

Alameda County  
FEB 10 2003  
Environmental Health

**FOURTH QUARTER 2002  
GROUNDWATER MONITORING RESULTS  
B&C Gas Mini Mart  
Livermore, California**

Prepared by

Conor Pacific  
2580 Wyandotte Street, Suite G  
Mountain View, California 94043

February 2003

Project BNC 103

# Conor Pacific

February 5, 2003  
Project No. BNC103

Mr. Balaji Angle  
Angle Enterprises  
5131 Shattuck Avenue  
Oakland, California 94609

Re: Fourth Quarter 2002 Groundwater Monitoring Results, B&C Gas Mini Mart, 2008 First Street, Livermore, California (Station ID 1689)

Dear Mr. Angle:

Conor Pacific has compiled fourth quarter 2002 groundwater monitoring results for B&C Gas Mini Mart (B&C), 2008 First Street, Livermore, California (Figure 1). This report includes fourth quarter 2002 groundwater elevation data, groundwater sampling methods, and results of groundwater chemical analyses. Nine of the sixteen on- and off-site monitoring wells were scheduled to be sampled during the fourth quarter.<sup>1</sup> During the fourth quarter 2002 sampling event, seven of the nine wells were sampled. Wells MW-2 and MW-5 were not sampled because free product was observed during water-level measurements and well purging.

## SITE INFORMATION

### Site Name & Contact

Mr. Balaji Angle  
B&C Gas Mini Mart  
2008 First Street  
Livermore, California 94550  
(510) 654-3461

### Site Description

The B&C property is located on the northeast corner of First and South L Streets in Livermore, California, and currently serves as a gasoline station and mini market and is called Valley Gas. From at least 1988 until 1994, Desert Petroleum (DP) owned and operated the site. In January 1994, DP sold the site to the current owner, Mr. Balaji Angle. The following site description has been compiled from reports on file with Alameda County Environmental Health Services (ACEHS) and information provided by the site owner.

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<sup>1</sup> Conor Pacific/EFW. *First Quarter 2000 Groundwater Monitoring Results, B&C Gas Mini Mart, Livermore, California*. May 3, 2000.

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The site is located in the Livermore Valley groundwater basin, an area of sedimentary deposition containing braided channel systems with complex interfingering. Subsurface investigations conducted to the west of the B&C site have found an upper unconfined water-bearing zone consisting primarily of gravels with sand and clay. A low-permeability clayey unit is found at depths of approximately 75 to 110 feet below ground surface (bgs). Below the clayey unit, the top of a lower, semi-confined aquifer is found at depths ranging from 110 to 145 feet bgs.<sup>2</sup>

Subsurface work conducted in the B&C area has found predominantly sandy clay, silty sand, silty gravel, and sandy gravel. Over the last eleven years, static water levels have ranged from 68.7 feet bgs (January 1992) to 17.0 feet bgs (February 1997). The groundwater flow generally ranges from west of north during the summer and fall months, to north of west during the winter and spring months.

### **Previous Work Performed at Site**

A preliminary site assessment was conducted in September 1988. Three soil borings were completed; one of which was converted to a monitoring well (MW-1). In March 1994, a 280-gallon waste oil underground storage tank (UST) and 25 cubic yards of soil were removed as part of closing the auto repair shop at the station. Three months later in June, wells MW-2, MW-3, and MW-4 were installed (Figure 2).<sup>3</sup>

In August 1994, free product was encountered in well MW-2, and product removal commenced twice a month. By the end of January 1995 no measurable thickness of product remained, only sheen could be detected.<sup>4</sup> In March 1995, a release was reported to have occurred from the union between a tank subpump and product line. The quantity of the release is unknown.

One gasoline UST at the B&C site failed an integrity test in September 1995. The tank was immediately taken out of commission and ACEHS was notified. In July 1996, further source removal was conducted. Two more gasoline USTs were removed, and new double-walled fiberglass USTs and fiberglass piping with automated leak detection were installed. Other remedial activities included the removal of two hydraulic lifts and approximately 700 cubic yards of impacted soil. Also, one 1,000-gallon UST discovered during excavation activities was closed in place with approval from ACEHS and the Livermore Fire Department by grouting with a cement sand slurry. In October 1995, two additional monitoring wells (off-site well MW-5 and well MW-6) were installed for the B&C site (Figure 2).

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<sup>2</sup> H<sup>+</sup>GCL, Inc. Deep Groundwater Conduit Study, Livermore Arcade Shopping Center, First Street and South P Street, Livermore, California. December 6, 1993.

<sup>3</sup> Remediation Service Int'l. Soil & Groundwater Investigation Report for 2008 First Street, Livermore, California. July 22, 1994.

<sup>4</sup> Product thickness information from Remediation Service, Int'l field records, "Free Product Removal Logs."

Nine downgradient wells (MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, D-1, and D-2) were installed during June and July 1999 to define the downgradient and lateral extent of the plume and provide long-term monitoring locations (Figure 2).<sup>5</sup> Two of the wells, D-1 and D-2, are installed in the semi-confined aquifer below the aquitard. The other wells are installed in the upper water-bearing zone. Table 1 summarizes the well construction details for all on-site and off-site wells installed to date.

The primary constituents of concern are total petroleum hydrocarbons as gasoline (TPH-G); the aromatic compounds benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX); and methyl tertiary-butyl ether (MTBE). Since 1994, concentrations of TPH-G in groundwater generally have decreased.

#### **Interim Remedial Action at Well MW-5**

Floating product first was observed in well MW-5 on July 30, 1998. The well is screened from 15 to 40 feet bgs, and the depth to groundwater has historically ranged from 18 to 33 feet bgs, well within the screened interval of the well. Due to the presence of floating free product in well MW-5, interim remedial actions were taken to remove the floating product from the well. A passive bailer or absorbent sock was selected to remove product from well MW-5 based on well access, the thickness of the product, and the rate at which the product enters the well as it is removed.

Over the time period monitored, the absorbent socks have removed sufficient product to reduce the free product thickness to a sheen or less. During the four sampling events in 2000, free product was not measured in well MW-5 and sampling was conducted. However, free product was observed during the purging of well MW-5 during the March and June 2001 sampling events, and so the absorbent sock was replaced in the well and groundwater samples were not collected. During the September 2002 sampling event, the absorbent sock was above the groundwater surface (the lowest water levels measured to date were measured during this sampling event) and no product was observed on the sock; the sock was re-installed and lowered to intersect the water table. During this monitoring event, the absorbent sock was removed, product was observed in the purge water although no product thickness could be measured, and a new absorbent sock was installed to intersect the water table.

#### **GROUNDWATER SAMPLING AND ANALYSIS**

Sampling activities are reviewed below. Groundwater sampling methods and results are presented and a discussion of historical analytical trends for site monitoring wells is included.

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<sup>5</sup> Einarson, Fowler & Watson, November 5, 1999, Report of Downgradient Investigation, B&C Gas Mini Mart, 2008 First Street, Livermore, California.

## **Free Product**

During this sampling event, Conor Pacific checked for free product in all site wells. Free product was observed in wells MW-2, MW-5, and MW-6 during water-level monitoring and during well purging. However, the product thickness could not be measured in these wells, because there was too little free product present to be measured using the product probe which measures a minimum of 0.01 inches of product. These three wells have contained measurable free product in the past, and a free product thickness of 0.01 inch was measured in wells MW-2 and MW-5 during the third quarter 2002 monitoring event.

## **Groundwater Elevations**

On December 23, 2002, Conor Pacific measured the depth to water in all groundwater monitoring wells. Water levels were measured to the nearest 0.01 foot using a float-activated product probe, according to Conor Pacific's standard measuring protocol,<sup>6</sup> and were recorded on a water level data sheet (Appendix A). Groundwater elevations are calculated by subtracting depth-to-water measurements from the top of well casing elevations, surveyed to Livermore City datum, mean sea level (MSL).

Table 2 summarizes the groundwater elevations from the current monitoring event. A groundwater contour map, based on the current water level measurements, is shown in Figure 2. Current groundwater elevations are generally about four to six feet higher than the previous measurements in September 2002, and resemble elevations measured during fourth quarter 2000. Groundwater flow was generally due west during this quarterly monitoring event and the hydraulic gradient is approximately 0.014 foot per foot. The flow direction and gradient are in accordance with previous results.

A vertically downward gradient was observed between the upper water-bearing zone (MW-11 and MW-12) and the semi-confined aquifer (D-1 and D-2), as has been observed during previous quarters.

## **Sampling Methods**

Conor Pacific sampled seven monitoring wells on December 23 and 24, 2002 (MW-7, MW-8, MW-9, MW-10, MW-12, MW-13, and D-2), following Conor Pacific's standard protocol. Nine monitoring wells were scheduled to be sampled during fourth quarter, however, Well MW-2 and MW-5 were not sampled due to the presence of floating product. Wells were purged using a one-use, disposable PVC bailer. Samples were collected from each well using the disposable PVC bailer. Field measurements of temperature, pH, dissolved oxygen, turbidity, and electrical conductivity were taken and recorded on water sample field data sheets (Appendix A). All purge water was contained in 55-gallon drums and stored on-site pending proper disposal. Purge water with low hydrocarbon concentrations is pumped to the sanitary sewer under City of Livermore

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<sup>6</sup> Einarson, Fowler & Watson. Third Quarter 1998 Groundwater Monitoring Results, B&C Gas Mini Mart, Livermore, California, Appendix A. September 10, 1998.

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Groundwater Discharge Permit. All samples were properly stored on the day of sampling. Chain-of-custody documentation accompanied the samples through collection and delivery to the analytical laboratory.

### **Analytical Program**

All groundwater analyses were performed by Sequoia Analytical of Petaluma, California, a state-certified laboratory. All groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by U.S. Environmental Protection Agency (EPA) Method 8015B and benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tertiary-butyl ether (MTBE) by EPA Method 8021B. Laboratory analyses occurred within specified holding times and within laboratory quality control standards. The certified analytical reports are located in Appendix B.

### **Analytical Results**

Fourth quarter 2002 analytical results are presented in Table 3 and historical results are summarized in Appendix C.

During the fourth quarter 2002, hydrocarbon concentrations decreased significantly in well MW-7 when compared to results from the previous monitoring event conducted during third quarter 2002. Third quarter concentrations had been the highest since sampling began in 1999; with the exception of MTBE, current analytical results resemble the relatively lower concentrations detected during 2000.

Analytical results for well MW-8 show that benzene was detected for the second time in this well, at the same low concentration of 0.52 µg/L detected in third quarter 2002. MTBE was not detected above the reporting limit of 2.5 µg/L this quarter. MTBE had been detected regularly in well MW-8 since sampling began in 1999, and concentrations had been decreasing steadily. Breaking this decreasing trend, MTBE was detected at a relatively high concentration during third quarter; considering the most recent results, it appears that MTBE concentrations again are following the decreasing trend previously observed in the historical data (Appendix C).

Hydrocarbons also were detected in well MW-13 during this sampling event. With the exception of ethylbenzene, detected hydrocarbon concentrations increased somewhat when compared to third quarter results; ethylbenzene decreased slightly. However, current results are within historical ranges, and MTBE detections continue to exhibit a generally decreasing trend since monitoring began in 1999.

No hydrocarbons were detected in the remaining wells sampled this quarter (MW-9, MW-10, MW-12, and D-2); these results are consistent with results from previous sampling events. Analytical results for benzene and MTBE are presented on Figure 3.

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## SUMMARY

Seven of the nine monitoring wells scheduled for sampling during fourth quarter were sampled this quarter. Fourth quarter 2002 groundwater monitoring results are consistent with previous monitoring results. The furthest downgradient detection of the hydrocarbon plume continues to be seen at well MW-8.

First quarter 2003 groundwater monitoring currently is scheduled for March 2003. If you have any questions regarding this report, please call us at (650) 386-3828.

Sincerely,  
Conor Pacific



Katrin Schliewen  
Project Hydrogeologist



Kris H. Johnson, C.E.G. 1763  
Senior Engineering Geologist

cc:

Donna Drogos, Alameda County Environmental Health Services  
Colleen Winey, Alameda Co. Flood Control and Water Cons. District Zone 7  
Regional Water Quality Control Board, San Francisco Bay Region LUFT  
State Water Resources Control Board, UST Fund

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Attachments:

Tables

Table 1 - Monitoring Well Constructions

Table 2 - Fourth Quarter 2002 Groundwater Elevations

Table 3 - Fourth Quarter 2002 Groundwater Analytical Results

Figures

Figure 1 - Site Location

Figure 2 - Well Locations and Groundwater Contours (December 2002)

Figure 3 - Groundwater Chemistry (December 2002)

Appendices

Appendix A - Water Sample Field Data Sheets

Appendix B - Laboratory Certified Analytical Reports

Appendix C - Historical Groundwater Elevations and Analytical Results



Table 1  
Monitoring Well Constructions  
B&C Gas Mini Mart  
Livermore, California

Well No.	Drilling Method	Date Installed	T.D. Boring (ft.-bgs)	T.D. Well (ft.-bgs)	Borehole Diameter (inches)	Casing Material (PVC)	Casing Diameter (inches)	Screen Size (inches)	Sand Pack Material	Screened Interval (ft.-bgs)	Sand Pack Interval (ft.-bgs)
MW-1	HSA	Sep-88	77	77	8	PVC	2	0.020	#3 sand	27 - 77	25 - 77
MW-2	HSA	Jun-94	60	60	10	PVC	4	0.020	#2/20 sand	30 - 60	27 - 60
MW-3	HSA	Jun-94	60	60	10	PVC	4	0.020	#2/20 sand	30 - 60	27 - 60
MW-4	HSA	Jun-94	60	60	10	PVC	4	0.020	#2/20 sand	30 - 60	27 - 60
MW-5	HSA	Oct-95	42	40	10	PVC	4	0.020	#2 sand	15 - 40	12 - 40
MW-6	HSA	Oct-95	42	40	10	PVC	4	0.020	#2 sand	15 - 40	12 - 40
MW-7	HSA	Jun-99	62	49	8	PVC	2	0.020	#3 sand	29-49	27-51
MW-8	HSA	Jun-99	62	54	8	PVC	2	0.020	#3 sand	34-54	32-54
MW-9	HSA	Jun-99	45	45	8	PVC	2	0.020	#3 sand	25-45	23-45
MW-10	HSA	Jun-99	55	53.5	8	PVC	2	0.020	#3 sand	33.5-53.5	23-55
MW-11	HSA	Jun-99	50	49	8	PVC	2	0.020	#3 sand	29-49	27-49
MW-12	HSA	Jun-99	45	43.5	8	PVC	2	0.020	#3 sand	23.5-43.5	21-45
MW-13	HSA	Jul-99	55	55	8	PVC	2	0.020	#3 sand	35-55	32-55
D-1	HSA	Jun-99	125	125	8	PVC	2	0.020	#3 sand	110-125	104-125
D-2	HSA	Jun-99	115	114	8	PVC	2	0.020	#3 sand	99-114	94-114
(MS)MW-1	HSA	Apr-89	62	60	NA	PVC	2	NA	NA	30-60	NA

HSA       Hollow-Stem Auger  
T.D.       Total Depth  
ft.-bgs    feet below ground surface  
NA         Not available

Well construction information for wells MW-2 through MW-6 collected from Remediation Service Int'l boring logs.

Table 2  
 Fourth Quarter 2002 Groundwater Elevations  
 B & C Gas Mini Mart  
 Livermore, California

Well Number	Top-of-Casing Elevation (feet, MSL)	Depth to Water (feet)	Groundwater Elevation (feet, MSL)	Depth to Free product (feet)	Product Thickness (feet)
December 23, 2002					
MW-1	484.07	31.54	452.53		
MW-2	483.86	31.46	452.40	NM**	NM**
MW-3	484.24	30.38	453.86		
MW-4	485.04	30.93	454.11		
MW-5	481.97	31.36	450.61	NM**	NM**
MW-6	483.93	NM*	NM*		
MW-7	478.14	31.47	446.67		
MW-8	473.23	38.28	434.95		
MW-9	477.08	33.89	443.19		
MW-10	471.42	39.02	432.40		
MW-11	464.93	35.54	429.39		
MW-12	458.34	29.84	428.50		
MW-13	474.79	33.39	441.40		
D-1	464.70	37.23	427.47		
D-2	457.61	30.34	427.27		
(MS)MW-1	477.79	35.80	441.99	NM**	NM**

*Notes.*

MSL = mean sea level

NM = not measured

MS = Mill Springs Park

(1) - free product visible in purge or sample water

\* Obstruction in well MW-6 at approximately 28.5 feet below top of casing

\*\* Evidence of free product was visible in the purge water, but free product thickness could not be measured

Table 3  
 Fourth Quarter 2002 Groundwater Analytical Results  
 B&C Gas Mini Mart  
 Livermore, California

Well No.	Sample Date	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Groundwater Elevation (feet, MSL) 12/23/2002
MW-1	NS	NS	NS	NS	NS	NS	NS	452.53
MW-2	12/23/2002	NS**	NS**	NS**	NS**	NS**	NS**	452.40
MW-3	NS	NS	NS	NS	NS	NS	NS	453.86
MW-4	NS	NS	NS	NS	NS	NS	NS	454.11
MW-5	12/24/2002	NS**	NS**	NS**	NS**	NS**	NS**	450.61
MW-6	NS	NS	NS	NS	NS	NS	NS	NM*
MW-7	12/23/2002	860	12	1.3	7.6	1.9	45	446.67
MW-8	12/23/2002	<50	0.52	<0.5	<0.5	<0.5	<2.5	434.95
MW-9	12/23/2002	<50	<0.5	<0.5	<0.5	<0.5	<2.5	443.19
MW-10	12/23/2002	<50	<0.5	<0.5	<0.5	<0.5	<2.5	432.40
MW-11	NS	NS	NS	NS	NS	NS	NS	429.39
MW-12	12/24/2002	<50	<0.5	<0.5	<0.5	<0.5	<2.5	428.50
MW-13	12/23/2002	210	9.3	<0.5	5.1	<0.5	55	441.40
D-1	NS	NS	NS	NS	NS	NS	NS	427.47
D-2	12/24/2002	<50	<0.5	<0.5	<0.5	<0.5	<2.5	427.27
(MS)MW-1	NS	NS	NS	NS	NS	NS	NS	441.99

*Notes:*

µg/L = micrograms per liter

MSL = above mean sea level

TPH-G = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

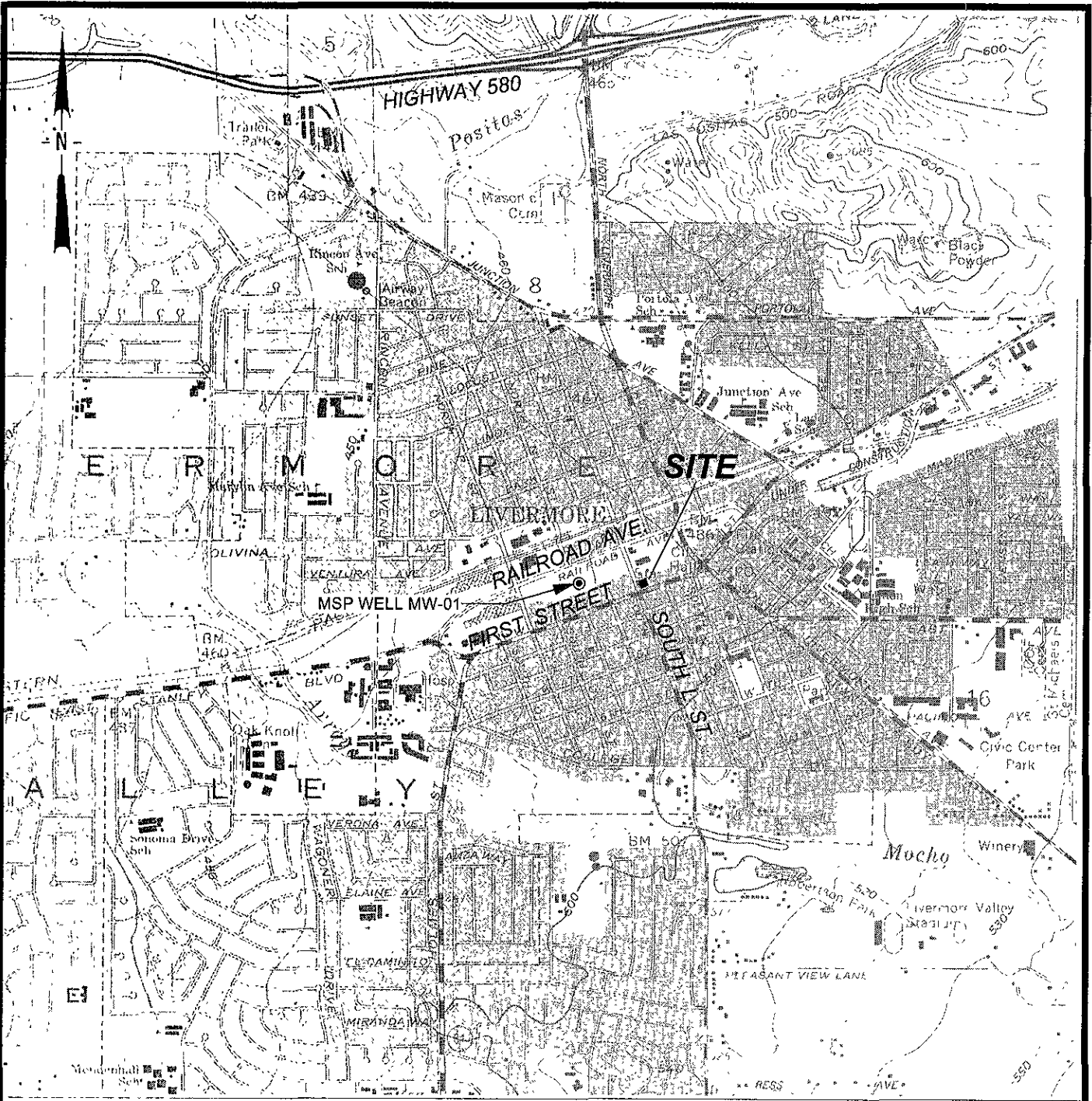
MS = Mill Springs Park

NS = not sampled

\* Obstruction in well MW-6 at approximately 28.5 feet below top of casing

\*\* = free product hydrocarbon present

< = less than the laboratory reporting limit



Base map USGS 7.5' topography, Livermore, California (1961; photorevised 1980)

