SECOND QUARTER 1999
GROUNDWATER MONITORING RESULTS
B&C Gas Mini Mart
Livermore, California

July 1999

Prepared by
CONOR PACIFIC/EFW
2650 East Bayshore Road
Palo Alto, California 94303
July, 1999

Project BNC103

Conor Pacific | **EFW**

Transmittal

To: Ms. Eva Chu
Hazardous Materials Specialist
Alameda County Environmental
Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

From: Kris H. Johnson

Date: July 20, 1999

Proj. No.: BNC 103

Copies	Description	Sent by:
1	Second Quarter 1999 Groundwater Monitoring Report, B&C Gas Mini Mart, Livermore	☐ *Regular Mail* ☐ *FedEx* ☐ *Courier* ☐ *Other*

Comments: Eva - attached is our latest quarterly report from the gas station in Livermore. Note that this doesn't include any info from our latest downgradient investigation.

Was MTBE confirmed w/ 8260? Yes, once in MW-1 in 3/99 - did GC/MS - see lab datz by Clayton.

cc:

Copies	Name & Address	Sent by:
		☐ *Regular Mail* ☐ *FedEx* ☐ *Courier* ☐ *Other*

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ENVIRONMENTAL PROTECTION

Conor Pacific | EFW

July 19, 1999
Project No. BNC103

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

Re: Second Quarter 1999 Groundwater Monitoring Results, B&C Gas Mini Mart, 2008 First Street, Livermore, California (Station ID 1689)

Dear Mr. Angle:

Conor Pacific/EFW has compiled second quarter 1999 groundwater monitoring results for B&C Gas Mini Mart (B&C), 2008 First Street, Livermore, California (Figure 1). This report includes second quarter 1999 groundwater elevation data, groundwater sampling methods, and results of groundwater chemical analyses.

SITE INFORMATION

Site Name

B&C Gas Mini Mart
2008 First Street
Livermore, California 94550

Site Contact

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

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 aquifer 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.[1]

Subsurface work conducted at the B&C site has found the soil to be predominantly sandy clay, silty sand, silty gravel, and sandy gravel to a maximum explored depth of 77 feet.[2] 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. Table 1 presents historical site groundwater elevations.[3] Table 2 summarizes all B&C monitoring well constructions.

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).[4]

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.[5] 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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[1] H⁺GCL, Inc. *Deep Groundwater Conduit Study, Livermore Arcade Shopping Center, First Street and South P Street, Livermore, California.* December 6, 1993.

[2] Remediation Service Int'l. *Soil & Groundwater Investigation Report for 2008 First Street, Livermore, California.* July 22, 1994.

[3] Groundwater elevation and flow direction data from Remediation Service Int'l quarterly reports.

[4] Remediation Service Int'l. *Soil & Groundwater Investigation Report for 2008 First Street, Livermore, California.* July 22, 1994.

[5] Product thickness information from Remediation Service, Int'l field records, "Free Product Removal Logs."

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 have generally decreased.

Interim Remedial Action at Well MW-5

Floating product was first observed in well MW-5 on July 30, 1998 (Table 1). The well is screened from 15 feet to 40 feet, bgs, and the depth to groundwater has historically ranged from 18 to 33 feet, 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.

A summary of the free product removal and thickness of free product are presented in Table 4. Over the time period monitored, the absorbent socks have removed sufficient product to reduce the free product thickness to a sheen or less. In April1999, the absorbent sock was raised above the water table; floating product has not re-entered the well.

GROUNDWATER SAMPLING AND ANALYSIS

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

Free Product

During the second quarter 1999 sampling event, EFW checked for free product in all site wells. Wells MW-2, MW-5, and MW-6, which previously have been reported to contain free product, did not contain a measurable thickness of product this quarter. Off-site well MSP MW-01, located approximately 800 feet downgradient from the B&C site on the Mill Springs Park property (MSP), was also checked for product (Figure 1). MSP well MW-01 did not contain a measurable thickness of product. However, product was observed during purging and a groundwater sample was not collected from this well.

Groundwater Elevations

On June 8, 1999, EFW 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 EFW's standard measuring protocol,[6] and were recorded on a water level data sheet (Appendix A). Groundwater elevations are calculated by subtracting depth-to-

[6] Einarson, Fowler & Watson. *Third Quarter 1998 Groundwater Monitoring Results, B&C Gas Mini Mart, Livermore, California,* Appendix A. September 10, 1998.

water measurements from the top of well casing elevations, for those wells that have been surveyed to mean sea level (MSL). Two wells, MW-5 and MW-6, have not been surveyed. (The surveying of these wells is included in the scope of work for the additional downgradient groundwater investigation.)

Table 1 summarizes available groundwater elevations from August 1990 to June 1999. A comparison of well screen elevations (Table 2) and second quarter measurements shows that the water levels were above the well screens in wells MW-2, MW-3, and MW-4. The water levels in wells MW-1, MW-5, and MW-6 intercepted the screened intervals of the site wells at the time of groundwater sampling. A groundwater contour map, based on June 1999 measurements, is shown in Figure 2. Second quarter groundwater elevations are generally two feet lower than the first quarter 1999. Groundwater flow at the site was slightly west of north during second quarter 1999. Based on second quarter measurements, the hydraulic gradient is approximately 0.02 foot per foot. The flow direction and gradient are in accordance with previous results and reflect the seasonal flow direction that has been observed at the site.

Sampling Methods

EFW sampled six monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6) on June 8, 1999, following EFW's standard protocol. Well MSP MW-01 was not sampled due to the presence of free product in the groundwater during well purging. Wells were purged using either a submersible pump or a polyvinyl chloride (PVC) bailer. Samples were collected from each well using a disposable PVC bailer. Field measurements of temperature, pH, 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. 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 TPH-G by modified U.S. Environmental Protection Agency (EPA) Method 8015 and BTEX by EPA Method 8020. MTBE was analyzed for in all samples by EPA Method 8020M. Laboratory analyses occurred within specified holding times and within laboratory quality control standards. The certified analytical report is located in Appendix A.

Analytical Results

Over the last five years of monitoring at the site, concentrations of benzene have steadily decreased in all site wells. Analysis of site groundwater samples for MTBE began in June 1995. Since then, concentrations of MTBE have decreased significantly. Table 3 presents a historical summary of groundwater analytical results from the B&C site.

Second quarter 1999 analytical results for TPH-G, benzene, and MTBE are also presented on Figure 3.

Upgradient Well

Well MW-4 did not contain detectable concentrations of TPH-G, BTEX, or MTBE. Since June 1995, concentrations of petroleum hydrocarbons have been very low to non-detectable in this well.

Tank Area Wells

Concentrations in well MW-1 were lower than the results from the previous quarter. TPH-G was detected at a concentration 1,630 micrograms per liter (µg/l) in well MW-1. BTEX concentrations ranged from 51.7 to 138 µg/l. MTBE was detected at 66.8 µg/l.

Well MW-2 concentrations were again much lower than the previous quarter. In well MW-2, TPH-G was detected at a concentration of 11,200 µg/l. Concentrations of BTEX compounds ranged from 352 to 639 µg/l. MTBE was detected at 343 µg/l.

The hydrocarbon concentrations in well MW-3 were again the lowest concentrations detected to date in the well. TPH-G was detected at a concentration of 1,210 µg/l in well MW-3. Benzene was detected at 5 µg/l and the other aromatic compounds ranged from 4 to 9 µg/l. MTBE was detected at a concentration of 53 µg/l. Groundwater was above the obstruction in well MW-6 and the well was purged and sampled. The well is located adjacent to well MW-1 and yielded hydrocarbon concentrations similar to those detected in the previous quarter. TPH-G was detected at a concentration of 7,610 µg/l. Concentrations of BTEX compounds ranged from 259 to 567 µg/l. MTBE was detected at 275 µg/l.

Downgradient Wells

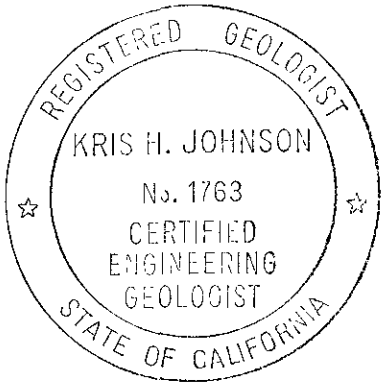
Well MW-5, located 75 feet downgradient of the site, recently contained free petroleum product. Removal of the free product was performed from January 1999 to April 1999 and has resulted in no measurable product during the second quarter sampling. The well was purged and sampled, with a hydrocarbon sheen observed during purging. Petroleum hydrocarbons were detected at concentrations similar to the previous sampling events.

MSP well MW-01, located approximately 800 feet downgradient from the B&C site, was not sampled during the second quarter event, due to the presence of blebs of free product during well purging. Because there was more than a hydrocarbon sheen present in the groundwater purged from well MSP MW-01, the well was not sampled.

FUTURE MONITORING

Third quarter 1999 groundwater monitoring is currently scheduled for September 1999. Nine new downgradient wells[7] were installed during June and July 1999. An investigation report will be submitted in August 1999. Recommendations for groundwater monitoring at the site and downgradient of the site will be provided in the downgradient investigation report.

If you have any questions regarding this report, please call us at (650) 843-3828.



Sincerely,
Einarson, Fowler & Watson

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

Martha J. Watson
Principal Environmental Engineer

Attachments:

Tables

Table 1 - Summary of Groundwater Elevations
Table 2 - Monitoring Well Constructions
Table 3 - Historical Groundwater Analytical Results
Table 4 - Summary of Well MW-5 Product Removal

Figures

Figure 1 - Site Location
Figure 2 - Groundwater Elevation Contours (March 1999)
Figure 3 - Petroleum Hydrocarbons in Groundwater (March 1999)

Appendices

Appendix A - Water Sample Field Data Sheets and Certified Analytical Reports

cc: Eva Chu, ACEHS
Regional Water Quality Control Board, USTCF

[7] Einarson, Fowler & Watson, September 8, 1998, *Workplan for Additional Downgradient Investigation, B&C Gas Mini Mart, 2008 First Street, Livermore, California.*

Table 1
Summary of Groundwater Elevations
B & C Gas Mini Mart
Livermore, California

Well No.	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		
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		
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		

Table 1
Summary of Groundwater Elevations
B & C Gas Mini Mart
Livermore, California

Well No.	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-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		
MW-5*	NS	02/29/96	19.35			
		Feb-97	18.19			
		07/30/98	25.25		25.24	0.01
		11/05/98	32.70		32.48	0.22
		03/23/99	25.15			
		06/08/99	27.27			
MW-6	NS	02/29/96	20.32			
		Feb-97	18.92			
		07/30/98	25.59		25.58	0.01
		11/05/98	NA			
		03/23/99	25.43			
		06/08/99	27.43			
MSP MW-01	477.79	07/30/98	30.37	447.42	30.35	0.02
		11/05/98	38.01	439.78	(1)	
		03/23/99	29.44	448.35	(1)	
		06/08/99	31.70	446.09	(1)	

Notes: Data prior to 1998 from RSI quarterly reports. February 1997 date unknown.
MSL = mean sea level
NM - not measured; NS - not surveyed; NA - well not accessible, blocked at 28.4 feet.
MSP - Mill Springs Park
* - see Table 1a for well MW-5 monitoring during interim remedial action
(1) - free product visible in purge or sample water

Table 2
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 (in.)	Casing Material (PVC)	Casing Diameter (in.)	Screen Size (in.)	Sand Pack Material	Screened Interval (ft.-bgs)	Sand Pack Interval (ft.-bgs)
MW-1	HSA	Sep-88	77.0	77.0	8	PVC	2	0.020	#3 sand	27 - 77	25 - 77
MW-2	HSA	Jun-94	60.0	60.0	10	PVC	4	0.020	#2/20 sand	30 - 60	27 - 60
MW-3	HSA	Jun-94	60.0	60.0	10	PVC	4	0.020	#2/20 sand	30 - 60	27 - 60
MW-4	HSA	Jun-94	60.0	60.0	10	PVC	4	0.020	#2/20 sand	30 - 60	27 - 60
MW-5	HSA	Oct-95	42.0	40.0	10	PVC	4	0.020	#2 sand	15 - 40	12 - 40
MW-6	HSA	Oct-95	42.0	40.0	10	PVC	4	0.020	#2 sand	15 - 40	12 - 40

HSA Hollow-Stem Auger
T.D. Total Depth
ft.-bgs feet below ground surface
Well construction information for wells MW-2 through MW-6 collected from Remediation Service Int'l boring logs.

Table 3
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	Aug-90	24,000	1,300	1,300	400	2,700	NA
	Oct-91	2,000	430	170	100	290	NA
	Jan-92	1,000	200	120	30	150	NA
	May-93	960	66	8	41	90	NA
	Sep-93	1,900	311	118	34	112	NA
	May-94	10,000	690	1,100	340	1,200	NA
	Aug-94	13,000	290	690	120	670	NA
	Nov-94	19,000	400	770	230	130	NA
	Mar-95	6,000	900	100	980	740	NA
	Jun-95	2,400	210	380	53	280	13,000
	Sep-95	7,800	69	1,300	220	1,200	2,000
	Feb-96	120	4.2	1.4	4.7	5.6	14
	Feb-97	NS*	NS*	NS*	NS*	NS*	NS*
	Jul-98	1,400	26	110	57	243	5
	Nov-98	6,000	230	330	240	1,060	<100
	Mar-99	6,600	280	420	240	990	60
	Jun-99	1,630	70.4	51.7	54.6	138	66.8
MW-2	Jun-94	290,000	18,000	36,000	4,600	26,000	NA
	Aug-94	NS**	NS**	NS**	NS**	NS**	NA
	Nov-94	NS**	NS**	NS**	NS**	NS**	NA
	Mar-95	NS**	NS**	NS**	NS**	NS**	NA
	Jun-95	25,000	2,300	3,400	720	3,100	16,000
	Sep-95	NS**	NS**	NS**	NS**	NS**	NS**
	Feb-96	57,000	2,500	650	3,700	3,100	6,500
	Feb-97	20,000	860	1,500	480	1,000	1,300
	Jul-98	NS**	NS**	NS**	NS**	NS**	NS**
	Nov-98	40,000	2,400	2,500	2,100	7,200	1,200
	Mar-99	22,000	780	880	780	1,730	300
	Jun-99	11,200	352	454	540	639	343
MW-3	Jun-94	11,000	640	580	270	790	NA
	Aug-94	41,000	1,600	2,300	330	1,800	NA
	Nov-94	18,000	8,000	10,000	900	5,000	NA
	Mar-95	44,000	1,600	1,300	5,000	6,600	NA
	Jun-95	15,000	600	1,900	490	2,600	4,200
	Sep-95	8,000	710	1,100	180	870	2,700
	Feb-96	13,000	260	200	200	1,100	1,500
	Feb-97	11,000	260	550	170	600	900
	Jul-98	25,000	330	1,200	490	1,860	300
	Nov-98	26,000	400	2,100	820	3,600	300
	Mar-99	6,900	100	160	110	265	220
	Jun-99	1,210	5	9	7	4	53

