

3R - 194

# REPORTS

DATE:

8/13/1999



RECEIVED

AUG 16 1999

OIL CONSERVATION DIVISION

Certified Mail: #Z 211 324 159

August 13, 1999

Mr. William C. Olson  
New Mexico Oil Conservation Division  
2040 S. Pacheco  
Santa Fe, NM 87504

**RE: WORK PLAN FOR THE POTENTIAL SOIL CONTAMINATION INVESTIGATION AND  
MONITORING WELL INSTALLATION AT THE JAQUEZ COM E #1 AND C #1**

Dear Mr. Olson:

Pursuant to the July 22, 1999 letter from the New Mexico Oil Conservation Division (OCD), El Paso Field Services (EPFS) hereby submits the following report and Work Plan for further investigation and monitoring well installation at the Jaquez E #1 and C #1.

**BACKGROUND**

On June 25, 1999 Mr. John Jaquez expressed concerns that he had encountered "blackened smelly soil at a depth of 8 – 12 inches". EPFS agreed an investigation should be initiated, sampling was scheduled, and Denny Foust of the district OCD office was notified.

**RESULTS**

On June 30, 1999 EPFS lab personnel and Denny Foust of the OCD met at the Jaquez site. Both EPFS and OCD personnel noted an area with gray soils in the east central portion of the field. An initial soil sample was collected in the center of the gray area at an approximate depth of 4 feet using a standard hand auger, as shown in Figure 1. An additional 4 samples were collected on 10-foot centers, radially at a depth of approximately 4 feet, to characterize the entire gray area. The depths of the samples were based on the depth to groundwater, which was approximately 4.5 feet below the ground surface. This depth was chosen as the most likely area of contamination, due to the fluctuation in ground water levels in the field. Based on historical groundwater elevation data, July would be considered a seasonal high for the groundwater in the area; therefore,

the saturated zone interface would be the most likely area to show signs of migrating contaminants. In addition to soil samples, groundwater was collected from an open auger hole (SB-05) to characterize the groundwater in the area. All samples were shipped under standard Chain of Custody procedures to Pinnacle Laboratories in Albuquerque, New Mexico. All soil samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA method 8021 modified and total petroleum hydrocarbons by EPA method 8015 modified. All groundwater samples were analyzed for BTEX by EPA method 8021 modified. As presented in Table 1, the soil samples and groundwater sample (SB-01 – SB-05) from the gray area were below laboratory detection limits.

In addition to the reported gray area, EPFS sampled several locations north of the original remediation excavation area. Sample results from soil borings SB-06 and SB-09, at a depth of 4 feet, show levels above OCD clean-up standards for TPH and BTEX between M-03 and M-04. The area west of M-03 (SB-08), which was pointed out by Mrs. Jaquez as having discolored soils, showed BTEX and TPH concentrations below laboratory detection limits. An additional sample (SB-10) was collected between M-04 and M-01 to evaluate soil and groundwater conditions in the north central area of the field. The soil sample collected from saturated zone interface showed BTEX and TPH concentrations below laboratory detection limits. The groundwater collected from the open boring was over New Mexico Water Quality Control Commission (NMWQCC) standards. The soil and groundwater sample results are presented in Table 1 and copies of the laboratory reports are included as Attachment 1.

## **CONCLUSIONS**

EPFS, along with Denny Foust of the OCD, made a best effort to sample in the area of concern. The area EPFS and OCD identified (SB-01 – SB-05) showed no evidence of hydrocarbon contamination.

Residual hydrocarbons remain in the unexcavated area north of the cornfield. This area was not originally excavated, due to the proximity to Citizens Ditch. Groundwater in the vicinity of SB-10 appears to have BTEX in excess of NMWQCC standards.

## **WORK PLAN FOR FURTHER INVESTIGATION**

### **Garden Area South of Citizens Ditch**

EPFS proposes to collect 8 additional soil samples across the excavated portion of the garden area, as shown in Figure 1. The soil samples will be collected using a standard hand auger. Soil samples will be screened with a PID every foot during the boring process. The soil interval with the highest PID headspace reading or the saturated zone

interface will be retained and analyzed for TPH and BTEX using EPA methods 8015 modified and 8021 modified respectively.

In addition to soil samples, EPFS will attempt to collect groundwater from five soil boring locations to evaluate the groundwater quality across the garden area. The soil borings will be collected by hand augering approximately 3 feet into the saturated zone and installing five feet of .010 inch slotted PVC screen and solid PVC riser to the surface. A minimum of 3 casing volumes of groundwater will be removed prior to collecting the groundwater sample. Each groundwater sample collected will be analyzed for BTEX by EPA method 8021 modified. Based on the results of the groundwater survey EPFS will evaluate the need for additional monitoring wells.

#### **Meter Site Area North of Citizens Ditch**

Based on existing data from the initial soil gas investigation and the latest groundwater gradient information EPFS proposes to install one additional groundwater monitoring well approximately 25-35 feet southwest of R-4 along the banks of Citizens Ditch. Based on existing soil gas data, soil and groundwater below standards exists 15-20 feet west R-4. The data shows, the groundwater gradient generally trends to the south – southwest; therefore, the area 25-35 southwest of R-04 should be outside the contaminated area along the Citizen's Ditch.

The monitoring well will be installed using a standard hollow stem auger drilling rig. The soil will be sampled and screened with a PID on a five-foot basis. The sample with the highest PID headspace reading or the saturated zone interface will be retained and analyzed for BTEX by method 8021 modified and TPH by method 8015 modified. The monitoring well will be constructed of 15 feet of 4 inch, .010 slot PVC screen and solid PVC riser, which will extend to the surface. The well screen will be placed so that five feet of screen is above the saturated zone to account for seasonal groundwater fluctuations. A 10-20 grade washed silica sand will be place in the annular space surrounding the well screen and will extend to approximately 2 feet above the well screen. An annular seal consisting of a minimum of 2 feet of bentonite chips will placed directly above the sand pack. The remaining annular space will be filled with a cement / bentonite grout, which will extend to the surface. The monitoring well will be completed with a locking steel well protector, 2'X2'X3" concrete well pad and 3 bumper posts.

Once the well has been installed it will be developed and sampled by removing a minimum of 3 casing volumes of groundwater. After pH, conductivity, and temperature of the groundwater in the monitoring well have stabilized, the groundwater will be sampled and analyzed for BTEX by method 8021 modified.

Mr. William C. Olson  
New Mexico Oil Conservation Division  
Page 4

A report summarizing the results from the soil and groundwater investigation will be submitted to the OCD at the conclusion of the project.

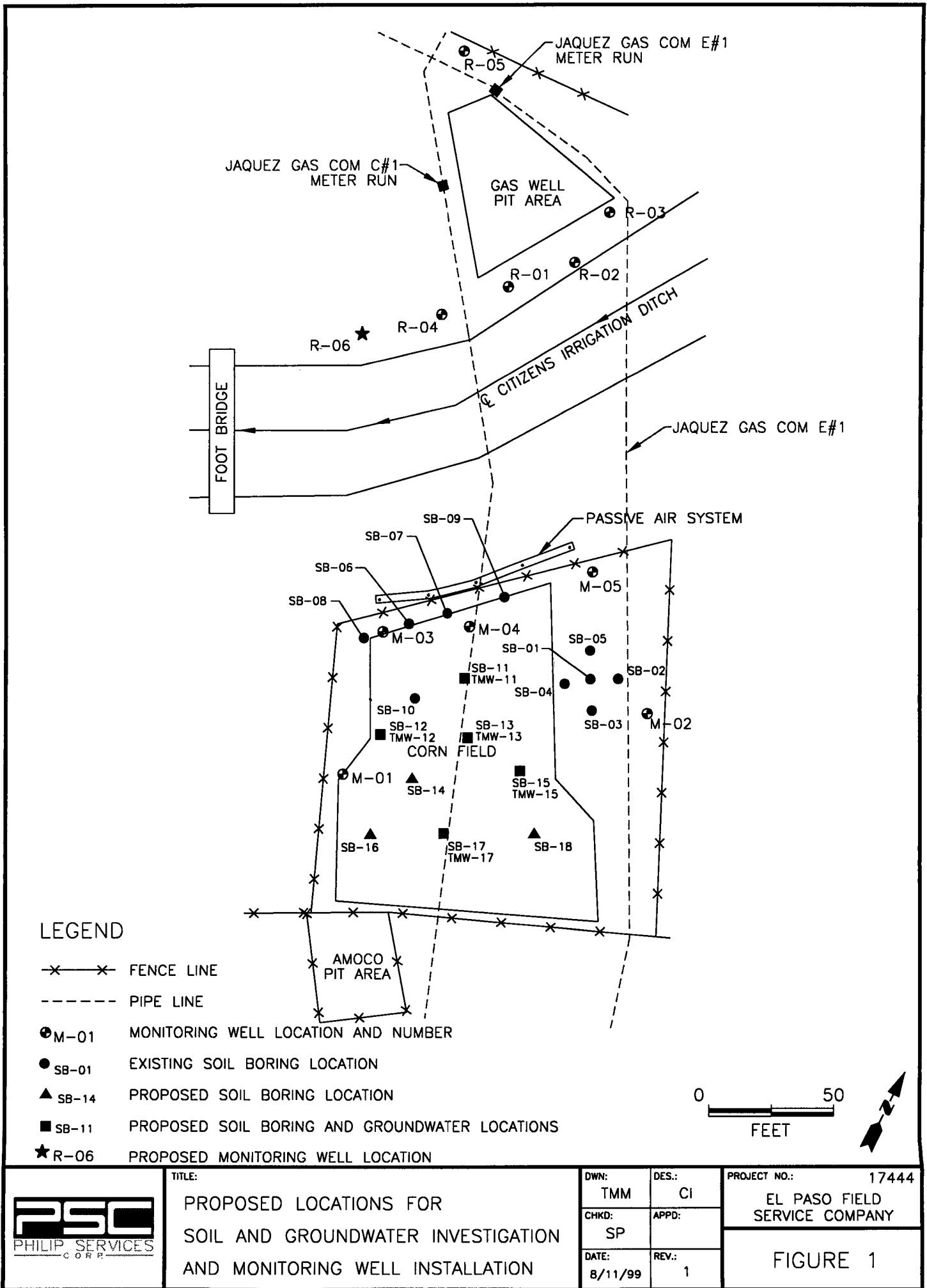
If you have any questions concerning the proposed Work Plan, please call me at (505) 599-2124.

Sincerely,



Scott T. Pope P.G.  
Senior Environmental Scientist

Xc: Mr. Denny Foust, NMOCD, Aztec, w / enclosures; **Certified Mail # Z 211 324 160**  
Mr. John Jaquez, w / enclosures; **Certified Mail # Z 211 324 161**



Tabel 1

## Jacquez Cornfield Results Summary

SAMPLE		Sample				Field	TPH	Benzene	Total BTEX
ID	DATE	TIME	Location	Sample	Sample			Soil - MG/KG	Soil - MG/KG
			Map Point	Depth	Matrix	Color	PID (PPM)	Water - PPB	Water - PPB
990293	6/30/99	850	#1	4' - 2"	Soil	Brown	<5.0	<20	<0.025
990294	6/30/99	910	#2	4' - 2"	Soil	Brown	<5.0	<20	<0.025
990295	6/30/99	930	#3	4'	Soil	Brown	<5.0	<20	<0.025
990296	6/30/99	945	#4	4'	Soil	Brown	<5.0	<20	<0.025
990297	6/30/99	1000	#6	4'	Soil	Gray	2346	6850	28
990298	6/30/99	1015	#8	4'	Soil	Brown	<5.0	<20	<0.025
990299	6/30/99	1025	#9	4'	Soil	Gray	2387	1443	2.6
990300	6/30/99	1040	#5	4'	Soil	Brown	<5.0	<20	<0.025
990301	6/30/99	1050	#5	4'	Water	Clear	NA	NA	<0.5
990302	6/30/99	1140	#10	7' - 4"	Soil	Black	Not Run	<20	<0.025
990303	6/30/99	1145	#10	7' - 4"	Water	Clear	NA	NA	1100
990304	6/30/99	1010	#7	4'	Soil	Brown	<5.0	<20	<0.025

