AGI
TECHNOLOGIES

August 12, 1996

15,833.004

Mr. Jeffrey Lawson
Harbert Transportation
c/o Reed, Elliott, Creech & Roth
99 Almaden Boulevard, Eighth Floor
San Jose, California 95113

Dear Mr. Lawson:

Geoprobe Sampling
Off-Site Petroleum Hydrocarbon Assessment
19884 Meekland Avenue
Hayward, California

This letter presents the results of AGI Technologies' (AGI) June 1996 off-site assessment of petroleum hydrocarbons in groundwater for the former Harbert Transportation site near Hayward, California. **Figure 1** shows the site location. The purpose of this investigation was to further delineate the location and extent of petroleum hydrocarbons in groundwater associated with the referenced site. This investigation was conducted in general accordance with our Work Plan dated November 9, 1995, which was approved by the Alameda County Health Care Services Agency (ACHCSA).

BACKGROUND

The site was owned by Mr. Jerry Harbert and is currently unoccupied. During the 1940s and 1950s, the site was operated as a family-owned service station. Harbert Transportation purchased the site and operated it as a vehicle fueling and maintenance facility. In August 1989, three gasoline underground storage tanks (USTs)--4,000 to 6,000-gallons in size--and one 500-gallon heating oil UST were removed from the site.

Analysis of groundwater samples collected from monitoring wells installed on and off site indicate the presence of: total petroleum hydrocarbons quantified as gasoline and diesel (TPH-G, TPH-D); benzene, ethylbenzene, toluene, and xylenes (BETX); and occasional low concentrations of halogenated volatile organic compounds (VOCs). Existing monitoring wells have not fully delineated the downgradient extent of the hydrocarbon contamination.

PURPOSE AND SCOPE OF SERVICES

The purpose of this investigation was to determine the extent of off-site hydrocarbon contamination in groundwater and to obtain additional information for use in developing a remediation plan for the site. AGI's scope of services included the following:

- Conducting a utility survey around potential test hole locations.
- Obtaining access for test holes on private and county-owned property.
- Collecting groundwater samples at 10 locations using a drive-point (Geoprobe) sampling system.
- Analyzing groundwater samples for TPH-G and TPH-D, BETX, and methyl tert-butyl ether (MtBE).
- Preparing this letter documenting our findings and conclusions, and presenting recommendations.

SITE DESCRIPTION

The site is located at the northeast corner of Meekland Avenue and Blossom Way in an unincorporated area of Alameda County, near the City of Hayward (**Figure 1**). The site is currently undeveloped and fenced. Concrete and asphalt pavement remaining from the former gas station covers much of the site, except at the UST excavation areas.

Land use in the site vicinity is residential and commercial. Single-family homes border the site to the east and north. Businesses occupy the other three corners of the Meekland/Blossom intersection and include a small shopping center (south), auto repair shop (southwest), and liquor store (west). Northwest of the site, across Meekland Avenue, are an apartment complex and single-family homes. **Figure 2** shows site and vicinity features north of Blossom Way.

SUBSURFACE

The site is underlain by fine-grained alluvial fan and flood plain deposits derived from the Diablo Range located approximately 2 miles to the east. Native deposits consist of silty clay to clayey silt with thin (3- to 4-inch) lenses of silty sand and gravel. The clay and silt deposits are reportedly greater than 45 feet thick (CTTS, Inc.: Site Assessment Report, October 1992).

Groundwater appears to occur under semiconfined conditions. The piezometric water level surface varies seasonally; a 10-foot variation ranging from approximately 18 to 28 feet below ground surface (bgs) has been observed. The groundwater flow direction is generally toward the northwest, although a westerly flow has also been observed.

FIELD INVESTIGATION

Pre-Sampling Activities

Prior to sampling activities, AGI conducted a field survey to identify property owners where potential test holes were to be located and to locate subsurface utilities. Following this initial survey, AGI contacted the property owners to request access onto their properties for sampling purposes. AGI received permission from four property owners. Access was denied by the owners of the apartment complexes at 19865 and 19875 Meekland Avenue, and we received no response from the apartment owner at 19738 Meekland Avenue. The homeowner at 19870 Meekland Avenue has temporarily denied access onto her property. Because of these denials, some of the proposed sample locations outlined in the work plan were moved or deleted. The final sampling locations, along with existing monitoring well locations, are shown on **Figure 2.**

Field Methods

On June 17 and 18, 1996, AGI collected groundwater samples from off-site locations utilizing a Geoprobe Model 5400 rig. The Geoprobe is a hydraulically-powered percussion/direct push machine that drives the tool string directly through the ground (as opposed to drilling, which removes soil to make a path for the tool). After Geoprobe rods were driven to the desired depth, a 3/4-inch diameter PVC casing was inserted through the center of the rods and the rods then removed, leaving the casing in the hole. The bottom 10 to 15 feet of PVC casing was screened to allow groundwater to enter the casing. Groundwater samples were collected from the cased and screened probe hole using a stainless steel bailer attached to a nylon line.

Prior to driving the Geoprobes, AGI measured water levels in on- and off-site wells to establish probe depths. Depths to groundwater ranged from approximately 21 to 22.5 feet bgs. During the first sampling day the Geoprobe was extended between 23 and 31 feet bgs. However, it became evident that groundwater was occurring under partly confined conditions, as few of the test holes yielded water freely, and two of the seven test holes produced no water. Additional rods were utilized the second day and the remaining test holes were extended to between 36 and 39 feet bgs. Two of the first day's holes were also redriven. The stabilized water surface at these probe locations was about 21.5 feet bgs.

During sampling, groundwater was monitored for the presence of VOCs using an organic vapor meter equipped with a photoionization detector (OVM-PID). A portion of the water sample was placed in a 4-ounce jar with a lid, shaken, and the OVM-PID probe inserted between the lid and the jar lip. The concentration of organic vapors in the airspace (headspace) above the groundwater sample was measured and recorded in parts per million (ppm). Only one sample, GP2, had a measurable headspace, which was 16 ppm.

The nylon line was discarded after sampling was completed at each test hole location. The bailer was decontaminated between samples by scrubbing with a solution of Alconox soap and tap water, then rinsing successively with tap water, diluted nitric acid, and deionized water. The probe rods were also cleaned between holes using Alconox soap and tap water.

Each test hole was abandoned by removing and discarding the PVC casing, then filling the hole with bentonite chips. The bentonite was hydrated with potable water during placement in the hole. The top 6 inches of the test holes at paved locations were finished with asphalt cold patch.

LABORATORY ANALYSIS AND RESULTS

Groundwater samples were submitted to Inchcape Testing Services in San Jose, California under chain-of-custody protocol. Each sample was analyzed for TPH-G by modified EPA Method 8015, and BETX and MtBE by modified EPA Method 8021. Five samples, GP5 and GP7 through GP10, were also analyzed for TPH-D by modified EPA Method 8015. There was not sufficient groundwater at the remaining test hole locations for analysis of TPH-D.

Table 1 summarizes analytical results; the laboratory reports are attached. The laboratory data were reviewed by an AGI chemist and AGI's quality assurance report is also attached. All data were found to be of known quality and acceptable for use.

TPH-G was detected in five of the ten samples, at concentrations ranging from 60 to 4,900 micrograms per liter ($\mu g/L$). BETX and/or MtBE were also detected in five samples each. TPH-D was detected in all five samples analyzed for this constituent, ranging from 130 to 760 $\mu g/L$.

DISCUSSION

Analytical results are presented on **Figure 2**, along with results from monitoring well groundwater samples collected during March 1996. The data indicate a hydrocarbon plume that extends west/northwest from the site. The inferred lateral extent is approximately 300 feet, extending from Hank's Liquors to just north of the house at 19754 Meekland Avenue. The plume length is also inferred to be approximately 300 feet, beginning at the former tank nest and extending northwest across Meekland Avenue to the apartment complex. The plume appears to end just north of the property line for the adjacent house at 19755 Meekland Avenue.

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The data show that MW10 is centrally located within the off-site contaminant plume. Groundwater samples collected from GP7 and GP2, which flanked this well to the north and south, had similar but lower TPH-G concentrations.

TPH-D was found to exceed TPH-G at the plume's edge, and was often detected when TPH-G concentrations were below the detection limit. This likely indicates degradation of the gasoline-range hydrocarbons. The presence of xylenes (0.8 μg/L) and absence of TPH-G in GP1 also suggests degradation of gasoline-range hydrocarbons. In addition, review of the chromatograms shows that while the samples contain a broad range of hydrocarbons, many of the hydrocarbon components typically present in chromatograms are absent; this supports the conclusion that some natural degradation is occurring.

CONCLUSIONS AND RECOMMENDATIONS

Based on the analytical results from the geoprobe survey, we believe that additional soil borings and groundwater monitoring wells are not necessary at this time. The extent of the off-site hydrocarbon plume appears to be adequately characterized for the purpose of developing remedial alternatives for the site. AGI has submitted a risk assessment with recommendations for cleanup levels to the ACHCSA for review and approval. Once cleanup levels have been established for the site, AGI recommends that Harbert Transportation proceed with development of a corrective action plan for the site.

We appreciate the opportunity to provide continuing consulting services on this project. Should you have any questions, please contact either of the undersigned.

Sincerely,

AGI Technologies

Pamela J. Morrill
Soil Scientist

Daniel T. Henninger
Senior Scientist

PJM/DTH/tag

cc: Mr. David Delamontte; Durham Transportation, Inc.
Ms. Modula Logan; Alameda County Health Care Services Agency
attachments

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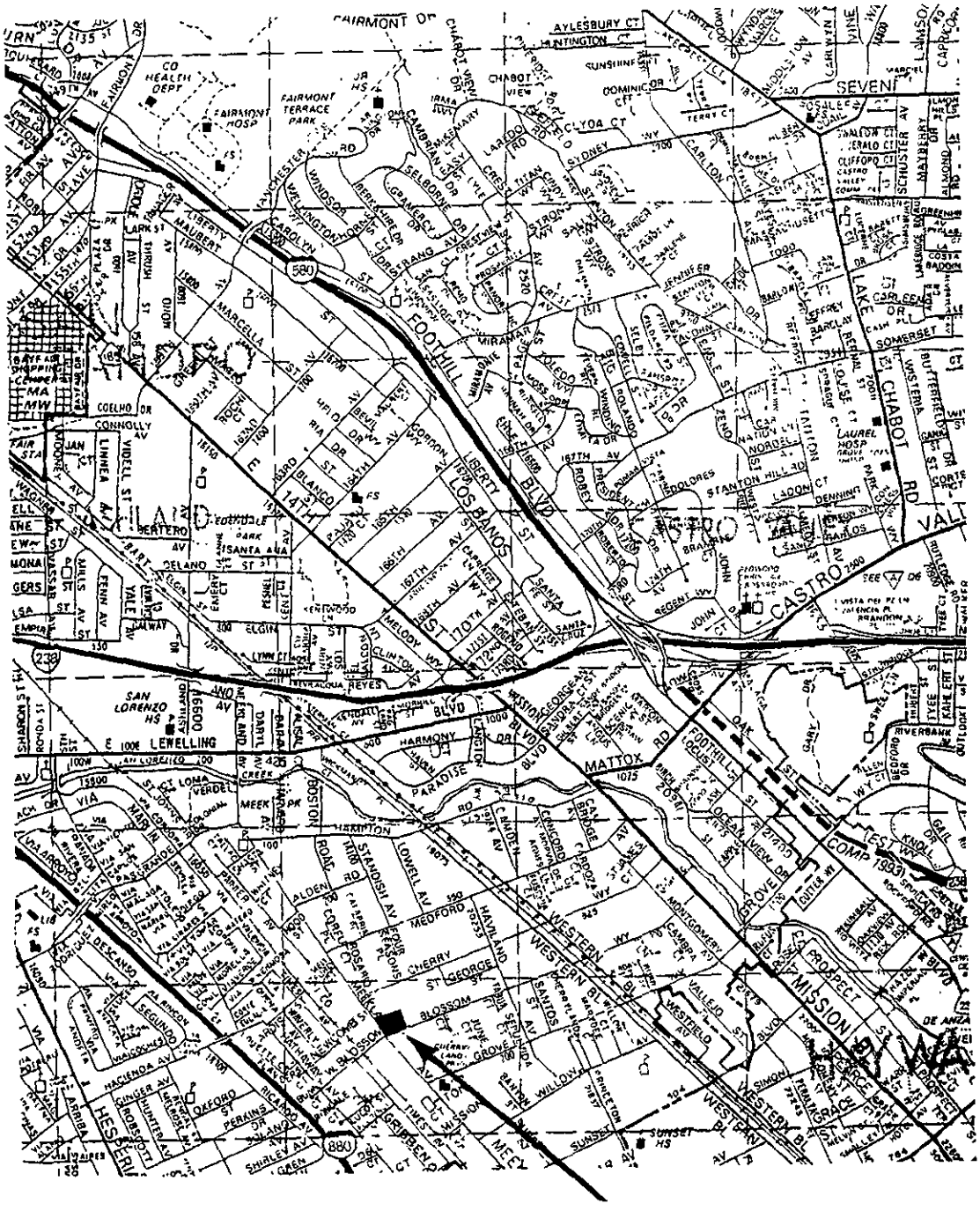
Table 1
Analytical Summary - Off-Site Groundwater
Harbert Transportation/Meekland Avenue
Hayward, California

Probe Location	EPA Test Methods						
	Modified 8015		Modified 8021				
	TPH-D	TPH-G	Benzene	Ethylbenzene	Toluene	Xylenes	MtBE
	µg/L	µg/L	µg/L				µg/L
GP1	NA	<50	<0.5	<0.5	<0.5	0.8	<5
GP2	NA	4,900	200	170	<12.5	160	<125
GP3	NA	60	<0.5	<0.5	<0.5	0.7	19
GP4	NA	<50	<0.5	<0.5	<0.5	<0.5	<5
GP5	240	<50	<0.5	<0.5	<0.5	<0.5	<5
GP6	NA	<50	<0.5	<0.5	<0.5	<0.5	<5
GP7	760	2,300	9.0	66	5.1	95	<50
GP8	130	70	<0.5	<0.5	<0.5	<0.5	<5
GP9	300	<50	<0.5	<0.5	<0.5	<0.5	<5
GP10	250	100	<1	<1	<1	<1	50

Notes:

MtBE - Methyl *tert-butyl ether.*
NA - Not analyzed; test hole produced insufficient sample volume.
TPH-D - Total petroleum hydrocarbons quantified as diesel.
TPH-G - Total petroleum hydrocarbons quantified as gasoline.
µg/L - Micrograms per liter.

FIGURES



Vicinity Map

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 1

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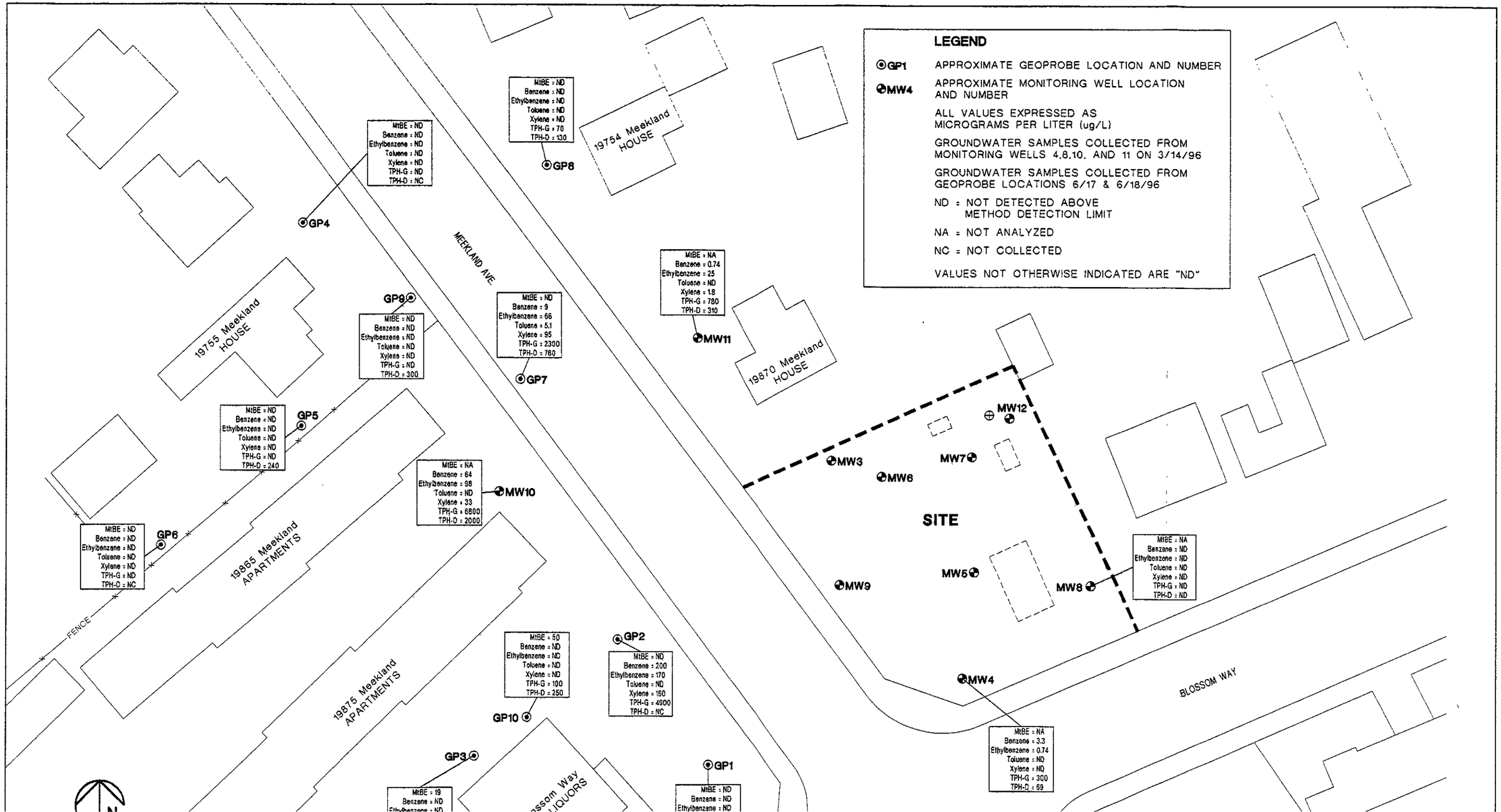
PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
15,833.004	DFF	15 Aug 94		DFF	7 Jul 95



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Geoprobe Survey - Groundwater Sampling Results

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 2

833004s1.dwg	PROJECT NO 15.833.004	DRAWN ALW	DATE 7/1/96	APPROVED	REVISED	DATE

ATTACHMENTS

Inchcape Testing Services
Environmental Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MR. DAN HENNIGER
AGI TECHNOLOGIES
P.O. BOX 3885
BELLEVUE, WA 98009

Workorder # : 9606168
Date Received : 06/18/96
Project ID : 15833.004
Purchase Order: N/A

The following samples were received at Inchcape for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9606168- 1	GP1
9606168- 2	GP2
9606168- 3	GP3
9606168- 4	GP4
9606168- 5	GP5
9606168- 6	GP6
9606168- 7	GP7
9606168- 8	GP8
9606168- 9	GP9
9606168-10	GP10

This report is organized in sections according to the specific Inchcape laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Inchcape cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Inchcape is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

Project Manager

6/27/96
Date

This report consists of 25 pages.