Table 3
Historical Groundwater Analytical Results
B&C Gas Mini Mart
Livermore, California

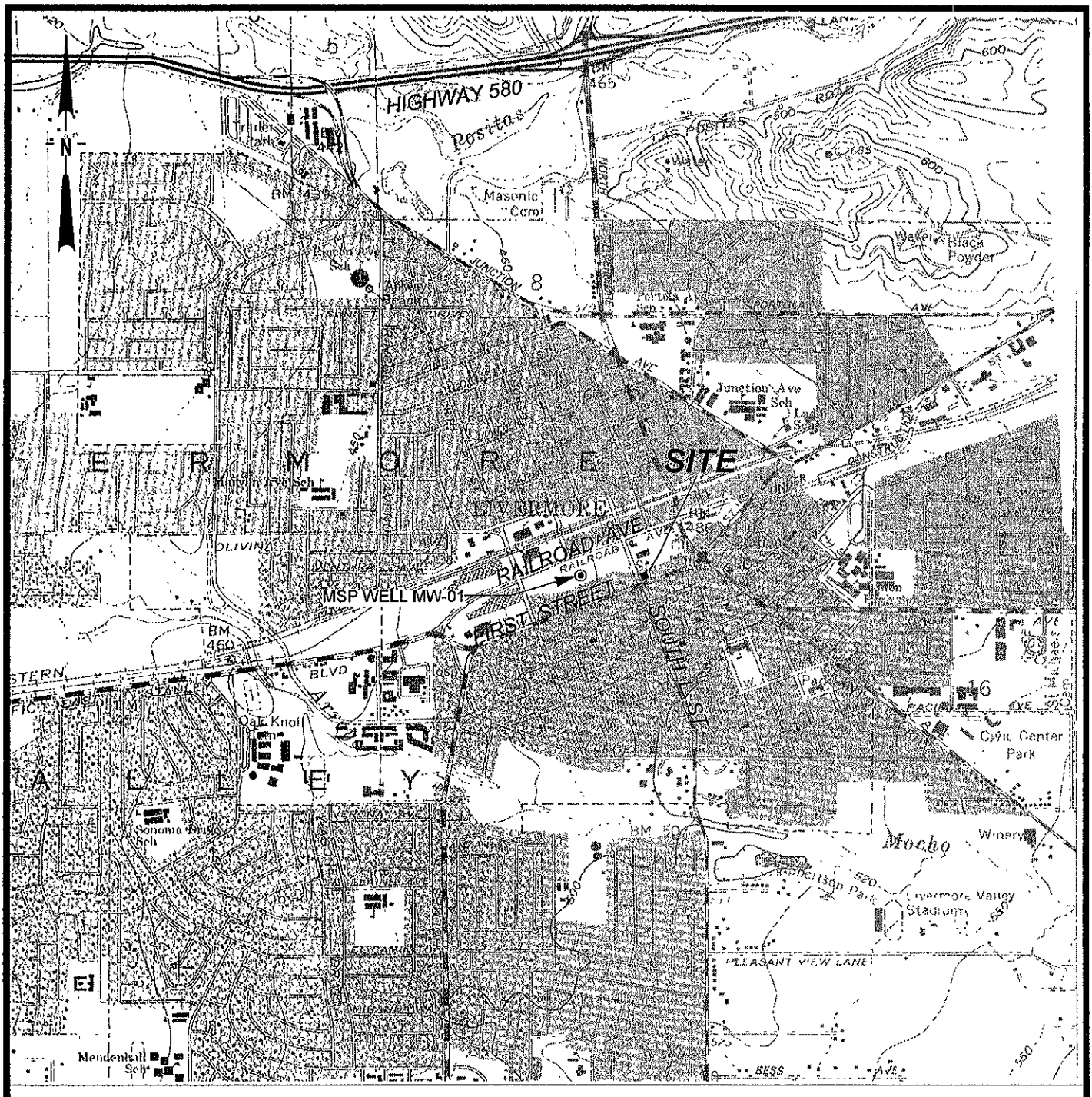
Well No.	Sample Date	TPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)
MW-4	Jun-94	810	12	25	<0.5	22	NA
	Aug-94	850	37	51	9.5	35	NA
	Nov-94	1,700	110	110	5.8	58	NA
	Mar-95	1,300	180	8	52	77	NA
	Jun-95	ND	3	1	ND	1	ND
	Sep-95	<50	0.69	<0.5	<0.5	<0.5	<2.5
	Feb-96	87	<0.5	<0.5	<0.5	<0.5	<0.5
	Feb-97	<50	<0.5	<0.5	<0.5	<0.5	2.9
	Jul-98	<50	<0.4	0.60	<0.3	0.80	<5
	Nov-98	<50	0.7	<0.3	<0.3	<0.8	27
	Mar-99	<50	<0.4	<0.3	<0.3	<0.8	<5
	Jun-99	<50	<0.5	<0.5	<0.5	<0.5	<2
MW-5	Oct-95	120,000	16,000	26,000	3,100	15,000	39,000
	Feb-96	47,000	3,400	4,200	860	4,100	20,000
	Feb-97	28,000	1,300	1,500	480	1,000	2,200
	Jul-98	47,000	1,400	4,000	2,000	8,500	600
	Nov-98	NS**	NS**	NS**	NS**	NS**	NS**
	Mar-99	36,000	1,500	2,400	1,500	5,500	900
	Jun-99	34,500	722	1,980	1,720	7,170	765
MW-6	Oct-95	110,000	9,900	22,000	3,200	17,000	47,000
	Feb-96	23,000	2,000	460	2,900	2,600	6,300
	Feb-97	12,000	450	780	200	590	790
	Jul-98	NS**	NS**	NS**	NS**	NS**	NS**
	Nov-98	NS*	NS*	NS*	NS*	NS*	NS*
	Mar-99	5,700	240	260	120	440	150
	Jun-99	7,610	259	334	283	567	275
MSP MW-01	Aug-95	11,000	190	260	110	900	210
	Jul-98	NS**	NS**	NS**	NS**	NS**	NS**
	Nov-98	10,000	260	120	500	1,100	200
	Mar-99	NS**	NS**	NS**	NS**	NS**	NS**
	Jun-99	NS**	NS**	NS**	NS**	NS**	NS**

ug/l = micrograms per liter
TPH-G = total petroleum hydrocarbons as gasoline
MTBE = methyl tertiary-butyl ether
MSP = Mill Springs Park
NA= not analyzed
NS= not sam * = well inaccessible ** = floating hydrocarbo
ND = not detected above reporting limit, limit not available
< = less than method reporting limit

Table 4
Summary of Well MW-5 Product Removal
B & C Gas Mini Mart
Livermore, California

Date Measured	Depth to Water (feet)	Depth to Free product (feet)	Product Thickness (feet)	Comments
02/29/96	19.35	None	0	
Feb-97	18.19	None	0	
07/30/98	25.25	25.24	0.01	Bailed product from well. Approximately 5 gallons of water mixed with product removed from well. Grab groundwater sample obtained.
11/05/98	32.70	32.48	0.22	
01/18/99	31.65	31.60	0.05	Bailed product from well. Approximately 0.5 gallons of water mixed with about 10% product removed from well. Sheen present following bailing. Installed 3-foot long, 3.5-inch diameter SoakEase™ absorbent sock in well.
01/22/99	30.93	sheen	sheen	Replaced SoakEase™ sock.
01/29/99	29.80	sheen	sheen	Replaced SoakEase™ sock.
02/05/99	29.64	sheen	sheen	Replaced SoakEase™ sock.
02/23/99	26.26	sheen	sheen	Replaced SoakEase™ sock.
03/12/99	25.29	sheen	sheen	Replaced SoakEase™ sock.
03/23/99	25.19	None	0	Bailed about 5 gallons of water from well and sheen returned. No measureable product present. Obtained groundwater sample after standard well purge. Replaced sock.
04/13/99	25.05	None	0	Raised SoakEase™ sock above groundwater level in well.
04/15/99	24.85	None	0	No sheen observed, left sock above groundwater level in well.
06/08/99	27.27	None	0	No sheen observed, left sock above groundwater level in well.

Notes: sheen = product present, but too thin to measure accurately (<0.01 feet)



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

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

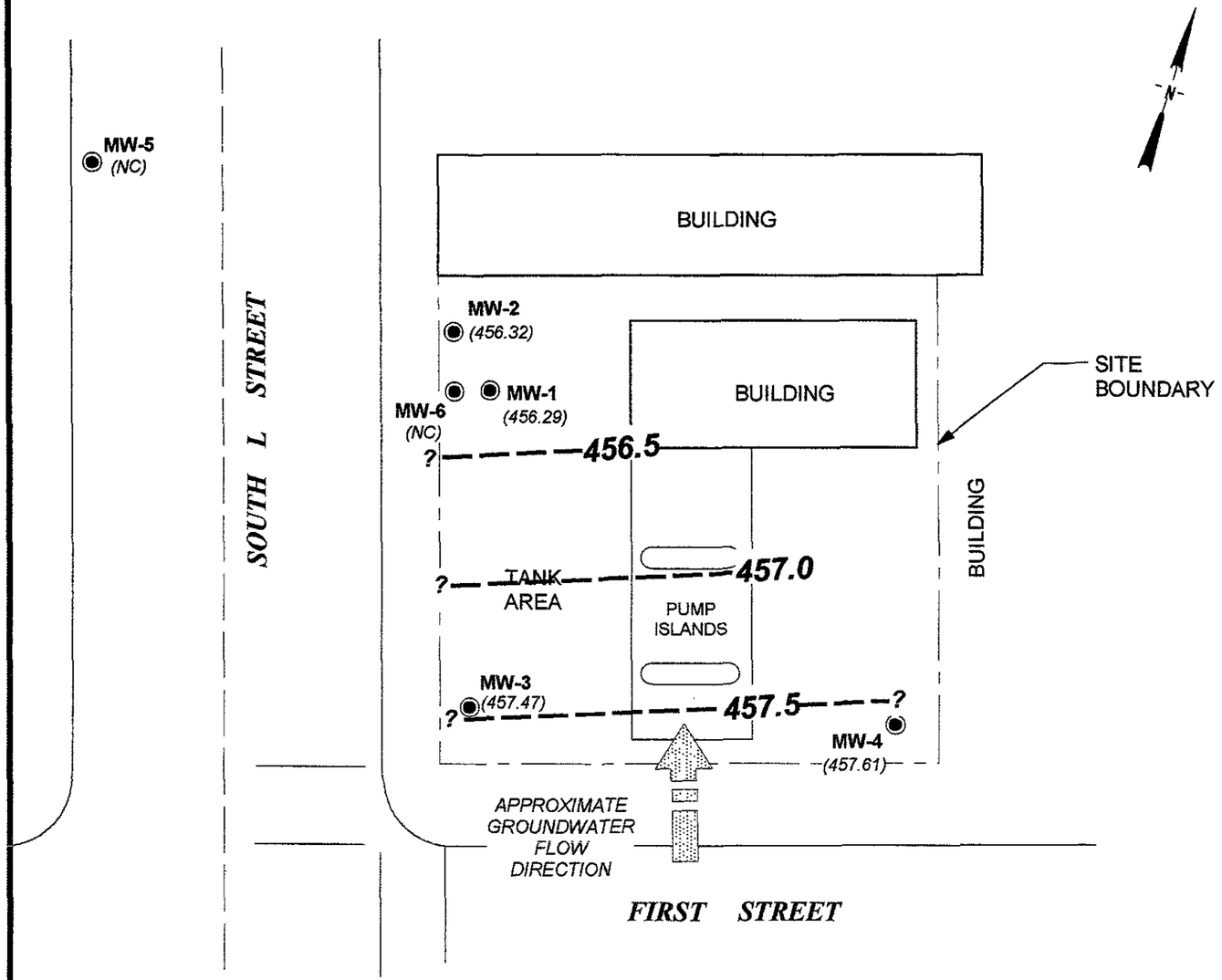
Conor Pacific EFW

GROUNDWATER MONITORING
B & C GAS MINI MART
LIVERMORE, CALIFORINA

SITE LOCATION MAP

FIGURE 1

PROJECT NO. BNC103



EXPLANATION

MW-6 ◉	Groundwater monitoring well
(456.29)	Groundwater elevation (Ft.-MSL), measured 6/8/99
456.5	Groundwater elevation contour (feet, MSL)
(NC)	Not calculated, top of well casing not surveyed

Base map from Remediation Service, International First Quarter 1997 Report of Groundwater Sampling and Monitoring

I:\BNC\103\FIGURES\BASE-GW DSF 7/14/99

SCALE: 0 25 50 75 FEET

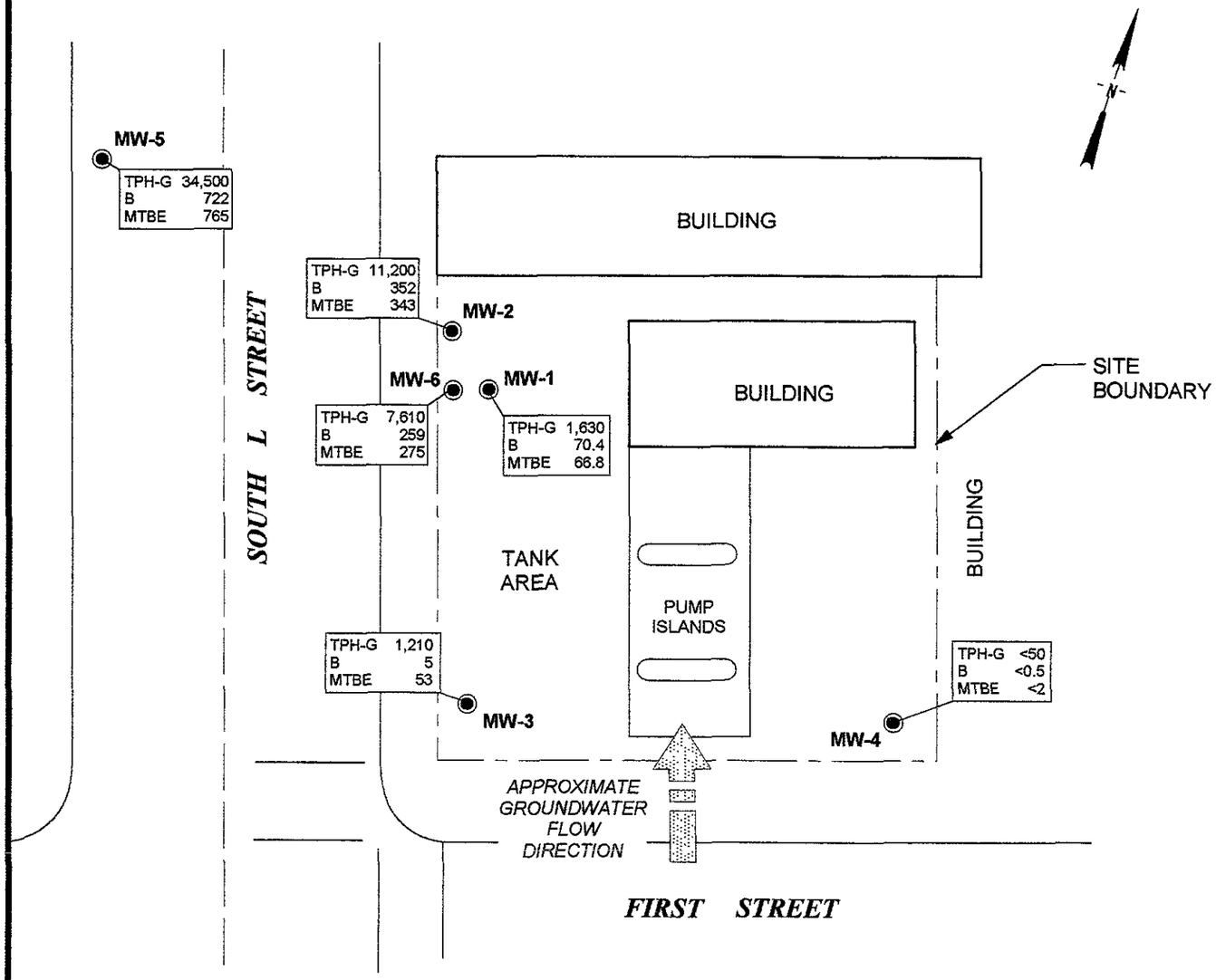
(APPROXIMATE - NOT SURVEYED)