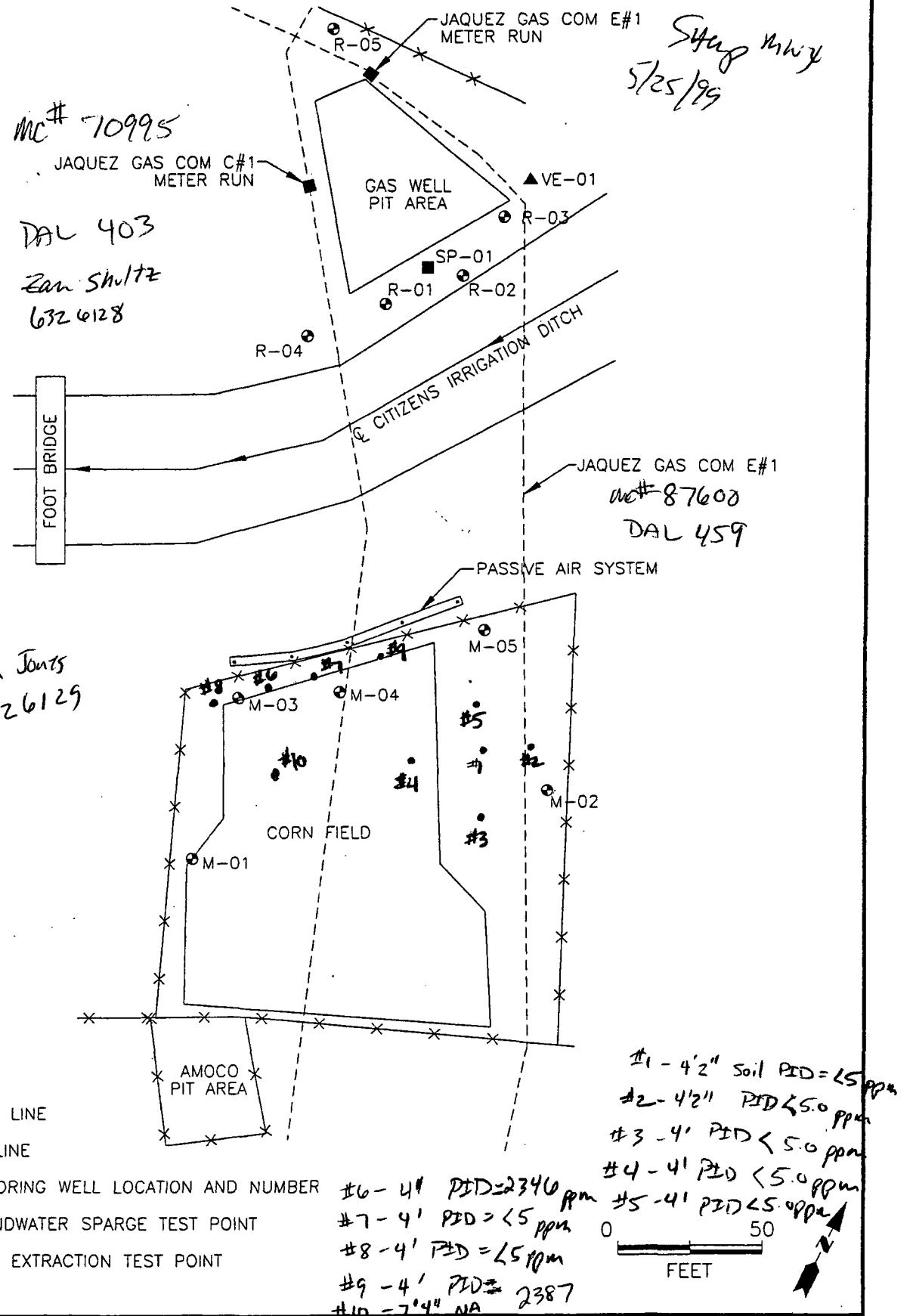
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**Attachment 1**  
**Laboratory Report**

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Jacquez Cornfield Results Summary

SAMPLE ID	DATE	TIME	Sample				Field PID (PPM)	TPH MG/KG	Benzene Soil - MG/KG	Total BTEX Soil - MG/KG
			Location Map Point	Sample Depth	Sample Matrix	Sample Color			Water - PPB	Water - PPB
990293	6/30/99	850	#1	4' - 2""	Soil	Brown	<5.0	<20	<0.025	<0.1
990294	6/30/99	910	#2	4' - 2""	Soil	Brown	<5.0	<20	<0.025	<0.1
990295	6/30/99	930	#3	4'	Soil	Brown	<5.0	<20	<0.025	<0.1
990296	6/30/99	945	#4	4'	Soil	Brown	<5.0	<20	<0.025	<0.1
990297	6/30/99	1000	#6	4'	Soil	Gray	2346	6850	28	262
990298	6/30/99	1015	#8	4'	Soil	Brown	<5.0	<20	<0.025	<0.1
990299	6/30/99	1025	#9	4'	Soil	Gray	2387	1443	2.6	46.5
990300	6/30/99	1040	#5	4'	Soil	Brown	<5.0	<20	<0.025	<0.1
990301	6/30/99	1050	#5	4'	Water	Clear	NA	NA	<0.5	<2.0
990302	6/30/99	1140	#10	7' - 4""	Soil	Black	Not Run	<20	<0.025	<0.1
990303	6/30/99	1145	#10	7' - 4""	Water	Clear	NA	NA	1100	3060
990304	6/30/99	1010	#7	4'	Soil	Brown	<5.0	<20	<0.025	<0.1



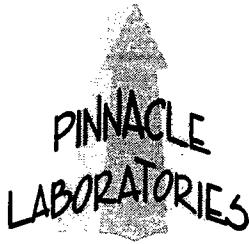
ANALYSIS REQUEST NUMBERS

SAMPLE NUMBER	Logged by	Date of Collection	Time of Collection	Location	Sample Point	Primary Description	Secondary	Depth ft.	Date of Analysis	Lab No.	Date of Results
	(Initials)										
990271	JAL	6/8/99	1202	MC#	Ramenta et al #1 PC-006	MW-2	water	PINN			
990272	JAL	6/8/99	1300	MC#	Ramenta et al #1 PC-007	MW-3					
990273	JAL	6/8/99	1335	MC#	Charley PAH #2 PC-008	MW-1					
990274	JAL	6/8/99	1410	MC#	Charley PAH #2 PC-009	MW-2					
990275	JAL	6/8/99	1440	MC#	Charley PAH #2 PC-010	MW-3					
990276	JAL	6/8/99	1441	MC#	TRIP BLANK						
990277	JAL	6/8/99	1442	MC#	TRIP BLANK #2		water	PINN			
990278	OPB	6-11-99	1148	MC# 93388	HORTON #15	MW-1	water	EPFS			
990279	OPB	6-11-99	1148	MC# 93388	HORTON #15	MW-1	water	EPFS			
990280	OPB	6-11-99	1540	MC# 89894	HAMMOND #41A	MW-1	water	EPFS			
990281	OPB	6-11-99	1542		TRIP BLANK		water	PINN			
990282	OPB	6-14-99	1033	MC# 75155	RAMENTA ET AL #1	MW-1	water	EPFS			
990283	OPB	6-14-99	1203	MC# 71816	JENNA PAH #1	MW-1	water	EPFS			
990284	OPB	6-14-99	1445	MC# 10087	K-31 LINE DRIP	MW-1	water	EPFS			
990285	OPB	6-14-99	1447		TRIP BLANK		water				
990286	OPB	6-14-99	1314	CHACO PLANT	CONTROL STORAGE		water	UWS			
990287	OPB	6-15-99	1213	CHACO PLANT	MONITOR WELL	MW-9	water	PINN			
990288	OPB	6-15-99	1350	CHACO PLANT	MONITOR WELL	MW-10	water				
990289	OPB	6-15-99	1350	CHACO PLANT	MONITOR WELL FIELD DIP	MW-10	water				
990290	OPB	6-15-99	1548	MC# 73220	FONSECA 41 COM #4	MW-1	water				
990291	OPB	6-15-99	1550		TRIP BLANK		water				
990292	OPB	6-15-99	0830	BLANCO PLANT	TOTAL DISCHARGE		water	EPFS			
990293	JAL	6-30-99	0850	JACQUEZ CF	HA #1	Brown	4'-2"	Soil	PINN		C5
990294	JAL	6-30-99	0910		HA #2		4'-2"	Soil			C5
990295	JAL	6-30-99	0930		HA #3		4'	Soil			C5
990296	JAL	6-30-99	0945		HA #4	Brown	4'	Soil			C5
990297	JAL	6-30-99	1000	JACQUEZ CF	HA #6	Gray	4'	Soil	PINN		23446

## ANALYSIS REQUEST NUMBERS

SAMPLE NUMBER	Logged by	Date of Collection	Time of Collection	Location	Sample Point	Primary Description	Matrix	LAB #1	Date of Results	Lab #2	Date of Results
990297	JAL	6-30-99	1010	JACQUEZ CF	HA #7	Brown	4'	Soil	PINN		
990298	JAL		1015		HA #8	Brown	4'	Soil			L5
990299	JAL		1025		HA #9	Gray	4'	Soil			2387
990300	JAL		1040		HA #5	Brown	4'	Soil			L5
990301	JAL		1050		HA #5 GW		4'	water			—
990302	JAL		1140		HA #10	Black	7'-4"	Soil			NR
990303	JAL	6-30-99	1145	JACQUEZ CF	HA #10 GW		7'-4"	water	PINN		
990304	JAL	6-30-99	1010	JACQUEZ CF	HA #7	Brown	4'	Soil	PINN		L5
990305	JAL	7-1-99	0840	Chaco Plant	LAKE FELDER			water	CORE		
990306	DPB	7-9-99	1405	CHACO PLANT	30" DISCHARGE			WATER	EPFS		
990307	DPB	7-13-99	1030	CHACO PLANT	MONITOR WELL		MW-2	WATER	EPFS		
990308			1157		MONITOR WELL		MW-3	WATER	EPFS		
990309			1255		MONITOR WELL		MW-4	WATER	EPFS		
990310			1423		MONITOR WELL		MW-5	WATER	EPFS		
990311			1423		MONITOR WELL		MW-5	WATER	EPFS		
990312			1546		MONITOR WELL		MW-6	WATER	EPFS		
990313	DPB	7-13-99	1702	CHACO PLANT	MONITOR WELL		MW-7	WATER	EPFS		
990314	JAL	7/13/99	?	South Carlsbad Turbine	Contactor Out		Rich	Glycol	EPFS		
990315			?		Dehy	Lean Glycol					
990316			?			Before Charcoal Filter					
990317			?			Out of Charcoal Filter					
990318	JAL	7/13/99	?	South Carlsbad Turbine	New Glycol From Tank			Glycol	EPFS		
990319	JAL	7/15/99	1410	Chaco Plant	C-1 Oil Residue		mobil 1797 lube oil, filter media due	Deposit	EPFS		
990320	JAL	7/15/99		Potter Canyon							

Mullen



2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

Pinnacle Lab ID number 907004  
July 13, 1999

EL PASO FIELD SERVICES  
770 WEST NAVAJO  
FARMINGTON, NM 87401

Project Name JACQUEZ CF  
Project Number (none)

Attention: JOHN LAMBDIN

On 7/1/99 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592), received a request to analyze **aqueous and non-aq** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

  
Kimberly D. McNeill  
Project Manager

MR: mt

Enclosure

  
H. Mitchell Rubenstein, Ph. D.  
General Manager

*Received & Accepted  
7/19/99  
J. M. R.*

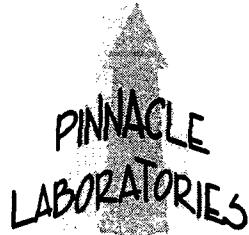
PINNACLE  
LABORATORIES

2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

CLIENT : EL PASO FIELD SERVICES  
PROJECT # : (none)  
PROJECT NAME : JACQUEZ CF

PINNACLE ID : 907004  
DATE RECEIVED : 7/1/99  
REPORT DATE : 7/13/99

PIN D. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	990293	NON-AQ	6/30/99
02	990294	NON-AQ	6/30/99
03	990295	NON-AQ	6/30/99
04	990296	NON-AQ	6/30/99
05	990297	NON-AQ	6/30/99
06	990298	NON-AQ	6/30/99
07	990299	NON-AQ	6/30/99
08	990300	NON-AQ	6/30/99
09	990301	AQUEOUS	6/30/99
10	990302	NON-AQ	6/30/99
11	990303	AQUEOUS	6/30/99
12	990304	NON-AQ	6/30/99



2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

### GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED  
CLIENT : EL PASO FIELD SERVICES  
PROJECT # : (none)  
PROJECT NAME : JACQUEZ CF

PINNACLE I.D.: 907004

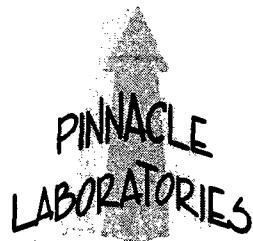
SAMPLE		MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL.
ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL.
01	990293	NON-AQ	6/30/99	7/6/99	7/7/99	1
02	990294	NON-AQ	6/30/99	7/6/99	7/7/99	1
03	990295	NON-AQ	6/30/99	7/6/99	7/7/99	1

PARAMETER	DET. LIMIT	UNITS	990293	990294	990295
BENZENE	0.025	MG/KG	< 0.025	< 0.025	< 0.025
TOLUENE	0.025	MG/KG	< 0.025	< 0.025	< 0.025
ETHYLBENZENE	0.025	MG/KG	< 0.025	< 0.025	< 0.025
TOTAL XYLEMES	0.025	MG/KG	< 0.025	< 0.025	< 0.025

