

Alameda County
OCT 16 2002
Environmental Health

**SECOND QUARTER OF 2002 GROUNDWATER
MONITORING AND SAMPLING
FOR THE PROPERTY
LOCATED AT 15595 WASHINGTON AVENUE
SAN LORENZO, CALIFORNIA
JULY 12, 2002**

**PREPARED FOR:
MR. MEHDI MOHAMMADIAN
CAL GAS
15595 WASHINGTON AVENUE
SAN LORENZO, CALIFORNIA 94580**

**BY:
ENVIRO SOIL TECH CONSULTANTS
131 TULLY ROAD
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ENVIRO SOIL TECH CONSULTANTS

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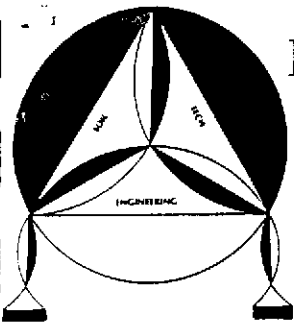
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July 12, 2002

File No. 12-99-702-SI

Mr. Mehdi Mohammadian

Cal Gas

15595 Washington Avenue

San Lorenzo, California 94580

**SUBJECT: SECOND QUARTER OF 2002 GROUNDWATER
MONITORING AND SAMPLING
FOR THE PROPERTY**

Located at 15595 Washington Avenue, in
San Lorenzo, California

Dear Mr. Mohammadian:

This report presents the results of second quarter of 2002 groundwater monitoring and sampling conducted by Enviro Soil Tech Consultants (ESTC), on July 2, 2002, at the subject site (Figure 1).

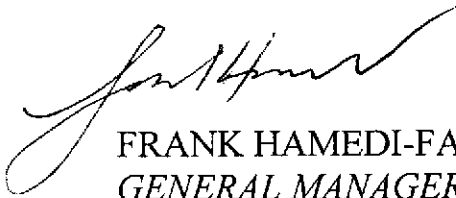
The five monitoring wells (MW-1 through MW-5) located on-site were monitored for presence of floating products and/or distinctive odor, and groundwaters were collected from these wells for laboratory analyses.

This quarterly groundwater monitoring and sampling of the on-site monitoring wells was conducted in accordance with the request and authorization of Mr. Mehdi Mohammadian and at the request of Mr. Scott O. Seery with Alameda County Health Care Services Agency-Environmental Health Services (ACHCSA-EHS) in letter dated May 19, 1999.

If you have any questions or require additional information, please feel free to contact our office at (408) 297-1500.

Sincerely,

ENVIRO SOIL TECH CONSULTANTS



FRANK HAMEDI-FARD
GENERAL MANAGER



LAWRENCE KOO, P. E.
C. E. #34928

PURPOSE:

The purpose of quarterly groundwater monitoring and sampling investigation was to define the direction of groundwater flow and the extent of hydrocarbons contamination in the groundwater at the site.

SITE DESCRIPTION:

The site is located on the northwest corner of Washington Avenue and Via Enrico Street, in San Lorenzo, California (Figure 1), and is currently being used as a service station. The site contained one single story building, underground storage tanks located at the center portion of the property and south of the pump islands. The subject property is located in an area of commercial and residential development.

BACKGROUND:

From 1974 to 1983, Callaris who had operated the gasoline service station owned the site.

From 1983 to 1986, Texaco owned the site, and during this time, the site was not in operation. Texaco removed the existing USTs in 1986, and subsurface contamination was detected in the fuel tank excavation.

In 1986, Bertram Kubo, who installed three new 10,000-gallon fuel tanks at a new location and reopened as a retail service station, purchased the site.

In 1990, the property was sold to the current owner, Mr. Mehdi Mohammadian, who operates the site as Shell retail service station.

In 1986, Groundwater Technology (GWT) conducted soil and groundwater investigation at the site by installing three on-site monitoring wells (MW-1 to MW-3). Hydrocarbon impact to shallow groundwater was detected in these wells. The detail of GWT's subsurface investigation is described in a report dated October 1986.

In July 1998, Toxichem Management Systems, Inc. (TMS) conducted an additional subsurface investigation, by installing two additional on-site wells (MW-4 and MW-5). TMS's findings showed presence of petroleum hydrocarbons in all wells. The details of this additional assessment are described in their report dated October 16, 1998. Quarterly monitoring of the five on-site wells has been conducted since August 1998. TPHg, BTEX and MTBE were detected in all the monitoring wells.

Per the request and authorization of Mr. Mehdi Mohammadian and under the directive of Mr. Scott O. Seery with ACHCSA-EHS in letters dated May 9, 1999; November 8, 1999 and November 10, 1999, ESTC submitted a proposed work plan for assessment of off-site gasoline plume using of so-called "rapid assessment" tools such as Geoprobe. The details of this work plan is described in ESTC's report entitled "Proposed Work Plan for Preliminary Off-Site Soil & Groundwater Assessment for the Property...", dated February 11, 2000.

On April 18, 2000, ESTC conducted soil and groundwater assessment off-site gasoline plume. Based on the off-site investigation, upto date, ESTC have been conducting quarterly monitoring and sampling of groundwater from the on-site monitoring wells.

SCOPE OF PRESENT WORK:

The scopes of present work are as follow:

- Monitor wells MW-1 to MW-5 for presence of any sheen and/or odor and measure the depth-to-water table.
- Purge the monitoring wells prior to sampling.
- Sample monitoring wells MW-1 to MW-5.
- Submit water samples to a state-certified laboratory for chemical analyses of Total Petroleum Hydrocarbons as gasoline (TPHg); Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX); Methyl Tertiary Butyl Ether (MTBE) and other hydrocarbons fuel oxygenates compounds per EPA Method 8260B.
- Review results and prepare a report of the investigation.

FIELD ACTIVITIES:

The five on-site monitoring wells (MW-1 to MW-5) were monitored for floating products and/or distinctive odor, and the water samples were collected for laboratory analyses (Figure 2).

GROUNDWATER MONITORING:

On July 2, 2002, ESTC's staff monitored five monitoring wells (MW-1 to MW-5) for groundwater depth and presence of sheen and/or odor. No sheen or odor was detected in any of the monitoring wells during field inspection. The shallow groundwater table

depths ranged from 7.78 feet (well MW-3) to 10.02 feet (well MW-5) below ground surface. Table 1 summarizes the depth to groundwater measurements and the field observations made.

GROUNDWATER SAMPLING:

Following the monitoring of the groundwater, in order to assure the samples were representative of surrounding groundwater, approximately four to five well volumes of water was purged from each well using a bailer before the sample was collected. A stainless steel bailer was used for sample collection. Water sampling equipment was decontaminated before and after each well sampling using Tri-sodium Phosphate (TSP) and water wash, followed by double rinsing. Groundwater samples were collected in 40-milliliter glass vials sealed with Teflon-lined screw caps, labeled and placed in a cold ice chest. Groundwater samples were submitted to Curtis & Tompkins, Ltd., a state-certified laboratory, with proper chain-of-custody for analyses. The sampling was conducted in accordance with ESTC's Standard Operation Procedures (Appendix "D") and ACHCSA-EHS guidelines.

GROUNDWATER FLOW:

Water elevation data were used to determine groundwater flow direction. Table 1 summarizes the groundwater elevations. The groundwater flow direction beneath the site was in a northeasterly direction as of July 2, 2002 (Figure 2).

ANALYTICAL RESULTS:

Groundwater samples from monitoring wells MW-1 to MW-5 were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg) per EPA methods 5030/8015 and hydrocarbons fuel oxygenates compounds per EPA Method 8260B.

Groundwater samples from the monitoring wells detected levels of TPHg ranging from non-detectable to the maximum of 6100 micrograms per liter ($\mu\text{g/L}$) and MTBE ranging from non-detectable to the maximum of 67000 $\mu\text{g/L}$. All five monitoring wells detected BTEX below laboratory detection limit in the water samples. Only monitoring well MW-5 detected some other petroleum hydrocarbons constituents in the groundwater sample.

The groundwater analytical results are summarized in Table 1. Copy of the analytical results and chain-of-custody documentation are attached in Appendix "E".

SUMMARY:

Four out of five wells detected TPHg and MTBE in the water samples. All five wells detected BTEX below laboratory detection limit in the water samples. Only monitoring well MW-5 detected some other hydrocarbons fuel oxygenates compounds.

RECOMMENDATION:

ESTC recommends the continuation of quarterly monitoring and sampling of the five on-site wells. A copy of this report will be forward to Alameda County Health Care Services Agency-Environmental Health Services (ACHCSA-EHS) and Regional Water Quality Control Board (RWQCB).

LIMITATIONS:

This report and the associated work have been provided in accordance with the general principles and practices currently employed in the environmental consulting profession. The contents of this report reflect the conditions of the site at this particular time. The findings of this report are based on:

- 1) The observations of field personnel.
- 2) The results of laboratory analyses performed by a state-certified laboratory.

It is possible that variations in the soil and groundwater could exist beyond the points explored in this investigation. Also, changes in groundwater conditions of a property can occur with the passage of time due to variations in rainfall, temperature, regional water usage and other natural processes or the works of man on this property or adjacent property.

The services that ESTC provided have been in accordance with generally accepted environmental professional practices for the nature and conditions of work completed in the same or similar localities at the time the work was performed. The contents of this report reflect the conditions of the subject site at this particular time. No other warranties, expressed or implied as to the professional advice provided are made.

A P P E N D I X "A"

ENVIRO SOIL TECH CONSULTANTS

TABLE 1
GROUNDWATER MONITORING DATA (feet)
AND ANALYTICAL RESULTS ($\mu\text{g/L}$)

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE
8/08/86	MW-1 (N/A)	15	10	N/A	N/A	N/A	N/A	ND<500	ND<500	NA	82	NA
11/12/92				11.37†	N/A	N/A	720	3	0.5	1	1	NA
3/24/94	22.93 (feet MSL)			8.71*	14.22	Odor	1300	110	ND<0.5	19	ND<0.5	NA
12/15/95				8.49*	14.44	No sheen Weakly petroleum odor	350	18	2.9	3.5	2.8	NA
8/26/98	22.96 Resurveyed			9.30*	13.66	N/A	ND <500	17	ND<5	ND<5	ND<5	340000
1/26/99				7.96*	15.00	N/A	ND <50000	ND<500	ND<500	ND<500	ND<500	269000
4/06/99				8.01*	14.95	N/A	3500	296	ND<10	43	18.6	117000
5/24/00	23.05 Resurveyed			8.24*	14.81	No sheen or odor	33000	ND <5000	ND <5000	ND <5000	ND <5000	74000
8/24/00				9.43*	13.62	No sheen or odor	11000	ND <2000	ND <2000	ND <2000	ND <2000	32000
11/22/00				9.28*	13.77	Light rainbow sheen No odor	24000	ND <2500	ND <2500	ND <2500	ND <2500	35000
2/22/01				7.86*	15.19	No sheen or odor	19000	ND <5000	ND <5000	ND <5000	ND <5000	51000
5/29/01				8.96*	14.09	No sheen or odor	30000	ND <5000	ND <5000	ND <5000	ND <5000	110000
8/22/01				9.66*	13.39	No sheen or odor	46000	ND <2500	ND <2500	ND <2500	ND <2500	70000
12/06/01				8.36*	14.69	No sheen or odor	25000	ND <2500	ND <2500	ND <2500	ND <2500	37000
3/25/02	23.05 Resurveyed			7.84*	15.21	Light rainbow sheen No odor	770	ND<830	ND<830	ND<830	ND<830	20000

TABLE 1 CONT'D
GROUNDWATER MONITORING DATA (feet)
AND ANALYTICAL RESULTS (µg/L)

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE
7/02/02	MW-1 (23.05)	15	10	8.96*	14.14	No sheen or odor	550	ND<500	ND<500	ND<500	ND<500	13000
8/08/96	MW-2 (N/A)	15	10	N/A	N/A	N/A	NA	ND<50	ND<50	NA	ND<50	NA
11/12/92				10.55†	N/A	N/A	ND<10	ND<0.3	ND<0.3	ND<0.3	ND<0.5	NA
3/24/94	22.09 (feet MSL)			7.87*	14.22	N/A	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	N/A
12/15/95				4.62*	17.47	No sheen or odor	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
2/28/98	22.07 Resurveyed			8.40*	13.67	N/A	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	210000
1/26/99				7.29*	14.78	N/A	ND <2000	ND<20	ND<20	ND<20	ND<20	9450
4/06/99				7.28*	14.79	N/A	ND <1000	ND<10	ND<10	ND<10	ND<10	209000
5/24/00	21.94 Resurveyed			7.22*	14.72	No sheen or odor	46000	ND <12500	ND <12500	ND <12500	ND <12500	180000
8/24/00				8.39*	13.55	No sheen or odor	21000	ND <2500	ND <2500	ND <2500	ND <2500	70000
11/22/00				8.24*	13.70	No sheen or odor	29000	ND <2500	ND <2500	ND <2500	ND <2500	43000
2/22/01				6.52*	15.42	No sheen or odor	20000	ND <5000	ND <5000	ND <5000	ND <5000	61000
5/29/01				7.90*	14.04	No sheen or odor	9100	ND <1000	ND <1000	ND <1000	ND <1000	24000
8/22/01				8.62*	13.32	No sheen or odor	8700	ND<500	ND<500	ND<500	ND<500	12000
12/06/01				7.28*	14.66	No sheen or odor	11000	ND <1250	ND <1250	ND <1250	ND <1250	22000

TABLE 1 CONT'D
GROUNDWATER MONITORING DATA (feet)
AND ANALYTICAL RESULTS (µg/L)

