.00015	0.00029	TOLUENE
6	3	10.704	BP	419	1742	0.026	0.00004	0.00008	ETHYLBENZENE
7	4	10.848	PP	1308	4560	0.022	0.00009	0.00018	m+p-XYLENE
8		11.012	PP	134	2163				
9		11.192	PP	360	2863				
10	5	11.328	PB	617	2104	0.027	0.00005	0.00010	o-XYLENE
11		11.604	BB	561	1752				
12	6	11.948	BB	347451#	1118027#	0.000	100.00000#	102%	p-BFB
13		14.536	BB	2382	14280				
14		16.436	BB	6377	30391				
15		17.928	BP	2904	44523				
16		18.064	PB	3497	18560				
17		18.672	BB	2159	10815				
18		19.396	BB	4330	25065				
TOTAL				30365	184167		0.00039	0.00078	

Value not included in TOTAL calculation.

DETECTOR: FID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		4.468	BP	3527	47380				
2		5.136	PP	1945	12210				
3		5.240	PP	2595	37810				

MW-14; S-3

4	6.256	PP	2534	28909				
5	5.420	PP	2747	23841				
6	6.604	PP	1577	21042				
7	7.180	PP	1564	12547				
8	8.016	PP	2082	47021				
9	8.212	PP	1544	15152				
10	8.824	PP	2823	37343				
11	8.932	PP	1701	21189				
12	9.404	PP	1778	11851				
13	9.796	PP	2164	50342				
14	10.724	PP	1577	30641				
15	10.856	PP	2599	36713				
16	11.388	PP	2032	13694				
17	11.628	PP	2650	30342				
18	7	11.956	PP	149879*	493981*	0.000	100.00000*	p-8FB (FID)
19	12.248	PP	2353	14695				
20	12.920	PP	2762	61145				
21	13.184	PP	3802	54969				
22	13.512	PP	2525	16547				
23	13.896	PP	2592	79269				
24	14.552	PP	7368	69778				
25	15.024	PP	2454	34222				
26	15.212	PP	2241	20157				
27	15.340	PP	2464	24059				
28	15.504	PP	2355	16974				
29	15.796	PP	6386	61378				
30	16.328	PP	2480	40566				
31	16.452	PP	3940	58633				
32	16.928	PP	3327	49332				
33	17.376	PP	4001	108749				
34	17.944	PP	5107	33763				
35	18.084	PP	7101	85163				
36	18.480	PP	3614	25819				
37	18.668	PP	3759	57165				
38	19.240	PP	4021	68756				
39	19.412	PP	6678	77443				
40	19.868	PP	3362	84956				
41	20.172	PP	3347	43625				
42	20.676	PP	2971	43981				
43	20.920	PP	3530	140568				
44	21.516	PP	3126	32756				
45	21.736	PD	2828	47468				
TOTAL			142930	1929961		0.00000	0.00000	