#### SURROGATE:

BROMOFLUOROBENZENE (%) 92 95 94  
SURROGATE LIMITS ( 65 - 120 )

CHEMIST NOTES:  
N/A



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### GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED  
CLIENT : EL PASO FIELD SERVICES  
PROJECT # : (none)  
PROJECT NAME : JACQUEZ CF

PINNACLE I.D.: 907004

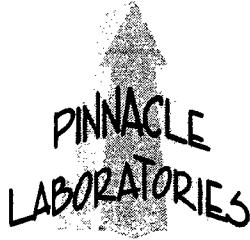
SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	990296	NON-AQ	6/30/99	7/6/99	7/7/99	1
05	990297	NON-AQ	6/30/99	7/6/99	7/7/99	100
06	990298	NON-AQ	6/30/99	7/6/99	7/7/99	1

PARAMETER	DET. LIMIT	UNITS	990296	990297	990298
BENZENE	0.025	MG/KG	< 0.025	28	< 0.025
TOLUENE	0.025	MG/KG	< 0.025	10	< 0.025
ETHYLBENZENE	0.025	MG/KG	< 0.025	24	< 0.025
TOTAL XYLEMES	0.025	MG/KG	< 0.025	200	< 0.025

SURROGATE:

BROMOFLUOROBENZENE (%) 94 79 88  
SURROGATE LIMITS ( 65 - 120 )

CHEMIST NOTES:  
N/A



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### GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED  
CLIENT : EL PASO FIELD SERVICES  
PROJECT # : (none)  
PROJECT NAME : JACQUEZ CF

PINNACLE I.D.: 907004

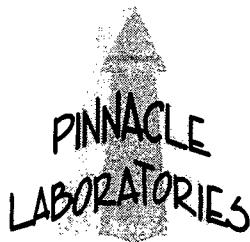
SAMPLE		MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	990299	NON-AQ	6/30/99	7/6/99	7/7/99	50
08	990300	NON-AQ	6/30/99	7/6/99	7/7/99	1
10	990302	NON-AQ	6/30/99	7/6/99	7/7/99	1

PARAMETER	DET. LIMIT	UNITS	990299	990300	990302
BENZENE	0.025	MG/KG	2.6	< 0.025	< 0.025
TOLUENE	0.025	MG/KG	13	< 0.025	< 0.025
ETHYLBENZENE	0.025	MG/KG	3.9	< 0.025	< 0.025
TOTAL XYLEMES	0.025	MG/KG	27	< 0.025	< 0.025

SURROGATE:

BROMOFLUOROBENZENE (%) 85 88 87  
SURROGATE LIMITS ( 65 - 120 )

CHEMIST NOTES:  
N/A



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### GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED  
CLIENT : EL PASO FIELD SERVICES  
PROJECT # : (none)  
PROJECT NAME : JACQUEZ CF

PINNACLE I.D.: 907004

SAMPLE		MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
12	990304	NON-AQ	6/30/99	7/6/99	7/7/99	1
PARAMETER	DET. LIMIT		UNITS	990304		
BENZENE	0.025		MG/KG	< 0.025		
TOLUENE	0.025		MG/KG	< 0.025		
ETHYLBENZENE	0.025		MG/KG	< 0.025		
TOTAL XYLEMES	0.025		MG/KG	< 0.025		

SURROGATE:

BROMOFLUOROBENZENE (%)  
SURROGATE LIMITS ( 65 - 120 )

89

CHEMIST NOTES:

N/A

PINNACLE  
LABORATORIES

2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS  
REAGENT BLANK

TEST	:	EPA 8021 MODIFIED	PINNACLE I.D.	:	907004
BLANK I. D.	:	070699	DATE EXTRACTED	:	7/6/99
CLIENT	:	EL PASO FIELD SERVICES	DATE ANALYZED	:	7/7/99
PROJECT #	:	(none)	SAMPLE MATRIX	:	NON-AQ
PROJECT NAME	:	JACQUEZ CF			

PARAMETER	UNITS	
BENZENE	MG/KG	<0.025
TOLUENE	MG/KG	<0.025
ETHYLBENZENE	MG/KG	<0.025
TOTAL XYLENES	MG/KG	<0.025

SURROGATE:

BROMOFLUOROBENZENE (%) 93

SURROGATE LIMITS: ( 80 - 120 )

CHEMIST NOTES:

N/A

PINNACLE  
LABORATORIES

2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL  
MSMSD

TEST	: EPA 8021 MODIFIED									
MSMSD #	: 907004-01		PINNACLE I.D.		: 907004					
CLIENT	: EL PASO FIELD SERVICES		DATE EXTRACTED		: 7/6/99					
PROJECT #	: (none)		DATE ANALYZED		: 7/7/99					
PROJECT NAME	: JACQUEZ CF		SAMPLE MATRIX		: NON-AQ					
			UNITS		: MG/KG					
PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS	
BENZENE	<0.025	1.00	1.02	102	0.99	99	3	( 68 - 120 )	20	
TOLUENE	<0.025	1.00	0.99	99	1.02	102	3	( 64 - 120 )	20	
ETHYLBENZENE	<0.025	1.00	1.03	103	1.04	104	1	( 49 - 127 )	20	
TOTAL XYLEMES	<0.025	3.00	2.89	96	2.95	98	2	( 58 - 120 )	20	

CHEMIST NOTES:

N/A

% Recovery =  $\frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$

RPD (Relative Percent Difference) =  $\frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$

PINNACLE  
LABORATORIES

2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED  
CLIENT : EL PASO FIELD SERVICES  
PROJECT # : (none)  
PROJECT NAME : JACQUEZ CF

PINNACLE I.D.: 907004

SAMPLE		MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
ID. #	CLIENT I.D.					
09	990301	AQUEOUS	6/30/99	NA	7/5/99	1
11	990303	AQUEOUS	6/30/99	NA	7/5/99	10

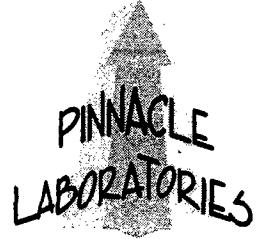
PARAMETER	DET. LIMIT	UNITS	990301	990303
BENZENE	0.5	UG/L	< 0.5	1100
TOLUENE	0.5	UG/L	< 0.5	910
ETHYLBENZENE	0.5	UG/L	< 0.5	110
TOTAL XYLEMES	0.5	UG/L	< 0.5	940
METHYL-t-BUTYL ETHER	2.5	UG/L	< 2.5	< 25

SURROGATE:

BROMOFLUOROBENZENE (%) 87 87  
SURROGATE LIMITS ( 80 - 120 )

CHEMIST NOTES:

N/A



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GAS CHROMATOGRAPHY RESULTS  
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 907004
BLANK I. D.	: 070599	DATE EXTRACTED	: N/A
CLIENT	: EL PASO FIELD SERVICES	DATE ANALYZED	: 7/5/99
PROJECT #	: (none)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: JACQUEZ CF		

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5

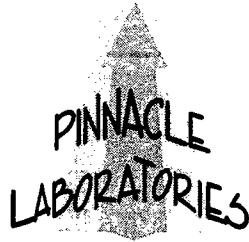
SURROGATE:  
BROMOFLUOROBENZENE (%)

85

SURROGATE LIMITS: ( 80 - 120 )

CHEMIST NOTES:

N/A



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GAS CHROMATOGRAPHY QUALITY CONTROL  
MSMSD

TEST	: EPA 8021 MODIFIED			PINNACLE I.D.	: 907004				
MSMSD #	: 907004-09			DATE EXTRACTED	: N/A				
CLIENT	: EL PASO FIELD SERVICES			DATE ANALYZED	: 7/5/99				
PROJECT #	: (none)			SAMPLE MATRIX	: AQUEOUS				
PROJECT NAME	: JACQUEZ CF			UNITS	: UG/L				
PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	19.2	96	20.3	102	6	( 80 - 120 )	20
TOLUENE	<0.5	20.0	19.5	98	19.9	100	2	( 80 - 120 )	20
ETHYLBENZENE	<0.5	20.0	19.8	99	21.0	105	6	( 80 - 120 )	20
TOTAL XYLENES	<0.5	60.0	56.1	94	58.9	98	5	( 80 - 120 )	20

CHEMIST NOTES:

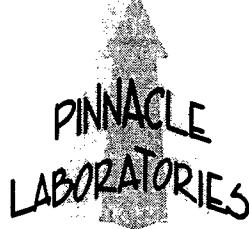
N/A

(Spike Sample Result - Sample Result)

$$\% \text{ Recovery} = \frac{\text{Spike Sample Result} - \text{Sample Result}}{\text{Spike Concentration}} \times 100$$

(Sample Result - Duplicate Result)

$$\text{RPD (Relative Percent Difference)} = \frac{\text{Sample Result} - \text{Duplicate Result}}{\text{Average Result}} \times 100$$



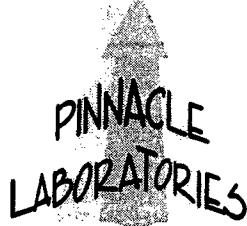
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Albuquerque, New Mexico 87107  
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Fax (505) 344-4413

### GAS CHROMATOGRAPHY RESULTS

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)					
CLIENT	: EL PASO FIELD SERVICES			PINNACLE I.D.: 907004		
PROJECT #	: (none)					
PROJECT NAME	: JACQUEZ CF					
SAMPLE		MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
ID. #	CLIENT I.D.					
01	990293	NON-AQ	6/30/99	7/6/99	7/7/99	1
02	990294	NON-AQ	6/30/99	7/6/99	7/7/99	1
03	990295	NON-AQ	6/30/99	7/6/99	7/7/99	1
PARAMETER	DET. LIMIT	UNITS	990293	990294	990295	
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 10	< 10	< 10	
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	< 5.0	< 5.0	< 5.0	
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 5.0	< 5.0	< 5.0	
CALCULATED SUM:						
SURROGATE:						
O-TERPHENYL (%)			85	83	85	
SURROGATE LIMITS	( 66 - 151 )					

### CHEMIST NOTES:

N/A



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### GAS CHROMATOGRAPHY RESULTS

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)					
CLIENT	: EL PASO FIELD SERVICES			PINNACLE I.D.: 907004		
PROJECT #	: (none)					
PROJECT NAME	: JACQUEZ CF					
SAMPLE		MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
ID. #	CLIENT I.D.					
04	990296	NON-AQ	6/30/99	7/6/99	7/7/99	1
05	990297	NON-AQ	6/30/99	7/8/99	7/9/99	50
06	990298	NON-AQ	6/30/99	7/6/99	7/8/99	1
PARAMETER	DET. LIMIT	UNITS	990296	990297	990298	
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 10	5600	< 10	
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	< 5.0	1000	< 5.0	
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 5.0	250	< 5.0	
CALCULATED SUM:				6850		
SURROGATE:						
D-TERPHENYL (%)			83	N/A *	90	
SURROGATE LIMITS	( 66 - 151 )					
CHEMIST NOTES:						
= SURROGATE RECOVERY NOT OBTAINABLE DUE TO NECESSARY SAMPLE DILUTION.						

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GAS CHROMATOGRAPHY RESULTS

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)					
CLIENT	: EL PASO FIELD SERVICES			PINNACLE I.D.: 907004		
PROJECT #	: (none)					
PROJECT NAME	: JACQUEZ CF					
SAMPLE		MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
ID. #	CLIENT I.D.					
07	990299	NON-AQ	6/30/99	7/8/99	7/9/99	10
08	990300	NON-AQ	6/30/99	7/6/99	7/8/99	1
10	990302	NON-AQ	6/30/99	7/6/99	7/8/99	1
PARAMETER	DET. LIMIT	UNITS	990299	990300	990302	
FUEL HYDROCARBONS, C6-C10	10	MG/KG	1100	< 10	< 10	
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	280	< 5.0	< 5.0	
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	63	< 5.0	< 5.0	
CALCULATED SUM:			1443			
SURROGATE:						
O-TERPHENYL (%)			63 *	84	80	
SURROGATE LIMITS	( 66 - 151 )					

CHEMIST NOTES:

\* - SURROGATE RECOVERY LOW DUE TO SAMPLE MATRIX INTERFERENCE.