I/BNC/103/FIGURES/SITELOC.DSF 4/22/99

**Conor Pacific**



GROUNDWATER MONITORING  
B & C GAS MINI MART  
LIVERMORE, CALIFORNIA

SITE LOCATION MAP

FIGURE

**1**

PROJECT NO  
BNC103

DMM-01

WE



CWS#8  
(377.5)

SPT/UNION PACIFIC RAILROAD

PAUL'S CLEANERS

FORMER MILLER'S OUTPOST SHOPPING CENTER  
(Currently Livermore Valley Square)

(427.27) D-2

(428.50) MW-12

(427.47) D-1

(429.30) MW-11

NORTH P STREET

GRANADA BOWLING ALLEY

BANK OF AMERICA

VACANT PROPERTY

ARROW RENTALS

NORTH L STREET

RAILROAD AVENUE

430

432

434

436

438

440

442

444

446

448

450

452

SOUTH L STREET

GROTH BROTHERS OLDSMOBILE

B & C GAS MINI MART

FORMER LIVERMORE ARCADE SHOPPING CENTER  
(Currently Vintner's Square)

SOUTH P STREET

MIKE'S CLEANERS

CWS#3  
(Decommissioned May 2001)

MILL SPRINGS PARK APARTMENTS

SOUTH O STREET

FIRST STREET

UNOCAL STATION

SOUTH N STREET

SECOND STREET

SOUTH M STREET

ABANDONED GAS STATION

**EXPLANATION**

- MW-1 (Symbol) Groundwater monitoring well
- D-1 (Symbol) Deep groundwater monitoring well (not used in contouring)
- MW-6 (Symbol) Groundwater monitoring well (from other regulated sites)
- B97-3 (Symbol) Soil boring with grab groundwater sample (1997)
- H-11 (Symbol) Soil boring with grab groundwater sample (1995)
- CWS#8 (Symbol) Municipal water supply well, groundwater elevation measured 12/26/02, well pumping
- (452.53) Groundwater elevation (Feet-City of Livermore datum) measured 12/23/02, NM = Not Measured

SCALE 0 200 400 FEET



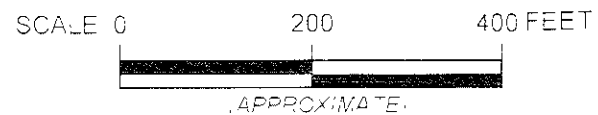
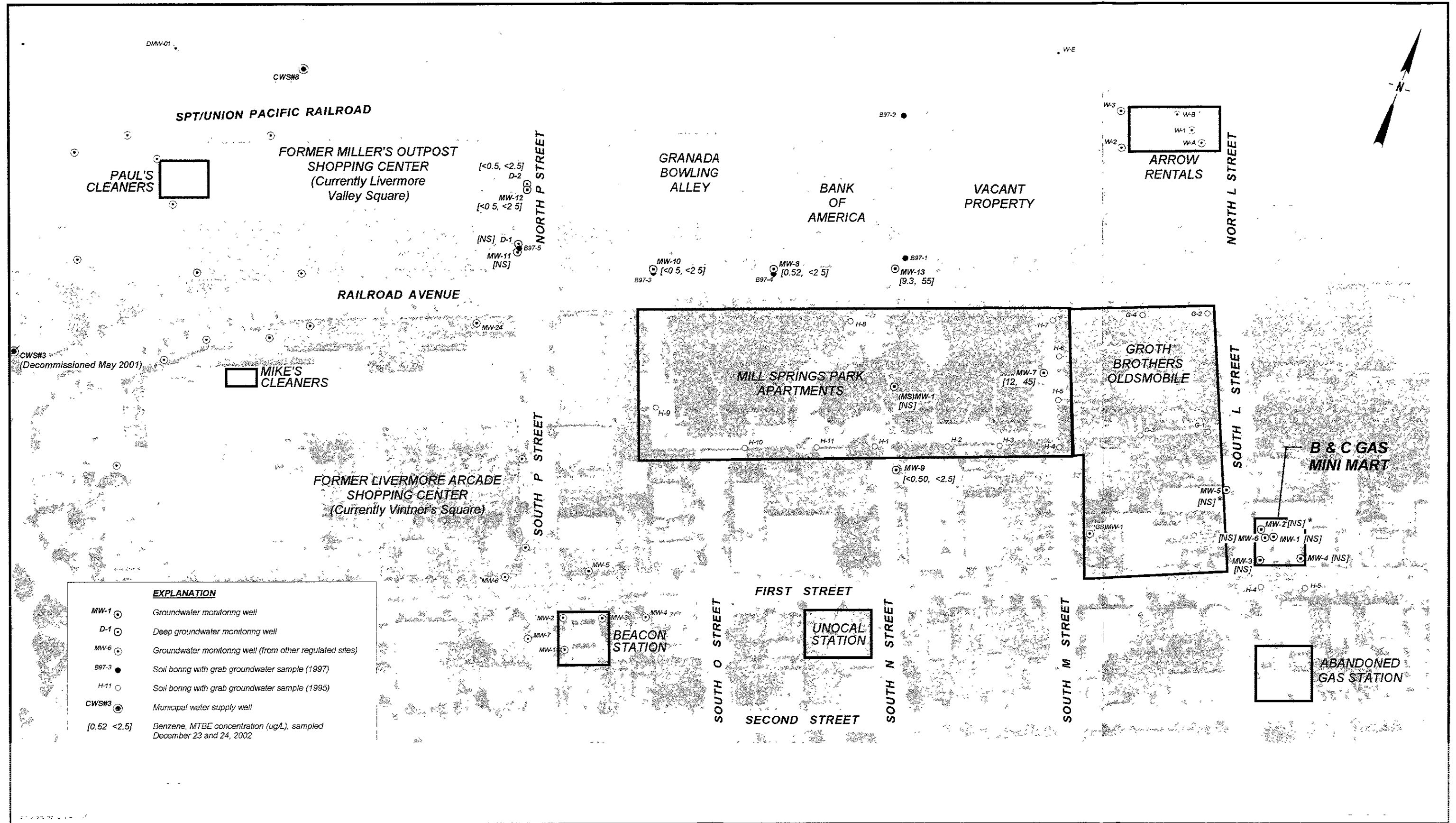
APPROXIMATE

GROUNDWATER MONITORING  
B & C GAS MINI MART  
LIVERMORE CALIFORNIA

WELL LOCATIONS AND GROUNDWATER CONTOURS (DECEMBER 2002)

FIGURE  
2

PROJECT NO.  
31770



GROUNDWATER MONITORING  
 B & C GAS MINI MART  
 LIVERMORE CALIFORNIA  
 GROUNDWATER CHEMISTRY (DECEMBER 2002)

FIGURE  
**3**  
 PROJECT NO.  
 B10109

APPENDIX A

Water Sample Field Data Sheets

WATER LEVEL DATA SHEET

Conor Pacific

Project: B&C Gas Mini Mart  
 Project No.: BNC103  
 Date(s): 12/23/02  
 Name: C. Min  
 Weather: CLEAR, WINDY Sounder #: SLOPE, KECK.

Well	Date	Time	DTRP (TOC)	DTW (TOC)	Total Depth	Meas By	Comments
MW-1	12/23/02	816	—	31.54	75.0	cm	
MW-2		8410	NM	31.46	55.9		KECK.
MW-3		826	—	30.38	57.6		
MW-4		831	—	30.93	59.9		
MW-5		800	NM	31.36	39.7		KECK
MW-6		814	NM	NM	NM		KECK. OBSTRUCTION AT 2850'
MW-7		845	—	31.47	44.2		
MW-8		920	—	38.28	53.2		
MW-9	1014	855	—	33.89	44.0		
MW-10		927	—	39.02	53.8		
MW-11		938	—	35.54	48.9		
MW-12		952	—	29.84	43.3		
MW-13		911	—	33.39	54.3		
D-1		943	—	37.23	124.0		
D-2		957	—	30.34	111.1		
MS MW01	✓	858	NM	35.80	61.3	✓	KECK





LOCATION: B + C GAS MINI MART

SAMPLE ID: MW-2

PROJECT NO: BNC103

SAMPLED BY: C. Min

CLIENT: B+C GAS MINI MART

REGULATORY AGENCY: ACEHS

SAMPLE TYPE: Groundwater  Surface Water

Leachate  Treatment System  Other

CASING DIAMETER (OD-inches): 3/4  1  2  4  4.5  6  8  Other

GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 55.9

Volume in Casing (gal): 16.2

Depth to Water (ft): 31.46

Calculated Purge (volumes / gal): 48.6 / 16.2

Height of Water Column (ft): 24.44

Actual Pre-Sampling Purge (gal): 1.0

**PURGE:**

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer

PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump

Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other

Purge Water Containment: DRUMMED

Field QC Samples Collected at this Well (Equipment or Field Blank): EB-  FB-  Other

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
	<u>16.5</u>							
<u>1100</u>	<u>1.0</u>							<u>PRODUCT PRESENT</u>

Purge Date: 12/23/02

**SAMPLE:**

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer

PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump

Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen:  Odor:  Sample Date:

Field Measurement Devices: Horiba H4 Omega  QuickCheck  D.O. Test Kit

REMARKS: PRODUCT PRESENT PURGE WATER. THERE WAS A SHEEN ON TOP OF WATER MARK WITH STRONG GAS SMELL. NO SAMPLES COLLECTED.

SIGNATURE: Chue Min DATE: 12/23/02



LOCATION: B+C GAS MINI MART

SAMPLE ID: MW-5

PROJECT NO: BNC103

SAMPLED BY: C. min

CLIENT: B+C GAS MINI MART

REGULATORY AGENCY: ACEHS

SAMPLE TYPE: Groundwater  Surface Water

Leachate  Treatment System  Other

CASING DIAMETER (OD-inches): 3/4  1  2  4  4.5  6  8  Other

GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 31.7

Volume in Casing (gal): 5.7

Depth to Water (ft): 31.20

Calculated Purge (volumes / gal.): 5.7

Height of Water Column (ft): 8.50

Actual Pre-Sampling Purge (gal): 1.0

PURGE:

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer

PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump

Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other

Purge Water Containment: DRUMMED

Field QC Samples Collected at this Well (Equipment or Field Blank): EB-  FB-  Other

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
<u>9:25</u>	<u>2.01.0</u>							<u>PROD VET PRESENT</u>

Purge Date: 12/24/02

SAMPLE:

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer

PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump

Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
<del>Sheen: _____ Odor: _____ Sample Date: _____</del>							

Field Measurement Devices: Horiba H4 Omega  QuickCheck  D.O. Test Kit

REMARKS: PROD VET PRESENT IN PURGE WATER. THERE WAS A SHEEN ON TOP OF WATER ALONG WITH SYLON GAS ODOOR. NO SAMPLES COLLECTED.

ANALYSIS ON 12/24/02 AT 9:5:00 AM; PH: 7.08, 10.24; TEMP: 6°C; COND: 0, 2060; TURB: 0;

SIGNATURE: Christina min DATE: 12/24/02



LOCATION: BTC GAS MINI MART SAMPLE ID: MW-7  
 PROJECT NO: BNC103 SAMPLED BY: C. Min  
 CLIENT: BTC GAS MINI MART REGULATORY AGENCY: ACEHS  
 SAMPLE TYPE: Groundwater  Surface Water  Leachate  Treatment System  Other   
 CASING DIAMETER (OD-inches): 3/4  1  2  4  4.5  6  8  Other   
 GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 49.2 Volume in Casing (gal): 3.1  
 Depth to Water (ft): 31.47 Calculated Purge (volumes / gal.): 3.1  
 Height of Water Column (ft): 17.73 Actual Pre-Sampling Purge (gal): 3.2

**PURGE:**

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer   
 PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump   
 Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other   
 Purge Water Containment: DRUMMED  
 Field QC Samples Collected at this Well (Equipment or Field Blank): EB-  FB-  Other

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
<u>1147</u>	<u>1.2</u>	<u>19.5</u>	<u>908</u>	<u>7.20</u>	<u>LT. BROWN</u>	<u>MODERATE</u>		<u>STRONG ODOR</u>
<u>1150</u>	<u>2.4</u>	<u>19.6</u>	<u>912</u>	<u>7.20</u>	<u>↓</u>	<u>↓</u>		<u>↓</u>
<u>1153</u>	<u>3.2</u>	<u>19.6</u>	<u>935</u>	<u>7.20</u>	<u>↓</u>	<u>↓</u>		<u>MODERATE ODOR</u>

Purge Date: 12/23/02

**SAMPLE:**

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer 46'  
 PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump   
 Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
<u>1200</u>	<u>19.4</u>	<u>902</u>	<u>7.27</u>	<u>1.64</u>	<u>LT. BROWN</u>	<u>319</u>	

Sheen: NONE Odor: MODERATE Sample Date: 12/23/02

Field Measurement Devices: Horiba H4 Omega  QuickCheck  D.O. Test Kit

REMARKS: PURGED ONE CASING VOLUME ONLY BEFORE SAMPLING.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SIGNATURE: Chad Min DATE: 12/23/02



LOCATION: BTC GAS MINI MART SAMPLE ID: MW-8  
 PROJECT NO: BNC103 SAMPLED BY: C. Min  
 CLIENT: BTC GAS MINI MART REGULATORY AGENCY: ACEHS  
 SAMPLE TYPE: Groundwater  Surface Water  Leachate  Treatment System  Other   
 CASING DIAMETER (OD-inches): 3/4  1  2  4  4.5  6  8  Other   
 GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 53.2 Volume in Casing (gal): 2.6  
 Depth to Water (ft): 38.28 Calculated Purge (volumes / gal.): 2.6  
 Height of Water Column (ft): 14.92 Actual Pre-Sampling Purge (gal): 3.0

PURGE:

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer   
 PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump   
 Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other   
 Purge Water Containment: DRUMMED  
 Field QC Samples Collected at this Well (Equipment or Field Blank): EB-  FB-  Other

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
<u>1303</u>	<u>1.0</u>	<u>19.5</u>	<u>971</u>	<u>7.01</u>	<u>LT. BROWN</u>	<u>MODERATE</u>		
<u>1307</u>	<u>2.0</u>	<u>19.6</u>	<u>954</u>	<u>7.03</u>	<u>↓</u>	<u>↓</u>		
<u>1311</u>	<u>3.0</u>	<u>19.5</u>	<u>957</u>	<u>7.01</u>	<u>↓</u>	<u>↓</u>		

Purge Date: 12/23/02

SAMPLE:

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer 50'  
 PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump   
 Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
<u>1317</u>	<u>18.9</u>	<u>989</u>	<u>7.07</u>	<u>2.04</u>	<u>LT. BROWN</u>	<u>147</u>	

Sheen: NONE Odor: NONE Sample Date: 12/23/02

Field Measurement Devices: Horiba H4 Omega  QuickCheck  D.O. Test Kit

REMARKS: PURGED ONE CASING VOLUME PRIOR TO SAMPLING.

SIGNATURE: [Signature] DATE: 12/23/02



LOCATION: B+C GAS MINI MART      SAMPLE ID: MW-9  
 PROJECT NO: BXC103      SAMPLED BY: C. Min  
 CLIENT: B+C GAS MINI MART      REGULATORY AGENCY: ACEHS  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Leachate \_\_\_\_\_ Treatment System \_\_\_\_\_ Other \_\_\_\_\_  
 CASING DIAMETER (OD-inches): 3/4 \_\_\_\_\_ 1 \_\_\_\_\_ 2  4 \_\_\_\_\_ 4.5 \_\_\_\_\_ 6 \_\_\_\_\_ 8 \_\_\_\_\_ Other \_\_\_\_\_  
 GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 44.0      Volume in Casing (gal): 1.8  
 Depth to Water (ft): 33.89      Calculated Purge (volumes / gal.): 1.8  
 Height of Water Column (ft): 10.11      Actual Pre-Sampling Purge (gal): 3.0

**PURGE:**

Device (Depth of Intake from TOC): S.S. Bailer \_\_\_\_\_ Teflon Bailer \_\_\_\_\_ PVC Bailer \_\_\_\_\_ Disp. Bailer   
 PVC Hand Pump \_\_\_\_\_ Peristaltic Pump \_\_\_\_\_ Centrifugal Pump \_\_\_\_\_ Bladder Pump \_\_\_\_\_  
 Pneumatic Displacement Pump \_\_\_\_\_ Electric Submersible Pump \_\_\_\_\_ Dedicated \_\_\_\_\_ Other \_\_\_\_\_  
 Purge Water Containment: DRUMMED  
 Field QC Samples Collected at this Well (Equipment or Field Blank): EB- \_\_\_\_\_ FB- \_\_\_\_\_ Other \_\_\_\_\_

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
<u>1411</u>	<u>1.0</u>	<u>20.7</u>	<u>712</u>	<u>7.30</u>	<u>LT. BROWN</u>	<u>MODERATE</u>		
<u>1413</u>	<u>2.0</u>	<u>20.2</u>	<u>773</u>	<u>7.32</u>	<u>↓</u>	<u>↓</u>		
<u>1416</u>	<u>3.0</u>	<u>20.2</u>	<u>769</u> <u>7.68</u>	<u>7.29</u>	<u>↓</u>	<u>↓</u>		
Purge Date:						<u>12/23/02</u>		

**SAMPLE:**

Device (Depth of Intake from TOC): S.S. Bailer \_\_\_\_\_ Teflon Bailer \_\_\_\_\_ PVC Bailer \_\_\_\_\_ Disp. Bailer 43'  
 PVC Hand Pump \_\_\_\_\_ Peristaltic Pump \_\_\_\_\_ Centrifugal Pump \_\_\_\_\_ Bladder Pump \_\_\_\_\_  
 Pneumatic Displacement Pump \_\_\_\_\_ Electric Submersible Pump \_\_\_\_\_ Dedicated \_\_\_\_\_ Other \_\_\_\_\_

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
<u>1420</u>	<u>20.2</u>	<u>833</u>	<u>7.32</u>	<u>3.51</u>	<u>LT. BROWN</u>	<u>595</u>	
Sheen:		<u>NONE</u>	Odor:		<u>NONE</u>	Sample Date: <u>12/23/02</u>	

Field Measurement Devices: Horiba H4 Omega \_\_\_\_\_ QuickCheck \_\_\_\_\_ D.O. Test Kit \_\_\_\_\_

REMARKS: PURGED ONE CASING VOLUME PRIOR TO SAMPLING.

SIGNATURE: C. Min      DATE: 12/23/02



LOCATION: B+C GAS MINI MART

SAMPLE ID: MW-10

PROJECT NO: BNC 103

SAMPLED BY: C. Meier

CLIENT: B+C GAS MINI MART

REGULATORY AGENCY: ACEHS

SAMPLE TYPE: Groundwater  Surface Water  Leachate  Treatment System  Other

CASING DIAMETER (OD-inches): 3/4  1  2  4  4.5  6  8  Other

GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 53.8 Volume in Casing (gal): 2.6

Depth to Water (ft): 39.02 Calculated Purge (volumes / gal.): 2.6

Height of Water Column (ft): 14.78 Actual Pre-Sampling Purge (gal): 3.0

PURGE:

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer

PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump

Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other

Purge Water Containment: DRUMMED

Field QC Samples Collected at this Well (Equipment or Field Blank): EB-  FB-  Other

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1333	1.0	18.4	887	6.96	LT. BROWN	MODERATE		
1337	2.0	19.2	882	6.95	↓	↓		
1340	3.0	19.2	889	6.96	↓	HIGH		

Purge Date: 12/23/02

SAMPLE:

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer 50'

PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump

Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1346	19.2	908	6.97	3.66	LT. BROWN	263	
Sheen: <u>NONE</u>		Odor: <u>NONE</u>		Sample Date: <u>12/23/02</u>			

Field Measurement Devices: Horiba H4 Omega  QuickCheck  D.O. Test Kit

REMARKS: PURGED ONE CASING VOLUME PRIOR TO SAMPLING.

SIGNATURE: [Signature] DATE: 12/23/02



LOCATION: B+C GAS MINI MART SAMPLE ID: MW-12  
 PROJECT NO: BNC 103 SAMPLED BY: C. Min  
 CLIENT: B+C GAS MINI MART REGULATORY AGENCY: ACEHS  
 SAMPLE TYPE: Groundwater  Surface Water  Leachate  Treatment System  Other   
 CASING DIAMETER (OD-inches): 3/4  1  2  4  4.5  6  8  Other   
 GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 43.3 Volume in Casing (gal): 2.4  
 Depth to Water (ft): 29.77 Calculated Purge (volumes / gal.): 2.4  
 Height of Water Column (ft): 13.53 Actual Pre-Sampling Purge (gal): 2.5

**PURGE:**

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer   
 PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump   
 Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other   
 Purge Water Containment: DROWNED  
 Field QC Samples Collected at this Well (Equipment or Field Blank): EB-  FB-  Other

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
<u>1120</u>	<u>1.0</u>	<u>19.0</u>	<u>911</u>	<u>7.06</u>	<u>LT. BROWN</u>	<u>MODERATE</u>		
<u>1124</u>	<u>2.0</u>	<u>19.8</u>	<u>918</u>	<u>7.04</u>	<u>↓</u>	<u>↓</u>		
<u>1126</u>	<u>2.5</u>	<u>19.8</u>	<u>902</u>	<u>7.08</u>	<u>↓</u>	<u>↓</u>		

Purge Date: 12/24/02

**SAMPLE:**

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer   
 PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump   
 Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
<u>1130</u>	<u>19.0</u>	<u>931</u>	<u>7.07</u>	<u>5.37</u>	<u>LT. BROWN</u>	<u>821</u>	

Sheen: NONE Odor: NONE Sample Date: 12/24/02

Field Measurement Devices: Horiba H4 Omega  QuickCheck  D.O. Test Kit

REMARKS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SIGNATURE: Cheryl Min DATE: 12/24/02



LOCATION: B+C GAS MINI MART SAMPLE ID: MW-13  
 PROJECT NO: BNC103 SAMPLED BY: C. Min  
 CLIENT: B+C GAS MINI MART REGULATORY AGENCY: ACEHS  
 SAMPLE TYPE: Groundwater  Surface Water  Leachate  Treatment System  Other   
 CASING DIAMETER (OD-inches): 3/4  1  2  4  4.5  6  8  Other   
 GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 54.3 Volume in Casing (gal): 3.6  
 Depth to Water (ft): 33.39 Calculated Purge (volumes / gal.): 10.8 3.6  
 Height of Water Column (ft): 20.91 Actual Pre-Sampling Purge (gal): 3.8

**PURGE:**

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer   
 PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump   
 Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other   
 Purge Water Containment: DROPPED  
 Field QC Samples Collected at this Well (Equipment or Field Blank): EB-  FB-  Other

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
<u>1230</u>	<u>1.2</u>	<u>20.7</u>	<u>1180</u>	<u>6.94</u>	<u>ORANGE/LT. BROWN</u>	<u>MODERATE</u>		<u>PARTICULATES</u>
<u>1234</u>	<u>2.4</u>	<u>20.3</u>	<u>1190</u>	<u>6.93</u>	<u>LT. BROWN</u>	<u>↓</u>		<u>↓</u>
<u>1238</u>	<u>3.8</u>	<u>20.1</u>	<u>1220</u>	<u>6.95</u>	<u>↓</u>	<u>↓</u>		<u>↓</u>

Purge Date: 12/23/02

**SAMPLE:**

Device (Depth of Intake from TOC): S.S. Bailer  Teflon Bailer  PVC Bailer  Disp. Bailer  51'  
 PVC Hand Pump  Peristaltic Pump  Centrifugal Pump  Bladder Pump   
 Pneumatic Displacement Pump  Electric Submersible Pump  Dedicated  Other

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
<u>1244</u>	<u>20.1</u>	<u>1170</u>	<u>7.03</u>	<u>1.50</u>	<u>LT. BROWN</u>	<u>89</u>	<u>PARTICULATES</u>

Sheen: NONE Odor: NONE Sample Date: 12/24/02 <sup>on</sup> 12/23/02

Field Measurement Devices: Horiba H4 Omega  QuickCheck  D.O. Test Kit

REMARKS: RIPIED ONE CASING VOLUME PRIOR TO SAMPLING.