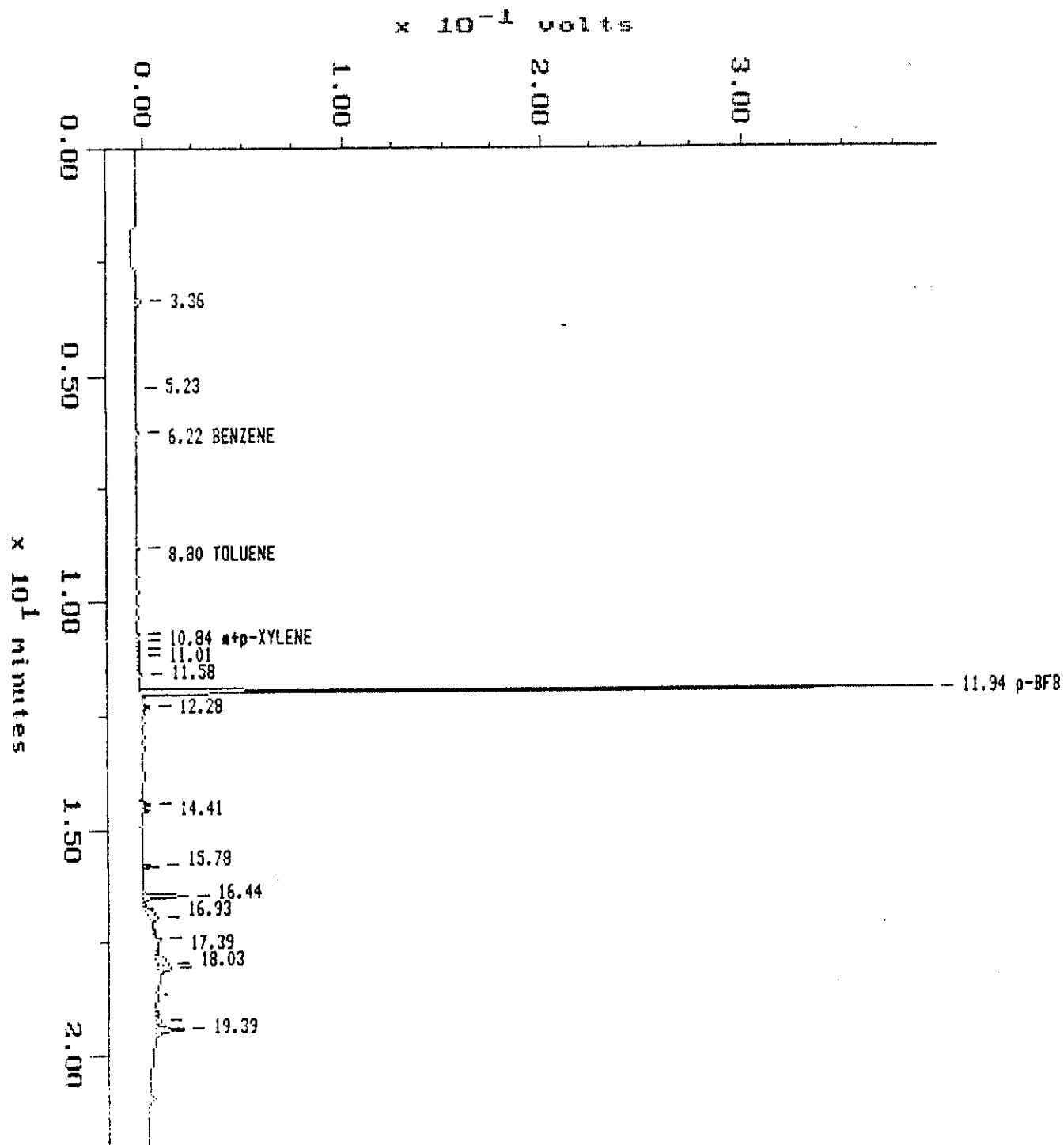
* Value not included in TOTAL calculation.

TRIP BLANK

Sample: 9109235-04
Acquired: 01-OCT-91 19:00
Dilution: 1 : 1.000
Comments: HP21 30M DB624