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE
3/25/02	MW-2 (21.94) Resurveyed	15	10	6.86*	15.08	No sheen or odor	ND<50	ND<830	ND<830	ND<830	ND<830	25000
7/02/02				7.96*	13.98	No sheen or odor	ND<50	ND<170	ND<170	ND<170	ND<170	6000
8/08/96	MW-3 (N/A)	16	10	N/A	N/A	N/A	NA	ND<50	ND<50	NA	ND<50	NA
11/12/92				11.32†	N/A	N/A	69	ND<0.3	ND<0.3	ND<0.3	ND<0.3	NA
3/24/94	22.73 (feet MSL)			8.69*	14.04	N/A	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
12/15/95				8.31*	14.42	No sheen or odor	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
8/26/98	22.74 Resurveyed			9.29*	13.45	N/A	ND <500	36	ND<5	ND<5	ND<5	99000
12/16/99				8.00*	14.74	N/A	ND <500	ND<50	ND<50	ND<50	ND<50	19800
4/06/99				8.00*	14.74	N/A	ND <1000	ND<10	ND<10	ND<10	ND<10	151000
5/24/00	22.56 Resurveyed			8.08*	14.47	No sheen or odor	48000	ND <12500	ND <12500	ND <12500	ND <12500	200000
8/24/00				9.24*	13.32	No sheen or odor	52000	ND <5000	ND <5000	ND <5000	ND <5000	170000
11/22/00				9.08*	13.48	No sheen or odor	69000	ND <10000	ND <10000	ND <10000	ND <10000	160000
2/22/01				7.58*	14.98	No sheen or odor	30000	ND <5000	ND <5000	ND <5000	ND <5000	130000
5/29/01				8.76*	13.80	No sheen or odor	29000	ND <2500	ND <2500	ND <2500	ND <2500	78000
8/22/01				9.46*	13.10	No sheen or odor	37000	ND <5000	ND <5000	ND <5000	ND <5000	98000

TABLE 1 CONT'D
GROUNDWATER MONITORING DATA (feet)
AND ANALYTICAL RESULTS (µg/L)

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE
12/06/01	MW-3 (22.56)	16	10	8.06*	14.50	No sheen or odor	33000	ND <5000	ND <5000	ND <5000	ND <5000	94000
3/25/02	22.56 Resurveyed			7.62*	14.94	No sheen or odor	ND<50	ND <2500	ND <2500	ND <2500	ND <2500	62000
7/02/02				7.78*	14.78	No sheen or odor	73Z	ND <2000	ND <2000	ND <2000	ND <2000	67000
8/26/98	MW-4 (23.51) feet MSL	19	N/A	9.87	13.64	N/A	170	2	0.74	1.3	1	150
1/26/99				8.54	14.97	N/A	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.6
4/06/99				8.34	15.17	N/A	390	3.94	ND<0.5	1.52	0.808	15.2
5/24/00	23.40 Resurveyed			8.72	14.68	No sheen or odor	210	ND<5	ND<5	ND<5	ND<5	40
8/24/00				9.88	13.52	No Sheen or odor	160	ND<5	7.4	ND<5	ND<5	44
11/22/00				9.76	13.64	No sheen or odor	140	ND<5	ND<5	ND<5	ND<5	25
2/22/01				8.42	14.98	No sheen or odor	160	ND<5	ND<5	ND<5	ND<5	32
5/29/01				9.42	13.98	No sheen or odor	160	ND<5	ND<5	ND<5	ND<5	31
8/22/01				10.10	13.30	No sheen or odor	96	ND<5	ND<5	ND<5	ND<5	28
12/06/01				8.68	14.72	No sheen or odor	160	ND<5	ND<5	ND<5	ND<5	25
3/25/02	23.40 Resurveyed			8.28	15.12	No sheen or odor	150	ND<5	ND<5	ND<5	ND<5	14
7/02/02				9.36	14.04	No sheen or odor	120	ND<5	ND<5	ND<5	ND<5	ND<5
8/26/98	MW-5 (23.85) feet MSL	19	N/A	10.51	13.34	N/A	6600	240	ND<50	380	84	ND<250

TABLE 1 CONT'D
GROUNDWATER MONITORING DATA (feet)
AND ANALYTICAL RESULTS (µg/L)

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	B	T	E	X	MTBE
1/26/99	MW-5 (23.85)	19	N/A	10.26	13.59	N/A	371	11.7	ND<0.5	3.22	ND<0.5	36.4
4/06/99				9.32	14.53	N/A	7680	266	ND<10	280	ND<10	ND<10
5/24/00				9.39	14.47	Rainbow sheen No odor	3300	180	ND<25	140	ND<25	200
8/24/00				10.54	13.32	Light rainbow sheen No odor	3200	150	ND<10	91	ND<10	300
11/22/00				10.42	13.44	No sheen Light sewerage odor	520	120	ND<25	46	ND<25	510
2/22/01				8.88	14.98	No sheen or odor	5400	100	ND<50	94	ND<50	700
5/29/01	23.86 Resurveyed			10.08	13.78	Rainbow sheen No odor	3700	83	ND<50	58	ND<50	860
8/22/01				10.76	13.10	Light rainbow sheen No odor	5900	150	ND<10	ND<10	ND<10	1700
12/06/01				9.48	14.38	Rainbow sheen Light petroleum odor	4900	ND<50	ND<50	ND<50	ND<50	1900
3/25/02	23.86 Resurveyed			9.08	14.78	No sheen or odor	4000	170	ND<83	ND<83	ND<83	2200
7/02/02				10.02	13.84	No sheen or odor	6100	ND<130	ND<130	ND<130	ND<130	2600

TPHg - Total Petroleum Hydrocarbons as gasoline

MTBE - Methyl Tertiary Butyl Ether

MSL - Mean Sea Level

N/A - Not Applicable

ND - Not Detected (Below Laboratory Detection Limit)

* Well screens are submerged

BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes

Perf. - Perforation

GW Elev. - Groundwater Elevation

NA - Not Analyzed

† Well screens are not submerged

Z - Sample exhibits unknown single peak or peaks

TABLE 2
GROUNDWATER ANALYTICAL RESULTS FOR
HYDROCARBONS FUEL OXYGENATES (EPA 8260B)

Date	Well No.	Hydrocarbons Fuel Oxygenates	Concentration (µg/L)
5/24/00	MW-1	Methyl tert-butyl Ether	74000
8/24/00		Methyl tert-butyl Ether	32000
11/22/00		Methyl tert-butyl Ether	35000
2/22/01		Methyl tert-butyl Ether	51000
5/29/01		Methyl tert-butyl Ether	110000
8/22/01		Methyl tert-butyl Ether tert-Butanol	70000 11000
12/06/01		Methyl tert-butyl Ether	37000
3/25/02		Methyl tert-butyl Ether	20000
7/02/02		Methyl tert-butyl Ether	13000
5/24/00	MW-2	Methyl tert-butyl Ether	180000
8/24/00		Methyl tert-butyl Ether	70000
11/22/00		Methyl tert-butyl Ether	43000
2/22/01		Methyl tert-butyl Ether	61000
5/29/01		Methyl tert-butyl Ether	24000
8/22/01		Methyl tert-butyl Ether	12000
12/06/01		Methyl tert-butyl Ether	22000
3/25/02		Methyl tert-butyl Ether	25000
7/02/02		Methyl tert-butyl Ether	6000
5/24/00	MW-3	Methyl tert-butyl Ether	200000
8/24/00		Methyl tert-butyl Ether	170000
11/22/00		Methyl tert-butyl Ether	160000
2/22/01		Methyl tert-butyl Ether	130000
5/29/01		Methyl tert-butyl Ether	78000
8/22/01		Methyl tert-butyl Ether	98000
12/06/01		Methyl tert-butyl Ether	94000
3/25/02		Methyl tert-butyl Ether	62000
7/02/02		Methyl tert-butyl Ether	67000
5/24/00	MW-4	Methyl tert-butyl Ether	40

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TABLE 2 CONT'D
GROUNDWATER ANALYTICAL RESULTS FOR
HYDROCARBONS FUEL OXYGENATES (EPA 8260B)

Date	Well No.	Hydrocarbons Fuel Oxygenates	Concentration (µg/L)
8/24/00	MW-4	Methyl tert-butyl Ether	44
		Toluene	7.4
11/22/00		Methyl tert-butyl Ether	25
2/22/01		Methyl tert-butyl Ether	32
5/29/01		Methyl tert-butyl Ether	31
8/22/01		Methyl tert-butyl Ether	28
12/06/01		Methyl tert-butyl Ether	25
3/25/02		Methyl tert-butyl Ether	14
7/02/02		None Detected	<5
5/24/00	MW-5	Benzene	180
		Ethylbenzene	140
		Isopropylbenzene	55
		Methyl tert-butyl Ether	200
		n-Butylbenzene	42
		n-Propylbenzene	200
		Naphthalene	120
8/24/00		1,2,4-Trimethylbenzene	15
		Benzene	150
		Ethylbenzene	91
		Isopropylbenzene	38
		Methyl tert-butyl Ether	300
		n-Butylbenzene	29
		n-Propylbenzene	140
		Naphthalene	87
		p-Isopropyltoluene	28
		sec-Butylbenzene	12
11/22/00		Benzene	120
		Ethylbenzene	46
		Isopropylbenzene	31
		Methyl tert-butyl Ether	510
		n-Propylbenzene	100
		Naphthalene	37

TABLE 2 CONT'D
GROUNDWATER ANALYTICAL RESULTS FOR
HYDROCARBONS FUEL OXYGENATES (EPA 8260B)

Date	Well No.	Hydrocarbons Fuel Oxygenates	Concentration (µg/L)
2/22/01	MW-5	Benzene	100
		Ethylbenzene	94
		Methyl tert-butyl Ether	700
		n-Propylbenzene	160
		Naphthalene	90
5/29/01		Benzene	83
		Ethylbenzene	58
		Methyl tert-butyl Ether	860
		n-Propylbenzene	130
		Naphthalene	64
8/22/01		Benzene	150
		Methyl tert-butyl Ether	1700
		n-Propylbenzene	230
		Naphthalene	140
12/06/01		Methyl tert-butyl Ether	1900
3/25/02		Methyl tert-butyl Ether	2200
		Benzene	170
		Propylbenzene	180
7/02/02		Methyl tert-butyl Ether	2600
		Propylbenzene	240

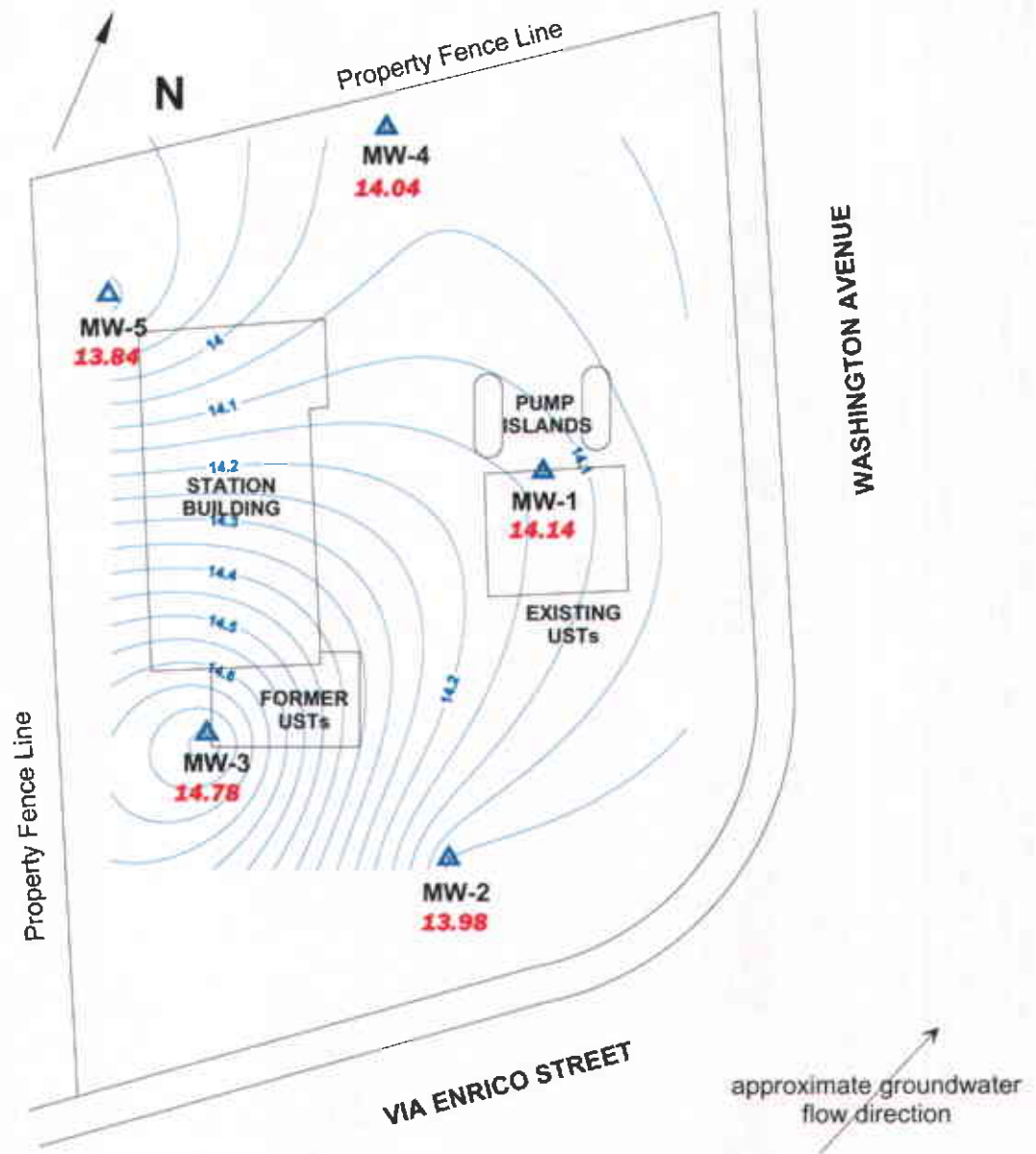
A P P E N D I X "B"

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Figure 1



▲ Monitoring Well



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Figure 2: Groundwater elevation contour map in feet.
July 2, 2002.