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

MR. DAN HENNIGER
AGI TECHNOLOGIES
P.O. BOX 3885
BELLEVUE, WA 98009

Workorder # : 9606168
Date Received : 06/18/96
Project ID : 15833.004
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

INCHCAPE SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9606168- 5	GP5	WATER	06/18/96	TPHd
9606168- 7	GP7	WATER	06/18/96	TPHd
9606168- 8	GP8	WATER	06/18/96	TPHd
9606168- 9	GP9	WATER	06/18/96	TPHd
9606168-10	GP10	WATER	06/18/96	TPHd
9606168- 1	GP1	WATER	06/17/96	TPHgBTEX
9606168- 2	GP2	WATER	06/17/96	TPHgBTEX
9606168- 3	GP3	WATER	06/18/96	TPHgBTEX
9606168- 4	GP4	WATER	06/18/96	TPHgBTEX
9606168- 5	GP5	WATER	06/18/96	TPHgBTEX
9606168- 6	GP6	WATER	06/18/96	TPHgBTEX
9606168- 7	GP7	WATER	06/18/96	TPHgBTEX
9606168- 8	GP8	WATER	06/18/96	TPHgBTEX
9606168- 9	GP9	WATER	06/18/96	TPHgBTEX
9606168-10	GP10	WATER	06/18/96	TPHgBTEX

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

MR. DAN HENNIGER
AGI TECHNOLOGIES
P.O. BOX 3885
BELLEVUE, WA 98009

Workorder # : 9606168
Date Received : 06/18/96
Project ID : 15833.004
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- The percent difference between the primary and confirmation concentrations for total xylenes in sample GP1 is outside of the internal quality control limit of 25% The lower of the two values is reported.
- The concentration reported as gasoline for sample GP8 is primarily due to the presence of a discrete peak not indicative of gasoline.
- The concentrations reported as gasoline for samples GP3 and GP10 are primarily due to the presence of discrete peaks not indicative of gasoline.
- The concentration reported as diesel for sample GP7 is due to the presence of a combination of diesel, discrete peaks not indicative of diesel fuel, and a lighter petroleum product of hydrocarbon range C6-C14 (possibly gasoline).
- The concentrations reported as diesel for samples GP5, GP8, GP9, and GP10 are due to the presence of a combination of diesel, discrete peaks not indicative of diesel fuel, and a heavier petroleum product of hydrocarbon range C18-C36 (possibly motor oil).

Department Supervisor 6/27/96 Date

Chemist 06/27/96 Date

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9606168-01	Client Project ID:	15833.004
Matrix:	WATER	Client Sample ID:	GP1
Date Sampled:	6/17/96	Instrument ID:	HP12
Date Analyzed:	6/20/96	Surrogate Recovery:	95%
Date Released:	6/25/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5.0	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	0.8
Gasoline	1	50	ND

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030.

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services approved methods.

Issued on 6/25/96 at 15:10

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9606168-02	Client Project ID:	15833.004
Matrix:	WATER	Client Sample ID:	GP2
Date Sampled:	6/17/96	Instrument ID:	HP12
Date Analyzed:	6/20/96	Surrogate Recovery:	101%
Date Released:	6/25/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	25	125	ND
Benzene	25	12.5	200
Toluene	25	12.5	ND
Ethylbenzene	25	12.5	170
Total Xylenes	25	12.5	160
Gasoline	25	1250	4900

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030.

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

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TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9606168-03	Client Project ID:	15833.004
Matrix:	WATER	Client Sample ID:	GP3
Date Sampled:	6/18/96	Instrument ID:	HP12
Date Analyzed:	6/20/96	Surrogate Recovery:	99%
Date Released:	6/25/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5.0	19
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	0.7
Gasoline	1	50	60

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030.

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TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9606168-04	Client Project ID:	15833.004
Matrix:	WATER	Client Sample ID:	GP4
Date Sampled:	6/18/96	Instrument ID:	HP12
Date Analyzed:	6/21/96	Surrogate Recovery:	97%
Date Released:	6/25/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5.0	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030.

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

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TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9606168-05	Client Project ID:	15833.004
Matrix:	WATER	Client Sample ID:	GP5
Date Sampled:	6/18/96	Instrument ID:	HP12
Date Analyzed:	6/20/96	Surrogate Recovery:	98%
Date Released:	6/25/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5.0	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030.

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

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TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9606168-06	Client Project ID:	15833.004
Matrix:	WATER	Client Sample ID:	GP6
Date Sampled:	6/18/96	Instrument ID:	HP12
Date Analyzed:	6/20/96	Surrogate Recovery:	97%
Date Released:	6/25/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5.0	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030.

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

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TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9606168-07	Client Project ID:	15833.004
Matrix:	WATER	Client Sample ID:	GP7
Date Sampled:	6/18/96	Instrument ID:	HP12
Date Analyzed:	6/20/96	Surrogate Recovery:	92%
Date Released:	6/25/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	10	50	ND
Benzene	10	5.0	9.0
Toluene	10	5.0	5.1
Ethylbenzene	10	5.0	66
Total Xylenes	10	5.0	95
Gasoline	10	500	2300

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030.

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

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INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9606168-08	Client Project ID:	15833.004
Matrix:	WATER	Client Sample ID:	GP8
Date Sampled:	6/18/96	Instrument ID:	HP12
Date Analyzed:	6/20/96	Surrogate Recovery:	97%
Date Released:	6/25/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5.0	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	70

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030.

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

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TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9606168-09	Client Project ID:	15833.004
Matrix:	WATER	Client Sample ID:	GP9
Date Sampled:	6/18/96	Instrument ID:	HP12
Date Analyzed:	6/20/96	Surrogate Recovery:	97%
Date Released:	6/25/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5.0	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030.

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services approved methods.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	9606168-10	Client Project ID:	15833.004
Matrix:	WATER	Client Sample ID:	GP10
Date Sampled:	6/18/96	Instrument ID:	HP12
Date Analyzed:	6/21/96	Surrogate Recovery:	99%
Date Released:	6/25/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	2	10	50
Benzene	2	1.0	ND
Toluene	2	1.0	ND
Ethylbenzene	2	1.0	ND
Total Xylenes	2	1.0	ND
Gasoline	2	100	100

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030.

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services approved methods.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	BU2001E1	Client Project ID:	15833.004
Matrix:	WATER	Client Sample ID:	Method Blank
Date Sampled:	-----	Instrument ID:	HP12
Date Analyzed:	6/20/96	Surrogate Recovery:	96%
Date Released:	6/25/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5.0	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030.

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services approved methods.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE WITH BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory ID:	BU2101E1	Client Project ID:	15833.004
Matrix:	WATER	Client Sample ID:	Method Blank
Date Sampled:	-----	Instrument ID:	HP12
Date Analyzed:	6/21/96	Surrogate Recovery:	98%
Date Released:	6/25/96	Concentration Units:	ug/L

COMPOUND	Dilution Factor	Reporting Limit	Amount Found
MtBE	1	5.0	ND
Benzene	1	0.5	ND
Toluene	1	0.5	ND
Ethylbenzene	1	0.5	ND
Total Xylenes	1	0.5	ND
Gasoline	1	50	ND

ND: Not detected at or above the reporting limit for the method.

TPHg: Total Petroleum Hydrocarbons as gasoline is determined by GC/FID (modified EPA Method 8015) following sample purge and trap by EPA Method 5030.

BTEX: BTEX as Methyl tert-Butyl Ether, Benzene, Toluene, Ethylbenzene, and Total Xylenes is determined by GC/PID (modified EPA Method 8021) following sample purge and trap by EPA Method 5030.

Surrogate recovery quality control limits for p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services approved methods.

TOTAL PETROLEUM HYDROCARBONS AS BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

MATRIX SPIKE RECOVERY REPORT

Client Project ID:	15833.004	Laboratory ID:	96060168-01
Client Sample ID:	GP1	Date Released:	6/25/96
Date Sampled:	6/17/96	Instrument ID:	HP12
Date Analyzed:	6/20/96	Matrix:	WATER
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	SAMPLE CONC	MS CONC	% REC MS	MSD CONC	%REC MSD	RPD
MtBE	10.0	0	10.7	107%	12.7	127%	17%
Benzene	10.0	0	10.2	102%	12.2	122%	18%
Toluene	10.0	0	9.8	98%	11.8	118%	19%
Ethylbenzene	10.0	0	9.7	97%	11.5	115%	17%
Total Xylenes	10.0	0.8	8.5	77%	10.0	92%	16%
p-Bromofluorobenzene				97%		99%	

Quality control limits for MS/MSD recovery are 50-150% for MtBE, 45-139% for benzene, 51-138% for toluene, 48-146% for ethylbenzene, and 50-139% for total xylenes.

Quality control limits for RPD(relative percent difference) are +/- 30%.

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

TOTAL PETROLEUM HYDROCARBONS AS BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	15833.004	Laboratory ID:	MU2001E3
Matrix:	WATER	Date Released:	6/25/96
Date Analyzed:	6/20/96	Instrument ID:	HP12
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
MtBE	10.0	10.3	103%
Benzene	10.0	10.1	101%
Toluene	10.0	9.7	97%
Ethylbenzene	10.0	9.6	96%
Total Xylenes	10.0	8.1	81%
p-Bromofluorobenzene			98%

Quality control limits for LCS recovery are 50-150% for MTBE, 52-133% for benzene, 57-136% for toluene, 56-139% for ethylbenzene, and 56-141% for total xylenes.

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	15833.004	Laboratory ID:	NU2001E1
Matrix:	WATER	Date Released:	6/25/96
Date Analyzed:	6/20/96	Instrument ID:	HP12
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
Gasoline	400	450	113%
p-Bromofluorobenzene			99%

Quality control limits for LCS recovery are 67-127%.

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	15833.004	Laboratory ID:	MU2101E1
Matrix:	WATER	Date Released:	6/25/96
Date Analyzed:	6/21/96	Instrument ID:	HP12
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
Gasoline	400	400	100%
p-Bromofluorobenzene			102%

Quality control limits for LCS recovery are 67-127%.

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

TOTAL PETROLEUM HYDROCARBONS AS BTEX

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	15833.004	Laboratory ID:	NU2101E3
Matrix:	WATER	Date Released:	6/25/96
Date Analyzed:	6/21/96	Instrument ID:	HP12
		Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	%REC LCS
MtBE	10.0	11.2	112%
Benzene	10.0	10.8	108%
Toluene	10.0	10.4	104%
Ethylbenzene	10.0	10.2	102%
Total Xylenes	10.0	8.4	84%
p-Bromofluorobenzene			98%

Quality control limits for LCS recovery are 50-150% for MTBE, 52-133% for benzene, 57-136% for toluene, 56-139% for ethylbenzene, and 56-141% for total xylenes.

Quality control limits for p-Bromofluorobenzene recovery are 61-139%.

TOTAL PETROLEUM HYDROCARBONS AS DIESEL

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

DATA SUMMARY FORM

Laboratory Workorder	9606168	Client Project ID:	15833.004
Matrix:	WATER	Date Released:	6/25/96
Date Extracted:	6/19/96	Concentration Units:	ug/L
Instrument ID:	HP9		

Laboratory ID	Client ID	Date Sampled	Date Analyzed	Dilution Factor	Reporting Limit	Amount Found	Surrogate Recovery
9606168-05	GP5	6/18/96	6/21/96	1	50	240	93%
9606168-07	GP7	6/18/96	6/20/96	1	50	760	78%
9606168-08	GP8	6/18/96	6/20/96	1	50	130	81%
9606168-09	GP9	6/18/96	6/20/96	1	50	300	70%
9606168-10	GP10	6/18/96	6/20/96	1	50	250	86%
BU1911F9	Method Blank	-----	6/20/96	1	50	ND	86%

ND: Not detected at or above the reporting limit for the method.
TPHd: Total Petroleum Hydrocarbons as C10-C28 is determined by GC/FID (modified EPA Method 8015) following sample extraction by EPA Method 3510.
Surrogate recovery quality control limits for o-terphenyl are 65-122%.
All testing procedures follow California Department of Health Services approved methods.

Issued on 6/25/96 at 9:31

TOTAL PETROLEUM HYDROCARBONS AS DIESEL

INCHCAPE TESTING SERVICES/ ENVIRONMENTAL LABORATORIES

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	9606168	Laboratory ID:	M/NU1911F9
Matrix:	WATER	Date Released:	6/25/96
Date Extracted:	6/19/96	Instrument ID:	HP9
Date Analyzed:	6/19/96	Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	% REC LCS	LCSD CONC	%REC LCSD	RPD
Diesel	1250	1040	83%	996	80%	-4%
o-Terphenyl			85%		82%	

Quality control limits for LCS/LCSD recovery are 34-111%.

Quality control limits for RPD(relative percent difference) are +/- 18%.

Quality control limits for o-terphenyl recovery are 65-122%.