GROUNDWATER MONITORING
B & C GAS MINI MART
LIVERMORE, CALIFORNIA

GROUNDWATER ELEVATION CONTOURS (JUNE 1999)

FIGURE 2

PROJECT NO BNC103



EXPLANATION

MW-6 ◉ Groundwater monitoring well

TPH-G <50
B <0.4
MTBE <5

Concentration detected
Analytical parameter

All concentrations are reported in micrograms per liter (µg/l); sampling occurred 6/8/99.

ABBREVIATIONS:

TPH-G	Total Petroleum Hydrocarbons Gasoline range
B	Benzene
MTBE	Methyl tertiary-butyl ether
NS	Not sampled, free product present

Base map from Remediation Service, International First Quarter 1997 Report of Groundwater Sampling and Monitoring

I:\BNC\103\FIGURES\BASE-CHEM DSF 7/14/99

SCALE: 0 25 50 75 FEET
(APPROXIMATE - NOT SURVEYED)

GROUNDWATER MONITORING
B & C GAS MINI MART
LIVERMORE, CALIFORNIA

PETROLEUM HYDROCARBONS IN GROUNDWATER (JUNE 1999)

FIGURE 3

PROJECT NO BNC103

WATER LEVEL DATA SHEET
EINARSON, FOWLER & WATSON

Project: B&C Gas Mini Mart
Project No.: BNC103
Date(s): 6/2/99
Name: RPlank
Weather: Sunny Sounder #: Klein

Well	Date	DTFP (TOC)	DTW (TOC)	Total Depth	Meas By	Comments
MW-1	6/2/99	—	27.78	75.6	m	
MW-2		—	27.54	56.0		
MW-3		—	26.77	57.1		
MW-4		—	27.43	59.9		
MW-5		—	27.27	39.6		
MW-6		—	27.43	(28.0)		obstructed at 28.6'
MS MW01	↓	—	31.70	59.6	↓	
						· all locks 0909 except for MSMW01.

EINARSON FOWLER & WATSON

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart
SAMPLE ID: MW-1
PROJECT NO: BNE103
SAMPLED BY: Blank
CLIENT: B&C Gas Mini Mart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater ✓ Surface Water ____ Leachate ____ Treatment Effluent ____ Other ____

CASING DIAMETER (OD-inches):	3/4	1	2 ✓	4	4.5	6	8
GALLONS PER LINEAR FOOT :	(0.02)	(0.04)	(0.17)	(0.66)	(0.83)	(1.5)	(2.6)

Well Total Depth (ft): 75.6
Depth to Water (ft): 27.78
Height of Water Column (ft): 47.82
Volume in Casing (gal): 8.2
Calculated Purge (volumes / gal.): 8.2
Actual Pre-Sampling Purge (gal): 9.0

PURGE:
Device (Depth of Intake from TOC): Submersible Pump ____ Peristaltic Pump ____ PVC Hand Pump ____
S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disposable Bailer ✓ 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)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Color (visual)	Turbidity (visual)	Observation
1250	3.0	20.8	1070		6.94	lt. brown	high	
1255	6.0	20.6	1080		6.98	↓	↓	
1259	9.0	20.3	1090		7.02			

Purge Date: 6/8/99

SAMPLE:
Device (Depth of Intake from TOC): Submersible Pump ✓ Peristaltic Pump ____ PVC Hand Pump ____
Teflon Bailer ____ PVC Bailer ____ Disposable Bailer ✓ Other ____

Time (2400 Hr)	Temp. (°C)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)
1306	20.3	1110		7.12	2.71	lt. brown	302

Sheen: none Odor: light/moderate Sample Date: 6/8/99

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

REMARKS: 1 Casing volume Purge. Casing bent at ~ 5'; 1.00" < 5' PVC bailer will not fit past bend.

SIGNATURE: [signature] **DATE:** 6/8/99

EINARSON FOWLER & WATSON

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart — SAMPLE ID: MW-2
PROJECT NO: BNL103 — SAMPLED BY: RPark
CLIENT: B&C Gas Mini Mart — REGULATORY AGENCY: _____
SAMPLE TYPE: Groundwater ✓ Surface Water _____ Leachate _____ Treatment Effluent _____ Other _____

CASING DIAMETER (OD-inches):	3/4	1	2	4 ✓	4.5	6	8
GALLONS PER LINEAR FOOT :	(0.02)	(0.04)	(0.17)	(0.66)	(0.83)	(1.5)	(2.6)

Well Total Depth (ft): 56.0 — Volume in Casing (gal): 18.0
Depth to Water (ft): 27.54 — Calculated Purge (volumes / gal.): 18.0
Height of Water Column (ft): 28.46 — Actual Pre-Sampling Purge (gal): 19.0

PURGE:
Device (Depth of Intake from TOC): 2" Submersible Pump (51') Peristaltic Pump _____ PVC Hand Pump _____
S.S. Bailer _____ Teflon Bailer _____ PVC Bailer _____ Disposable Bailer _____ 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)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Color (visual)	Turbidity (visual)	Observation
1359	7.0	21.7	1050		6.91	lt.grey	moderate	
1403	13.0	21.5	1050		6.92	↓	low	
1407	19.0	21.4	1050		6.92	↓	↓	

Purge Date: 6/8/99

SAMPLE:
Device (Depth of Intake from TOC): Submersible Pump _____ Peristaltic Pump _____ PVC Hand Pump _____
Teflon Bailer _____ PVC Bailer _____ Disposable Bailer ✓ Other _____

Time (2400 Hr)	Temp. (°C)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)
1414	21.1	1060		6.91	0.97	lt.grey	242

Sheen: none — Odor: moderate/strong — Sample Date: 6/8/99

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

REMARKS: 1 Casing volume purge.

SIGNATURE: _____ **DATE:** 6/8/99

EINARSON FOWLER & WATSON

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart — SAMPLE ID: MW-3
PROJECT NO: BNC 103 — SAMPLED BY: RPaul
CLIENT: B&C Gas Mini Mart — REGULATORY AGENCY:
SAMPLE TYPE: Groundwater ℓ Surface Water ____ Leachate ____ Treatment Effluent ____ Other ____

CASING DIAMETER (OD-inches):	3/4	1	2	4 ℓ	4.5	6	8
GALLONS PER LINEAR FOOT :	(0.02)	(0.04)	(0.17)	(0.66)	(0.83)	(1.5)	(2.6)

Well Total Depth (ft): 57.1 — Volume in Casing (gal): 20.1
Depth to Water (ft): 26.77 — Calculated Purge (volumes / gal.): 20.1
Height of Water Column (ft): 30.33 — Actual Pre-Sampling Purge (gal): 21.0

PURGE:
Device (Depth of Intake from TOC): Submersible Pump 2" (53') Peristaltic Pump ____ PVC Hand Pump ____
S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disposable Bailer ____ 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)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Color (visual)	Turbidity (visual)	Observation
1201	7.0	21.4	1070		7.04	lt brown	low	
1205	14.0	21.1	1080		7.07	↓	moderate	
1209	21.0	21.1	1080		7.06	↓	↓	

Purge Date: 6/8/99

SAMPLE:
Device (Depth of Intake from TOC): Submersible Pump ____ Peristaltic Pump ____ PVC Hand Pump ____
Teflon Bailer ____ PVC Bailer ____ Disposable Bailer ℓ Other ____

Time (2400 Hr)	Temp. (°C)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)
1214	20.9	1080		7.07	1.99	lt brown	197

Sheen: none Odor: light/moderate Sample Date: 6/8/99

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

REMARKS: 1 casing volume purge.

SIGNATURE: ____ **DATE:** 6/8/99

EINARSON FOWLER & WATSON

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart
SAMPLE ID: MW-4
PROJECT NO: BNC103
SAMPLED BY: RPark
CLIENT: B&C Gas Mini Mart
REGULATORY AGENCY: _____

SAMPLE TYPE: Groundwater 4 Surface Water _____ Leachate _____ Treatment Effluent _____ Other _____

CASING DIAMETER (OD-inches):	3/4	1	2	4	4.5	6	8
GALLONS PER LINEAR FOOT :	(0.02)	(0.04)	(0.17)	4 (0.66)	(0.83)	(1.5)	(2.6)

Well Total Depth (ft): 59.9
Depth to Water (ft): 27.43
Height of Water Column (ft): 32.47
Volume in Casing (gal): 21.5
Calculated Purge (volumes / gal.): 21.5
Actual Pre-Sampling Purge (gal): 22.0

PURGE:
Device (Depth of Intake from TOC): 2" Submersible Pump (50') Peristaltic Pump _____ PVC Hand Pump _____
S.S. Bailer _____ Teflon Bailer _____ PVC Bailer _____ Disposable Bailer _____ 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)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Color (visual)	Turbidity (visual)	Observation
1123	0.0	20.2	1080		6.98	lt.brown	low	
1127	15.0	20.2	1100		7.04	lt.brown tint	↓	
1131	22.0	20.3	1100		7.05	↓	↓	

Purge Date: 6/8/99

SAMPLE:
Device (Depth of Intake from TOC): Submersible Pump _____ Peristaltic Pump _____ PVC Hand Pump _____
Teflon Bailer _____ PVC Bailer _____ Disposable Bailer 4 Other _____

Time (2400 Hr)	Temp. (°C)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)
1134	20.3	1110		7.07	5.22	lt.brown	251

Sheen: none Odor: none Sample Date: 6/8/99

Field Measurement Devices: Horiba 4 Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS: 1 Casing Volume Purge.

Calibrated mtr 1115, 6/8/99: pH: 7.00, 4.00; EC: 0, 2.0e; turb: 0; DO: auto; T: 18.9°C

SIGNATURE: _____ **DATE:** 6/8/99

EINARSON FOWLER & WATSON

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart
SAMPLE ID: MW-5
PROJECT NO: BNC 103
SAMPLED BY: RFank
CLIENT: B&C Gas Mini Mart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater ✓ Surface Water ____ Leachate ____ Treatment Effluent ____ Other ____

CASING DIAMETER (OD-inches):	3/4	1	2	4 ✓	4.5	6	8
GALLONS PER LINEAR FOOT :	(0.02)	(0.04)	(0.17)	(0.66)	(0.83)	(1.5)	(2.6)

Well Total Depth (ft): 39.6
Depth to Water (ft): 27.27
Height of Water Column (ft): 12.33
Volume in Casing (gal): DUP 8.2
Calculated Purge (volumes / gal.): 8.2
Actual Pre-Sampling Purge (gal): 9.0

PURGE:
Device (Depth of Intake from TOC): Submersible Pump ____ Peristaltic Pump ____ PVC Hand Pump ____
S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ✓ Disposable Bailer ____ 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)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Color (visual)	Turbidity (visual)	Observation
1529	3.0	21.4	1040		6.98	lt.grey	moderate	heavy sheen
1532	6.0	20.4	1040		6.99	↓	↓	present
1534	9.0	20.1	1050		6.98	↓	↓	↓

Purge Date: 6/8/99

SAMPLE:
Device (Depth of Intake from TOC): Submersible Pump ____ Peristaltic Pump ____ PVC Hand Pump ____
Teflon Bailer ____ PVC Bailer ____ Disposable Bailer ✓ Other ____

Time (2400 Hr)	Temp. (°C)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)
1541	20.1	1060		6.94	0.91	lt.grey	656

Sheen: heavy Odor: strong Sample Date: 6/8/99

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

REMARKS: 1 Casing Volume Purge.

SIGNATURE: _____ **DATE:** 6/8/99

EINARSON FOWLER & WATSON

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart SAMPLE ID: MW-6
PROJECT NO: BNC 103 SAMPLED BY: RPunk
CLIENT: B&C Gas Mini Mart REGULATORY AGENCY:
SAMPLE TYPE: Groundwater 6 Surface Water ____ Leachate ____ Treatment Effluent ____ Other ____

CASING DIAMETER (OD-inches):	3/4	1	2	4 6	4.5	6	8
GALLONS PER LINEAR FOOT :	(0.02)	(0.04)	(0.17)	(0.66)	(0.83)	(1.5)	(2.6)

Well Total Depth (ft): (40.0) / 20.6 Volume in Casing (gal): 0.3
Depth to Water (ft): 27.43 Calculated Purge (volumes / gal.): 0.3
Height of Water Column (ft): 12.57 Actual Pre-Sampling Purge (gal): 0.5

PURGE:
Device (Depth of Intake from TOC): Submersible Pump ____ Peristaltic Pump ____ PVC Hand Pump ____
S.S. Bailer ____ Teflon Bailer ____ PVC Bailer 4 Disposable Bailer ____ 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)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Color (visual)	Turbidity (visual)	Observation
1320	3.0	20.5	1060		6.90	lt. brown	moderate	
1325	6.0	20.2	1050		6.92		low	
1332	9.0	20.2	1050		6.92			

Purge Date: 6/8/99

SAMPLE:
Device (Depth of Intake from TOC): Submersible Pump 6 Peristaltic Pump ____ PVC Hand Pump ____
Teflon Bailer ____ PVC Bailer ____ Disposable Bailer ____ Other ____

Time (2400 Hr)	Temp. (°C)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)
1340	20.5	1060		6.92	1.76	lt. brown	120

Sheen: none Odor: moderate Sample Date: 6/8/99

Field Measurement Devices: Horiba 6 Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS: Casing volume purge. Well filled to 20.6' with gravel. Original total depth cannot be measured; used 40' for purge volume calculation.