SIGNATURE: C. Min DATE: 12/23/02





APPENDIX B

Laboratory Certified Analytical Reports



**Sequoia  
Analytical**

1455 McDowell Blvd, North Ste D  
Petaluma, CA 94954  
(707) 792-1865  
FAX (707) 792-0342  
www.sequoialabs.com

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9 January, 2003

Katrin Schliewen  
Conor Pacific / EFW  
2580 Wyandotte St., Suite G  
Mountain View, CA 94043

RE: B&C Gas Mini Mart  
Sequoia Work Order: P212497

Enclosed are the results of analyses for samples received by the laboratory on 12/24/02 09:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michelle M. Wiita  
Project Manager

CA ELAP Certificate #2374



Conor Pacific / EFW  
2580 Wyandotte St., Suite G  
Mountain View CA, 94043

Project: B&C Gas Mini Mart  
Project Number: BNC103  
Project Manager: Katrin Schliewen

P212497  
**Reported:**  
01/09/03 17:40

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-7	P212497-01	Water	12/23/02 12:00	12/24/02 09:50
MW-8	P212497-02	Water	12/23/02 13:17	12/24/02 09:50
MW-9	P212497-03	Water	12/23/02 14:20	12/24/02 09:50
MW-10	P212497-04	Water	12/23/02 13:46	12/24/02 09:50
MW-13	P212497-05	Water	12/23/02 12:44	12/24/02 09:50



1455 McDowell Blvd, North Ste D  
 Petaluma, CA 94954  
 (707) 792-1865  
 FAX (707) 792-0342  
 www.sequoialabs.com

Conor Pacific / EFW  
 2580 Wyandotte St., Suite G  
 Mountain View CA, 94043

Project: B&C Gas Mini Mart  
 Project Number: BNC103  
 Project Manager: Katrin Schliewen

P212497  
 Reported:  
 01/09/03 17:40

**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015B/8021B**  
**Sequoia Analytical - Petaluma**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-7 (P212497-01) Water</b> Sampled: 12/23/02 12:00 Received: 12/24/02 09:50									
Gasoline Range Organics	860	100	ug/l	2	2120837	12/30/02	12/30/02	EPA 8015B/8021B	
Benzene	12	1.0	"	"	"	"	"	"	
Toluene	1.3	1.0	"	"	"	"	"	"	
Ethylbenzene	7.6	1.0	"	"	"	"	"	"	
Xylenes (total)	1.9	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	45	5.0	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		94 %		65-135	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98 %		65-135	"	"	"	"	
<b>MW-8 (P212497-02) Water</b> Sampled: 12/23/02 13:17 Received: 12/24/02 09:50									
Gasoline Range Organics	ND	50	ug/l	1	2120837	12/30/02	12/30/02	EPA 8015B/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		91 %		65-135	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %		65-135	"	"	"	"	
<b>MW-9 (P212497-03) Water</b> Sampled: 12/23/02 14:20 Received: 12/24/02 09:50									
Gasoline Range Organics	ND	50	ug/l	1	2120837	12/30/02	12/30/02	EPA 8015B/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		88 %		65-135	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97 %		65-135	"	"	"	"	



Conor Pacific / EFW  
 2580 Wyandotte St., Suite G  
 Mountain View CA, 94043

Project: B&C Gas Mini Mart  
 Project Number: BNC103  
 Project Manager: Katrin Schliewen

P212497  
 Reported:  
 01/09/03 17:40

**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015B/8021B**  
**Sequoia Analytical - Petaluma**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-10 (P212497-04) Water</b> <b>Sampled: 12/23/02 13:46</b> <b>Received: 12/24/02 09:50</b>									
Gasoline Range Organics	ND	50	ug/l	1	2120837	12/30/02	12/30/02	EPA 8015B/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		98 %	65-135		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98 %	65-135		"	"	"	"	
<b>MW-13 (P212497-05) Water</b> <b>Sampled: 12/23/02 12:44</b> <b>Received: 12/24/02 09:50</b>									
Gasoline Range Organics	210	50	ug/l	1	2120837	12/30/02	12/30/02	EPA 8015B/8021B	
Benzene	9.3	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	5.1	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	55	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		92 %	65-135		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98 %	65-135		"	"	"	"	



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Conor Pacific / EFW  
 2580 Wyandotte St., Suite G  
 Mountain View CA, 94043

Project: B&C Gas Mini Mart  
 Project Number: BNC103  
 Project Manager: Katrin Schliewen

P212497  
 Reported:  
 01/09/03 17:40

**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015B/8021B - Quality Control**  
**Sequoia Analytical - Petaluma**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 2120837 - EPA 5030, waters**

**Blank (2120837-BLK1)**

Prepared & Analyzed: 12/30/02

Gasoline Range Organics	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	290		"	300		97	65-135			
<i>Surrogate: 4-Bromofluorobenzene</i>	299		"	300		100	65-135			

**Laboratory Control Sample (2120837-BS1)**

Prepared & Analyzed: 12/30/02

Gasoline Range Organics	2470	50	ug/l	2750		90	65-135			
Benzene	39.5	0.50	"	34.0		116	65-135			
Toluene	201	0.50	"	208		97	65-135			
Ethylbenzene	42.2	0.50	"	49.0		86	65-135			
Xylenes (total)	217	0.50	"	241		90	65-135			
Methyl tert-butyl ether	52.7	2.5	"	56.0		94	65-135			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	318		"	300		106	65-135			
<i>Surrogate: 4-Bromofluorobenzene</i>	322		"	300		107	65-135			

**Matrix Spike (2120837-MS1)**

Source: P212478-01

Prepared & Analyzed: 12/30/02

Gasoline Range Organics	2490	50	ug/l	2750	23	90	65-135			
Benzene	39.5	0.50	"	34.0	ND	116	65-135			
Toluene	203	0.50	"	208	0.25	97	65-135			
Ethylbenzene	42.7	0.50	"	49.0	ND	87	65-135			
Xylenes (total)	217	0.50	"	241	ND	90	65-135			
Methyl tert-butyl ether	53.4	2.5	"	56.0	0.77	94	65-135			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	320		"	300		107	65-135			
<i>Surrogate: 4-Bromofluorobenzene</i>	314		"	300		105	65-135			

Sequoia Analytical - Petaluma

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.*



Conor Pacific / EFW  
2580 Wyandotte St., Suite G  
Mountain View CA, 94043

Project: B&C Gas Mini Mart  
Project Number: BNC103  
Project Manager: Katrin Schliewen

P212497  
Reported:  
01/09/03 17:40

**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015B/8021B - Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2120837 - EPA 5030, waters</b>										
<b>Matrix Spike Dup (2120837-MSD1)</b>										
		<b>Source: P212478-01</b>			<b>Prepared &amp; Analyzed: 12/30/02</b>					
Gasoline Range Organics	2510	50	ug/l	2750	23	90	65-135	0.8	20	
Benzene	40.0	0.50	"	34.0	ND	118	65-135	1	20	
Toluene	209	0.50	"	208	0.25	100	65-135	3	20	
Ethylbenzene	43.8	0.50	"	49.0	ND	89	65-135	3	20	
Xylenes (total)	223	0.50	"	241	ND	93	65-135	3	20	
Methyl tert-butyl ether	52.7	2.5	"	56.0	0.77	93	65-135	1	20	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>310</i>		<i>"</i>	<i>300</i>		<i>103</i>	<i>65-135</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>311</i>		<i>"</i>	<i>300</i>		<i>104</i>	<i>65-135</i>			





Conor Pacific / EFW  
2580 Wyandotte St., Suite G  
Mountain View CA, 94043

Project: B&C Gas Mini Mart  
Project Number: BNC103  
Project Manager: Katrin Schliewen

