BASELINE
ENVIRONMENTAL CONSULTING

TRANSMITTAL

TO: Ms. Ann E. Johnston
COBLENTZ, PATCH, DUFFEY & BASS, LLP
222 Kearny Street, 7th Floor
San Francisco, CA 94108-4510

Date: 30 June 2000

Project No: 98381

SUBJECT: Fourth Quarterly Groundwater Monitoring Report, 623 San Pablo Avenue, Oakland, California

ENCLOSED:

No. of copies	Description:
1	Report

COMMENTS:

cc: w/enclosure
(1) Helen Loreto, McDonalds Corporation
(1) Larry Seto, Alameda County Env. Health Services

Disposition:

- [X] As requested
- [ ] For signature
- [ ] For review and comment
- [ ] Returned after loan to us

Via:

- [ ] Mail
- [ ] Overnight
- [X] UPS ground
- [ ] Courier

TRANSMITTED BY:

Yane Nordhav, Principal

5900 Hollis Street, Suite D • Emeryville, CA 94608 • (510) 420-8686 • FAX: (510) 420-1707
Emeryville Petaluma San Francisco

BASELINE

ENVIRONMENTAL CONSULTING

30 June 2000
98381

Ms. Ann E. Johnston
COBLENTZ, PATCH, DUFFEY & BASS, LLP
222 Kearny Street, 7th Floor
San Francisco, California 94108-4510

Subject: Fourth Quarterly Groundwater Monitoring Report, 6623 San Pablo Avenue, Oakland, California

Dear Ann:

This report documents quarterly groundwater sampling activities conducted by BASELINE in November 1999 at 6623 San Pablo Avenue in Oakland (Figure 1). Quarterly groundwater sampling has occurred at this site in February, May, and August 1999. As required by the Alameda County Environmental Health Services, in a letter dated 23 April 1999, all samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, methyl tert butyl ether (MTBE), and benzene, toluene, ethylbenzene, xylenes (BTEX).

FIELD ACTIVITIES

On 8 November 1999, groundwater samples were collected from the five monitoring wells on-site (Figure 2). The potential presence of free product was checked and water levels measured in the wells using a dual-interface probe prior to sampling activities. Water levels were measured and recorded to the nearest one-hundredth of a foot. No free product was measured in any of the wells.

The probe was decontaminated between wells by washing with a trisodium phosphate (TSP) solution and rinsing with deionized water. Groundwater was then slowly purged from each well using a peristaltic pump and clean disposable polyethylene tubing until each well was pumped dry or the temperature, pH, and electrical conductivity (EC) of the groundwater appeared to have stabilized.

Due to slow groundwater recovery, the purging of the wells was completed on 5 November 1999 in all but one well, and the samples collected on 8 November 1999. Monitoring well MW-2A was purged and a sample was collected from the well on 8 November 1999. The purged groundwater and decontamination rinsate were stored on-site in sealed and labeled 55-gallon drums.

A peristaltic pump and clean polyethylene tubing was used to collect groundwater samples from each well. The portion of the samples to be analyzed for TPH as diesel analysis was decanted

directly from the tubing into one-liter amber glass sample bottles. The portion of the sample to be analyzed for TPH as gasoline, BTEX, and MTBE analyses were collected into VOA bottles directly from the tubing. The sample bottles were labeled, placed in a cooled container, and submitted under chain-of-custody procedures to Curtis and Tompkins, Ltd., of Berkeley, California, a California-certified laboratory for analysis. The groundwater samples were submitted for TPH as diesel (EPA Method 8015M), TPH as gasoline (EPA Method 8015M), and BTEX and MTBE analyses (EPA Method 8021B). The groundwater sampling forms, which document the sampling activities, are included in Attachment A.

ANALYTICAL RESULTS

The analytical results for groundwater samples collected at the site are summarized in Table 1. The laboratory report for the November 1999 groundwater samples is included in Attachment B.

Each of the three wells screened in the uppermost water-bearing zone (MW-1A, MW-2A, and MW-3A) was found to contain elevated levels of petroleum hydrocarbons (up to 0.47 mg/L diesel, 55 mg/L gasoline, 5.8 mg/L benzene, 5.4 mg/L toluene, 2.5 mg/L ethylbenzene, 10.4 mg/L xylenes, and 42 mg/L MTBE).

The two wells screened in the lower water-bearing zone (MW-1B and MW-3B) did not contain any of the analyzed compounds above laboratory reporting limits, with the exception of 0.00059 mg/L (laboratory reporting limit is 0.005 mg/L) ethylbenzene in MW-3B.

GROUNDWATER FLOW DIRECTION

Groundwater elevation data are summarized in Table 2. The groundwater data collected on 5 November 1999 from wells MW-1A, MW-2A, and MW-3A were used to calculate the groundwater flow direction and gradient magnitude using a three-point method. The calculated groundwater flow direction was S40°E with a gradient magnitude of 0.042.

CONCLUSIONS AND RECOMMENDATIONS

- Chemical quality of the uppermost water-bearing zone, characterized by samples collected from MW-1A, MW-2A, and MW-3A, has been impacted by a gasoline release. Based on November 1999 analytical data for samples collected from MW-1B and MW-3B, no significant impact appears to have occurred within the lower water-bearing zone.

- The shallow groundwater flow direction was S40°E with a gradient magnitude of 0.042, as calculated from the three shallow wells.

- A health risk assessment (HRA) should be conducted to determine whether the residual contamination in the site subsurface poses significant added health risks to users of the site. We recommend using the Oakland Risk Based Corrective Action (RBCA) approach to develop and compare risk-based site-specific target limits with the concentration of site contaminants for all applicable exposure pathways. For the indoor air exposure pathway, the Johnson-Ettinger model, approved by the California Department of Toxic Substances Control is recommended. If the HRA indicates that residual contaminants at the site do not pose significant added health risks to site users, the case should be considered for closure by the Alameda County Environmental Health Services Agency.

- Purge and decontamination water generated during field activities should be disposed of in accordance with applicable local, state, and federal requirements.

If you have any questions or comments, please do not hesitate to contact us.

Sincerely,

Bruce Abelli-Amen
Project Manager

Yane Nordhav
Reg. Geologist #4009
Principal

BAA:YN:cr
Enclosure

cc: Helen Loreto, McDonalds Corporation
Larry Seto, Alameda County Environmental Health Services

TABLE 1

SUMMARY OF ANALYTICAL RESULTS, GROUNDWATER

6623 San Pablo Avenue, Oakland

(mg/L)

Sample ID	Date	Diesel[1]	Gasoline[1]	Total Lead[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Xylenes[3]	MTBE[3]
Grab Groundwater Samples from Borings:									
KB-8	2/5/97	**0.86**	**0.12**	<0.003	**0.0013**	<0.0005	**0.0021**	**0.001**	--
KB-9	2/5/97	<0.05	**0.47**	<0.003	**0.0048**	<0.0005	**0.011**	**0.0183**	--
KB-10	2/5/97	**3.1**	**0.45**	<0.003	**0.03**	**0.0036**	**0.013**	**0.071**	--
KB-11	2/5/97	**0.97**	**0.82**	<0.003	**0.1**	**0.0022**	**0.028**	**0.129**	--
KB-12	2/5/97	**0.20**	**0.096**	<0.003	**0.02**	<0.0005	**0.005**	**0.0122**	--
Groundwater Samples From Monitoring Wells									
MW-1A	2/8/99[4]	--	--	--	--	--	--	--	--
	5/21/99	**0.56**[7]	**19**	--	**6.7**	**0.12**	**1.2**	**3.28**	**38**
	8/11/99	**0.63**[7]	**14**	--	**3.9**	<0.1	**0.68**	**1.65**	**40**
	11//8/99	**0.36**[7]	**15**		**4.3**	<0.13	**0.78**	**1.3**	**42**
MW-1B	2/8/99	<0.049	**0.059**	--	**0.0013**	<0.0005	**0.0055**	**0.14**	**0.033**
	5/21/99	<0.05	<0.05	--	**0.00066**	<0.0005	<0.0005	<0.0005	**0.0041**
	8/11/99	<0.05	<0.05	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002
	11/8/99	<0.05	<0.05		<0.0005	<0.0005	<0.0005	<0.0005	<0.002
MW-2A	2/8/99	**0.53**[6]	**3.6**	--	**0.87**	**0.079**	**0.14**	**0.58**	**5.1**
	5/21/99	**0.064**[7]	**0.91**	--	**0.62**	**0.018**	**0.038**	**0.078**	**4.0**
	8/11/99	**0.130**[7]	**1.4**	--	**0.96**	**0.032**	**0.065**	**0.093**	**4.0**
	11/8/99	**0.11**[7]	**2.5**	--	**1.1**	**0.033**	**0.081**	**0.142**	**4.1**
MW-3A	2/8/99	**0.21**[6]	**24**	--	**2.1**	**3.4**	**1.5**	**6.1**	<0.05
	5/21/99	**0.23**[7]	**17**	--	**3.5**	**3.1**	**0.85**	**3.6**	**0.077**
	8/11/99	**0.80**[7]	**68**	--	**7.4**	**6.8**	**2.9**	**11.6**	<0.2
	11/8/99	**0.47**[7]	**55**	--	**5.8**	**5.4**	**2.5**	**10.4**	<0.08

Table 1 - *continued*

Sample ID	Date	Diesel[1]	Gasoline[1]	Total Lead[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Xylenes[3]	MTBE[3]
MW-3B	2/8/99	<0.047	**0.08**	--	**0.0015**	**0.0048**	**0.0025**	**0.0061**	**0.00455**
	5/21/99	<0.05	<0.05	--	<0.0005	<0.0005	<0.0005	**0.00057**	<0.002
	8/11/99	<0.05	<0.05	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002
	11/8/99	<0.05	<0.05	--	<0.0005	<0.0005	**0.00059**	<0.0005	<0.002

Notes: <x.x = Compound not detected above laboratory reporting limit (e.g., <0.05 indicates that the constituent was not present in the sample above 0.05 mg/L)
x.x = Compound detected at indicated concentration.
-- = Not analyzed.
Groundwater sampling locations are shown on Figure 2.
Laboratory reports for November 1999 sampling event are included in Appendix B.