7/12/02

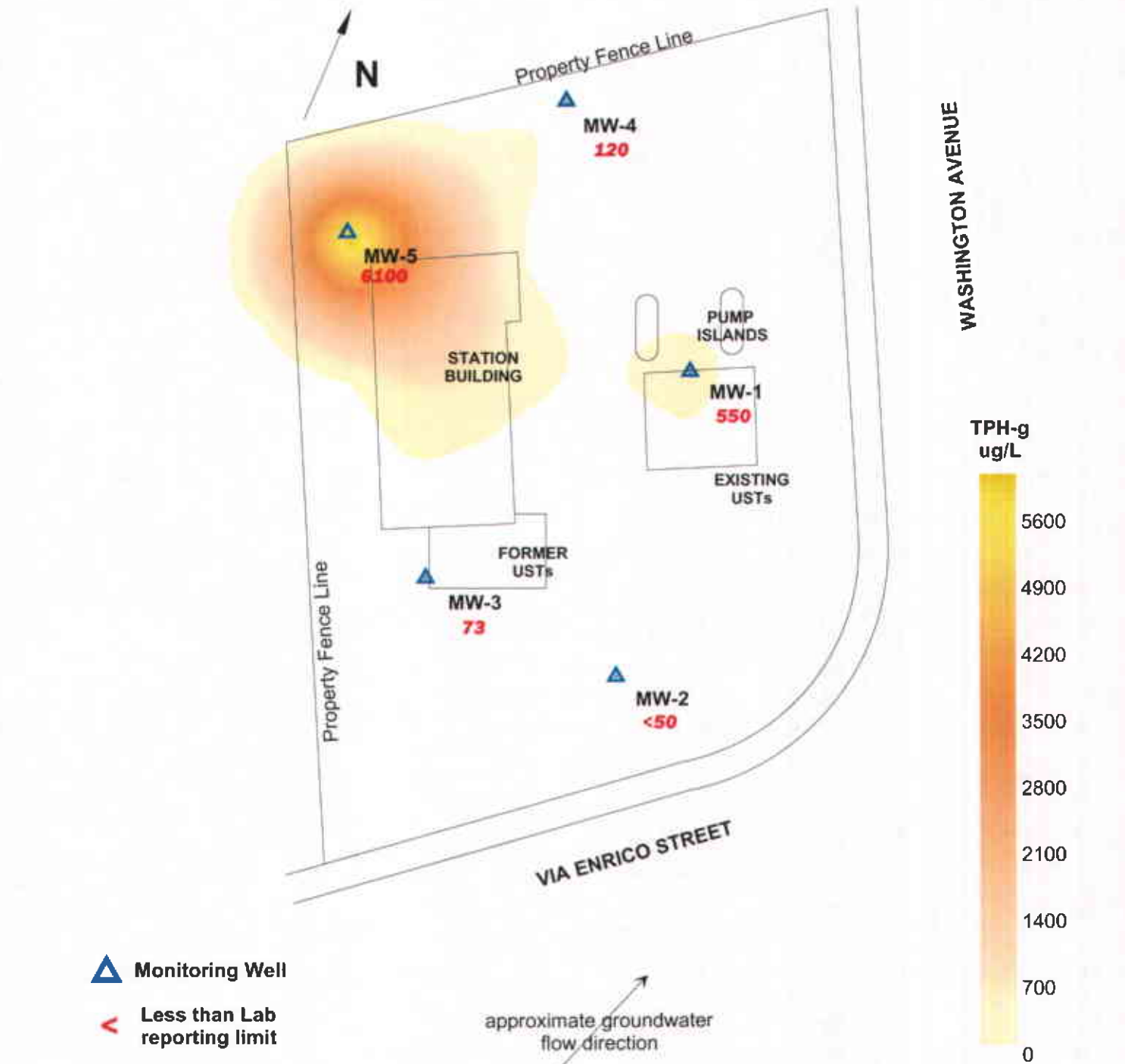
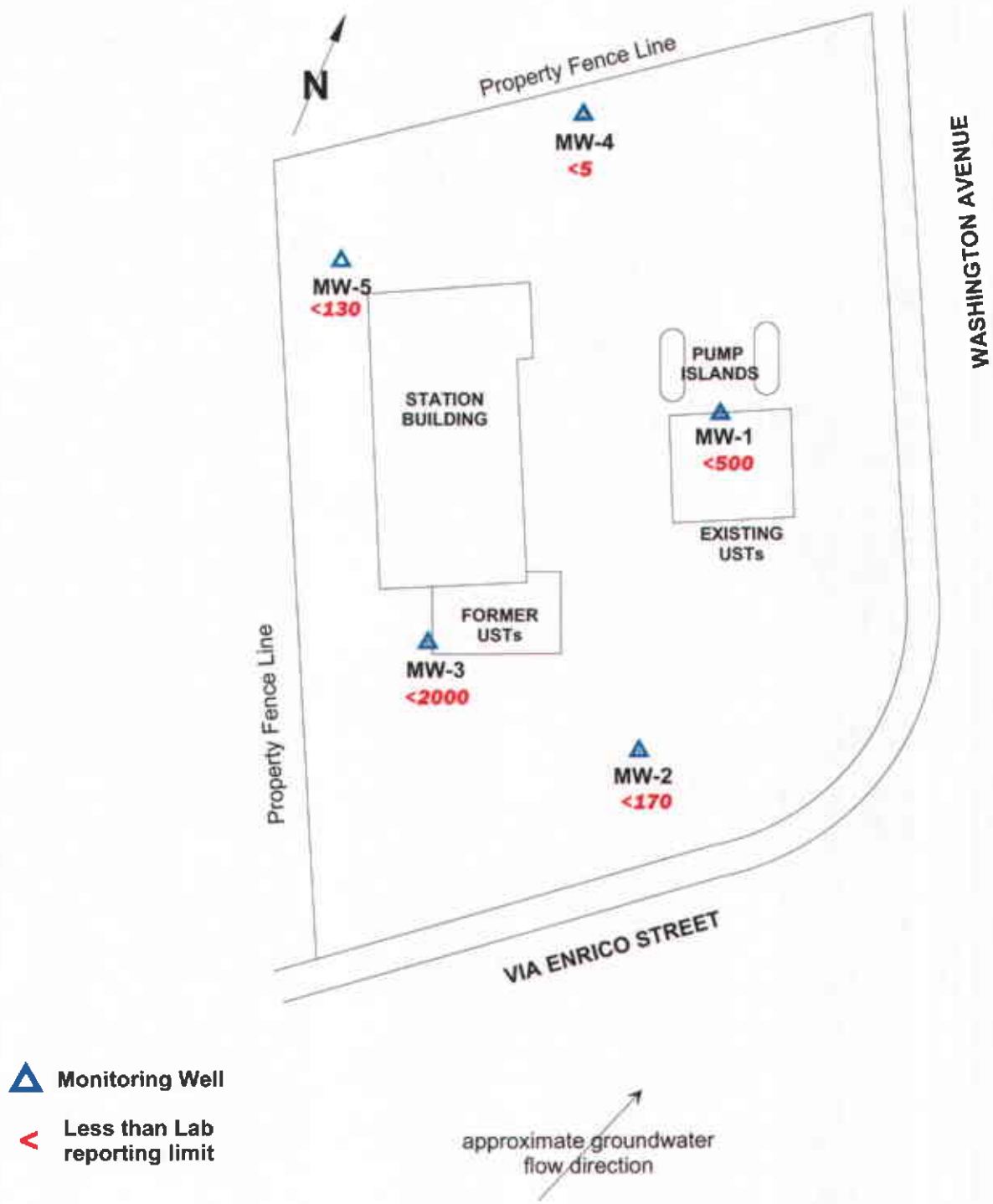


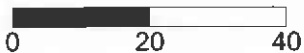
Figure 3: Contour map of TPH-g concentrations in groundwater. July 2, 2002.

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7/12/02



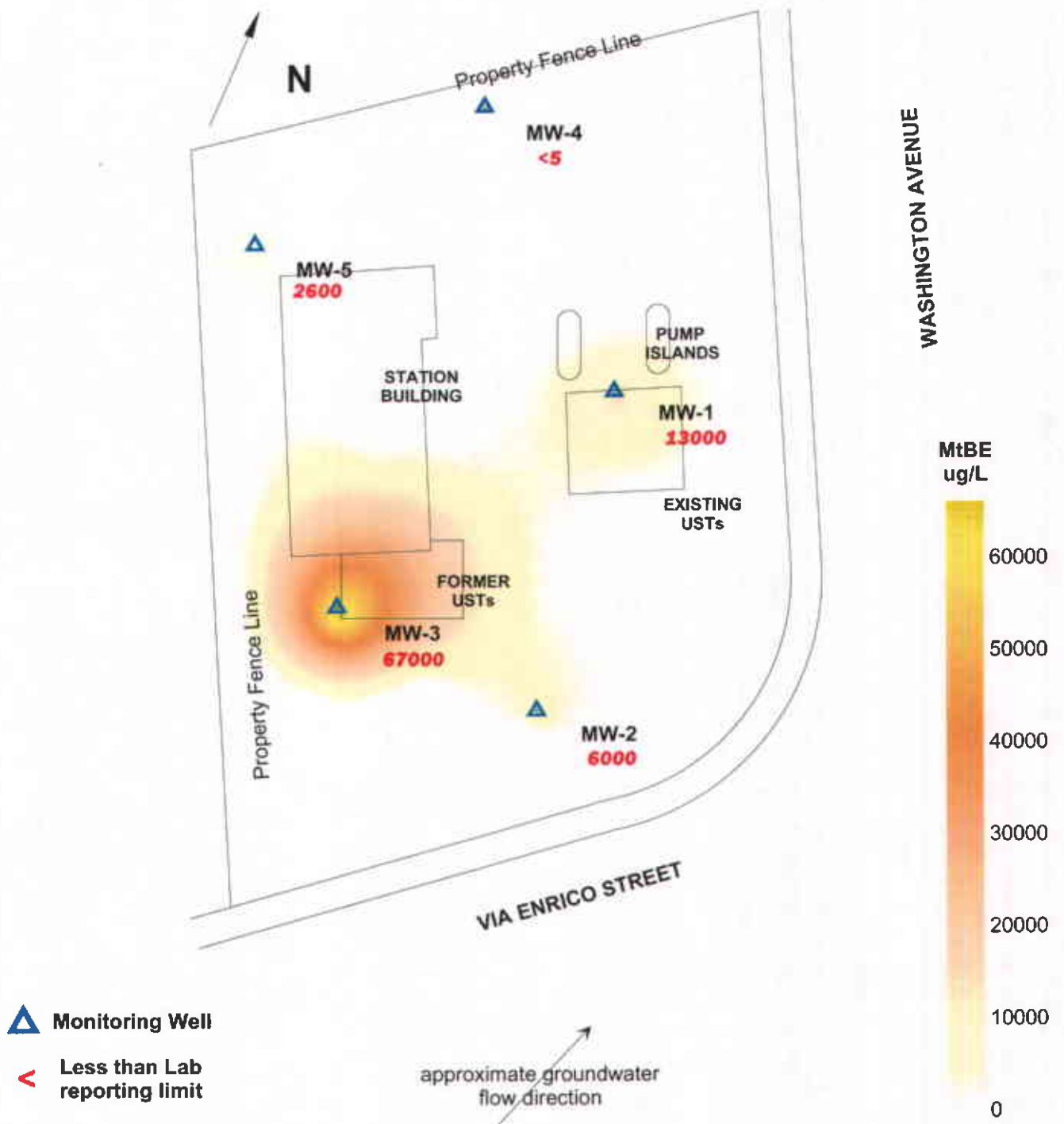
approximate scale in feet



Enviro Soil Consultants

Figure 4: Map of Benzene concentrations in groundwater.
July 2, 2002.

7/12/02



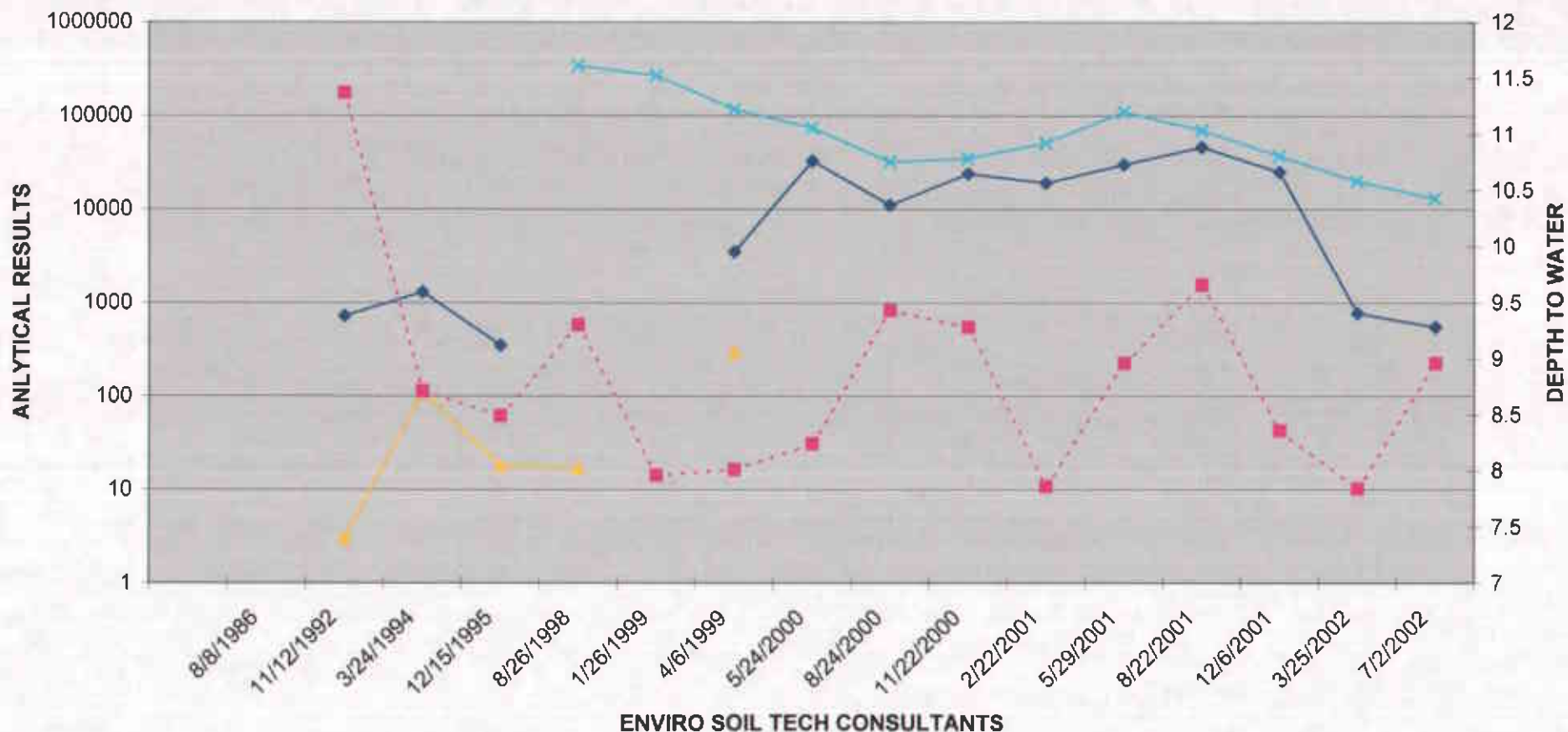
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Figure 5: Contour map of MtBE concentrations in groundwater.
July 2, 2002.