SIGNATURE: _____ **DATE:** 6/8/99

EINARSON FOWLER & WATSON

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart SAMPLE ID: MSMW01
PROJECT NO: BNC103 SAMPLED BY: RPaul
CLIENT: B&C Gas Mini Mart REGULATORY AGENCY:
SAMPLE TYPE: Groundwater ✓ Surface Water ____ Leachate ____ Treatment Effluent ____ Other ____

CASING DIAMETER (OD-inches):	3/4	1	2 ✓	4	4.5	6	8
GALLONS PER LINEAR FOOT :	(0.02)	(0.04)	(0.17)	(0.66)	(0.83)	(1.5)	(2.6)

Well Total Depth (ft): 59.6 Volume in Casing (gal): 1.6
Depth to Water (ft): 31.70 Calculated Purge (volumes / gal.): 4.8
Height of Water Column (ft): 27.90 Actual Pre-Sampling Purge (gal): ~0.75

PURGE:
Device (Depth of Intake from TOC): Submersible Pump ____ Peristaltic Pump ____ PVC Hand Pump ____
S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disposable Bailer ✓ 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)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Color (visual)	Turbidity (visual)	Observation

Purge Date: ____

SAMPLE:
Device (Depth of Intake from TOC): Submersible Pump ____ Peristaltic Pump ____ PVC Hand Pump ____
Teflon Bailer ____ PVC Bailer ____ Disposable Bailer ____ Other ____

Time (2400 Hr)	Temp. (°C)	Specific Conductance Horiba (µmhos/cm)	Specific Conductance QuickCheck (µS)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)

Sheen: ____ Odor: ____ Sample Date: ____

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

REMARKS: Product globules in bailer during 2nd and 3rd bailer. full. End Purge. No Samples collected.

SIGNATURE: [signature] **DATE:** 6/8/99

Sequoia Analytical

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

June 21, 1999

Kris Johnson
Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

RE: B&C Gas Mini Mart/P906432

Dear Kris Johnson

Enclosed are the results of analyses for sample(s) received by the laboratory on June 9, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michelle M Portis

Michelle M. Portis
Project Manager

CA ELAP Certificate Number 2245

Sequoia Analytical

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

Conor Pacific / EFW	Project:	B&C Gas Mini Mart	Sampled:	6/8/99
2650 East Bayshore Rd.	Project Number:	BNC103	Received:	6/9/99
Palo Alto, CA 94303	Project Manager:	Kris Johnson	Reported:	6/21/99

ANALYTICAL REPORT FOR P906432

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	P906432-01	Water	6/8/99
MW-2	P906432-02	Water	6/8/99
MW-3	P906432-03	Water	6/8/99
MW-4	P906432-04	Water	6/8/99
MW-5	P906432-05	Water	6/8/99
MW-6	P906432-06	Water	6/8/99

Sequoia Analytical

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

Conor Pacific / EFW	Project:	B&C Gas Mini Mart	Sampled: 6/8/99
2650 East Bayshore Rd.	Project Number:	BNC103	Received: 6/9/99
Palo Alto, CA 94303	Project Manager:	Kris Johnson	Reported: 6/21/99

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M
Sequoia Analytical - Petaluma

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1			**P906432-01**				**Water**	
Gasoline	9060528	6/17/99	6/17/99		100	**1630**	ug/l	
Benzene	"	"	"		1.00	**70.4**	"	
Toluene	"	"	"		1.00	**51.7**	"	
Ethylbenzene	"	"	"		1.00	**54.6**	"	
Xylenes (total)	"	"	"		1.00	**138**	"	
Methyl tert-butyl ether	"	"	"		4.00	**66.8**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*65.0-135*		*107*	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	*65.0-135*		*91.7*	"	
MW-2			**P906432-02**				**Water**	
Gasoline	9060528	6/17/99	6/17/99		500	**11200**	ug/l	
Benzene	"	"	"		5.00	**352**	"	
Toluene	"	"	"		5.00	**454**	"	
Ethylbenzene	"	"	"		5.00	**540**	"	
Xylenes (total)	"	"	"		5.00	**639**	"	
Methyl tert-butyl ether	"	"	"		20.0	**343**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*65.0-135*		*105*	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	*65.0-135*		*92.3*	"	
MW-3			**P906432-03**				**Water**	
Gasoline	9060528	6/17/99	6/17/99		100	**1210**	ug/l	
Benzene	"	"	"		1.00	**5.44**	"	
Toluene	"	"	"		1.00	**9.02**	"	
Ethylbenzene	"	"	"		1.00	**6.90**	"	
Xylenes (total)	"	"	"		1.00	**4.27**	"	
Methyl tert-butyl ether	"	"	"		4.00	**53.3**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*65.0-135*		*109*	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	*65.0-135*		*95.7*	"	
MW-4			**P906432-04**				**Water**	
Gasoline	9060528	6/17/99	6/17/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*65.0-135*		*106*	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	*65.0-135*		*90.3*	"	
MW-5			**P906432-05**				**Water**	
Gasoline	9060528	6/17/99	6/17/99		1000	**34500**	ug/l	

Sequoia Analytical

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

Conor Pacific / EFW	Project:	B&C Gas Mini Mart	Sampled: 6/8/99
2650 East Bayshore Rd.	Project Number:	BNC103	Received: 6/9/99
Palo Alto, CA 94303	Project Manager:	Kris Johnson	Reported: 6/21/99

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M
Sequoia Analytical - Petaluma

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-5 (continued)			**P906432-05**				**Water**	
Benzene	9060528	6/17/99	6/17/99		10.0	**722**	ug/l	
Toluene	"	"	"		10.0	**1980**	"	
Ethylbenzene	"	"	"		10.0	**1720**	"	
Xylenes (total)	"	"	"		10.0	**7170**	"	
Methyl tert-butyl ether	"	"	"		40.0	**765**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*65.0-135*		*101*	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	*65.0-135*		*89.7*	"	
MW-6			**P906432-06**				**Water**	
Gasoline	9060528	6/17/99	6/17/99		100	**7610**	ug/l	
Benzene	"	"	"		1.00	**259**	"	
Toluene	"	"	"		1.00	**334**	"	
Ethylbenzene	"	"	"		1.00	**283**	"	
Xylenes (total)	"	"	"		1.00	**567**	"	
Methyl tert-butyl ether	"	"	"		4.00	**275**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*65.0-135*		*106*	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	*65.0-135*		*97.0*	"	

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Conor Pacific / EFW	Project:	B&C Gas Mini Mart	Sampled: 6/8/99
2650 East Bayshore Rd.	Project Number:	BNC103	Received: 6/9/99
Palo Alto, CA 94303	Project Manager:	Kris Johnson	Reported: 6/21/99

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9060528	**Date Prepared: 6/17/99**					**Extraction Method: EPA 5030 waters**				
Blank	**9060528-BLK1**									
Gasoline	6/17/99			**ND**	ug/l	**50.0**				
Benzene	"			**ND**	"	**0.500**				
Toluene	"			**ND**	"	**0.500**				
Ethylbenzene	"			**ND**	"	**0.500**				
Xylenes (total)	"			**ND**	"	**0.500**				
Methyl tert-butyl ether	"			**ND**	"	**2.00**				
Surrogate: a,a,a-Trifluorotoluene	"	*300*		*302*	"	*65.0-135*	*101*			
Surrogate: 4-Bromofluorobenzene	"	*300*		*271*	"	*65.0-135*	*90.3*			
LCS	**9060528-BS1**									
Gasoline	6/17/99	1000		847	ug/l	65.0-135	84.7			
Surrogate: 4-Bromofluorobenzene	"	*300*		*255*	"	*65.0-135*	*85.0*			
Matrix Spike	**9060528-MS1**		**P906417-01**							
Gasoline	6/17/99	1000	54.1	870	ug/l	65.0-135	**81.6**			
Surrogate: 4-Bromofluorobenzene	"	*300*		*263*	"	*65.0-135*	*87.7*			
Matrix Spike Dup	**9060528-MSD1**		**P906417-01**							
Gasoline	6/17/99	1000	54.1	872	ug/l	65.0-135	**81.8**	20.0	**0.245**	
Surrogate: 4-Bromofluorobenzene	"	*300*		*261*	"	*65.0-135*	*87.0*			

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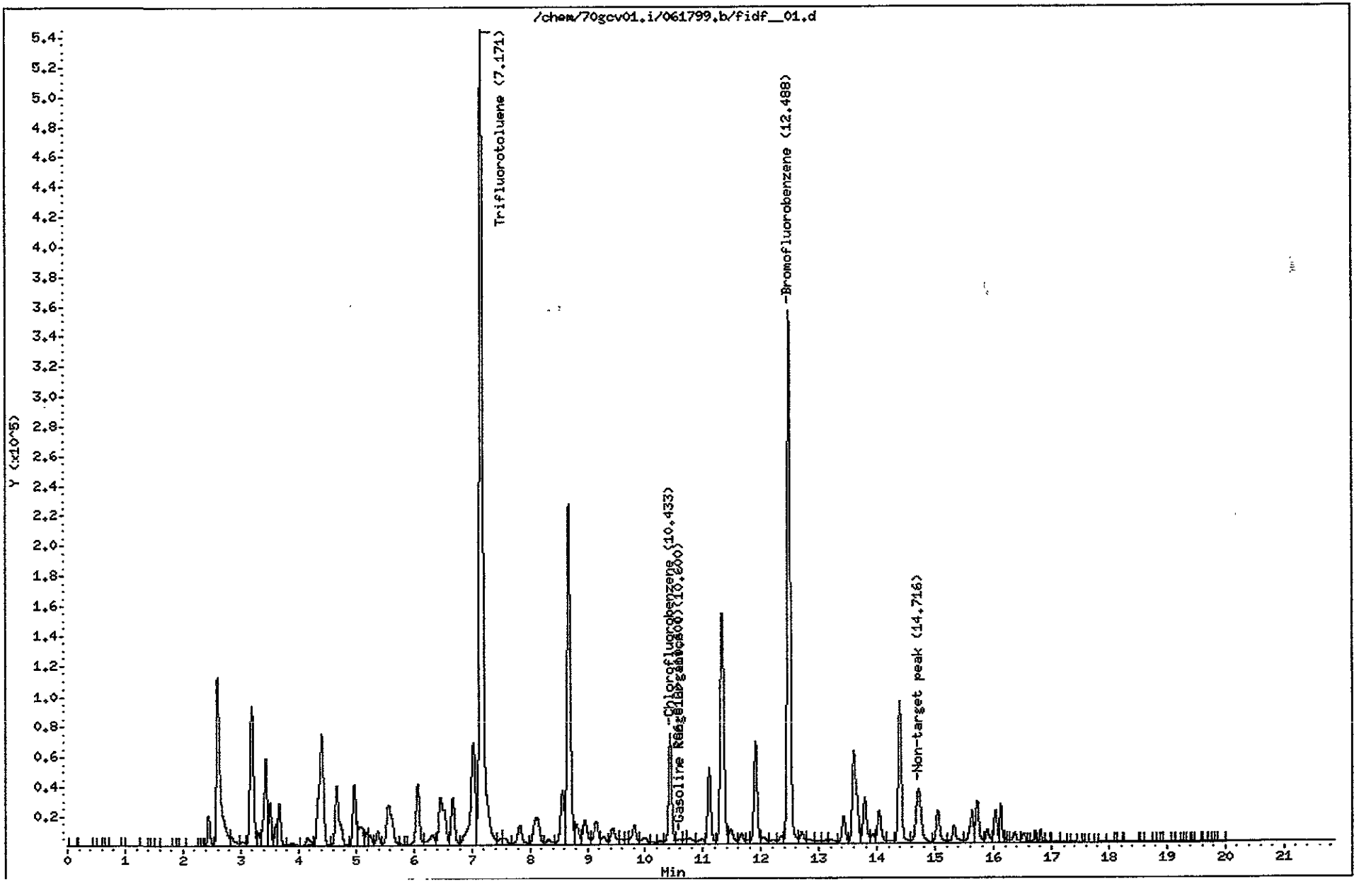
Conor Pacific / EFW	Project:	B&C Gas Mini Mart	Sampled:	6/8/99
2650 East Bayshore Rd.	Project Number:	BNC103	Received:	6/9/99
Palo Alto, CA 94303	Project Manager:	Kris Johnson	Reported:	6/21/99

Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

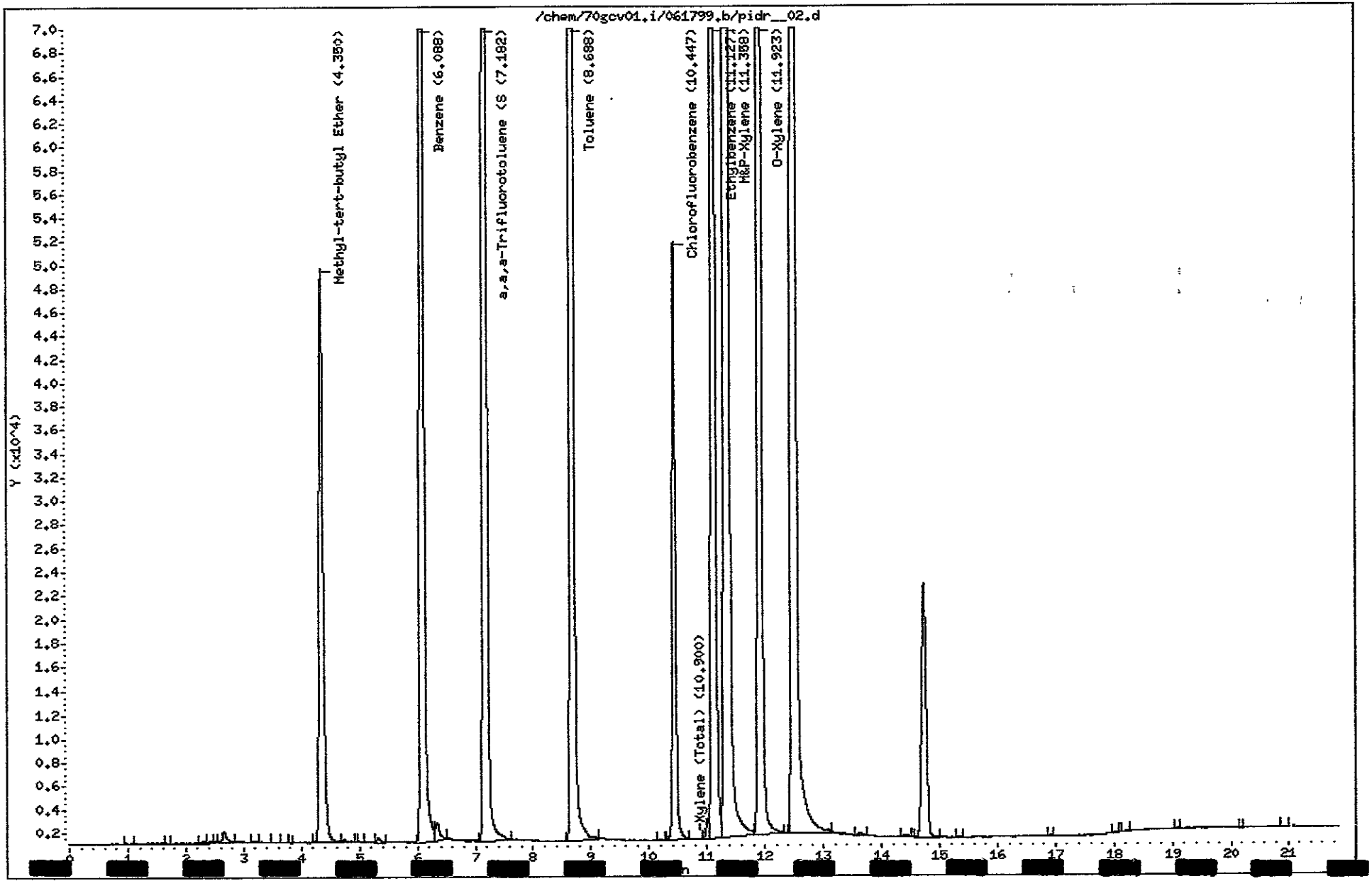
Data File: /chem/70gcv01.i/061799.b/fidf__01.d
Date : 17-JUN-1999 08:59
Client ID: VSTD1000
Lab Sample ID: VSTD1000F
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