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### GAS CHROMATOGRAPHY RESULTS

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)					
CLIENT	: EL PASO FIELD SERVICES			PINNACLE I.D.: 907004		
PROJECT #	: (none)					
PROJECT NAME	: JACQUEZ CF					
SAMPLE		MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
ID. #	CLIENT I.D.					
12	990304	NON-AQ	6/30/99	7/6/99	7/8/99	1
PARAMETER	DET. LIMIT	UNITS	990304			
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 10			
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	< 5.0			
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 5.0			
CALCULATED SUM:						

#### SURROGATE:

O-TERPHENYL (%)

75

SURROGATE LIMITS

( 66 - 151 )

#### CHEMIST NOTES:

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GAS CHROMATOGRAPHY RESULTS  
REAGENT BLANK

TEST	:	EPA 8015 MODIFIED (DIRECT INJECT)			
BLANK I.D.	:	070699	PINNACLE I.D.	:	907004
CLIENT	:	EL PASO FIELD SERVICES	DATE EXTRACTED	:	7/6/99
PROJECT #	:	(none)	DATE ANALYZED	:	7/7/99
PROJECT NAME	:	JACQUEZ CF	SAMPLE MATRIX	:	NON-AQ

PARAMETER	UNITS	
FUEL HYDROCARBONS, C6-C10	MG/KG	< 10
FUEL HYDROCARBONS, C10-C22	MG/KG	< 5.0
FUEL HYDROCARBONS, C22-C36	MG/KG	< 5.0

SURROGATE:

O-TERPHENYL (%)	83
SURROGATE LIMITS	( 80 - 151 )

CHEMIST NOTES:

N/A

PINNACLE  
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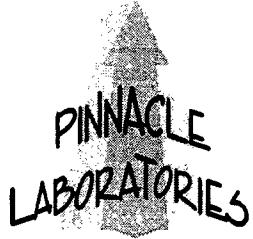
GAS CHROMATOGRAPHY RESULTS  
REAGENT BLANK

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)		
BLANK I.D.	: 070899	PINNACLE I.D.	: 907004
CLIENT	: EL PASO FIELD SERVICES	DATE EXTRACTED	: 7/8/99
PROJECT #	: (none)	DATE ANALYZED	: 7/9/99
PROJECT NAME	: JACQUEZ CF	SAMPLE MATRIX	: NON-AQ

PARAMETER	UNITS	
FUEL HYDROCARBONS	MG/KG	< 10
HYDROCARBON RANGE		< 5.0
HYDROCARBONS QUANTITATED USING		< 5.0
SURROGATE:		
O-TERPHENYL (%)		88
SURROGATE LIMITS	( 80 - 151 )	

CHEMIST NOTES:

N/A



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Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL  
MSMSD

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)									
MSMSD #	: 907004-01		PINNACLE I.D.		: 907004					
CLIENT	: EL PASO FIELD SERVICES		DATE EXTRACTED		: 7/6/99					
PROJECT #	: (none)		DATE ANALYZED		: 7/7/99					
PROJECT NAME	: JACQUEZ CF		SAMPLE MATRIX		: NON-AQ					
			UNITS		: MG/KG					
PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	REC RPD	LIMITS	RPD LIMITS	
FUEL HYDROCARBONS	<5.0	100	107	107	111	111	4	( 56 - 148 )	20	

CHEMIST NOTES:

N/A

$$\text{\% Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

## CHAIN OF CUSTODY

DATE: 6/30/99 PAGE: 1 OF 2

AEN(NM) Accession #:

907004

SHADED AREAS ARE FOR LAB USE ONLY

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER:	John Lambdin
COMPANY:	EL PASO Field Services
ADDRESS:	770 W. NAVAJO FARMINGTON, NM
PHONE:	(505) 599-2144
FAX:	(505) 599-2261
BILL TO:	(Same as Above)
COMPANY:	
ADDRESS:	

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.
990293	6-30-99	0850	Soil	01
990294		0910	Soil	02
990295		0930	Soil	03
990296		0945	Soil	04
990297		1000	Soil	05
990298		1015	Soil	06
990299		1025	Soil	07
990300		1040	Soil	08
990301		1050	Water	09
990302	6-30-99	1140	Soil	10

ANALYSIS REQUEST		NUMBER OF CONTAINERS
Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject	-
(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) ATR/EI TMAE D-PGE	-
8021 (TCL)	8021 (TCL)	-
8021 (EDX)	8021 (EDX)	-
8021 (HALO)	8021 (HALO)	-
8021 (CUST)	8021 (CUST)	-
504.1 EDB □ / DBCP □	504.1 EDB □ / DBCP □	-
8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	-
8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	-
Pesticides /PCB (608/8081)	Herbicides (615/8151)	-
Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310)	-
General Chemistry:		-
	Priority Pollutant Metals (13)	-
	Target Analyte List Metals (23)	-
	RCRA Metals (8)	-
	RCRA Metals by TCLP (Method 1311)	-
	Metals:	-

PROJECT INFORMATION	
PROJ. NO.:	NA
PROJ. NAME:	JACQUEZ CF
P.O. NO.:	NA
SHIPPED VIA:	Fed-X
SAMPLE RECEIPT	
NO. CONTAINERS	11
CUSTODY SEALS	0/1/NA
RECEIVED INTACT	YES
BLUE ICE/ACE	8°C On Ice

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS	
(RUSH)	<input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 1 WEEK
(NORMAL)	<input checked="" type="checkbox"/>
CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER	
METHANOL PRESERVATION <input type="checkbox"/>	
COMMENTS: FIXED FEE <input type="checkbox"/>	

RELINQUISHED BY:	1	RELINQUISHED BY:	2
Signature: John Lambdin	Time: 1430	Signature: <i>[Signature]</i>	Time: <i>[Time]</i>
Printed Name: John Lambdin	Date: 6/30/99	Printed Name: <i>[Signature]</i>	Date: <i>[Date]</i>
Company: El Paso Field Services	Company: <i>[Company]</i>	Company: <i>[Company]</i>	Company: <i>[Company]</i>
RECEIVED BY:	1	RECEIVED BY: (LAB)	2
Signature: <i>[Signature]</i>	Time: <i>[Time]</i>	Signature: <i>[Signature]</i>	Time: <i>[Time]</i>
Printed Name: <i>[Printed Name]</i>	Date: <i>[Date]</i>	Printed Name: <i>[Printed Name]</i>	Date: <i>[Date]</i>
Company: <i>[Company]</i>	Company: <i>[Company]</i>	Company: <i>[Company]</i>	Company: <i>[Company]</i>
American Environmental Network (NM), Inc.			

## **CHAIN OF CUSTODY**

DATE: 6/30/99 PAGE: 2 OF 2

AEN(NM) Accession #

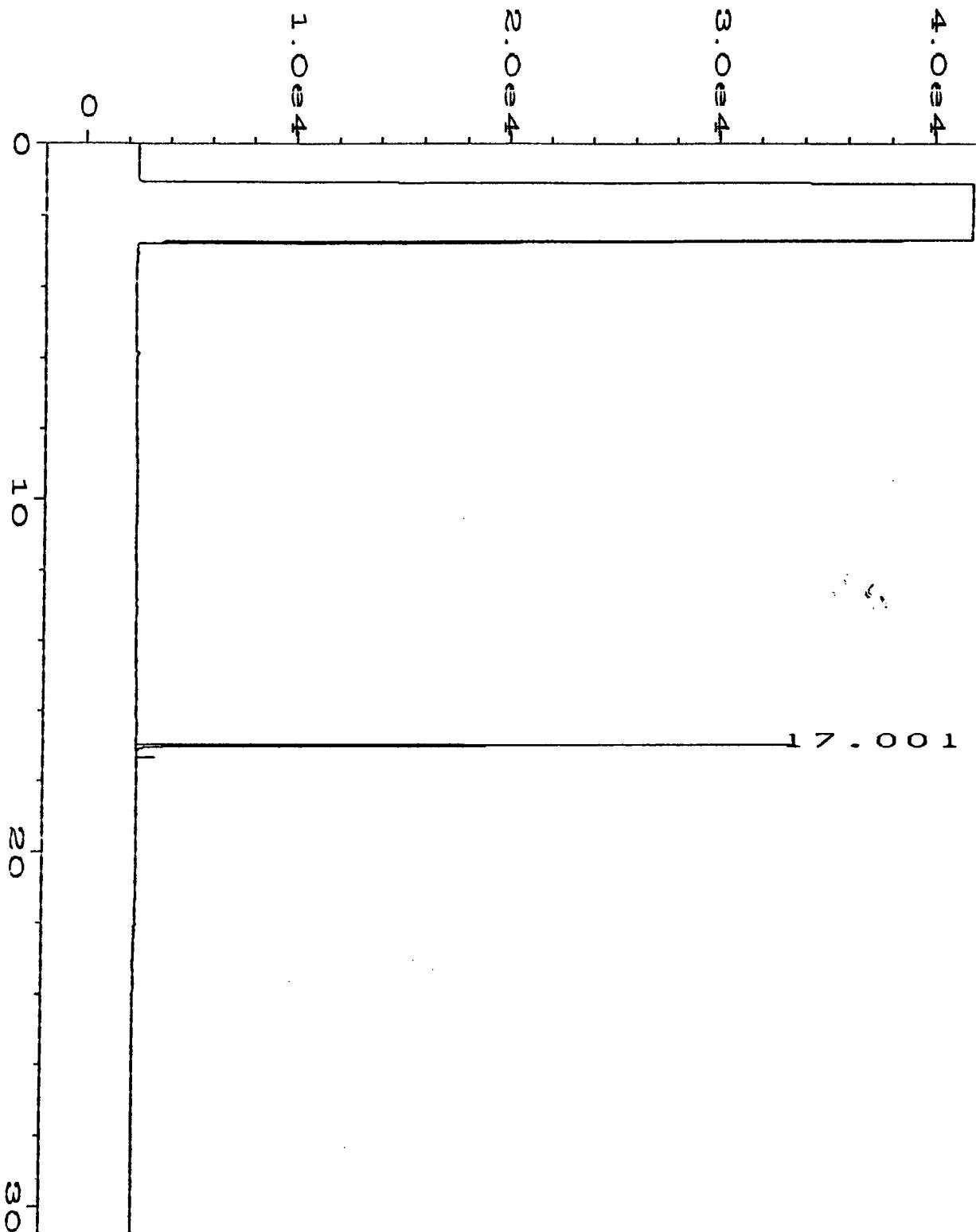
907004

**SHADED AREAS ARE FOR LAB USE ONLY**

PLEASE ELL THIS EOB IN COMPI ETEI Y

PROJECT MANAGER: John Lambdin  
COMPANY: El Paso Field Services  
ADDRESS: 770 West Navajo Farmington, NM  
PHONE: (505) 599-2144  
FAX: (505) 599-2261  
BILL TO: (Same as Above)  
COMPANY:  
ADDRESS:

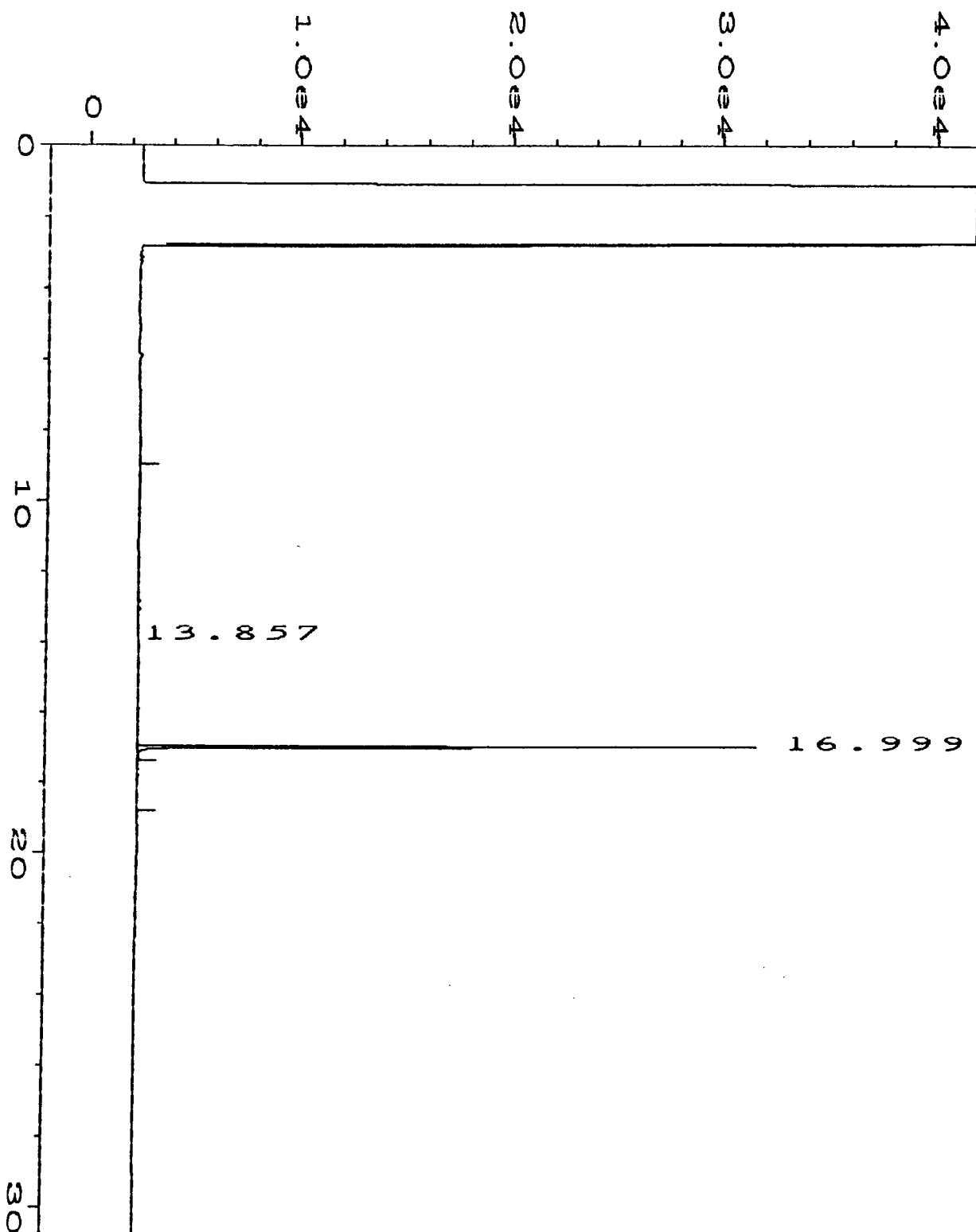
PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS		RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
PROJ. NO.:	NA	(RUSH) <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 1 WEEK	(NORMAL) <input checked="" type="checkbox"/>	Signature: John Lambdin Time: 1430	Signature: Time:
PROJ. NAME:	JACQUEZ CF	CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER		Printed Name: John Lambdin Date: 6/30/99	Printed Name: Date:
P.O. NO.:	NA	METHANOL PRESERVATION <input type="checkbox"/>		Company: El Paso Field Services	Company:
SHIPPED VIA:	Fed - X	COMMENTS: FIXED FEE <input type="checkbox"/>		RECEIVED BY: 1.	RECEIVED BY: (LAB) 2.
<b>SAMPLE RECEIPT</b>					
NO. CONTAINERS:	3			Signature: Time:	Signature: Time:
CUSTODY SEALS:	<input checked="" type="checkbox"/> Y/N NA			Printed Name: Date:	Printed Name: Date:
RECEIVED INTACT:	YES			Company:	American Environmental Network (NM), Inc.
BLUE ICE/ACE	8L	ON ICE			