A P P E N D I X "C"

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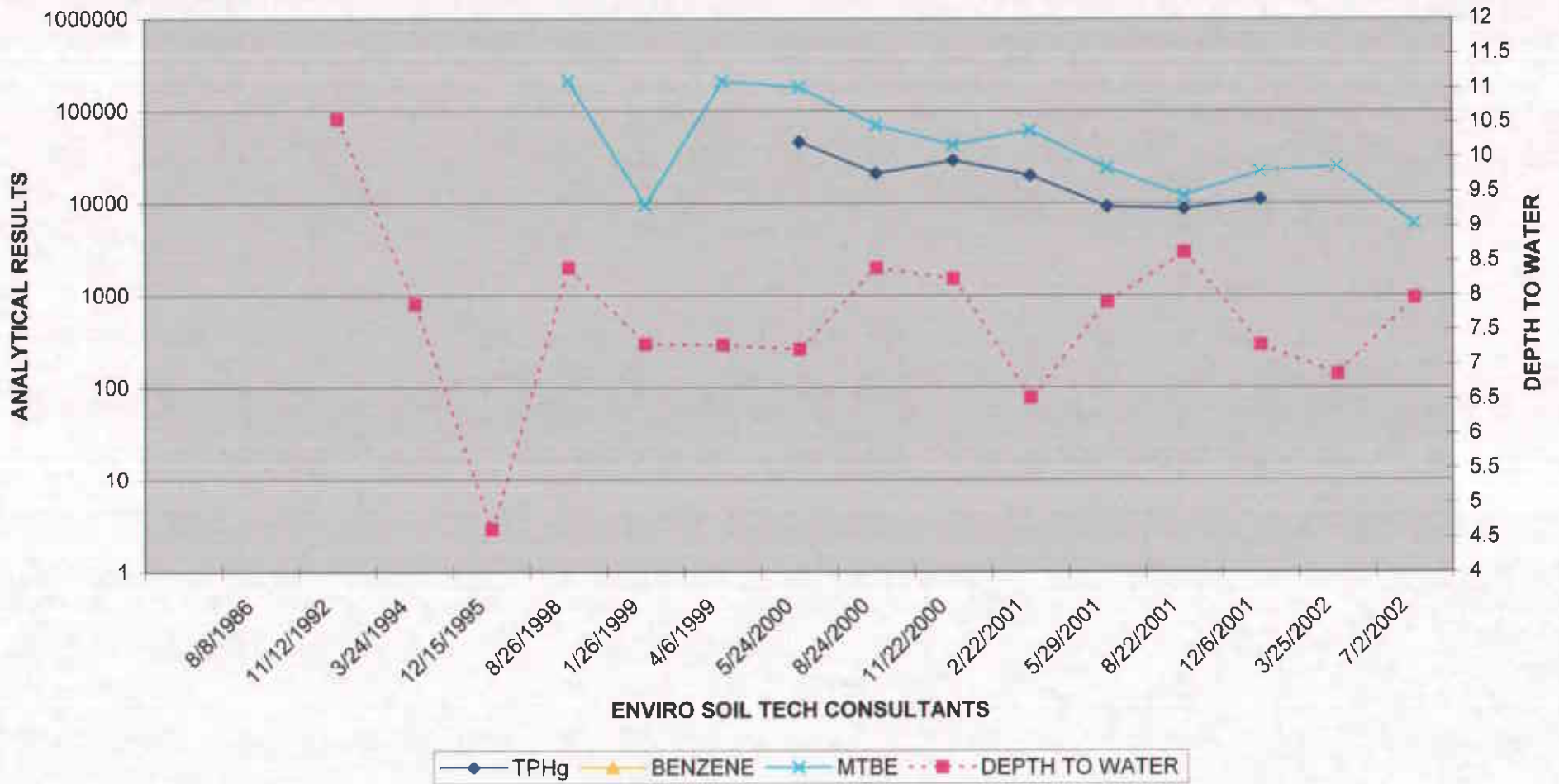
File No.: 12-99-702-SI
 TPHg, BENZENE & MTBE FOR MW-1 (µg/L)
 AND DEPTH TO WATER MEASUREMENT (Feet)



ENVIRO SOIL TECH CONSULTANTS

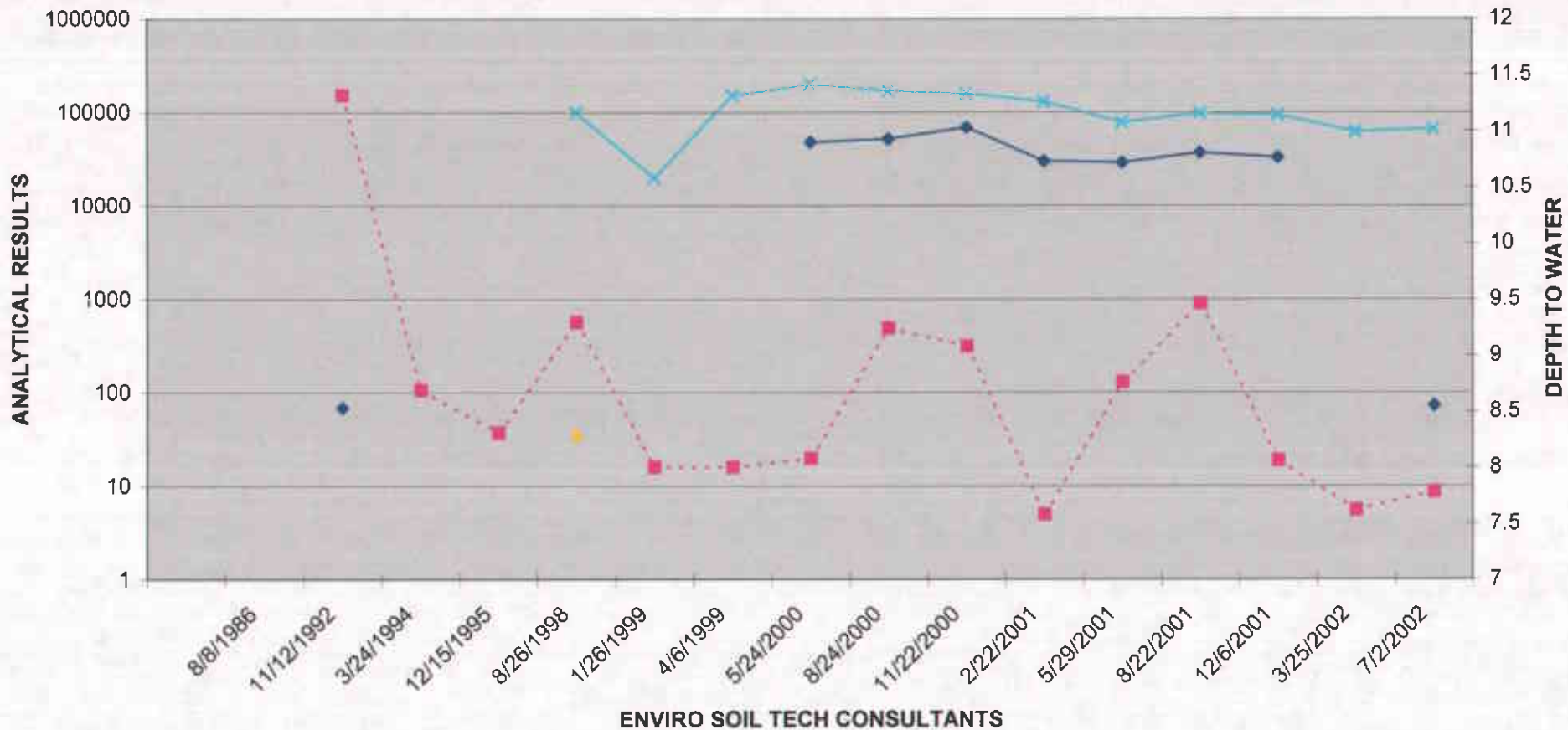
◆ TPHg ▲ BENZENE × MTBE ■ DEPTH TO WATER

File No.: 12-99-702-SI
 TPHg, BENZENE & MTBE RESULTS FOR MW-2 (µg/L)
 AND DEPTH TO WATER MEASUREMENT (Feet)



ENVIRO SOIL TECH CONSULTANTS

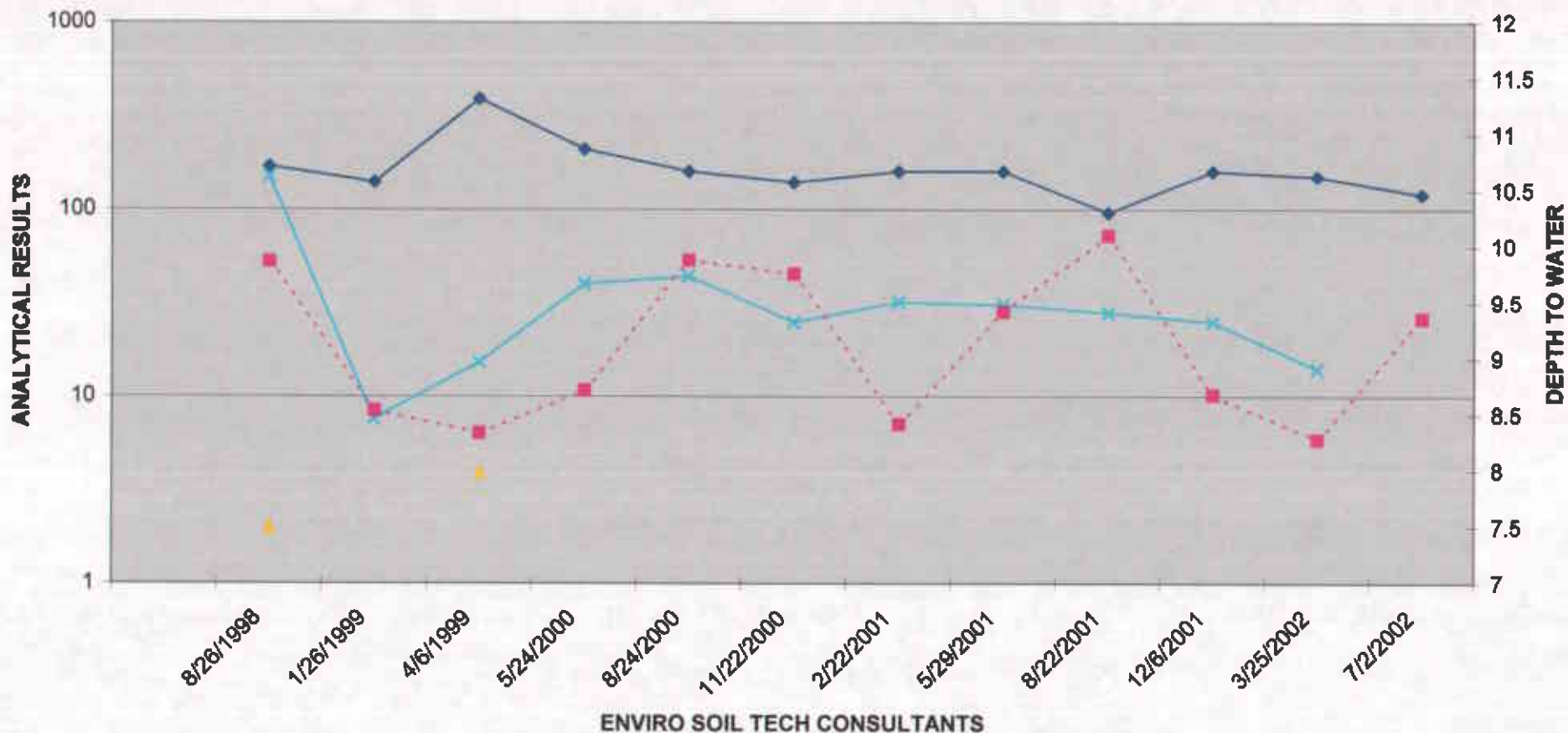
File No.: 12-99-702-SI
**TPHg, BENZENE & MTBE RESULTS FOR MW-3 (µg/L)
 AND DEPTH TO WATER MEASUREMENT (Feet)**