Data File: /chem/70gcv01.i/061799.b/pidr__02.d
Date : 17-JUN-1999 09:27
Client ID: VSTD100
Lab Sample ID: VSTD100K
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



Data File: /chem/70gcv01.i/061799.b/pidr__03.d

Date : 17-JUN-1999 09:55

Client ID:

Lab Sample ID: 9060XXX-BLK1

Purge Volume: 5.0

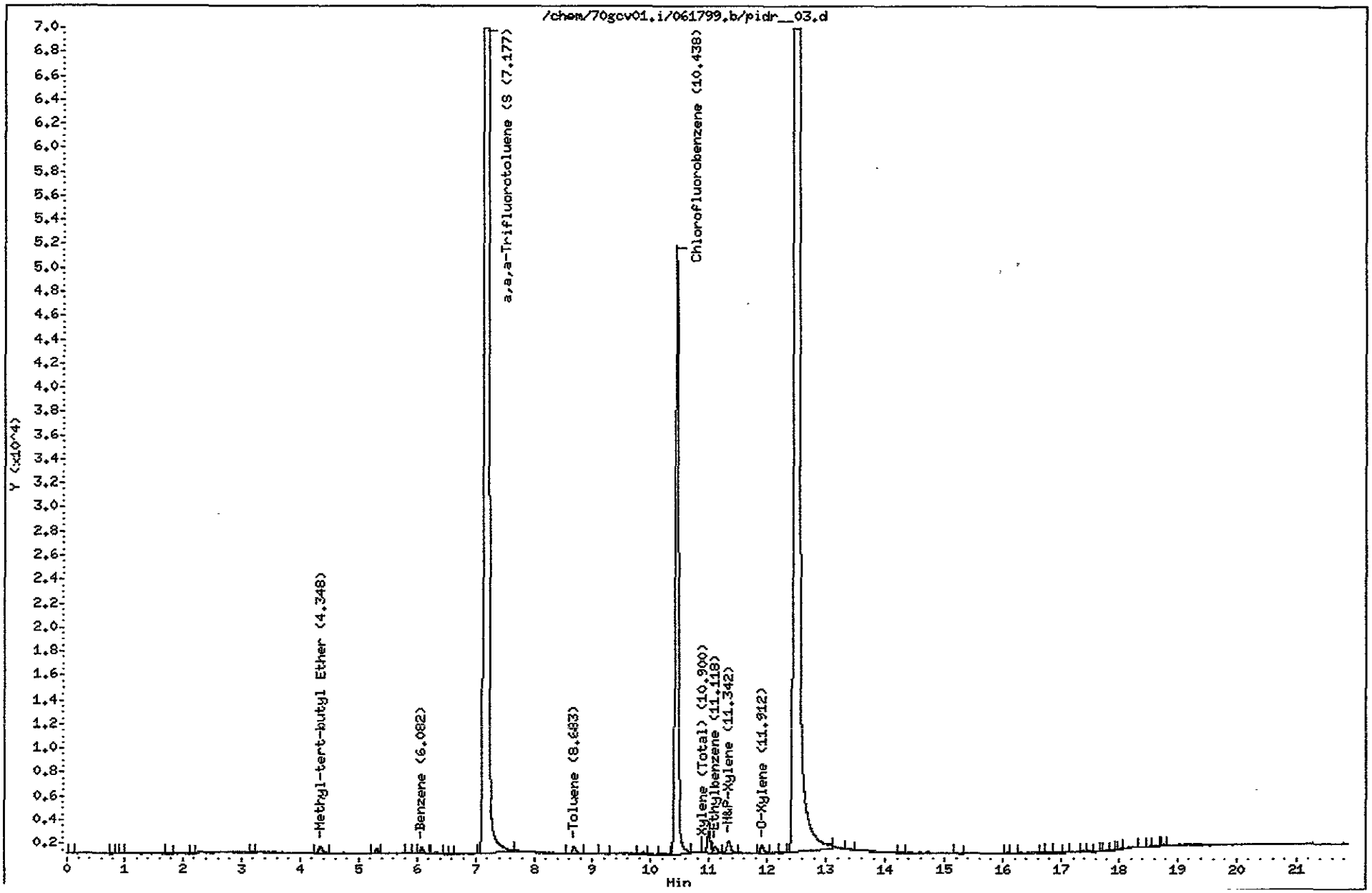
Column phase: HP-1

Instrument: 70gcv01.i

Client SDG: 061799

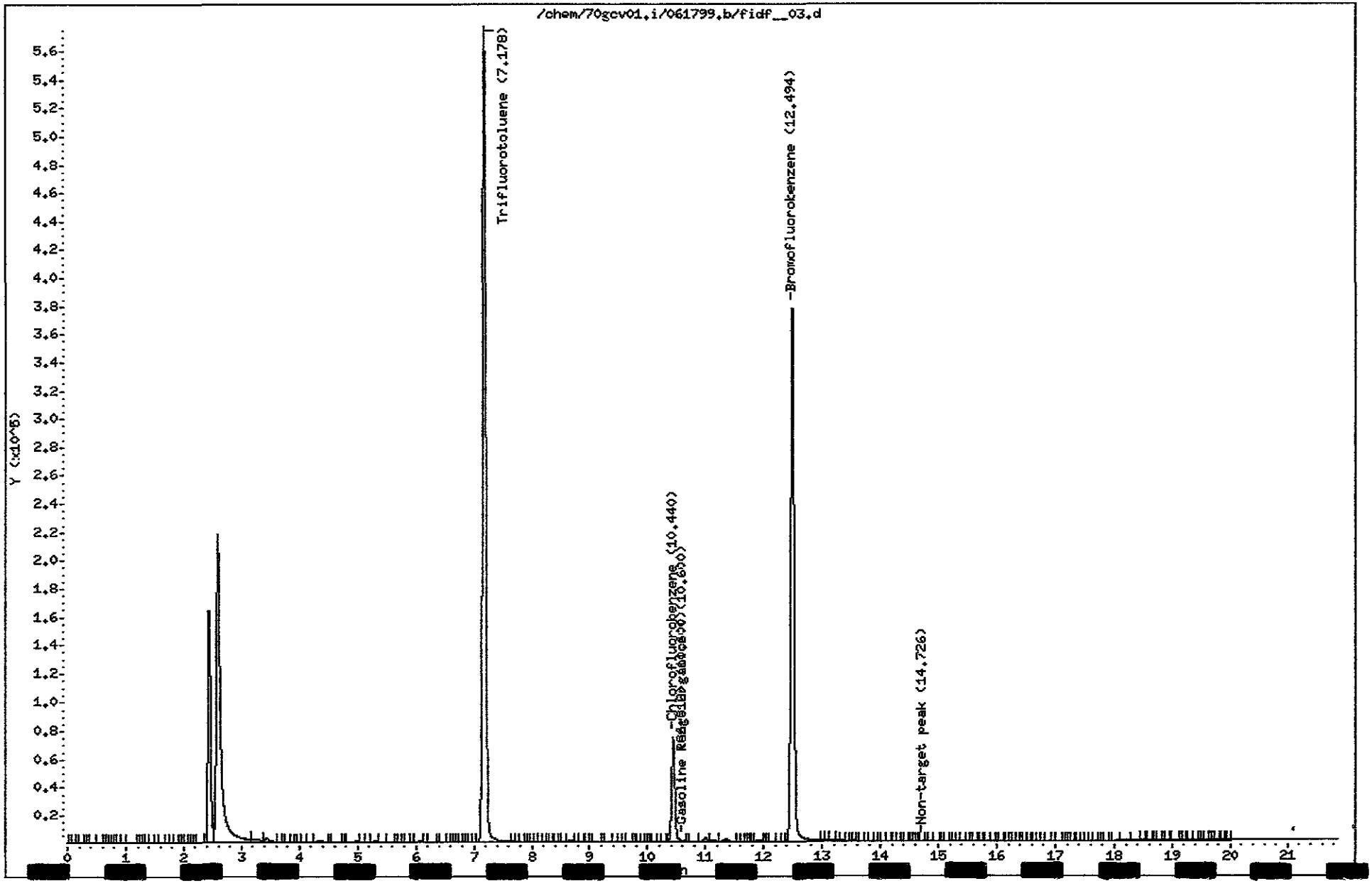
Operator: WPT/GBR

Column diameter: 0.53



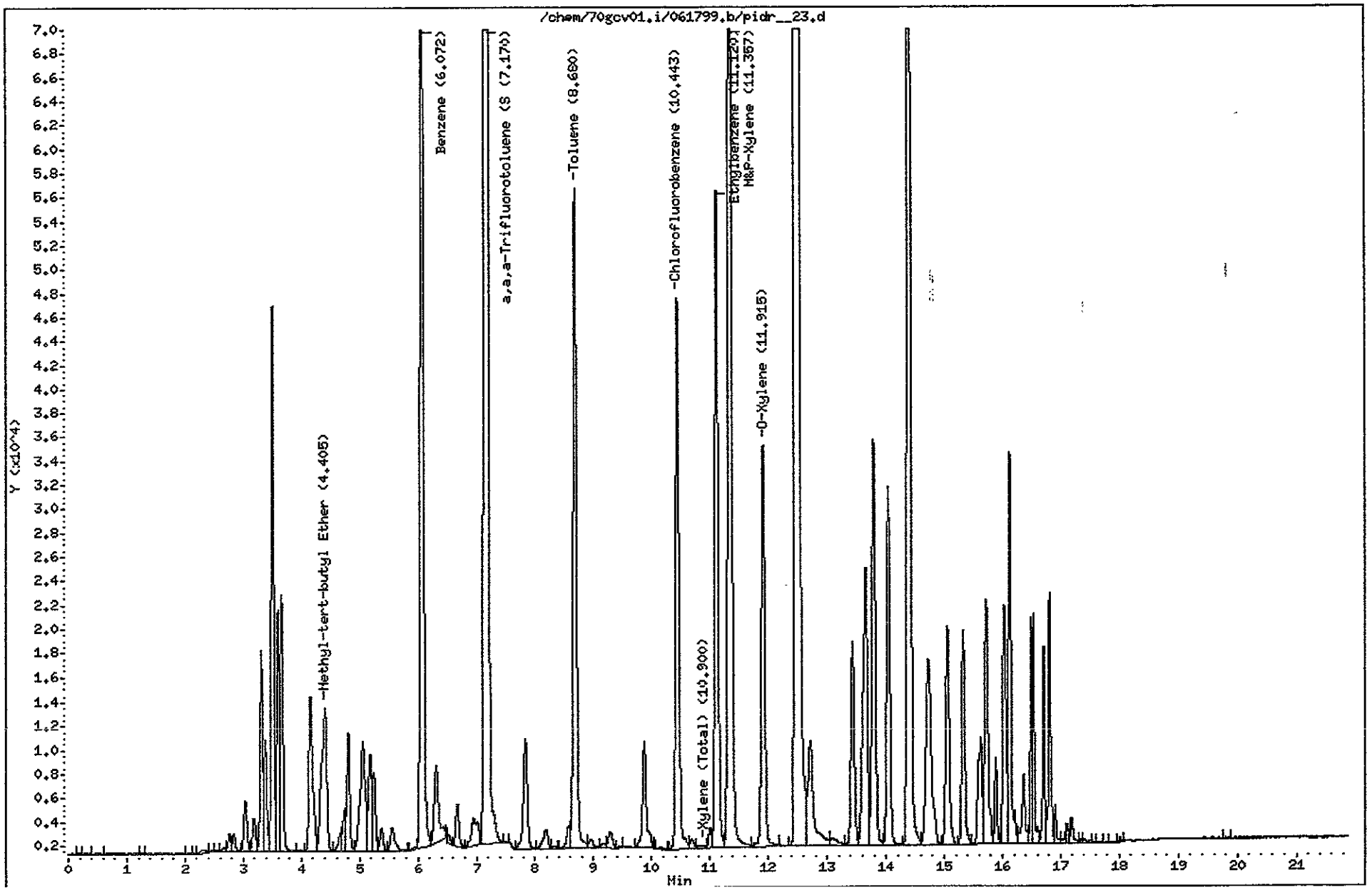
Data File: /chem/70gcv01.i/061799.b/fidf__03.d
Date : 17-JUN-1999 09:55
Client ID:
Lab Sample ID: 9060XXX-BLK1
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



Data File: /chem/70gcv01.i/061799.b/pidr__23.d
Date : 17-JUN-1999 20:00
Client ID:
Lab Sample ID: P906432-01
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