1 Analyzed using EPA Method 8015M.
2 Analyzed using EPA Method 6010A.
3 Analyzed using EPA Method 8020 or 8021B.
4 Insufficient groundwater in well to allow sample collection.
5 Presence of the compound confirmed by second column, however, the confirmation concentration differed from the reported result by more than a factor of two.
6 The chromatograms for these samples suggest that the concentrations quantified as diesel may be in the gasoline range of hydrocarbons; the laboratory also indicates that the samples exhibit lighter than diesel patterns.
7 Sample exhibits a fuel pattern which does not resemble standard; lighter hydrocarbons were exhibited than the indicated standard.

TABLE 2

GROUNDWATER ELEVATIONS AND GRADIENT MAGNITUDES

6623 San Pablo Avenue, Oakland

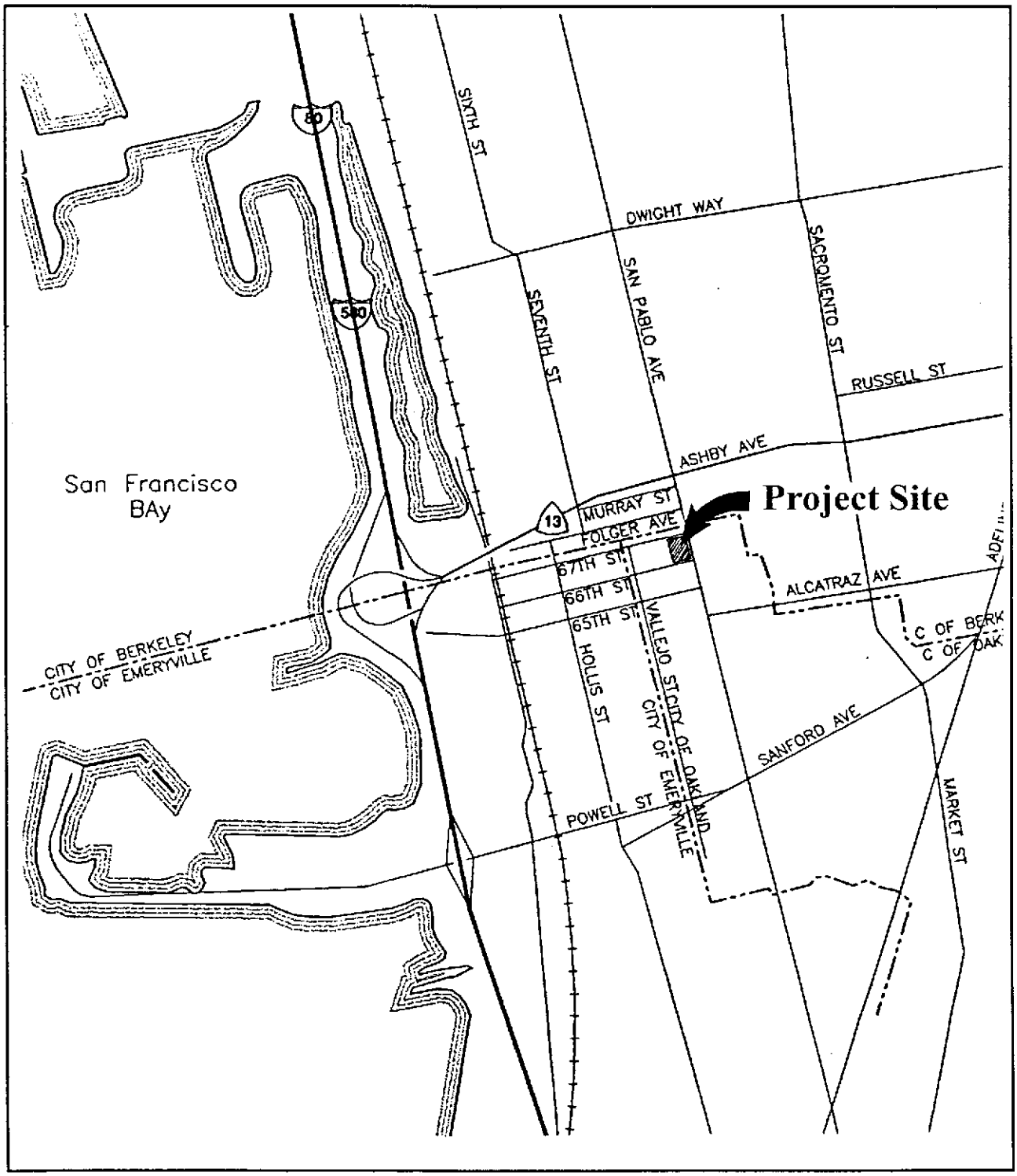
	MW-1A[1]			MW-1B[2]			MW-2A[3]			MW-3A[4]			MW-3B[5]			Gradient[8]
Date	Time	Depth to Ground-water[6]	Ground-water Elevation[7]	Time	Depth to Ground-water[6]	Ground-water Elevation[7]	Time	Depth to Ground-water[6]	Ground-water Elevation[7]	Time	Depth to Ground-water[6]	Ground-water Elevation[7]	Time	Depth to Ground-water[6]	Ground-water Elevation[7]	ft/ft
1/15/99	12:44	Dry	--	12:44	21.60	18.35	12:52	7.15	31.77	12:50	7.0	32.76	12:50	22.50	17.29	--
1/19/99	8:11	Dry	--	8:11	9.10	30.85	8:17	7.32	31.60	8:13	7.27	32.49	8:14	8.77	31.02	--
1/19/99	16:58	Dry	--	16:55	26.81	13.14	17:82	7.05	31.87	17:08	7.79	31.97	17:11	26.71	13.08	--
1/20/99	8:46	Dry	--	8:43	16.76	23.19	8:50	6.94	31.98	8:55	7.18	32.58	8:58	15.40	24.39	--
1/20/99	17:48	Dry	--	17:44	13.48	26.47	17:51	6.89	32.03	17:56	7.04	32.72	17:58	12.50	27.29	--
2/8/99	7:45	Dry	--	7:42	10.74	29.21	7:50	6.80	32.12	6:48	5.45	34.31	6:45	6.82	32.97	--
2/12/99	6:54	9.10	30.86	--	--	--	6:58	6.90	32.02	7:04	5.94	33.82	--	--	--	--
5/18/99	12:05	8.42	31.54	12:24	9.09	30.86	12:25	7.77	31.15	12:02	6.78	32.98	12:03	8.65	31.14	S52°W@0.02
8/9/99	11:09	4.69	35.27	11:10	9.10	30.85	11:18	7.34	31.58	11:14	4.30	35.46	11:13	8.23	31.56	S23°E@0.0038
11/5/99	8:00	5.23	34.73	8:02	9.15	30.80	8:10	7.43	31.49	8:06	5.87	33.89	8:08	8.37	31.42	S40°E@0.042

Notes: Monitoring well locations are shown on Figure 2.
-- = Not collected / Not determined.
Water level measurements were collected after removal of one well volume on 19 January 1999.
The water level data collected on 20 January and 8 and 12 February 1999 indicate that the water levels had not stabilized in either the shallow or deeper wells on the site.

[1] Top of well casing elevation = 39.96 feet above City of Oakland datum.
[2] Top of well casing elevation = 39.95 feet above City of Oakland datum.
[3] Top of well casing elevation = 38.92 feet above City of Oakland datum.
[4] Top of well casing elevation = 39.76 feet above City of Oakland datum.
[5] Top of well casing elevation = 39.79 feet above City of Oakland datum.
[6] Depths are in feet below top of casing.
[7] Elevations are in feet above City of Oakland datum.
[8] Gradient direction and magnitude based on MW-1A, MW-2A, MW-3A

REGIONAL LOCATION

Figure 1



6623 San Pablo Avenue
Oakland, California

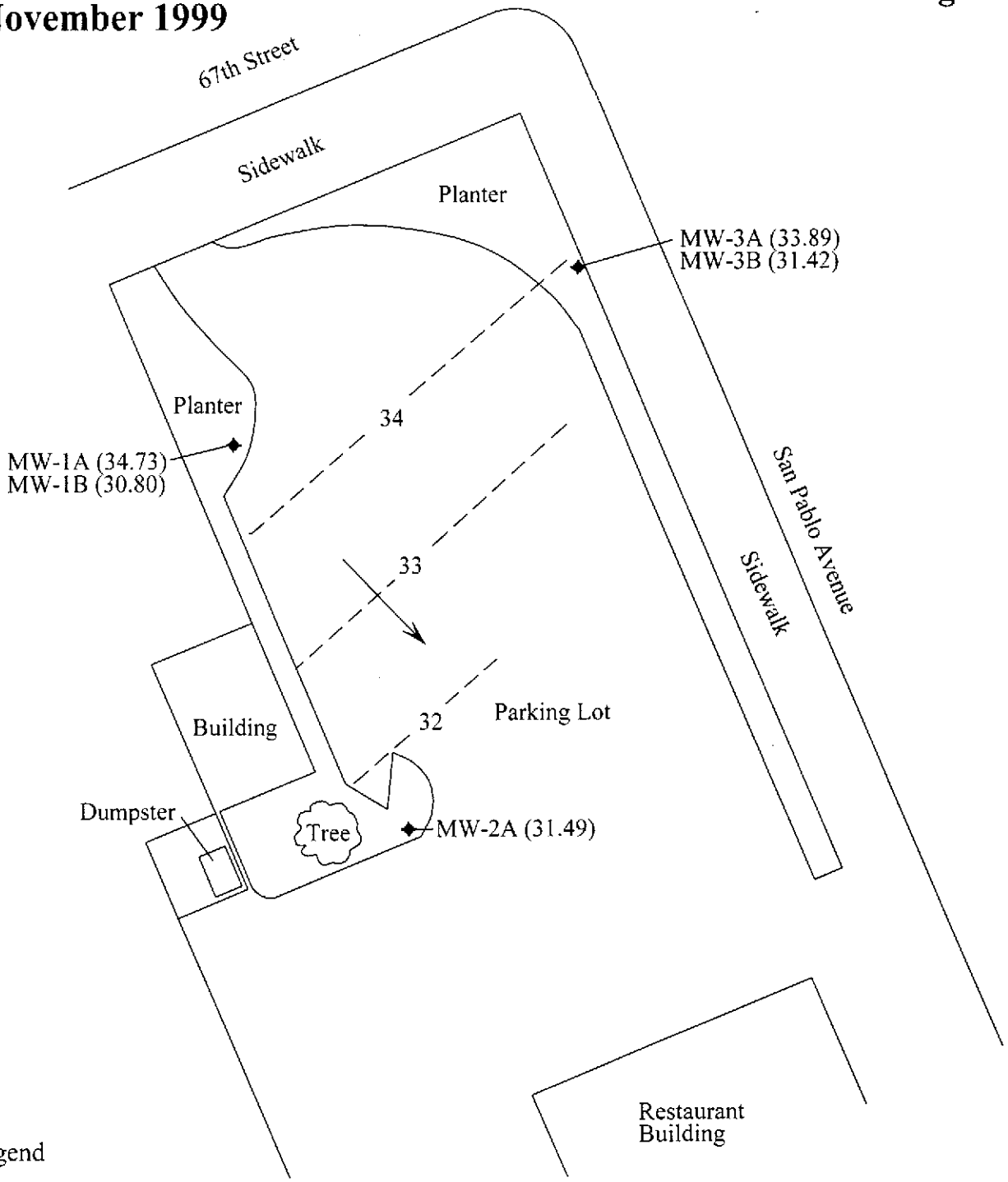
0 2000 Feet

BASELINE

98380RL 6/24/98

GROUNDWATER CONTOUR MAP
5 November 1999

Figure 2



Legend

⟶	Groundwater Flow Direction, November 1999
- - - - -	Groundwater Elevation Contour (contour interval = 1.0 feet)
MW-2A ✦	Monitoring Well Location (BASELINE)
31.49	Groundwater Elvation from 11/5/99 in feet above City of Oakland datum