ENVIRO SOIL TECH CONSULTANTS



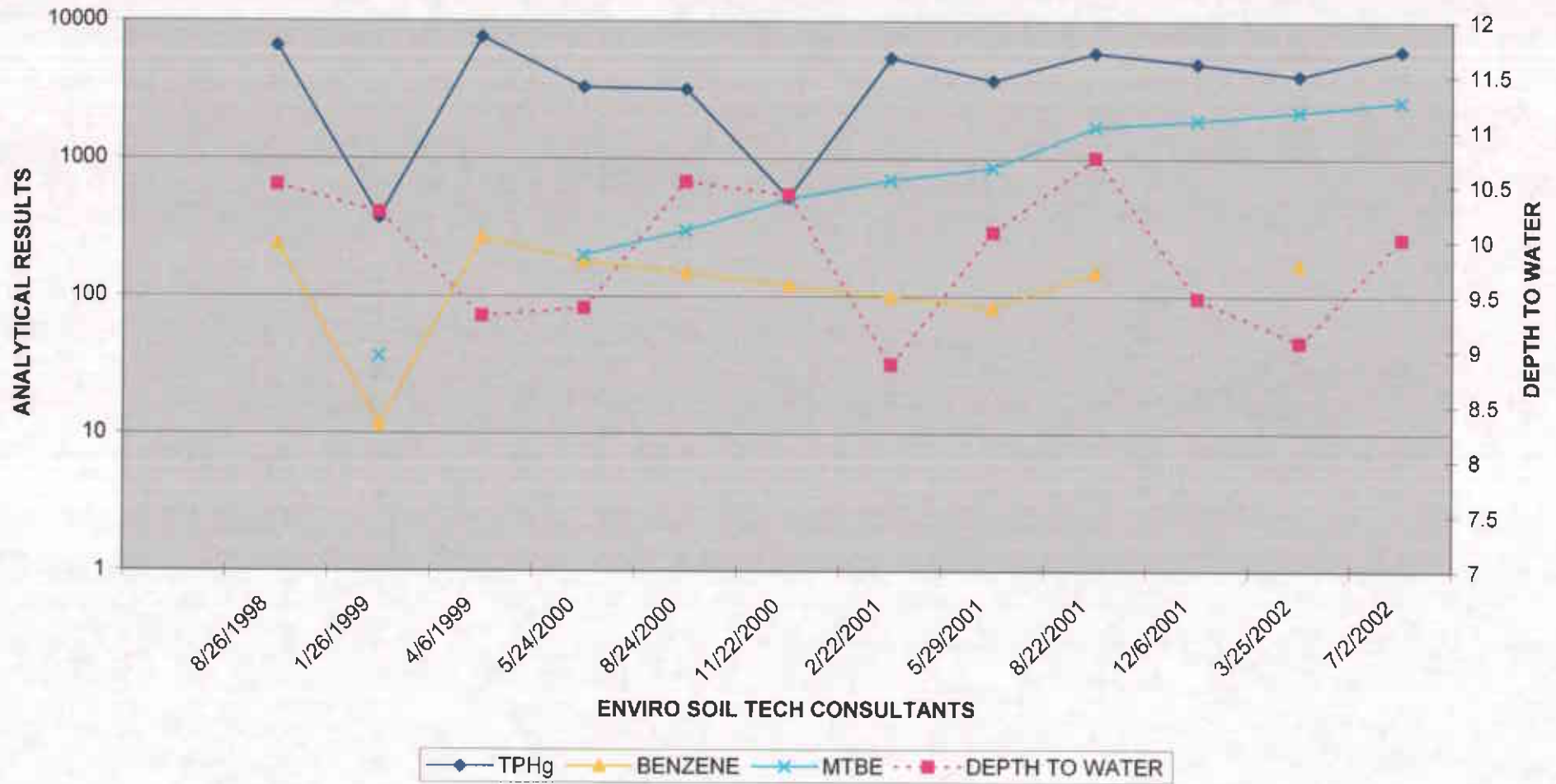
File No.: 12-99-702-SI
TPHg, BENZENE & MTBE RESULTS FOR MW-4 (µg/L)
AND DEPTH TO WATER MEASUREMENT (Feet)



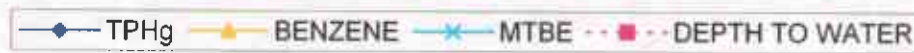
ENVIRO SOIL TECH CONSULTANTS

Legend:
 -●- TPHg -◇- BENZENE -×- MTBE -■- DEPTH TO WATER

File No.: 12-99-702-SI
TPHg, BENZENE & MTBE RESULTS FOR MW-5 (µg/L)
AND DEPTH TO WATER MEASUREMENT (Feet)



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A P P E N D I X "D"

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GROUNDWATER SAMPLING

Prior to collection of groundwater samples, all of the sampling equipment (i.e. bailer, cables, bladder pump, discharge lines and etc.) was cleaned by pumping TSP water solution followed by distilled water.

Prior to purging, the well "Water Sampling Field Survey Forms" were filled out (depth to water and total depth of water column were measured and recorded). The well was then bailed or pumped to remove four to ten well volumes or until the discharged water temperature, conductivity and pH stabilized. "Stabilized" is defined as three consecutive readings within 15% of one another.

The groundwater sample was collected when the water level in the well recovered to 80% of its static level.

Forty milliliter (ml.), glass volatile organic analysis (VOA) vials with Teflon septa were used as sample containers. The groundwater sample was decanted into each VOA vial in such a manner that there was a meniscus at the top. The cap was quickly placed over the top of the vial and securely tightened. The VOA vial was then inverted and tapped to see if air bubbles were present. If none were present, the sample was labeled and refrigerated for delivery under chain-of-custody to the laboratory. The label information would include a sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

A P P E N D I X "E"

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Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

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

Prepared for:

Enviro Soil Tech Consultants
131 Tully Road
San Jose, CA 95111

Date: 15-JUL-02
Lab Job Number: 159513
Project ID: 12-99-702-SI
Location: 15595 Washington Avenue

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:

Paul Prendergast
Project Manager

Reviewed by:

Jessie K. Morris P-36
Operations Manager

This package may be reproduced only in its entirety.

Laboratory Number: 159513
Client: Enviro Soil Tech Consultants
Project Name: 15595 Washington Avenue
Project #: 12-99-702-SI
Receipt Date: 07/03/02

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for five water samples received from the above referenced project on July 3rd, 2002. The samples were received cold and intact.

Total Volatile Hydrocarbons (EPA 8015B(M)):

The recovery for the trifluorotoluene surrogate was above the acceptable QC limits for client ID MW-5 (C&T ID 159513-005) due to coelution of sample hydrocarbons with this surrogate. No other analytical problems were encountered.

Purgeable Organics by GC/MS (EPA 8260B):

No analytical problems were encountered.

Total Volatile Hydrocarbons

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	8015B (M)
Matrix:	Water	Batch#:	73513
Units:	ug/L	Sampled:	07/02/02
Diln Fac:	1.000	Received:	07/03/02

Field ID:	MW-1	Lab ID:	159513-001
Type:	SAMPLE	Analyzed:	07/06/02

Analyte	Result	RL
Gasoline C7-C12	550	50

Surrogate	REC	Limits
Trifluorotoluene (FID)	109	68-145
Bromofluorobenzene (FID)	119	66-143

Field ID:	MW-2	Lab ID:	159513-002
Type:	SAMPLE	Analyzed:	07/05/02

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	REC	Limits
Trifluorotoluene (FID)	94	68-145
Bromofluorobenzene (FID)	117	66-143

Field ID:	MW-3	Lab ID:	159513-003
Type:	SAMPLE	Analyzed:	07/05/02

Analyte	Result	RL
Gasoline C7-C12	73 Z	50

Surrogate	REC	Limits
Trifluorotoluene (FID)	101	68-145
Bromofluorobenzene (FID)	112	66-143

*= Value outside of QC limits; see narrative
 Z= Sample exhibits unknown single peak or peaks
 ND= Not Detected
 RL= Reporting Limit
 Page 1 of 2

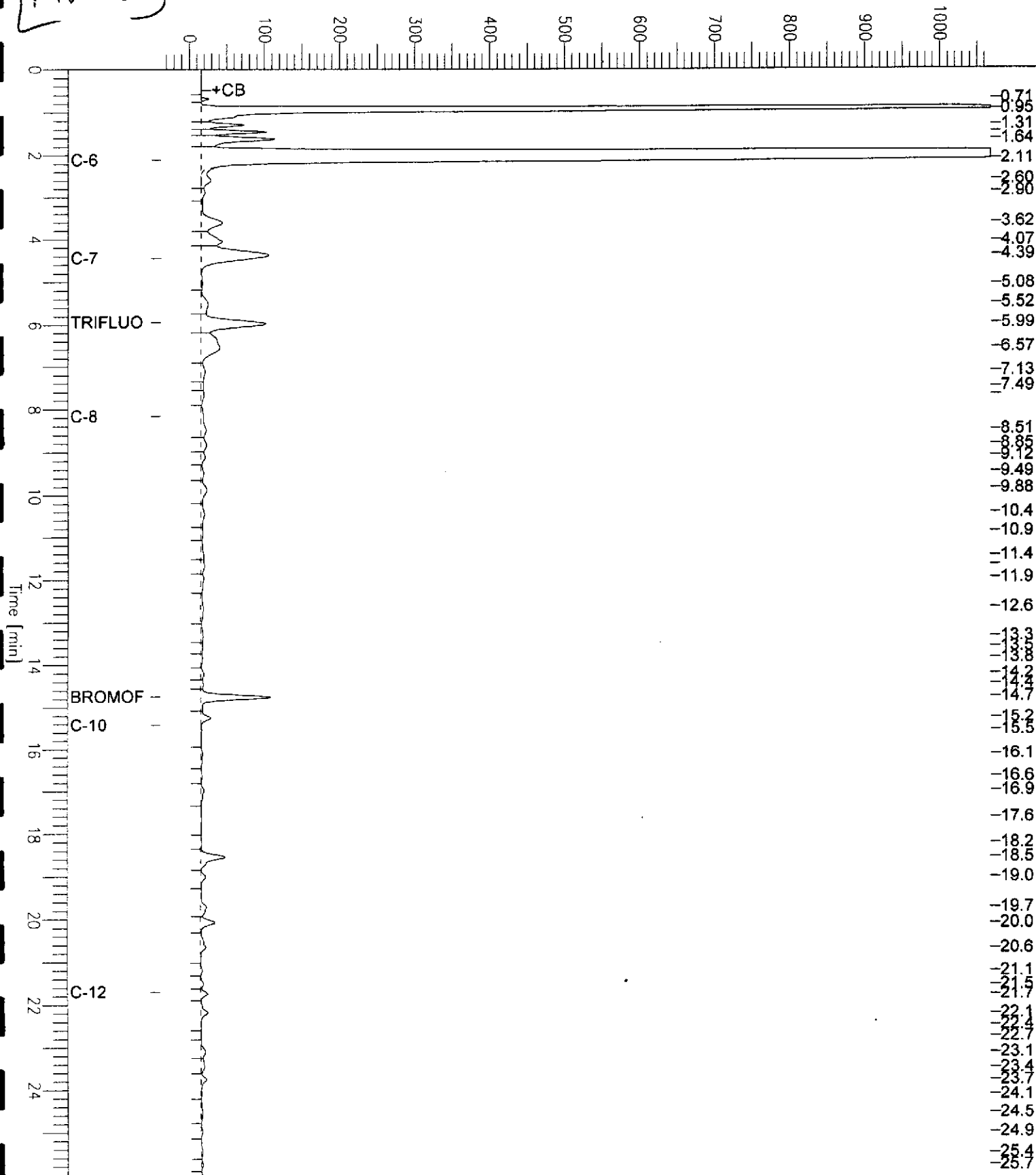
GC07 TVH 'A' Data File RTX 502

Sample Name : 159513-001,73513
 FileName : G:\GC07\DATA\186A035.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor: 1.0

Sample #: A1
 Date : 7/6/02 06:18 AM
 Time of Injection: 7/6/02 05:52 AM
 Low Point : -36.69 mV
 High Point : 1068.34 mV
 End Time : 26.00 min
 Plot Offset: -37 mV
 Plot Scale: 1105.0 mV

[MW-1]

Response [mV]



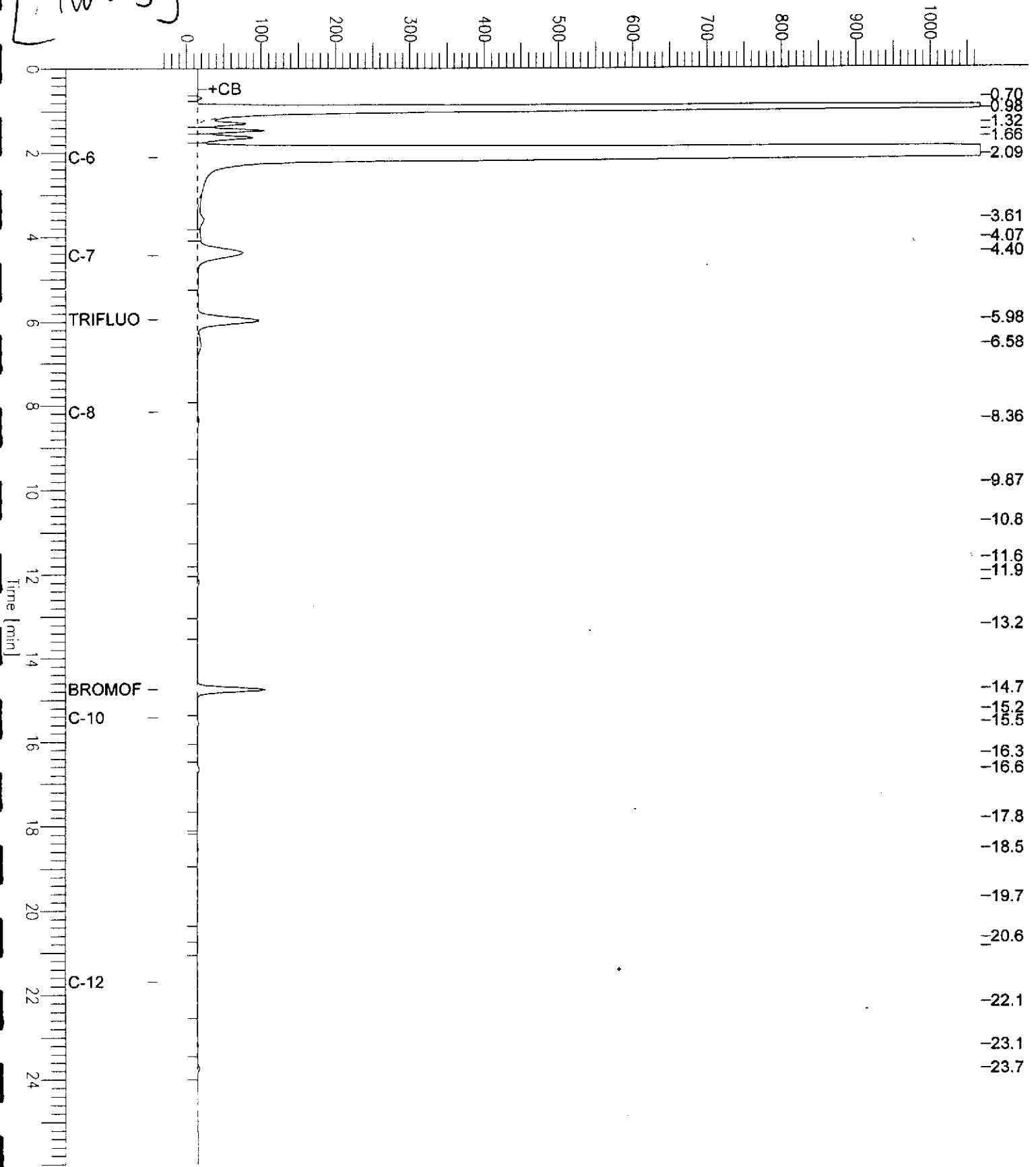
GC07 TVH 'A' Data File RTX 502

Sample Name : 159513-003,73513
 FileName : G:\GC07\DATA\186A013.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor: 1.0