Channel: PID 21
Method: C:\MAX\DATA21\503021

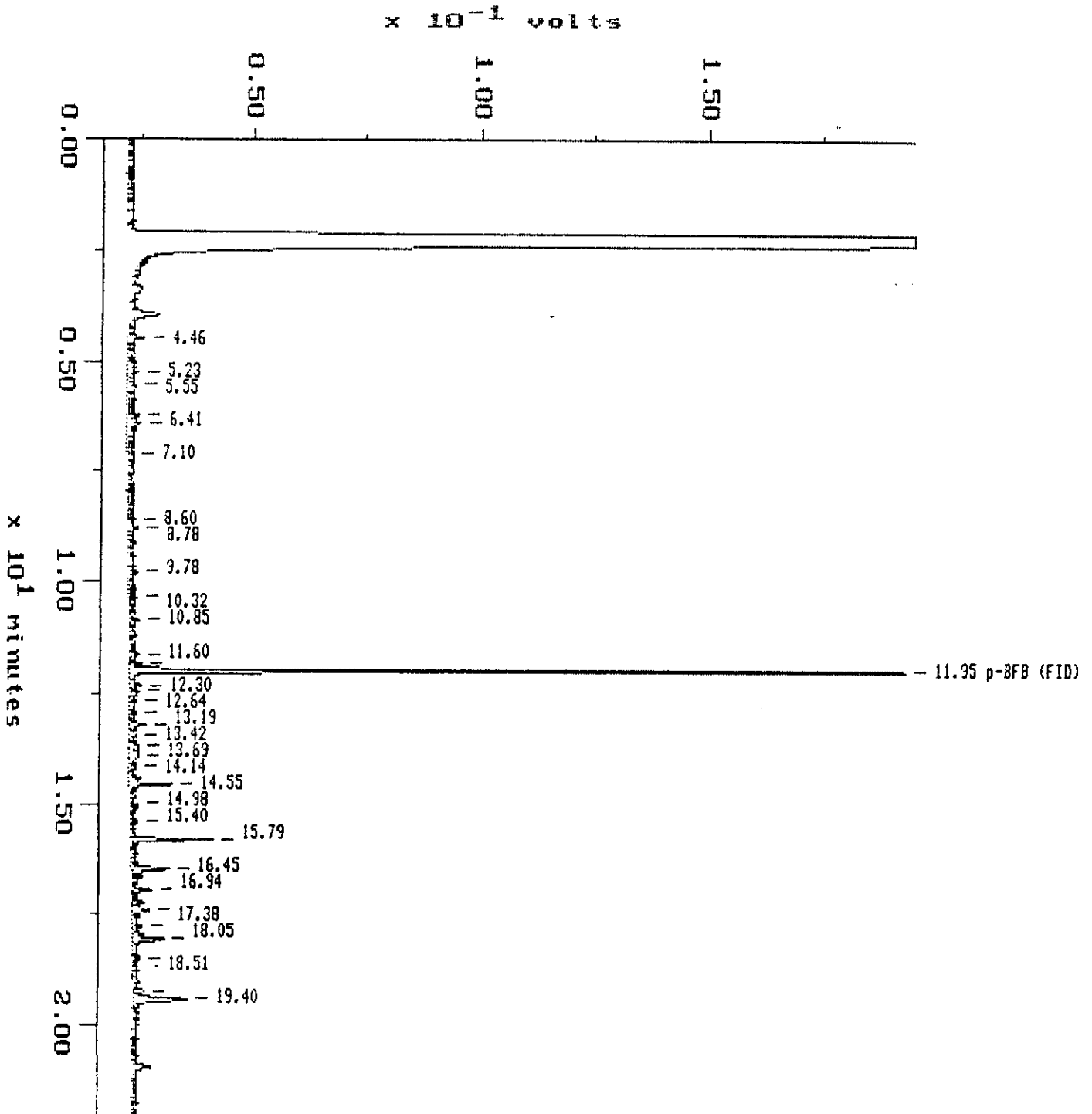
Filename: 09235-04
Operator: CF



TRIP BLANK

Sample: 9109235-04 Channel: FID 21
Acquired: 01-OCT-91 19:00 Method: C:\MAX\DATA21\503021
Dilution: 1 : 1.000
Comments: HP21 30M DB624

Filename: 09235-04
Operator: CF



MAXIMA 820 CUSTOM REPORT

Printed: 1-OCT-1991 20:42:29

SAMPLE: 9109235-04 **TRIP BLANK**
 #23 in Method:
 Acquired: 1-OCT-1991 19:00
 Rate: 4.2 points/sec
 Duration: 22.000 minutes
 Operator: CF

Type: UNKN
 Instrument: HP 21
 Filename: 09235-04
 Index: 18

Dilution: 1.000

DETECTOR: PID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		3.360	BB	2449	20554				
2		5.232	BB	563	2588				
3	1	6.224	BB	1408	5331	0.021	0.00009	0.00009	BENZENE
4	2	8.800	BB	1315	5209	0.023	0.00010	0.00010	TOLUENE
5	3	10.684	BP	736	3708	0.026	0.00007	0.00007	ETHYLBENZENE
6	4	10.836	PP	1247	6288	0.022	0.00011	0.00011	m+p-XYLENE
7		11.012	PP	527	1857				
8		11.144	PB	429	3416				
9		11.580	BB	1633	9092				
10	6	11.340	BB	396180#	1277923#	0.000	100.00000#	46%	p-BFB
11		12.276	BB	3363	13833				
12		14.408	BB	4334	18297				
13		15.780	BB	7721	26957				
14		16.436	BP	23750	113208				
15		16.328	PB	3430	45828				
16		17.388	BB	1549	1573				
17		17.932	BP	4501	46817				
18		18.032	PB	5394	41267				
19		19.216	BP	3333	38683				
20		19.392	PB	14591	93727				
TOTAL				82274	498233		0.00037	0.00037	

Value not included in TOTAL calculation.

DETECTOR: FID 21

PK#	ID#	Retention Time (minutes)	Type	Peak Height	Peak Area	Response Factor	Solution Conc	Original Conc	Component Name
1		4.456	BP	6536	94273				

TRIP BLANK

2	5.232	PP	2598	53610			
3	5.548	PP	2139	47668			
4	6.232	PP	2673	22139			
5	6.408	PP	2971	42929			
6	7.100	PP	1538	27536			
7	8.596	PP	1322	47318			
8	8.784	PB	1822	10920			
9	9.776	BP	1677	10136			
10	10.324	PP	1740	36492			
11	10.848	PP	2149	14662			
12	11.600	PP	2169	37182			
13	11.824	PP	2848	12455			
14	7 11.952	PP	170794#	556061#	0.000	100.00000#	p-BFB (FID)
15	12.300	PP	2977	19137			
16	12.420	PP	2045	15875			
17	12.636	PP	1607	13919			
18	12.916	PP	1871	10882			
19	13.192	PP	4066	23592			
20	13.424	PP	1681	13046			
21	13.688	PP	2328	19398			
22	13.900	PP	2388	24982			
23	14.144	PP	2007	18034			
24	14.548	PP	9824	76521			
25	14.984	PP	1845	16004			
26	15.400	PP	1925	9380			
27	15.792	PB	18289	64882			
28	16.448	BP	3554	61948			
29	16.936	PP	4548	30167			
30	17.376	PP	4140	47252			
31	17.744	PP	2491	17150			
32	18.048	PP	7348	71377			
33	18.508	PP	1647	8140			
34	19.228	PP	2590	34614			
35	19.404	PB	12241	83308			
TOTAL			125486	1076929	0.00000	0.00000	

Value not included in TOTAL calculation.