6623 San Pablo Avenue
Oakland, California

0 30 Feet

BASELINE

D:\Graphics\98381\GWC5Nov1.vcd 11/5/99

ATTACHMENT A

GROUNDWATER SAMPLING FORMS

GROUNDWATER SAMPLING

Project no.:	98381	Well no.:	MW-1A	Date:	11/5/99;11/8/99
Project name:	McDonald's	Depth of well from TOC (feet):	9.95		
Location:	6623 San Pablo Ave.	Well diameter (inch):	3/4		
	Oakland	Screened interval from TOC (feet):	5-10		
Recorded by:	WKS	TOC elevation (feet):	39.96		
Weather:	Cloudy sky	Water level from TOC (feet):	5.23	Time:	8:00 (11/5/99)
Precip in past		Product level from TOC (feet):	None	Time:	8:00 (11/5/99)
5 days (inch):	1.0	Water level measurement:	Dual interface probe		

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(9.95 ft) - (5.23 ft)] × (0.03 ft)² × 3.14 × 7.48 =

Well depth Water level Well radius

0.10 gallons in one well volume

0.30 gallons in 3 well volumes

0.53 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)	Turbidity (NTU)
Calibration Standard:	--	--	7.00/10.01	1,000	0.0/10.0
Before Purging:	7:54	17.0	7.00/10.01	1,000	0.0/10.0
After Purging:	9:50	17.1	7.09/10.12	873	0.0/10.08

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Turbidity (NTU)	
8:23	20.1	7.70	1,343	0.13	4.4	Petroleum odor
8:29	20.1	7.46	830	0.26	3.86	Petroleum odor
8:32	20.1	7.38	867	0.40	3.36	Petroleum odor
8:36	19.7	7.43	870	0.53	3.06	Petroleum odor

Water level after purging prior to sampling (feet):	7.60	Time:	12:49 (11/8/99)
Turbidity of sample (NTU):	5.80	Time:	12:50 (11/8/99)
Duplicate/blank number:	--	Time:	--
Purge method:	Peristaltic pump and disposable polyethylene tubing		
Sampling equipment:	Peristaltic pump and disposable polyethylene tubing	VOC attachment:	None required
Sample containers:	1-liter amber glass, 3-40ml VOA's		
Sample analyses:	TEH diesel w/silica gel clean up, TPHg, BTEX, MTBE	Laboratory:	Curtis & Tompkins
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	On-Site Drum

98381-gw.1199

GROUNDWATER SAMPLING

Project no.:	98381	Well no.:	MW-1B	Date:	11/5/99;11/8/99
Project name:	McDonald's	Depth of well from TOC (feet):	30.32		
Location:	6623 San Pablo Ave.	Well diameter (inch):	3/4		
	Oakland	Screened interval from TOC (feet):	25-30		
Recorded by:	WKS	TOC elevation (feet):	39.95		
Weather:	Cloudy sky	Water level from TOC (feet):	9.15	Time:	8:02 (11/5/99)
Precip in past		Product level from TOC (feet):	None	Time:	8:02 (11/5/99)
5 days (inch):	1.0	Water level measurement:	Dual interface probe		

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(30.32 ft) - (9.15 ft)] × (0.03 ft)² × 3.14 × 7.48 =

Well depth Water level Well radius

0.4 gallons in one well volume
1.3 gallons in 3 well volumes
1.3 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)	Turbidity (NTU)
Calibration Standard:	--	--	7.00/10.01	1,000	0.0/10.0
Before Purging:	7:54	17.0	7.00/10.01	1,000	0.0/10.0
After Purging:	9:50	17.1	7.09/10.12	873	0.0/10.08

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Turbidity (NTU)
8:42	19.7	7.09	951	0.13	24.4
8:46	19.9	7.14	935	0.39	9.98
8:50	19.5	7.19	942	0.65	6.82
8:53	19.8	7.17	929	0.91	5.75
8:56	19.7	7.17	943	1.17	6.41
8:57	--	Well pumped dry	--	1.30	--

Water level after purging prior to sampling (feet):	9.88			Time:	12:30 (11/08/99)
Turbidity of sample (NTU):	6.29			Time:	13:05 (11/08/99)
Duplicate/blank number:	--			Time:	--
Purge method:	Peristaltic pump and disposable polyethylene tubing				
Sampling equipment:	Peristaltic pump and disposable polyethylene tubing	VOC attachment:	None required		
Sample containers:	1 liter amber glass, 3-40ml VOAs				
Sample analyses:	TEH diesel w/silica gel clean up, TPHg, BTEX, MTBE	Laboratory:	Curtis & Tompkins		
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	On-Site Drum		

BASELINE • 5900 Hollis Street, Suite D • Emeryville, CA 94608 • (510) 420-8686 • Fax (510) 420-1707

GROUNDWATER SAMPLING

Project no.:	98381	Well no.: MW-2A	Date: 11/5/99;11/8/99
Project name:	McDonald's	Depth of well from TOC (feet):	14.72
Location:	6623 San Pablo Ave.	Well diameter (inch):	1 inch
	Oakland	Screened interval from TOC (feet):	10-15
Recorded by:	WKS	TOC elevation (feet):	38.92
Weather:	Overcast	Water level from TOC (feet):	7.43 Time: 8:10 (11/5/99)
Precip in past		Product level from TOC (feet):	None Time: 8:10 (11/5/99)
5 days (inch):	1.0	Water level measurement:	Dual interface probe

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(14.72 ft) - (7.43 ft)] × (0.042 ft)² × 3.14 × 7.48 =

Well depth Water level Well radius

0.3 gallons in one well volume

0.9 gallons in 3 well volumes

2.5 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)	Turbidity (NTU)
Calibration Standard:	--	--	7.00 /10.01	1,000	0.0-10.00
Before Purging:	13:40	17.6	7.00 /10.01	1,000	0.0-10.00
After Purging:	14:10	17.6	7.04/10.06	1,036	0.0-10.09

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Turbidity (NTU)
13:45	20.1	6.84	989	1.0	11.1
13:50	21.0	6.76	1,085	2.0	7.64
13:55	21.0	6.72	1,100	2.5	14.8
13:58		Well pumped dry			

Water level after purging prior to sampling (feet):	7.61		Time: 14:29 (11/8/99)
Turbidity of sample (NTU):	7.23		Time: 14:30 (11/8/99)
Duplicate/blank number:	--		Time: --
Purge method:	Peristaltic pump and disposable polyethylene tubing		
Sampling equipment:	Peristaltic pump and disposable polyethylene tubing	VOC attachment:	None required
Sample containers:	1 liter amber glass, 3-40ml VOAs		
Sample analyses:	TEH diesel w/silica gel clean up, TPHg, BTEX, MTBE	Laboratory:	Curtis & Tompkins
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	On-Site Drum

BASELINE • 5900 Hollis Street, Suite D • Emeryville, CA 94608 • (510) 420-8686 • Fax (510) 420-1707

GROUNDWATER SAMPLING

Project no.:	98381	Well no.:	MW-3A — Date: 11/5/99;11/8/99
Project name:	McDonald's	Depth of well from TOC (feet):	10.02
Location:	6623 San Pablo Ave.	Well diameter (inch):	3/4
	Oakland	Screened interval from TOC (feet):	7-10.02
Recorded by:	WKS	TOC elevation (feet):	39.76
Weather:	Cloudy sky	Water level from TOC (feet):	5.87 — Time: 8:06 (11/8/99)
Precip in past		Product level from TOC (feet):	None — Time: 8:06 (11/8/99)
5 days (inch):	1.0	Water level measurement:	Dual interface probe

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(10.02 ft) - (5.87 ft)] × (0.03 ft)² × 3.14 × 7.48 =
Well depth Water level Well radius

0.09 gallons in one well volume
0.26 gallons in 3 well volumes
0.14 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)	Turbidity (NTU)
Calibration Standard:	--	--	7.00/10.01	1,000	0.0/10.0
Before Purging:	7:54	17.0	7.00/10.01	1,000	0.0/10.0
After Purging:	9:50	17.1	7.09/10.12	873	0.0/10.08

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Turbidity (NTU)
9:08	17.6	12.32	2,512	0.07	147
9:10	17.6	11.63	679	0.13	260
9:11	--	Well pumped dry	--	0.14	--

Water level after purging prior to sampling (feet):	6.80		Time: 13:19 (11/8/99)
Turbidity of sample (NTU):	41.9		Time: 13:20 (11/8/99)
Duplicate/blank number:	--		Time: --
Purge method:	Peristaltic pump and disposable polyethylene tubing		
Sampling equipment:	Peristaltic pump and disposable polyethylene tubing	VOC attachment:	None required
Sample containers:	1 liter amber glass, 3-40ml VOAs		
Sample analyses:	TEH diesel w/silica gel clean up, TPHg, BTEX, MTBE	Laboratory:	Curtis & Tompkins
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	On-Site Drum