AGI TECHNOLOGIES

9606162 (B) 1045

CHAIN-OF-CUSTODY

Date 6/18/96 Page 1 of 2

PROJECT INFORMATION

Project Manager: Dan Henniger
Project Name: Harbert Transportation
Project Number: 15833.004
Site Location: Hayward Sampled By: PJM

DISPOSAL INFORMATION

☒ Lab Disposal (return if not indicated)
Disposal Method:
Disposed by: Disposal Date:

QC INFORMATION (check one)

☐ SW-846 ☐ CLP ☐ Screening ☐ AGI Std. ☐ Special

Laboratory Number:

ANALYSIS REQUEST

	SAMPLE ID	DATE	TIME	MATRIX	LAB ID	PETROLEUM HYDROCARBONS: WTPH-HCID	WTPH-G, BETX 8015/8020	WTPH-D 8015	WTPH-418.1	8015M Fuel Hydrocarbon	TPH Special Instructions	ORGANIC COMPOUNDS: 8010 Halogenated VOCs	8020 Aromatic VOCs	8020M - BETX only	8240 GC/MS Volatiles	8270 GC/MS Semivolatiles	8310 PAHs	8040 Phenols	DWS - Volatiles and Semivolatiles	PESTS/PCBs: 8080 OC Pest/PCBs	8080M PCBs only	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/Pest	METALS: Selected Metals: list	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	MFSP - Metals (Wa)	LEACHING TESTS: TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals	OTHER	NUMBER OF CONTAINERS
1	GP1	6/17/96	510	Water			X																												3
2	GP2	6/17/96	1500				X																												3
3	GP3	6/18/96	1345				X																												3
4	GP4	6/18/96	0840				X																												3
5	GP5	6/18/96	1200				X	X																											3
6	GP6	6/18/96	0750				X																												3
7	GP7	6/18/96	915				X	X																											3
8	GP8	6/18/96	1100				X	X																											3

LAB INFORMATION

Lab Name: Inchcape
Lab Address: San Jose
Via: Lab courier

SAMPLE RECEIPT

Total Number of Containers:
Chain-of-Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:
P.O. 3885
98009
fax 646-9523

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Pamela J. Morrill Time: 1500	Signature: Laura Olson Time: 1745	Signature Time
Printed Name: Pamela J. Morrill Date: 6/18/96	Printed Name: Laura Olson Date:	Printed Name Date
Company: AGI Technologies	Company: ITS	Company
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Laura Olson Time: 1700	Signature: Time: 1745	Signature Time
Printed Name: Laura Olson Date: 6-18-96	Printed Name: E. Wohr Date: 6/18/96	Printed Name Date
Company: ITS	Company: ITS	Company

AGI OFFICES: Bellevue: (206) 453-8383 Gig Harbor. (206) 851-5562
Portland: (503) 232-1800

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to AGI Project Files; Gold to AGI Disposal Files

fld-chaincus pm5-Rev 1/96

9606168 (18) (10/15)

AGI TECHNOLOGIES

CHAIN-OF-CUSTODY

Date 6/18/96 Page 2 of 3

Laboratory Number:

PROJECT INFORMATION

Project Manager: Dan Henniger
Project Name: Harbert Transportation
Project Number: 15833.004
Site Location: Hayward Sampled By: PJM

DISPOSAL INFORMATION

☒ ~~Lab~~ Disposal (return if not indicated)
Disposal Method:
Disposed by: Disposal Date:

QC INFORMATION (check one)

☐SW-846 ☐CLP ☐Screening ☐AGI Std. ☐Special

ANALYSIS REQUEST

PETROLEUM HYDROCARBONS: WTPH-HCID; WTPH-G (8015/8020); WTPH-D (8015); WTPH-418.1; 8015M Fuel Hydrocarbon; TPH Special Instructions
ORGANIC COMPOUNDS: 8010 Halogenated VOCs; 8020 Aromatic VOCs; 8020M - BETX only; 8240 GC/MS Volatiles; 8270 GC/MS Semivolatiles; 8310 PAHs; 8040 Phenols; DWS - Volatiles and Semivolatiles
PESTS/PCBs: 8080 OC Pest/PCBs; 8080M PCBs only; 8140 OP Pesticides; 8150 OC Herbicides; DWS - Herb/Pest
METALS: Selected Metals: list; Organic Lead (Ca); TCL Metals (23); Priority Poll. Metals (13); DWS - Metals; MFSP - Metals (Wa)
LEACHING TESTS: TCLP - Volatiles (ZHE); TCLP - Semivolatiles; TCLP - Pesticides; TCLP - Metals
OTHER

	SAMPLE ID	DATE	TIME	MATRIX	LAB ID	WTPH-G (8015/8020)	WTPH-D (8015)	NUMBER OF CONTAINERS
(9)	GP9	6/18/96	1300			X	X	5
	~~PJM GP10~~	~~6/18/96~~						
	~~PJM GP11~~	~~6/18/96~~						
(10)	GP10	6/18/96	1545			X	X	5

LAB INFORMATION

Lab Name: Inchcape
Lab Address: San Jose
Via: Lab Courier

SAMPLE RECEIPT

Total Number of Containers:
Chain-of-Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☒ Standard ☐24 hr. ☐48 hr. ☐72 hr. ☐1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

	1.	2.	3.
RELINQUISHED BY: Signature / Time	[signature] 1600	[signature] 1745	
Printed Name / Date	Pamela J. Morrill 6/18/96	Laura Olson 6-18-96	
Company	AGI technologies	ITS	
RECEIVED BY: Signature / Time	[signature] 1700	[signature] 17:45	
Printed Name / Date	Laura Olson 6/18/96	E. Walker 6/18/96	
Company	ITS	ITS	

AGI OFFICES: Bellevue: (206) 453-8383 Gig Harbor: (206) 851-5562
Portland: (503) 232-1800

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to AGI Project Files, Gold to AGI Disposal Files

fld-chaincus pm5-Rev 1/96

Inchcape Testing Services
Environmental Laboratories

SAMPLE RECEIVING CHECKLIST

Workorder Number: 9606168	*Client Project ID:* 15833.004	*Quote Number:*

Cooler			
Shipping documentation present? If YES, enter Carrier and Airbill #:	YES	NO	(N/A)
Custody Seal on the outside of cooler? *Condition:* Intact ☐ Broken ☐	YES	NO	(N/A)
Temperature of sample(s) within range? List temperatures of cooler(s): 5, 5° C **Note:** If all samples taken within previous 4 hr, circle N/A and place in sample storage area as soon as possible.	(YES)	NO	N/A
Samples			
Chain of custody seal present for each container? *Condition:* Intact ☐ Broken ☐	YES	NO	(N/A)
Samples arrived within holding time?	(YES)	NO	N/A
Samples in proper containers for methods requested? *Condition of containers:* Intact ☑ Broken ☐ If NO, were samples transferred to proper container(s)? Yes ☐ No ☐	(YES)	NO	
Were VOA containers received with zero headspace? If NO, were bubbles < 6 mm? Yes ☑ No ☐	YES	(NO)	N/A
Were container labels complete? (ID, date, time, preservative)	(YES)	NO	N/A
Were samples properly preserved? If NO, was the preservative added at time of receipt? Yes ☐ No ☐	(YES)	NO	N/A
pH check of samples required at time of receipt? If YES, pH checked and recorded by:	YES	(NO)	
Sufficient amount of sample received for methods requested? If NO, has the client or PM been notified? Yes ☐ No ☐	(YES)	NO	
Field blanks received with sample batch?	YES	NO	(N/A)
Trip blanks received with sample batch?	YES	NO	(N/A)
Chain of Custody			
Chain of custody form received with samples?	(YES)		NO
Has it been filled out completely and in ink?	(YES)		NO
Sample IDs on chain of custody form agree with labels?	(YES)		NO
Number of containers on chain agree with number received?	(YES)		NO
Analysis methods specified?	(YES)		NO
Sampling date and time indicated?	(YES)		NO
Proper signatures of sampler, courier and custodian in appropriate spaces? With time and date? Yes ☐ No ☐	(YES)		NO
Turnaround time? Standard ☑ Rush ☐			

Any NO responses and/or any BROKEN that was checked must be detailed in a Corrective Action Form.

Sample Custodian: _____ Date: 6/18/96 Project Manager: _____ Date: 6/20/96

Inchcape Testing Services
Environmental Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

July 11, 1996

Pam Morrill
AGI Technologies
P.O. Box 3885
Bellevue, WA. 98009

Dear Ms. Morrill,

As per our conversation on July 10, 1996, please find the enclosed diesel and gasoline chromatograms for ITS-SJ work order 9606168 (AGI Technologies project 15833.004). I have also included copies of the diesel and gasoline standards for your reference.

Pam, I apologize for any inconvenience this may have caused. If you have any questions please call me at (408) 432-8192.

Best regards,

7/11/96

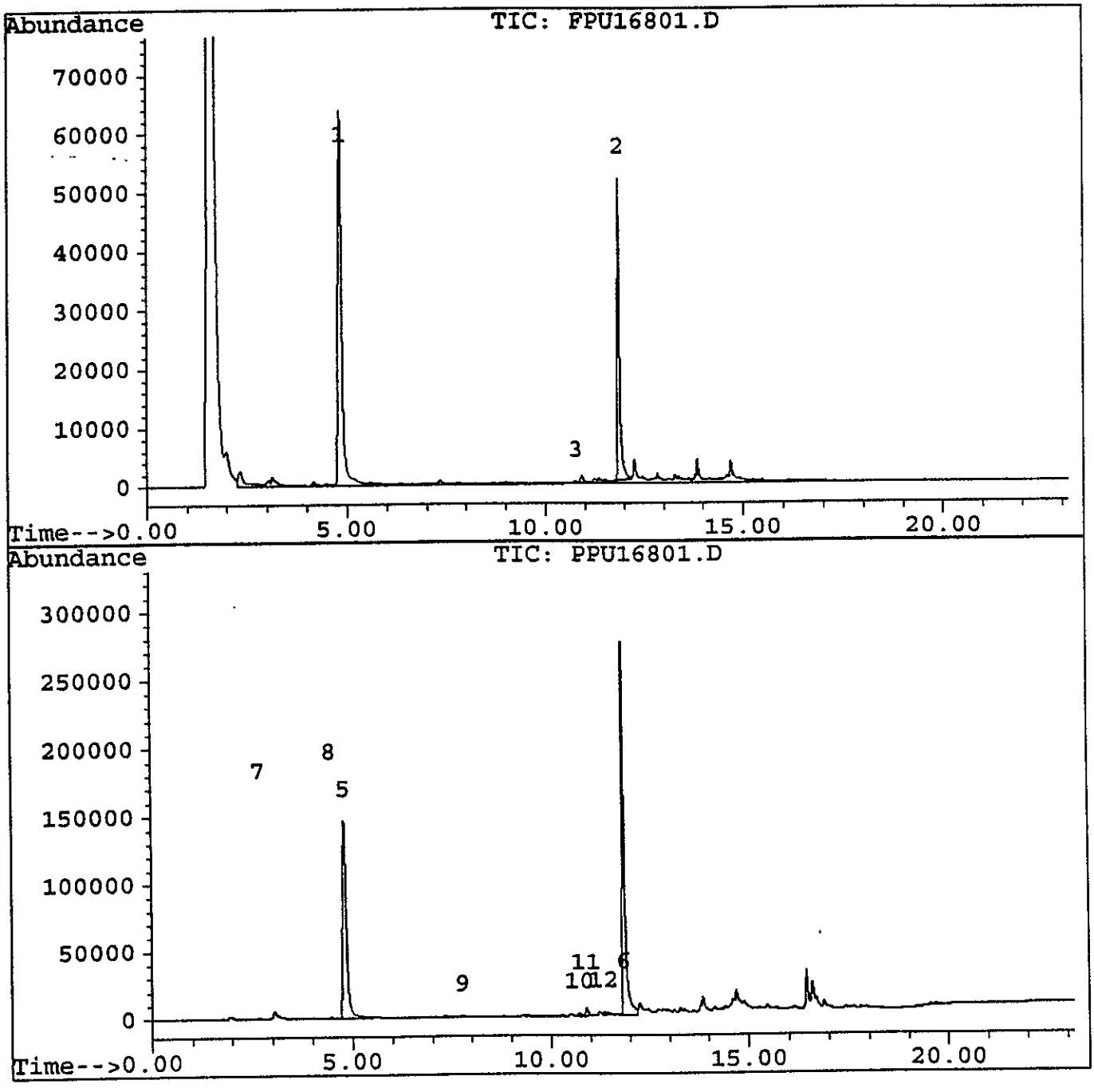
Rich Phaler
Project Manager
Inchcape Testing Services

Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16801.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16801.D\PPU16801.D
Acq On : 20 Jun 96 12:38 PM Oper: DS
Sample : 9606168-01; AGITI; 15833.004; GP1 Vial: 12
Misc : TPHgBTEX; WATER; 17-JUN-1996; -0- Mult: 1.0
Quant Time: Jun 20 18:06 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL
Signal #1 Phase : DB-5
Signal #1 Info : FID
Instrument ID : HP12
Signal #2 Phase: DB-5
Signal #2 Info : PID



Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16801.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16801.D\PPU16801.D
Acq On : 20 Jun 96 12:38 PM Oper: DS
Sample : 9606168-01; AGITI; 15833.004; GP1 Vial: 12
Misc : TPHgBTEX; WATER; 17-JUN-1996; -0- Mult: 1.0
Quant Time: Jun 20 18:06 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID

	Compound	R.T.	Response	Conc	Units	
	Internal Standards					
5)	Fluorobenzene #2	4.81	9714582	50.00	ppb	
	System Monitoring Compounds					
1)	Fluorobenzene	4.83	4066433	43.43	ppb	
2)	p-Bromofluorobenzene	11.86	1990007	38.12	ppb	
5)	Fluorobenzene #2	4.81	9714582	50.00	ppb	
6)	p-Bromofluorobenzene #2	11.85	11728391	47.42	ppb	95%
	Target Compounds					
3)	Gasoline	10.79	3554042	0.05	ppm	
7)	MTBE #2	2.67	45934	0.40	ppb	m(f)s
8)	Benzene #2	4.47	39762	0.13	ppb	
9)	Toluene #2	7.77	67886	0.20	ppb	
10)	Ethylbenzene #2	10.72	100967	0.35	ppb	
11)	m+p-Xylenes #2	10.90	267591	0.52	ppb	
12)	o-Xylene #2	11.34	106562	0.25	ppb	m(f)s
				.77		

(f)=RT Delta > 1/2 Window (m)=manual integration

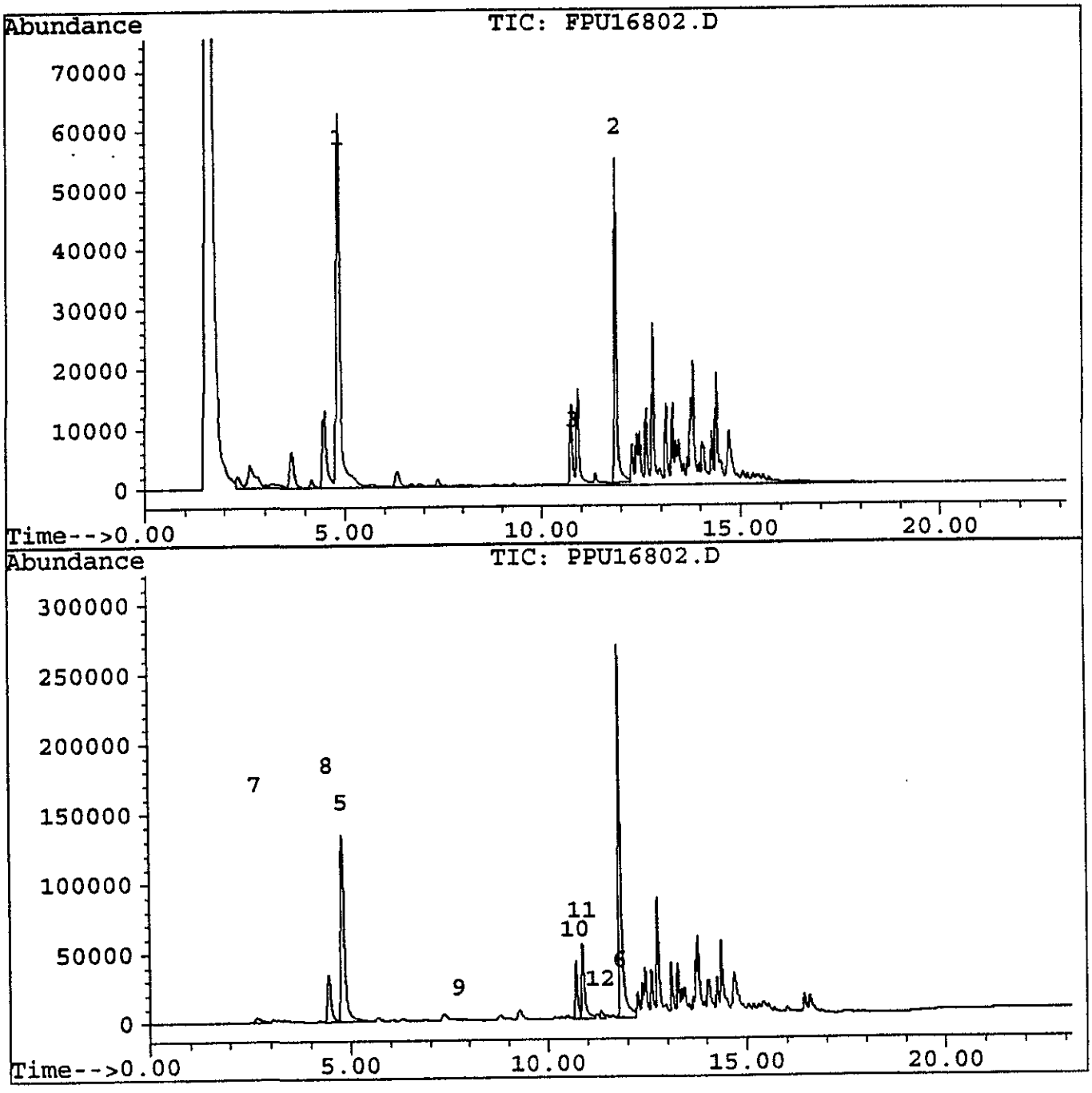
Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16802.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16802.D\PPU16802.D
Acq On : 20 Jun 96 09:01 PM Oper: DS
Sample : 9606168-02; AGITI; 15833.004; GP2 Vial: 25
Misc : TPHgBTEX; WATER; 17-JUN-1996; -0- Mult: 25.0
Quant Time: Jun 21 7:19 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL
Signal #1 Phase : DB-5
Signal #1 Info : FID

Instrument ID : HP12
Signal #2 Phase: DB-5
Signal #2 Info : PID



Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16802.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16802.D\PPU16802.D
Acq On : 20 Jun 96 09:01 PM Oper: DS
Sample : 9606168-02; AGITI; 15833.004; GP2 Vial: 25
Misc : TPHgBTEX; WATER; 17-JUN-1996; -0- Mult: 25.0
Quant Time: Jun 21 7:19 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID

	Compound	R.T.	Response	Conc	Units	
	Internal Standards					
5)	Fluorobenzene #2	4.81	8856479	50.00	ppb	
	System Monitoring Compounds					
1)	Fluorobenzene	4.83	4166982	44.51	ppb	
2)	p-Bromofluorobenzene	11.86	2220694	42.53	ppb	
5)	Fluorobenzene #2	4.81	8856479	50.00	ppb	
6)	p-Bromofluorobenzene #2	11.84	11345575	50.31	ppb	101%
	Target Compounds					
3)	Gasoline	10.79	14884689	4.93	ppm	
7)	MTBE #2	2.65	511772	123.20	ppb	mRD
8)	Benzene #2	4.45	2173138	195.34	ppb	
9)	Toluene #2	7.76	48170	3.87	ppb	
10)	Ethylbenzene #2	10.72	1833022	173.36	ppb	
11)	m+p-Xylenes #2	10.89	2706658	142.86	ppb	
12)	o-Xylene #2	11.34	278792	17.91	ppb	mRD
				160.77		