Sample #: A1
 Date : 7/5/02 05:49 PM
 Time of Injection: 7/5/02 05:23 PM
 Low Point : -37.66 mV
 High Point : 1068.12 mV
 Plot Scale: 1105.8 mV

[MW-3]

Response [mV]





Total Volatile Hydrocarbons

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	8015B (M)
Matrix:	Water	Batch#:	73513
Units:	ug/L	Sampled:	07/02/02
Diln Fac:	1.000	Received:	07/03/02

Field ID:	MW-4	Lab ID:	159513-004
Type:	SAMPLE	Analyzed:	07/05/02

Analyte	Result	RL
Gasoline C7-C12	120	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	68-145
Bromofluorobenzene (FID)	120	66-143

Field ID:	MW-5	Lab ID:	159513-005
Type:	SAMPLE	Analyzed:	07/05/02

Analyte	Result	RL
Gasoline C7-C12	6,100	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	181 *	68-145
Bromofluorobenzene (FID)	120	66-143

Type:	BLANK	Analyzed:	07/05/02
Lab ID:	QC183139		

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	89	68-145
Bromofluorobenzene (FID)	100	66-143

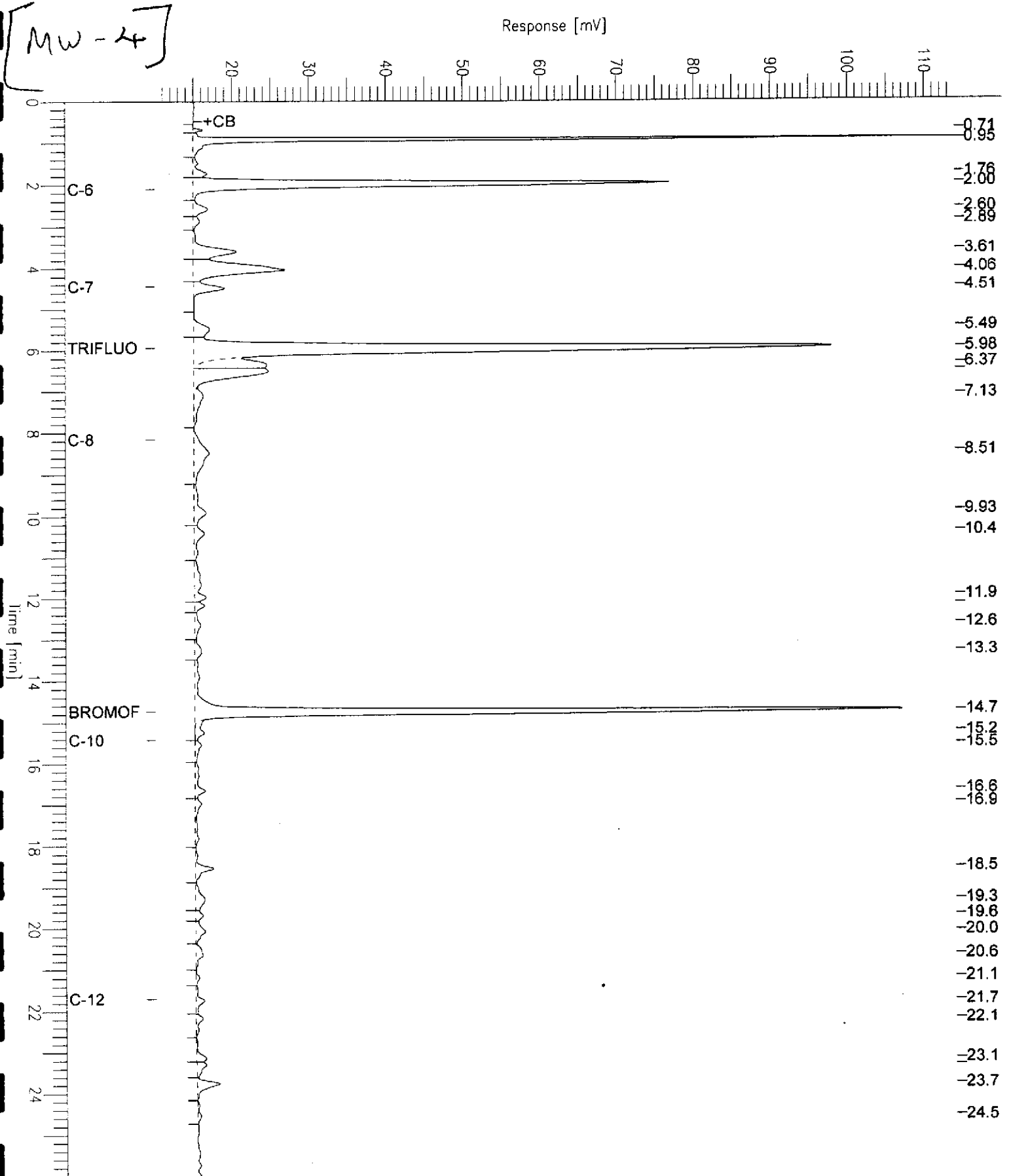
*= Value outside of QC limits; see narrative
 Z= Sample exhibits unknown single peak or peaks
 ND= Not Detected
 RL= Reporting Limit

GC07 TVH 'A' Data File RTX 502

Sample Name : 159513-004,73513
 FileName : G:\GC07\DATA\186A014.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor: 1.0

End Time : 26.00 min
 Plot Offset: 10 mV

Sample #: A1
 Date : 7/5/02 06:23 PM
 Time of Injection: 7/5/02 05:57 PM
 Low Point : 10.05 mV
 Plot Scale: 103.9 mV
 High Point : 113.97 mV



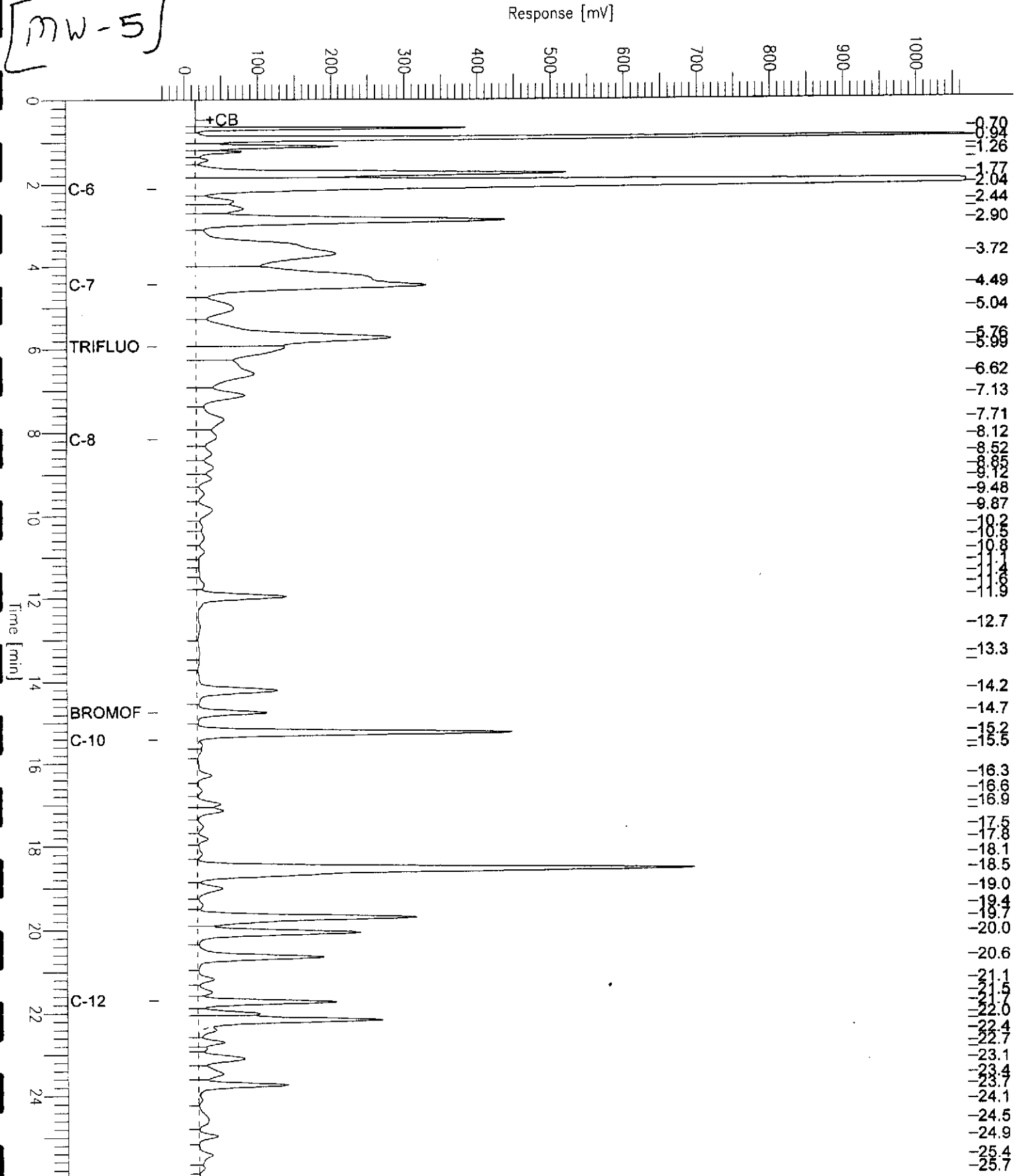
GC07 TVH 'A' Data File RTX 502

Sample Name : 159513-005,73513
 FileName : G:\GC07\DATA\186A015.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor : 1.0

Sample #: A1
 Date : 7/5/02 06:57 PM
 Time of Injection: 7/5/02 06:31 PM
 Low Point : -37.62 mV
 Plot Scale: 1105.8 mV
 High Point : 1068.17 mV

Page 1 of 1

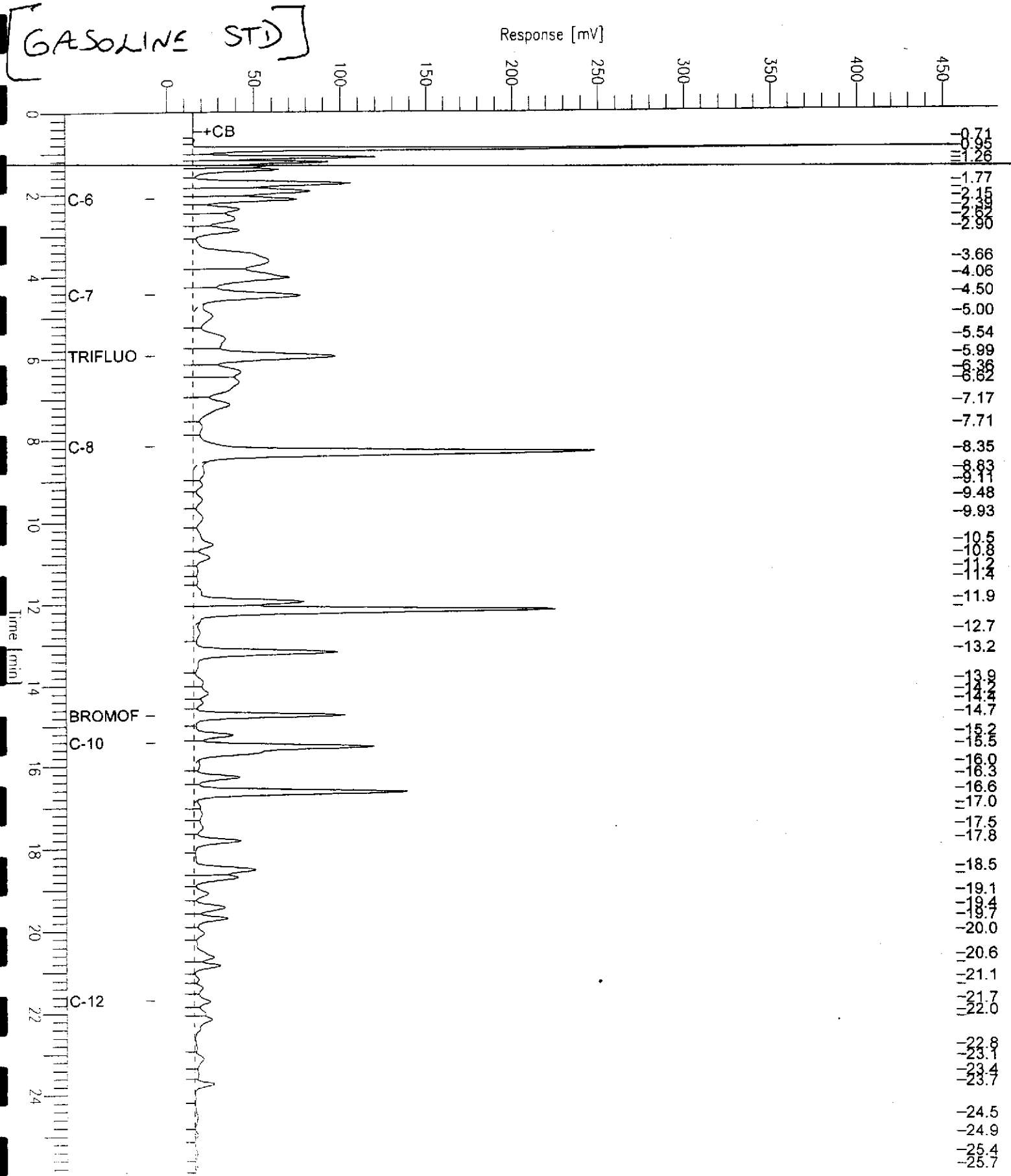
[MW-5]