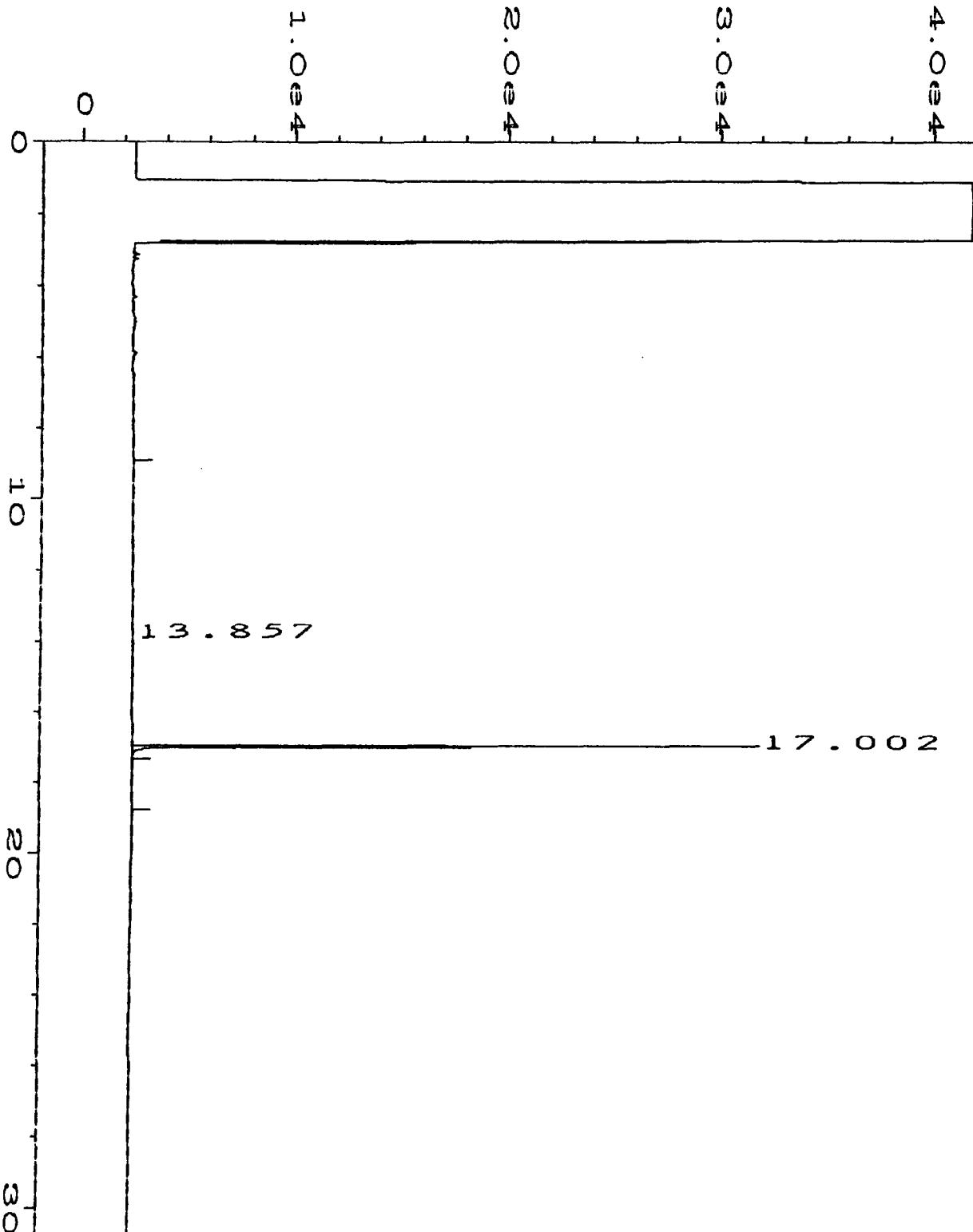
user modified

Data File Name : C:\HPCHEM\2\DATA\07JUL99\012R0101.D  
Operator : Pinnacle - rg & cff  
Instrument : FID1  
Sample Name : 907004-01  
Run Time Bar Code:  
Acquired on : 07 Jul 99 05:41 PM  
Report Created on: 08 Jul 99 01:31 PM  
Last Recalib on : 11 JAN 93 08:58 AM  
Multiplier : 1  
Page Number : 1  
Vial Number : 12  
Injection Number : 1  
Sequence Line : 1  
Instrument Method: HX03169S.MTH  
Analysis Method : HX031699.MTH  
Sample Amount : 0  
ISTD Amount :

user modified

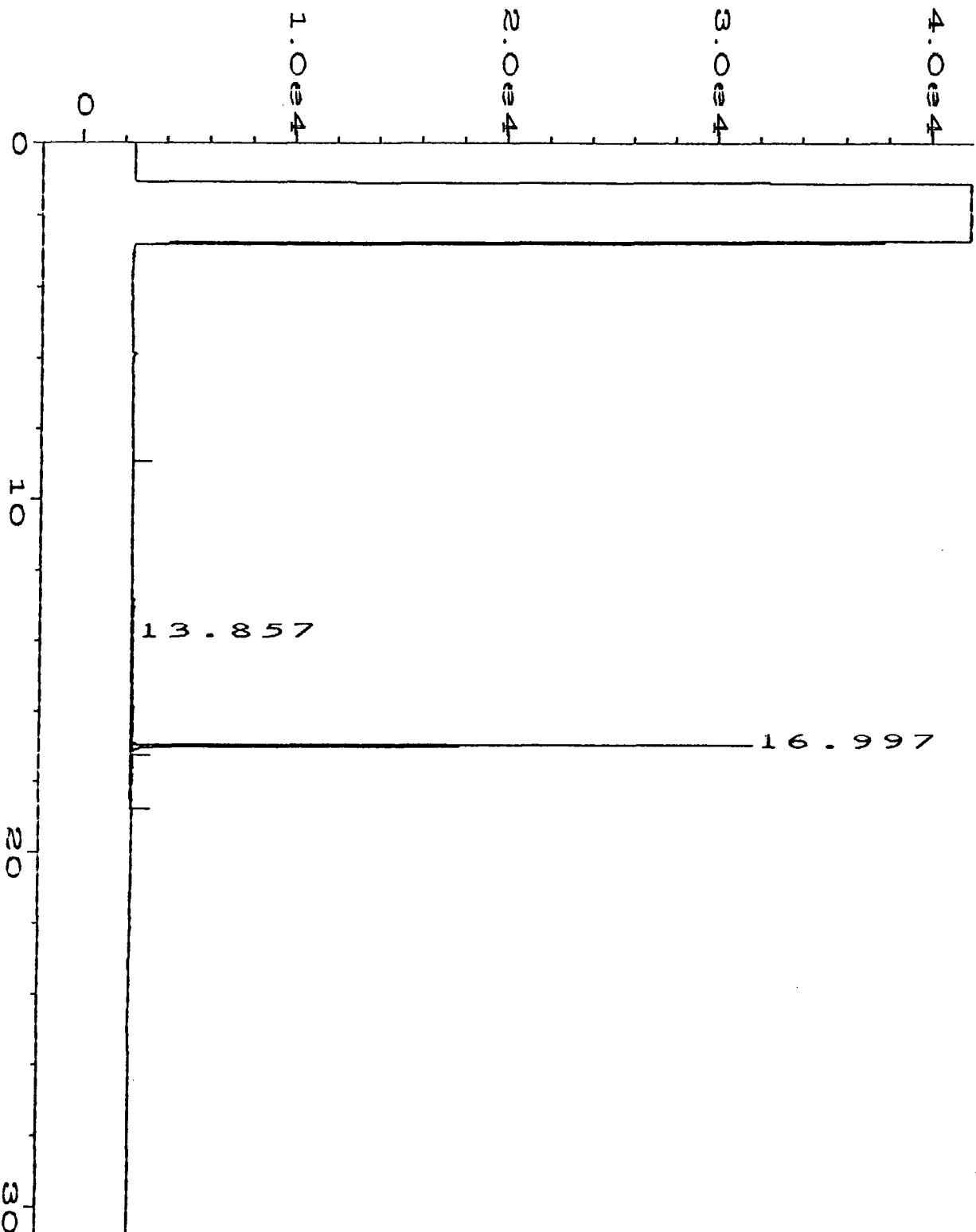


Data File Name : C:\HPCHEM\2\DATA\07JUL99\016R0101.D  
Operator : Pinnacle - rg & cff Page Number : 1  
Instrument : FID1 Vial Number : 16  
Sample Name : 907004-02 Injection Number : 1  
Run Time Bar Code:  
Acquired on : 07 Jul 99 09:07 PM Sequence Line : 1  
Report Created on: 08 Jul 99 01:39 PM Instrument Method: HX03169S.MTH  
Last Recalib on : 11 JAN 93 08:58 AM Analysis Method : HX031699.MTH  
Multiplier : 1 Sample Amount : 0  
ISTD Amount :