P212497  
Reported:  
01/09/03 17:40

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

Date : 30-DEC-2002 08:48

Client ID: VSTD1000CC

Lab Sample ID: VSTD1000CC

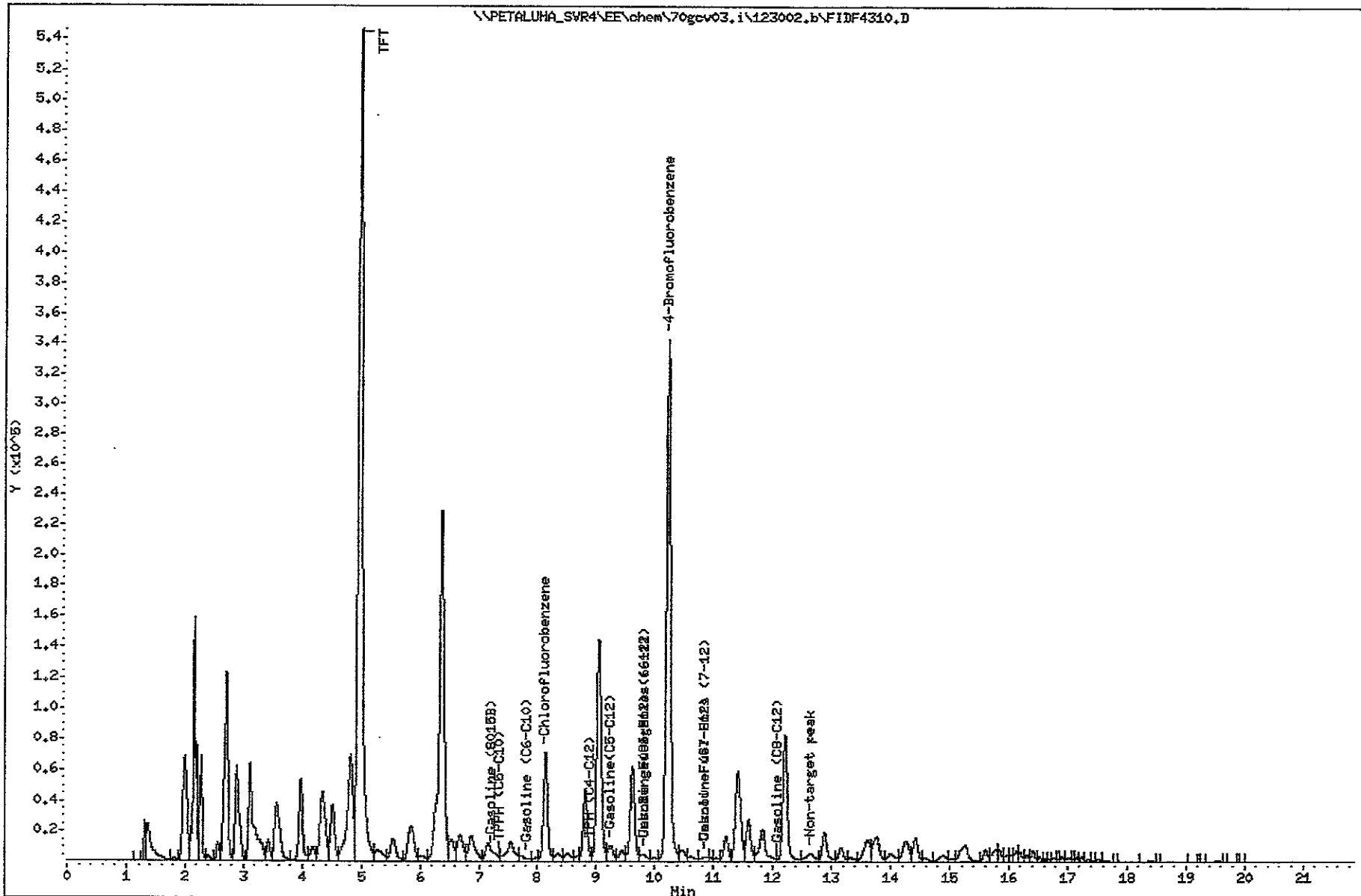
Purge Volume: 5.0

Column phase: HP-1

Instrument: 70gc03.i

Operator: ADS

Column diameter: 0.53



Date : 30-DEC-2002 09:16

Client ID: VSTD100BC

Lab Sample ID: VSTD100BC

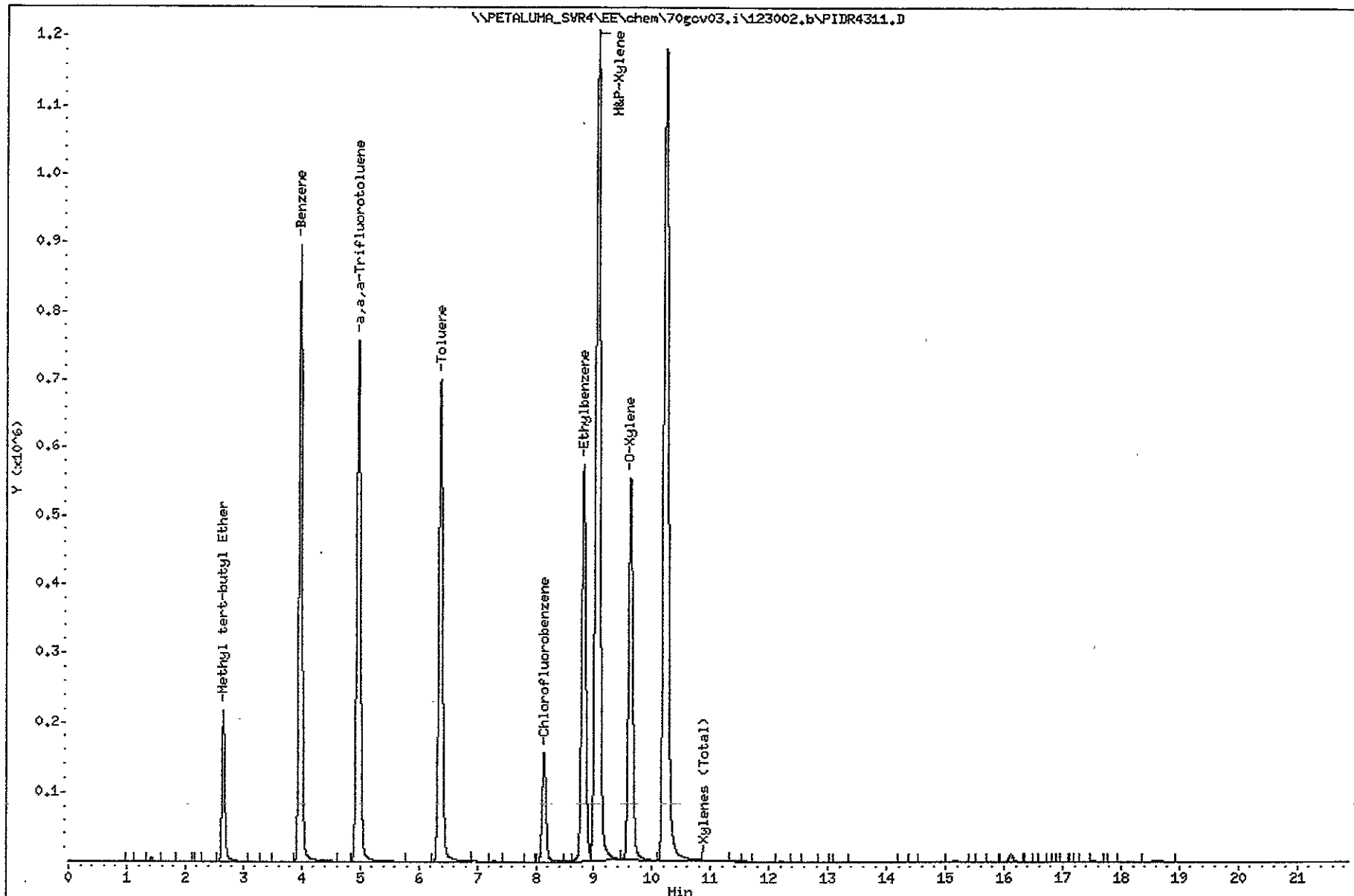
Purge Volume: 5.0

Column phase: DB-624

Instrument: 70gcv03.i

Operator: AIS

Column diameter: 0.53



Date : 30-DEC-2002 10:03

Client ID: BLK

Lab Sample ID: 2120837-BLK1

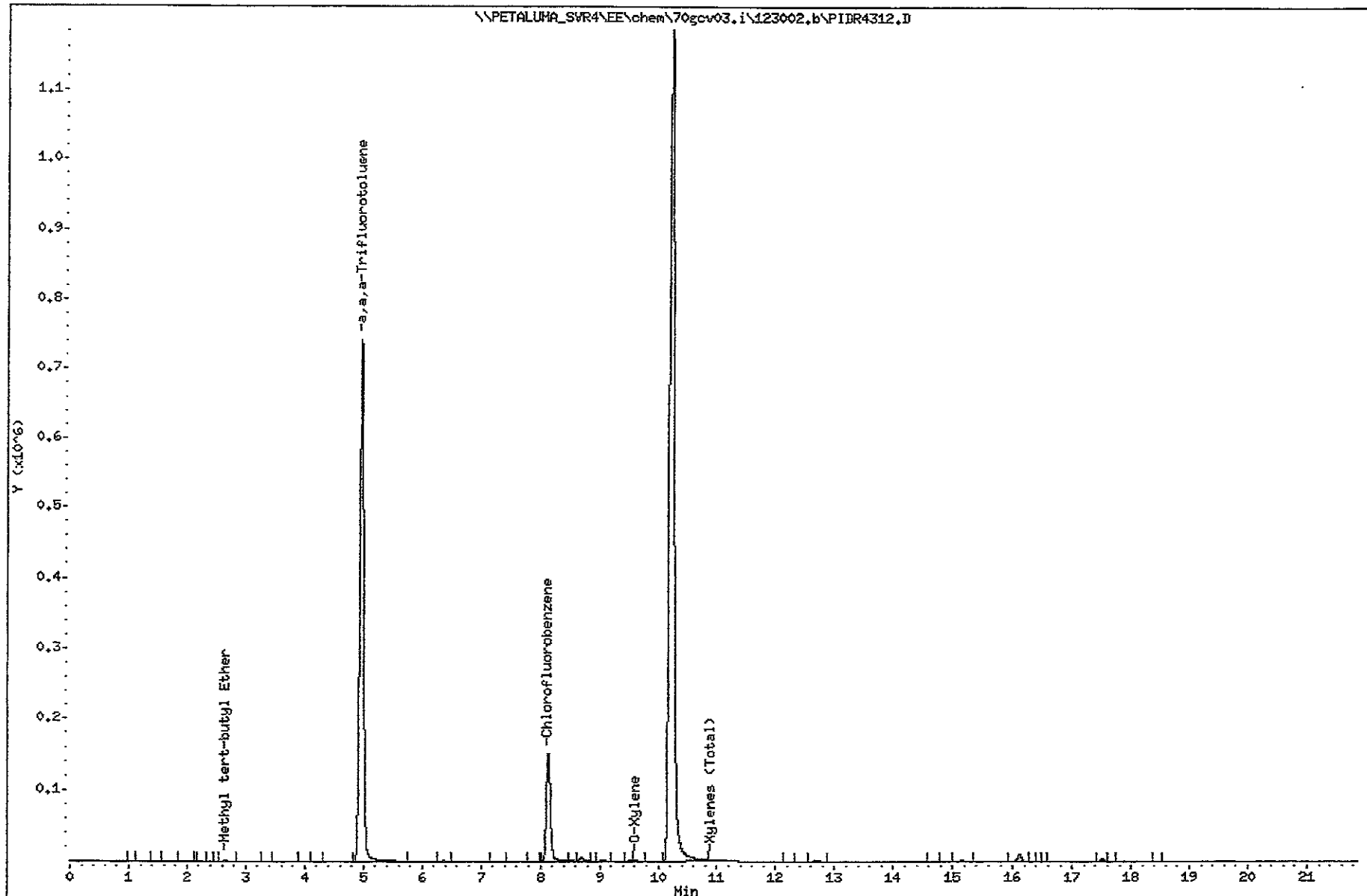
Purge Volume: 5.0

Column phase: DB-624

Instrument: 70gov03.i

Operator: ADS

Column diameter: 0.53



Date : 30-DEC-2002 10:03

Client ID: BLK

Instrument: 70gcv03.i

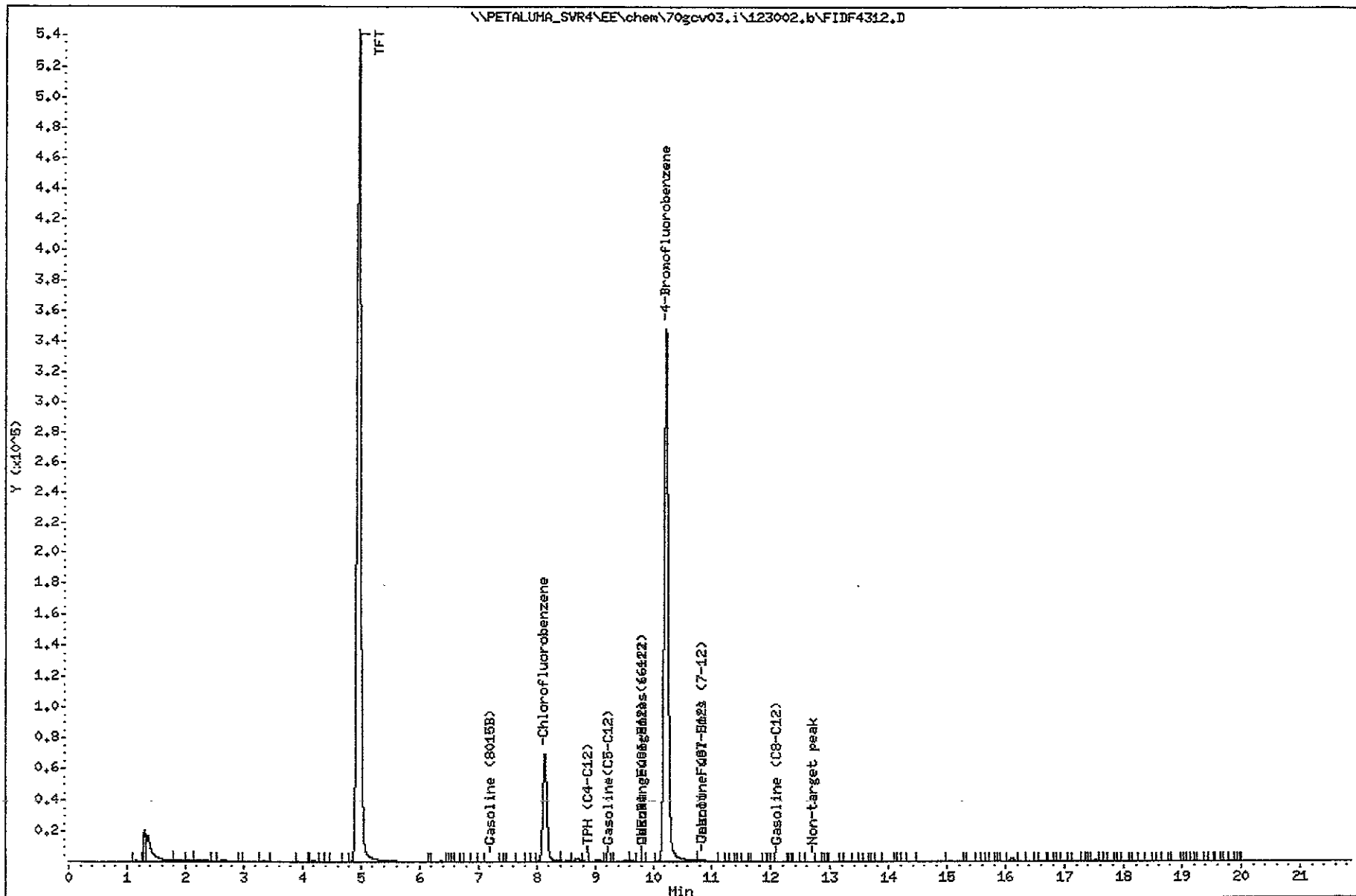
Lab Sample ID: 2120837-BLK1

Operator: ADS

Purge Volume: 5.0

Column diameter: 0.53

Column phase: HP-1



Date : 30-DEC-2002 16:18

Client ID: MW-7

Lab Sample ID: P212497-01

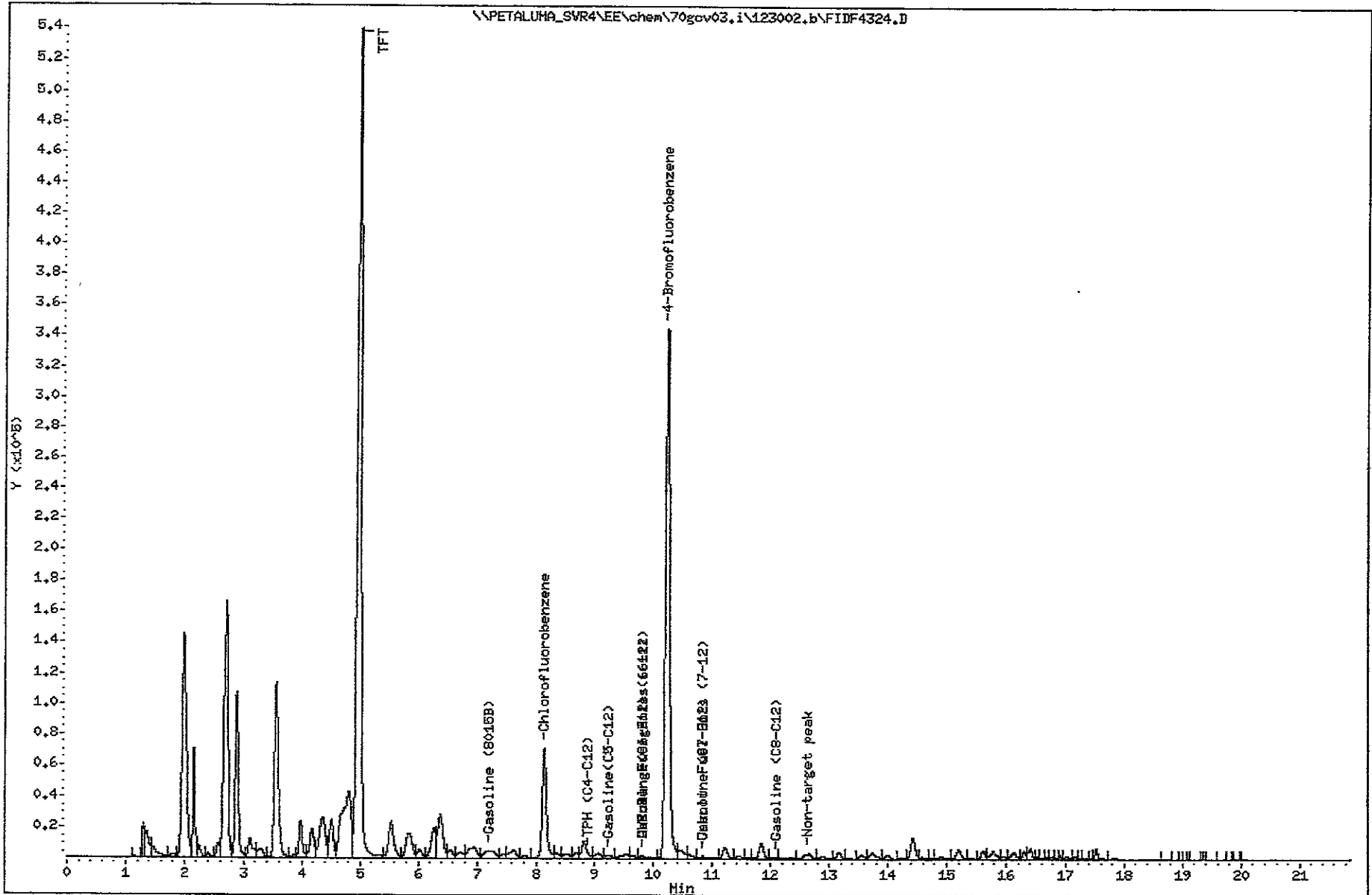
Purge Volume: 5.0

Column phase: HP-1

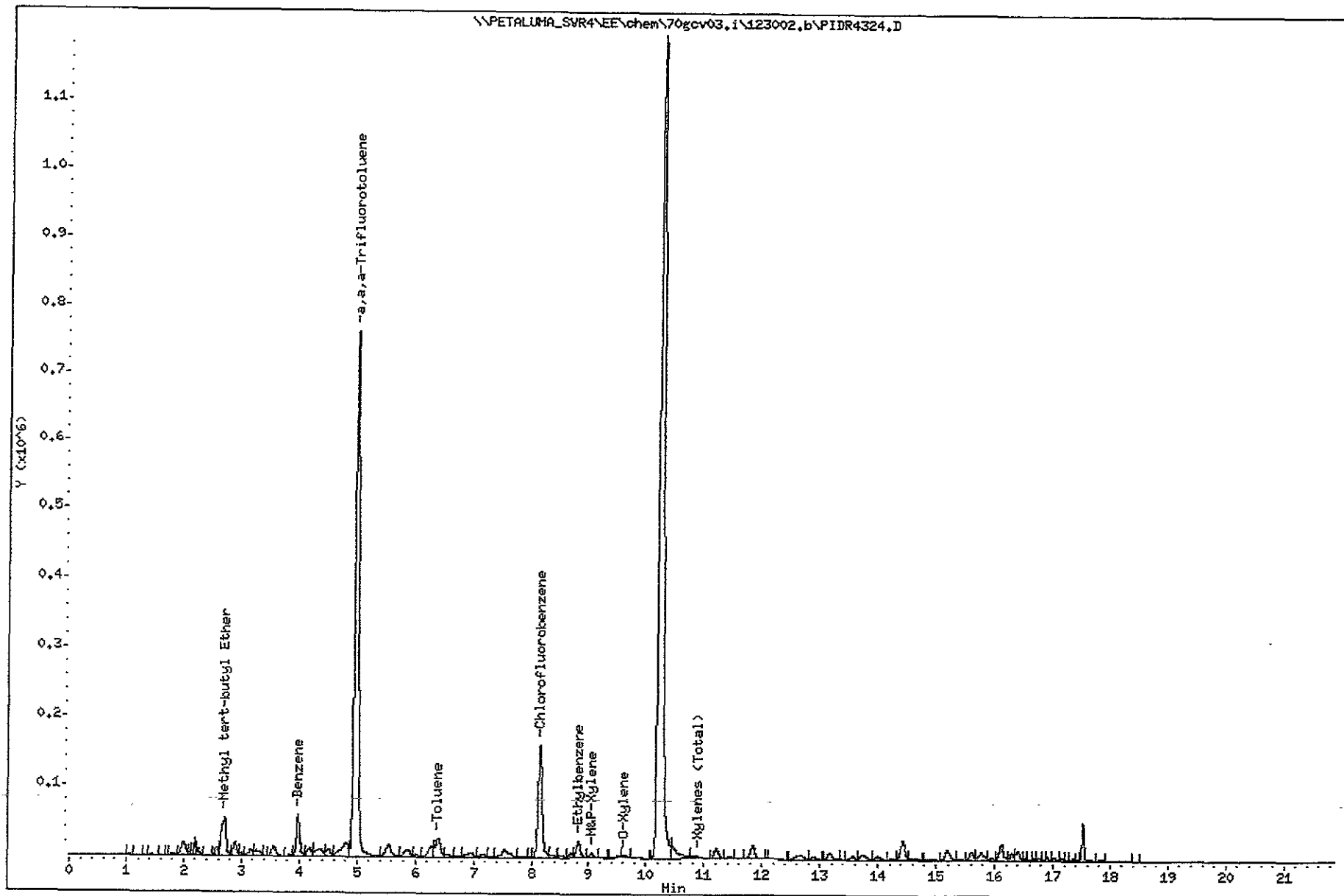
Instrument: 70gcv03.i

Operator: ADS

Column diameter: 0.53



\\PETALUMA\_SVR4\EE\chem\70gcv03.i\123002.b\PIDR4324.D



Date : 30-DEC-2002 16:54

Client ID: MW-8

Lab Sample ID: P212497-02

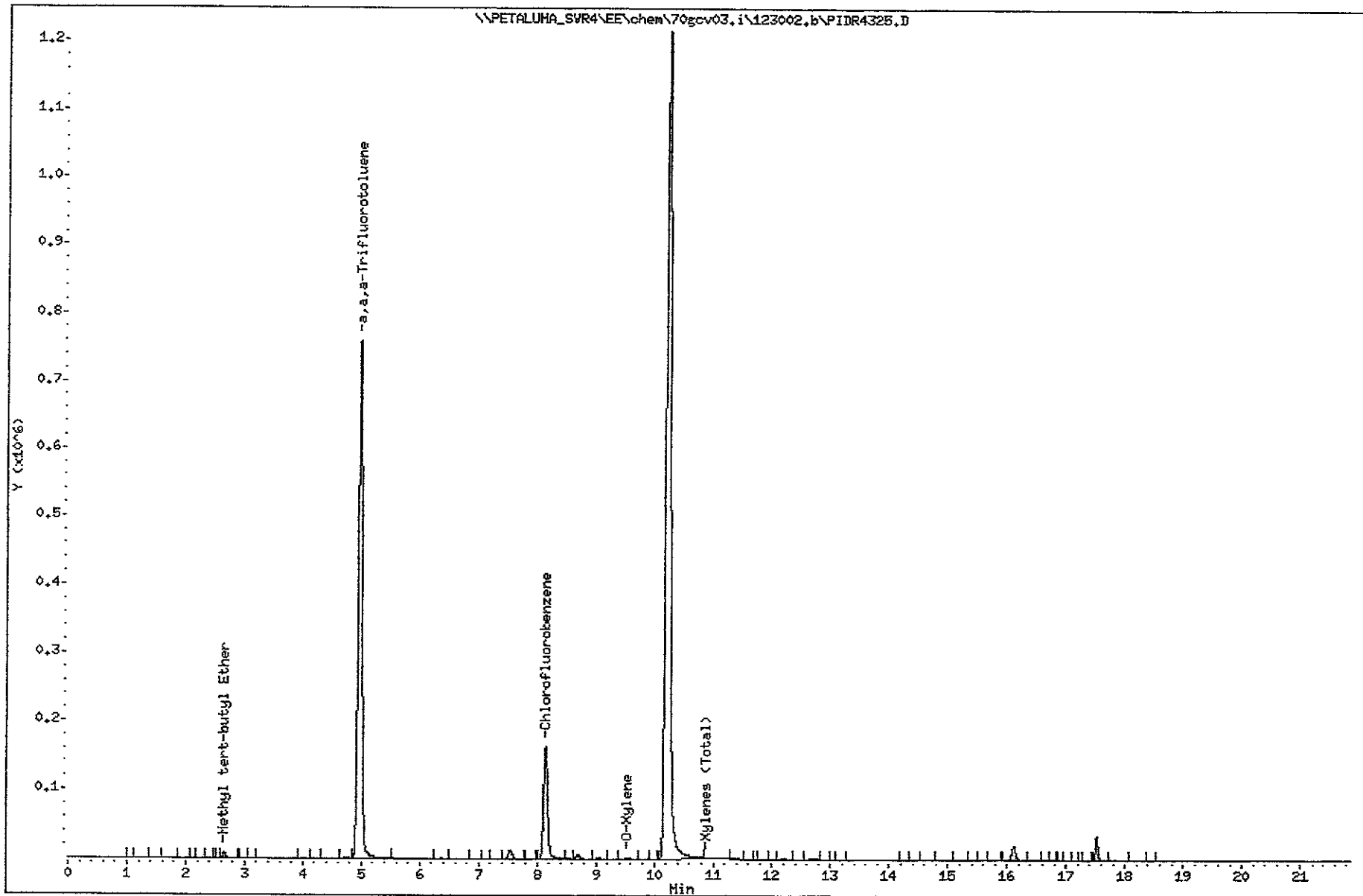
Purge Volume: 5.0

Column phase: DB-624

Instrument: 70gcv03.i

Operator: ADS

Column diameter: 0.53





Date : 30-DEC-2002 16:54

Client ID: MW-8

Lab Sample ID: P212497-02

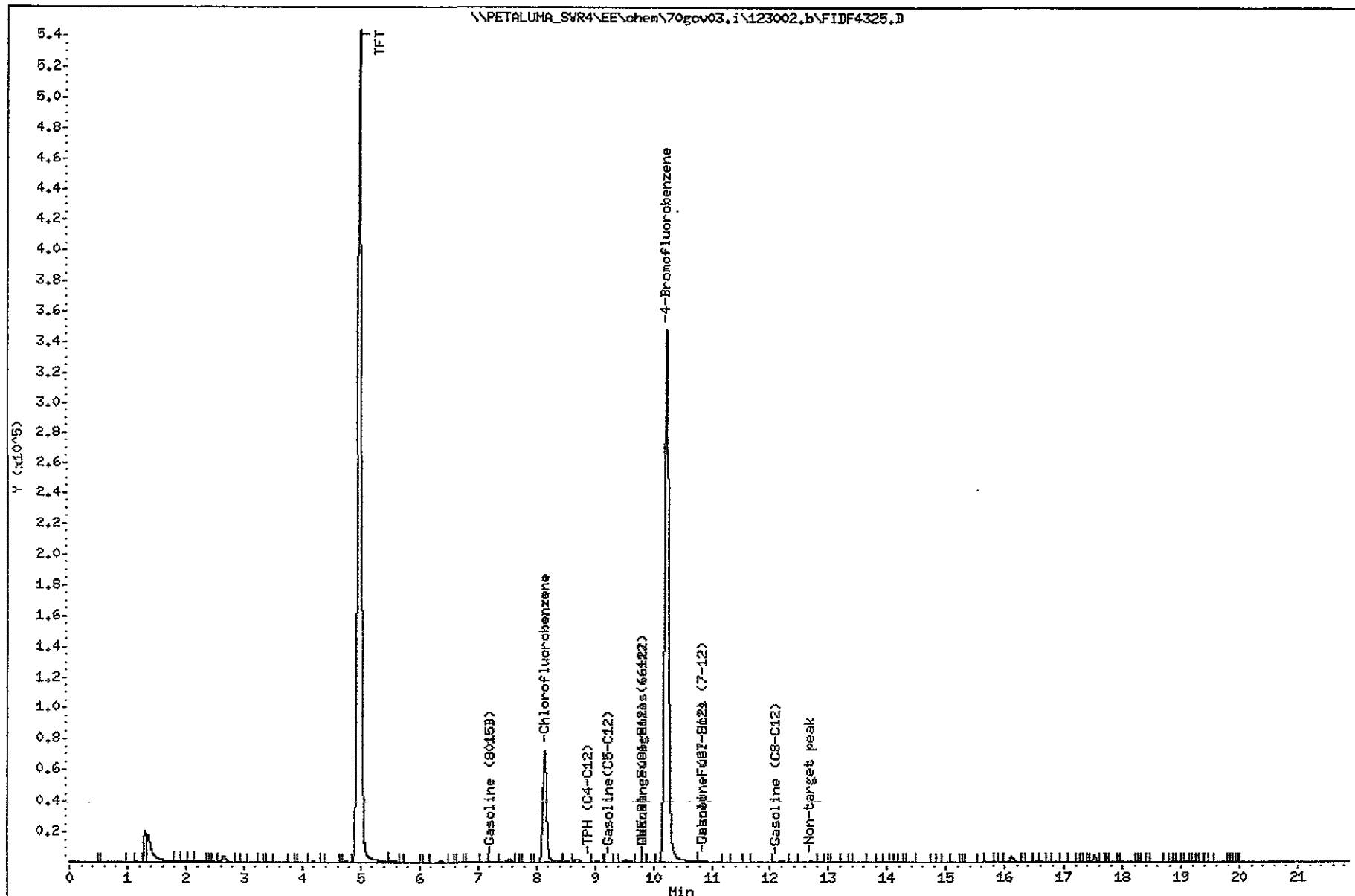
Purge Volume: 5.0

Column phase: HP-1

Instrument: 70gcv03.i

Operator: ADS

Column diameter: 0.53



Date : 30-DEC-2002 17:23

Client ID: MW-9

Lab Sample ID: P212497-03

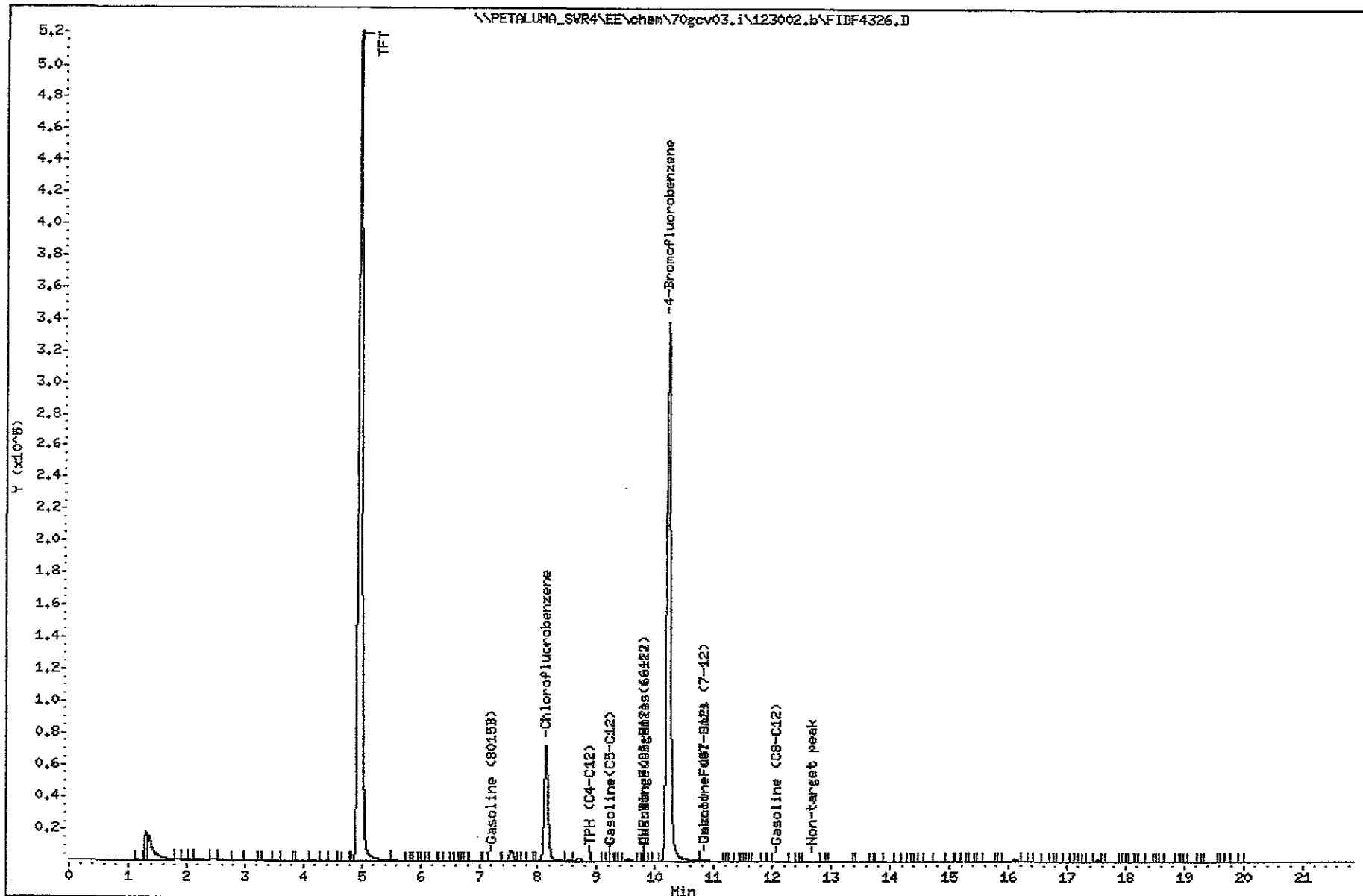
Purge Volume: 5.0

Column phase: HP-1

Instrument: 70gcv03.i

Operator: ADS

Column diameter: 0.53



Date : 30-DEC-2002 17:23

Client ID: MW-9

Lab Sample ID: P212497-03

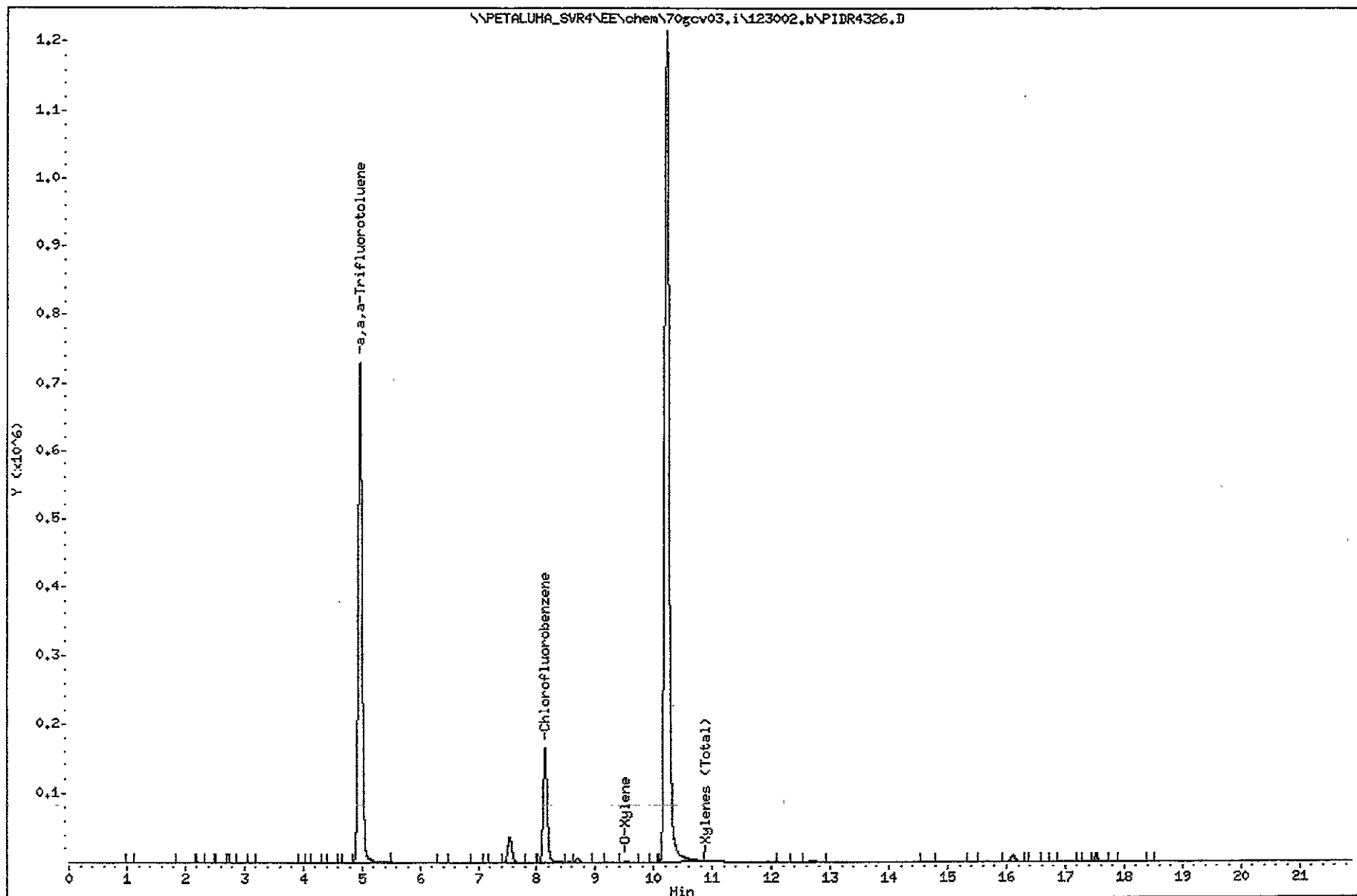
Purge Volume: 5.0

Column phase: DB-624

Instrument: 70gcv03.i

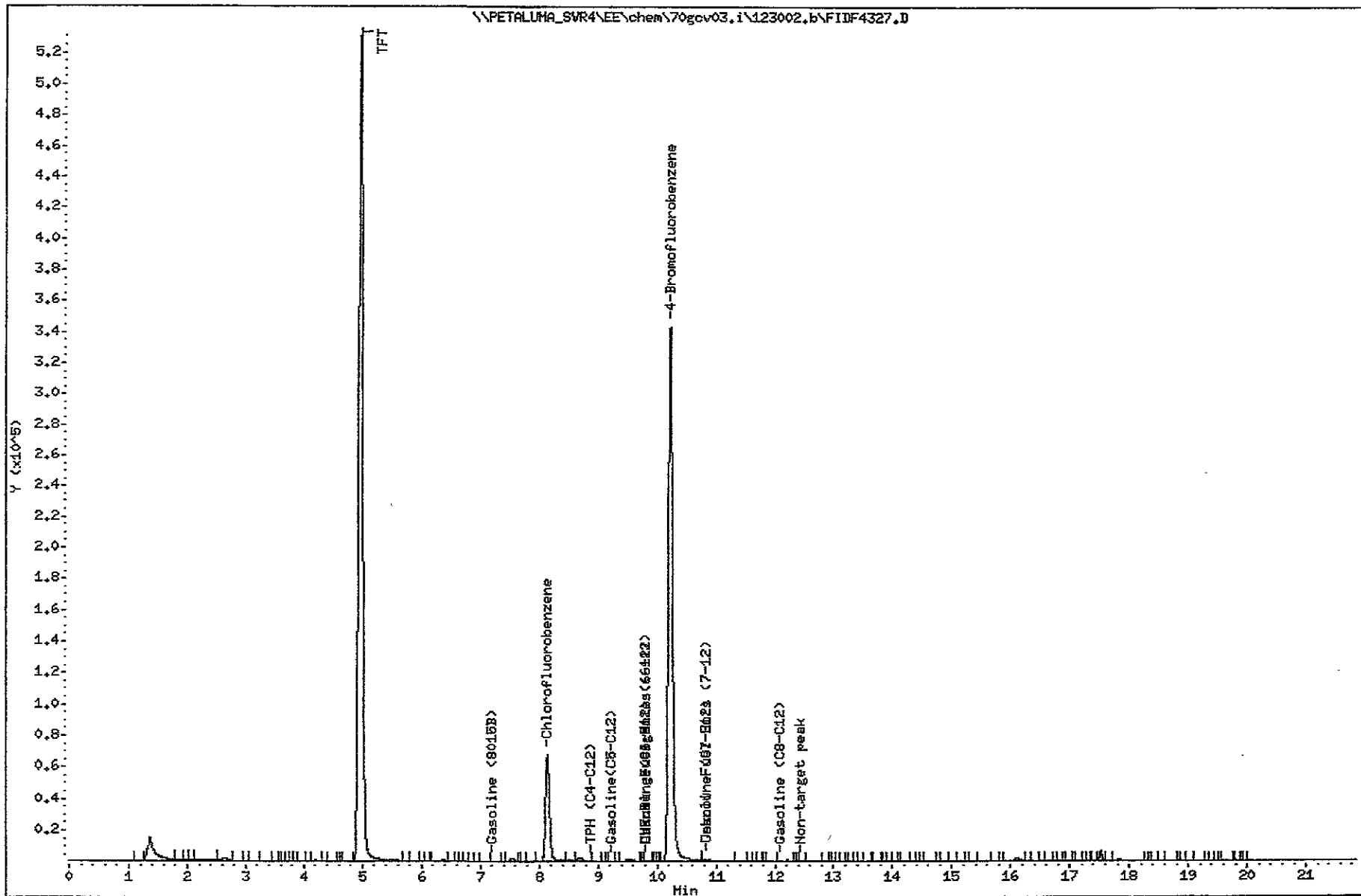
Operator: ADS

Column diameter: 0.53



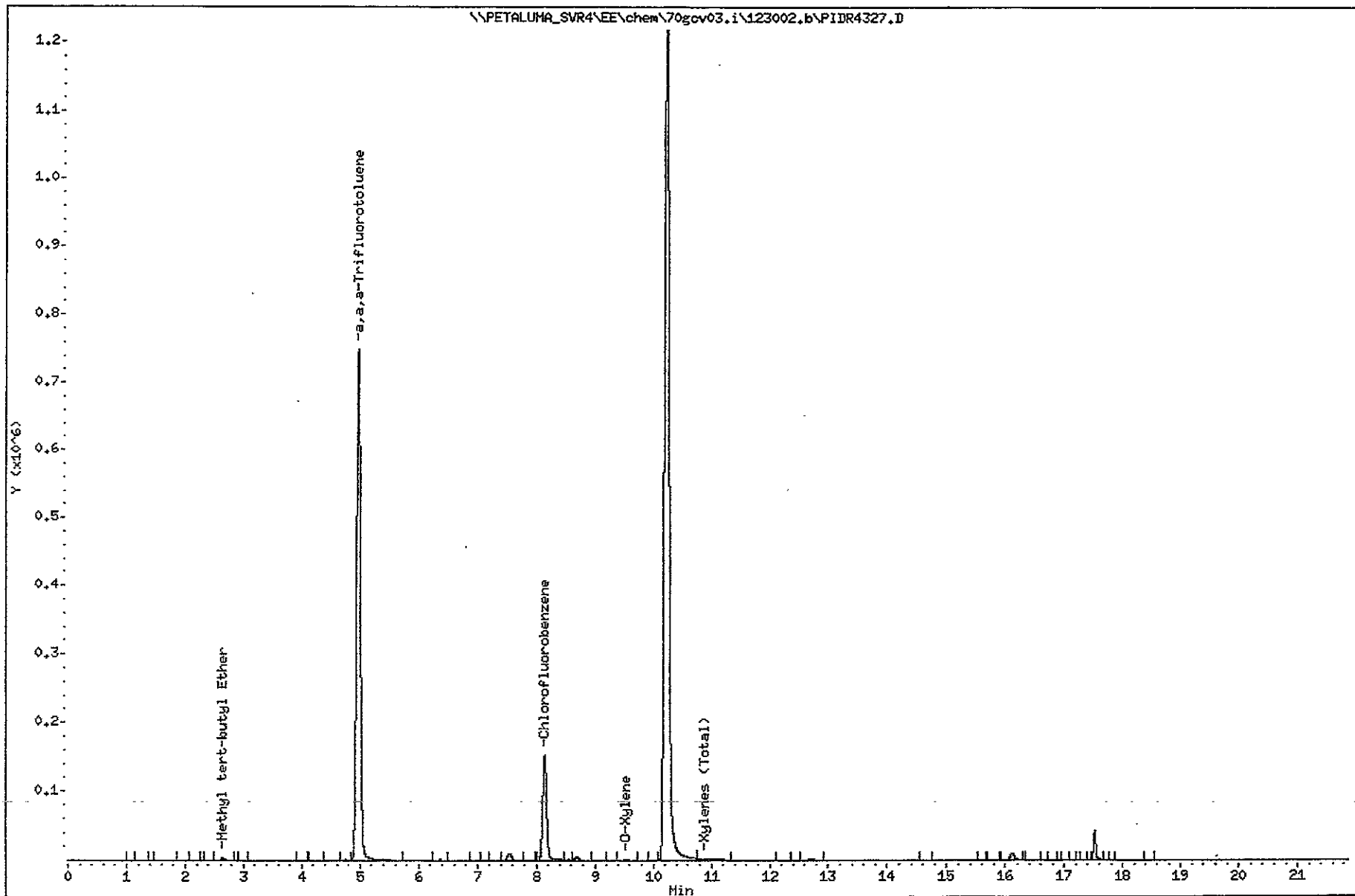
Date : 30-DEC-2002 17:51  