GC07 TVH 'A' Data File RTX 502

Sample Name : CCV/LCS,QC183140,73513,02WS1033,5/5000
 FileName : G:\GC07\DATA\186A007.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.00 min
 Scale Factor: 1.0 Plot Offset: -7 mV

Sample #: Page 1 of 1
 Date : 7/5/02 02:26 PM
 Time of Injection: 7/5/02 01:59 PM
 Low Point : -6.88 mV High Point : 454.64 mV
 Plot Scale: 461.5 mV



**Total Volatile Hydrocarbons**

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	8015B(M)
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC183140	Batch#:	73513
Matrix:	Water	Analyzed:	07/05/02
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,131	107	79-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	68-145
Bromofluorobenzene (FID)	107	66-143



Total Volatile Hydrocarbons

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	8015B(M)
Field ID:	MW-2	Batch#:	73513
MSS Lab ID:	159513-002	Sampled:	07/02/02
Matrix:	Water	Received:	07/03/02
Units:	ug/L	Analyzed:	07/05/02
Diln Fac:	1.000		

Type: MS Lab ID: QC183141

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	22.40	2,000	2,136	106	67-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	68-145
Bromofluorobenzene (FID)	116	66-143

Type: MSD Lab ID: QC183142

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,095	104	67-120	2	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	109	68-145
Bromofluorobenzene (FID)	118	66-143

Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	73578
Lab ID:	159513-001	Sampled:	07/02/02
Matrix:	Water	Received:	07/03/02
Units:	ug/L	Analyzed:	07/10/02
Diln Fac:	100.0		

Analyte	Result	RL
Freon 12	ND	1,000
Chloromethane	ND	1,000
Vinyl Chloride	ND	1,000
Bromomethane	ND	1,000
Chloroethane	ND	1,000
Trichlorofluoromethane	ND	500
Acetone	ND	2,000
Freon 113	ND	500
1,1-Dichloroethene	ND	500
Methylene Chloride	ND	2,000
Carbon Disulfide	ND	500
MTBE	13,000	500
trans-1,2-Dichloroethene	ND	500
Vinyl Acetate	ND	5,000
1,1-Dichloroethane	ND	500
2-Butanone	ND	1,000
cis-1,2-Dichloroethene	ND	500
2,2-Dichloropropane	ND	500
Chloroform	ND	500
Bromochloromethane	ND	1,000
1,1,1-Trichloroethane	ND	500
1,1-Dichloropropene	ND	500
Carbon Tetrachloride	ND	500
1,2-Dichloroethane	ND	500
Benzene	ND	500
Trichloroethene	ND	500
1,2-Dichloropropane	ND	500
Bromodichloromethane	ND	500
Dibromomethane	ND	500
4-Methyl-2-Pentanone	ND	1,000
cis-1,3-Dichloropropene	ND	500
Toluene	ND	500
trans-1,3-Dichloropropene	ND	500
1,1,2-Trichloroethane	ND	500
2-Hexanone	ND	1,000
1,3-Dichloropropane	ND	500
Tetrachloroethene	ND	500

ND= Not Detected

RL= Reporting Limit



Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	73578
Lab ID:	159513-001	Sampled:	07/02/02
Matrix:	Water	Received:	07/03/02
Units:	ug/L	Analyzed:	07/10/02
Diln Fac:	100.0		

Analyte	Result	RL
Dibromochloromethane	ND	500
1,2-Dibromoethane	ND	500
Chlorobenzene	ND	500
1,1,1,2-Tetrachloroethane	ND	500
Ethylbenzene	ND	500
m,p-Xylenes	ND	500
o-Xylene	ND	500
Styrene	ND	500
Bromoform	ND	500
Isopropylbenzene	ND	500
1,1,2,2-Tetrachloroethane	ND	500
1,2,3-Trichloropropane	ND	500
Propylbenzene	ND	500
Bromobenzene	ND	500
1,3,5-Trimethylbenzene	ND	500
2-Chlorotoluene	ND	500
4-Chlorotoluene	ND	500
tert-Butylbenzene	ND	500
1,2,4-Trimethylbenzene	ND	500
sec-Butylbenzene	ND	500
para-Isopropyl Toluene	ND	500
1,3-Dichlorobenzene	ND	500
1,4-Dichlorobenzene	ND	500
n-Butylbenzene	ND	500
1,2-Dichlorobenzene	ND	500
1,2-Dibromo-3-Chloropropane	ND	500
1,2,4-Trichlorobenzene	ND	500
Hexachlorobutadiene	ND	500
Naphthalene	ND	500
1,2,3-Trichlorobenzene	ND	500

Surrogate	%RAC	Limits
Dibromofluoromethane	99	80-121
1,2-Dichloroethane-d4	103	77-130
Toluene-d8	103	80-120
Bromofluorobenzene	107	80-120

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	73578
Lab ID:	159513-002	Sampled:	07/02/02
Matrix:	Water	Received:	07/03/02
Units:	ug/L	Analyzed:	07/10/02
Diln Fac:	33.33		

Analyte	Result	RL
Freon 12	ND	330
Chloromethane	ND	330
Vinyl Chloride	ND	330
Bromomethane	ND	330
Chloroethane	ND	330
Trichlorofluoromethane	ND	170
Acetone	ND	670
Freon 113	ND	170
1,1-Dichloroethene	ND	170
Methylene Chloride	ND	670
Carbon Disulfide	ND	170
MTBE	6,000	170
trans-1,2-Dichloroethene	ND	170
Vinyl Acetate	ND	1,700
1,1-Dichloroethane	ND	170
2-Butanone	ND	330
cis-1,2-Dichloroethene	ND	170
2,2-Dichloropropane	ND	170
Chloroform	ND	170
Bromochloromethane	ND	330
1,1,1-Trichloroethane	ND	170
1,1-Dichloropropene	ND	170
Carbon Tetrachloride	ND	170
1,2-Dichloroethane	ND	170
Benzene	ND	170
Trichloroethene	ND	170
1,2-Dichloropropane	ND	170
Bromodichloromethane	ND	170
Dibromomethane	ND	170
4-Methyl-2-Pentanone	ND	330
cis-1,3-Dichloropropene	ND	170
Toluene	ND	170
trans-1,3-Dichloropropene	ND	170
1,1,2-Trichloroethane	ND	170
2-Hexanone	ND	330
1,3-Dichloropropane	ND	170
Tetrachloroethene	ND	170

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	73578
Lab ID:	159513-002	Sampled:	07/02/02
Matrix:	Water	Received:	07/03/02
Units:	ug/L	Analyzed:	07/10/02
Diln Fac:	33.33		

Analyte	Result	RL
Dibromochloromethane	ND	170
1,2-Dibromoethane	ND	170
Chlorobenzene	ND	170
1,1,1,2-Tetrachloroethane	ND	170
Ethylbenzene	ND	170
m,p-Xylenes	ND	170
o-Xylene	ND	170
Styrene	ND	170
Bromoform	ND	170
Isopropylbenzene	ND	170
1,1,2,2-Tetrachloroethane	ND	170
1,2,3-Trichloropropane	ND	170
Propylbenzene	ND	170
Bromobenzene	ND	170
1,3,5-Trimethylbenzene	ND	170
2-Chlorotoluene	ND	170
4-Chlorotoluene	ND	170
tert-Butylbenzene	ND	170
1,2,4-Trimethylbenzene	ND	170
sec-Butylbenzene	ND	170
para-Isopropyl Toluene	ND	170
1,3-Dichlorobenzene	ND	170
1,4-Dichlorobenzene	ND	170
n-Butylbenzene	ND	170
1,2-Dichlorobenzene	ND	170
1,2-Dibromo-3-Chloropropane	ND	170
1,2,4-Trichlorobenzene	ND	170
Hexachlorobutadiene	ND	170
Naphthalene	ND	170
1,2,3-Trichlorobenzene	ND	170

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-121
1,2-Dichloroethane-d4	105	77-130
Toluene-d8	101	80-120
Bromofluorobenzene	105	80-120

ND= Not Detected

RL= Reporting Limit

Page 2 of 2

Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	73578
Lab ID:	159513-003	Sampled:	07/02/02
Matrix:	Water	Received:	07/03/02
Units:	ug/L	Analyzed:	07/10/02
Diln Fac:	400.0		

Analyte	Result	RL
Freon 12	ND	4,000
Chloromethane	ND	4,000
Vinyl Chloride	ND	4,000
Bromomethane	ND	4,000
Chloroethane	ND	4,000
Trichlorofluoromethane	ND	2,000
Acetone	ND	8,000
Freon 113	ND	2,000
1,1-Dichloroethene	ND	2,000
Methylene Chloride	ND	8,000
Carbon Disulfide	ND	2,000
MTBE	67,000	2,000
trans-1,2-Dichloroethene	ND	2,000
Vinyl Acetate	ND	20,000
1,1-Dichloroethane	ND	2,000
2-Butanone	ND	4,000
cis-1,2-Dichloroethene	ND	2,000
2,2-Dichloropropane	ND	2,000
Chloroform	ND	2,000
Bromochloromethane	ND	4,000
1,1,1-Trichloroethane	ND	2,000
1,1-Dichloropropene	ND	2,000
Carbon Tetrachloride	ND	2,000
1,2-Dichloroethane	ND	2,000
Benzene	ND	2,000
Trichloroethene	ND	2,000
1,2-Dichloropropane	ND	2,000
Bromodichloromethane	ND	2,000
Dibromomethane	ND	2,000
4-Methyl-2-Pentanone	ND	4,000
cis-1,3-Dichloropropene	ND	2,000
Toluene	ND	2,000
trans-1,3-Dichloropropene	ND	2,000
1,1,2-Trichloroethane	ND	2,000
2-Hexanone	ND	4,000
1,3-Dichloropropane	ND	2,000
Tetrachloroethene	ND	2,000

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	73578
Lab ID:	159513-003	Sampled:	07/02/02
Matrix:	Water	Received:	07/03/02
Units:	ug/L	Analyzed:	07/10/02
Diln Fac:	400.0		

Analyte	Result	RL
Dibromochloromethane	ND	2,000
1,2-Dibromoethane	ND	2,000
Chlorobenzene	ND	2,000
1,1,1,2-Tetrachloroethane	ND	2,000
Ethylbenzene	ND	2,000
m,p-Xylenes	ND	2,000
o-Xylene	ND	2,000
Styrene	ND	2,000
Bromoform	ND	2,000
Isopropylbenzene	ND	2,000
1,1,2,2-Tetrachloroethane	ND	2,000
1,2,3-Trichloropropane	ND	2,000
Propylbenzene	ND	2,000
Bromobenzene	ND	2,000
1,3,5-Trimethylbenzene	ND	2,000
2-Chlorotoluene	ND	2,000
4-Chlorotoluene	ND	2,000
tert-Butylbenzene	ND	2,000
1,2,4-Trimethylbenzene	ND	2,000
sec-Butylbenzene	ND	2,000
para-Isopropyl Toluene	ND	2,000
1,3-Dichlorobenzene	ND	2,000
1,4-Dichlorobenzene	ND	2,000
n-Butylbenzene	ND	2,000
1,2-Dichlorobenzene	ND	2,000
1,2-Dibromo-3-Chloropropane	ND	2,000
1,2,4-Trichlorobenzene	ND	2,000
Hexachlorobutadiene	ND	2,000
Naphthalene	ND	2,000
1,2,3-Trichlorobenzene	ND	2,000

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-121
1,2-Dichloroethane-d4	107	77-130
Toluene-d8	101	80-120
Bromofluorobenzene	107	80-120

ND= Not Detected
 RL= Reporting Limit
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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Field ID:	MW-4	Batch#:	73582
Lab ID:	159513-004	Sampled:	07/02/02
Matrix:	Water	Received:	07/03/02
Units:	ug/L	Analyzed:	07/09/02
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Field ID:	MW-4	Batch#:	73582
Lab ID:	159513-004	Sampled:	07/02/02
Matrix:	Water	Received:	07/03/02
Units:	ug/L	Analyzed:	07/09/02
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-121
1,2-Dichloroethane-d4	98	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
 RL= Reporting Limit
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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Field ID:	MW-5	Batch#:	73582
Lab ID:	159513-005	Sampled:	07/02/02
Matrix:	Water	Received:	07/03/02
Units:	ug/L	Analyzed:	07/09/02
Diln Fac:	25.00		

Analyte	Result	RL
Freon 12	ND	250
Chloromethane	ND	250
Vinyl Chloride	ND	250
Bromomethane	ND	250
Chloroethane	ND	250
Trichlorofluoromethane	ND	130
Acetone	ND	500
Freon 113	ND	130
1,1-Dichloroethene	ND	130
Methylene Chloride	ND	500
Carbon Disulfide	ND	130
MTBE	2,600	130
trans-1,2-Dichloroethene	ND	130
Vinyl Acetate	ND	1,300
1,1-Dichloroethane	ND	130
2-Butanone	ND	250
cis-1,2-Dichloroethene	ND	130
2,2-Dichloropropane	ND	130
Chloroform	ND	130
Bromochloromethane	ND	250
1,1,1-Trichloroethane	ND	130
1,1-Dichloropropene	ND	130
Carbon Tetrachloride	ND	130
1,2-Dichloroethane	ND	130
Benzene	ND	130
Trichloroethene	ND	130
1,2-Dichloropropane	ND	130
Bromodichloromethane	ND	130
Dibromomethane	ND	130
4-Methyl-2-Pentanone	ND	250
cis-1,3-Dichloropropene	ND	130
Toluene	ND	130
trans-1,3-Dichloropropene	ND	130
1,1,2-Trichloroethane	ND	130
2-Hexanone	ND	250
1,3-Dichloropropane	ND	130
Tetrachloroethene	ND	130

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Field ID:	MW-5	Batch#:	73582
Lab ID:	159513-005	Sampled:	07/02/02
Matrix:	Water	Received:	07/03/02
Units:	ug/L	Analyzed:	07/09/02
Diln Fac:	25.00		