ANAMETRIX INC

Environmental & Analytical Chemistry
 1961 Concourse Drive, Suite E, San Jose, CA 95131
 (408) 432-8192 • Fax (408) 432-8198

**REPORT**

MR. WALTER HOWARD
 DUNN GEOSCIENCE CORP.
 12 METRO PARK ROAD
 ALBANY, NY 12205

Workorder # : 9109280
 Date Received : 09/27/91
 Project ID : 02345-01983
 Purchase Order: N/A

The following samples were received at Anamatrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9109280- 1	MW-1S

This report consists of 12 pages not including the cover letter, and is organized in sections according to the specific Anamatrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anamatrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anamatrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anamatrix.

Sarah Schoen
 Sarah Schoen, Ph.D.
 Laboratory Manager

10-09-91
 Date

ANAMETRIX REPORT DESCRIPTION

GCMS

Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and, within each method, organized sequentially in order of increasing Anamatrix ID number.

Tentatively Identified Compounds (TICs)

TIC forms contain tabulated results for non-target compounds detected in GC/MS analyses. TICs must be requested at the time samples are submitted at Anamatrix. TIC forms immediately follow the OADS form for each sample. If TICs are requested but not found, then TIC forms will not be included with the report.

Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method, if the method requires surrogate compounds. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "*", and the total number of surrogates outside the limits will be listed in the column labelled "Total Out".

Matrix Spike Recovery Form (MSR)

MSR forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "*", and the total number outside the limits will be listed at the bottom of the page. Not all reports will contain an MSR form.

Qualifiers

Anamatrix uses several data qualifiers (Q) in it's report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- U - Indicates that the compound was analyzed for, but was not detected at or above the specified reporting limit.
- B - Indicates that the compound was detected in the associated method blank.
- J - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an approximate value. Tentatively identified compounds will always have a "J" qualifier because they are not included in the instrument calibration.
- E - Indicates that the amount reported exceeded the linear range of the instrument calibration.
- D - Indicates that the compound was detected in an analysis performed at a secondary dilution.
- A - Indicates that the tentatively identified compound is a suspected aldo1 condensation product. This is common in EPA Method 8270 soil analyses.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

REPORTING CONVENTIONS

- ◆ Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report forms. However, the report cover letter and report summary pages display up to twenty (20) characters of your project and sample IDs.
- ◆ Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY
ANAMETRIX, INC. (408) 432-8192

MR. WALTER HOWARD
DUNN GEOSCIENCE CORP.
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9109280
Date Received : 09/27/91
Project ID : 02345-01983
Purchase Order: N/A
Department : GCMS
Sub-Department: GCMS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9109280- 1	MW-1S	WATER	09/26/91	8240
9109280- 1	MW-1S	WATER	09/26/91	8270

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. WALTER HOWARD
DUNN GEOSCIENCE CORP.
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9109280
Date Received : 09/27/91
Project ID : 02345-01983
Purchase Order: N/A
Department : GCMS
Sub-Department: GCMS

QA/QC SUMMARY :

- No QA/QC problems encountered.

Paul Howan 10-9-91
Department Supervisor Date

Seace Weir 10-9-91
Chemist Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 624/8240
ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
Sample ID : MW-1S
Matrix : WATER
Date Sampled : 9/26/91
Date Analyzed : 10/ 9/91
Instrument ID : MSD1