user modified

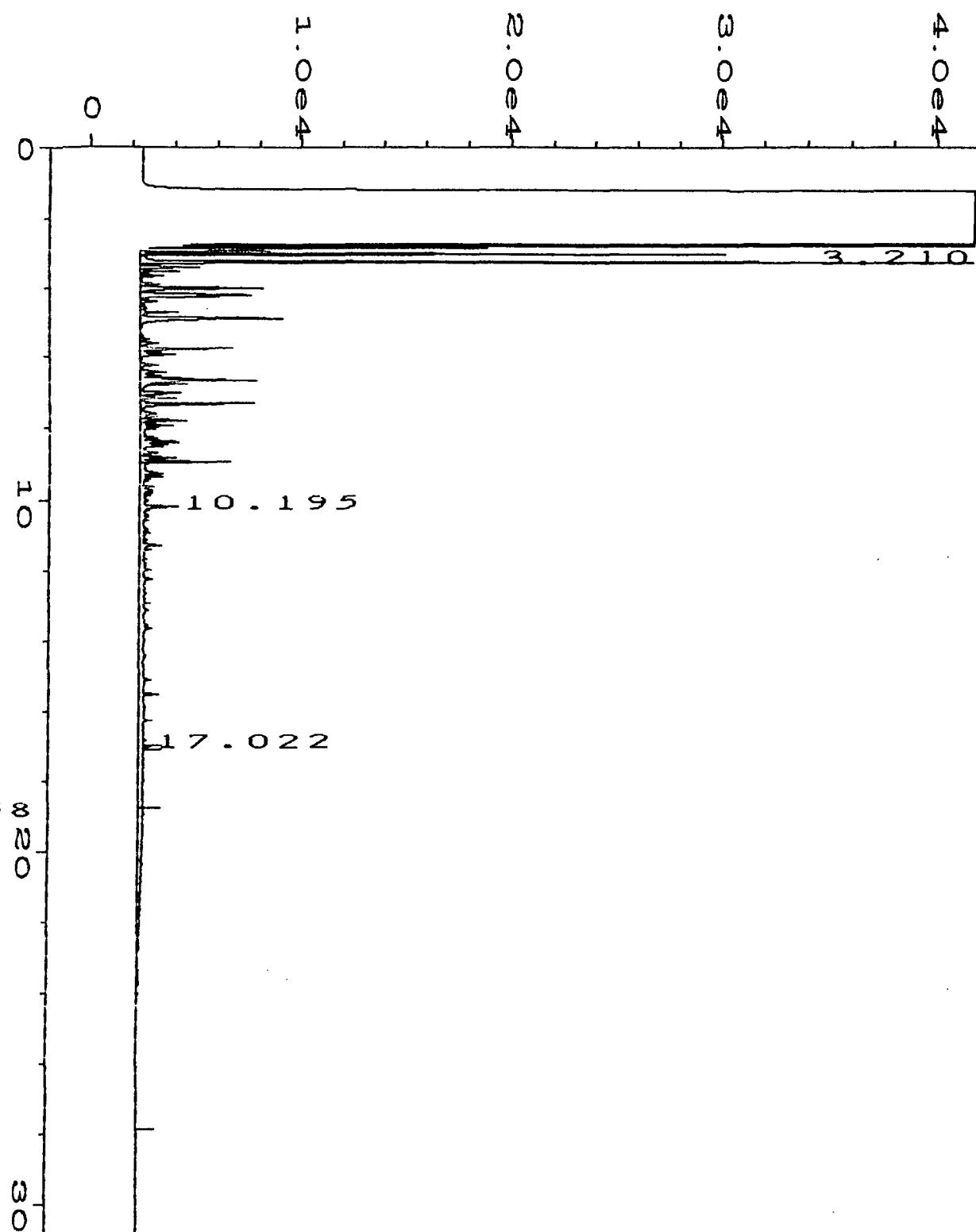
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Operator : Pinnacle - rg & cff  
Instrument : FID1  
Sample Name : 907004-03  
Run Time Bar Code:  
Acquired on : 07 Jul 99 09:57 PM  
Report Created on: 08 Jul 99 01:40 PM  
Last Recalib on : 11 JAN 93 08:58 AM  
Multiplier : 1  
Page Number : 1  
Vial Number : 17  
Injection Number : 1  
Sequence Line : 1  
Instrument Method: HX03169S.MTH  
Analysis Method : HX031699.MTH  
Sample Amount : 0  
ISTD Amount :



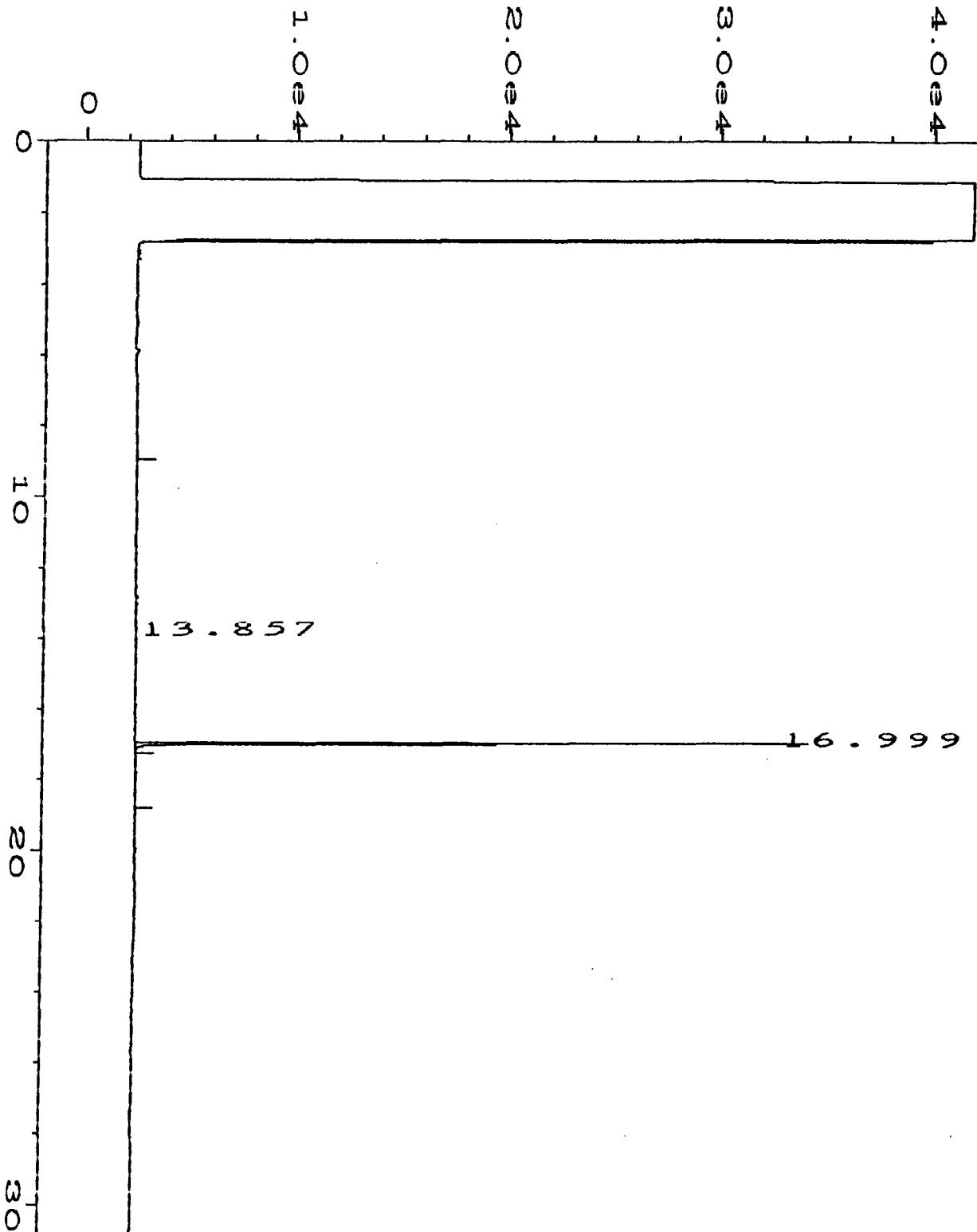
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Data File Name : C:\HPCHEM\2\DATA\07JUL99\018R0101.D  
Operator : Pinnacle - rg & cff Page Number : 1  
Instrument : FID1 Vial Number : 18  
Sample Name : 907004-04 Injection Number : 1  
Run Time Bar Code:  
Acquired on : 07 Jul 99 10:47 PM Sequence Line : 1  
Report Created on: 08 Jul 99 01:41 PM Instrument Method: HX03169S.MTH  
Last Recalib on : 11 JAN 93 08:58 AM Analysis Method : HX031699.MTH  
Multiplier : 1 Sample Amount : 0  
ISTD Amount :

user modified



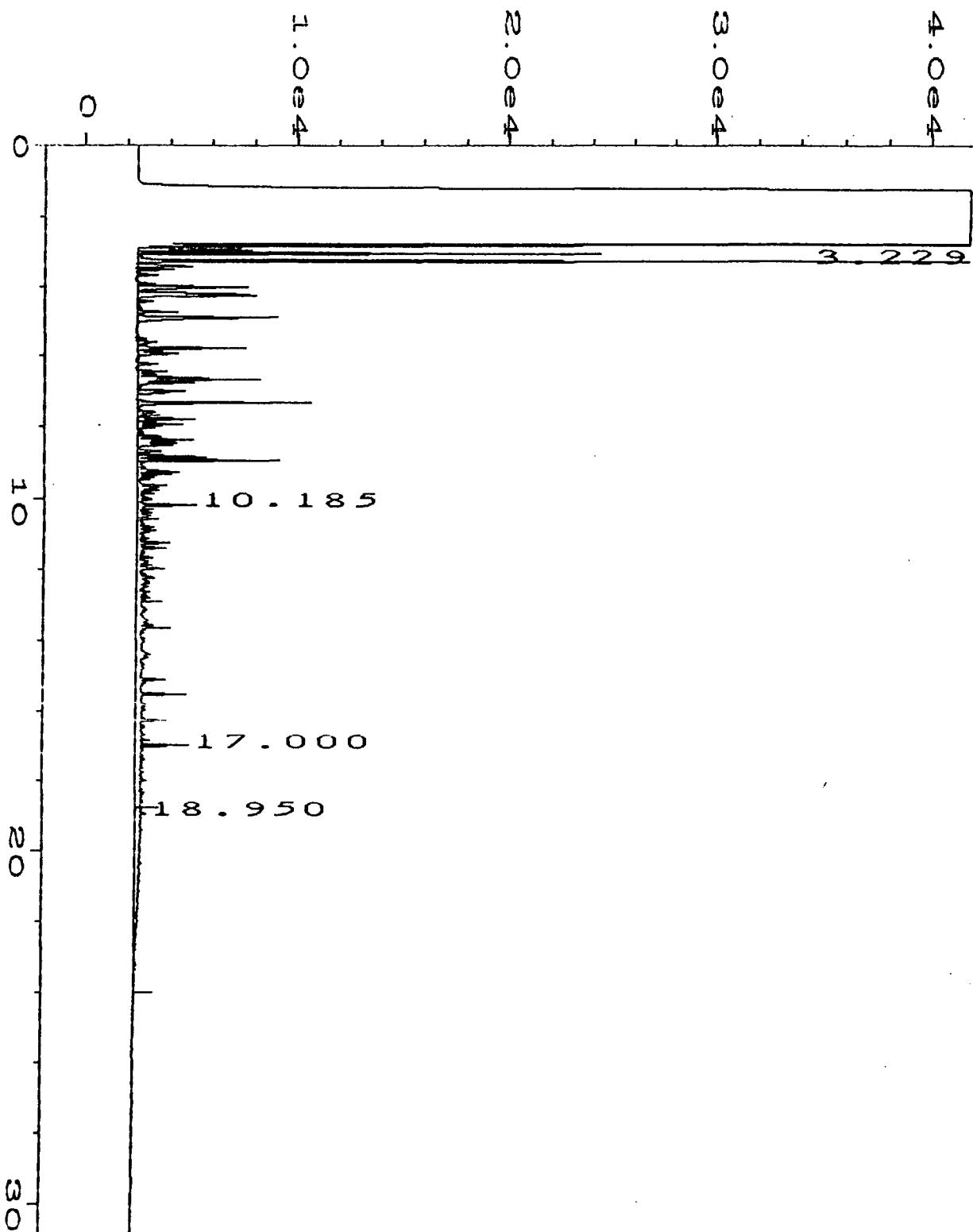
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Operator : Pinnacle - rg & cff Page Number : 1  
Instrument : FID1 Vial Number : 6  
Sample Name : 907004-05\*50 Injection Number : 1  
Run Time Bar Code:  
Acquired on : 09 Jul 99 04:08 PM Sequence Line : 1  
Report Created on: 12 Jul 99 09:01 AM Instrument Method: HX03169S.MTH  
Last Recalib on : 11 JAN 93 08:58 AM Analysis Method : HX03169S.MTH  
Multiplier : 1 Sample Amount : 0  
ISTD Amount :