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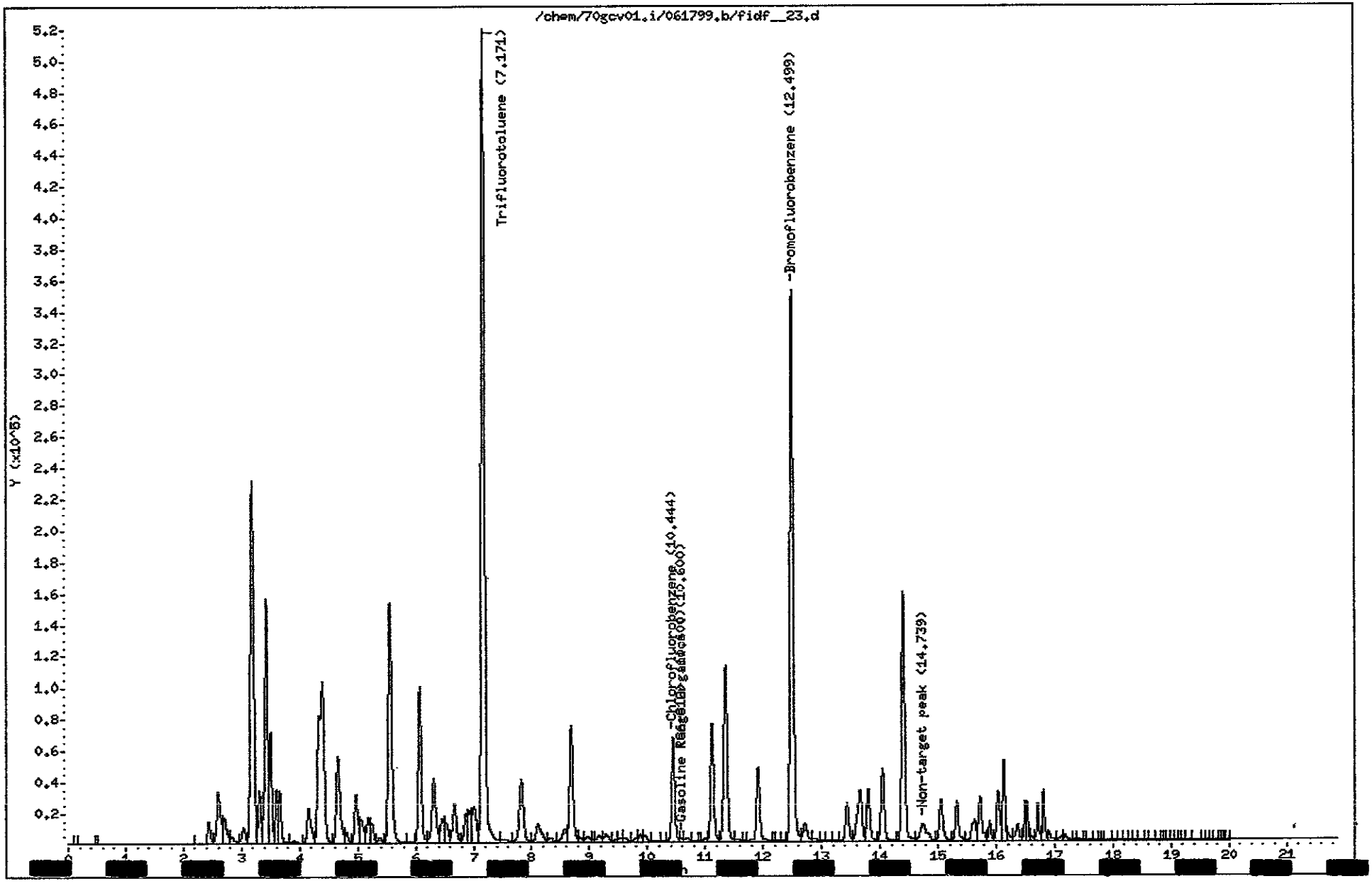
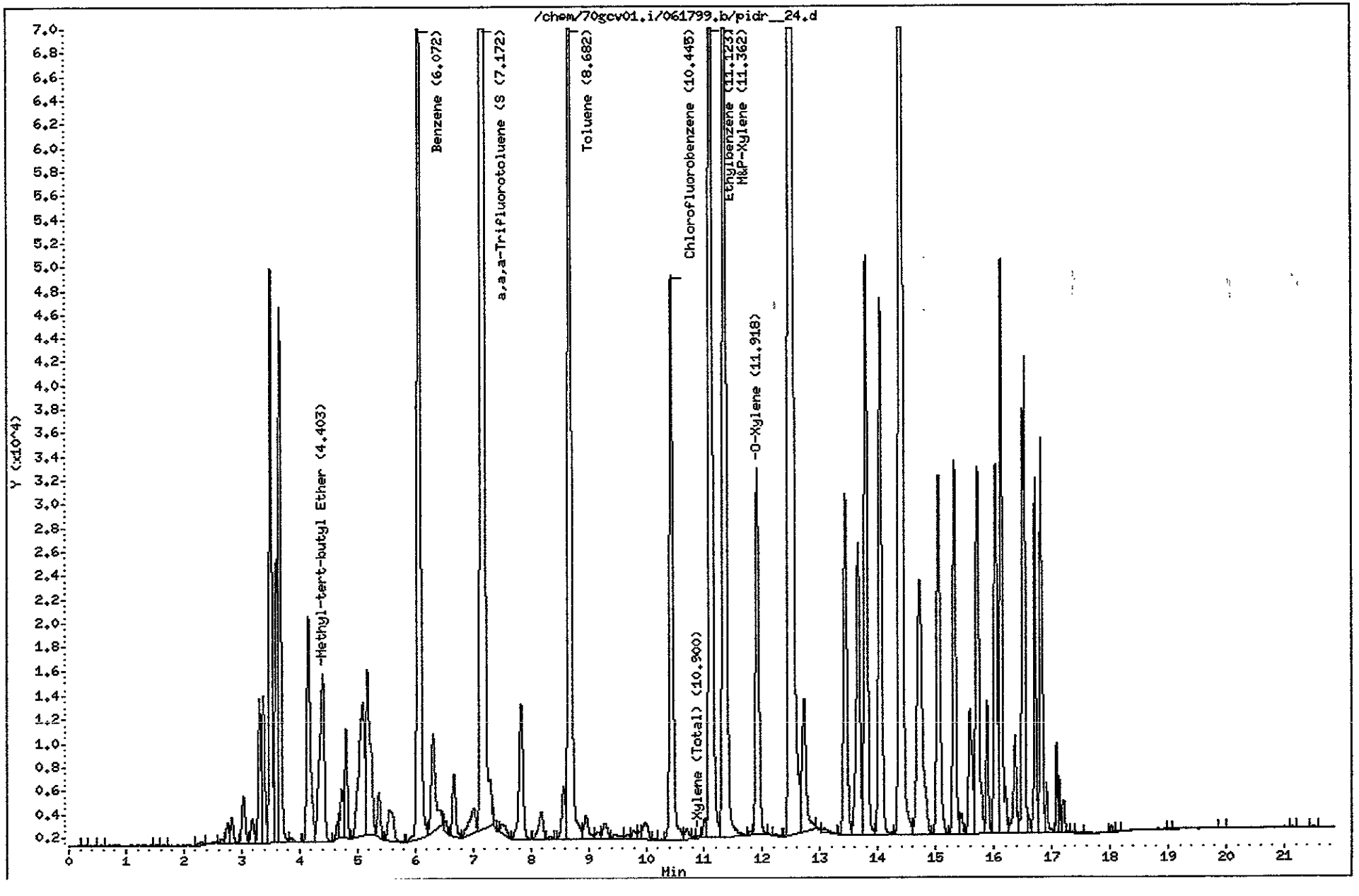
Date : 17-JUN-1999 20:00
Client ID:
Lab Sample ID: P906432-01
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



Data File: /chem/70gcv01.i/061799.b/pidr__24.d
Date : 17-JUN-1999 20:28
Client ID:
Lab Sample ID: P906432-02
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



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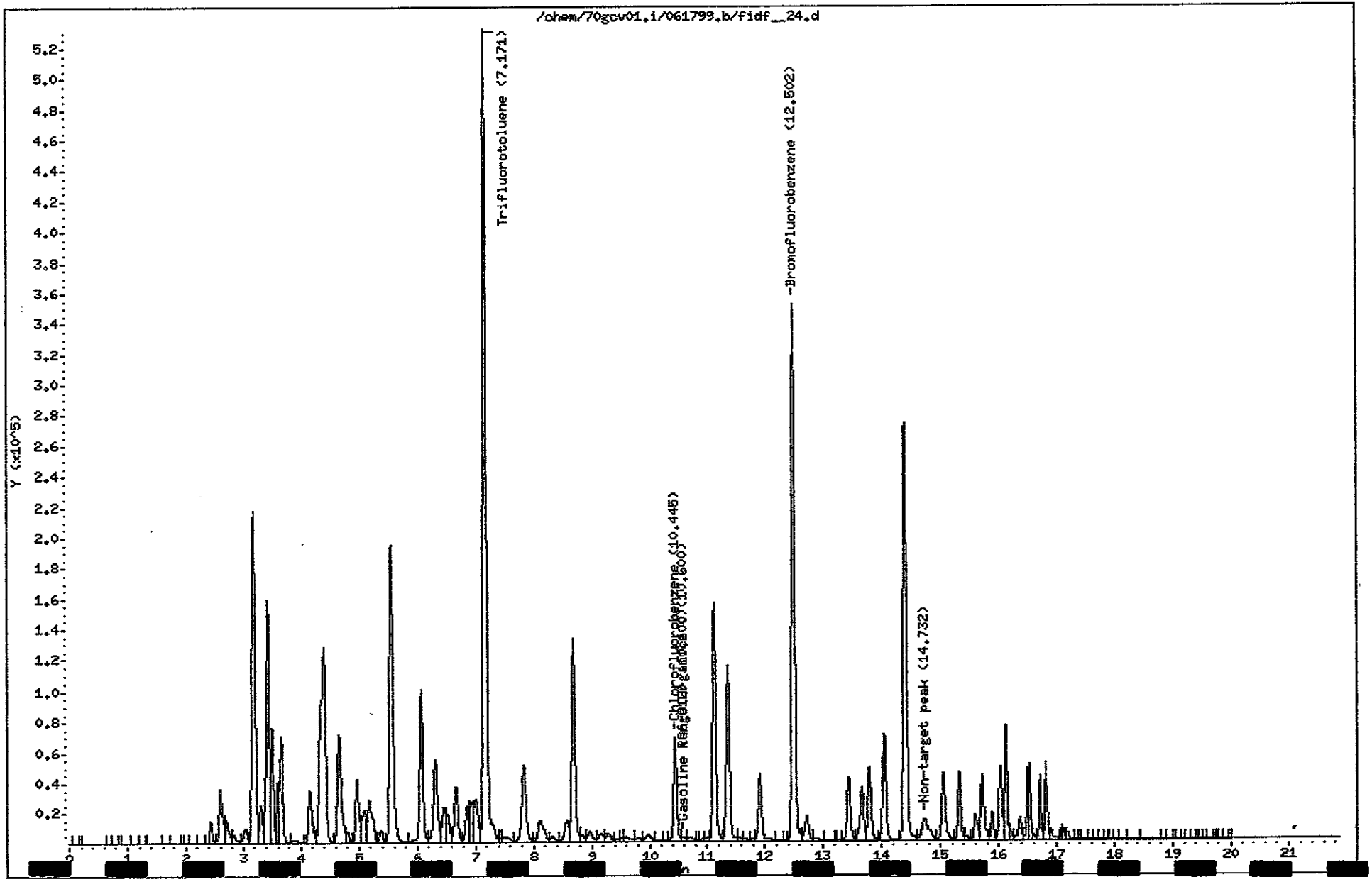
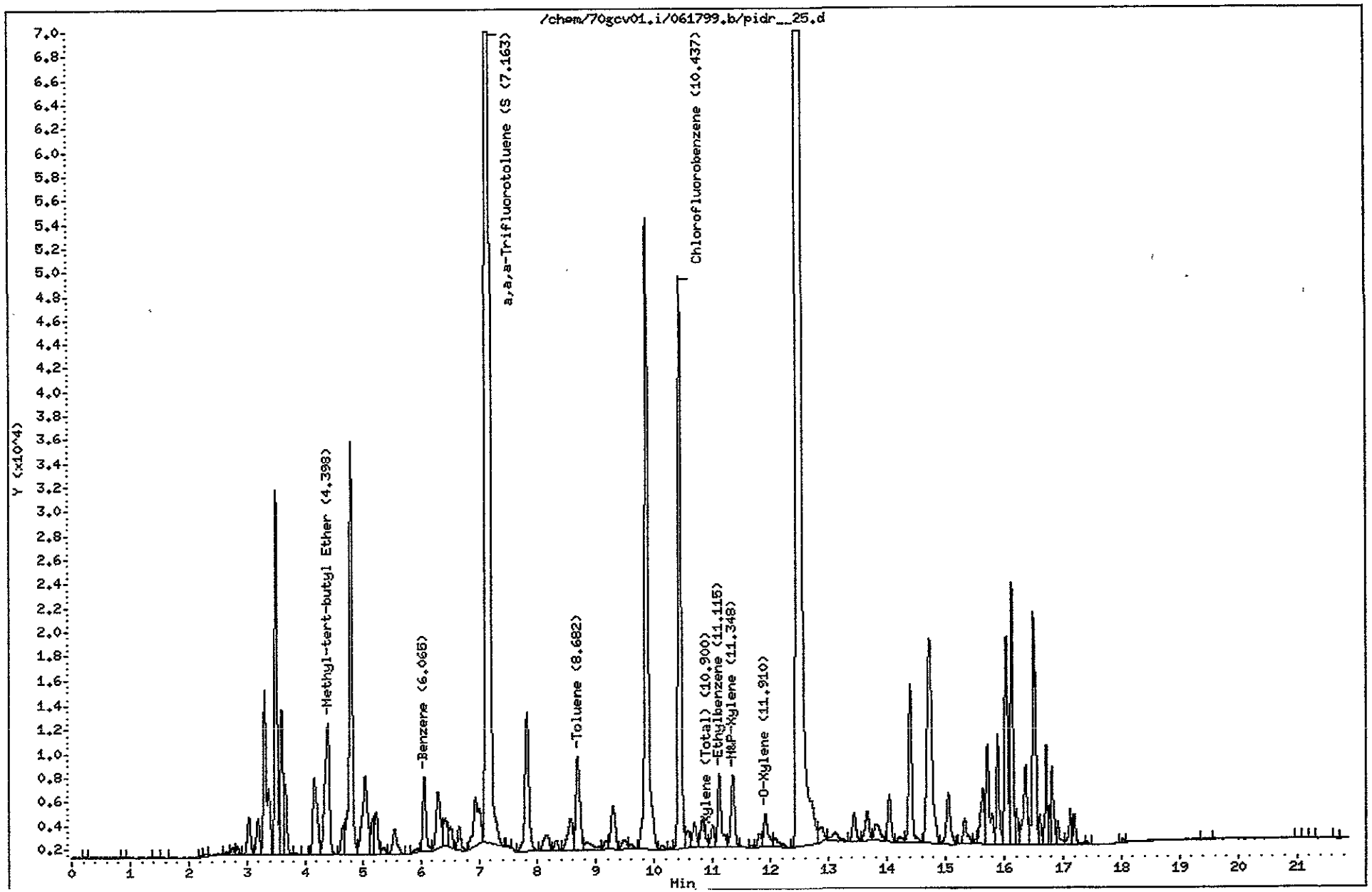
Date : 17-JUN-1999 20:28
Client ID:
Lab Sample ID: P906432-02
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