Anamatrix ID : 9109280-01
Analyst : MCF
Supervisor : PG
Dilution Factor : 1000.00
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10000.	ND	U
75-01-4	Vinyl chloride	10000.	ND	U
74-83-9	Bromomethane	10000.	ND	U
75-00-3	Chloroethane	10000.	ND	U
75-69-4	Trichlorofluoromethane	5000.	ND	U
75-35-4	1,1-Dichloroethene	5000.	ND	U
76-13-1	Trichlorotrifluoroethane	5000.	ND	U
67-64-1	Acetone	20000.	ND	U
75-15-0	Carbon disulfide	5000.	ND	U
75-09-2	Methylene chloride	5000.	ND	U
156-60-5	Trans-1,2-dichloroethene	5000.	ND	U
75-34-3	1,1-Dichloroethane	5000.	ND	U
156-59-2	Cis-1,2-dichloroethene	5000.	ND	U
78-93-3	2-Butanone	20000.	ND	U
67-66-3	Chloroform	5000.	ND	U
71-55-6	1,1,1-Trichloroethane	5000.	ND	U
56-23-5	Carbon tetrachloride	5000.	ND	U
108-05-4	Vinyl acetate	10000.	ND	U
71-43-2	Benzene	5000.	ND	U
107-06-2	1,2-Dichloroethane	5000.	ND	U
79-01-6	Trichloroethene	5000.	ND	U
78-87-5	1,2-Dichloropropane	5000.	ND	U
75-27-4	Bromodichloromethane	5000.	ND	U
110-75-8	2-Chloroethylvinyl ether	5000.	ND	U
10061-01-5	Cis-1,3-dichloropropene	5000.	ND	U
108-10-1	4-Methyl-2-pentanone	10000.	ND	U
108-88-3	Toluene	5000.	ND	U
10061-02-6	Trans-1,3-dichloropropene	5000.	ND	U
79-00-5	1,1,2-Trichloroethane	5000.	ND	U
127-18-4	Tetrachloroethene	5000.	ND	U
591-78-6	2-Hexanone	10000.	ND	U
124-48-1	Dibromochloromethane	5000.	ND	U
108-90-7	Chlorobenzene	5000.	ND	U
100-41-4	Ethylbenzene	5000.	6000.	U
1330-20-7	Xylene (Total)	5000.	50000.	U
100-42-5	Styrene	5000.	ND	U
75-25-2	Bromoform	5000.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5000.	ND	U
541-73-1	1,3-Dichlorobenzene	5000.	ND	U
106-46-7	1,4-Dichlorobenzene	5000.	ND	U
95-50-1	1,2-Dichlorobenzene	5000.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 624/8240
 ANAMETRIX, INC. (408)432-8192

Project ID :
 Sample ID : BLANK
 Matrix : WATER
 Date Sampled : 0/ 0/ 0
 Date Analyzed : 10/ 9/91
 Instrument ID : MSD1

Anamatrix ID : 1009B001
 Analyst : MCT
 Supervisor : PG
 Dilution Factor : 1.00
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	10.	ND	U
74-83-9	Bromomethane	10.	ND	U
75-00-3	Chloroethane	10.	ND	U
75-69-4	Trichlorofluoromethane	5.	ND	U
75-35-4	1,1-Dichloroethene	5.	ND	U
76-13-1	Trichlorotrifluoroethane	5.	ND	U
67-64-1	Acetone	20.	ND	U
75-15-0	Carbon disulfide	5.	ND	U
75-09-2	Methylene chloride	5.	ND	U
156-60-5	Trans-1,2-dichloroethene	5.	ND	U
75-34-3	1,1-Dichloroethane	5.	ND	U
156-59-2	Cis-1,2-dichloroethene	5.	ND	U
78-93-3	2-Butanone	20.	ND	U
67-66-3	Chloroform	5.	ND	U
71-55-6	1,1,1-Trichloroethane	5.	ND	U
56-23-5	Carbon tetrachloride	5.	ND	U
108-05-4	Vinyl acetate	10.	ND	U
71-43-2	Benzene	5.	ND	U
107-06-2	1,2-Dichloroethane	5.	ND	U
79-01-6	Trichloroethene	5.	ND	U
78-87-5	1,2-Dichloropropane	5.	ND	U
75-27-4	Bromodichloromethane	5.	ND	U
110-75-8	2-Chloroethylvinyl ether	5.	ND	U
10061-01-5	Cis-1,3-dichloropropene	5.	ND	U
108-10-1	4-Methyl-2-pentanone	10.	ND	U
108-88-3	Toluene	5.	ND	U
10061-02-6	Trans-1,3-dichloropropene	5.	ND	U
79-00-5	1,1,2-Trichloroethane	5.	ND	U
127-18-4	Tetrachloroethene	5.	ND	U
591-78-6	2-Hexanone	10.	ND	U
124-48-1	Dibromochloromethane	5.	ND	U
108-90-7	Chlorobenzene	5.	ND	U
100-41-4	Ethylbenzene	5.	ND	U
1330-20-7	Xylene (Total)	5.	ND	U
100-42-5	Styrene	5.	ND	U
75-25-2	Bromoform	5.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	ND	U
541-73-1	1,3-Dichlorobenzene	5.	ND	U
106-46-7	1,4-Dichlorobenzene	5.	ND	U
95-50-1	1,2-Dichlorobenzene	5.	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 624/8240
 ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
 Matrix : LIQUID

Anamatrix ID : 9109280
 Analyst : MCT
 Supervisor : PG

	SAMPLE ID	SU1	SU2	SU3	TOTAL OUT
1	BLANK	99	100	103	0
2	MW-1S	107	103	105	0
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
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22					
23					
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25					
26					
27					
28					
29					
30					

QC LIMITS

SU1 = 1,2-Dichloroethane-d4 (75-113)
 SU2 = Toluene-d8 (83-110)
 SU3 = 1,4-Bromofluorobenzene (82-114)

* Values outside of Anamatrix QC limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 625/8270
 ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
 Sample ID : MW-1S
 Matrix : WATER
 Date Sampled : 9/26/91
 Date Extracted : 9/30/91
 Amount Extracted : 930.0 mL
 Date Analyzed : 10/ 1/91
 Instrument ID : F2