Client ID: MW-10  
Lab Sample ID: P212497-04  
Purge Volume: 5.0  
Column phase: HP-1

Instrument: 70gov03.i  
Operator: ADS  
Column diameter: 0.53



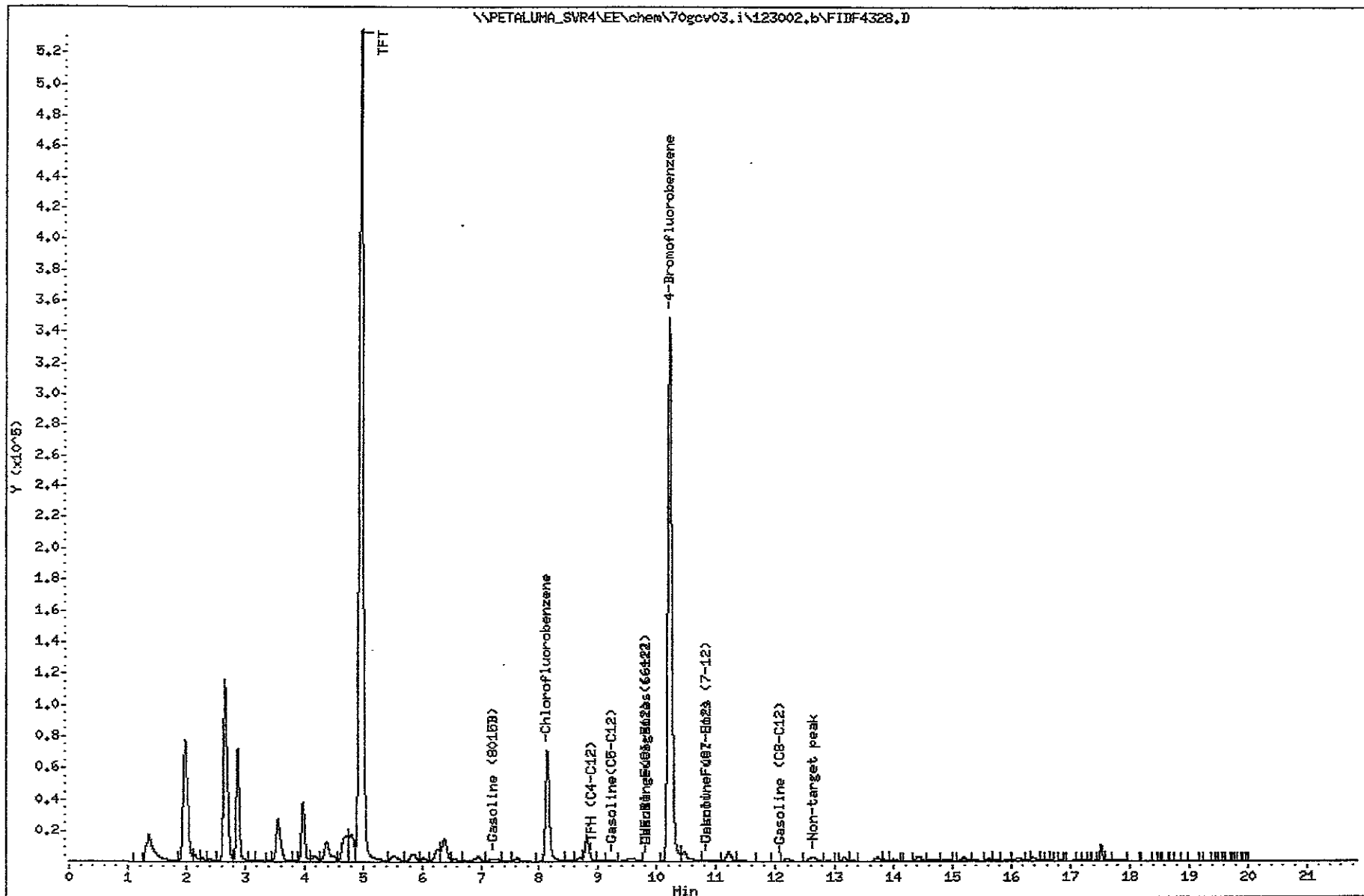
Date : 30-DEC-2002 17:51  
Client ID: MM-10  
Lab Sample ID: P212497-04  
Purge Volume: 5.0  
Column phase: DB-624

Instrument: 70gcv03.i  
Operator: ADS  
Column diameter: 0.53



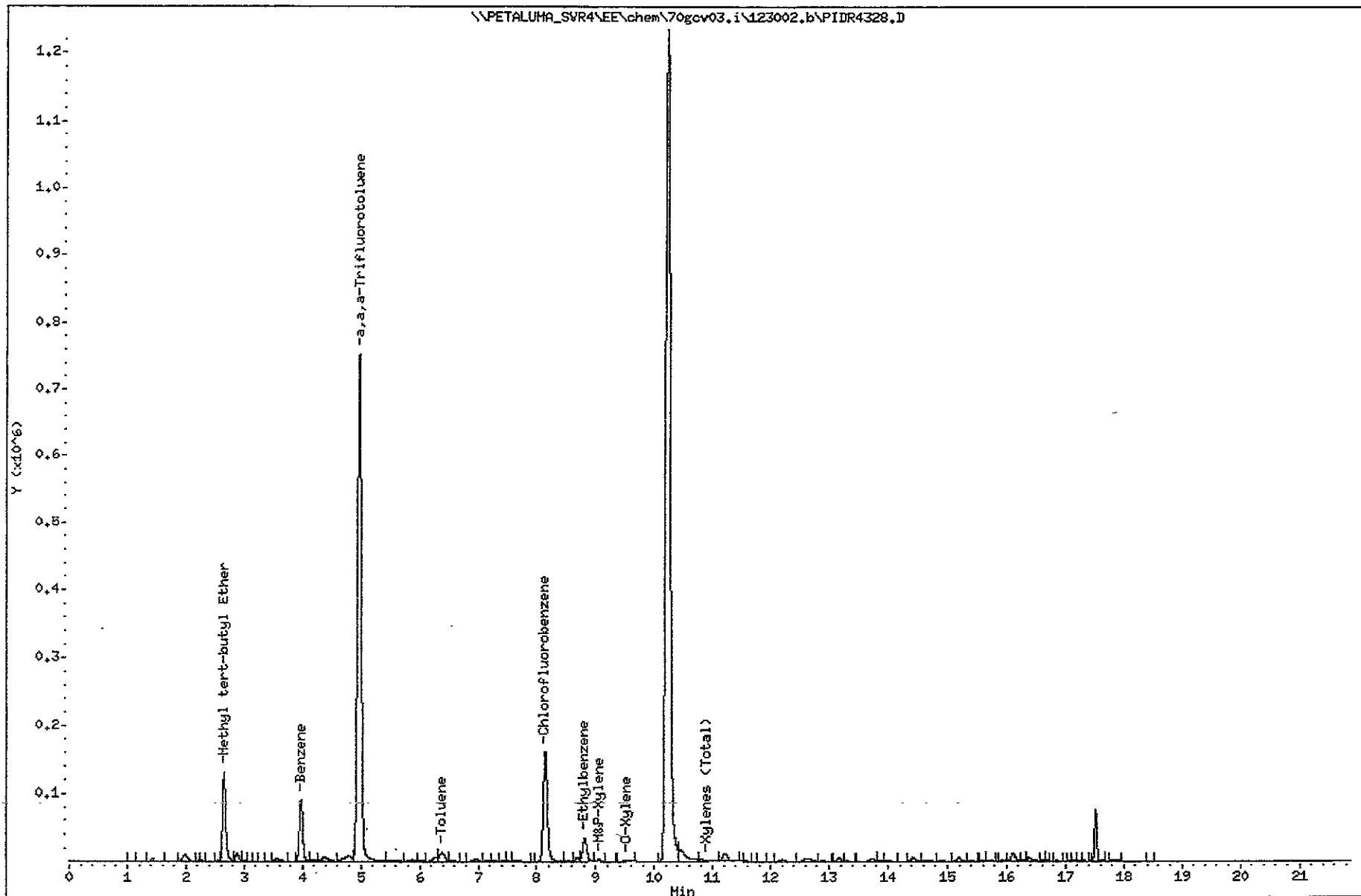
Date : 30-DEC-2002 18:19  
Client ID: MM-13  
Lab Sample ID: P212497-05  
Purge Volume: 5.0  
Column phase: HP-1

Instrument: 70gcv03.i  
Operator: ADS  
Column diameter: 0.53



Date : 30-DEC-2002 18:19  
Client ID: MM-13  
Lab Sample ID: P212497-05  
Purge Volume: 5.0  
Column phase: DB-624

Instrument: 70gcv03.i  
Operator: ADS  
Column diameter: 0.53



# CHAIN OF CUSTODY

PROJECT NO.: <b>BNC 103</b>		SITE NAME: <b>B+C Gas Mini Mart</b>		ANALYSES					EDD required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
SAMPLER(S): <b>CMUW</b>		<i>C. Muir</i>													
CONTRACT LABORATORY: <b>Sagevia-Petaluma</b>		TURN-AROUND TIME: <b>Standard</b>		Container Info		TYPICAL BTEX WHITE									
Sample I.D.	Lab I.D.	Collection		Matrix	Depth						Type/Vol.	Filter	Preserv.	Cont. Qty.	Remarks
		Date	Time												
<del>CMUW 2</del>				<del>Water</del>							<del>3</del>			<del>3</del>	
<del>CMUW 5</del>											<del>3</del>			<del>3</del>	
✓ MW-7		12/23/02	1200		P212497-1						3			3	
✓ MW-8			1317								-2	3		3	
✓ MW-9			1420								-3	3		3	
✓ MW-10			1346								-4	3		3	
<del>CMUW 12</del>											3			3	
✓ MW-13		12/23/02	1244			-5	3		3						
<del>CMUW B-2</del>						3			3						
COOLER CUSTODY SEALS INTACT						NOT INTACT									
COOLER TEMPERATURE						(6.0)									
Relinquished by: (signature) <i>C. Muir</i>		Received by: (signature) <i>[Signature]</i>		Date/Time: 12/24/02 9:50		SEND RESULTS TO: Attn: <i>Katrin Schiewen</i>									
Relinquished by: (signature) <i>[Signature]</i>		Received by: (signature) <i>[Signature]</i>		Date/Time: 12/24/02 1030		Conor Pacific/EFW 2580 Wyandotte St., Suite G Mountain View, CA 94043 Phone (650) 386-3828 Fax (650) 386-3815									
Relinquished by: (signature) <i>[Signature]</i>		Received by: (signature) <i>[Signature]</i>		Date/Time: 12/26/02 1130											