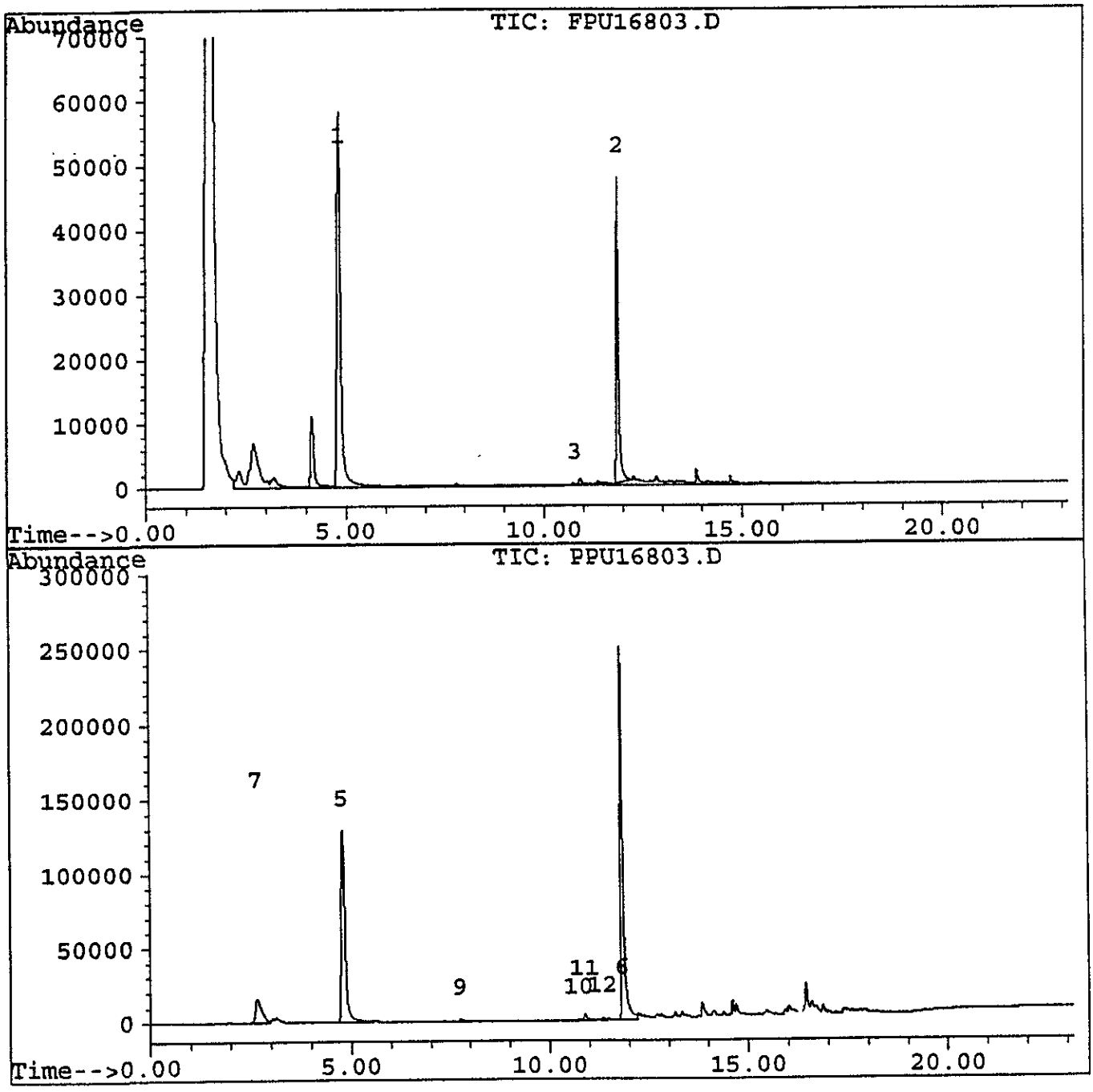
(f)=RT Delta > 1/2 Window (m)=manual integration

Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16803.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16803.D\PPU16803.D
Acq On : 20 Jun 96 03:14 PM Oper: DS
Sample : 9606168-03; AGITI; 15833.004; GP3 Vial: 17
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 1.0
Quant Time: Jun 20 18:12 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL
Signal #1 Phase : DB-5
Signal #1 Info : FID
Instrument ID : HP12
Signal #2 Phase: DB-5
Signal #2 Info : PID



Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16803.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16803.D\PPU16803.D
Acq On : 20 Jun 96 03:14 PM Oper: DS
Sample : 9606168-03; AGITI; 15833.004; GP3 Vial: 17
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 1.0
Quant Time: Jun 20 18:12 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID

	Compound	R.T.	Response	Conc	Units
	Internal Standards				
5)	Fluorobenzene #2	4.80	8443568	50.00	ppb
	System Monitoring Compounds				
1)	Fluorobenzene	4.82	3672109	39.22	ppb
2)	p-Bromofluorobenzene	11.86	1845257	35.34	ppb
5)	Fluorobenzene #2	4.80	8443568	50.00	ppb
6)	p-Bromofluorobenzene #2	11.84	10604525	49.33	ppb 99%
	Target Compounds				
3)	Gasoline	10.79	4228559	0.06	ppm
7)	MTBE #2	2.65	1858140	18.77	ppb
8)	Benzene #2	0.00	0	N.D.	ppb
9)	Toluene #2	7.76	68563	0.23	ppb
10)	Ethylbenzene #2	10.73	47954	0.19	ppb
11)	m+p-Xylenes #2	10.89	227642	0.50	ppb
12)	o-Xylene #2	11.34	78682	0.21	ppb

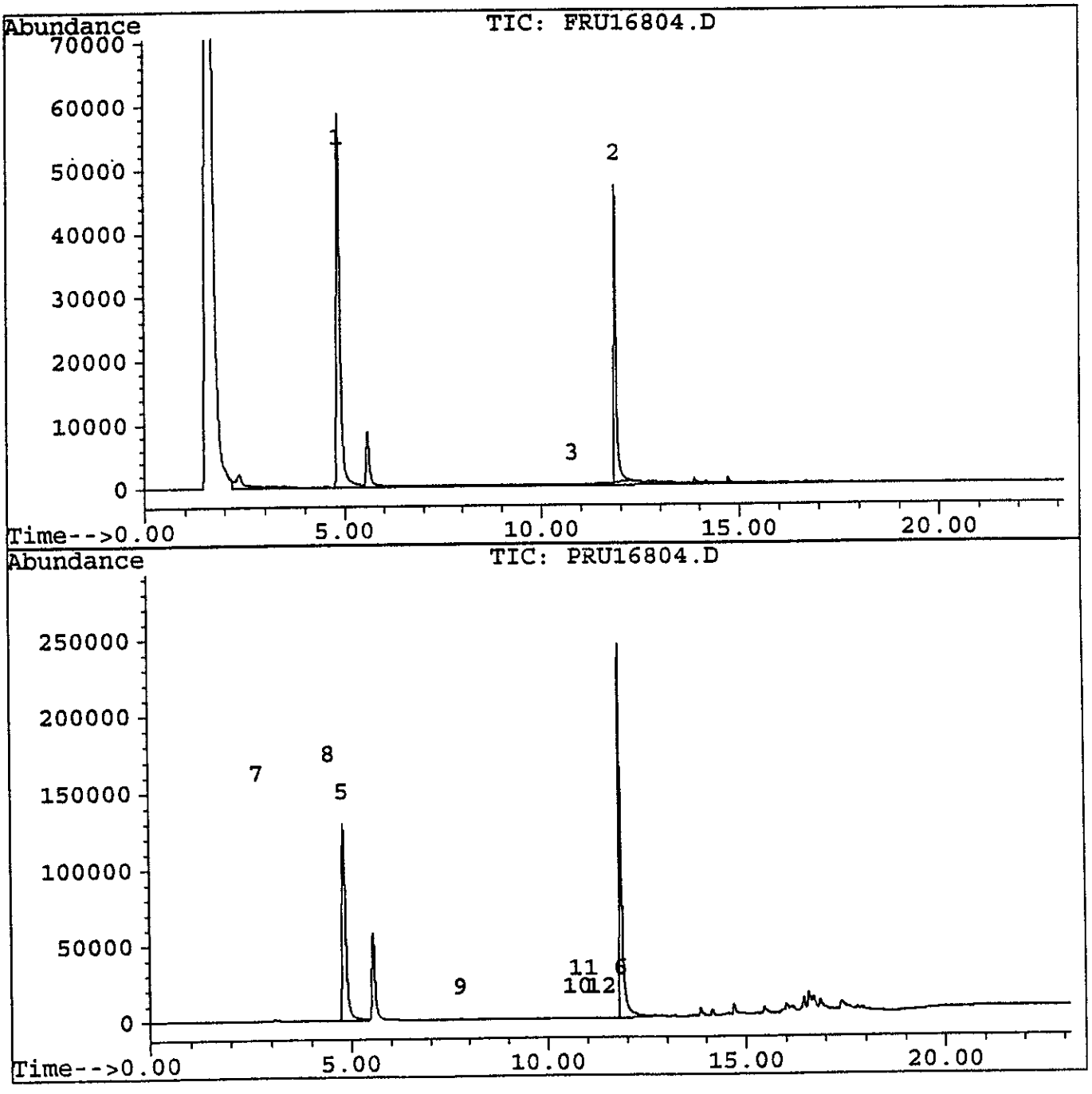
(f)=RT Delta > 1/2 Window (m)=manual integration

Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U21E2A\FRU16804.D
Signal #2 : J:\GCTPH\HP12\DATA\12U21E2A\FRU16804.D\PRU16804.D
Acq On : 21 Jun 96 10:29 AM Oper: DS
Sample : 9606168-04; AGITI; 15833.004; GP4 Vial: 5
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 1.0
Quant Time: Jun 21 11:56 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL
Signal #1 Phase : DB-5
Signal #1 Info : FID
Instrument ID : HP12
Signal #2 Phase: DB-5
Signal #2 Info : PID



Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U21E2A\FRU16804.D
Signal #2 : J:\GCTPH\HP12\DATA\12U21E2A\FRU16804.D\PRU16804.D
Acq On : 21 Jun 96 10:29 AM Oper: DS
Sample : 9606168-04; AGITI; 15833.004; GP4 Vial: 5
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 1.0
Quant Time: Jun 21 11:56 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID

	Compound	R.T.	Response	Conc	Units	
	Internal Standards					
5)	Fluorobenzene #2	4.83	8567618	50.00	ppb	
	System Monitoring Compounds					
1)	Fluorobenzene	4.85	3689487	39.41	ppb	
2)	p-Bromofluorobenzene	11.87	1857767	35.58	ppb	
5)	Fluorobenzene #2	4.83	8567618	50.00	ppb	
6)	p-Bromofluorobenzene #2	11.85	10540237	48.32	ppb	97%
	Target Compounds					
3)	Gasoline	10.79	2514559	0.03	ppm	
7)	MTBE #2	2.70	25747	0.26	ppb	m RD
8)	Benzene #2	4.49	16225	0.06	ppb	m
9)	Toluene #2	7.79	39515	0.13	ppb	
10)	Ethylbenzene #2	10.77f	2714	0.01	ppb	m
11)	m+p-Xylenes #2	10.91	11143	0.02	ppb	m
12)	o-Xylene #2	11.36	1628	0.00	ppb	m

(f)=RT Delta > 1/2 Window (m)=manual integration

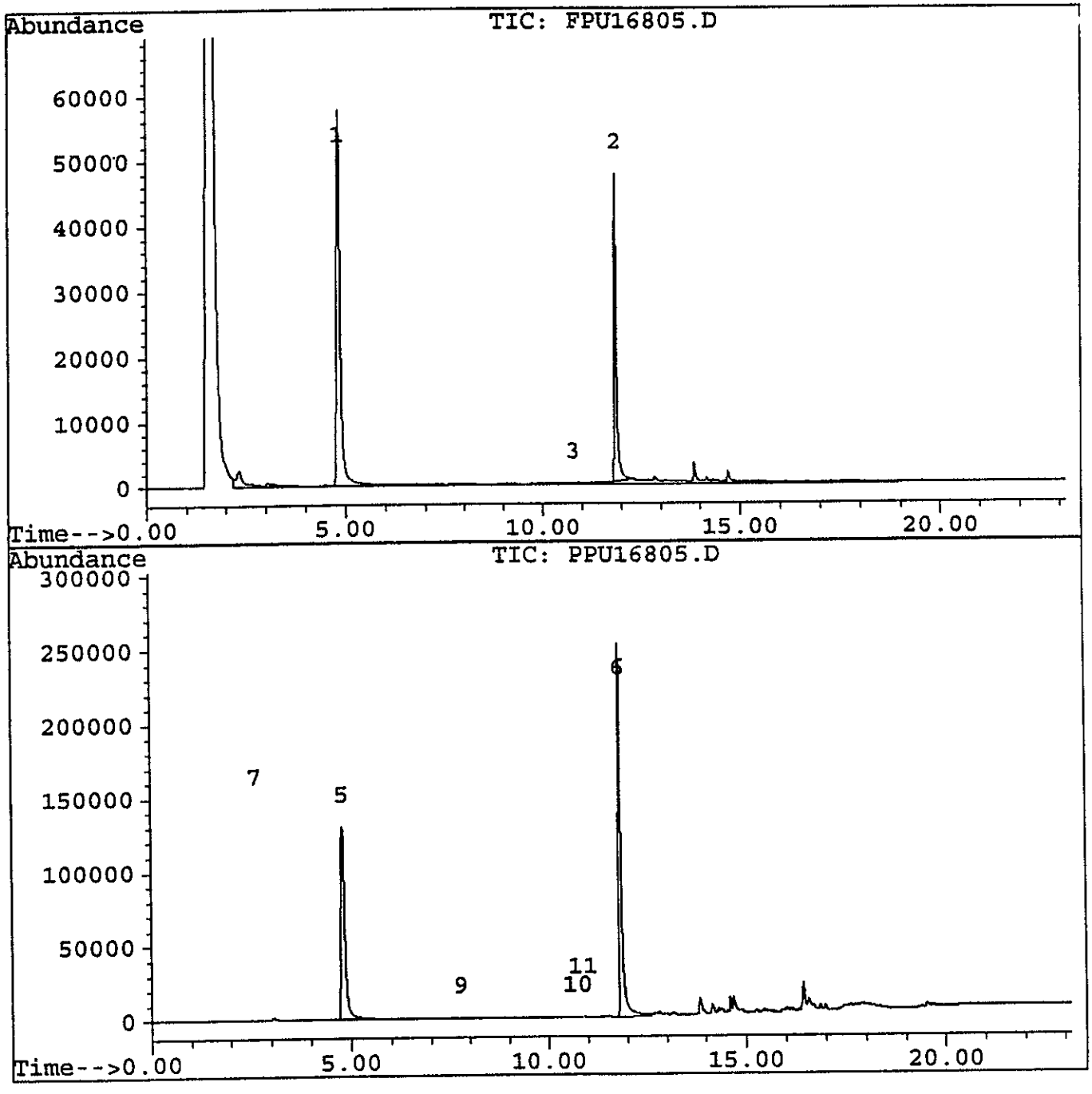
Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16805.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16805.D\PPU16805.D
Acq On : 20 Jun 96 03:45 PM Oper: DS
Sample : 9606168-05; AGITI; 15833.004; GP5 Vial: 18
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 1.0
Quant Time: Jun 20 18:14 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL
Signal #1 Phase : DB-5
Signal #1 Info : FID

Instrument ID : HP12
Signal #2 Phase: DB-5
Signal #2 Info : PID



Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16805.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16805.D\PPU16805.D
Acq On : 20 Jun 96 03:45 PM Oper: DS
Sample : 9606168-05; AGITI; 15833.004; GP5 Vial: 18
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 1.0
Quant Time: Jun 20 18:14 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID

	Compound	R.T.	Response	Conc	Units	
	Internal Standards					
5)	Fluorobenzene #2	4.81	8807604	50.00	ppb	
	System Monitoring Compounds					
1)	Fluorobenzene	4.83	3661709	39.11	ppb	
2)	p-Bromofluorobenzene	11.86	1848017	35.40	ppb	
5)	Fluorobenzene #2	4.81	8807604	50.00	ppb	
6)	p-Bromofluorobenzene #2	11.84	11010549	49.10	ppb	98%
	Target Compounds					
3)	Gasoline	10.79	2557181	0.03	ppm	
7)	MTBE #2	2.63	9149	0.09	ppb	m
8)	Benzene #2	0.00	0	N.D.	ppb	
9)	Toluene #2	7.77	24468	0.08	ppb	m
10)	Ethylbenzene #2	10.75	12397	0.05	ppb	m
11)	m+p-Xylenes #2	10.90	23795	0.05	ppb	
12)	o-Xylene #2	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual integration