Anamatrix ID : 9109280-01
 Analyst : WJ
 Supervisor : PG

Dilution Factor : 1.00
 Conc. Units : ug/L

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
108-95-2	PHENOL	11.	ND	U
111-44-4	BIS(2-CHLOROETHYL) ETHER	11.	ND	U
95-57-8	2-CHLOROPHENOL	11.	ND	U
541-73-1	1,3-DICHLOROBENZENE	11.	ND	U
106-46-7	1,4-DICHLOROBENZENE	11.	ND	U
100-51-6	BENZYL ALCOHOL	11.	ND	U
95-50-1	1,2-DICHLOROBENZENE	11.	ND	U
95-48-7	2-METHYLPHENOL	11.	ND	U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	11.	ND	U
106-44-5	4-METHYLPHENOL	11.	45.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	11.	ND	U
67-72-1	HEXACHLOROETHANE	11.	ND	U
98-95-3	NITROBENZENE	11.	ND	U
78-59-1	ISOPHORONE	11.	ND	U
88-75-5	2-NITROPHENOL	11.	ND	U
105-67-9	2,4-DIMETHYLPHENOL	11.	ND	U
65-85-0	BENZOIC ACID	54.	ND	U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	11.	ND	U
120-83-2	2,4-DICHLOROPHENOL	11.	ND	U
120-82-1	1,2,4-TRICHLOROBENZENE	11.	ND	U
91-20-3	NAPHTHALENE	11.	32.	U
106-47-8	4-CHLOROANILINE	11.	ND	U
87-68-3	HEXACHLOROBUTADIENE	11.	ND	U
59-50-7	4-CHLORO-3-METHYLPHENOL	11.	ND	U
91-57-6	2-METHYLNAPHTHALENE	11.	ND	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	11.	ND	U
88-06-2	2,4,6-TRICHLOROPHENOL	11.	ND	U
95-95-4	2,4,5-TRICHLOROPHENOL	54.	ND	U
91-58-7	2-CHLORONAPHTHALENE	11.	ND	U
88-74-4	2-NITROANILINE	54.	ND	U
131-11-3	DIMETHYLPHTHALATE	11.	ND	U
208-96-8	ACENAPHTHYLENE	11.	ND	U
606-20-2	2,6-DINITROTOLUENE	11.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 625/8270
ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
 Sample ID : MW-1S
 Matrix : WATER
 Date Sampled : 9/26/91
 Date Extracted : 9/30/91
 Amount Extracted : 930.0 mL
 Date Analyzed : 10/ 1/91
 Instrument ID : F2

Anamatrix ID : 9109280-01
 Analyst : LW
 Supervisor : PG

Dilution Factor : 1.00
 Conc. Units : ug/L

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
99-09-2	3-NITROANILINE	54.	ND	U
83-32-9	ACENAPHTHENE	11.	ND	U
51-28-5	2,4-DINITROPHENOL	54.	ND	U
100-02-7	4-NITROPHENOL	54.	ND	U
132-64-9	DIBENZOFURAN	11.	ND	U
121-14-2	2,4-DINITROTOLUENE	11.	ND	U
84-66-2	DIETHYLPHTHALATE	11.	ND	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	11.	ND	U
86-73-7	FLUORENE	11.	ND	U
100-01-6	4-NITROANILINE	54.	ND	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	54.	ND	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	11.	ND	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	11.	ND	U
118-74-1	HEXACHLOROBENZENE	11.	ND	U
87-86-5	PENTACHLOROPHENOL	54.	ND	U
85-01-8	PHENANTHRENE	11.	ND	U
120-12-7	ANTHRACENE	11.	ND	U
84-74-2	DI-N-BUTYLPHTHALATE	11.	ND	U
206-44-0	FLUORANTHENE	11.	ND	U
129-00-0	PYRENE	11.	ND	U
85-68-7	BUTYLBENZYLPHTHALATE	11.	ND	U
91-94-1	3,3'-DICHLOROBENZIDINE	22.	ND	U
56-55-3	BENZO (A) ANTHRACENE	11.	ND	U
218-01-9	CHRYSENE	11.	ND	U
117-81-7	BIS (2-ETHYLHEXYL) PHTHALATE	11.	7.	J
117-84-0	DI-N-OCTYLPHTHALATE	11.	ND	U
205-99-2	BENZO (B) FLUOROANTHENE	11.	ND	U
207-08-9	BENZO (K) FLUOROANTHENE	11.	ND	U
50-32-8	BENZO (A) PYRENE	11.	ND	U
193-39-5	INDENO (1,2,3-CD) PYRENE	11.	ND	U
53-70-3	DIBENZ [A,H] ANTHRACENE	11.	ND	U
191-24-2	BENZO (G,H,I) PERYLENE	11.	ND	U
62-75-9	N-NITROSODIMETHYLAMINE	11.	ND	U
4165-61-1	ANILINE	11.	ND	U
103-33-3	AZOBENZENE	11.	ND	U
92-87-5	BENZIDINE	54.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 625/8270
 ANAMETRIX, INC. (408)432-8192