**Sequoia  
Analytical**

1455 McDowell Blvd, North Ste D  
Petaluma, CA 94954  
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---

13 January, 2003

Katrin Schliewen  
Conor Pacific / EFW  
2580 Wyandotte St., Suite G  
Mountain View, CA 94043

RE: B&C Gas Mini Mart  
Sequoia Work Order: P212524

Enclosed are the results of analyses for samples received by the laboratory on 12/27/02 14:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michelle M. Wiita  
Project Manager

CA ELAP Certificate #2374



Conor Pacific / BFW  
2580 Wyandotte St., Suite G  
Mountain View CA, 94043

Project: B&C Gas Mini Mart  
Project Number: BNC103  
Project Manager: Katrin Schliewen

P212524  
**Reported:**  
01/13/03 12:35

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-12	P212524-01	Water	12/24/02 11:30	12/27/02 14:30
D-2	P212524-02	Water	12/24/02 10:56	12/27/02 14:30



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Conor Pacific / EFW  
 2580 Wyandotte St., Suite G  
 Mountain View CA, 94043

Project: B&C Gas Mini Mart  
 Project Number: BNC103  
 Project Manager: Katrin Schliewen

P212524  
 Reported:  
 01/13/03 12:35

**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015B/8021B**  
**Sequoia Analytical - Petaluma**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-12 (P212524-01) Water Sampled: 12/24/02 11:30 Received: 12/27/02 14:30</b>									
Gasoline Range Organics	ND	50	ug/l	1	2120837	12/30/02	12/30/02	EPA 8015B/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		94 %		65-135	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %		65-135	"	"	"	"	
<b>D-2 (P212524-02) Water Sampled: 12/24/02 10:56 Received: 12/27/02 14:30</b>									
Gasoline Range Organics	ND	50	ug/l	1	2120837	12/30/02	12/30/02	EPA 8015B/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		92 %		65-135	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99 %		65-135	"	"	"	"	



Conor Pacific / EFW  
2580 Wyandotte St., Suite G  
Mountain View CA, 94043

Project: B&C Gas Mini Mart  
Project Number: BNC103  
Project Manager: Katrin Schliewen

P212524  
Reported:  
01/13/03 12:35

**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015B/8021B - Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2120837 - EPA 5030, waters**

**Blank (2120837-BLK1)**

Prepared & Analyzed: 12/30/02

Gasoline Range Organics	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	290		"	300		97	65-135			
<i>Surrogate: 4-Bromofluorobenzene</i>	299		"	300		100	65-135			

**Laboratory Control Sample (2120837-BS1)**

Prepared & Analyzed: 12/30/02

Gasoline Range Organics	2470	50	ug/l	2750		90	65-135			
Benzene	39.5	0.50	"	34.0		116	65-135			
Toluene	201	0.50	"	208		97	65-135			
Ethylbenzene	42.2	0.50	"	49.0		86	65-135			
Xylenes (total)	217	0.50	"	241		90	65-135			
Methyl tert-butyl ether	52.7	2.5	"	56.0		94	65-135			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	318		"	300		106	65-135			
<i>Surrogate: 4-Bromofluorobenzene</i>	322		"	300		107	65-135			

**Matrix Spike (2120837-MS1)**

Source: P212478-01

Prepared & Analyzed: 12/30/02

Gasoline Range Organics	2490	50	ug/l	2750	23	90	65-135			
Benzene	39.5	0.50	"	34.0	ND	116	65-135			
Toluene	203	0.50	"	208	0.25	97	65-135			
Ethylbenzene	42.7	0.50	"	49.0	ND	87	65-135			
Xylenes (total)	217	0.50	"	241	ND	90	65-135			
Methyl tert-butyl ether	53.4	2.5	"	56.0	0.77	94	65-135			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	320		"	300		107	65-135			
<i>Surrogate: 4-Bromofluorobenzene</i>	314		"	300		105	65-135			



Conor Pacific / EFW  
2580 Wyandotte St., Suite G  
Mountain View CA, 94043

Project: B&C Gas Mini Mart -  
Project Number: BNC103  
Project Manager: Katrin Schliewen

P212524  
Reported:  
01/13/03 12:35

**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015B/8021B - Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2120837 - EPA 5030, waters</b>										
<b>Matrix Spike Dup (2120837-MSD1)</b>	<b>Source: P212478-01</b>			<b>Prepared &amp; Analyzed: 12/30/02</b>						
Gasoline Range Organics	2510	50	ug/l	2750	23	90	65-135	0.8	20	
Benzene	40.0	0.50	"	34.0	ND	118	65-135	1	20	
Toluene	209	0.50	"	208	0.25	100	65-135	3	20	
Ethylbenzene	43.8	0.50	"	49.0	ND	89	65-135	3	20	
Xylenes (total)	223	0.50	"	241	ND	93	65-135	3	20	
Methyl tert-butyl ether	52.7	2.5	"	56.0	0.77	93	65-135	1	20	
Surrogate: a,a,a-Trifluorotoluene	310		"	300		103	65-135			
Surrogate: 4-Bromofluorobenzene	311		"	300		104	65-135			



Conor Pacific / EFW  
2580 Wyandotte St., Suite G  
Mountain View CA, 94043

Project: B&C Gas Mini Mart  
Project Number: BNC103  
Project Manager: Katrin Schliewen

P212524  
Reported:  
01/13/03 12:35

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

Date : 30-DEC-2002 08:48

Client ID: WSTD1000GC

Lab Sample ID: WSTD1000GC

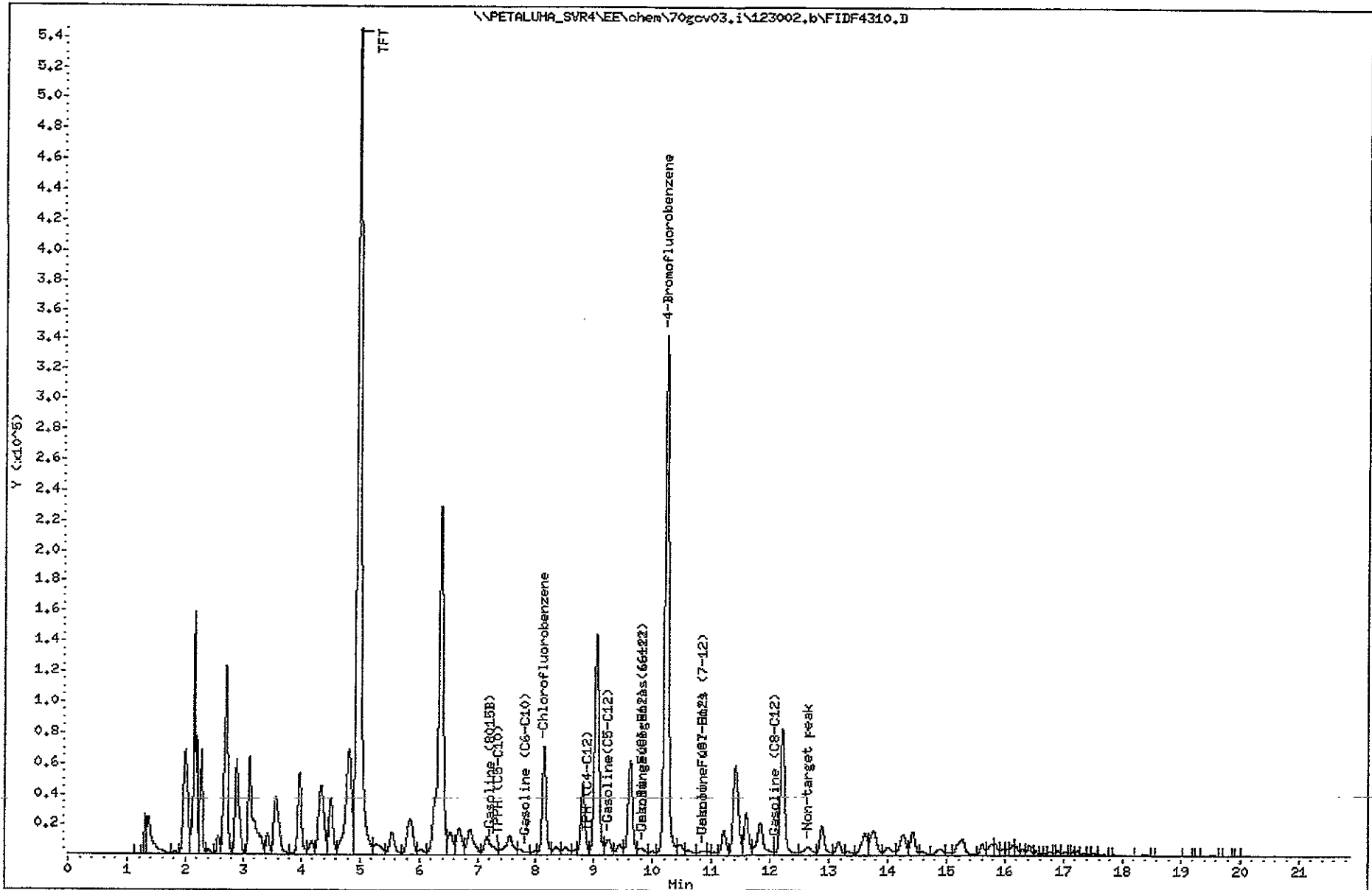
Purge Volume: 5.0

Column phase: HP-1

Instrument: 70gcv03.i

Operator: ADS

Column diameter: 0.53



Date : 30-DEC-2002 09:16

Client ID: VSTD100BC

Lab Sample ID: VSTD100BC

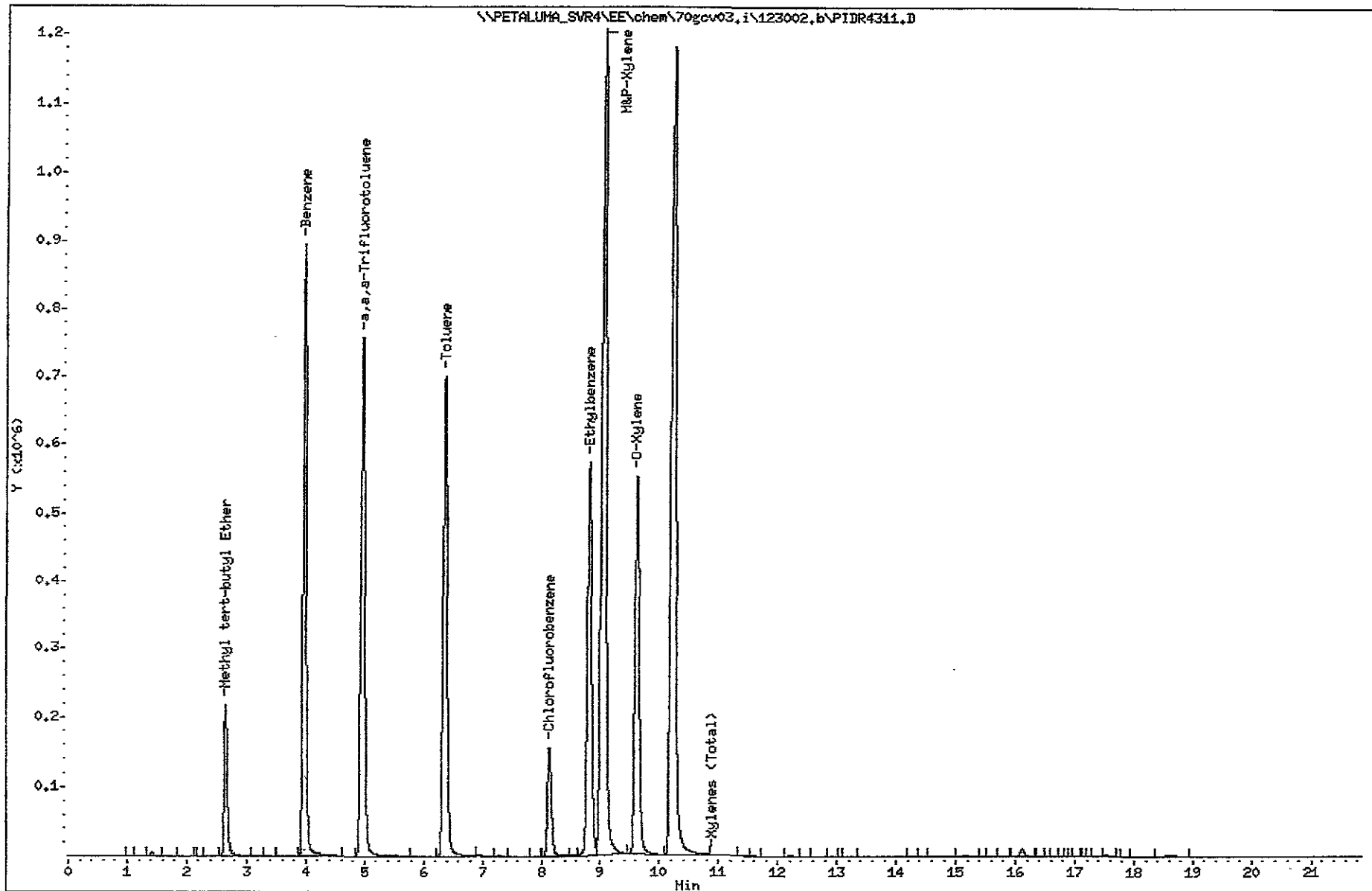
Purge Volume: 5.0

Column phase: DB-624

Instrument: 70gov03.i

Operator: ADS

Column diameter: 0.53





Date : 30-DEC-2002 10:03

Client ID: BLK

Lab Sample ID: 2120837-BLK1

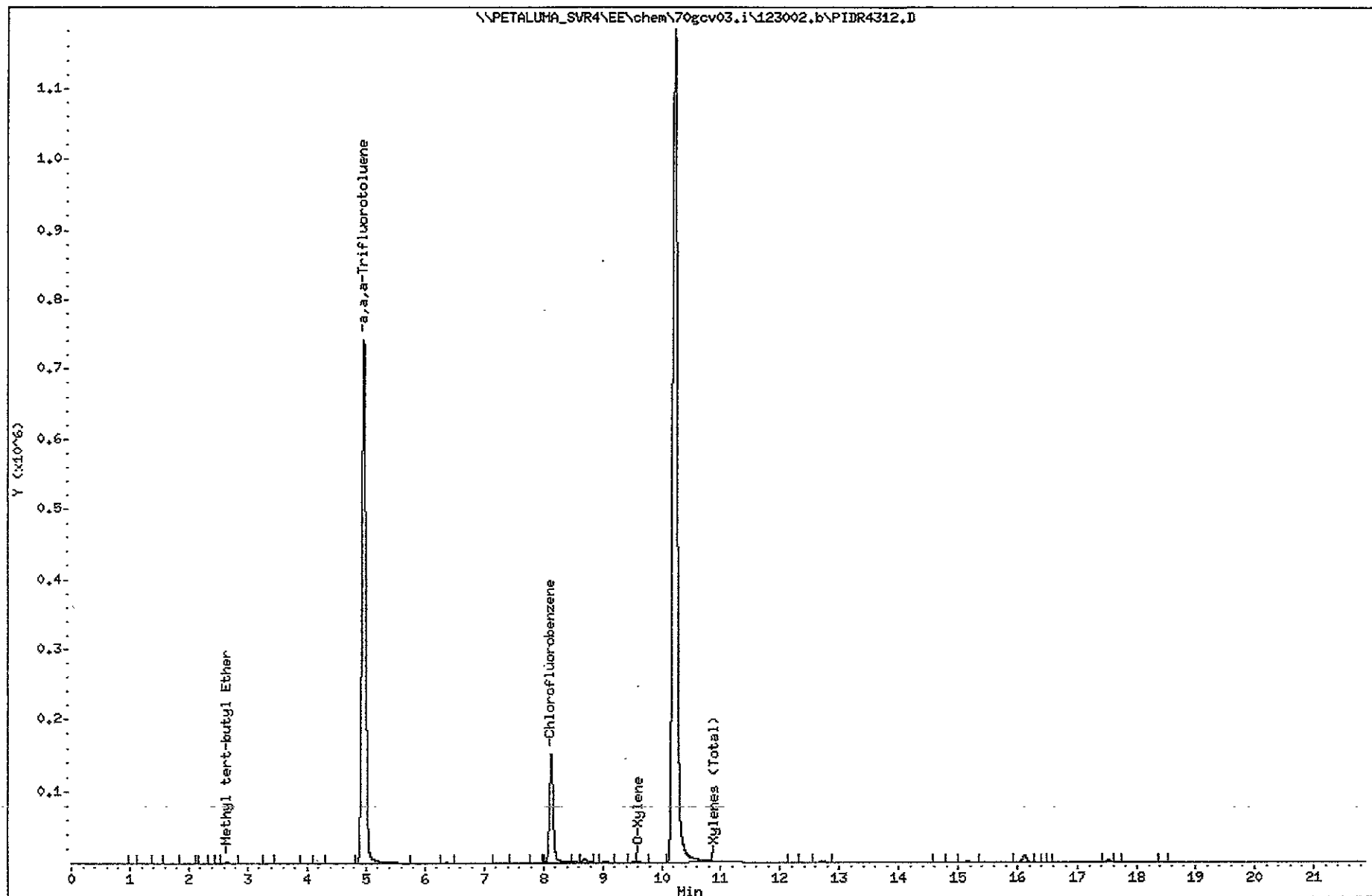
Purge Volume: 5.0

Column phase: DB-624

Instrument: 70gcv03.i

Operator: ADS

Column diameter: 0.53



Date : 30-DEC-2002 10:03

Client ID: BLK

Lab Sample ID: 2120837-BLK1

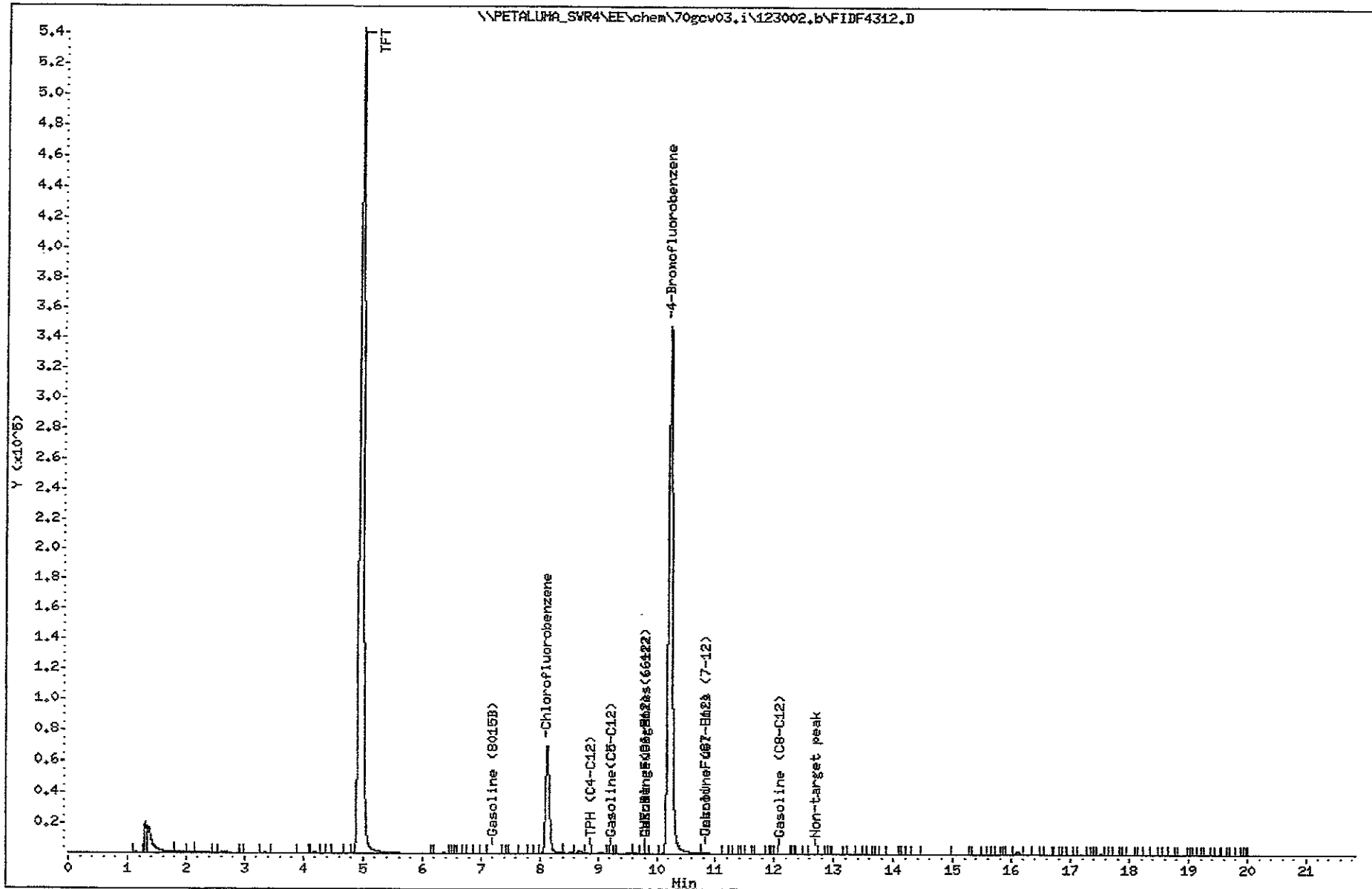
Purge Volume: 5.0

Column phase: HP-1

Instrument: 70gcv03.i

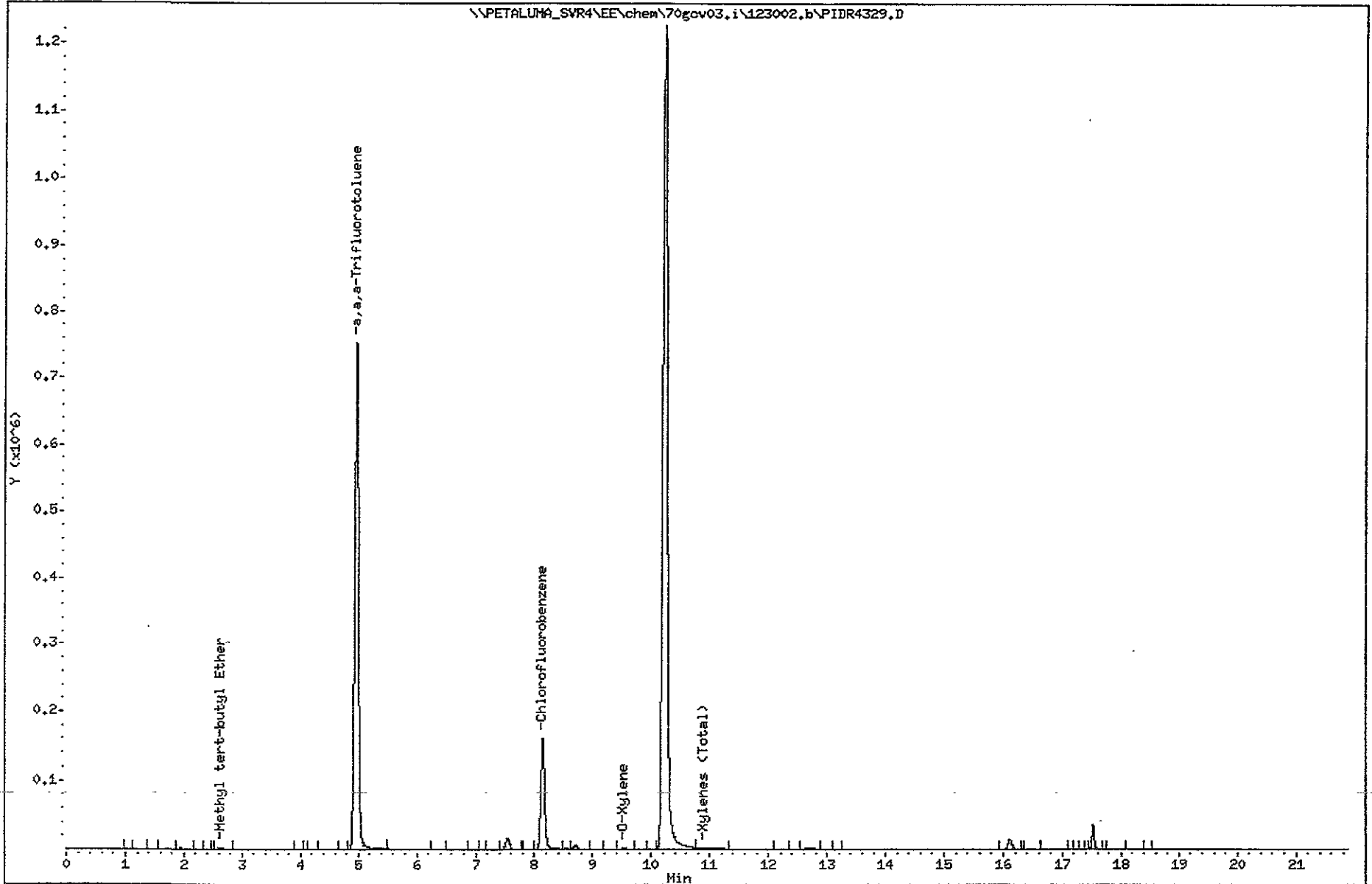
Operator: ADS

Column diameter: 0.53



Date : 30-DEC-2002 18:47  
Client ID: MM-12  
Lab Sample ID: P212524-01  
Purge Volume: 5.0  
Column phase: DB-624