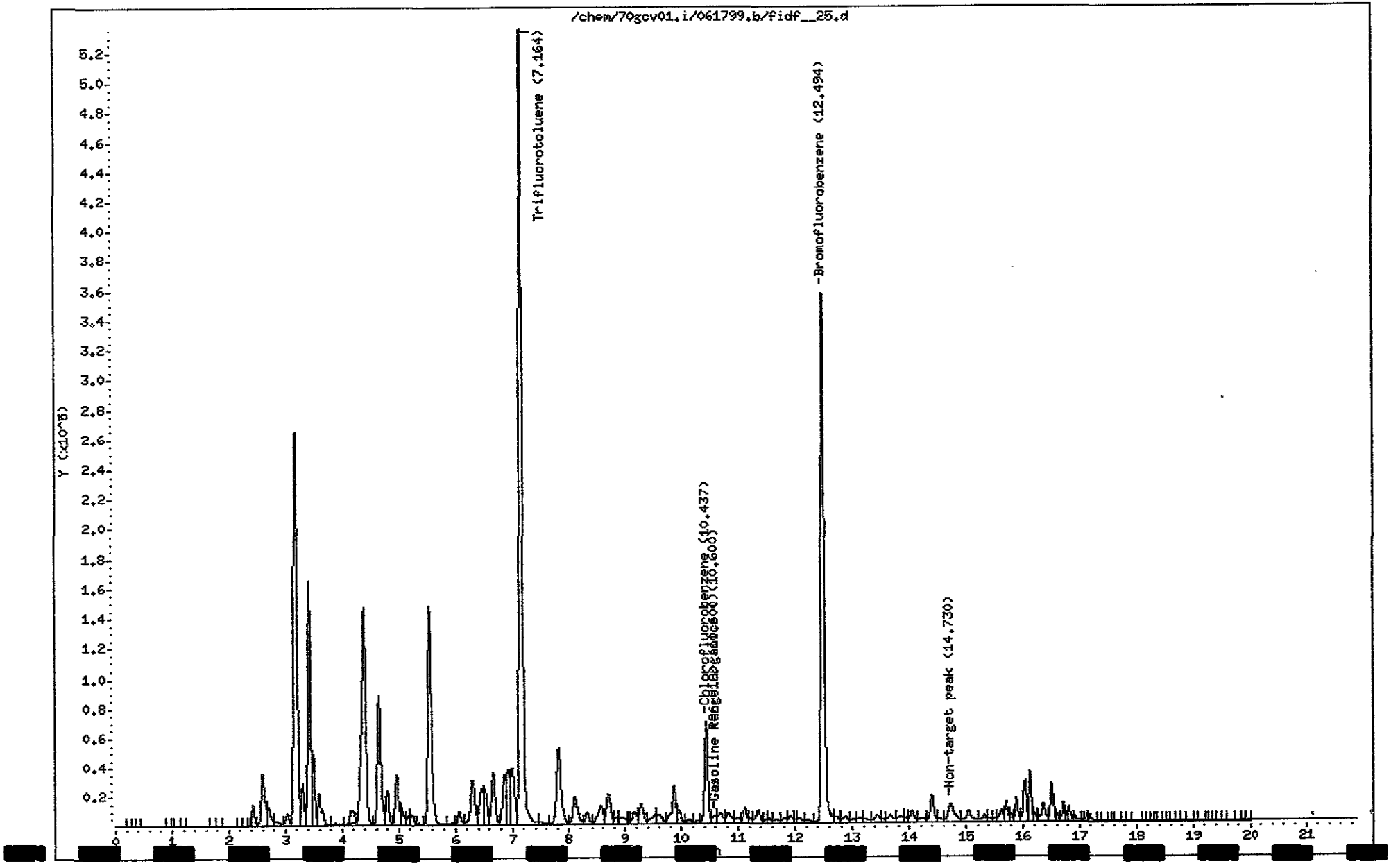
Data File: /chem/70gcv01.i/061799.b/pidr__25.d
Date : 17-JUN-1999 20:56
Client ID:
Lab Sample ID: P906432-03
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



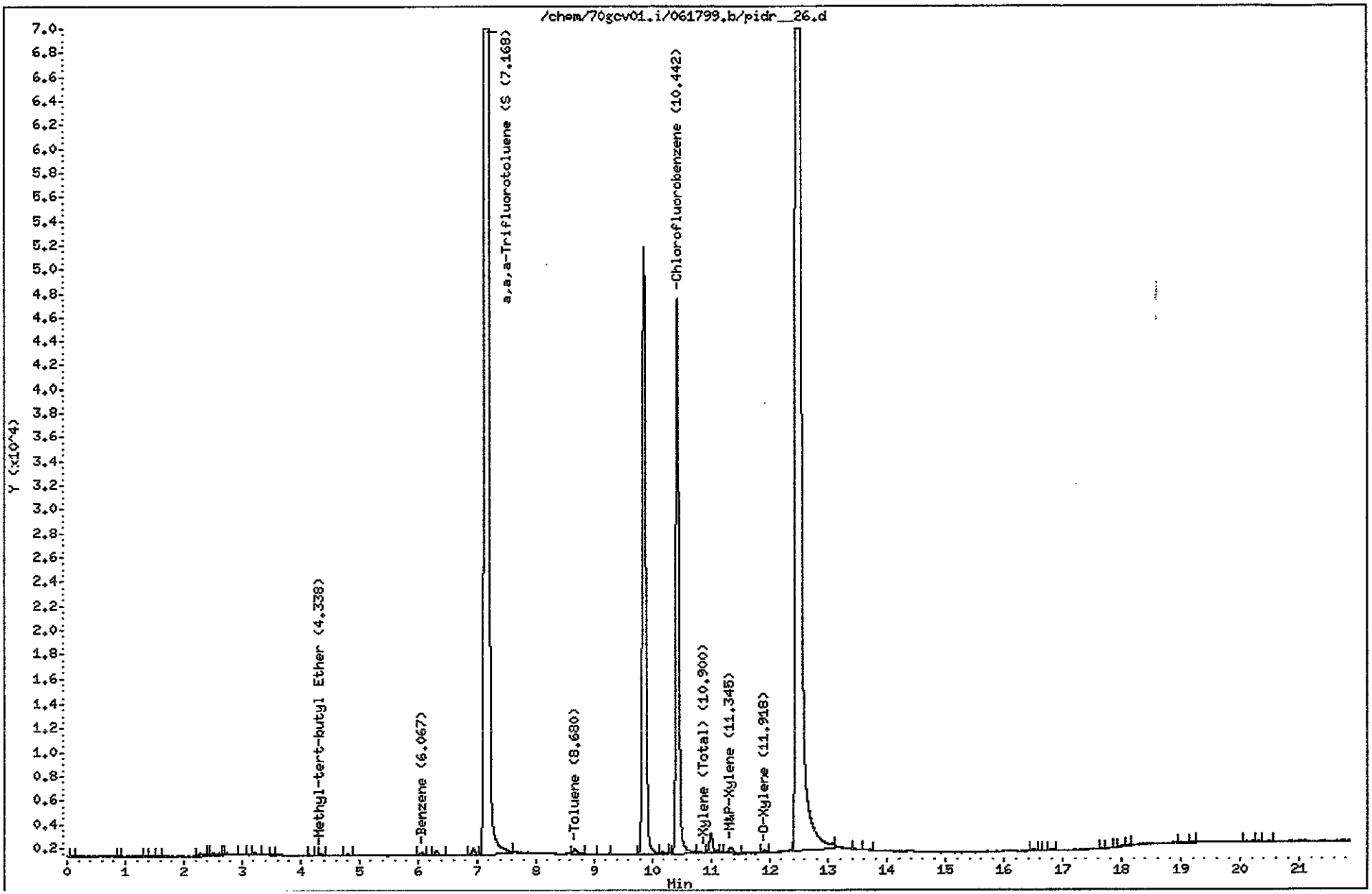
Data File: /chem/70gcv01.i/061799.b/fidf__25.d
Date : 17-JUN-1999 20:56
Client ID:
Lab Sample ID: P906432-03
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



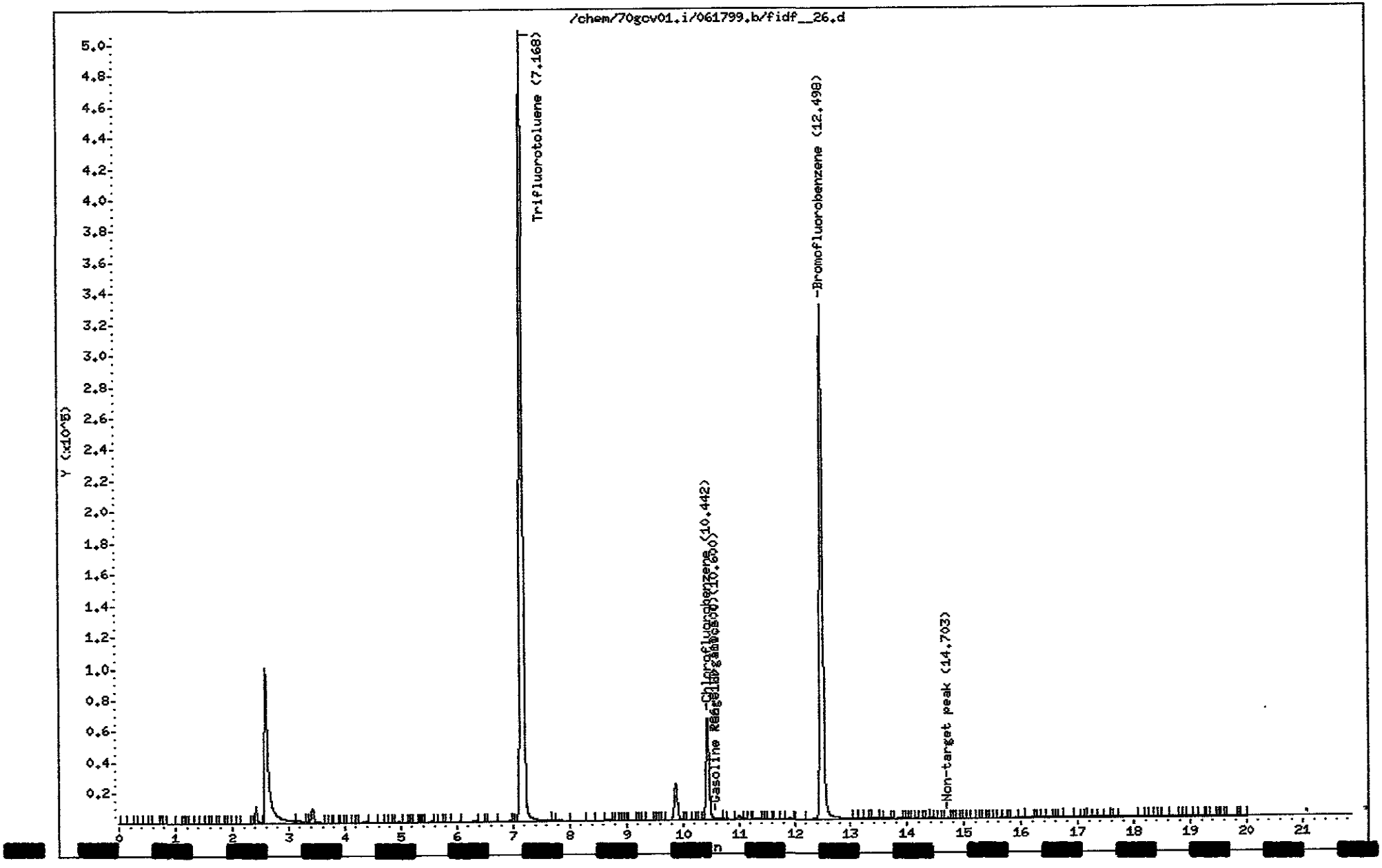
Data File: /chem/70gcv01.i/061799.b/pidr__26.d
Date : 17-JUN-1999 21:24
Client ID:
Lab Sample ID: P906432-04
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



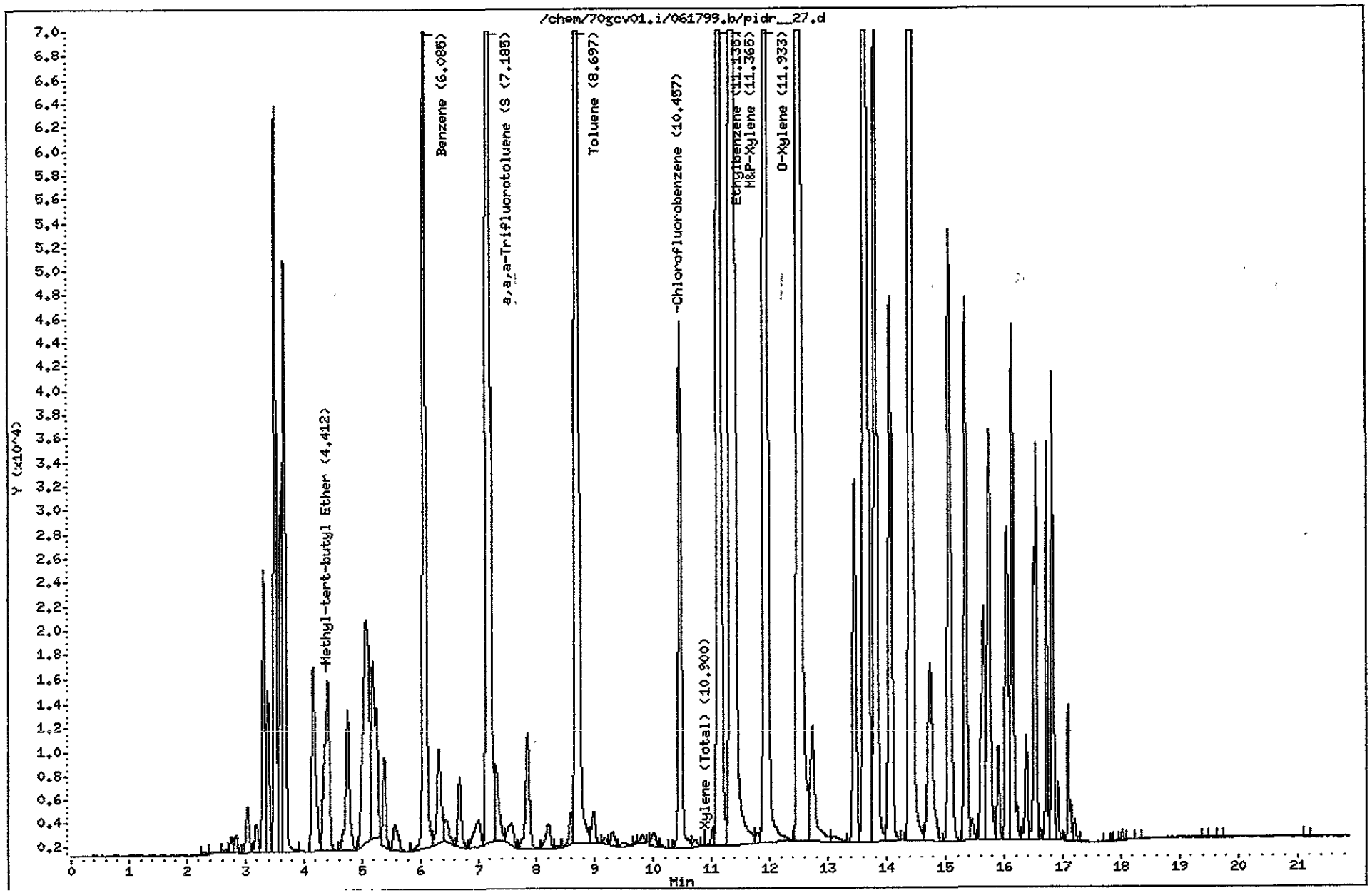
Data File: /chem/70gcv01.i/061799.b/fidf__26.d
Date : 17-JUN-1999 21:24
Client ID:
Lab Sample ID: P906432-04
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