TENTATIVELY IDENTIFIED COMPOUNDS

Project ID : 02345-01
 Sample ID : MW-1S
 Matrix : WATER
 Date Sampled : 9/26/91
 Date Extracted : 9/30/91
 Amount Extracted : 930.0 mL
 Date Analyzed : 10/ 1/91
 Instrument ID : F2

Anamatrix ID : 9109280-01
 Analyst : WJ
 Supervisor : PG

Dilution Factor : 1.00
 Conc. Units : ug/L

CAS NUMBER	COMPOUND NAME	REPORTING LIMIT	ESTIMATED CONC.	Q
1. 108-38-3	BENZENE, 1,3-DIMETHYL-	0.	1000.	J
2. - -	UNKNOWN	0.	900.	J
3. 620-14-4	BENZENE, 1-ETHYL-3-METHYL-	0.	70.	J
4. 108-67-8	BENZENE, 1,3,5-TRIMETHYL-	0.	200.	J
5. 108-67-8	BENZENE, 1,3,5-TRIMETHYL-	0.	100.	J
6. 873-94-9	CYCLOHEXANONE, 3,3,5-TRIMETH	0.	60.	J
7. 105-67-9	PHENOL, 2,4-DIMETHYL-	0.	30.	J
8. 90-00-6	PHENOL, 2-ETHYL-	0.	40.	J
9. - -	UNKNOWN	0.	300.	J
10. 55724-73-7	BUTANOIC ACID, 4-BUTOXY-	0.	80.	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 625/8270
ANAMETRIX, INC. (408)432-8192

Project ID :
Sample ID : BLANK
Matrix : WATER
Date Sampled : 0/ 0/ 0
Date Extracted : 9/30/91
Amount Extracted : 1000.0 mL
Date Analyzed : 10/ 1/91
Instrument ID : F2

Anamatrix ID : 0930B001
Analyst : LW
Supervisor : PG

Dilution Factor : 1.00
Conc. Units : ug/L

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
108-95-2	PHENOL	10.	ND	U
111-44-4	BIS (2-CHLOROETHYL) ETHER	10.	ND	U
95-57-8	2-CHLOROPHENOL	10.	ND	U
541-73-1	1,3-DICHLOROBENZENE	10.	ND	U
106-46-7	1,4-DICHLOROBENZENE	10.	ND	U
100-51-6	BENZYL ALCOHOL	10.	ND	U
95-50-1	1,2-DICHLOROBENZENE	10.	ND	U
95-48-7	2-METHYLPHENOL	10.	ND	U
108-60-1	BIS (2-CHLOROISOPROPYL) ETHER	10.	ND	U
105-44-5	4-METHYLPHENOL	10.	ND	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10.	ND	U
67-72-1	HEXACHLOROETHANE	10.	ND	U
98-95-3	NITROBENZENE	10.	ND	U
78-59-1	ISOPHORONE	10.	ND	U
88-75-5	2-NITROPHENOL	10.	ND	U
105-67-9	2,4-DIMETHYLPHENOL	10.	ND	U
65-85-0	BENZOIC ACID	50.	ND	U
111-91-1	BIS (2-CHLOROETHOXY) METHANE	10.	ND	U
120-83-2	2,4-DICHLOROPHENOL	10.	ND	U
120-82-1	1,2,4-TRICHLOROBENZENE	10.	ND	U
91-20-3	NAPHTHALENE	10.	ND	U
106-47-8	4-CHLOROANILINE	10.	ND	U
87-68-3	HEXACHLOROBUTADIENE	10.	ND	U
59-50-7	4-CHLORO-3-METHYLPHENOL	10.	ND	U
91-57-6	2-METHYLNAPHTHALENE	10.	ND	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	10.	ND	U
88-06-2	2,4,6-TRICHLOROPHENOL	10.	ND	U
95-95-4	2,4,5-TRICHLOROPHENOL	50.	ND	U
91-58-7	2-CHLORONAPHTHALENE	10.	ND	U
88-74-4	2-NITROANILINE	50.	ND	U
131-11-3	DIMETHYLPHTHALATE	10.	ND	U
208-96-8	ACENAPHTHYLENE	10.	ND	U
606-20-2	2,6-DINITROTOLUENE	10.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 625/8270
ANAMETRIX, INC. (408)432-8192

Project ID :
Sample ID : BLANK
Matrix : WATER
Date Sampled : 0/ 0/ 0
Date Extracted : 9/30/91
Amount Extracted : 1000.0 mL
Date Analyzed : 10/ 1/91
Instrument ID : F2