98381-gw.1199

GROUNDWATER SAMPLING

Project no.:	98381	Well no.:	MW-3B Date: 11/5/99;11/8/99
Project name:	McDonald's	Depth of well from TOC (feet):	31.31
Location:	6623 San Pablo Ave.	Well diameter (inch):	3/4
	Oakland	Screened interval from TOC (feet):	26.3-31.3
Recorded by:	WKS	TOC elevation (feet):	39.79
Weather:	Cloudy sky	Water level from TOC (feet):	8.37 Time: 8:08 (11/5/99)
Precip in past		Product level from TOC (feet):	None Time: 8:08 (11/5/99)
5 days (inch):	1.0	Water level measurement:	Dual interface probe

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(31.31 ft) - (8.37 ft)] × (0.03 ft)² × 3.14 × 7.48 =
Well depth Water level Well radius

0.48 gallons in one well volume
1.45 gallons in 3 well volumes
1.40 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)	Turbidity (NTU)
Calibration Standard:	--	--	7.00/10.01	1,000	0.0/10.0
Before Purging:	7:54	17.0	7.00/10.01	1,000	0.0/10.0
After Purging:	9:50	17.1	7.09/10.12	873	0.0/10.08

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Turbidity (NTU)
9:18	19.0	7.42	812	0.13	10.00
9:21	19.1	7.35	798	0.26	4.78
9:24	19.2	7.34	794	0.39	3.13
9:27	18.6	7.36	779	0.52	7.42
9:34	19.0	7.34	778	0.65	8.72
9:37	19.1	7.32	782	0.78	6.25
9:41	19.3	7.27	794	1.04	7.51
9:45	19.3	7.21	837	1.30	11.07
9:47	--	Well pumped dry	--	1.40	--

Water level after purging prior to sampling (feet):	11.31		Time: 13:29 (11/8/99)
Turbidity of sample (NTU):	7.78		Time: 13:30 (11/8/99)
Duplicate/blank number:	--		Time: --
Purge method:	Peristaltic pump and disposable polyethylene tubing		
Sampling equipment:	Peristaltic pump and disposable polyethylene tubing	VOC attachment:	None required
Sample containers:	1 liter amber glass, 3-40ml VOAs		
Sample analyses:	TEH diesel w/silica gel clean up, TPHg, BTEX, MTBE	Laboratory:	Curtis & Tompkins
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	On-Site Drum

BASELINE • 5900 Hollis Street, Suite D • Emeryville, CA 94608 • (510) 420-8686 • Fax (510) 420-1707

ATTACHMENT B

LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

A N A L Y T I C A L R E P O R T

Prepared for:

Baseline Environmental
5900 Hollis Street
Suite D
Emeryville, CA 94608

Date: 29-NOV-99
Lab Job Number: 142431
Project ID: 98381
Location: McDonalds,6623 San Pablo

Reviewed by: _____

Reviewed by: _____

Laboratory Number: **142431** Receipt Date: **11/09/99**
Client: **Baseline Environmental**
Project#: **98381**
Location: **McDonalds, 6623 San Pablo**

CASE NARRATIVE

This hardcopy data package contains sample and QC results for five water samples that were received on November 09, 1999.

TVH/BTXE: No analytical problems were encountered.

Total Extractable Hydrocarbons: All extracts were treated with silica gel prior to analysis. No analytical problems were encountered.

BASELINE
900 Hollis Street, Suite D
Emeryville, CA 94608
(510) 420-8686

CHAIN OF CUSTODY RECORD

11/8/99

Turn-around Time: Normal
Lab: Curtis + Tompkins
BASELINE Contact Person: Bruce Abelli Aaron - Bill Scott

Project No.	Project Name and Location
98381-00	McDonalds, San Pablo Ave

Samplers: (Signature) William K Scott

Sample ID No. Station	Date	Time	Media	Depth	No. of Containers	TEH	(TPH with BTX&E)	Oil & Grease	Motor Oil	PNAs	Title 22 Metals	Total Lead	Tph-as diesel (8015) w silica gel cleanup	Tph-as Gasoline (8015)	MTBE + BTEX (8020)				Remarks/ Composite	Detection Limits
MW-1A	11-8-99	12:50	Water	3 - VOAs 1 - Lit									X	X	X					
MW-1B	11-8-99	13:05	Water	3 - VOAs 1 - Lit									X	X	X					
MW-2A	11-8-99	14:30	Water	3 - VOAs 1 - Lit									X	X	X					
MW-3A	11-8-99	13:20	Water	3 - VOAs 1 - Lit									X	X	X					
MW-3B	11-8-99	13:30	Water	3 - VOAs 1 - Lit *									X	X	X					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Conditions of Samples Upon Arrival at Laboratory:
William K Scott	11-9-99 / 9:30		11/9/99 9:25	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Remarks: * Partial Sample 1/2 Liter
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	

TVH-Total Volatile Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
142431-001	MW-1A	51880	11/08/99	11/09/99	11/09/99	
142431-002	MW-1B	51880	11/08/99	11/09/99	11/09/99	
142431-003	MW-2A	51880	11/08/99	11/09/99	11/09/99	
142431-004	MW-3A	51916	11/08/99	11/11/99	11/11/99	

Matrix: Water

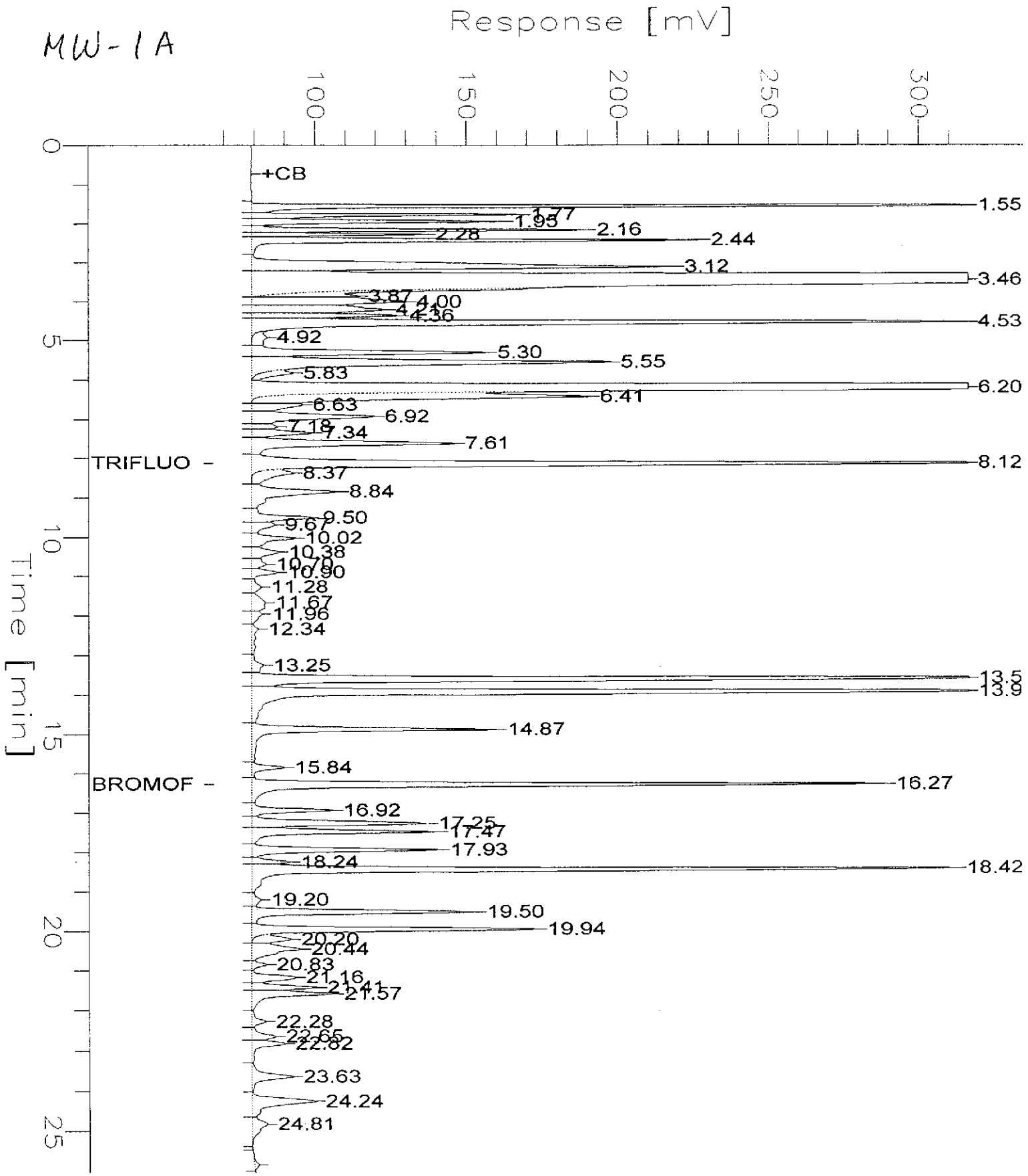
Analyte Diln Fac:	Units	142431-001 10	142431-002 1	142431-003 20	142431-004 20
Gasoline C7-C12	ug/L	15000	<50	2500	55000
Surrogate					
Trifluorotoluene	%REC	106	102	101	95
Bromofluorobenzene	%REC	107	106	105	100

GC04 TVH 'J' Data File Rtx1FID

Sample Name : d,142431-001b,51880
FileName : G:\GC04\DATA\313J014.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: -1.0 Plot Offset: 66 mV

Sample #: ph<2, 10x Page 1 of 1
Date : 11/9/99 10:52 PM
Time of Injection: 11/9/99 10:26 PM
Low Point : 66.43 mV High Point : 316.43 mV
Plot Scale: 250.0 mV