Data File: /chem/70gcv01.i/061799.b/pidr__27.d
Date : 17-JUN-1999 21:52
Client ID:
Lab Sample ID: P906432-05
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/CBR
Column diameter: 0.53



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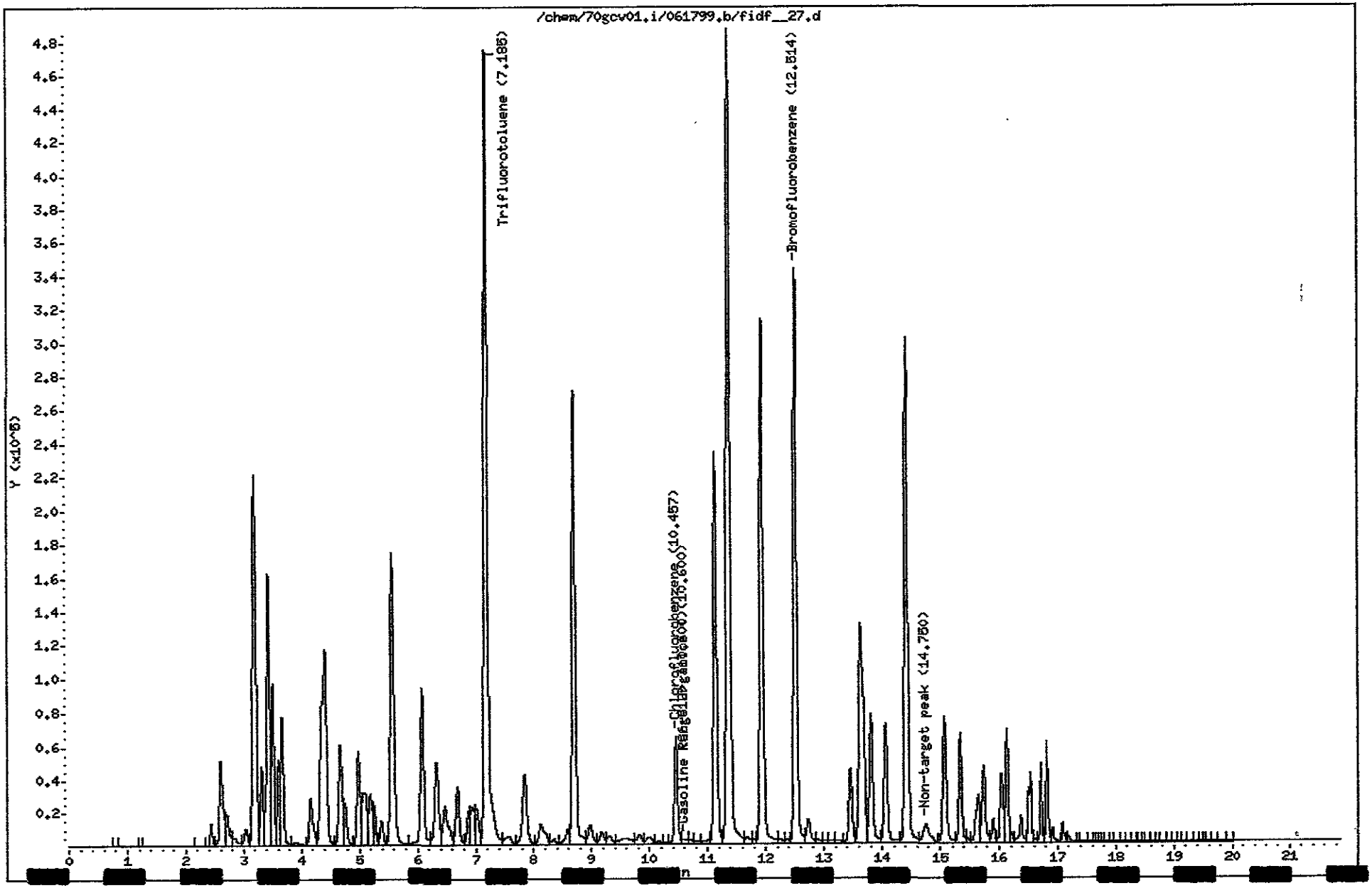
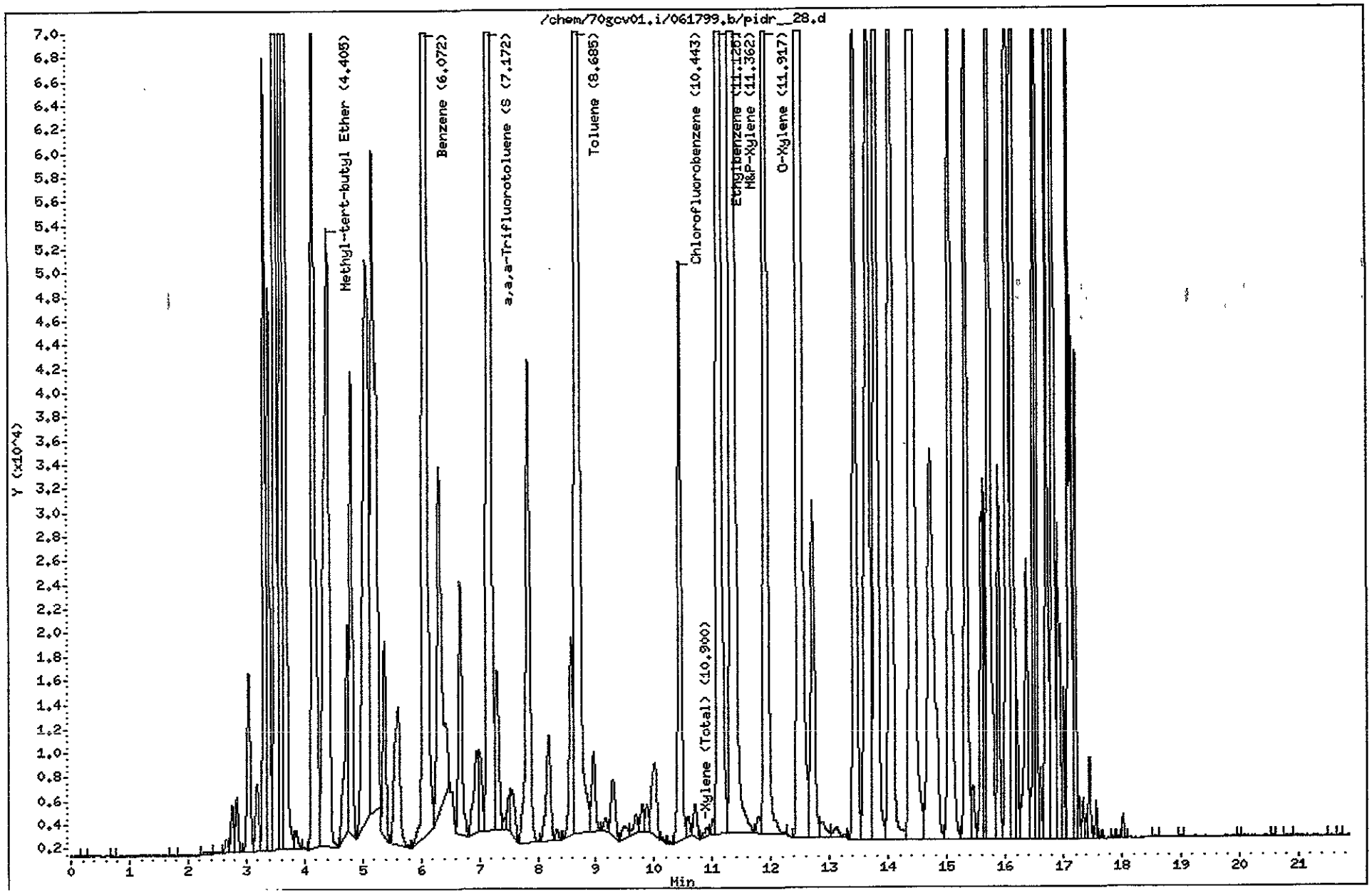
Client ID:
Lab Sample ID: P906432-05
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



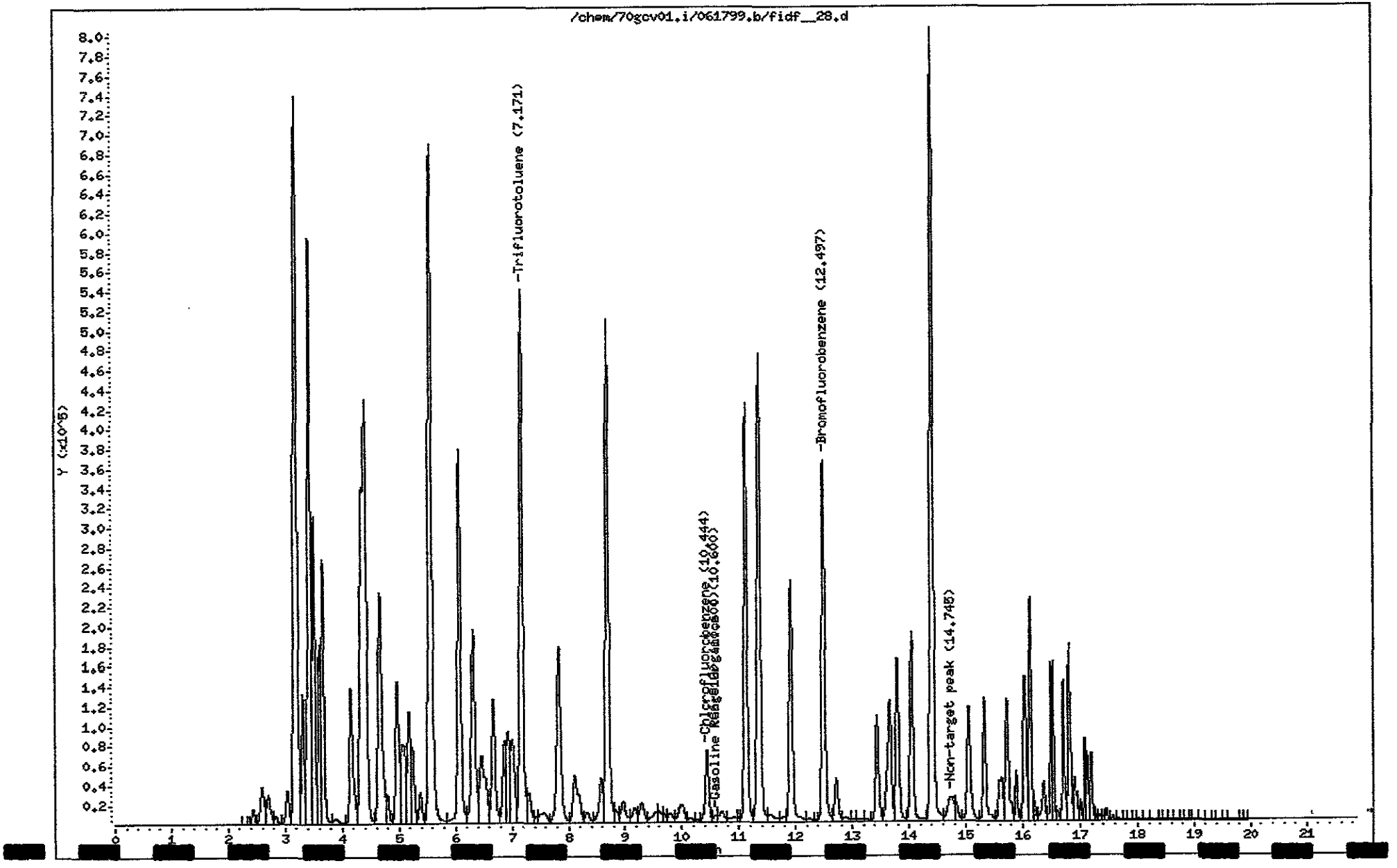
Data File: /chem/70gcv01.i/061799.b/pidr__28.d
Date : 17-JUN-1999 22:20
Client ID:
Lab Sample ID: P906432-06
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



Data File: /chem/70gcv01.i/061799.b/fidf__28.d
Date : 17-JUN-1999 22:20
Client ID:
Lab Sample ID: P906432-06
Purge Volume: 5.0
Column phase: HP-1

Instrument: 70gcv01.i
Client SDG: 061799
Operator: WPT/GBR
Column diameter: 0.53



EINARSON FOWLER & WATSON

CHAIN OF CUSTODY

PO # .

CONTRACT LABORATORY: Sequoia-Petaluma TURN-AROUND TIME: Standard

Project No.	Site Name
BNC 103	B&C Gas Mini Mart

Sampler(s): (printed) Ryan (signature) [signature]

Analyses: TPH-gas, BTEX, MTBE

Please provide chromatograms with results.

P906432

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Type/Volume	Qnty	Filt	Prsrv.	TPH-gas, BTEX, MTBE	Remarks
						→ VOA 40					#C87 6-17-99
						→ HCl					-2
MW-1		6/8/99	1306	water	/		3	N		3	-1
MW-2		↓	1414	↓			3	↓		3	-2
MW-3			1214				3			3	-3
MW-4			1136				3			3	-4
MW-5			1541				3			3	-5
MW-6			1340				3			3	-6
MSMW01		no sample					/			/	

Relinquished by: (signature)	Received by: (signature)	Date/Time:
[signature]	K. Cee	6/9/99 1335
[signature]	[signature]	6-9. 1408 1600
	[signature]	6/9/99 1600

Send Results To:
Attn: Kris Johnson
EINARSON, FOWLER & WATSON
2650 East Bayshore Road
Palo Alto, CA 94303
Phone (650) 843-3828
Fax (650) 843-3815