Instrument: 70gc03.i  
Operator: ADS  
Column diameter: 0.53



Date : 30-DEC-2002 18:47

Client ID: MW-12

Lab Sample ID: P212524-01

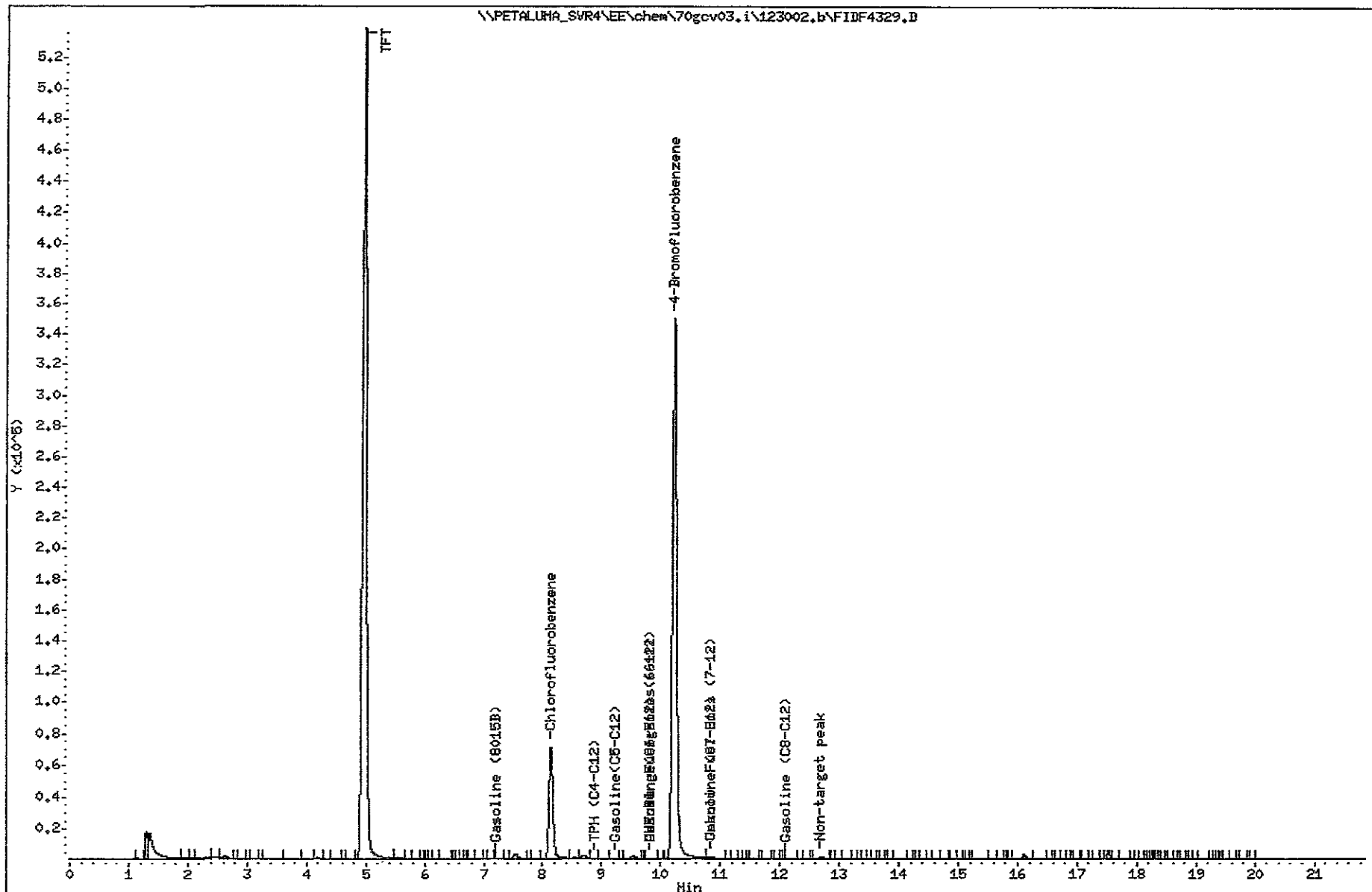
Purge Volume: 5.0

Column phase: HP-1

Instrument: 70gcv03.i

Operator: ADS

Column diameter: 0.53



Date : 30-DEC-2002 19:15

Client ID: D-2

Lab Sample ID: P212524-02

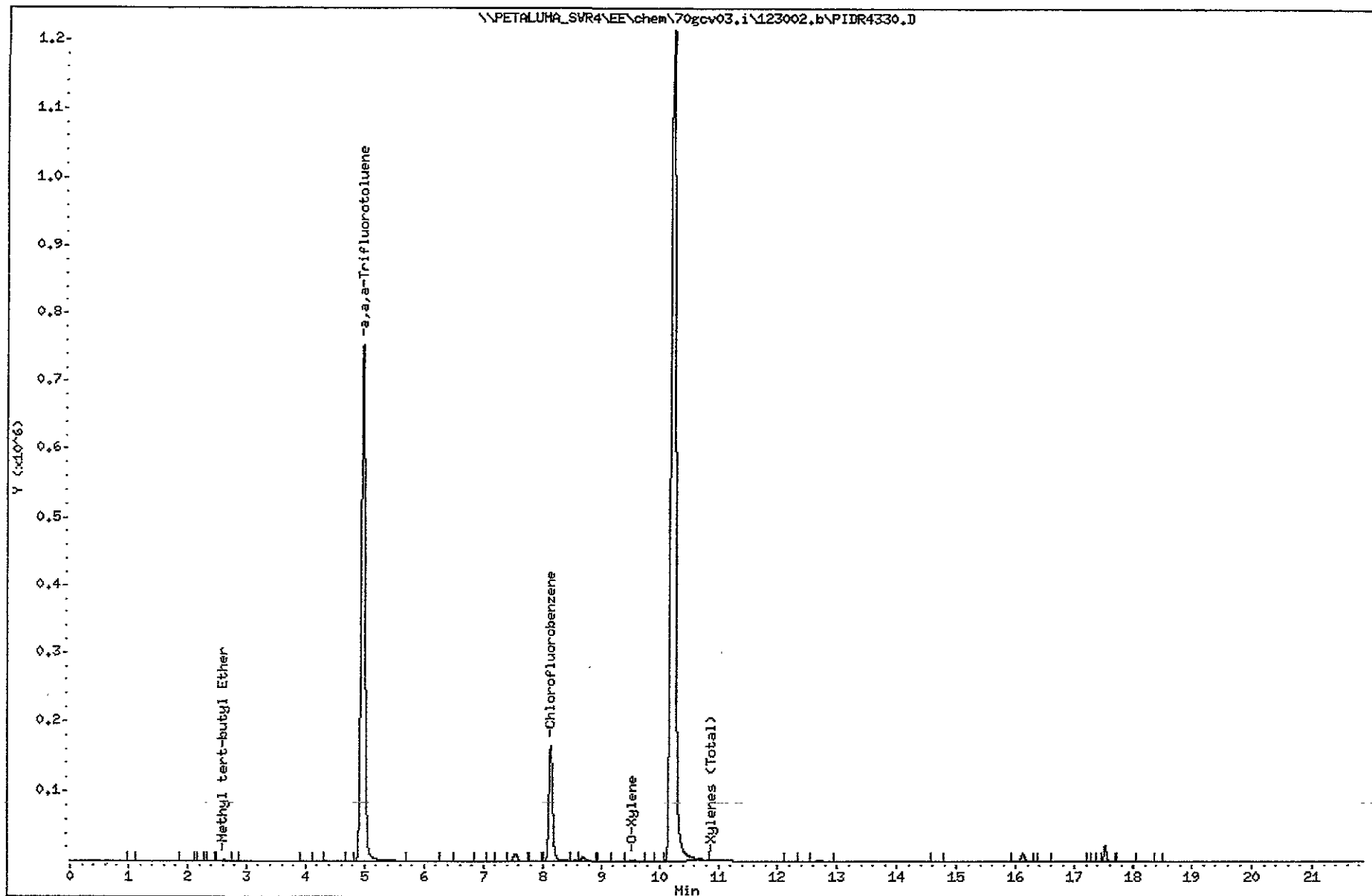
Purge Volume: 5.0

Column phase: DB-624

Instrument: 70gcv03.i

Operator: ADS

Column diameter: 0.53



Date : 30-DEC-2002 19:15

Client ID: D-2

Lab Sample ID: P212524-02

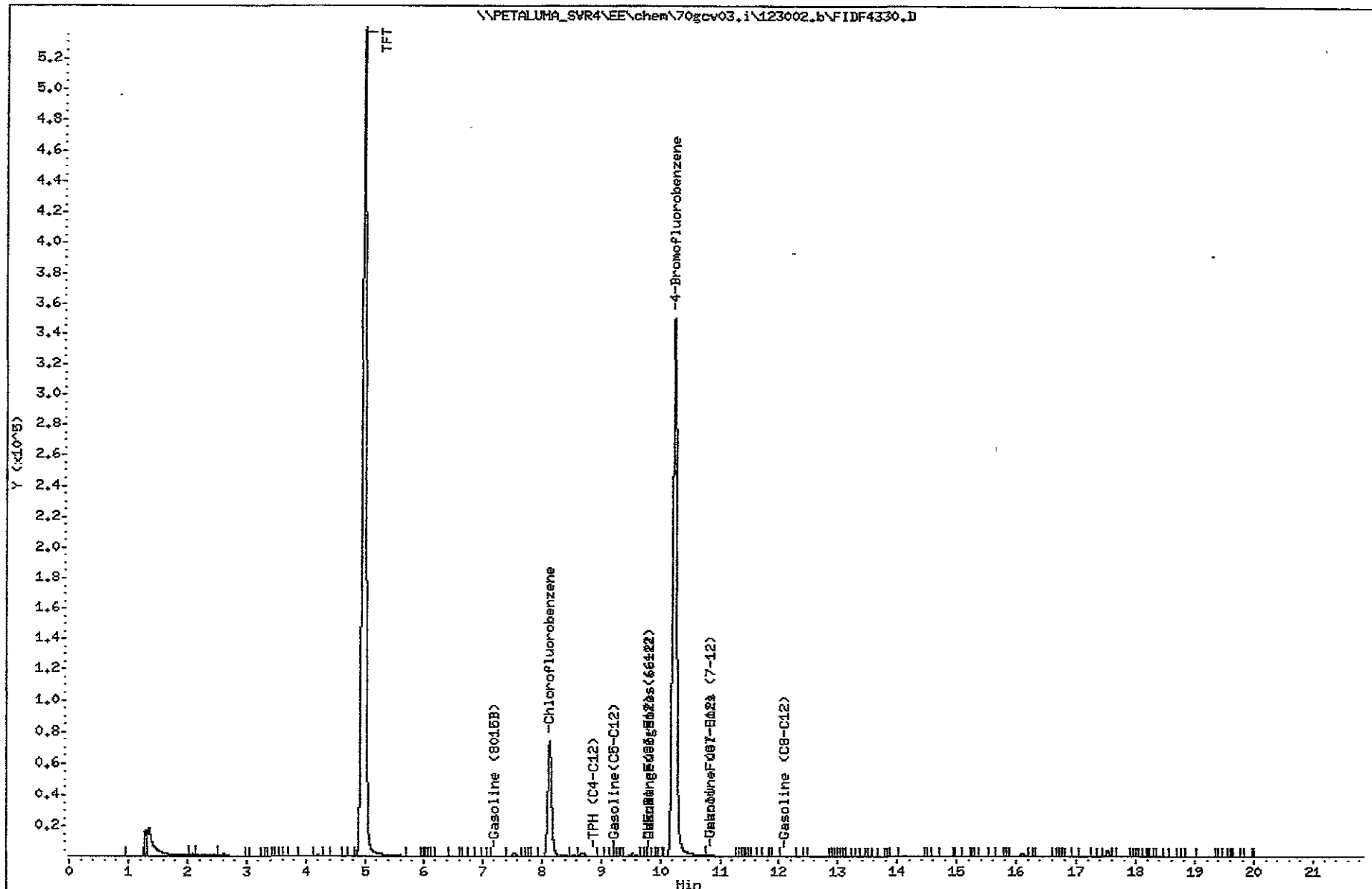
Purge Volume: 5.0

Column phase: HP-1

Instrument: 70gcv03.i

Operator: ABS

Column diameter: 0.53





CHAIN OF CUSTODY

PROJECT NO.: BNC 103		SITE NAME: BTC GAS MINI MART		ANALYSES				EDD required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
SAMPLER(S): C.M.W.R. (printed)		C. Murr (signature)								
CONTRACT LABORATORY: <u>GENOVA-ITALYMA</u>			Container Info	TPH GAS, BTEX MTBE						
TURN-AROUND TIME: <u>STANDARD</u>										
Sample I.D.	Lab I.D.	Collection		Matrix	Depth	Type/Vol.	Filter	Preserv.	Cont. Qty.	Remarks
		Date	Time			NoA				
<del>MW-5</del>		<del>12/24/02</del>	<del>1130</del>	<del>WATER</del>		<del>40</del>	<del>N</del>	<del>HCl</del>	<del>3</del>	
MW-12		12/24/02	1130	↓		40	N	HCl	3	
D-2		↓	1056	↓		40	N	HCl	3	
Relinquished by: (signature) C. Murr			Received by: (signature) <i>[Signature]</i>			Date/Time: 1200-12-27-02		SEND RESULTS TO: Attn: <u>KATRIN SCHLEWEN</u> Conor Pacific/EFW 2580 Wyandotte St., Suite G Mountain View, CA 94043 Phone (650) 386-3828 Fax (650) 386-3815		
Relinquished by: (signature)			Received by: (signature)			Date/Time: W/Lob 1430				
Relinquished by: (signature)			Received by: (signature)			Date/Time:				

cm

APPENDIX C

Historical Groundwater Elevations and Analytical Results



Table C-1  
 Historical Groundwater Elevations  
 B & C Gas Mini Mart  
 Livermore, California

Well Number	Top-of-Casing Elevation (feet, MSL)	Date Measured	Depth to Water (feet)	Groundwater Elevation (feet, MSL)	Depth to Free product (feet)	Product Thickness (feet)
MW-1	487.00	09/22/88	60.50	426.50		
		08/02/90	43.10	443.90		
		10/10/91	66.39	420.61		
		01/08/92	68.72	418.28		
		05/11/93	34.76	452.24		
		09/21/93	38.70	448.30		
		05/22/94	33.57	453.43		
	484.07	06/19/94	37.51	446.56		
		08/25/94	43.27	440.80		
		11/22/94	40.58	443.49		
		03/13/95	28.06	456.01		
		06/01/95	21.76	462.31		
		02/29/96	18.86	465.21		
		Feb-97	NM	NM		
		07/30/98	25.90	458.17		
		11/05/98	33.23	450.84		
		03/23/99	25.49	458.58		
		06/08/99	27.78	456.29		
		09/27/99	30.65	453.42		
		12/20/99	32.99	451.08		
		03/21/00	23.95	460.12		
		06/21/00	26.55	457.52		
		09/12/00	29.58	454.49		
12/07/00	30.70	453.37				
03/21/01	29.80	454.27				
06/20/01	34.91	449.16				
09/16/02	37.64	446.43				
12/23/02	31.54	452.53				
MW-2	483.86	06/19/94	38.15	445.71		
		08/25/94	44.13	-	43.47	0.66
		11/22/94	40.96	-	40.92	0.04
		03/09/95	29.28	-	28.47	0.81
		03/13/95	28.71	-	28.29	0.42
		06/01/95	22.61	461.25		
		02/29/96	20.05	463.81		
		Feb-97	18.30	465.56		
		07/30/98	25.75	-	25.74	0.01
		11/05/98	33.31	450.55		
		03/23/99	25.51	458.35		
		06/08/99	27.54	456.32		
		09/27/99	30.73	453.13		
		12/20/99	33.02	450.84		
		03/21/00	24.13	459.73		
		06/21/00	26.26	457.60		
		09/12/00	29.40	454.46		
		12/08/00	30.60	453.26		
		03/21/01	29.63	454.23		
		06/20/01	34.68	449.18		
		09/16/02	37.42	446.44	37.41	0.01
		12/23/02	31.46	452.40	FP	

Table C-1  
 Historical Groundwater Elevations  
 B & C Gas Mini Mart  
 Livermore, California

Well Number	Top-of-Casing Elevation (feet, MSL)	Date Measured	Depth to Water (feet)	Groundwater Elevation (feet, MSL)	Depth to Free product (feet)	Product Thickness (feet)
MW-3	484.24	06/19/94	37.15	447.09		
		08/25/94	42.31	441.93		
		11/22/94	40.07	444.17		
		03/13/95	27.94	456.30		
		06/01/95	21.31	462.93		
		02/29/96	18.78	465.46		
		Feb-97	16.97	467.27		
		07/30/98	24.88	459.36		
		11/05/98	32.09	452.15		
		03/23/99	24.49	459.75		
		06/08/99	26.77	457.47		
		09/27/99	29.52	454.72		
		12/20/99	31.85	452.39		
		03/21/00	22.95	461.29		
		06/21/00	25.60	458.64		
		09/12/00	28.40	455.84		
		12/07/00	29.56	454.68		
		03/21/01	28.69	455.55		
		06/20/01	33.61	450.63		
		09/16/02	36.30	447.94		
12/23/02	30.38	453.86				
MW-4	485.04	06/19/94	37.49	447.55		
		08/25/94	42.25	442.79		
		11/22/94	40.59	444.45		
		03/13/95	28.00	457.04		
		06/01/95	21.51	463.53		
		02/29/96	18.42	466.62		
		Feb-97	17.47	467.57		
		07/30/98	25.47	459.57		
		11/05/98	32.67	452.37		
		03/23/99	25.09	459.95		
		06/08/99	27.43	457.61		
		09/27/99	30.16	454.88		
		12/20/99	32.52	452.52		
		03/21/00	23.43	461.61		
		06/21/00	26.14	458.90		
		09/12/00	29.03	456.01		
		12/07/00	29.15	455.89		
		03/21/01	29.35	455.69		
		06/20/01	34.40	450.64		
		09/16/02	36.30	448.74		
12/23/02	30.93	454.11				

Table C-1  
 Historical Groundwater Elevations  
 B & C Gas Mini Mart  
 Livermore, California