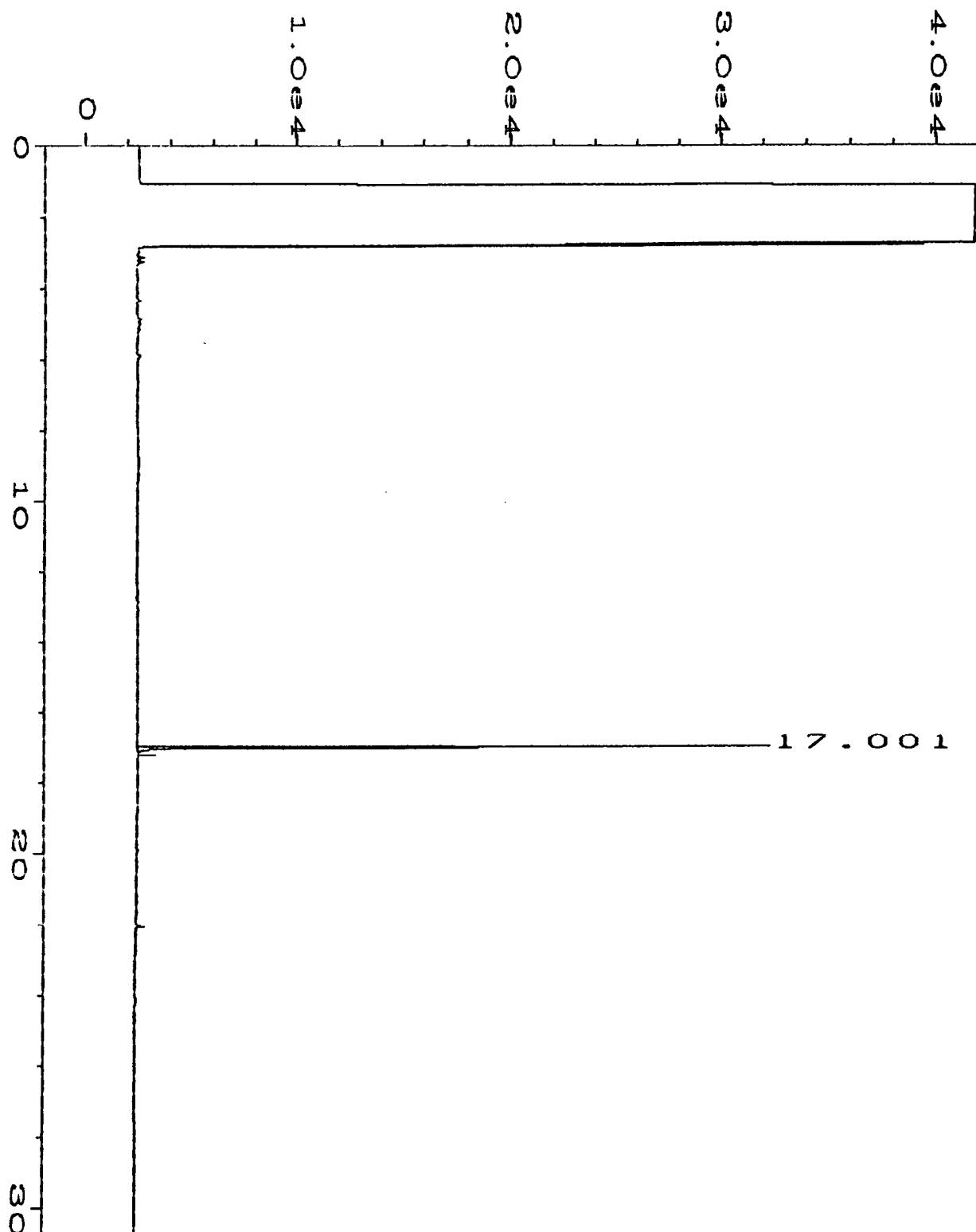
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Data File Name : C:\HPCHEM\2\DATA\07JUL99\020R0101.D  
Operator : Pinnacle - rg & cff Page Number : 1  
Instrument : FID1 Vial Number : 20  
Sample Name : 907004-06 Injection Number : 1  
Run Time Bar Code:  
Acquired on : 08 Jul 99 00:25 AM Sequence Line : 1  
Report Created on: 08 Jul 99 01:42 PM Instrument Method: HX03169S.MTH  
Last Recalib on : 11 JAN 93 08:58 AM Analysis Method : HX031699.MTH  
Multiplier : 1 Sample Amount : 0  
ISTD Amount :

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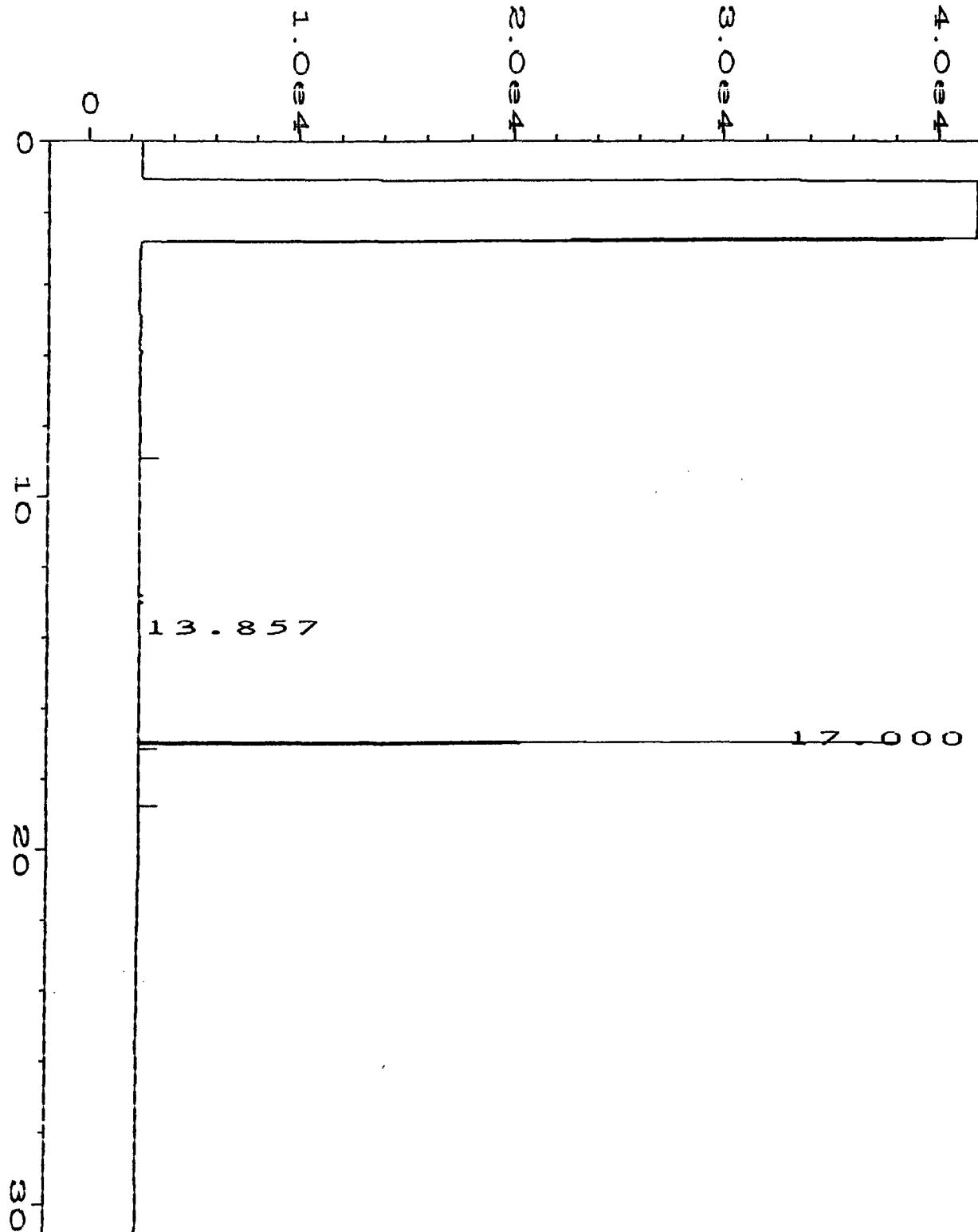


Data File Name : C:\HPCHEM\2\DATA\09JUL99\008R0101.D  
Operator : Pinnacle - rg & cff Page Number : 1  
Instrument : FID1 Vial Number : 8  
Sample Name : 907004-07\*10 Injection Number : 1  
Run Time Bar Code: cff Sequence Line : 1  
Acquired on : 09 Jul 99 05:49 PM Instrument Method: HX03169S.MTH  
Report Created on: 12 Jul 99 08:59 AM Analysis Method : HX03169S.MTH  
Last Recalib on : 11 JAN 93 08:58 AM Sample Amount : 0  
Multiplier : 1 ISTD Amount :



user modified

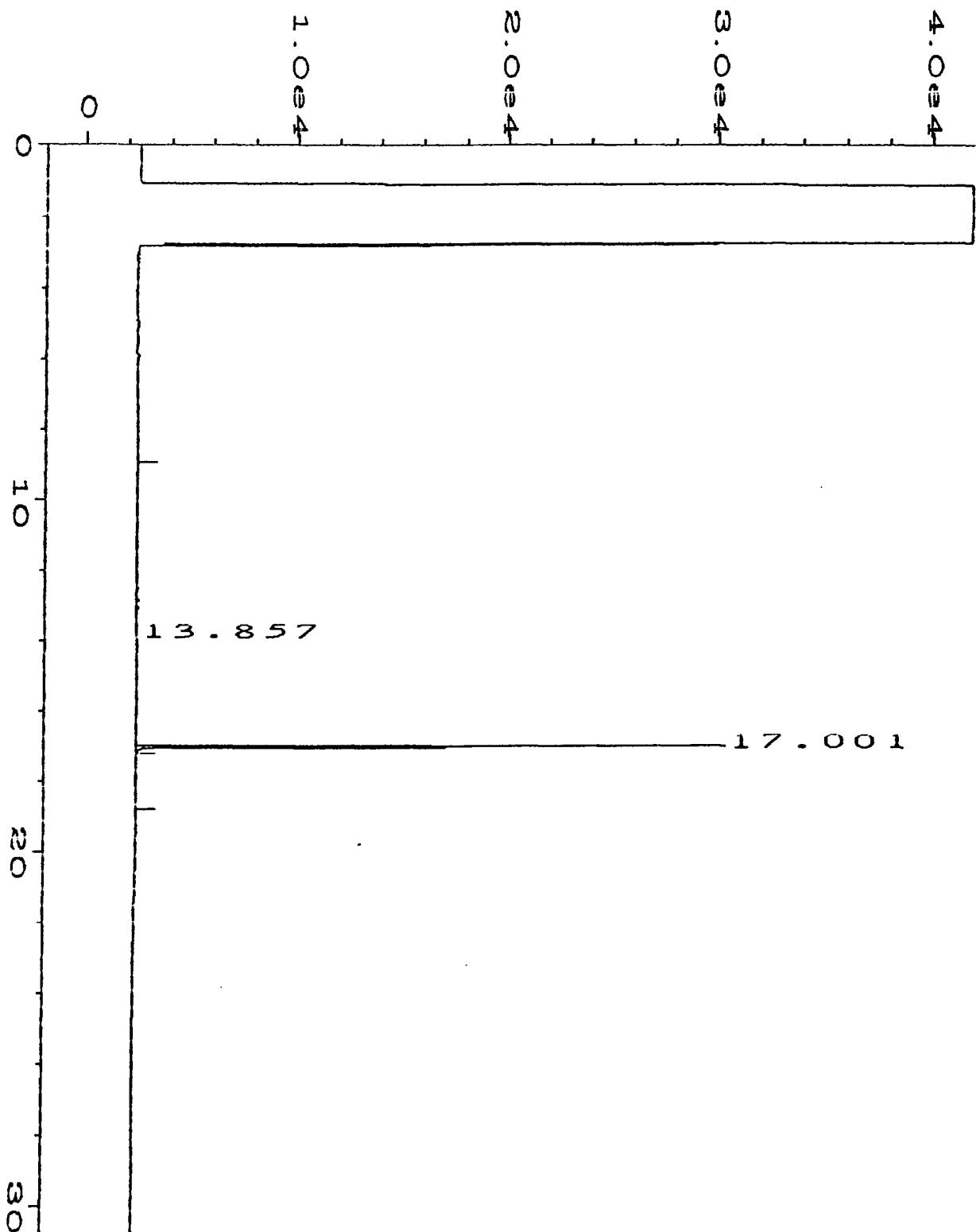
Data File Name : C:\HPCHEM\2\DATA\07JUL99\021R0101.D  
Operator : Pinnacle - rg & cff Page Number : 1  
Instrument : FID1 Vial Number : 21  
Sample Name : 907004-08 Injection Number : 1  
Run Time Bar Code:  
Acquired on : 08 Jul 99 01:14 AM Sequence Line : 1  
Report Created on: 08 Jul 99 01:43 PM Instrument Method: HX03169S.MTH  
Last Recalib on : 11 JAN 93 08:58 AM Analysis Method : HX031699.MTH  
Multiplier : 1 Sample Amount : 0  
ISTD Amount :