Quantitation Report

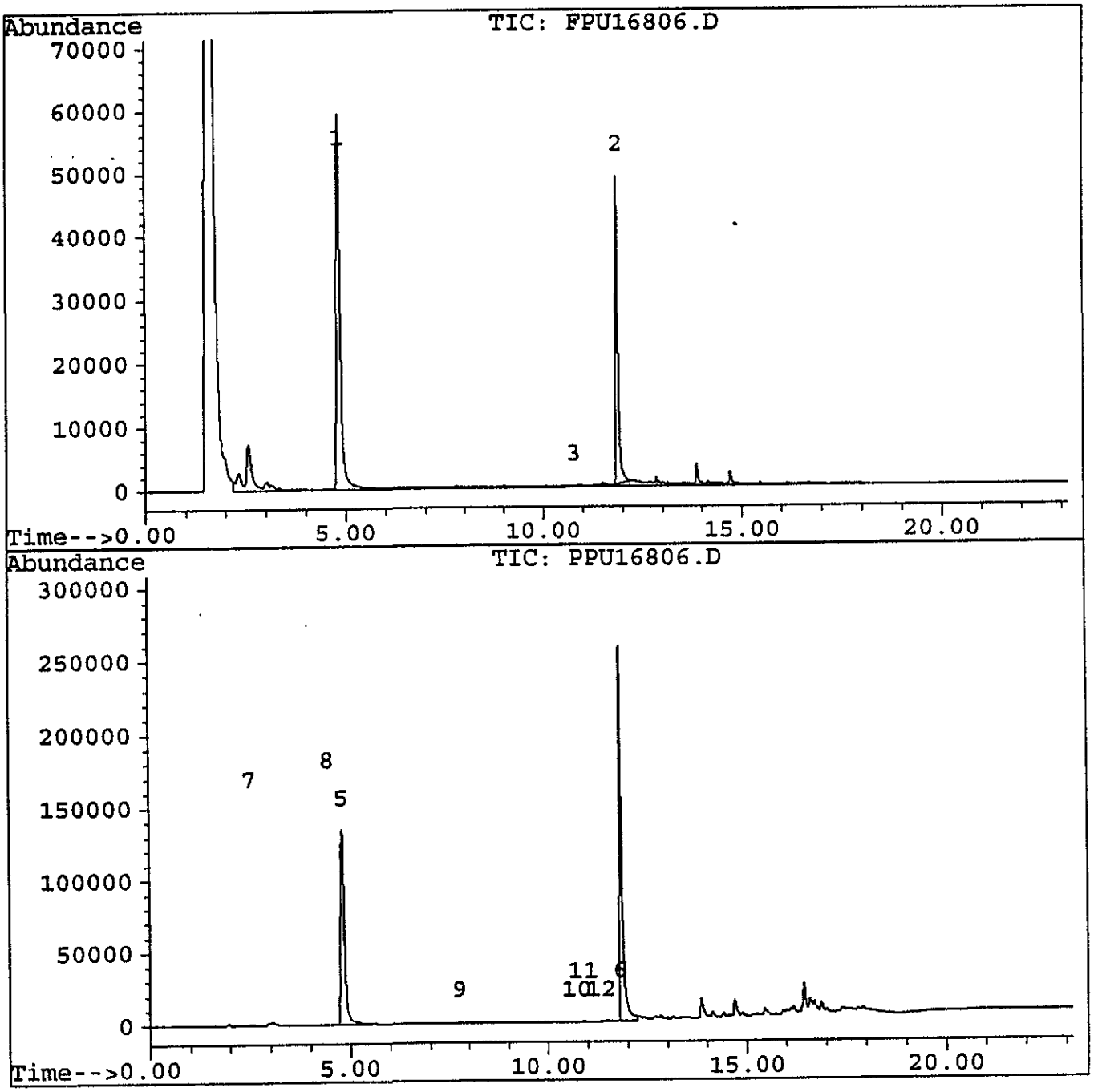
Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16806.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16806.D\PPU16806.D
Acq On : 20 Jun 96 04:16 PM
Sample : 9606168-06; AGITI; 15833.004; GP6
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0-
Quant Time: Jun 20 18:15 1996

Oper: DS
Vial: 19
Mult: 1.0

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL
Signal #1 Phase : DB-5
Signal #1 Info : FID

Instrument ID : HP12
Signal #2 Phase: DB-5
Signal #2 Info : PID



Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16806.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16806.D\PPU16806.D
Acq On : 20 Jun 96 04:16 PM Oper: DS
Sample : 9606168-06; AGITI; 15833.004; GP6 Vial: 19
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 1.0
Quant Time: Jun 20 18:15 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID

	Compound	R.T.	Response	Conc	Units	
	Internal Standards					
5)	Fluorobenzene #2	4.81	8891484	50.00	ppb	
	System Monitoring Compounds					
1)	Fluorobenzene	4.83	3730850	39.85	ppb	
2)	p-Bromofluorobenzene	11.86	1896941	36.33	ppb	
5)	Fluorobenzene #2	4.81	8891484	50.00	ppb	
6)	p-Bromofluorobenzene #2	11.84	10995308	48.57	ppb	97%
	Target Compounds					
3)	Gasoline	10.79	3259352	0.04	ppm	
7)	MTBE #2	2.52	85943	0.82	ppb	m
8)	Benzene #2	4.47	30924	0.11	ppb	
9)	Toluene #2	7.77	55711	0.18	ppb	
10)	Ethylbenzene #2	10.73	7211	0.03	ppb	m
11)	m+p-Xylenes #2	10.90	32127	0.07	ppb	
12)	o-Xylene #2	11.35	8693	0.02	ppb	m

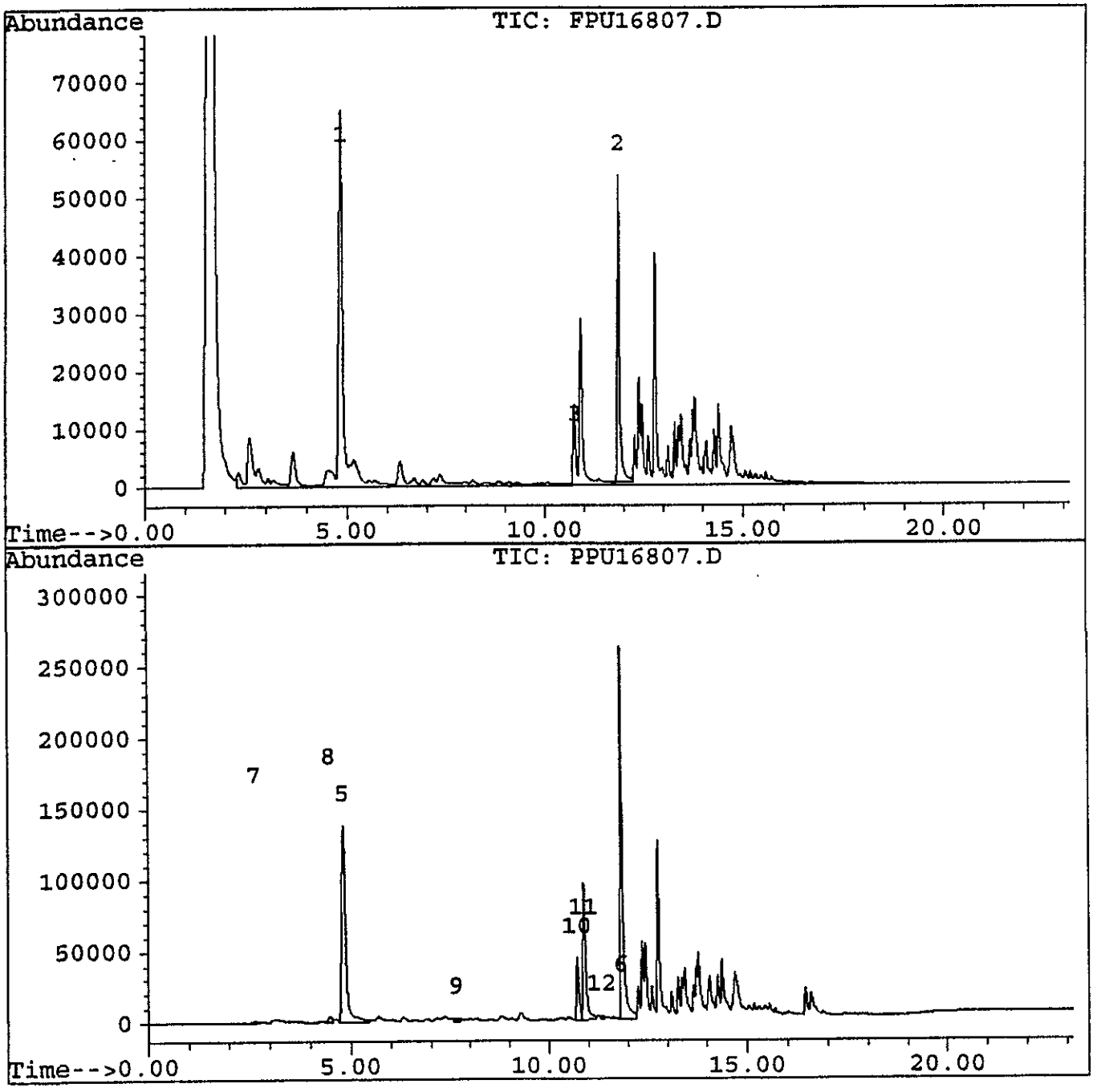
(f)=RT Delta > 1/2 Window (m)=manual integration

Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16807.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16807.D\PPU16807.D
Acq On : 20 Jun 96 08:30 PM Oper: DS
Sample : 9606168-07; AGITI; 15833.004; GP7 Vial: 24
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 10.0
Quant Time: Jun 21 7:18 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID



Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16807.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16807.D\PPU16807.D
Acq On : 20 Jun 96 08:30 PM Oper: DS
Sample : 9606168-07; AGITI; 15833.004; GP7 Vial: 24
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 10.0
Quant Time: Jun 21 7:18 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID

	Compound	R.T.	Response	Conc	Units	
	Internal Standards					
5)	Fluorobenzene #2	4.82	9491933	50.00	ppb	
	System Monitoring Compounds					
1)	Fluorobenzene	4.84	3981277	42.52	ppb	
2)	p-Bromofluorobenzene	11.86	2125058	40.70	ppb	
5)	Fluorobenzene #2	4.82	9491933	50.00	ppb	
6)	p-Bromofluorobenzene #2	11.85	11115375	45.99	ppb	
	Target Compounds					
3)	Gasoline	10.79	17520991	2.32	ppm	
7)	MTBE #2	2.64	158425	14.23	ppb	
8)	Benzene #2	4.47	268510	9.01	ppb	m
9)	Toluene #2	7.66	171182	5.14	ppb	m
10)	Ethylbenzene #2	10.73	1861495	65.71	ppb	
11)	m+p-Xylenes #2	10.89	4666804	91.93	ppb	
12)	o-Xylene #2	11.34	128196	3.07	ppb	m

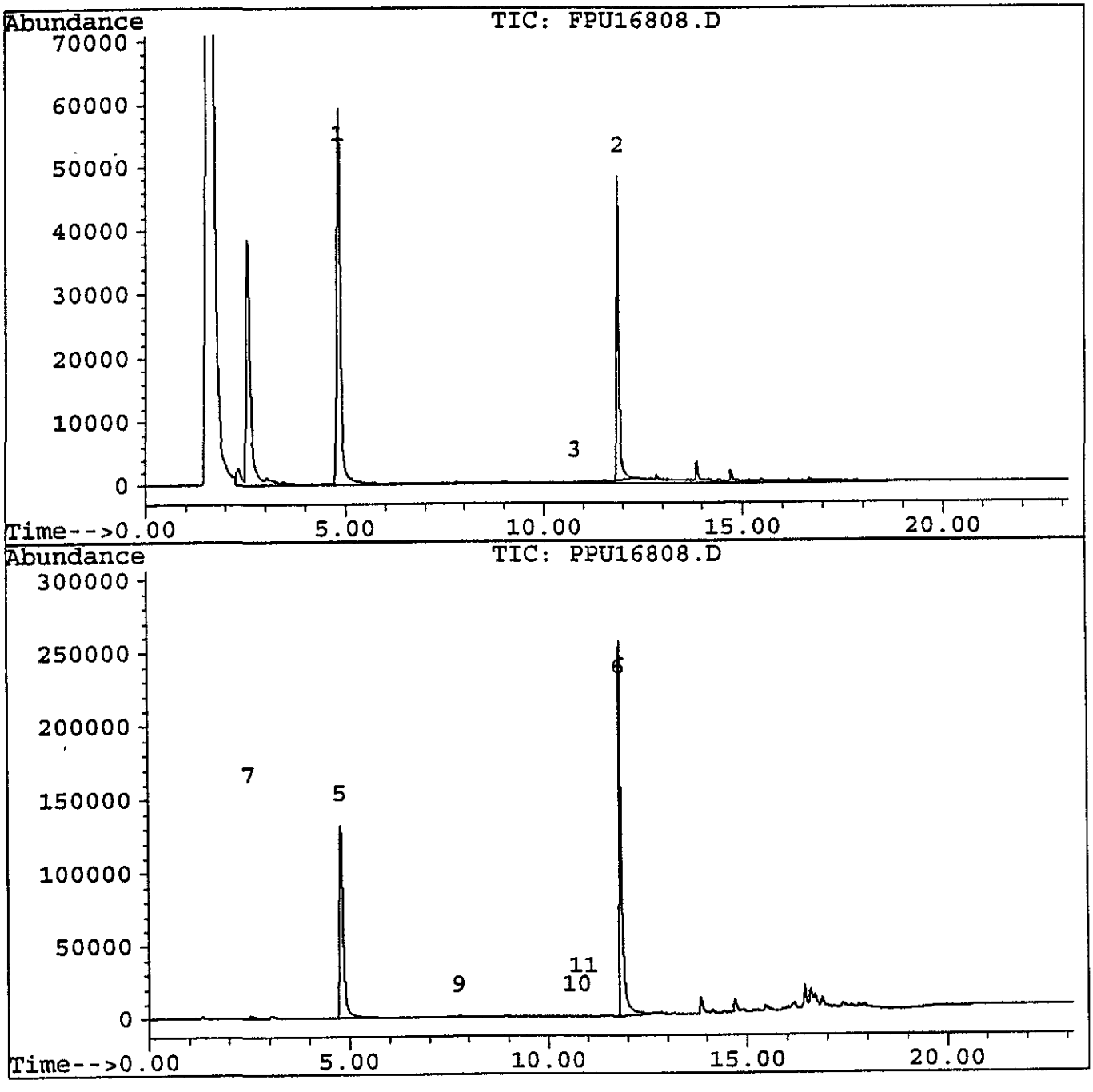
(f)=RT Delta > 1/2 Window (m)=manual integration

Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16808.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16808.D\PPU16808.D
Acq On : 20 Jun 96 04:48 PM Oper: DS
Sample : 9606168-08; AGITI; 15833.004; GP8 Vial: 20
Misc : TPHgBTEX; WATER; 18-JUN-1996; 0 Mult: 1.0
Quant Time: Jun 20 18:16 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID



Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16808.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16808.D\PPU16808.D
Acq On : 20 Jun 96 04:48 PM Oper: DS
Sample : 9606168-08; AGITI; 15833.004; GP8 Vial: 20
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 1.0
Quant Time: Jun 20 18:16 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID

	Compound	R.T.	Response	Conc	Units	
	Internal Standards					
5)	Fluorobenzene #2	4.80	8883562	50.00	ppb	
	System Monitoring Compounds					
1)	Fluorobenzene	4.82	3716118	39.69	ppb	
2)	p-Bromofluorobenzene	11.86	1870471	35.83	ppb	
5)	Fluorobenzene #2	4.80	8883562	50.00	ppb	
6)	p-Bromofluorobenzene #2	11.84	10982623	48.56	ppb	97%
	Target Compounds					
3)	Gasoline	10.79	5205556	0.07	ppm	
7)	MTBE #2	2.52	209265	2.01	ppb	m
8)	Benzene #2	0.00	0	N.D.	ppb	
9)	Toluene #2	7.76	34388	0.11	ppb	
10)	Ethylbenzene #2	10.74	9620	0.04	ppb	m
11)	m+p-Xylenes #2	10.90	23409	0.05	ppb	
12)	o-Xylene #2	0.00	0	N.D.	ppb	