Well Number	Top-of-Casing Elevation (feet, MSL)	Date Measured	Depth to Water (feet)	Groundwater Elevation (feet, MSL)	Depth to Free product (feet)	Product Thickness (feet)
MW-5	481.97	02/29/96	19.35	462.62		
		Feb-97	18.19	463.78		
		07/30/98	25.25	456.72	25.24	0.01
		11/05/98	32.70	449.27	32.48	0.22
		03/23/99	25.15	456.82		
		06/08/99	27.27	454.70		
		09/27/99	30.00	451.97		
		12/20/99	32.30	449.67	32.23	0.07
		03/21/00	23.55	458.42		
		06/21/00	26.04	455.93		
		09/12/00	28.90	453.07		
		12/07/00	29.89	452.08		
		03/21/01	29.16	452.81	29.15	0.01
		06/20/01	34.04	447.93	33.89	0.15
		09/16/02	36.70	445.27	36.69	0.01
12/23/02	31.36	450.61	FP			
MW-6	483.93	02/29/96	20.32	463.61		
		Feb-97	18.92	465.01		
		07/30/98	25.59	458.34	25.58	0.01
		11/05/98	NM >28.4	NM		
		03/23/99	25.43	458.50		
		06/08/99	27.43	456.50		
		09/27/99	NM >28.6	NM		
		12/20/99	NM >28.7	NM		
		03/21/00	24.02 *	459.91		
		06/21/00	26.04 *	457.89		
		09/12/00	NM >28.7	NM		
		12/07/00	NM >28.6	NM		
		03/21/01	NM >28.7	NM		
		06/20/01	NM >28.7	NM		
		09/16/02	NM*	NM		
12/23/02	NM*	NM				
MW-7	478.14	7/12/1999	28.37	449.77		
		09/27/99	30.20	447.94		
		12/20/99	32.44	445.70		
		03/21/00	24.18	453.96		
		06/21/00	26.70	451.44		
		09/12/00	29.28	448.86		
		12/07/00	30.23	447.91		
		03/21/01	29.39	448.75		
		06/02/01	34.38	443.76		
		09/16/02	37.05	441.09		
		12/23/02	31.47	446.67		

Table C-1  
 Historical Groundwater Elevations  
 B & C Gas Mini Mart  
 Livermore, California

Well Number	Top-of-Casing Elevation (feet, MSL)	Date Measured	Depth to Water (feet)	Groundwater Elevation (feet, MSL)	Depth to Free product (feet)	Product Thickness (feet)
MW-8	473.23	7/12/1999	34.29	438.94		
		09/27/99	37.11	436.12		
		12/20/99	39.79	433.44		
		03/21/00	29.10	444.13		
		06/21/00	31.90	441.33		
		09/12/00	35.75	437.48		
		12/07/00	36.88	436.35		
		03/21/01	35.25	437.98		
		06/02/01	41.78	431.45		
		09/16/02	43.32	429.91		
		12/23/02	38.28	434.95		
MW-9	477.08	7/12/1999	30.71	446.37		
		09/27/99	32.61	444.47		
		12/20/99	34.99	442.09		
		03/21/00	26.75	450.33		
		06/21/00	29.28	447.80		
		09/12/00	31.65	445.43		
		12/07/00	32.67	444.41		
		03/21/01	31.47	445.61		
		06/02/01	37.40	439.68		
		09/16/02	39.13	437.95		
		12/23/02	33.89	443.19		
MW-10	471.42	7/12/1999	34.60	436.82		
		09/27/99	37.62	433.80		
		12/20/99	40.04	431.38		
		03/21/00	29.50	441.92		
		06/21/00	32.19	439.23		
		09/12/00	36.19	435.23		
		12/07/00	37.24	434.18		
		03/21/01	35.77	435.65		
		06/02/01	42.25	429.17		
		09/16/02	44.03	427.39		
		12/23/02	39.02	432.40		
MW-11	464.93	7/12/1999	31.00	433.93		
		09/27/99	33.83	431.10		
		12/20/99	35.91	429.02		
		03/21/00	26.41	438.52		
		06/21/00	28.79	436.14		
		09/12/00	32.56	432.37		
		12/07/00	33.40	431.53		
		03/21/01	31.92	433.01		
		06/20/01	38.24	426.69		
		09/16/02	39.87	425.06		
		12/23/02	35.54	429.39		

Table C-1  
 Historical Groundwater Elevations  
 B & C Gas Mini Mart  
 Livermore, California

Well Number	Top-of-Casing Elevation (feet, MSL)	Date Measured	Depth to Water (feet)	Groundwater Elevation (feet, MSL)	Depth to Free product (feet)	Product Thickness (feet)
MW-12	458.34	7/12/1999	25.50	432.84		
		09/27/99	28.28	430.06		
		12/20/99	30.26	428.08		
		03/21/00	20.70	437.64		
		06/21/00	23.11	435.23		
		09/12/00	27.04	431.30		
		12/07/00	27.67	430.67		
		03/21/01	26.24	432.10		
		06/20/01	32.89	425.45		
		09/16/02	34.63	423.71		
		12/23/02	29.84	428.50		
MW-13	474.79	7/12/1999	30.65	444.14		
		09/27/99	32.74	442.05		
		12/20/99	34.98	439.81		
		03/21/00	26.03	448.76		
		06/21/00	28.74	446.05		
		09/12/00	31.62	443.17		
		12/07/00	32.71	442.08		
		03/21/01	31.25	443.54		
		06/20/01	36.55	438.24		
		09/16/02	38.98	435.81		
		12/23/02	33.39	441.40		
D-1	464.70	7/12/1999	30.67	434.03		
		09/27/99	35.32	429.38		
		12/20/99	36.32	428.38		
		03/21/00	27.84	436.86		
		06/21/00	30.40	434.30		
		09/12/00	34.11	430.59		
		12/07/00	33.97	430.73		
		03/21/01	32.32	432.38		
		06/20/01	41.80	422.90		
		09/16/02	43.53	421.17		
		12/23/02	37.23	427.47		

Table C-1  
 Historical Groundwater Elevations  
 B & C Gas Mini Mart  
 Livermore, California

Well Number	Top-of-Casing Elevation (feet, MSL)	Date Measured	Depth to Water (feet)	Groundwater Elevation (feet, MSL)	Depth to Free product (feet)	Product Thickness (feet)		
D-2	457.61	7/12/1999	25.72	431.89				
		09/27/99	28.44	429.17				
		12/20/99	29.40	428.21				
		03/21/00	20.91	436.70				
		06/21/00	23.56	434.05				
		09/12/00	27.23	430.38				
		12/07/00	27.98	429.63				
		03/21/01	25.42	432.19				
		06/20/01	34.97	422.64				
		09/16/02	34.80	422.81				
		12/23/02	30.34	427.27				
		(MS)MW-1	477.79	07/30/98	30.37	447.42	30.35	0.02
				11/05/98	38.01	439.78	FP	
03/23/99	29.44			448.35	FP			
06/08/99	31.70			446.09	FP			
09/27/99	34.38			443.41				
12/20/99	37.36			440.43				
03/21/00	28.22			449.57				
06/21/00	30.95			446.84				
09/12/00	33.54			444.25				
12/07/00	34.56			443.23				
03/21/01	33.24			444.55	FP			
06/20/01	39.35			438.44	FP			
09/16/02	41.07			436.72	41.06	0.01		
12/23/02	35.80	441.99	FP					

Notes: Data prior to 1998 from RSI quarterly reports February 1997 date unknown.  
 MSL = mean sea level  
 NM = not measured  
 MS = Mill Springs Park  
 FP - free product visible in purge or sample water  
 \* Obstruction in well MW-6 at approximately 28.6 feet below top of casing, or as indicated by ">"  
 \*\* Suspect a measurement error for the water level in well MW-2 on 12/7/00

# B&C Gas Mini Mart - Groundwater Hydrograph

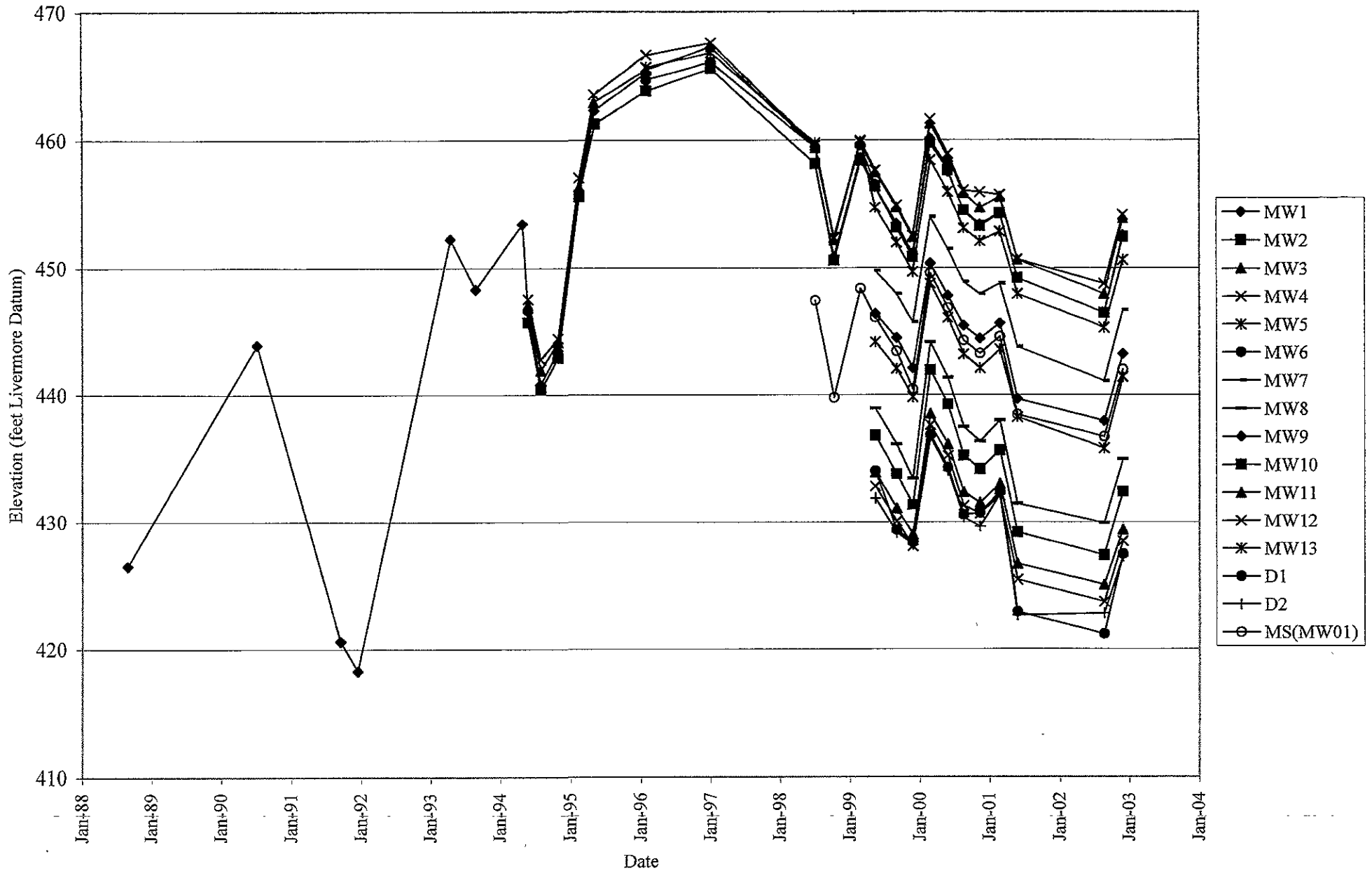


Table C-2  
 Historical Groundwater Analytical Results  
 B&C Gas Mini Mart  
 Livermore, California

Well No.	Sample Date	TPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)
MW-1	08/02/90	24,000	1,300	1,300	400	2,700	NA
	10/10/91	2,000	430	170	100	290	NA
	01/08/92	1,000	200	120	30	150	NA
	05/11/93	960	66	8	41	90	NA
	09/21/93	1,900	311	118	34	112	NA
	05/22/94	10,000	690	1,100	340	1,200	NA
	08/26/94	13,000	290	690	120	670	NA
	11/22/94	19,000	400	770	230	130	NA
	03/13/95	6,000	900	100	980	740	NA
	06/21/95	2,400	210	380	53	280	13,000
	09/14/95	7,800	69	1,300	220	1,200	2,000
	02/29/96	120	4.2	1.4	4.7	5.6	14
	02/01/97	NS*	NS*	NS*	NS*	NS*	NS*
	07/30/98	1,400	26	110	57	243	5
	11/05/98	6,000	230	330	240	1,060	<100
	03/23/99	6,600	280	420	240	990	60
	06/08/99	1,630	70	52	55	138	67
	03/22/00	300	17.6	14.2	9.89	40.7	7.84
	09/13/00	1,500	105	50.7	46.5	157	45.4
MW-2	06/19/94	290,000	18,000	36,000	4,600	26,000	NA
	08/26/94	NS**	NS**	NS**	NS**	NS**	NA
	11/22/94	NS**	NS**	NS**	NS**	NS**	NA
	03/13/95	NS**	NS**	NS**	NS**	NS**	NA
	06/21/95	25,000	2,300	3,400	720	3,100	16,000
	09/14/95	NS**	NS**	NS**	NS**	NS**	NS**
	02/29/96	57,000	2,500	650	3,700	3,100	6,500
	02/01/97	20,000	860	1,500	480	1,000	1,300
	07/30/98	NS**	NS**	NS**	NS**	NS**	NS**
	11/05/98	40,000	2,400	2,500	2,100	7,200	1,200
	03/23/99	22,000	780	880	780	1,730	300
	06/08/99	11,200	352	454	540	639	343
	09/28/99	18,000	992	331	901	2,140	225
	12/21/99	19,200	1,340	818	1,050	2,130	579
	03/23/00	6,340	281	184	233	348	90.2
	06/22/00	5,820	128	94.4	155	161	67.8
	09/13/00	18,100	981	926	1,080	2,630	239
	12/08/00	8,010	548	172	453	621	142
	03/01/01	18,800	1,300	790	1,150	2,250	372
06/01/01	20,000	1,800	750	1,800	2,700	330	
09/16/02	NS**	NS**	NS**	NS**	NS**	NS**	



Table C-2  
 Historical Groundwater Analytical Results  
 B&C Gas Mini Mart  
 Livermore, California

Well No.	Sample Date	TPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)
MW-3	06/19/94	11,000	640	580	270	790	NA
	08/26/94	41,000	1,600	2,300	330	1,800	NA
	11/22/94	18,000	8,000	10,000	900	5,000	NA
	03/13/95	44,000	1,600	1,300	5,000	6,600	NA
	06/21/95	15,000	600	1,900	490	2,600	4,200
	09/14/95	8,000	710	1,100	180	870	2,700
	02/29/96	13,000	260	200	200	1,100	1,500
	02/01/97	11,000	260	550	170	600	900
	07/30/98	25,000	330	1,200	490	1,860	300
	11/05/98	26,000	400	2,100	820	3,600	300
	03/23/99	6,900	100	160	110	265	220
	06/08/99	1,210	5.4	9.0	6.9	4.3	53.3
	03/23/00	465	4.56	1.87	6.20	7.45	15.5
	09/13/00	488	37.3	5.64	7.25	15.9	160
MW-4	06/19/94	810	12	25	<0.5	22	NA
	08/26/94	850	37	51	9.5	35	NA
	11/22/94	1,700	110	110	5.8	58	NA
	03/13/95	1,300	180	8	52	77	NA
	06/21/95	ND	3	1	ND	1	ND
	09/14/95	<50	0.7	<0.5	<0.5	<0.5	<2.5
	02/29/96	87	<0.5	<0.5	<0.5	<0.5	<0.5
	02/01/97	<50	<0.5	<0.5	<0.5	<0.5	2.9
	07/30/98	<50	<0.4	0.6	<0.3	0.8	<5
	11/05/98	<50	0.7	<0.3	<0.3	<0.8	27
	03/23/99	<50	<0.4	<0.3	<0.3	<0.8	<5
	06/08/99	<50	<0.5	<0.5	<0.5	<0.5	<2
	03/22/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/13/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-5	10/26/95	120,000	16,000	26,000	3,100	15,000	39,000
	02/29/96	47,000	3,400	4,200	860	4,100	20,000
	02/01/97	28,000	1,300	1,500	480	1,000	2,200
	07/30/98	47,000	1,400	4,000	2,000	8,500	600
	11/05/98	NS**	NS**	NS**	NS**	NS**	NS**
	03/23/99	36,000	1,500	2,400	1,500	5,500	900
	06/08/99	34,500	722	1,980	1,720	7,170	765
	09/28/99	49,100	540	2,500	1,730	8,040	255
	12/21/99	NS**	NS**	NS**	NS**	NS**	NS**
	03/23/00	10,700	217	300	332	1,480	160
	06/22/00	23,000	537	533	1,040	2,590	131***
	09/13/00	41,300	780	551	1,140	3,390	243***
	12/08/00	21,700	600	328	527	1,450	285***
	03/01/01	NS**	NS**	NS**	NS**	NS**	NS**
	09/16/02	NS**	NS**	NS**	NS**	NS**	NS**

Table C-2  
 Historical Groundwater Analytical Results  
 B&C Gas Mini Mart  
 Livermore, California

Well No.	Sample Date	TPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)
MW-6	10/26/95	110,000	9,900	22,000	3,200	17,000	47,000
	02/29/96	23,000	2,000	460	2,900	2,600	6,300
	02/01/97	12,000	450	780	200	590	790
	07/30/98	NS**	NS**	NS**	NS**	NS**	NS**
	11/05/98	NS*	NS*	NS*	NS*	NS*	NS*
	03/23/99	5,700	240	260	120	440	150
	06/08/99	7,610	259	334	283	567	275
	12/21/99	NS*	NS*	NS*	NS*	NS*	NS*
	03/22/00	10,100	276	170	200	673	159
	06/22/00	NS*	NS*	NS*	NS*	NS*	NS*
MW-7	07/01/99	5,090	31.9	4.8	60	219	43.6
	09/28/99	2,160	2.8	8.2	5.9	27.3	14.0
	12/21/99	2,630	<2.5	<2.5	13.8	44.9	26.3
	03/23/00	624	<0.5	<0.5	<0.5	1.61	3.87
	06/22/00	435	<0.5	<0.5	0.875	1.28	4.87
	09/13/00	327	<0.5	<0.5	0.602	1.56	3.77
	12/08/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/01/01	569	<0.5	2.05	0.533	0.701	4.16
	06/01/01	3,900	3.5	14	29	55	18
	09/16/02	4,500	47	6.8	99	19	120
12/23/02	860	12	1.3	8	2	45	
MW-8	06/24/99	<50	<0.5	<0.5	<0.5	<0.5	88.5
	09/28/99	<50	<0.5	<0.5	<0.5	<0.5	52
	12/21/99	<50	<0.5	<0.5	<0.5	<0.5	47.3
	03/21/00	<50	<0.5	<0.5	<0.5	<0.5	4.65
	06/22/00	<50	<0.5	<0.5	<0.5	<0.5	5.56
	09/13/00	<50	<0.5	<0.5	<0.5	<0.5	14.3
	12/07/00	<50	<0.5	<0.5	<0.5	<0.5	7.83
	03/01/01	<50	<0.5	<0.5	<0.5	<0.5	2.93
	06/01/01	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/16/02	<50	0.52	<0.5	<0.5	<0.5	55
12/23/02	<50	0.52	<0.5	<0.5	<0.5	<2.5	
MW-9	06/24/99	<50	<0.5	<0.5	<0.5	<0.5	<2
	12/21/99	NS	NS	NS	NS	NS	NS
	03/21/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/13/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/16/02	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/23/02	<50	<0.5	<0.5	<0.5	<0.5	<2.5

Table C-2  
 Historical Groundwater Analytical Results  
 B&C Gas Mini Mart  
 Livermore, California

Well No.	Sample Date	TPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)
MW-10	06/24/99	<50	<0.5	<0.5	<0.5	<0.5	<2
	09/28/99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/21/99	<50	<0.5	<0.5	<0.5	<0.5	46.5
	03/21/00	52.7	<0.5	<0.5	<0.5	<0.5	<2.5
	06/21/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/13/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/07/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/01/01	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	06/01/01	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/16/02	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/23/02	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-11	06/28/99	91	0.7	2.0	1.1	2.6	<2
	09/28/99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/21/99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/22/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/13/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-12	06/28/99	<50	<0.5	<0.5	<0.5	<0.5	<2
	09/28/99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/21/99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/22/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	06/21/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/13/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/07/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/01/01	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	06/01/01	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/16/02	<50	<0.5	<0.5	<0.5	<0.5	<2.5
12/24/02	<50	<0.5	<0.5	<0.5	<0.5	<2.5	
MW-13	07/12/99	214	42.8	<0.5	4.5	<0.5	332
	09/28/99	<100	5.8	<1	<1	<1	160
	12/21/99	71	6.7	<0.5	1.4	<0.5	132
	03/21/00	<50	2.32	<0.5	<0.5	<0.5	53.5
	06/22/00	<50	7.83	<0.5	0.732	<0.5	38.8
	09/13/00	<50	6.01	<0.5	<0.5	<0.5	77.4
	12/07/00	<50	1.51	<0.5	<0.5	<0.5	25.0
	03/01/01	83.9	4.92	<0.5	<0.5	1.02	64.7
	06/01/01	190	14	<0.5	4.9	0.91	100
	09/16/02	150	7.0	<0.5	5.5	<0.5	27
12/23/02	210	9	<0.5	5	<0.5	55	

Table C-2  
 Historical Groundwater Analytical Results  
 B&C Gas Mini Mart  
 Livermore, California

Well No.	Sample Date	TPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)
D-1	06/29/99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/28/99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/21/99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/22/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/13/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
D-2	06/29/99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/28/99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/21/99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/22/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	06/21/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/13/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/07/00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/01/01	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	06/01/01	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/16/02	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	12/24/02	<50	<0.5	<0.5	<0.5	<0.5	<2.5
(MS)MW-1	08/01/95	11,000	190	260	110	900	210
	07/30/98	NS**	NS**	NS**	NS**	NS**	NS**
	11/05/98	10,000	260	120	500	1,100	200
	03/23/99	NS**	NS**	NS**	NS**	NS**	NS**
	06/08/99	NS**	NS**	NS**	NS**	NS**	NS**
	12/21/99	661	9.7	3.5	21.7	31.1	7.2
	03/23/00	NS**	NS**	NS**	NS**	NS**	NS**
	06/21/00	NS**	NS**	NS**	NS**	NS**	NS**
	09/13/00	NS**	NS**	NS**	NS**	NS**	NS**
	12/07/00	NS**	NS**	NS**	NS**	NS**	NS**
	03/01/01	NS**	NS**	NS**	NS**	NS**	NS**
06/01/01	NS**	NS**	NS**	NS**	NS**	NS**	

*Notes:*  
 ug/l = micrograms per liter  
 TPH-G = total petroleum hydrocarbons as gasoline  
 MTBE = methyl tertiary-butyl ether  
 MS = Mill Springs Park  
 NA= not analyzed  
 NS= not sampled  
 \* = well inaccessible  
 \*\* = free product hydrocarbon present  
 \*\*\* = analytical result from EPA method 8260B  
 ND = not detected above reporting limit, limit not available  
 < = less than method reporting limit