Analyte	Result	RL
Dibromochloromethane	ND	130
1,2-Dibromoethane	ND	130
Chlorobenzene	ND	130
1,1,1,2-Tetrachloroethane	ND	130
Ethylbenzene	ND	130
m,p-Xylenes	ND	130
o-Xylene	ND	130
Styrene	ND	130
Bromoform	ND	130
Isopropylbenzene	ND	130
1,1,2,2-Tetrachloroethane	ND	130
1,2,3-Trichloropropane	ND	130
Propylbenzene	240	130
Bromobenzene	ND	130
1,3,5-Trimethylbenzene	ND	130
2-Chlorotoluene	ND	130
4-Chlorotoluene	ND	130
tert-Butylbenzene	ND	130
1,2,4-Trimethylbenzene	ND	130
sec-Butylbenzene	ND	130
para-Isopropyl Toluene	ND	130
1,3-Dichlorobenzene	ND	130
1,4-Dichlorobenzene	ND	130
n-Butylbenzene	ND	130
1,2-Dichlorobenzene	ND	130
1,2-Dibromo-3-Chloropropane	ND	130
1,2,4-Trichlorobenzene	ND	130
Hexachlorobutadiene	ND	130
Naphthalene	ND	130
1,2,3-Trichlorobenzene	ND	130

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-121
1,2-Dichloroethane-d4	101	77-130
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC183414	Batch#:	73578
Matrix:	Water	Analyzed:	07/09/02
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC183414	Batch#:	73578
Matrix:	Water	Analyzed:	07/09/02
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	RREC	Limits
Dibromofluoromethane	97	80-121
1,2-Dichloroethane-d4	110	77-130
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC183429	Batch#:	73582
Matrix:	Water	Analyzed:	07/09/02
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC183429	Batch#:	73582
Matrix:	Water	Analyzed:	07/09/02
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-121
1,2-Dichloroethane-d4	101	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC183430	Batch#:	73582
Matrix:	Water	Analyzed:	07/09/02
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC183430	Batch#:	73582
Matrix:	Water	Analyzed:	07/09/02
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-121
1,2-Dichloroethane-d4	101	77-130
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-120

ND= Not Detected
 RL= Reporting Limit
 Page 2 of 2



Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	73578
Units:	ug/L	Analyzed:	07/09/02
Diln Fac:	1.000		

Type: BS Lab ID: QC183411

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	51.39	103	71-131
Benzene	50.00	52.49	105	76-120
Trichloroethene	50.00	52.94	106	78-120
Toluene	50.00	49.99	100	79-120
Chlorobenzene	50.00	49.58	99	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-121
1,2-Dichloroethane-d4	110	77-130
Toluene-d8	100	80-120
Bromofluorobenzene	94	80-120

Type: BSD Lab ID: QC183412

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	45.83	92	71-131	11	20
Benzene	50.00	49.43	99	76-120	6	20
Trichloroethene	50.00	50.30	101	78-120	5	20
Toluene	50.00	51.52	103	79-120	3	20
Chlorobenzene	50.00	49.26	99	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-121
1,2-Dichloroethane-d4	105	77-130
Toluene-d8	104	80-120
Bromofluorobenzene	96	80-120

RPD= Relative Percent Difference

Page 1 of 1

Purgeable Organics by GC/MS

Lab #:	159513	Location:	15595 Washington Avenue
Client:	Enviro Soil Tech Consultants	Prep:	EPA 5030B
Project#:	12-99-702-SI	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	73582
Units:	ug/L	Analyzed:	07/09/02
Diln Fac:	1.000		

Type: BS Lab ID: QC183427

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	55.27	111	71-131
Benzene	50.00	50.39	101	76-120
Trichloroethene	50.00	55.00	110	78-120
Toluene	50.00	50.23	100	79-120
Chlorobenzene	50.00	50.96	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-121
1,2-Dichloroethane-d4	95	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-120

Type: BSD Lab ID: QC183428

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	53.09	106	71-131	4	20
Benzene	50.00	48.33	97	76-120	4	20
Trichloroethene	50.00	52.51	105	78-120	5	20
Toluene	50.00	48.77	98	79-120	3	20
Chlorobenzene	50.00	49.43	99	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-121
1,2-Dichloroethane-d4	97	77-130
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-120

RPD= Relative Percent Difference

CHAIN OF CUSTODY RECORD

59513

PROJ. NO. 12-99-70351 NAME 15595 Washington Ave, San Lorenzo

SAMPLERS: (Signature) *Richard Manly*

CON-TAINER

ANALYSES REQUESTED
 TPH
 EPA 8160 B

REMARKS

-1
-2
-3
-4
-5

NO.	DATE	TIME	SOIL	WATER	LOCATION	CON-TAINER	ANALYSES REQUESTED	REMARKS
1	7/3/02	12 ¹³		✓	MW-1	6	✓ ✓	
2	↓	13 ³²		✓	MW-2	6	✓ ✓	
3	↓	15 ⁰¹		✓	MW-3	6	✓ ✓	
4	↓	10 ⁵⁶		✓	MW-4	6	✓ ✓	
5	↓	9 ³⁰		✓	MW-5	6	✓ ✓	

Preservation Correct?
 Yes No N/A

Received On Ice
 Cold Ambient Intact

Relinquished by: (Signature) <i>Richard Manly</i>	Date / Time	Received by: (Signature) <i>Paul K...</i>	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) <i>Paul K...</i>	Date / Time	7/3/02 13:20	Remarks



ENVIRO SOIL TECH CONSULTANTS

Environmental & Geotechnical Consultants
 111 TULLY ROAD, SAN JOSE, CALIFORNIA 95111
 Tel: (408) 297-1500 Fax: (408) 292-2116

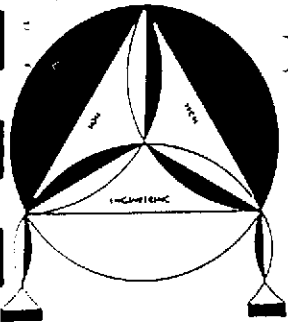
07-03-2002 10:31AM FROM

10 10/10/2002 10:31AM

File No. 12-99-702-SI

A P P E N D I X "F"

ENVIRO SOIL TECH CONSULTANTS



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131 TULLY ROAD, SAN JOSE, CALIFORNIA 95111

Tel: (408) 297-1500

Fax: (408) 292-2116

FILE NO.: 12-99-702-SI

WELL NO.: MW-1

DATE: 7/02/02

SAMPLER: Perched Manly

DEPTH TO WELL: _____

1 WELL VOLUME: 0.99

DEPTH TO WATER: 8^{ft} 96

5 WELL VOLUME: 4.95

HEIGHT OF WATER COLUMN: _____

ACTUAL PURGED VOLUME: 9

CASING DIAMETER: ✓ 2"

_____ 4"

CALCULATIONS:

2" x 0.1632 0.04

4" x 0.653 _____

PURGE METHOD: _____ BAILER _____ DISPLACEMENT PUMP _____ OTHER

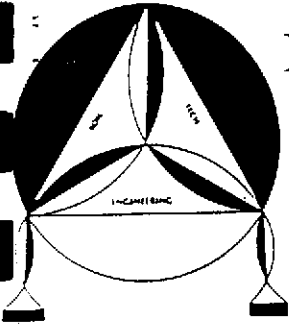
SAMPLE METHOD: _____ BAILER _____ OTHER

SHEEN: ✓ NO _____ YES, DESCRIBE: _____

ODOR: _____ NO _____ YES, DESCRIBE: _____

FIELD MEASUREMENTS

TIME	VOLUME	Ph	TEMP.	E.C.
	3 940	7.25	22.0	730 730
	6 940	7.41	20.9	745
	9 940	7.40	20.8	757



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Tel: (408) 297-1500

Fax: (408) 292-2116

FILE NO.: 12-99-702-SI

DATE: 7/02/02

DEPTH TO WELL: _____

DEPTH TO WATER: 7^{ft} .96

HEIGHT OF WATER COLUMN: _____

WELL NO.: MW-2

SAMPLER: Perched manually

1 WELL VOLUME: 1.15

5 WELL VOLUME: 5.75

ACTUAL PURGED VOLUME: 9

CASING DIAMETER: V 2" _____ 4"

CALCULATIONS:

2" x 0.1632 7.04

4" x 0.653 _____

PURGE METHOD: _____ BAILER _____ DISPLACEMENT PUMP _____ OTHER

SAMPLE METHOD: _____ BAILER _____ OTHER

SHEEN: V NO _____ YES, DESCRIBE: _____

ODOR: V NO _____ YES, DESCRIBE: _____

FIELD MEASUREMENTS

<u>TIME</u>	<u>VOLUME</u>	<u>Ph</u>	<u>TEMP.</u>	<u>E.C.</u>
_____	<u>3.91L</u>	<u>7.69</u>	<u>23.0</u>	<u>754</u>
_____	<u>6.91L</u>	<u>7.83</u>	<u>21.8</u>	<u>771</u>
_____	<u>9.91L</u>	<u>7.65</u>	<u>21.8</u>	<u>776</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

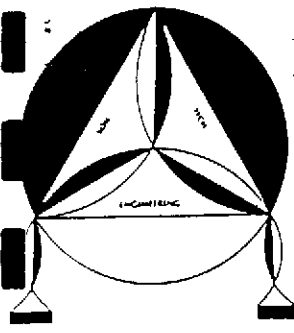
ENVIRO SOIL TECH CONSULTANTS

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Tel: (408) 297-1500

Fax: (408) 292-2116



FILE NO.: 12-99-702-SI

WELL NO.: MW-3

DATE: 7/02/02

SAMPLER: Retul naly

DEPTH TO WELL: _____

1 WELL VOLUME: 1.34

DEPTH TO WATER: 7th TB

5 WELL VOLUME: 6.7

HEIGHT OF WATER COLUMN: _____

ACTUAL PURGED VOLUME: 9

CASING DIAMETER: 2" 4"

CALCULATIONS:

2" x 0.1632 8.22

4" x 0.653 _____

PURGE METHOD: BAILER DISPLACEMENT PUMP OTHER

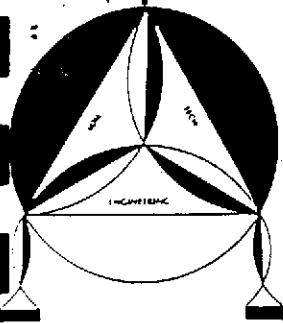
SAMPLE METHOD: BAILER OTHER

SHEEN: NO YES, DESCRIBE: _____

ODOR: NO YES, DESCRIBE: _____

FIELD MEASUREMENTS

<u>TIME</u>	<u>VOLUME</u>	<u>Ph</u>	<u>TEMP.</u>	<u>E.C.</u>
	<u>3.94L</u>	<u>7.73</u>	<u>23.0</u>	<u>830</u>
	<u>6.51L</u>	<u>7.51</u>	<u>22.0</u>	<u>956</u>
	<u>9.94L</u>	<u>7.65</u>	<u>21.9</u>	<u>949</u>



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131 TULLY ROAD, SAN JOSE, CALIFORNIA 95111

Tel: (408) 297-1500

Fax: (408) 292-2116

FILE NO.: 12-99-702-ST

WELL NO.: MW-4

DATE: 7/02/02

SAMPLER: Retal mndg

DEPTH TO WELL: _____

1 WELL VOLUME: 1.57

DEPTH TO WATER: 9^{ft} .36

5 WELL VOLUME: 7.85

HEIGHT OF WATER COLUMN: _____

ACTUAL PURGED VOLUME: 9

CASING DIAMETER: ✓ 2" _____ 4"

CALCULATIONS:

2" x 0.1632 9.64

4" x 0.653 _____

PURGE METHOD: _____ BAILER _____ DISPLACEMENT PUMP _____ OTHER

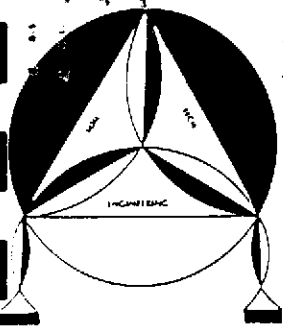
SAMPLE METHOD: _____ BAILER _____ OTHER

SHEEN: ✓ NO _____ YES, DESCRIBE: _____

ODOR: ✓ NO _____ YES, DESCRIBE: _____

FIELD MEASUREMENTS

<u>TIME</u>	<u>VOLUME</u>	<u>Ph</u>	<u>TEMP.</u>	<u>E.C.</u>
	<u>3 gal</u>	<u>7.64</u>	<u>22.1</u>	<u>662</u>
	<u>6 gal</u>	<u>7.67</u>	<u>21.4</u>	<u>688</u>
	<u>9 gal</u>	<u>7.60</u>	<u>21.3</u>	<u>718</u>



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Tel: (408) 297-1500

Fax: (408) 292-2116

FILE NO.: 12-99-702-SI

WELL NO.: MW-5

DATE: 7/02/02

SAMPLER: Retal Mauler

DEPTH TO WELL: _____

1 WELL VOLUME: 1.47

DEPTH TO WATER: 10^M.02

5 WELL VOLUME: 7.35

HEIGHT OF WATER COLUMN: _____

ACTUAL PURGED VOLUME: 9

CASING DIAMETER: 2 2" _____ 4"

CALCULATIONS:

2" x 0.1632 8.98

4" x 0.653 _____

PURGE METHOD: _____ BAILER _____ DISPLACEMENT PUMP _____ OTHER

SAMPLE METHOD: _____ BAILER _____ OTHER

SHEEN: ✓ NO _____ YES, DESCRIBE: _____

ODOR: ✓ NO _____ YES, DESCRIBE: _____

FIELD MEASUREMENTS

<u>TIME</u>	<u>VOLUME</u>	<u>Ph</u>	<u>TEMP.</u>	<u>E.C.</u>
	<u>3 GAL</u>	<u>6.51</u>	<u>19.6</u>	<u>1208</u>
	<u>6.5 GAL</u>	<u>7.06</u>	<u>18.9</u>	<u>1203</u>
	<u>9.5 GAL</u>	<u>7.23</u>	<u>18.7</u>	<u>1173</u>