MW-1A

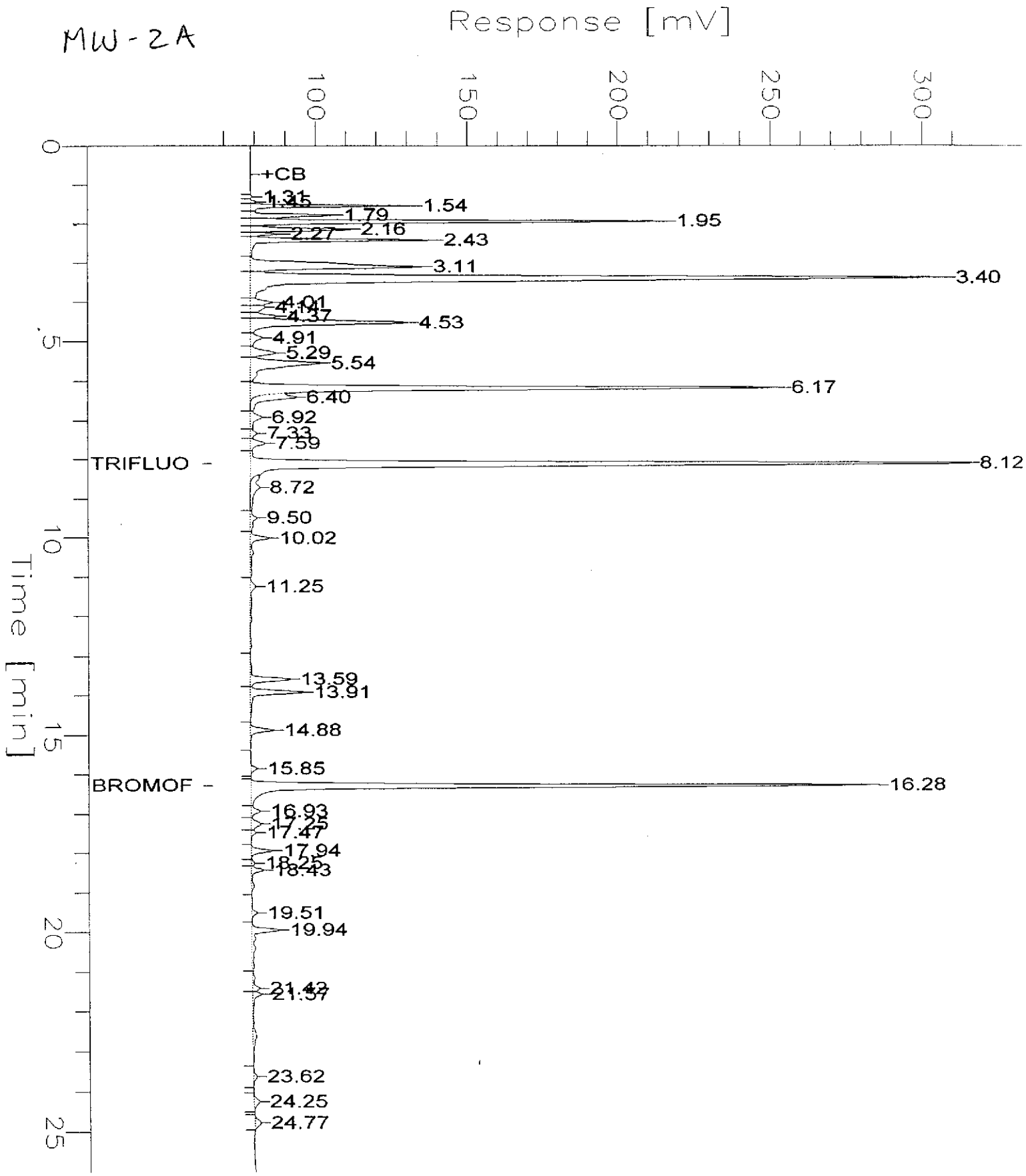


GC04 TVH 'J' Data File Rtx1FID

Sample Name : d,142431-003b,51880
FileName : G:\GC04\DATA\313J013.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: -1.0 Plot Offset: 66 mV

Sample #: ph<2, 20x
Date : 11/9/99 10:18 PM
Time of Injection: 11/9/99 09:52 PM
Low Point : 65.85 mV High Point : 315.85 mV
Plot Scale: 250.0 mV

MW-2A

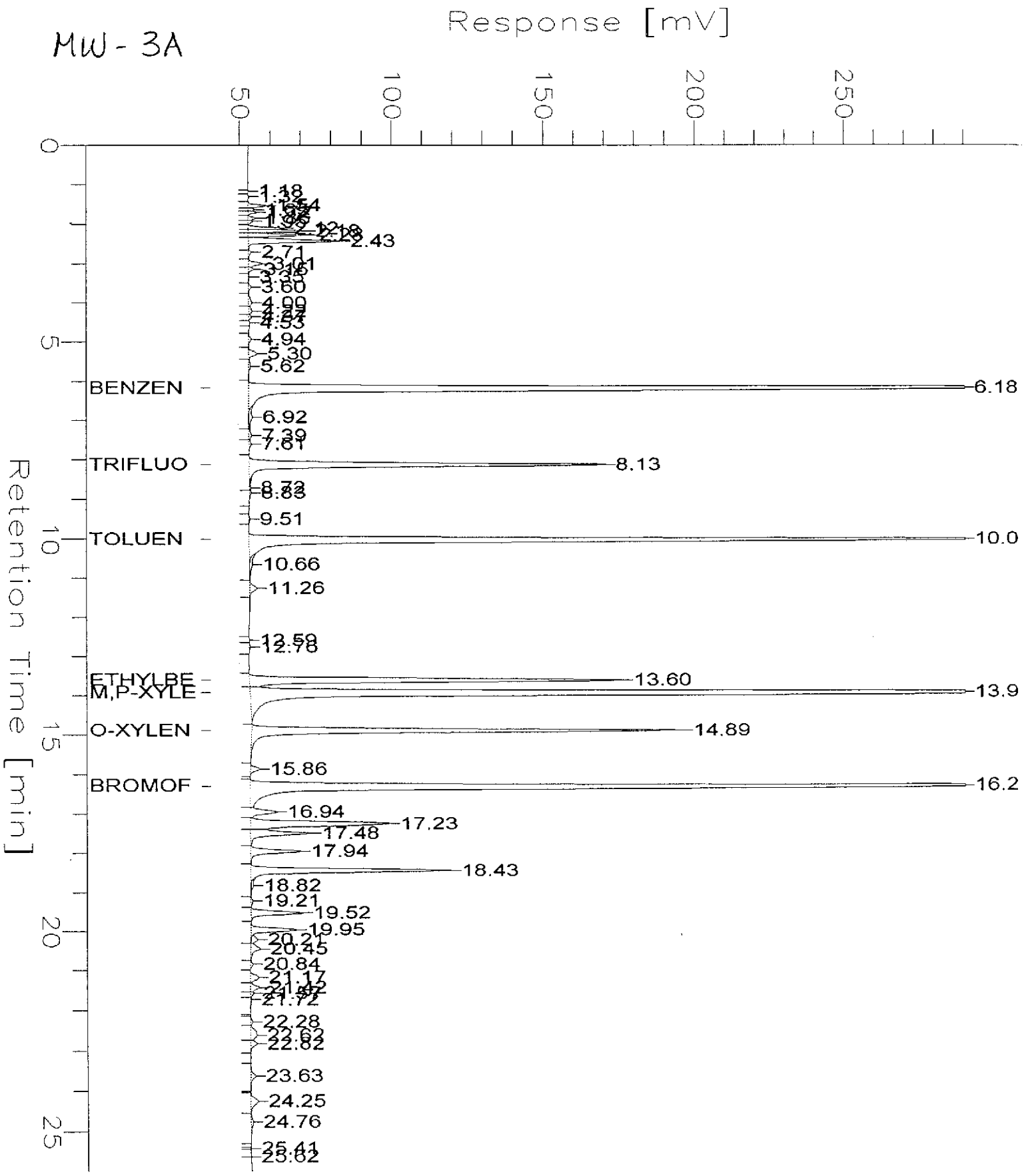


GC04 BTXE 'K' File (Rtx1,PID)

Sample Name : RD,142431-004C,51948,MBTEX ONLY
FileName : G:\GC04\DATA\315K012.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: -1.0 Plot Offset: 40 mV

Sample #: PH=12, 40X Page 1 of 1
Date : 11/11/99 09:30 PM
Time of Injection: 11/11/99 09:04 PM
Low Point : 40.35 mV High Point : 290.35 mV
Plot Scale: 250.0 mV

MW - 3A



TVH-Total Volatile Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
142431-005	MW-3B	51880	11/08/99	11/09/99	11/09/99	

Matrix: Water

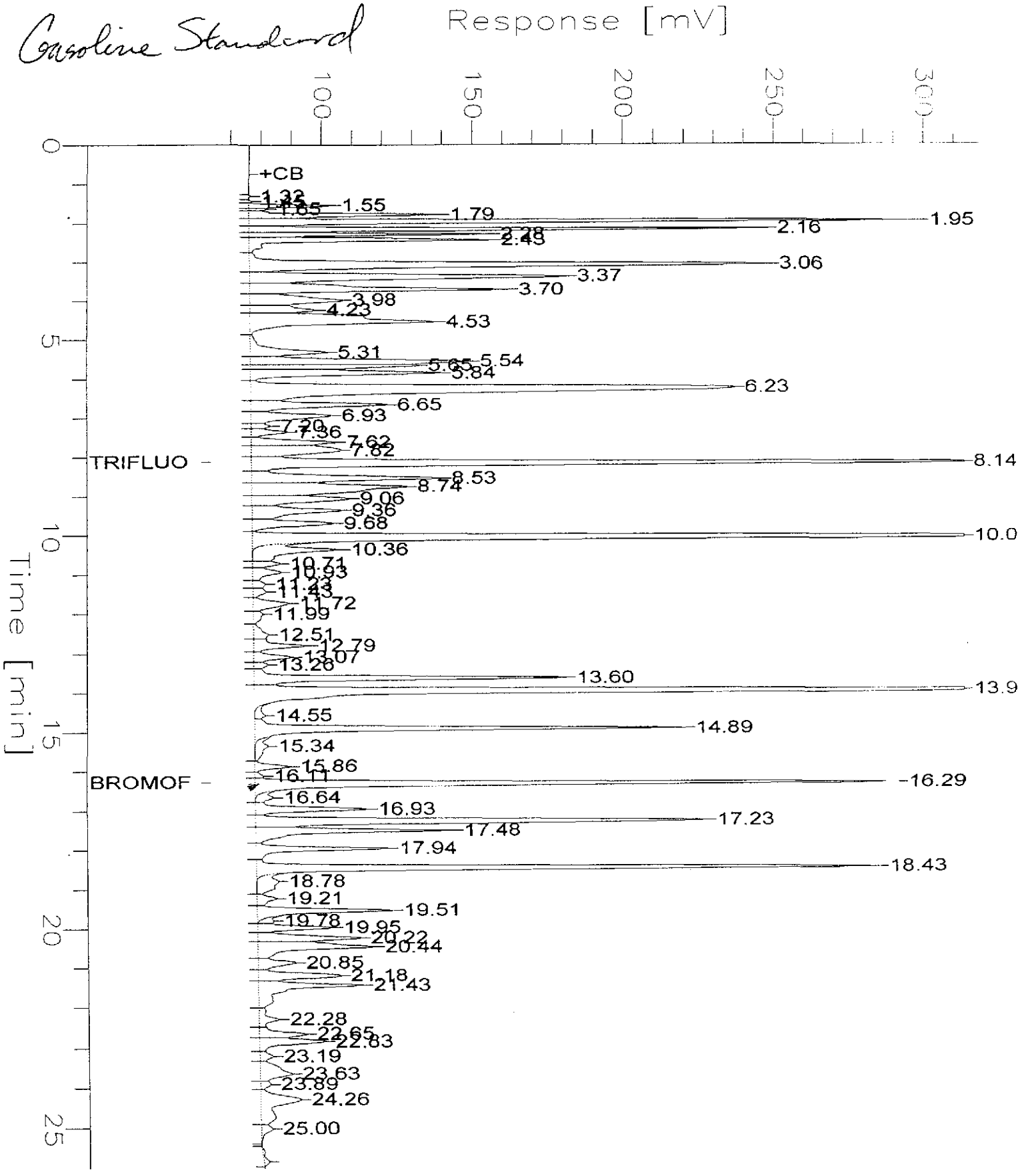
Analyte	Units	142431-005
Diln Fac:		1
Gasoline C7-C12	ug/L	<50
Surrogate		
Trifluorotoluene	%REC	102
Bromofluorobenzene	%REC	106