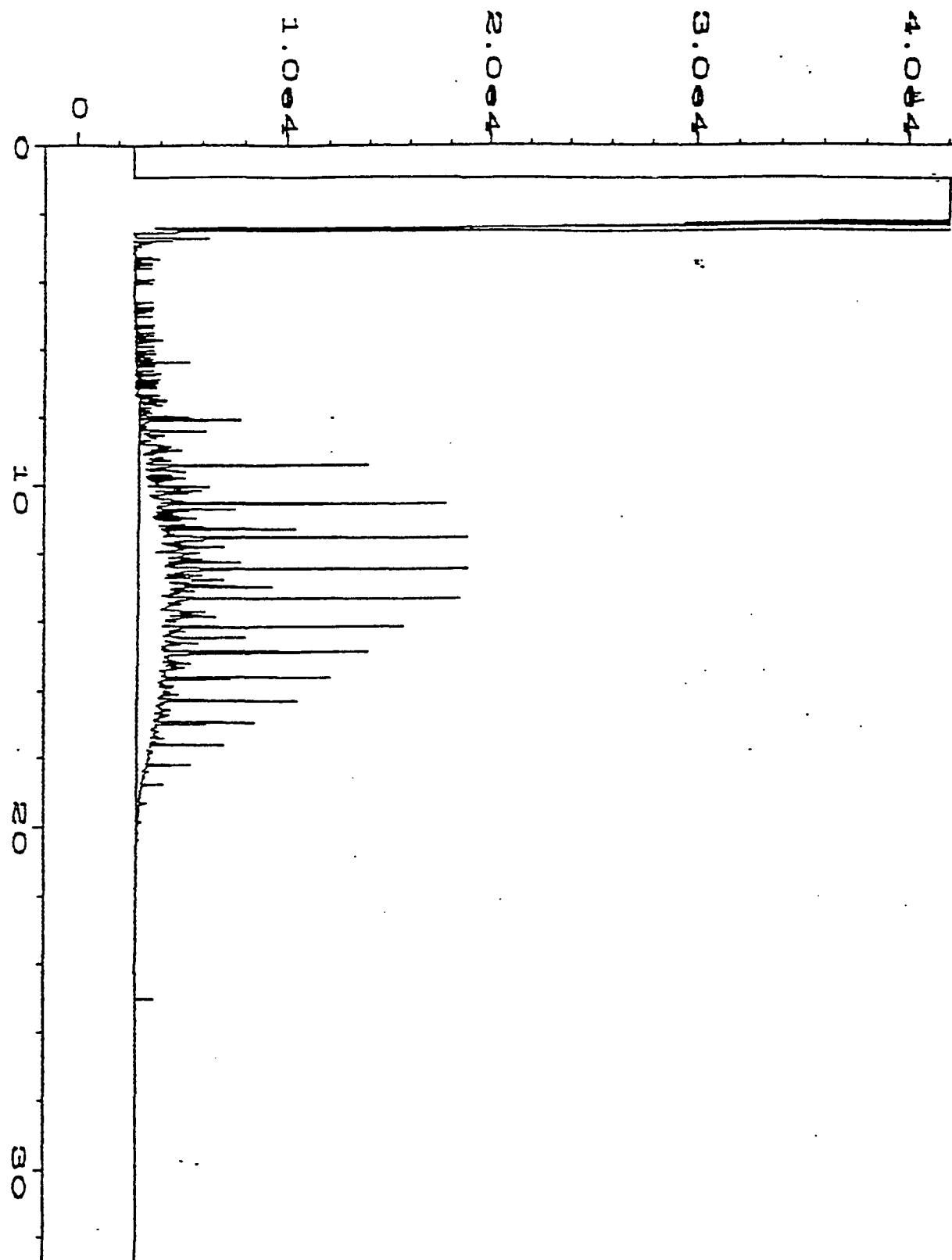
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Data File Name : C:\HPCHEM\2\DATA\07JUL99\022R0101.D  
Operator : Pinnacle - rg & cff Page Number : 1  
Instrument : FID1 Vial Number : 22  
Sample Name : 907004-10 Injection Number : 1  
Run Time Bar Code:  
Acquired on : 08 Jul 99 02:04 AM Sequence Line : 1  
Report Created on: 08 Jul 99 01:44 PM Instrument Method: HX03169S.MTH  
Last Recalib on : 11 JAN 93 08:58 AM Analysis Method : HX031699.MTH  
Multiplier : 1 Sample Amount : 0  
ISTD Amount :

user modified

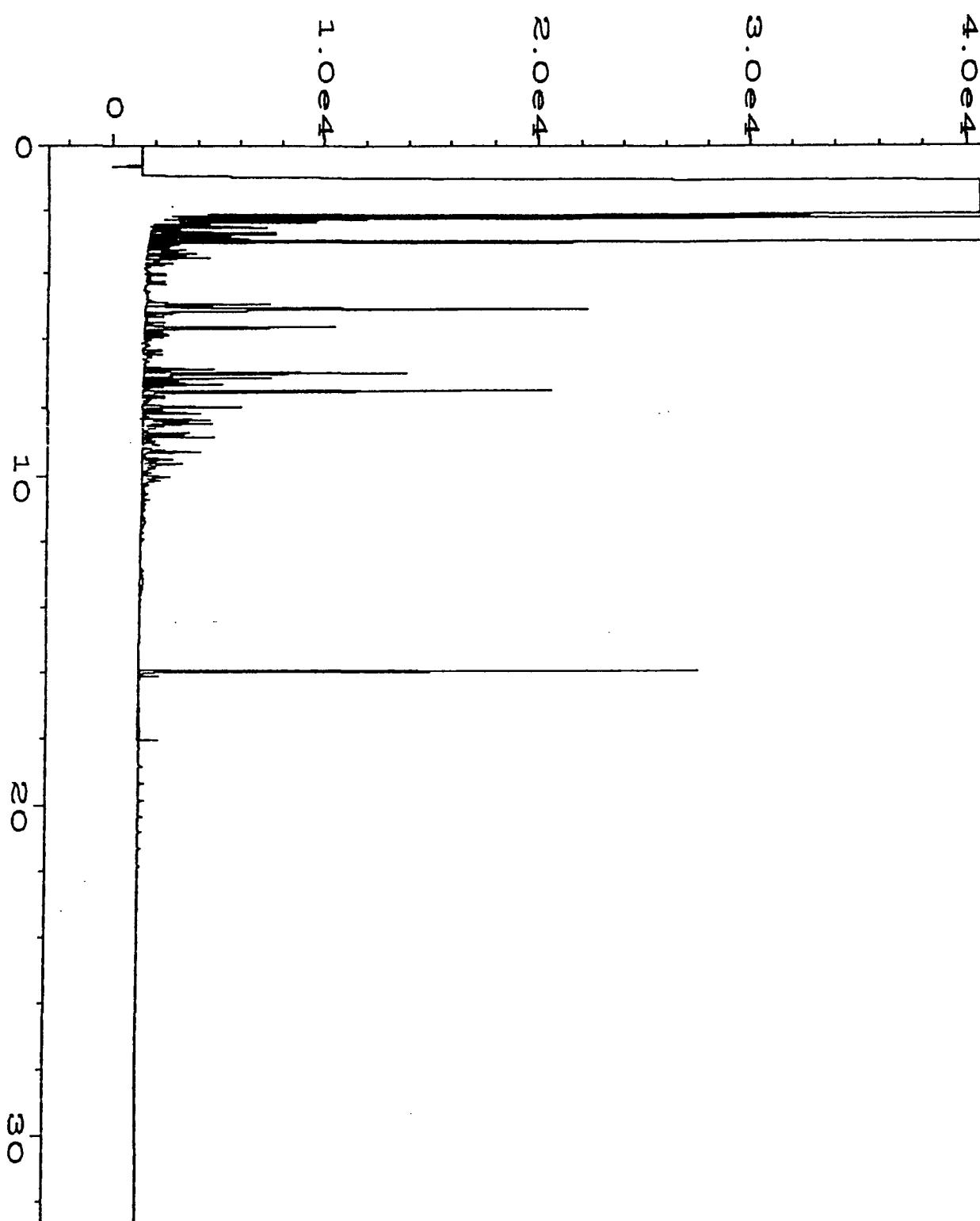


Data File Name : C:\HPCHEM\2\DATA\07JUL99\023R0101.D  
Operator : Pinnacle - rg & cff Page Number : 1  
Instrument : FID1 Vial Number : 23  
Sample Name : 907004-12 Injection Number : 1  
Run Time Bar Code:  
Acquired on : 08 Jul 99 02:53 AM Sequence Line : 1  
Report Created on: 08 Jul 99 01:45 PM Instrument Method: HX03169S.MTH  
Last Recalib on : 11 JAN 93 08:58 AM Analysis Method : HX031699.MTH  
Multiplier : 1 Sample Amount : 0  
1STD Amount :



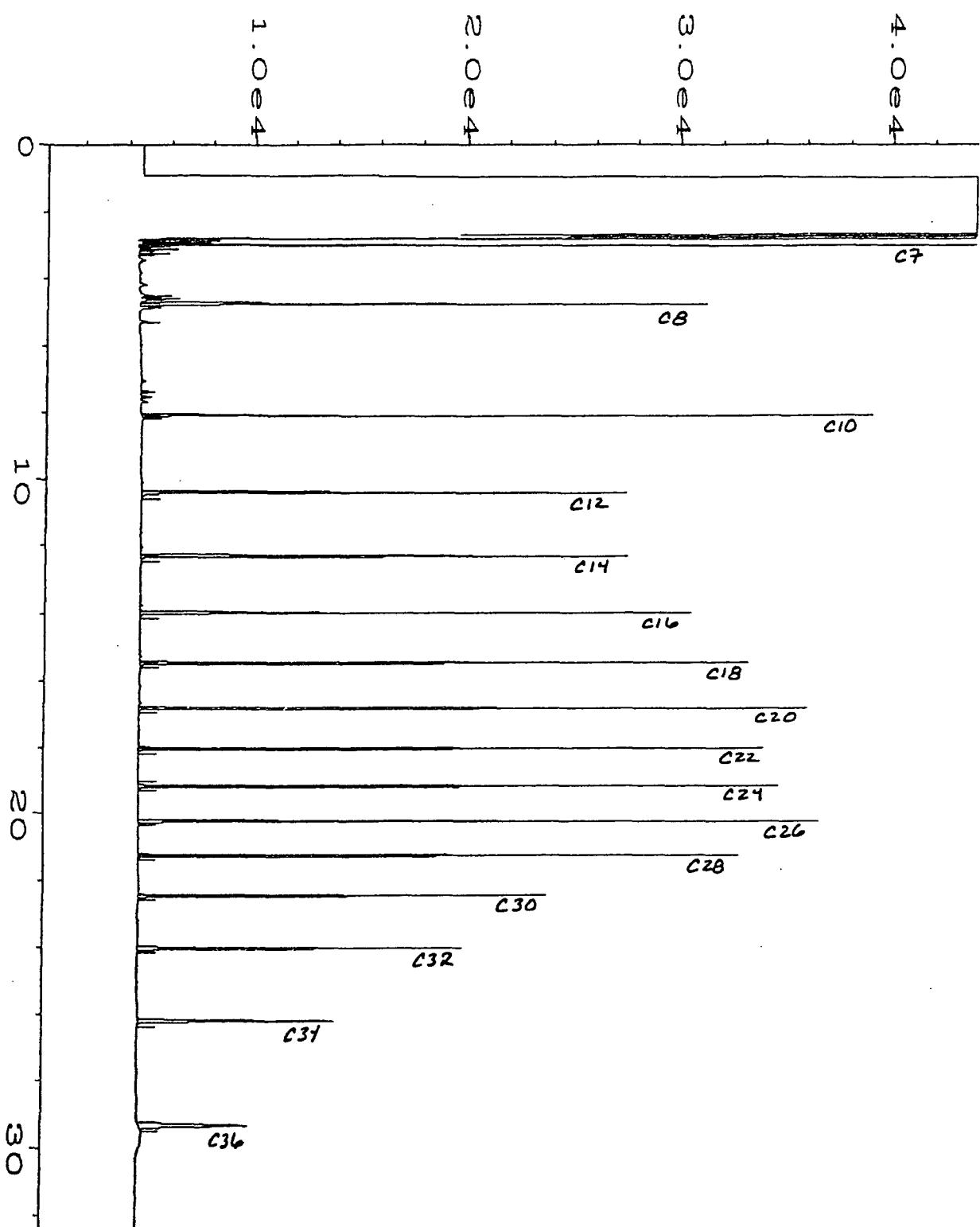
Data File Name : C:\HPCHEM\1\DATA\16SEPT97\011F0101.D  
Operator : AEN NM GC #1 FID DI  
Instrument : INSTRUMEN  
Sample Name : DSL GC3-103-15  
Run Time Bar Code:  
Acquired on : 16 Sep 97 08:50 PM  
Report Created on: 17 Sep 97 11:19 AM  
Page Number : 1  
Vial Number : 11  
Injection Number : 1  
Sequence Line : 1  
Instrument Method: SDF0820.MTH  
Analysis Method : SDF0820.MTH

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File Name : C:\HPCHEM\2\DATA\12FEB99\002F0101.D  
Operator : Pinnacle - mb & cff Page Number : 1  
Instrument : FID1 Vial Number : 2  
Sample Name : gas gc3-141-23 Injection Number : 1  
Time Bar Code:  
Acquired on : 12 Feb 99 10:38 AM Sequence Line : 1  
Not Created on: 12 Feb 99 11:45 AM Instrument Method: RT061698.MTH  
Analysis Method : RT061698.MTH

user modified



data File Name : B:\11APR96\004F0101.D  
operator : DJ  
Instrument : GC#1 5890  
sample Name : RET TIME STAND  
run Time Bar Code:  
acquired on : 11 Apr 96 10:17 AM  
report Created on: 03 Dec 98 02:11 PM

Page Number : 1  
Vial Number : 4  
Injection Number : 1  
Sequence Line : 1  
Instrument Method: SDF0311.MTH  
Analysis Method : RT061698.MTH