Anamatrix ID : 0930B001
Analyst : WW
Supervisor : PG

Dilution Factor : 1.00
Conc. Units : ug/L

CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
99-09-2	3-NITROANILINE	50.	ND	U
83-32-9	ACENAPHTHENE	10.	ND	U
51-28-5	2,4-DINITROPHENOL	50.	ND	U
100-02-7	4-NITROPHENOL	50.	ND	U
132-64-9	DIBENZOFURAN	10.	ND	U
121-14-2	2,4-DINITROTOLUENE	10.	ND	U
84-66-2	DIETHYLPHTHALATE	10.	ND	U
7005-72-3	4-CHLOROPHENYL-PHENYLEETHER	10.	ND	U
86-73-7	FLUORENE	10.	ND	U
100-01-6	4-NITROANILINE	50.	ND	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	ND	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	ND	U
101-55-3	4-BROMOPHENYL-PHENYLEETHER	10.	ND	U
118-74-1	HEXACHLOROBENZENE	10.	ND	U
87-86-5	PENTACHLOROPHENOL	50.	ND	U
85-01-8	PHENANTHRENE	10.	ND	U
120-12-7	ANTHRACENE	10.	ND	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	ND	U
206-44-0	FLUORANTHENE	10.	ND	U
129-00-0	PYRENE	10.	ND	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	ND	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	ND	U
56-55-3	BENZO (A) ANTHRACENE	10.	ND	U
218-01-9	CHRYSENE	10.	ND	U
117-81-7	BIS (2-ETHYLHEXYL) PHTHALATE	10.	ND	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	ND	U
205-99-2	BENZO (B) FLUOROANTHENE	10.	ND	U
207-08-9	BENZO (K) FLUOROANTHENE	10.	ND	U
50-32-8	BENZO (A) PYRENE	10.	ND	U
193-39-5	INDENO (1,2,3-CD) PYRENE	10.	ND	U
53-70-3	DIBENZ [A, H] ANTHRACENE	10.	ND	U
191-24-2	BENZO (G, H, I) PERYLENE	10.	ND	U
62-75-9	N-NITROSODIMETHYLAMINE	10.	ND	U
4165-61-1	ANILINE	10.	ND	U
103-33-3	AZOBENZENE	10.	ND	U
92-87-5	BENZIDINE	50.	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 625/8270
ANAMETRIX, INC. (408)432-8192

Project ID : 02345-01
Matrix : LIQUID

Anamatrix ID : 9109280
Analyst : LW
Supervisor : PG

	SAMPLE ID	SU1	SU2	SU3	SU4	SU5	SU6	TOTAL OUT
1	BLANK	39	17	57	63	76	83	0
2	MW-1S	31	22	72	66	77	82	0
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
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16								
17								
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22								
23								
24								
25								
26								
27								
28								
29								
30								



QC LIMITS

SU1 = 2-FLUOROPHENOL	(10- 82)
SU2 = PHENOL-D5	(10- 72)
SU3 = NITROBENZENE-D5	(10-100)
SU4 = 2-FLUOROBIPHENYL	(10- 92)
SU5 = 2,4,6-TRIBROMOPHENOL	(15-139)
SU6 = TERPHENYL-D14	(10-110)

* Values outside of Anamatrix QC limits

CLIENT CHAIN-OF-CUSTODY

9/28/91 12:00 F.B #108

PROJECT NUMBER 02345-01983		PROJECT NAME American National can Company			Number of Cntnrs	Type of Containers	Type of Analysis						REMARKS:	
Send Report Attention of: Walter Howard		Report Due 10/11/91		Verbal Due / /			8240	8270						
Witnessing Agency		Inspector Name		Date										
Sample Number	Date	Time	Comp	Grab	Station Location									
1 MW-13	9/26/91	14:05				5	3X40mL 2X Liter	V	V				RUN LIBRARY SEARCH FOR TENTATIVELY IDENTIFIED COMPOUNDS ON BOTH 8240 AND 8270 ANALYSES. samples received. each proper container no bubbles.	
						Signature Date 9/27/91 WALTER O. HOWARD				UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 		CUSTODY SEAL Date 9/27/91 Signature Walter O. Howard		
						CLIENT NAME, ADDRESS and PHONE NUMBER DUNN Geoscience								
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		The following MUST BE completed by the laboratory accepting samples for analysis: 1. Have all samples received for analysis been stored in ice? <u>YES</u> 2. Will samples remain refrigerated until analyzed? <u>YES</u> 3. Did any samples received for analysis have headspace? <u>NO</u> 4. Were samples in appropriate containers and properly packaged? <u>YES</u>						
Jay H. Howard 9/26/91 17:15		Fash Bucher 9-26-91 17:15												
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time								
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Fash Bucher sample custodian Signature & Title 09-27-91 Date						