GC04 TVH 'J' Data File Rtx1FID

Sample Name : CCV/LCS,QC100718 99WS8283,51880
FileName : G:\GC04\DATA\313J001.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: -1.0 Plot Offset: 63 mV

Sample #: gas
Date : 11/9/99 12:55 PM
Time of Injection: 11/9/99 12:30 PM
Low Point : 63.47 mV High Point : 313.47 mV
Plot Scale: 250.0 mV

Gasoline Standard



BTXE

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8021B
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
142431-001	MW-1A	51948	11/08/99	11/11/99	11/11/99	
142431-002	MW-1B	51880	11/08/99	11/09/99	11/09/99	
142431-003	MW-2A	51916	11/08/99	11/11/99	11/11/99	
142431-004	MW-3A	51948	11/08/99	11/11/99	11/11/99	

Matrix: Water

Analyte	Units	142431-001	142431-002	142431-003	142431-004
Diln Fac:		250	1	25	40
MTBE	ug/L	42000	<2	4100	<80
Benzene	ug/L	4300	<0.5	1100	5800
Toluene	ug/L	<130	<0.5	33	5400
Ethylbenzene	ug/L	780	<0.5	81	2500
m,p-Xylenes	ug/L	800	<0.5	97	7400
o-Xylene	ug/L	230	<0.5	45	3000
Surrogate					
Trifluorotoluene	%REC	102	101	100	102
Bromofluorobenzene	%REC	101	100	99	101

BTXE

Client: Baseline Environmental	Analysis Method: EPA 8021B
Project#: 98381	Prep Method: EPA 5030
Location: McDonalds,6623 San Pablo	

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
142431-005	MW-3B	51880	11/08/99	11/09/99	11/09/99	

Matrix: Water

Analyte	Units	142431-005
Diln Fac:		1
MTBE	ug/L	<2
Benzene	ug/L	<0.5
Toluene	ug/L	<0.5
Ethylbenzene	ug/L	0.59
m,p-Xylenes	ug/L	<0.5
o-Xylene	ug/L	<0.5
Surrogate		
Trifluorotoluene	%REC	97
Bromofluorobenzene	%REC	98

TVH-Total Volatile Hydrocarbons

Client:	Baseline Environmental	Analysis Method:	EPA 8015M
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

METHOD BLANK

Matrix:	Water	Prep Date:	11/09/99
Batch#:	51880	Analysis Date:	11/09/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC100717

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	100	53-150
Bromofluorobenzene	100	53-149

TVH-Total Volatile Hydrocarbons

Client:	Baseline Environmental	Analysis Method:	EPA 8015M
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

METHOD BLANK

Matrix:	Water	Prep Date:	11/10/99
Batch#:	51916	Analysis Date:	11/10/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC100853

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	101	53-150
Bromofluorobenzene	104	53-149

Lab #: 142431 BATCH QC REPORT Page

TVH-Total Volatile Hydrocarbons			
Client:	Baseline Environmental	Analysis Method:	EPA 8015M
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

LABORATORY CONTROL SAMPLE			
Matrix:	Water	Prep Date:	11/09/99
Batch#:	51880	Analysis Date:	11/09/99
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC100718

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	2263	2000	113	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	103	53-150
Bromofluorobenzene	112	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 142431 BATCH QC REPORT Page

TVH-Total Volatile Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 51916
Units: ug/L
Diln Fac: 1

Prep Date: 11/10/99
Analysis Date: 11/10/99

LCS Lab ID: QC100854

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	2241	2000	112	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	104	53-150
Bromofluorobenzene	113	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 142431 BATCH QC REPORT Page

TVH-Total Volatile Hydrocarbons

Client:	Baseline Environmental	Analysis Method:	EPA 8015M
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	ZZZZZZ	Sample Date:	11/08/99
Lab ID:	142447-004	Received Date:	11/09/99
Matrix:	Water	Prep Date:	11/10/99
Batch#:	51916	Analysis Date:	11/10/99
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC100857

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	<50	2346	117	69-131

Surrogate	%Rec	Limits
Trifluorotoluene	105	53-150
Bromofluorobenzene	115	53-149

MSD Lab ID: QC100858

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	2339	117	69-131	0	13

Surrogate	%Rec	Limits
Trifluorotoluene	105	53-150
Bromofluorobenzene	116	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

BTXE	
Client: Baseline Environmental	Analysis Method: EPA 8021B
Project#: 98381	Prep Method: EPA 5030
Location: McDonalds,6623 San Pablo	

METHOD BLANK	
Matrix: Water	Prep Date: 11/09/99
Batch#: 51880	Analysis Date: 11/09/99
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC100717

Analyte	Result
MTBE	<2.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	99	51-143
Bromofluorobenzene	97	37-146

BTXE	
Client: Baseline Environmental	Analysis Method: EPA 8021B
Project#: 98381	Prep Method: EPA 5030
Location: McDonalds,6623 San Pablo	

METHOD BLANK	
Matrix: Water	Prep Date: 11/10/99
Batch#: 51916	Analysis Date: 11/10/99
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC100853

Analyte	Result
MTBE	<2.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	100	51-143
Bromofluorobenzene	97	37-146

BTXE

Client:	Baseline Environmental	Analysis Method:	EPA 8021B
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

METHOD BLANK

Matrix:	Water	Prep Date:	11/11/99
Batch#:	51948	Analysis Date:	11/11/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC100977

Analyte	Result
MTBE	<2.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	99	51-143
Bromofluorobenzene	96	37-146

Lab #: 142431 BATCH QC REPORT Page

BTXE	
Client: Baseline Environmental	Analysis Method: EPA 8021B
Project#: 98381	Prep Method: EPA 5030
Location: McDonalds,6623 San Pablo	

LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 11/09/99
Batch#: 51880	Analysis Date: 11/09/99
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC100719

Analyte	Result	Spike Added	%Rec #	Limits
MTBE	18.9	20	95	66-126
Benzene	20.3	20	102	65-111
Toluene	20.3	20	102	76-117
Ethylbenzene	21.02	20	105	71-121
m,p-Xylenes	43.39	40	108	80-123
o-Xylene	21.54	20	108	75-127

Surrogate	%Rec	Limits
Trifluorotoluene	100	51-143
Bromofluorobenzene	96	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 6 outside limits

Lab #: 142431 BATCH QC REPORT Page

BTXE

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8021B
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 51916
Units: ug/L
Diln Fac: 1

Prep Date: 11/10/99
Analysis Date: 11/10/99

BS Lab ID: QC100855

Analyte	Spike Added	BS	%Rec #	Limits
MTBE	20	18.4	92	66-126
Benzene	20	18.36	92	65-111
Toluene	20	18.51	93	76-117
Ethylbenzene	20	19.22	96	71-121
m,p-Xylenes	40	39.62	99	80-123
o-Xylene	20	19.94	100	75-127

Surrogate	%Rec	Limits
Trifluorotoluene	99	51-143
Bromofluorobenzene	96	37-146

BSD Lab ID: QC100856

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
MTBE	20	19.6	98	66-126	6	12
Benzene	20	19.1	96	65-111	4	10
Toluene	20	19.17	96	76-117	4	10
Ethylbenzene	20	19.87	99	71-121	3	11
m,p-Xylenes	40	40.8	102	80-123	3	10
o-Xylene	20	20.62	103	75-127	3	11

Surrogate	%Rec	Limits
Trifluorotoluene	98	51-143
Bromofluorobenzene	96	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Lab #: 142431 BATCH QC REPORT Page

BTXE	
Client: Baseline Environmental	Analysis Method: EPA 8021B
Project#: 98381	Prep Method: EPA 5030
Location: McDonalds,6623 San Pablo	

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water	Prep Date: 11/11/99
Batch#: 51948	Analysis Date: 11/11/99
Units: ug/L	
Diln Fac: 1	

BS Lab ID: QC100979

Analyte	Spike Added	BS	%Rec #	Limits
MTBE	20	19.88	99	66-126
Benzene	20	22.28	111	65-111
Toluene	20	20.36	102	76-117
Ethylbenzene	20	21.52	108	71-121
m,p-Xylenes	40	44.22	111	80-123
o-Xylene	20	22.07	110	75-127