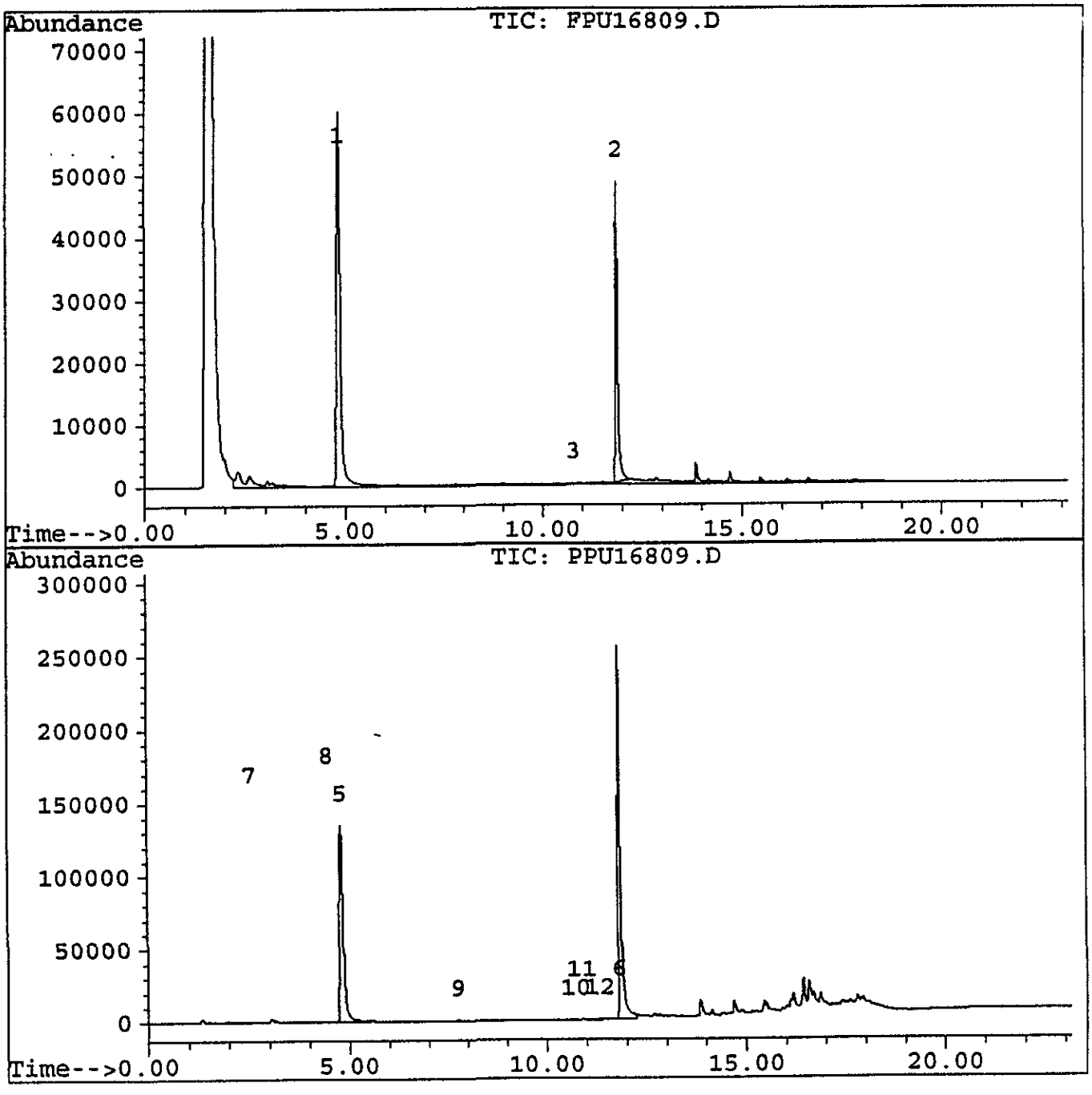
(f)=RT Delta > 1/2 Window (m)=manual integration

Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16809.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16809.D\PPU16809.D
Acq On : 20 Jun 96 05:19 PM Oper: DS
Sample : 9606168-09; AGITI; 15833.004; GP9 Vial: 21
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 1.0
Quant Time: Jun 20 18:17 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL
Signal #1 Phase : DB-5
Signal #1 Info : FID
Instrument ID : HP12
Signal #2 Phase: DB-5
Signal #2 Info : PID



Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16809.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\FPU16809.D\PPU16809.D
Acq On : 20 Jun 96 05:19 PM Oper: DS
Sample : 9606168-09; AGITI; 15833.004; GP9 Vial: 21
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 1.0
Quant Time: Jun 20 18:17 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID

	Compound	R.T.	Response	Conc	Units	
	Internal Standards					
5)	Fluorobenzene #2	4.80	8719300	50.00	ppb	
	System Monitoring Compounds					
1)	Fluorobenzene	4.82	3690951	39.42	ppb	
2)	p-Bromofluorobenzene	11.86	1871513	35.85	ppb	
5)	Fluorobenzene #2	4.80	8719300	50.00	ppb	
6)	p-Bromofluorobenzene #2	11.84	10730352	48.33	ppb	97%
	Target Compounds					
3)	Gasoline	10.79	2821250	0.04	ppm	
7)	MTBE #2	2.53	29316	0.29	ppb	m BS
8)	Benzene #2	4.46	29258	0.11	ppb	
9)	Toluene #2	7.76	42743	0.14	ppb	
10)	Ethylbenzene #2	10.73	10020	0.04	ppb	m BS
11)	m+p-Xylenes #2	10.90	23351	0.05	ppb	
12)	o-Xylene #2	11.34	9136	0.02	ppb	

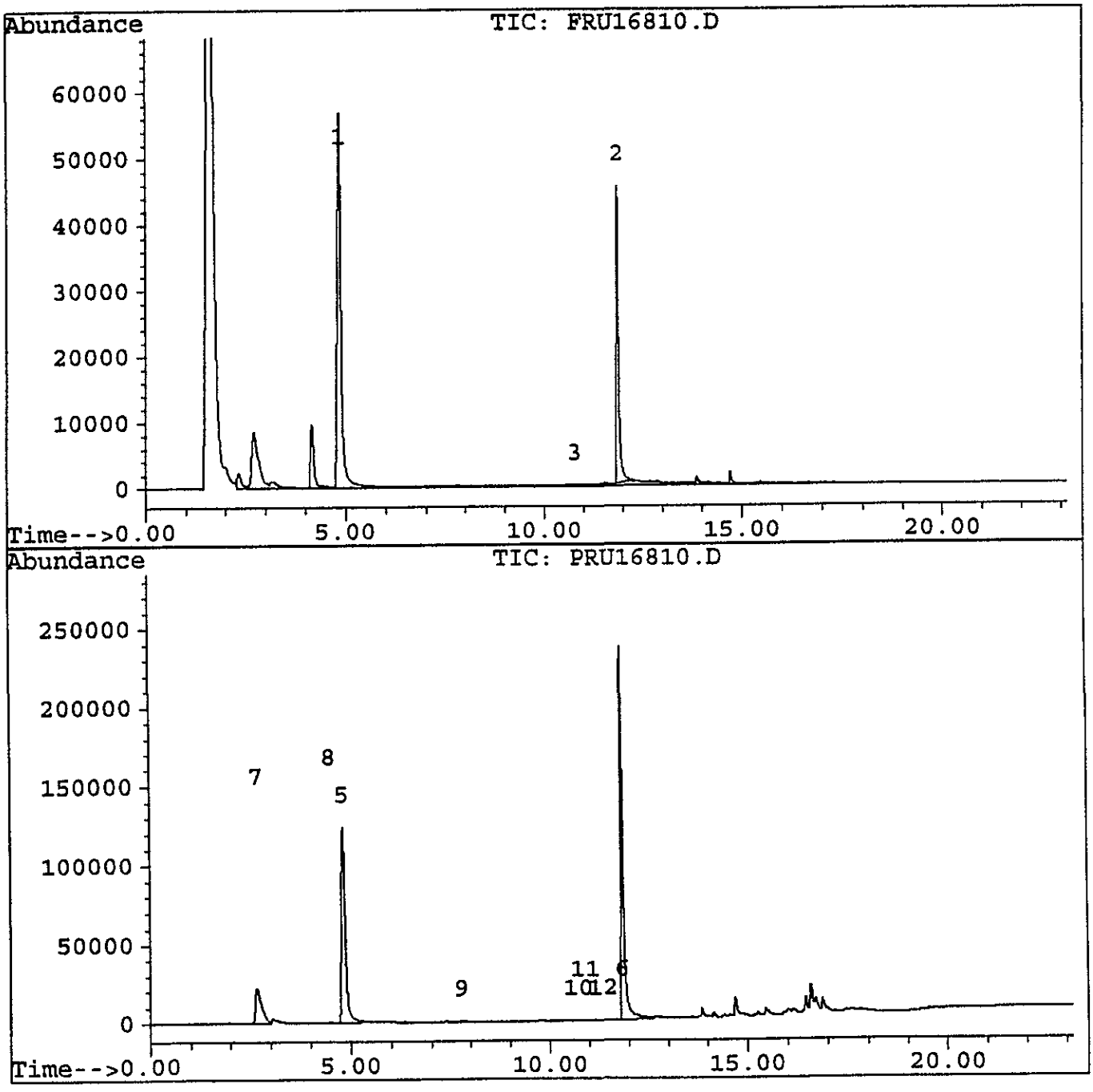
(f)=RT Delta > 1/2 Window (m)=manual integration

Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U21E2A\FRU16810.D
Signal #2 : J:\GCTPH\HP12\DATA\12U21E2A\FRU16810.D\PRU16810.D
Acq On : 21 Jun 96 09:58 AM Oper: DS
Sample : 9606168-10; AGITI; 15833.004; GP10 Vial: 4
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 2.0
Quant Time: Jun 21 10:21 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL
Signal #1 Phase : DB-5
Signal #1 Info : FID
Instrument ID : HP12
Signal #2 Phase: DB-5
Signal #2 Info : PID



Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U21E2A\FRU16810.D
Signal #2 : J:\GCTPH\HP12\DATA\12U21E2A\FRU16810.D\PRU16810.D
Acq On : 21 Jun 96 09:58 AM Oper: DS
Sample : 9606168-10; AGITI; 15833.004; GP10 Vial: 4
Misc : TPHgBTEX; WATER; 18-JUN-1996; -0- Mult: 2.0
Quant Time: Jun 21 10:21 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID

	Compound	R.T.	Response	Conc	Units	
	Internal Standards					
5)	Fluorobenzene #2	4.82	8201820	50.00	ppb	
	System Monitoring Compounds					
1)	Fluorobenzene	4.84	3596115	38.41	ppb	
2)	p-Bromofluorobenzene	11.87	1777799	34.05	ppb	
5)	Fluorobenzene #2	4.82	8201820	50.00	ppb	
6)	p-Bromofluorobenzene #2	11.85	10291599	49.28	ppb	99%
	Target Compounds					
3)	Gasoline	10.79	3590404	0.10	ppm	
7)	MTBE #2	2.66	2423827	50.40	ppb	35 ppb
8)	Benzene #2	4.48	17314	0.13	ppb	m
9)	Toluene #2	7.78	36011	0.25	ppb	
10)	Ethylbenzene #2	10.74	7151	0.06	ppb	m
11)	m+p-Xylenes #2	10.91	16925	0.08	ppb	m
12)	o-Xylene #2	11.37	4605	0.03	ppb	m

(f)=RT Delta > 1/2 Window (m)=manual integration

Quantitation Report

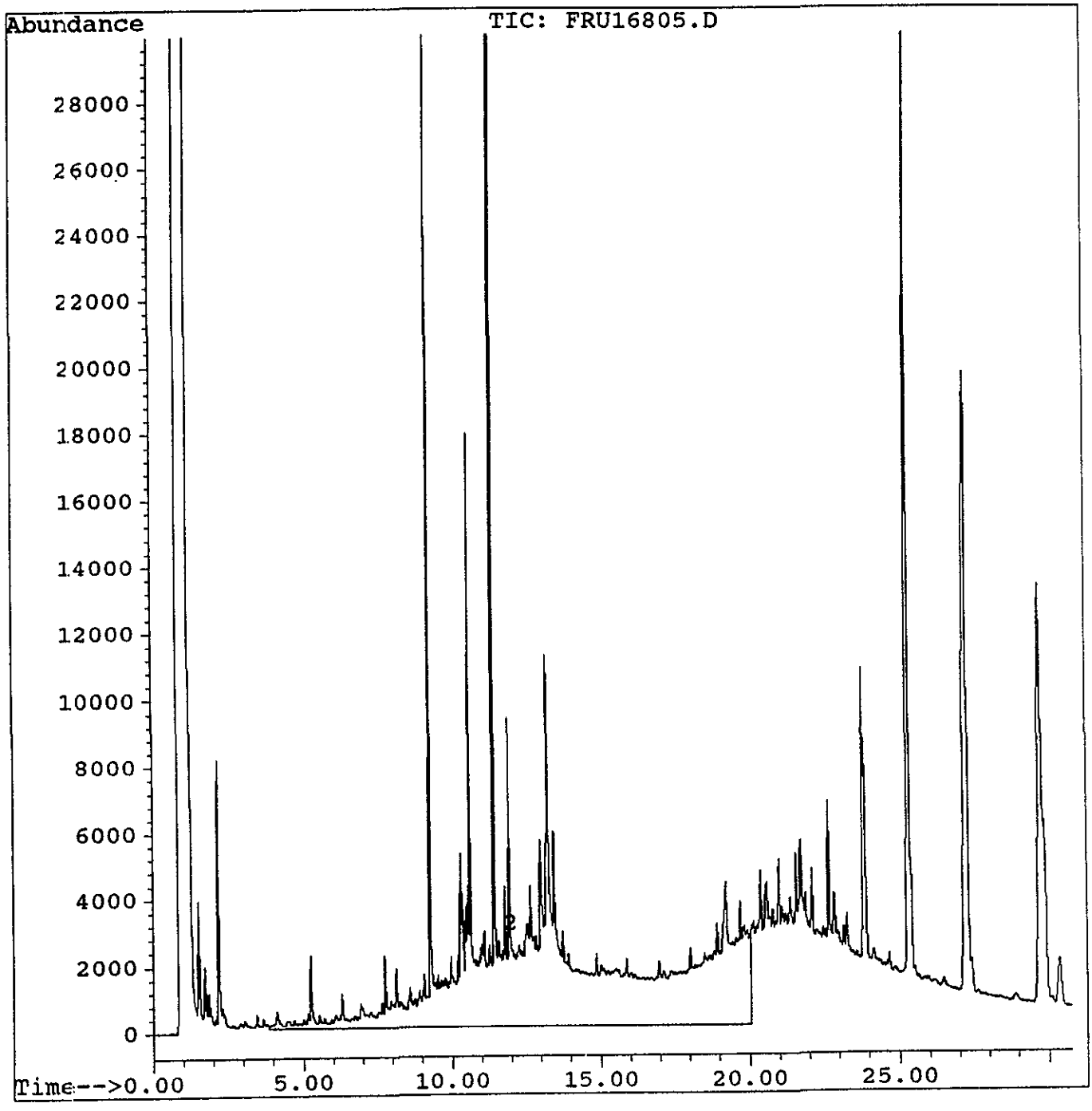
Data File : J:\GCTPH\HP9\DATA\09U21F1A\FRU16805.D
Acq On : 21 Jun 96 09:02 PM
Sample : 9606168-05
Misc :
Quant Time: Jun 22 11:59 1996

Oper: IS
Vial: 3
Mult: 1.0

Method : J:\GCTPH\HP9\METHODS\09U20F1W.M
Title : TPHd - Anametrix, Inc
Last Update : Sat Jun 22 12:05:02 1996
Response via : Multiple Level Calibration

Volume Inj. : 3 uL
Signal Phase : DB-5
Signal Info : 0.53mm

Instrument ID : HP9



Quantitation Report

Data File : J:\GCTPH\HP9\DATA\09U21F1A\FRU16805.D
Acq On : 21 Jun 96 09:02 PM
Sample : 9606168-05
Misc :
Quant Time: Jun 22 11:59 1996

Oper: IS
Vial: 3
Mult: 1.0

Method : J:\GCTPH\HP9\METHODS\09U20F1W.M
Title : TPHd - Anametrix, Inc
Last Update : Sat Jun 22 12:05:02 1996
Response via : Multiple Level Calibration

Volume Inj. : 3 uL
Signal Phase : DB-5
Signal Info : 0.53mm

Instrument ID : HP9

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) o-TERPHENYL	11.43	6056252	92.79 ppb
Target Compounds			
2) DIESEL	12.00	15854247	240.82 ppb
3) MOTOR OIL	0.00	0	N.D. ppb

(f)=RT Delta > 1/2 Window
(m)=manual integration

Quantitation Report

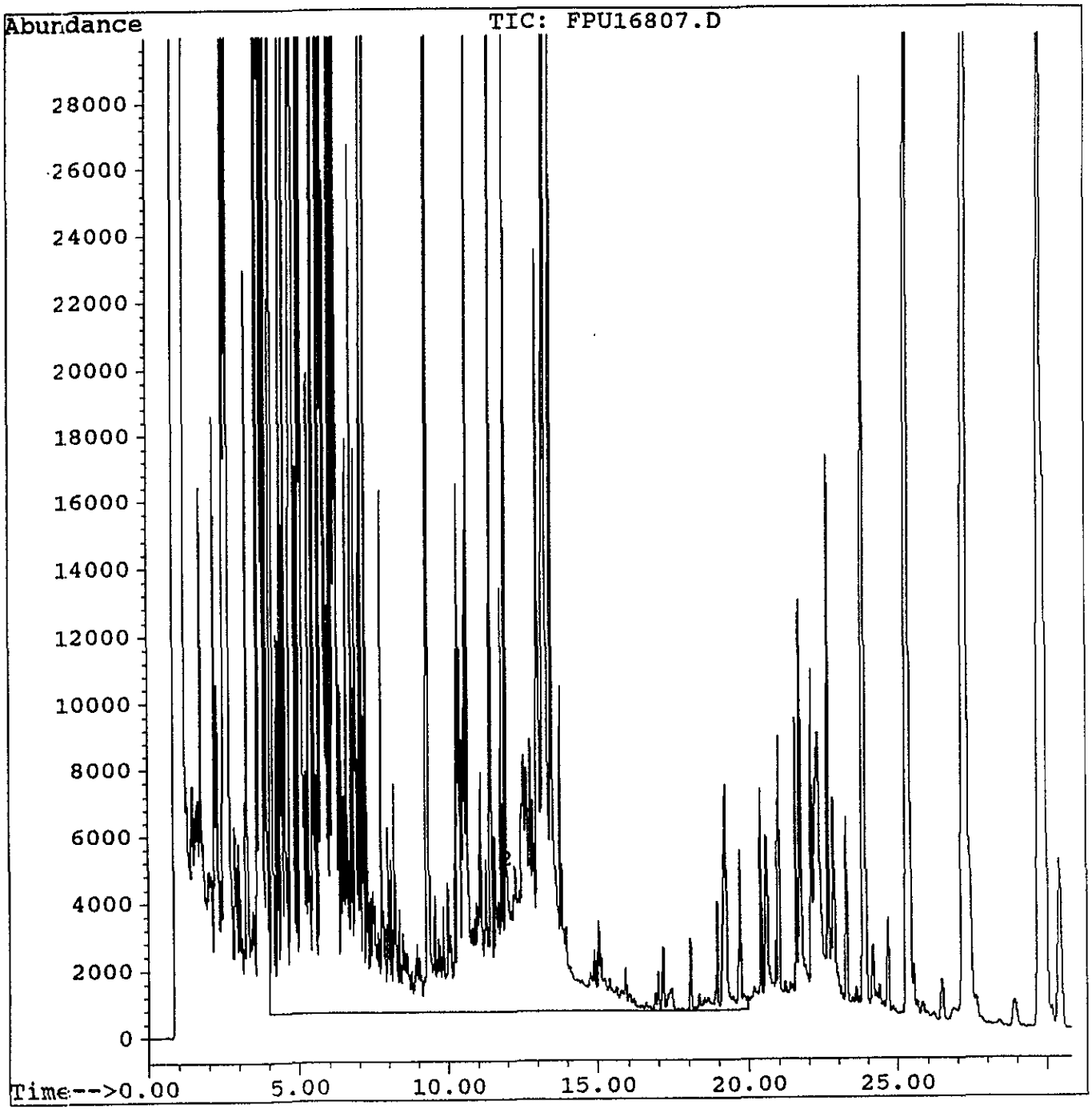
Data File : J:\GCTPH\HP9\DATA\09U19F1A\FPU16807.D
Acq On : 20 Jun 96 01:12 AM
Sample : 9606168-07
Misc :
Quant Time: Jun 25 9:01 1996

Oper: JD
Vial: 20
Mult: 1.0

Method : J:\GCTPH\HP9\METHODS\09Y15F1W.M
Title : TPHd - Anametrix, Inc
Last Update : Fri May 17 18:01:02 1996
Response via : Multiple Level Calibration

Volume Inj. : 3 uL
Signal Phase : DB-5
Signal Info : 0.53mm

Instrument ID : HP9



Quantitation Report

Data File : J:\GCTPH\HP9\DATA\09U19F1A\FPU16807.D
Acq On : 20 Jun 96 01:12 AM
Sample : 9606168-07
Misc :
Quant Time: Jun 25 9:01 1996

Oper: JD
Vial: 20
Mult: 1.0

Method : J:\GCTPH\HP9\METHODS\09Y15F1W.M
Title : TPHd - Anametrix, Inc
Last Update : Fri May 17 18:01:02 1996
Response via : Multiple Level Calibration

Volume Inj. : 3 uL
Signal Phase : DB-5
Signal Info : 0.53mm

Instrument ID : HP9

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	o-TERPHENYL	11.44	7277141	77.62	ppb
	Target Compounds				
2)	DIESEL	12.00	67158018	756.96	ppb
3)	MOTOR OIL	0.00	0	N.D.	ppb

(f)=RT Delta > 1/2 Window
(m)=manual integration

Quantitation Report

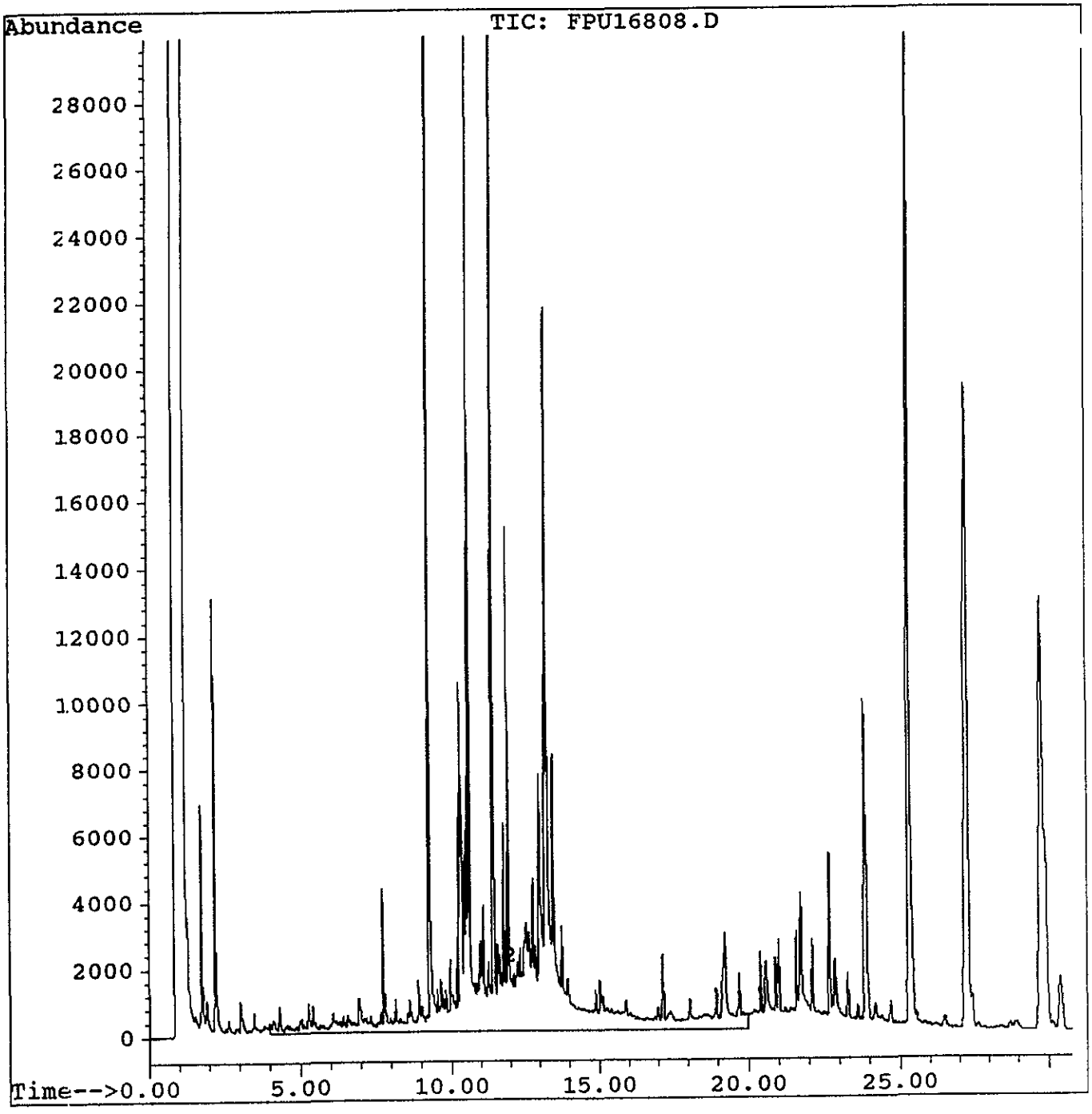
Data File : J:\GCTPH\HP9\DATA\09U19F1A\FPU16808.D
Acq On : 20 Jun 96 00:35 AM
Sample : 9606168-08
Misc :
Quant Time: Jun 20 7:30 1996

Oper: JD
Vial: 19
Mult: 1.0

Method : J:\GCTPH\HP9\METHODS\09Y15F1W.M
Title : TPHd - Anametrix, Inc
Last Update : Thu Jun 20 07:26:34 1996
Response via : Multiple Level Calibration

Volume Inj. : 3 uL
Signal Phase : DB-5
Signal Info : 0.53mm

Instrument ID : HP9



Quantitation Report

Data File : J:\GCTPH\HP9\DATA\09U19F1A\FPU16808.D
Acq On : 20 Jun 96 00:35 AM
Sample : 9606168-08
Misc :
Quant Time: Jun 20 7:30 1996

Oper: JD
Vial: 19
Mult: 1.0

Method : J:\GCTPH\HP9\METHODS\09Y15F1W.M
Title : TPHd - Anametrix, Inc
Last Update : Thu Jun 20 07:26:34 1996
Response via : Multiple Level Calibration

Volume Inj. : 3 uL
Signal Phase : DB-5
Signal Info : 0.53mm

Instrument ID : HP9

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) o-TERPHENYL	11.44	7601309	81.08 ppb
Target Compounds			
2) DIESEL	12.00	11590111	130.64 ppb
3) MOTOR OIL	0.00	0	N.D. ppb

Quantitation Report

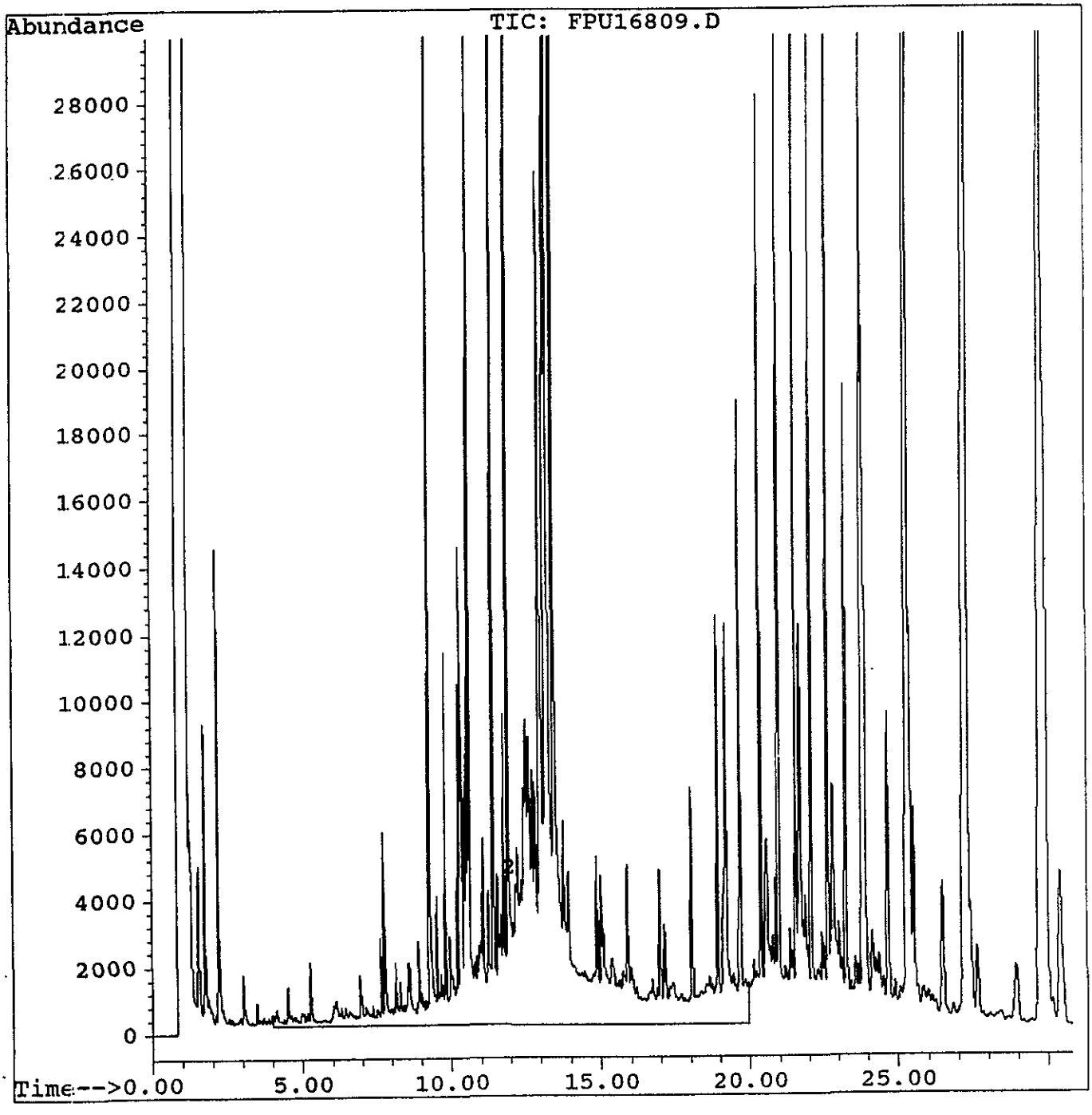
Data File : J:\GCTPH\HP9\DATA\09U19F1A\FPU16809.D
Acq On : 20 Jun 96 06:44 AM
Sample : 9606168-09
Misc :
Quant Time: Jun 20 7:37 1996

Oper: JD
Vial: 25
Mult: 1.0

Method : J:\GCTPH\HP9\METHODS\09Y15F1W.M
Title : TPHd - Anametrix, Inc
Last Update : Thu Jun 20 07:26:34 1996
Response via : Multiple Level Calibration

Volume Inj. : 3 uL
Signal Phase : DB-5
Signal Info : 0.53mm

Instrument ID : HP9



Quantitation Report

Data File : J:\GCTPH\HP9\DATA\09U19F1A\FPU16809.D
Acq On : 20 Jun 96 06:44 AM
Sample : 9606168-09
Misc :
Quant Time: Jun 20 7:37 1996

Oper: JD
Vial: 25
Mult: 1.0

Method : J:\GCTPH\HP9\METHODS\09Y15F1W.M
Title : TPHd - Anametrix, Inc
Last Update : Thu Jun 20 07:26:34 1996
Response via : Multiple Level Calibration

Volume Inj. : 3 uL
Signal Phase : DB-5
Signal Info : 0.53mm

Instrument ID : HP9

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	o-TERPHENYL	11.44	6586388	70.25	ppb
	Target Compounds				
2)	DIESEL	12.00	26916375	303.38	ppb
3)	MOTOR OIL	0.00	0	N.D.	ppb

(f)=RT Delta > 1/2 Window
(m)=manual integration

Quantitation Report

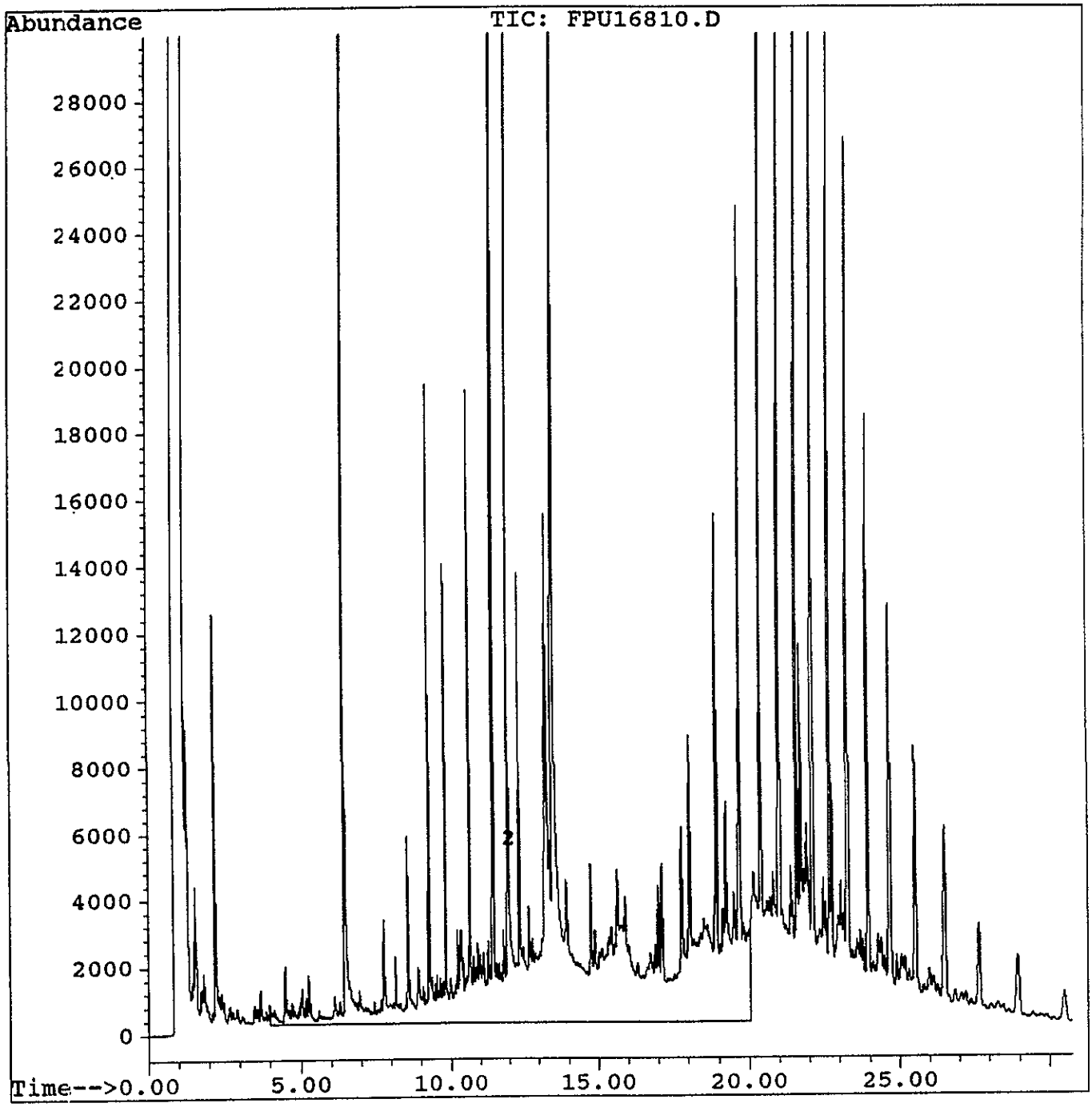
Data File : J:\GCTPH\HP9\DATA\09U20F1A\FPU16810.D
Acq On : 20 Jun 96 11:17 AM
Sample : 9606168-10
Misc :
Quant Time: Jun 20 12:53 1996

Oper: JD
Vial: 26
Mult: 1.0

Method : J:\GCTPH\HP9\METHODS\09Y15F1W.M
Title : TPHd - Anametrix, Inc
Last Update : Fri May 17 18:01:02 1996
Response via : Multiple Level Calibration

Volume Inj. : 3 uL
Signal Phase : DB-5
Signal Info : 0.53mm

Instrument ID : HP9



Quantitation Report

Data File : J:\GCTPH\HP9\DATA\09U20F1A\FPU16810.D
Acq On : 20 Jun 96 11:17 AM
Sample : 9606168-10
Misc :
Quant Time: Jun 20 12:53 1996

Oper: JD
Vial: 26
Mult: 1.0

Method : J:\GCTPH\HP9\METHODS\09Y15F1W.M
Title : TPHd - Anametrix, Inc
Last Update : Fri May 17 18:01:02 1996
Response via : Multiple Level Calibration

Volume Inj. : 3 uL
Signal Phase : DB-5
Signal Info : 0.53mm

Instrument ID : HP9

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	o-TERPHENYL	11.45	8038317	85.74	ppb
	Target Compounds				
2)	DIESEL	12.00	21946798	247.37	ppb
3)	MOTOR OIL	0.00	0	N.D.	ppb

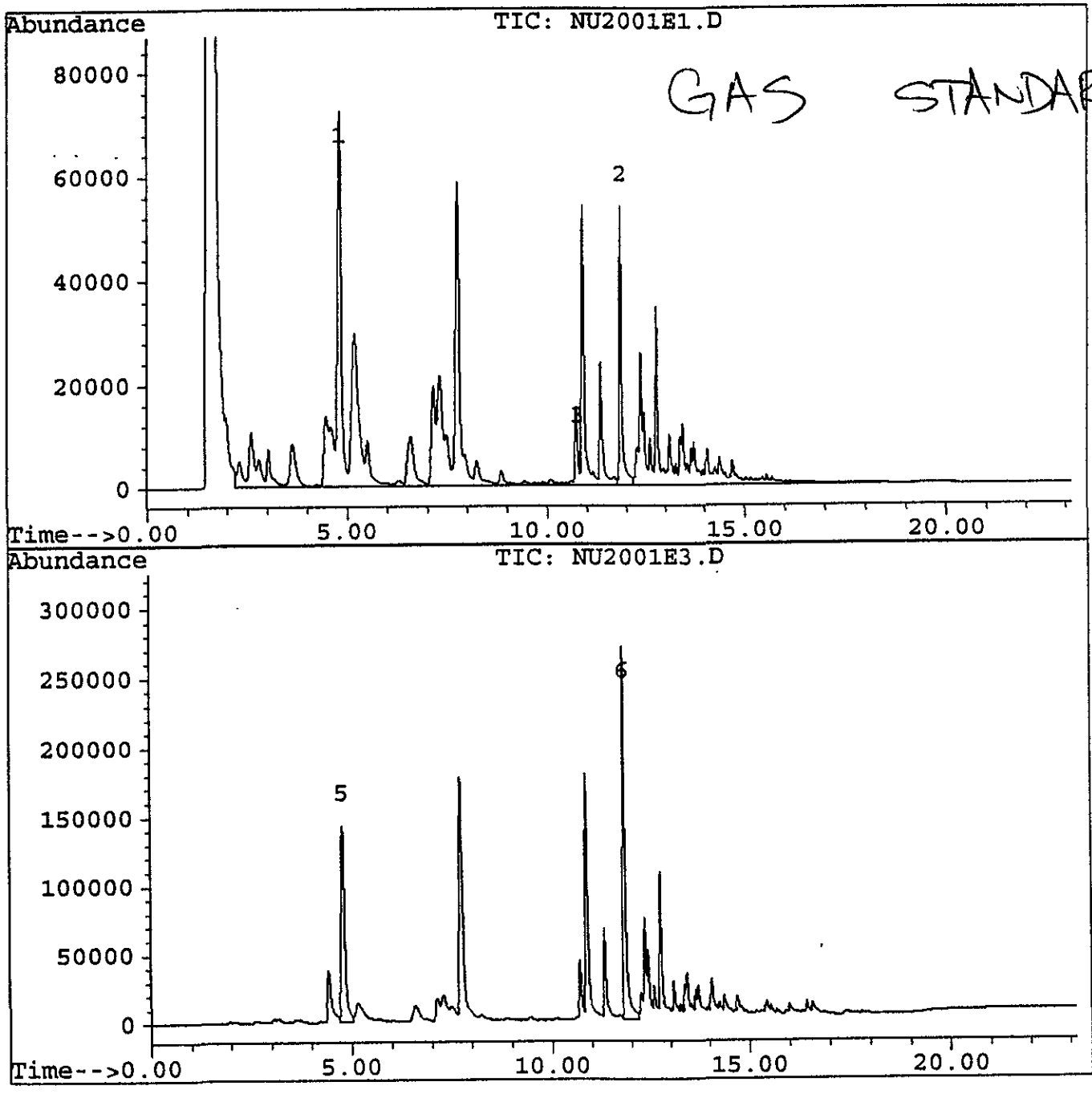
(f)=RT Delta > 1/2 Window
(m)=manual integration

Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\NU2001E1.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\NU2001E1.D\NU2001E3.D
Acq On : 20 Jun 96 02:43 PM Oper: DS
Sample : LCSD @ 0.4ug/mL Vial: 16
Misc : Solution ID #s: T0281 Mult: 1.0
Quant Time: Jun 20 18:11 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID



GAS STANDARD.

Quantitation Report

Signal #1 : J:\GCTPH\HP12\DATA\12U20E2A\NU2001E1.D
Signal #2 : J:\GCTPH\HP12\DATA\12U20E2A\NU2001E1.D\NU2001E3.D
Acq On : 20 Jun 96 02:43 PM Oper: DS
Sample : LCSD @ 0.4ug/mL Vial: 16
Misc : Solution ID #s: T0281 Mult: 1.0
Quant Time: Jun 20 18:11 1996

Method : J:\GCTPH\HP12\METHODS\12U17E2A.M
Title : Method TPHg + BTEX - Anametrix, Inc.
Last Update : Tue Jun 18 17:23:28 1996
Response via : Multiple Level Calibration

Volume Inj. : 5 mL Instrument ID : HP12
Signal #1 Phase : DB-5 Signal #2 Phase: DB-5
Signal #1 Info : FID Signal #2 Info : PID

	Compound	R.T.	Response	Conc	Units	
	Internal Standards					
5)	Fluorobenzene #2	4.80	8973500	50.00	ppb	
	System Monitoring Compounds					
1)	Fluorobenzene	4.82	4753428	50.77	ppb	ΔSm
2)	p-Bromofluorobenzene	11.85	2318215	44.40	ppb	↓m
5)	Fluorobenzene #2	4.80	8973500	50.00	ppb	
6)	p-Bromofluorobenzene #2	11.84	11323052	49.56	ppb	99%
	Target Compounds					
3)	Gasoline	10.79	34178978	0.45	ppm	
7)	MTBE #2	0.00	0	N.D.	ppb	d
8)	Benzene #2	0.00	0	N.D.	ppb	d
9)	Toluene #2	0.00	0	N.D.	ppb	d
10)	Ethylbenzene #2	0.00	0	N.D.	ppb	d
11)	m+p-Xylenes #2	0.00	0	N.D.	ppb	d
12)	o-Xylene #2	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual integration

Quantitation Report

9 TSOC/10/96

Data File : J:\GCTPH\HP9\DATA\09U19F1A\MU1911F1.D
Acq On : 19 Jun 96 07:40 PM
Sample : LCS
Misc :
Quant Time: Jun 20 6:47 1996

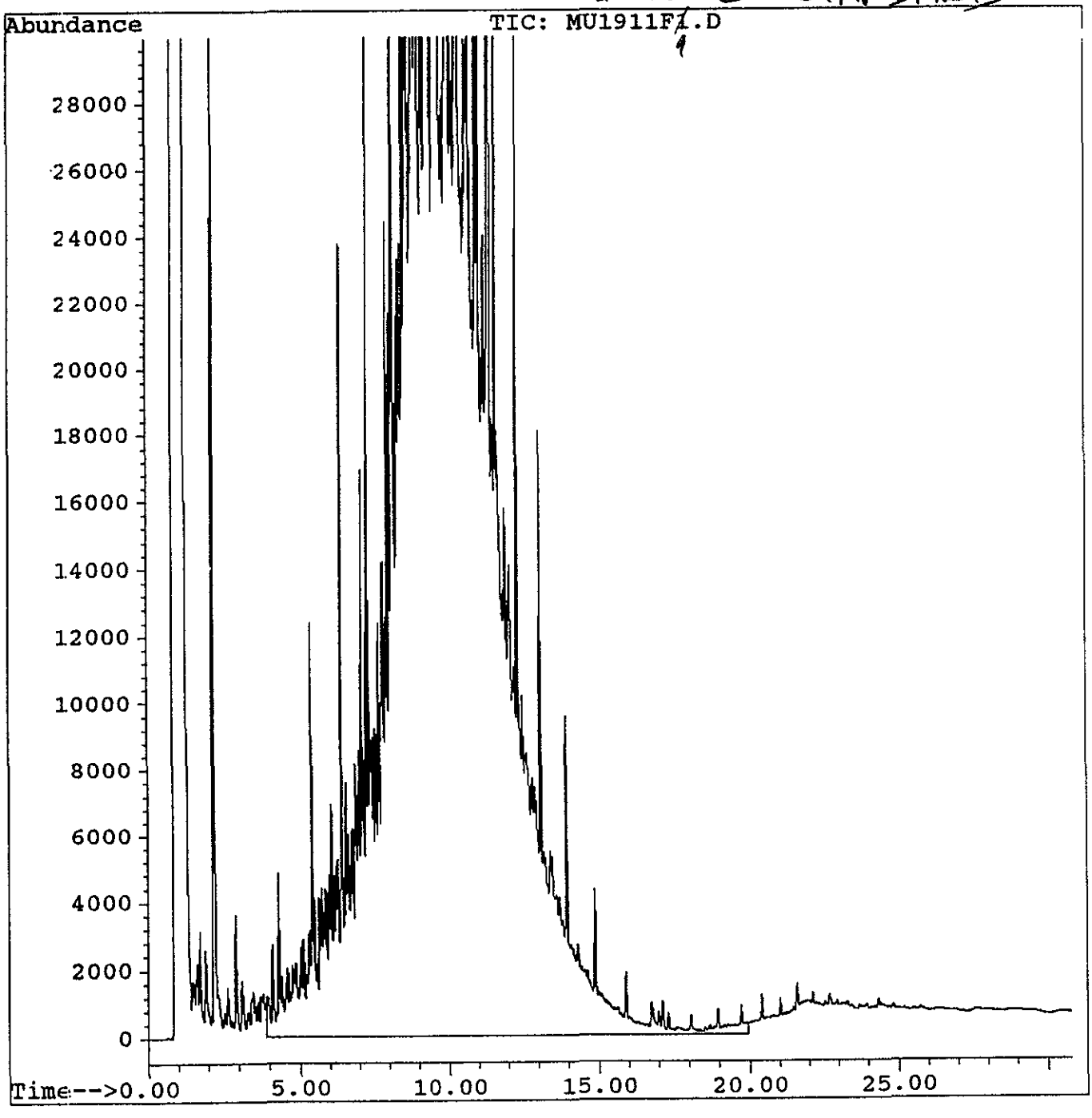
Oper: JD
Vial: 11
Mult: 1.0

Method : J:\GCTPH\HP9\METHODS\09Y15F1W.M
Title : TPHd - Anametrix, Inc
Last Update : Fri May 17 18:01:02 1996
Response via : Multiple Level Calibration

Volume Inj. : 3 uL
Signal Phase : DB-5
Signal Info : 0.53mm

Instrument ID : HP9

DIESEL STANDARD



9

Quantitation Report 9 TS 06/20/96

Data File : J:\GCTPH\HP9\DATA\09U19F1A\MU1911F1.D
Acq On : 19 Jun 96 07:40 PM
Sample : LCS
Misc :
Quant Time: Jun 20 6:47 1996

Oper: JD
Vial: 11
Mult: 1.0

Method : J:\GCTPH\HP9\METHODS\09Y15F1W.M
Title : TPHd - Anametrix, Inc
Last Update : Fri May 17 18:01:02 1996
Response via : Multiple Level Calibration

Volume Inj. : 3 uL
Signal Phase : DB-5
Signal Info : 0.53mm

Instrument ID : HP9

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) o-TERPHENYL	11.44	7962200	84.93 ppb m TS 06/20/96
Target Compounds			
2) DIESEL	12.00	92587078	1043.58 ppb
3) MOTOR OIL	0.00	0	N.D. ppb

(f)=RT Delta > 1/2 Window (m)=manual integration
MU1911F1.D 09Y15F1W.M Thu Jun 20 10:18:41 1996 HP27 Page 1
9

AGI TECHNOLOGIES

QUALITY ASSURANCE REPORT

PROJECT AND SAMPLE INFORMATION

Project Name:	Harbert Transportation
Project No.:	15,833.004
Lab Name:	Inchcape Testing Services (ITS) - San Jose, CA
Lab Number:	9606168
Sample No.:	GP1, GP2, GP3, GP4, GP5, GP6, GP7, GP8, GP9, GP10
Matrix:	Water

QUALITY ASSURANCE SUMMARY

All data are of known quality and acceptable for use.

ANALYTICAL METHODS

Parameter	Technique	Method
BETX	GC/PID	EPA 8020
Fuel Hydrocarbons as Gasoline (TPH-G)	GC/FID	EPA 8015
Fuel Hydrocarbons as Diesel (TPH-D)	GC/FID	EPA 8015

TIMELINESS

Parameter	Date Sampled	Date Extracted	Date Analyzed	Time Until Extraction	Time Until Analysis
BETX	06/18/96	NR	06/21/96	NR	3 (14)
TPH-G	06/18/96	NR	06/21/96	NR	3 (14)
TPH-D	06/18/96	06/20/96	06/20/96	2	2 (28)

NR - Not Reported
NA - Not applicable
( ) - Recommended holding times

All samples were extracted and analyzed within recommended holding times.

AGI TECHNOLOGIES

QUALITY ASSURANCE REPORT

PROJECT AND SAMPLE INFORMATION

Project Name: Harbert Transportation
Project No.: 15,833.004
Lab Name: Inchcape Testing Services (ITS) - San Jose, CA
Lab Number: 9606168
Sample No.: See Page 1 of 3

FUEL HYDROCARBON CHROMATOGRAMS

Gasoline range fuel hydrocarbons (FHCs) were detected in samples GP2, GP3, GP7, GP8, and GP10. A review of sample chromatograms with standards indicates many gasoline components are missing from the field samples.

Diesel FHCs were detected in samples GP5, GP7, GP8, GP9, and GP10; a review of the respective sample chromatograms with standards indicate a broad range of hydrocarbons, ranging from gasoline to motor oil, are present.

FIELD QUALITY CONTROL SAMPLES

Field Duplicates: None collected.

Rinsate: None collected.

Trip Blank: None collected.

LAB QUALITY CONTROL SAMPLES

Method Blank: No analytes were detected at or above the method reporting limits (MRLs) for the following methods:

EPA 8020
EPA 8015

AGI TECHNOLOGIES

QUALITY ASSURANCE REPORT

PROJECT AND SAMPLE INFORMATION

Project Name: Harbert Transportation
Project No.: 15,833.004
Lab Name: Inchcape Testing Services (ITS) - San Jose, CA
Lab Number: 9606168
Sample No.: See Page 1 of 3

Matrix Spike: Matrix Spike (MS) and MS duplicate (MSD) percent recoveries and relative percent differences (RPDs) are within ITS's control limit criteria for the following methods:

EPA 8020

Laboratory Control Sample: Laboratory Control Sample (LCS) percent recoveries and LCS RPDs are within ITS's control limit criteria for the following methods:

EPA 8020
EPA 8015

Duplicates: Duplicate analysis RPDs are within ITS's control limit criteria for:

EPA 8020, except for: Sample GP1 RPD is greater than 25 percent. All other QC data are considered acceptable, therefore data are not flagged with qualifiers.

EPA 8015

Surrogates: All surrogate percent recoveries are within ITS's control limit criteria for the following methods:

EPA 8020
EPA 8015

SIGNATURES

Prepared by Peter J. Morrell Date 8/2/96

Checked by Gary Sadowski Date 8/2/96