Surrogate	%Rec	Limits
Trifluorotoluene	99	51-143
Bromofluorobenzene	95	37-146

BSD Lab ID: QC100980

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
MTBE	20	18.66	93	66-126	6	12
Benzene	20	20.88	104	65-111	6	10
Toluene	20	18.66	93	76-117	9	10
Ethylbenzene	20	19.61	98	71-121	9	11
m,p-Xylenes	40	40.47	101	80-123	9	10
o-Xylene	20	20.03	100	75-127	10	11

Surrogate	%Rec	Limits
Trifluorotoluene	99	51-143
Bromofluorobenzene	95	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Lab #: 142431 BATCH QC REPORT Page

BTXE

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8021B
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: MW-3B
Lab ID: 142431-005
Matrix: Water
Batch#: 51880
Units: ug/L
Diln Fac: 1

Sample Date: 11/08/99
Received Date: 11/09/99
Prep Date: 11/09/99
Analysis Date: 11/09/99

MS Lab ID: QC100792

Analyte	Spike Added	Sample	MS	%Rec #	Limits
MTBE	20	<2	21.25	106	49-136
Benzene	20	<0.5	21.26	106	55-122
Toluene	20	<0.5	20.88	104	63-139
Ethylbenzene	20	0.59	22.33	109	61-137
m,p-Xylenes	40	<0.5	45.33	113	57-148
o-Xylene	20	<0.5	22.92	115	70-141

Surrogate	%Rec	Limits
Trifluorotoluene	99	51-143
Bromofluorobenzene	99	37-146

MSD Lab ID: QC100793

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
MTBE	20	21.69	108	49-136	2	11
Benzene	20	21.24	106	55-122	0	10
Toluene	20	20.59	103	63-139	1	10
Ethylbenzene	20	22.18	108	61-137	1	10
m,p-Xylenes	40	44.79	112	57-148	1	10
o-Xylene	20	22.75	114	70-141	1	10

Surrogate	%Rec	Limits
Trifluorotoluene	98	51-143
Bromofluorobenzene	98	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

TEH-Tot Ext Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
142431-001	MW-1A	51987	11/08/99	11/12/99	11/15/99	
142431-002	MW-1B	51987	11/08/99	11/12/99	11/15/99	
142431-003	MW-2A	51987	11/08/99	11/12/99	11/15/99	
142431-004	MW-3A	51987	11/08/99	11/12/99	11/15/99	

Matrix: Water

Analyte Diln Fac:	Units	142431-001 1	142431-002 1	142431-003 1	142431-004 1
Diesel C10-C24	ug/L	360 YL	<50	110 YL	470 YL
Surrogate					
Hexacosane	%REC	60	65	67	68

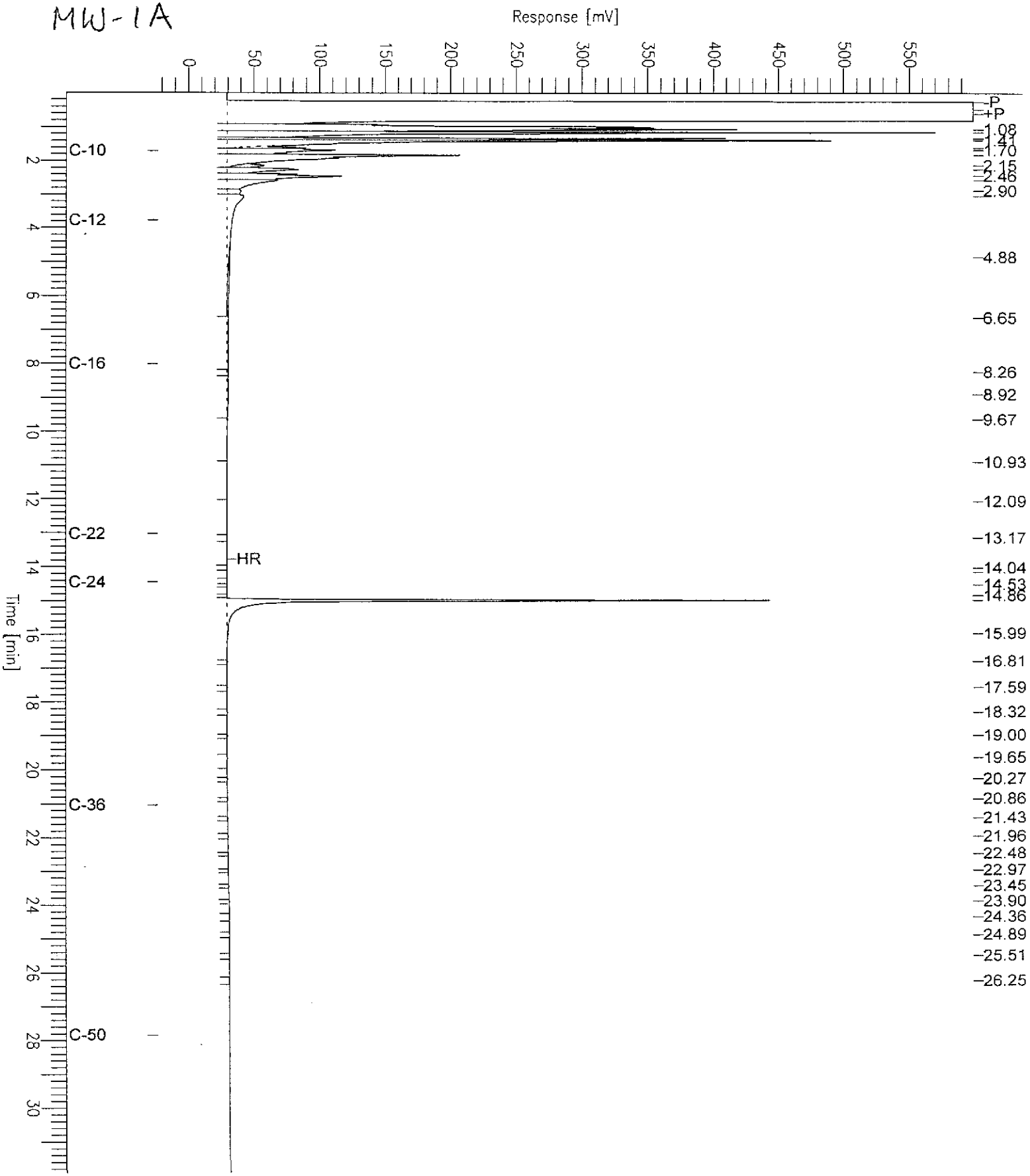
Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

Chromatogram

Sample Name : 142431-001sg,51987
FileName : G:\GC11\CHA\319A009.RAW
Method : ATEH298.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: -23 mV

Sample #: 51987 Page 1 of 1
Date : 11/16/99 11:26 AM
Time of Injection: 11/15/99 04:54 PM
Low Point : -23.14 mV High Point : 598.71 mV
Plot Scale: 621.9 mV

MW-1A

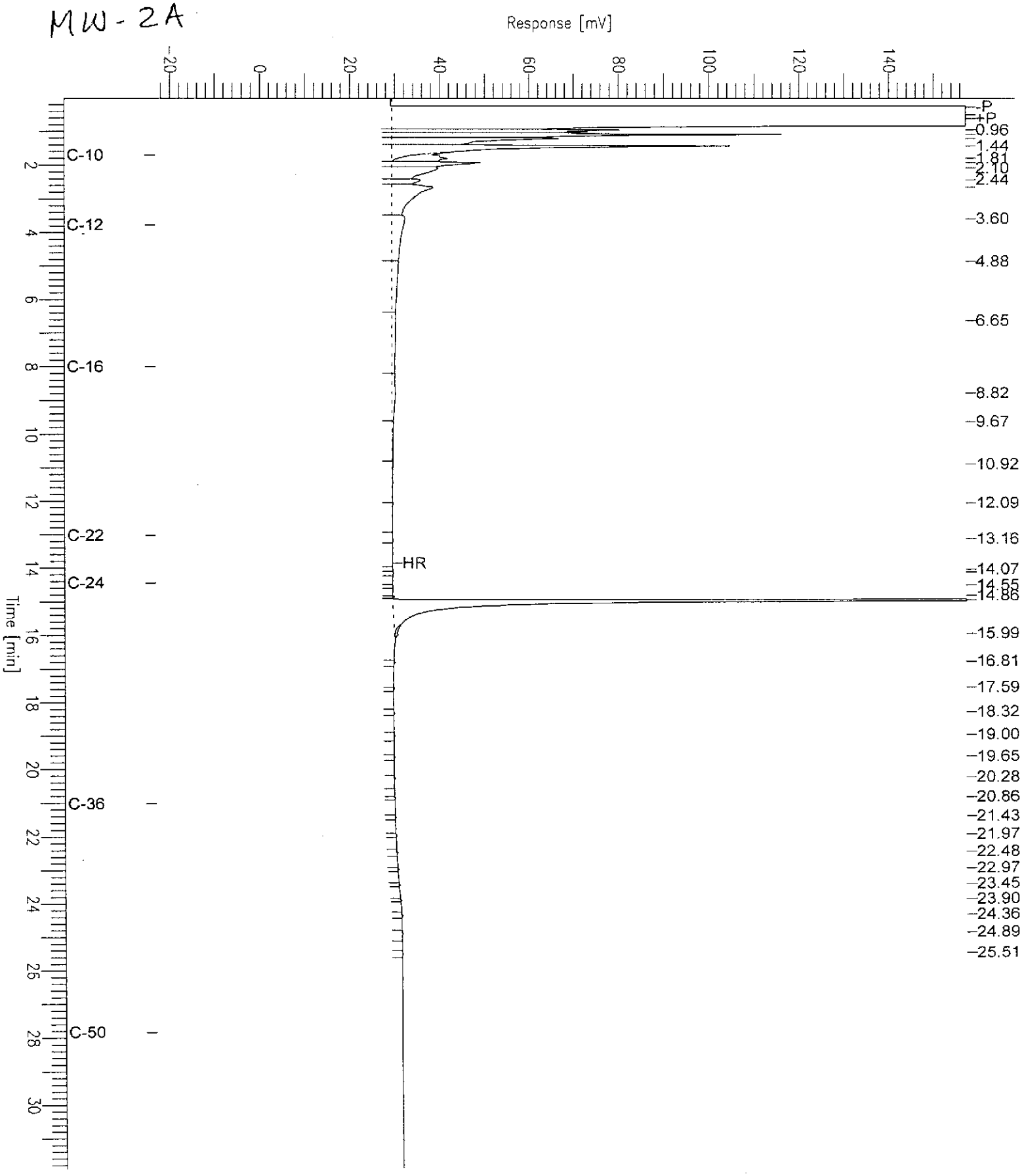


Chromatogram

Sample Name : 142431-003sg,51987
FileName : G:\GC11\CHA\319A011.RAW
Method : ATEH298.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: -23 mV

Sample #: 51987 Page 1 of 1
Date : 11/16/99 11:30 AM
Time of Injection: 11/15/99 06:15 PM
Low Point : -23.34 mV High Point : 157.23 mV
Plot Scale: 180.6 mV

MW-2A

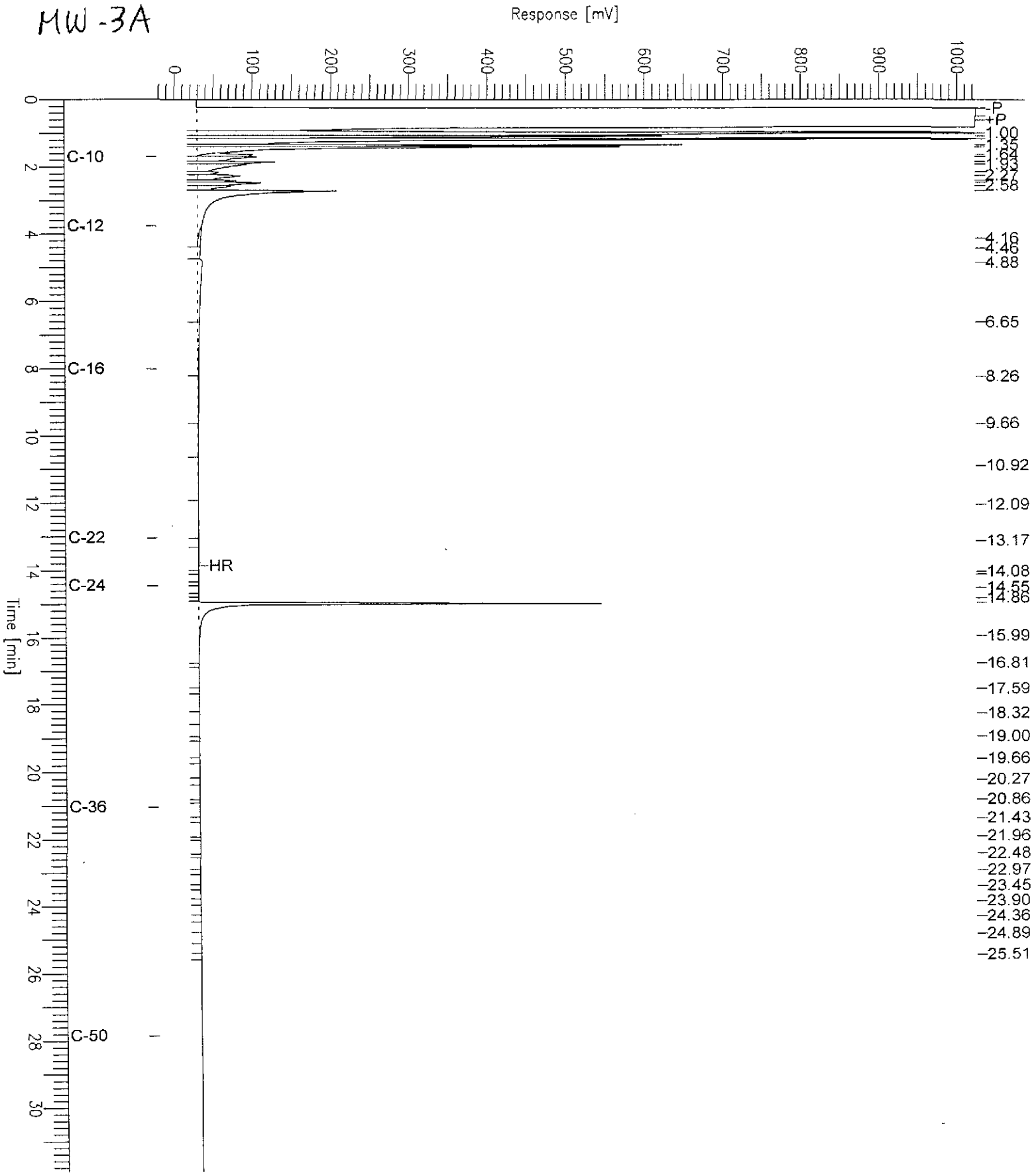


Chromatogram

Sample Name : 142431-004sg,51987
FileName : G:\GC11\CHA\319A012.RAW
Method : ATEH299.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: -23 mV

Sample #: 51987 Page 1 of 1
Date : 11/16/99 11:31 AM
Time of Injection: 11/15/99 06:55 PM
Low Point : -23.25 mV High Point : 1024.00 mV
Plot Scale: 1047.2 mV

MW-3A



TEH-Tot Ext Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
142431-005	MW-3B	51987	11/08/99	11/12/99	11/15/99	

Matrix: Water

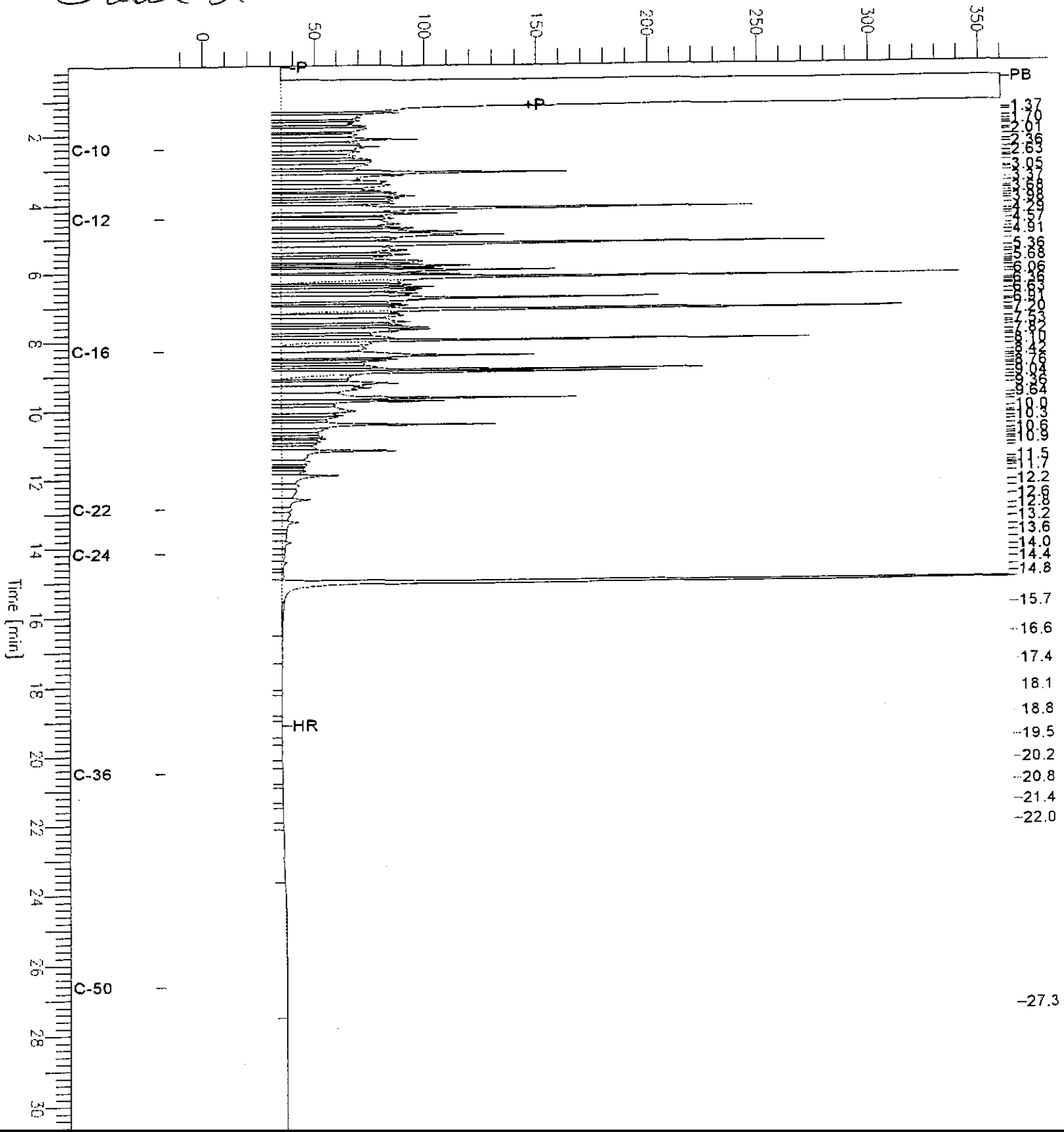
Analyte	Units	142431-005
Diln Fac:		1
Diesel C10-C24	ug/L	<50
Surrogate		
Hexacosane	%REC	66

Chromatogram

Sample Name : ccv,99ws8230,dsl
FileName : C:\GC15\CHB\319B002.RAW
Method : BTEH292.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: -18 mV

Sample #: 500mg/l
Date : 11/15/1999 12:24 PM
Time of Injection: 11/15/1999 11:34 AM
Low Point : -17.59 mV High Point : 360.19 mV
Plot Scale: 377.8 mV

Diesel Standard



Lab #: 142431 BATCH QC REPORT Page

TEH-Tot Ext Hydrocarbons	
Client: Baseline Environmental	Analysis Method: EPA 8015M
Project#: 98381	Prep Method: EPA 3520
Location: McDonalds,6623 San Pablo	

METHOD BLANK	
Matrix: Water	Prep Date: 11/12/99
Batch#: 51987	Analysis Date: 11/17/99
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC101130

Analyte	Result	
Diesel C10-C24	<50	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	94	58-128

Lab #: 142431

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 51987
Units: ug/L
Diln Fac: 1

Prep Date: 11/12/99
Analysis Date: 11/17/99

BS Lab ID: QC101131

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C10-C24	2475	2133	86	50-114
Surrogate	%Rec	Limits		
Hexacosane	96	58-128		

BSD Lab ID: QC101132

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C10-C24	2475	1685	68	50-114	23	25
Surrogate	%Rec	Limits				
Hexacosane	75	58-128				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits