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October 26, 1992

Mr. A. Wayne Holt, P.G.
Unocal Corporation
Unocal Refining and Marketing Division
13 Corporate Square, NE
P. O. Box 4147
Atlanta, Georgia 30302

Subject: Red Horse Auto/Truck Stop
Mebane, NC
Preliminary Environmental Evaluation
ES Project No. ES-0265

Dear Mr. Holt:

At your authorization, Ecological Services Inc. (ESI) has completed the enclosed Report of Preliminary Environmental Evaluation at the subject site. This report describes the work performed and the results obtained, along with our comments and recommendations.

As indicated in the report, initial recommended action includes the installation of three groundwater monitoring wells in designated areas.

Also enclosed is our invoice to you for costs of final report preparation.

We appreciate the opportunity to provide our professional services on your project. Please contact us if you have any questions concerning this report.

Sincerely,

ECOLOGICAL SERVICES, INC.

Ronald C. Gilkerson
Vice President

RCG;jh
enc(s)

REPORT OF

PRELIMINARY ENVIRONMENTAL EVALUATION
Red Horse Auto/Truck Stop
Mebane, NC

PREPARED FOR

A. Wayne Holt, P.G.
Unocal Corporation
Unocal Refining and Marketing Division
13 Corporate Square, NE
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PREPARED BY

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Report No. ES-0265

October 26, 1992

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1.0 PROJECT INFORMATION

In June 1992, Ecological Services Inc. performed a Preliminary Environmental Assessment to determine the areal extent of petroleum-affected material adjacent to the three separate underground storage tank (UST) excavations and two island areas at the subject site. The subject property is located at the intersection of Trollingwood Road and I-85 North Access Road in Mebane, NC (see Figure 1).

UST removal activities were being performed at the site by James Construction Company of Atlanta, GA. ENSCI Corporation of High Point, NC was contracted to obtain soil samples at the base of each tank excavation for State-required closure.

Borings B-1 through B-6 were performed to aid in the delineation of gasoline-affected material adjacent to the two gasoline dispenser islands in front of the restaurant facility. Borings B-7 and B-8 were performed to determine the areal extent of gasoline-affected material adjacent to the four 4,000 gallon gasoline tanks' excavation. Borings B-9, B-10 and B-12 were performed to determine the areal extent of diesel-affected material adjacent to two tank excavations, each of which contained two 10,000 gallon diesel USTs. One additional boring (B-11) was performed adjacent to one diesel pump island excavation to determine the vertical extent of diesel-affected soil. Due to construction activities, additional soil test borings could not be performed just east of the former 4,000 gallon diesel UST excavation and just west of the two former 10,000 gallon diesel UST areas. Boring locations are shown on Figure 2.

A total of fifteen soil samples was collected from borings B-1 through B-12 to assist James Construction and Unocal in achieving areal extent excavation. Each of the soil samples obtained was field screened with the photoionization detector (PID) of our 10S portable gas chromatograph. The results of field screening are as follows:

Table 1
Field Gas Chromatograph Screening Data
Total VOC in Soil
Red Horse Auto/Truck Stop
Mebane, NC

All data in parts per million

Sample ID	Depth (Ft)	Date	PID Reading
B-1	4.5-5.0	6/11/92	135
B-2	4.0-4.5	6/11/92	391
B-3	4.0-4.5	6/11/92	531
B-3A	5.5-6.0	6/11/92	114
B-4	4.5-5.0	6/11/92	89.9
B-5	5.0-5.5	6/11/92	48.0
B-5A	6.0-6.5	6/11/92	60.0
B-6	4.0-4.5	6/11/92	>2000
B-6A	8.0-8.5	6/11/92	235
B-7	10.5-11.0	6/11/92	40
B-8	10.5-11.0	6/11/92	152
B-9	10.5-11.0	6/11/92	20.1
B-10	11.0-11.5	6/11/92	19.6
B-11	11.5-12.0	6/11/92	38.1
B-12	10.0-10.5	6/11/92	18.1

2.0 FIELD EXPLORATION

The site was visited and the Geoprobe™ sampling locations were selected by Edward J. Whitney of Ecological Services. The Geoprobe™ locations were selected to best characterize groundwater conditions adjacent to each separate source area. Once GC readings on our initial sampling points were reviewed, additional Geoprobe™ locations were selected for delineation of dissolved hydrocarbon constituents. The sampling points were located in the field using a rolo-tape and estimated right angles, referencing existing site features. See Figure 3 for Geoprobe™ groundwater sampling point locations.

The Geoprobe™ groundwater sampling points were designated as GB-1 through GB-15.

3.0 FIELD ACTIVITIES

3.1 Geoprobe™ Groundwater Sampling

Fifteen Geoprobe™ groundwater sampling points (GB-1 through GB-15) were selected at locations to determine the absence/presence of petroleum hydrocarbon constituents and, once identified, the areal extent of these constituents (Figure 3).

On September 8 through September 14, 1992, the groundwater sampling points were installed using our truck-mounted Geoprobe™ (Model 8-M) sampling system. The Geoprobe™ groundwater sampler is a hydraulically driven, 2' stainless steel mill-slotted intake section with a drive point. The drive system of the Geoprobe™ sampler operates by using three separate cylinders for displacement of the probing unit: a folding cylinder, a foot extension cylinder, and a lateral motion cylinder for displacement of the unit from the carrier unit and for hydraulically driving sampling tools and extension rods. The main cylinder supplies 15000 lbs of downforce and >15000 lbs lift at 2000 psi. The probe sampler is driven until the slotted intake section intersects the saturated zone.

Upon reaching the desired sampling depth (≈34 ft), 2000 PSI nitrogen gas was used to "purge" the intake portion of the tool and allow aquifer water to enter the screened interval. A 3/16" O.D. (9/64" I.D.) polypropylene tubing was then inserted into the probe. The sample tubing was in turn connected to 1/2" O.D. (1/4" I.D.) norprene hose using a valve assembly. The norprene tubing was then passed through a peristaltic hose pump which was used to "develop" the sampling point and purge the water column within the tool. Following probe development, a flask sampling apparatus was placed between the probe and the hose pump. A ground water sample was then drawn into the sampling flask such that sample agitation and volatilization of organic constituents were minimized. Each sample was then placed in a previously prepared laboratory container.

Following sample collection, the Geoprobe™ sampling points were grouted with cement to land surface. As a part of our quality assurance program, the sampling flask was properly decontaminated by washing with alconox soap and then rinsing with deionized water, with a final isopropanol and deionized water rinse. All stainless steel rods were steam cleaned prior to their use at each location. A typical Geoprobe™ temporary well point schematic is included as Appendix A.

3.2 Photovac 10S Plus Groundwater Field Screening Procedures

Following collection, each groundwater sample was field screened using the portable Photovac 10S Plus gas chromatograph unit. The 10S Plus unit is a portable photoionization detector (PID) capable, according to the manufacturer's literature, of detecting benzene in

a 1 ml. air sample at a concentration of 0.1 parts per billion (ppb) with a signal to noise ratio of 4:1. The PID within the instrument operates using high energy (11eV) ultraviolet light to ionize gases. Since many pollutants have ionization potentials less than 11eV, they can be ionized by the detector. Positive ions are then collected and amplified. The PID itself, however, is unable to distinguish particular compounds and detects only total volatile organic compounds (VOCs). Since the PID itself is unable to distinguish particular compounds, gas chromatography was utilized.

To obtain separation of the various compounds in a sample, a stream of ultra-zero air (carrier gas) passes through a gas chromatograph column and then into the detector. A 100 μl (may vary depending on concentration) headspace air sample is then injected into the carrier gas stream through a manual injection port using a sample syringe. The separation of compounds from the ultra-zero air is accomplished within the chromatograph column, each chemical taking its own characteristic time (retention time) to be carried through the column to the detector. Calibration standards were prepared and run for benzene, ethylbenzene, toluene, and xylenes. Standard runs, quality control syringe blanks and ultra-zero air runs were made periodically to ensure sampling equipment integrity and instrument response. Results of field gas chromatograph screening are presented below. Gas chromatograms are presented in Appendix B.

The results of our GC field screening are included as Table 2. A Benzene Isoconcentration Map is included as Figure 4.

Table 2
Photovac 10S Plus Gas Chromatograph Data
All data in ppb

Sample ID	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX
GB-1	9/8/92	0.8	4.6	1.6	4.1	11.1
GB-2	9/8/92	41	26	6.4	20	93
GB-3	9/9/92	4.6	7.2	2.4	1.2	15
GB-4	9/9/92	2.1	1.5	3.0	3.1	9.7
GB-5	9/9/92	13	7.9	3.4	7.2	32
GB-6	9/9/92	4.7	4.0	7.9	12	29
GB-7	9/9/92	14	2.3	5.4	4.7	26
GB-8	9/9/92	3.3	2.2	3.5	3.4	12
GB-9	9/11/92	1.9	<1	<1	<1	1.9
GB-10	9/10/92	0.6	<1	<1	<1	0.6
GB-11	9/10/92	0.6	<1	<1	<1	0.6
GB-12	9/10/92	0.6	<1	1.1	<1	1.7
GB-13	9/11/92	<.5	<1	<1	<1	--
GB-14	9/14/92	NA	NA	NA	NA	NA
GB-15	9/14/92	NA	NA	NA	NA	NA

NA = Not Analyzed

4.0 LABORATORY TESTING AND RESULTS

In order to provide confirmation testing at peripheral sampling points, groundwater samples GB-9, GB-10, GB-11, GB-12, GB-13, GB-14 and GB-15 were submitted to GTEL Laboratories for analysis. Groundwater collected from these sampling locations was analyzed for purgeable aromatics (EPA method 602). In addition, samples GB-9, GB-10, GB-13 and GB-15 were analyzed for base/neutral extractables (EPA method 625).

Results of laboratory testing indicated the presence of benzene and toluene in the groundwater sample collected from Geoprobe™ sampling point GB-11 (just south of the old gasoline islands). No base neutral extractable constituents were detected above laboratory detection limits in samples collected from GB-9, GB-10, GB-13 and GB-15. Laboratory test results are included in Appendix B.

5.0 COMMENTS

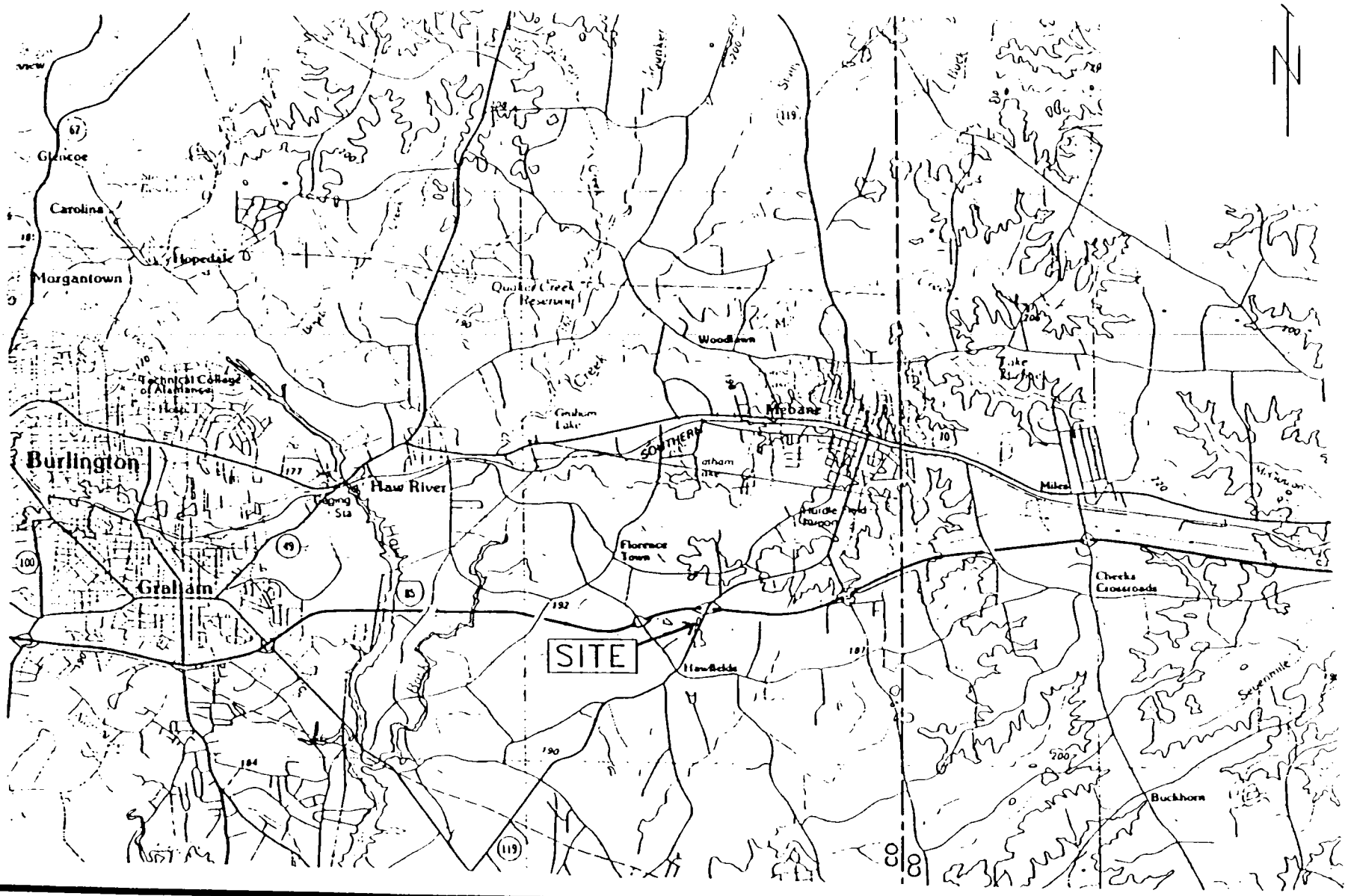
Based on the results of portable gas chromatograph screening and laboratory confirmation testing on the samples obtained adjacent to the old gasoline pump islands and the former 4,000 gallon gasoline excavation, it appears that complete areal extent delineation has been achieved. See Figure 4, Benzene Isoconcentration Map.

Based on our findings in this area, we recommend the installation of two groundwater monitoring wells; one in the old gasoline pump island excavation and one in the old gasoline tank excavation (Figure 5, Recommended Monitoring Well Location Plan). Once groundwater samples have been collected from the newly installed wells and confirmation laboratory results received, our plume delineation data may be used to strategically locate additional monitoring wells as needed.

Laboratory confirmation testing performed on samples collected at locations GB-9 (western diesel tank excavation), GB-10 (western diesel pump excavation) and GB-14 (eastern diesel pump excavation) indicated no purgeable aromatic or base neutral extractable constituents above laboratory detection limits. Based on these results, no further assessment activities are recommended adjacent to these areas. However, we believe that the level of benzene indicated by our portable gas chromatograph field screening activities in sample GB-7 (eastern diesel tank excavation) warrants the installation of one groundwater monitoring well off-setting this location (see Figure 5).

Based on the relatively low levels of purgeable aromatic constituents detected in the area of the old gasoline pump island and tank excavation, a passive monitoring program could be implemented, with NCDEM approval. Once permanent monitoring wells are installed and sampled, wells may be selected for this proposed program based on laboratory analysis results.

FIGURES



DATE: DATE: OCTOBER 23, 1992

SCALE: 1:100,000

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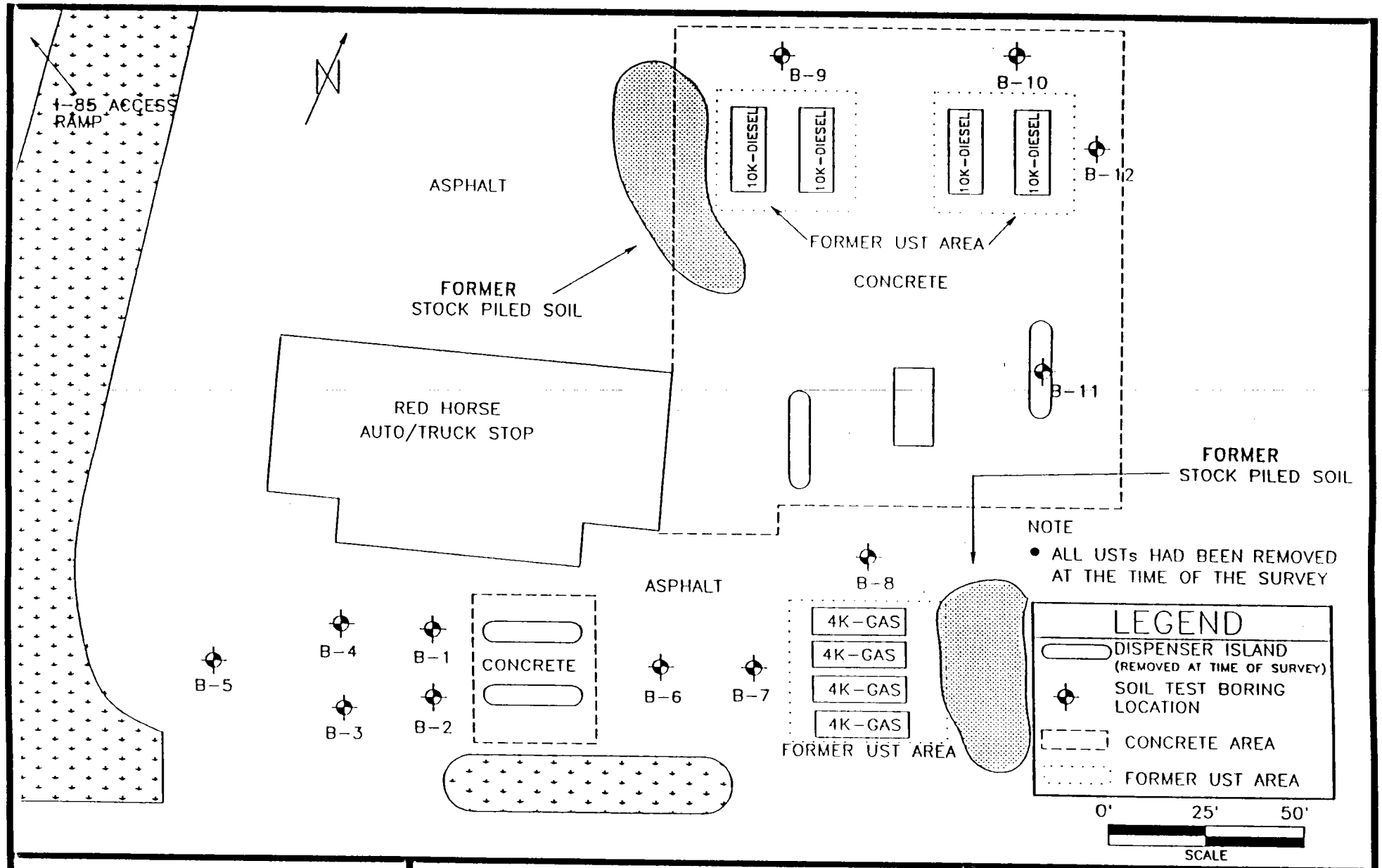
FIGURE: #1 SITE LOCATION MAP

RED HORSE AUTO/TRUCK STOP
UNOCAL SITE # 9787-214
MEBANE, NC



DATE: JUNE, 22, 1992

SCALE: ON DRWING

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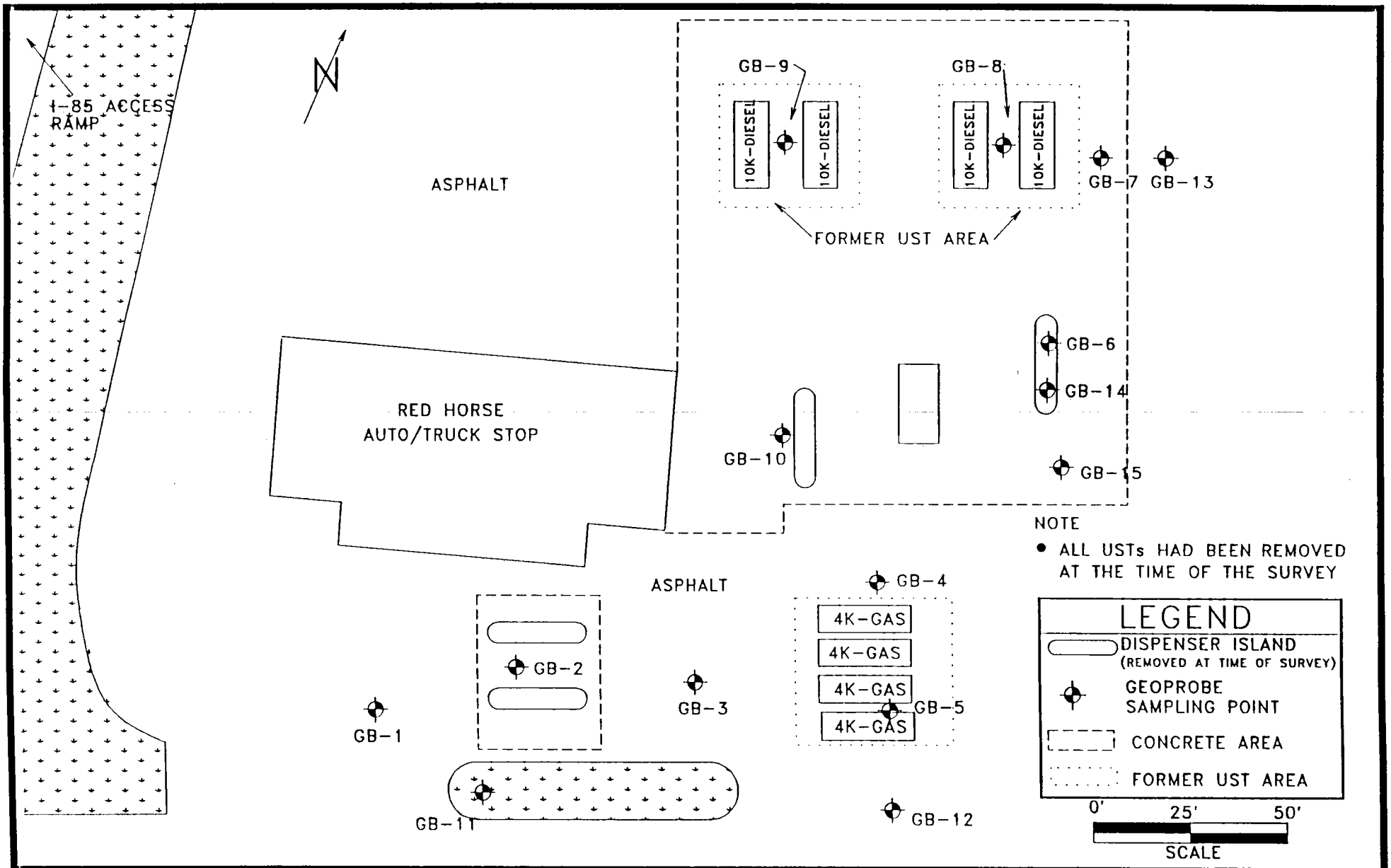
FIGURE: #2 FORMER SOIL TEST BORING LOCATION PLAN

RED HORSE AUTO/TRUCK STOP
UNOCAL SITE # 9787-214
MEBANE, NC



DATE: OCTOBER 10, 1992

SCALE: ON DRWING

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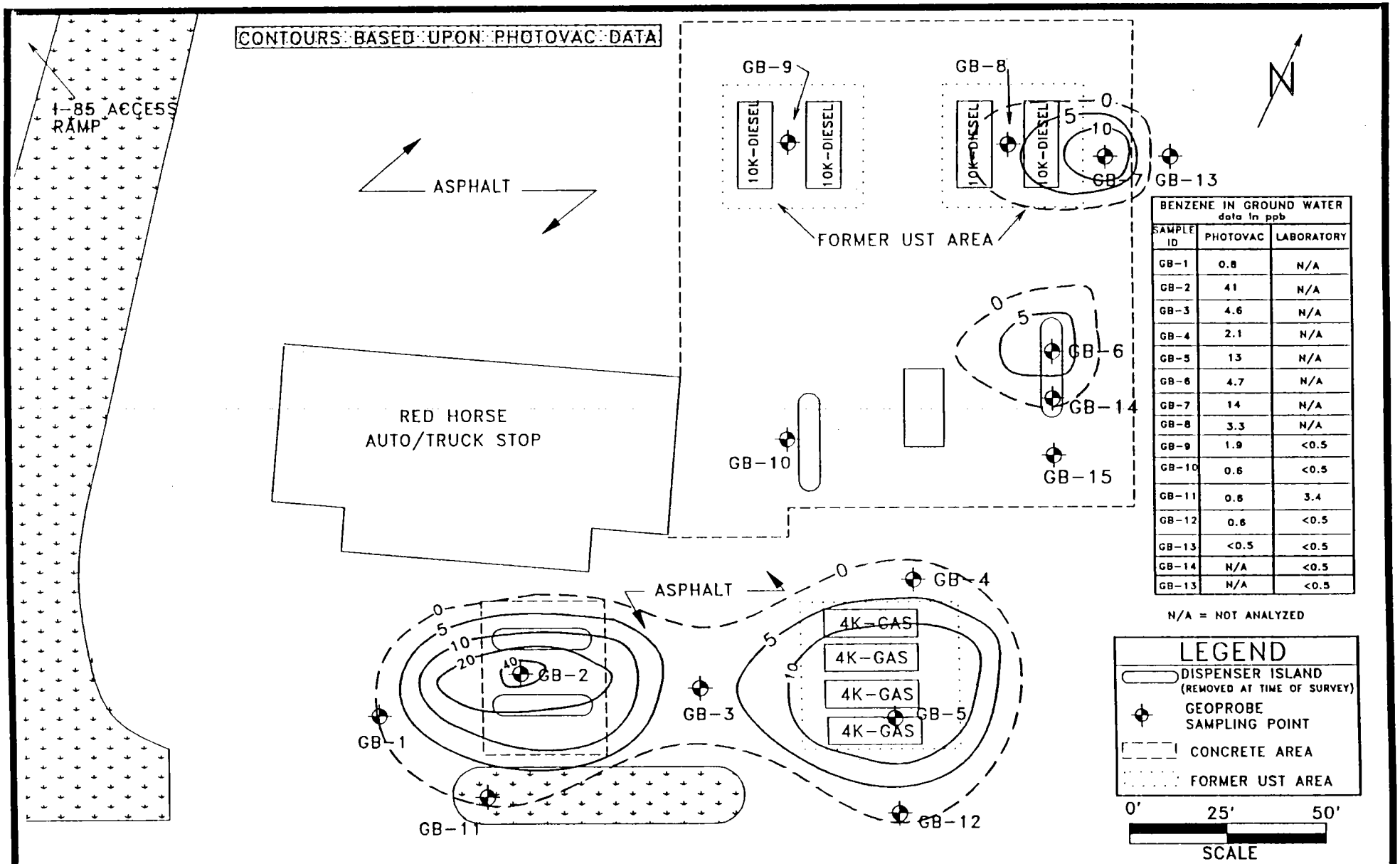
FIGURE: #3 GEOPROBE SAMPLING LOCATION PLAN
RED HORSE AUTO/TRUCK STOP
UNOCAL SITE # 9787-214
MEBANE, NC



BENZENE IN GROUND WATER data in ppb		
SAMPLE ID	PHOTOVAC	LABORATORY
GB-1	0.8	N/A
GB-2	41	N/A
GB-3	4.6	N/A
GB-4	2.1	N/A
GB-5	13	N/A
GB-6	4.7	N/A
GB-7	14	N/A
GB-8	3.3	N/A
GB-9	1.9	<0.5
GB-10	0.6	<0.5
GB-11	0.6	3.4
GB-12	0.6	<0.5
GB-13	<0.5	<0.5
GB-14	N/A	<0.5
GB-13	N/A	<0.5

N/A = NOT ANALYZED

DATE: OCTOBER 10, 1992

SCALE: ON DRAWING

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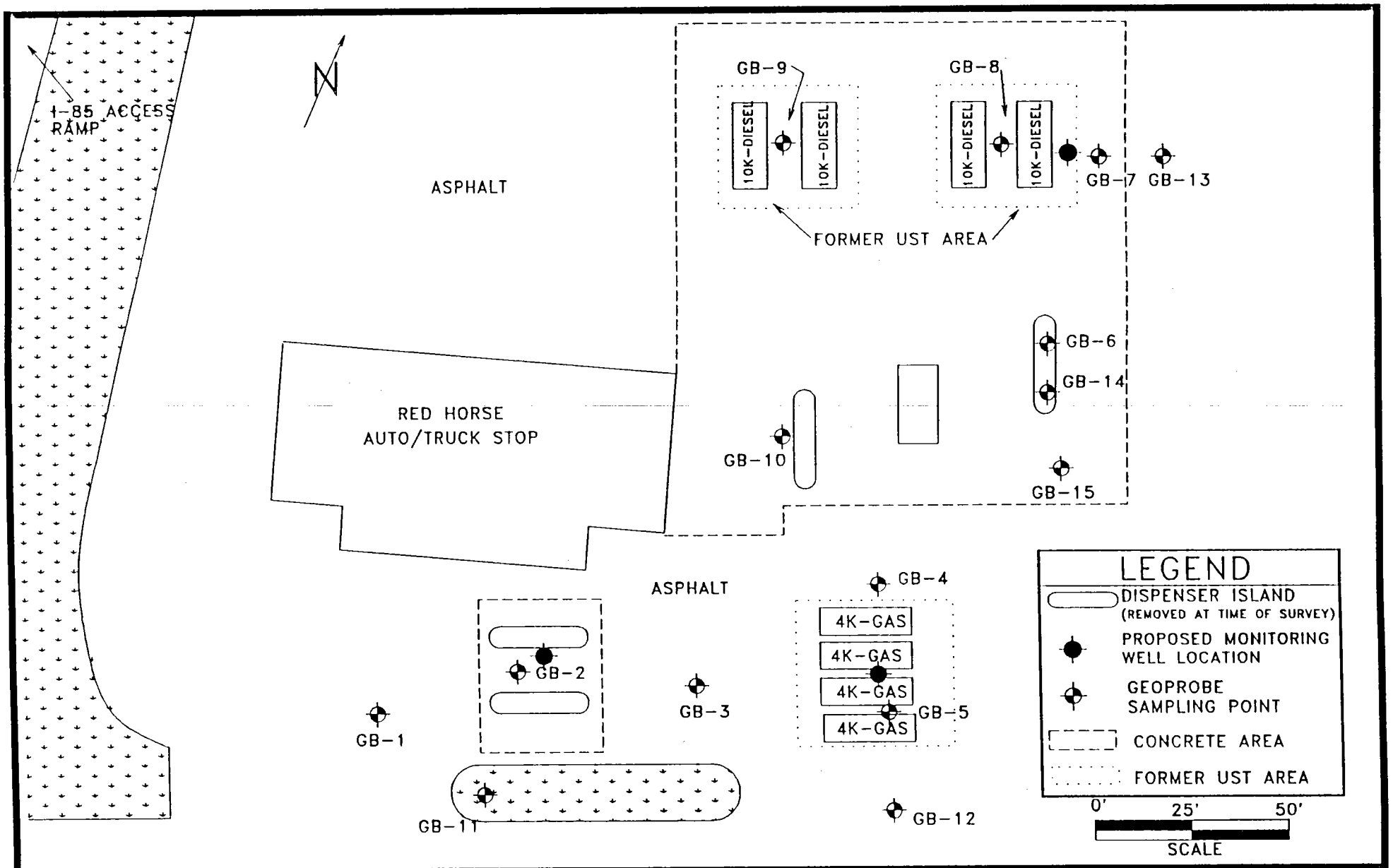
FIGURE: #4 BENZENE ISOCONCENTRATION MAP

RED HORSE AUTO/TRUCK STOP
UNOCAL SITE # 9787-214
MEBANE, NC



DATE: OCTOBER 23, 1992

SCALE: ON DRWING

ESI

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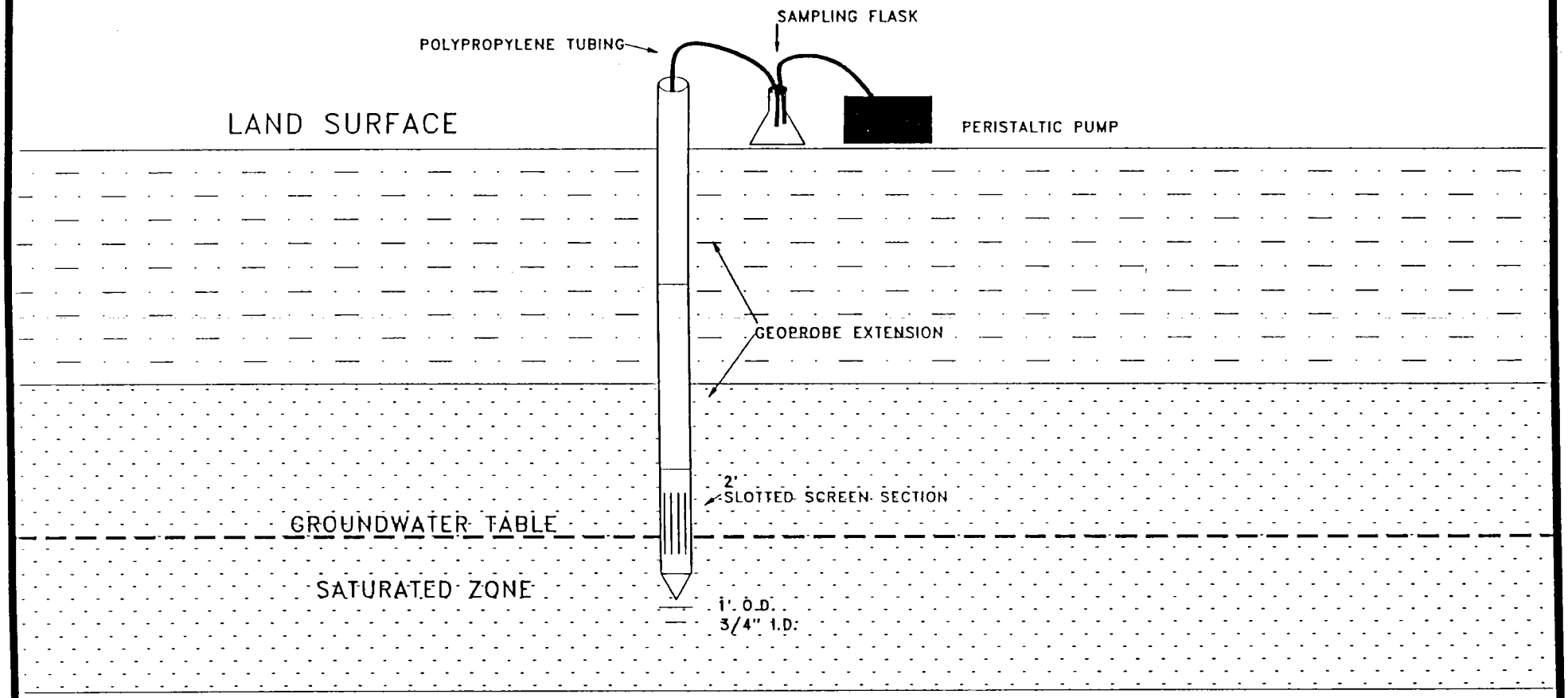
FIGURE: #5 RECOMMENDED GROUNDWATER MONITORING WELL LOCATION PLAN

RED HORSE AUTO/TRUCK STOP
UNOCAL SITE # 9787-214
MEBANE, NC

APPENDIX A:
TYPICAL GEOPROBE™ SAMPLING POINT SCHEMATIC

GEOPROBE SAMPLING DETAIL

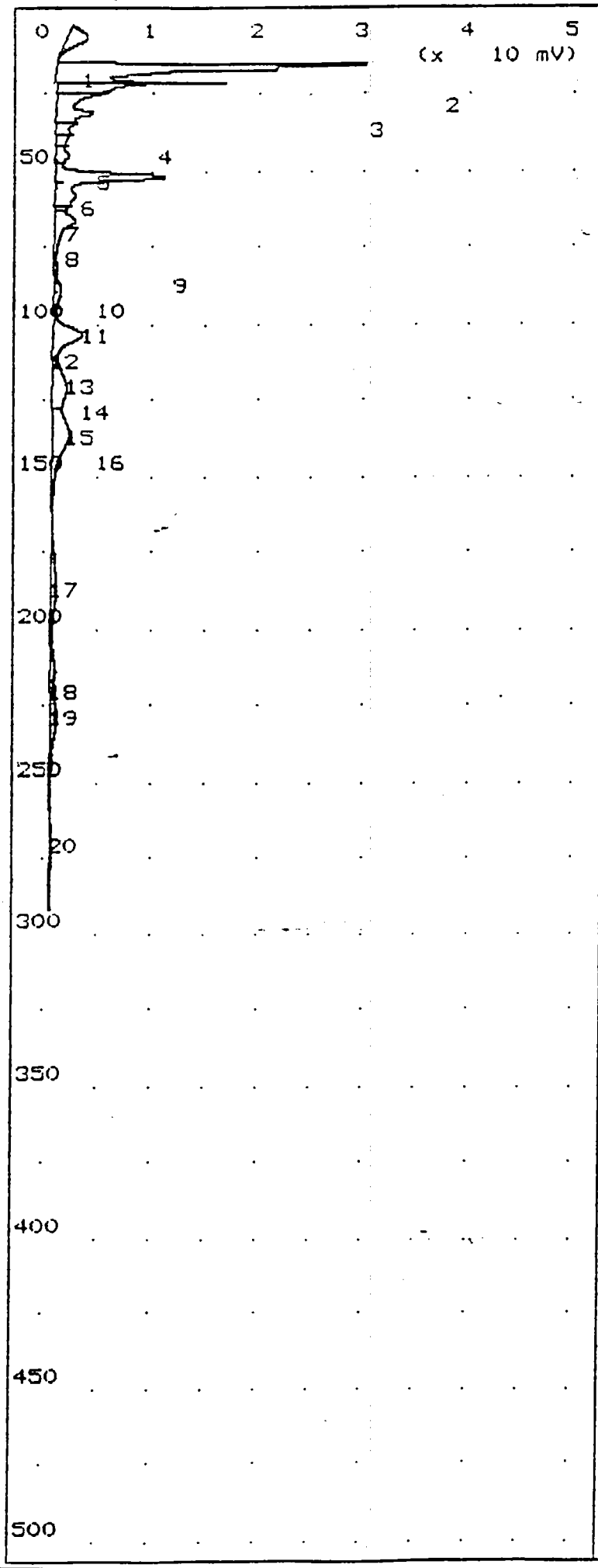


EXAMPLE

DATE: October 7, 1992 SCALE: NTS	ESI ECOLOGICAL SERVICES, INC.	GEOPROBE SAMPLING DETAIL

APPENDIX B:
GAS CHROMATOGRAMS

Analysis #19 10S+ GC Function Analysis Report



Time Printed: Sep 8,92 17:12
Sample Time: Sep 7,92 17:06

Integrator Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.050	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method

Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	36	C
Max Gain	100	
Analysis Time	500.0	sec

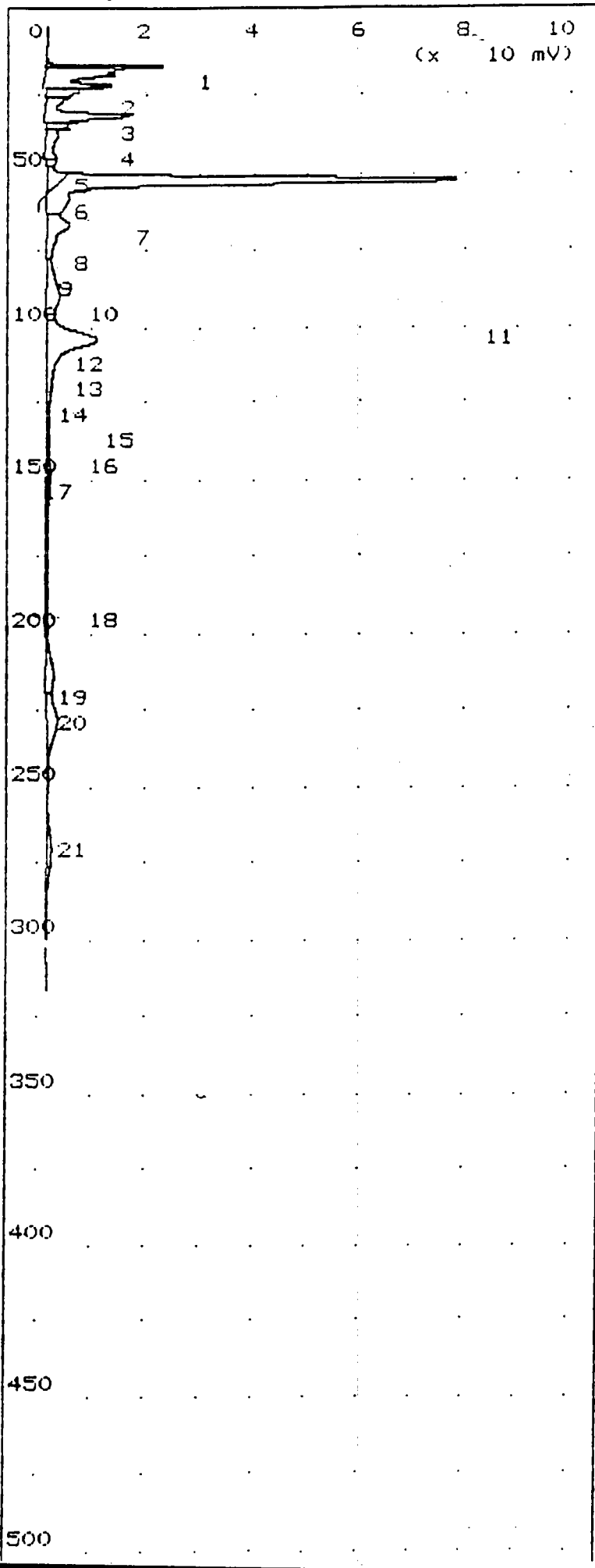
Peak Report

Pk	Compound Name	Area/Conc		R.T
1	Unknown	10.29	mVS	3.
2	Unknown	27.79	mVS	13.
3	Unknown	47.28	mVS	14.
4	Unknown	40.71	mVS	19.
5	Unknown	10.45	mVS	29.
6	Unknown	5.505	mVS	32.
7	Unknown	5.947	mVS	36.
8	Unknown	5.858	mVS	43.
9	benzene	0.800	PPB2	50.
10	Unknown	10.58	mVS	56.
11	Unknown	13.17	mVS	64.
12	Unknown	0.062	mVS	80.
13	Unknown	5.135	mVS	87.
14	toluene	4.568	PPB2	101.
15	Unknown	15.32	mVS	119.
16	Unknown	23.24	mVS	134.
17	Unknown	8.835	mVS	184.
18	e benzene	1.603	PPB2	212.
19	m xylene	1.713	PPB2	227.
20	o xylene	2.377	PPB2	268.

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse
GB-1

Analysis #27 10S+ GC Function Analysis Report



Time Printed: Sep 8,92 19:28
Sample Time: Sep 8,92 19:22

Integrator Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.050	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method

Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	35	C
Max Gain	100	
Analysis Time	500.0	sec

Peak Report

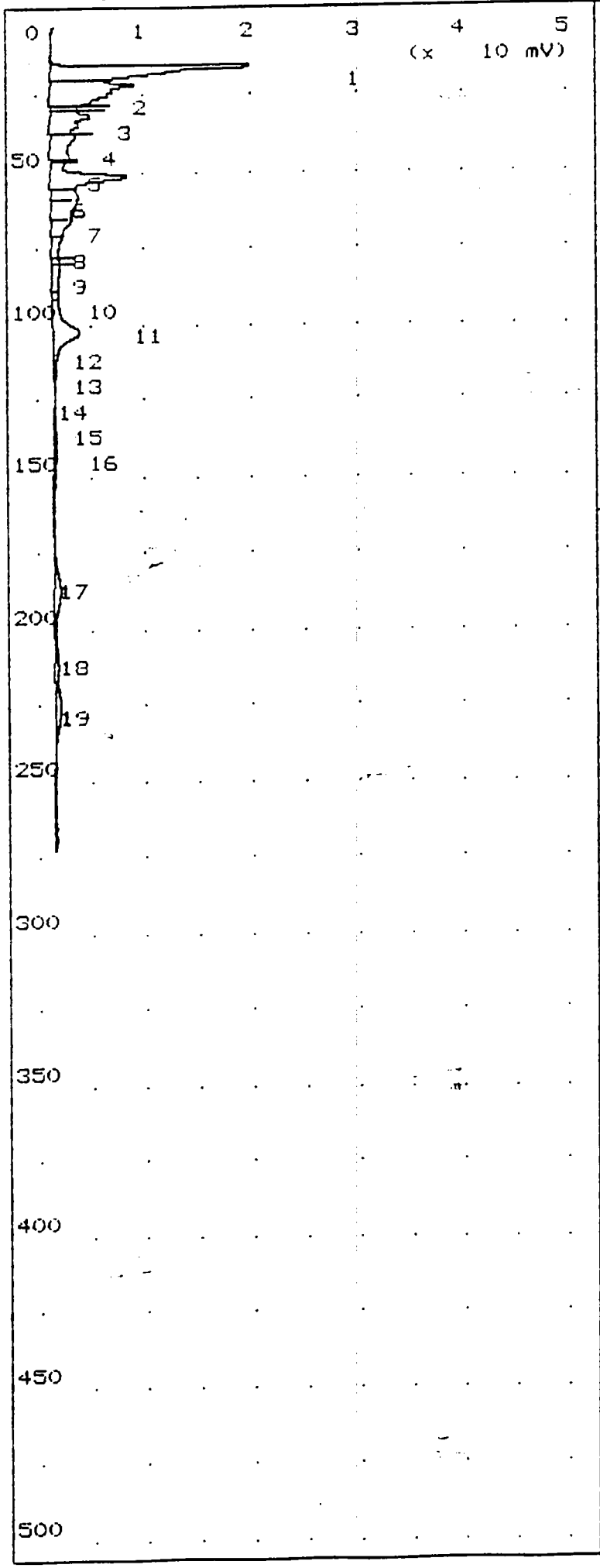
Pk	Compound Name	Area/Conc		R.T
1	Unknown	25.46	mVS	13.
2	Unknown	12.58	mVS	14.
3	Unknown	28.27	mVS	16.
4	Unknown	21.44	mVS	19.
5	Unknown	9.319	mVS	21.
6	Unknown	12.40	mVS	23.
7	Unknown	60.29	mVS	29.
8	Unknown	0.804	mVS	32.
9	Unknown	1.016	mVS	36.
10	Unknown	1.706	mVS	43.
11	benzene	40.75	PPB2	50.
12	Unknown	1.866	mVS	56.
13	Unknown	30.66	mVS	64.
14	Unknown	31.04	mVS	88.
15	toluene	25.82	PPB2	102.
16	Unknown	0.337	mVS	129.
17	Unknown	3.721	mVS	146.
18	Unknown	0.427	mVS	189.
19	e benzene	6.401	PPB2	211.
20	m xylene	5.819	PPB2	226.
21	o xylene	14.20	PPB2	268.

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse

GB -2

Analysis #21 10S+ GC Function Analysis Report



Time Printed: Sep 9,92 11:27
Sample Time: Sep 9,92 11:22

Integrator Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.050	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method

Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	35	C
Max Gain	100	
Analysis Time	500.0	sec

Peak Report

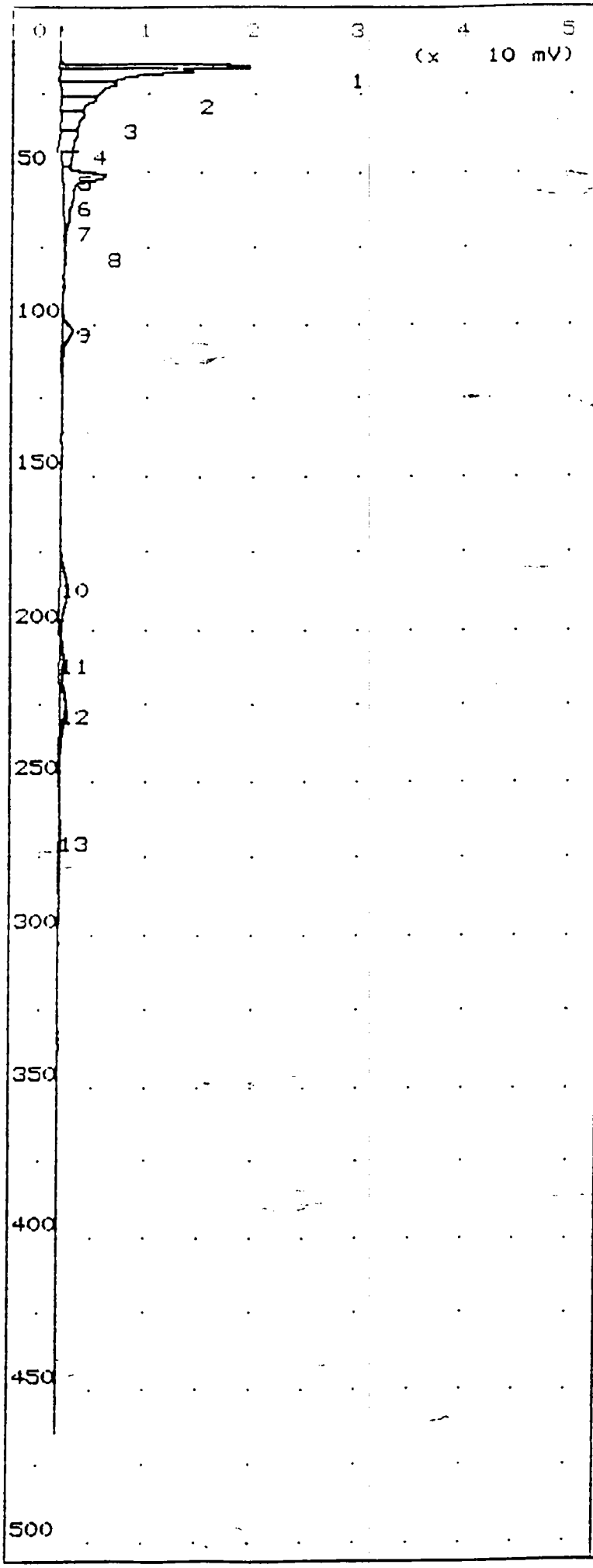
Pk	Compound Name	Area/Conc		R.
1	Unknown	63.55	mVS	13.
2	Unknown	17.06	mVS	19.
3	Unknown	8.352	mVS	22.
4	Unknown	8.105	mVS	23.
5	Unknown	8.826	mVS	24
6	Unknown	2.329	mVS	27.
7	Unknown	10.68	mVS	29.
8	Unknown	7.241	mVS	32.
9	Unknown	12.80	mVS	36.
10	Unknown	7.212	mVS	42.
11	benzene	4.572	PPB2	49
12	Unknown	18.06	mVS	56
13	Unknown	15.61	mVS	63
14	Unknown	8.693	mVS	79
15	toluene	7.194	PPB2	100
16	Unknown	5.959	mVS	137
17	Unknown	8.327	mVS	184
18	e benzene	2.436	PPB2	210
19	m xylene	1.170	PPB2	224

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse

GB-3

Analysis #22 10S+ GC Function Analysis Report



Time Printed: Sep 9,92 11:58
Sample Time: Sep 9,92 11:35

Integrator Method		
Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.063	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method		
Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	35	C
Max Gain	100	
Analysis Time	500.0	sec

Peak Report

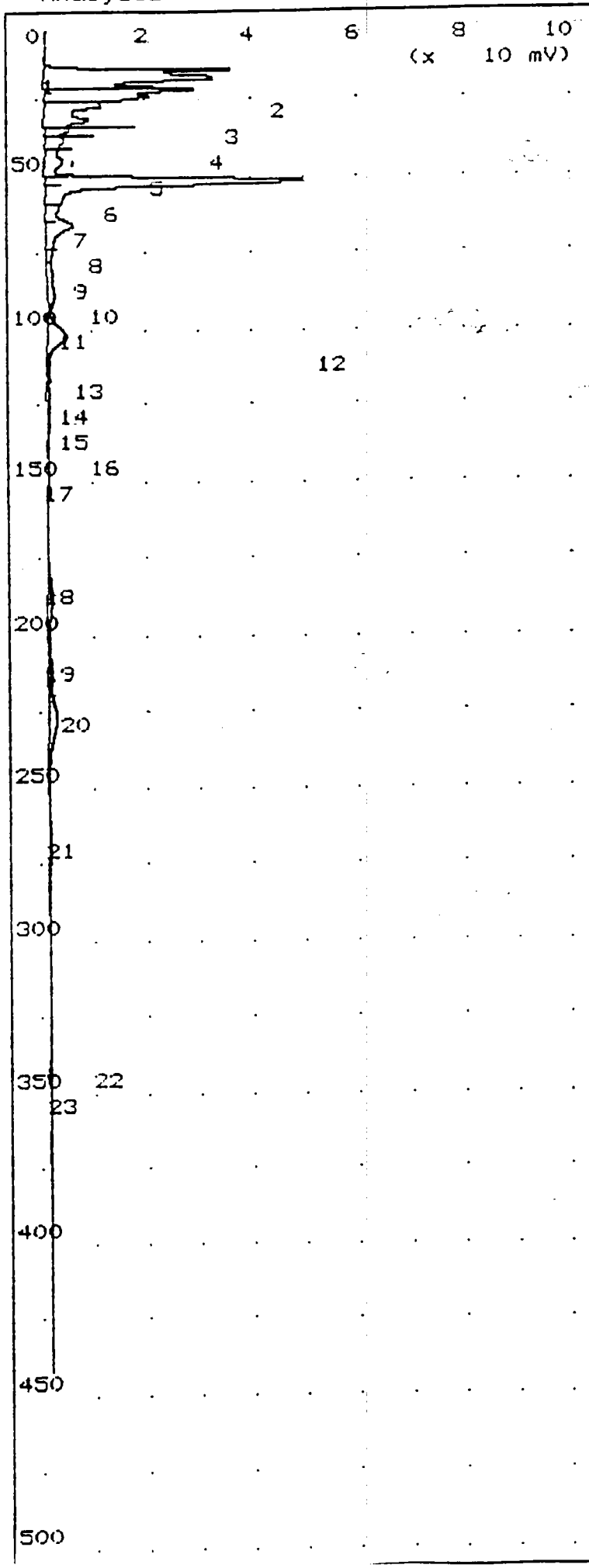
Pk	Compound Name	Area/Conc		R.T
1	Unknown	31.23	mVS	13.
2	Unknown	32.23	mVS	15.
3	Unknown	21.81	mVS	19.
4	Unknown	11.36	mVS	24.
5	Unknown	11.71	mVS	29.
6	Unknown	1.811	mVS	36.
7	Unknown	11.34	mVS	37.
8	benzene	2.100	PPB2	49.
9	toluene	1.534	PPB2	100.
10	Unknown	10.66	mVS	184.
11	e benzene	3.023	PPB2	208.
12	m xylene	1.685	PPB2	223.
13	o xylene	1.419	PPB2	265.

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse

GB-4

Analysis #27 10S+ GC Function Analysis Report



Time Printed: Sep 9,92 14:19
Sample Time: Sep 9,92 14:10

Integrator Method		
Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.054	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method		
Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	39	C
Max Gain	100	
Analysis Time	500.0	sec

Peak Report

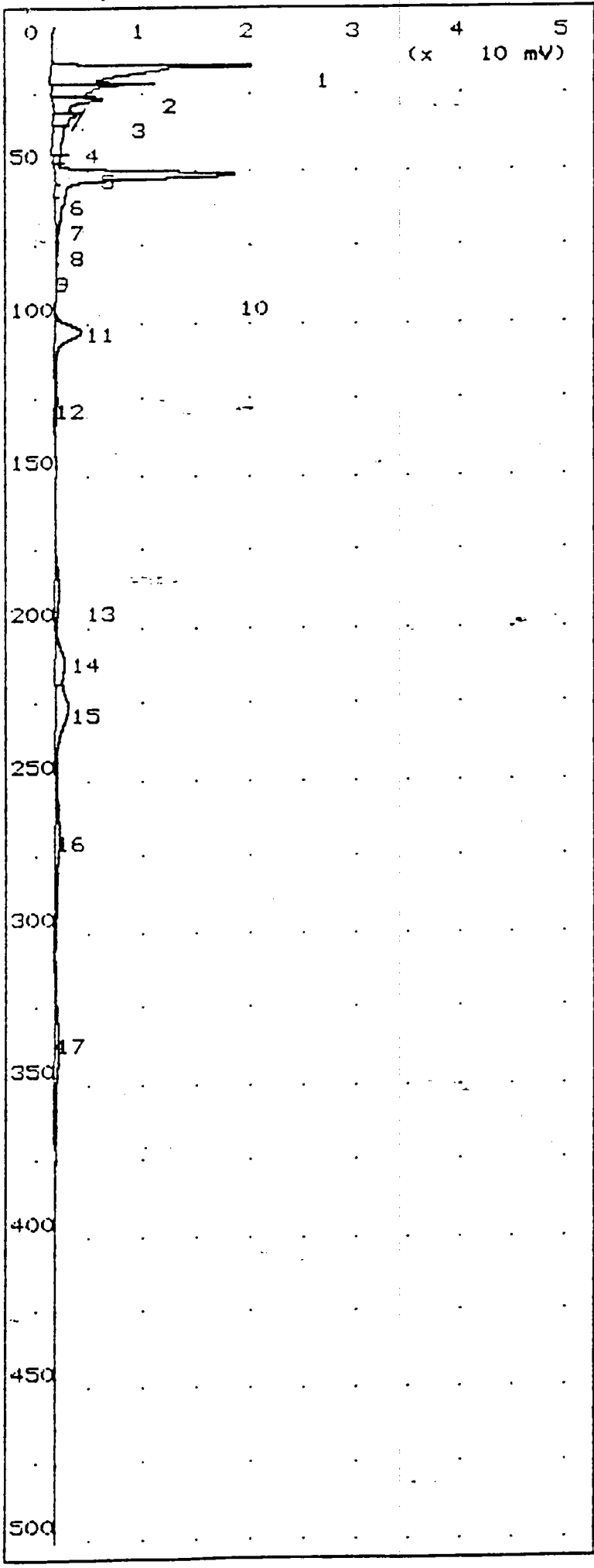
Pk	Compound Name	Area/Conc		R.T
1	Unknown	0.482	mVS	8.
2	Unknown	41.94	mVS	13.
3	Unknown	97.41	mVS	15.
4	Unknown	58.33	mVS	19.
5	Unknown	47.48	mVS	21.
6	Unknown	29.48	mVS	25.
7	Unknown	0.119	mVS	27.
8	Unknown	21.12	mVS	29.
9	Unknown	12.11	mVS	32.
10	Unknown	16.18	mVS	36.
11	Unknown	14.23	mVS	43.
12	benzene	12.87	PPB2	49.
13	Unknown	33.29	mVS	63.
14	Unknown	18.19	mVS	86.
15	toluene	7.873	PPB2	100.
16	Unknown	0.826	mVS	114.
17	Unknown	5.381	mVS	127.
18	Unknown	9.592	mVS	186.
19	e benzene	3.435	PPB2	209.
20	m xylene	4.106	PPB2	225.
21	o xylene	3.095	PPB2	266.
22	Unknown	0.097	mVS	336.
23	Unknown	1.857	mVS	351.

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse

GB-5

Analysis #31 10S+ GC Function Analysis Report



Time Printed: Sep 9,92 17:21
Sample Time: Sep 6,92 20:19

Integrator Method		
Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.050	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method		
Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	36	C
Max Gain	100	
Analysis Time	500.0	sec

Peak Report

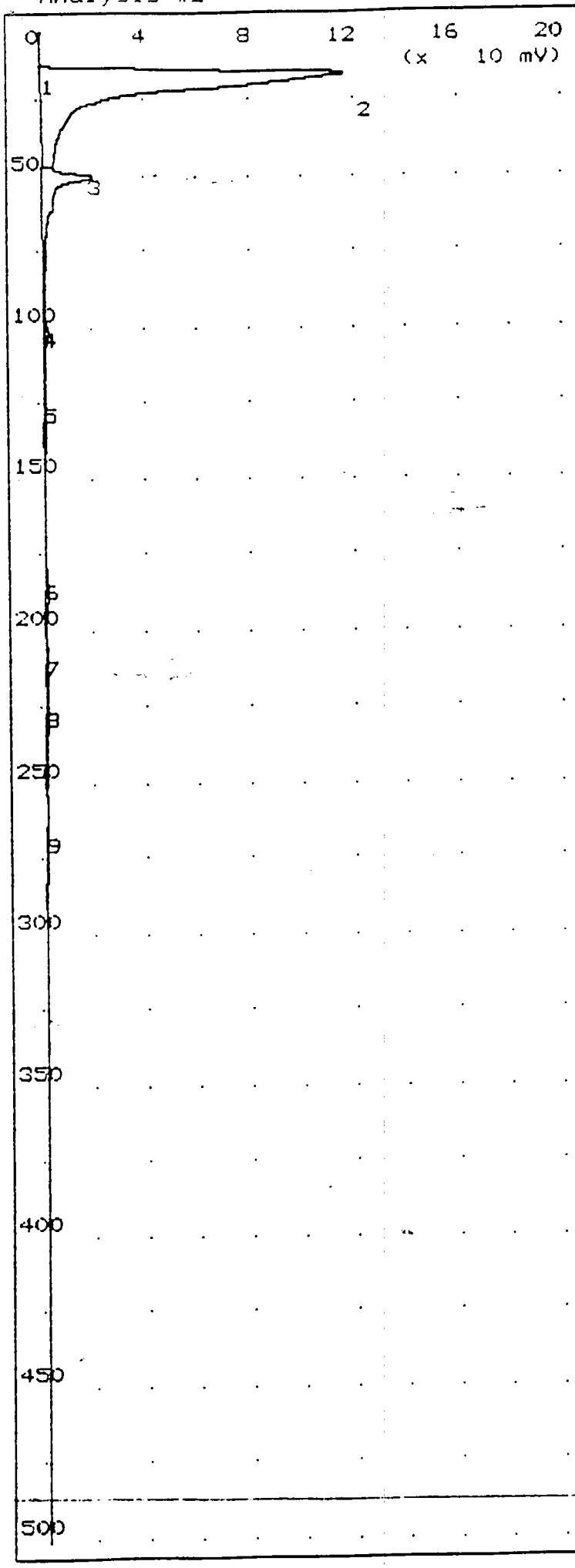
Pk	Compound Name	Area/Conc		R.T.
1	Unknown	21.13	mVS	13.2
2	Unknown	30.03	mVS	14.6
3	Unknown	22.03	mVS	19.5
4	Unknown	0.110	mVS	23.1
5	Unknown	11.42	mVS	24.6
6	Unknown	6.804	mVS	29.8
7	Unknown	3.522	mVS	32.7
8	Unknown	5.409	mVS	35.8
9	Unknown	2.153	mVS	42.5
10	benzene	4.683	PPB2	49.7
11	toluene	3.982	PPB2	100.8
12	Unknown	1.615	mVS	124.2
13	Unknown	7.457	mVS	187.2
14	e benzene	7.909	PPB2	209.8
15	m xylene	3.644	PPB2	224.0
16	o xylene	8.521	PPB2	264.5
17	Unknown	7.893	mVS	334.4

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse

GB-6

Analysis #2 10S+ GC Function Analysis Report



Time Printed: Sep 9,92 18:06
Sample Time: Sep 9,92 17:50

Integrator Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.050	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method

Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	37	C
Max Gain	100	
Analysis Time	500.0	sec

Peak Report

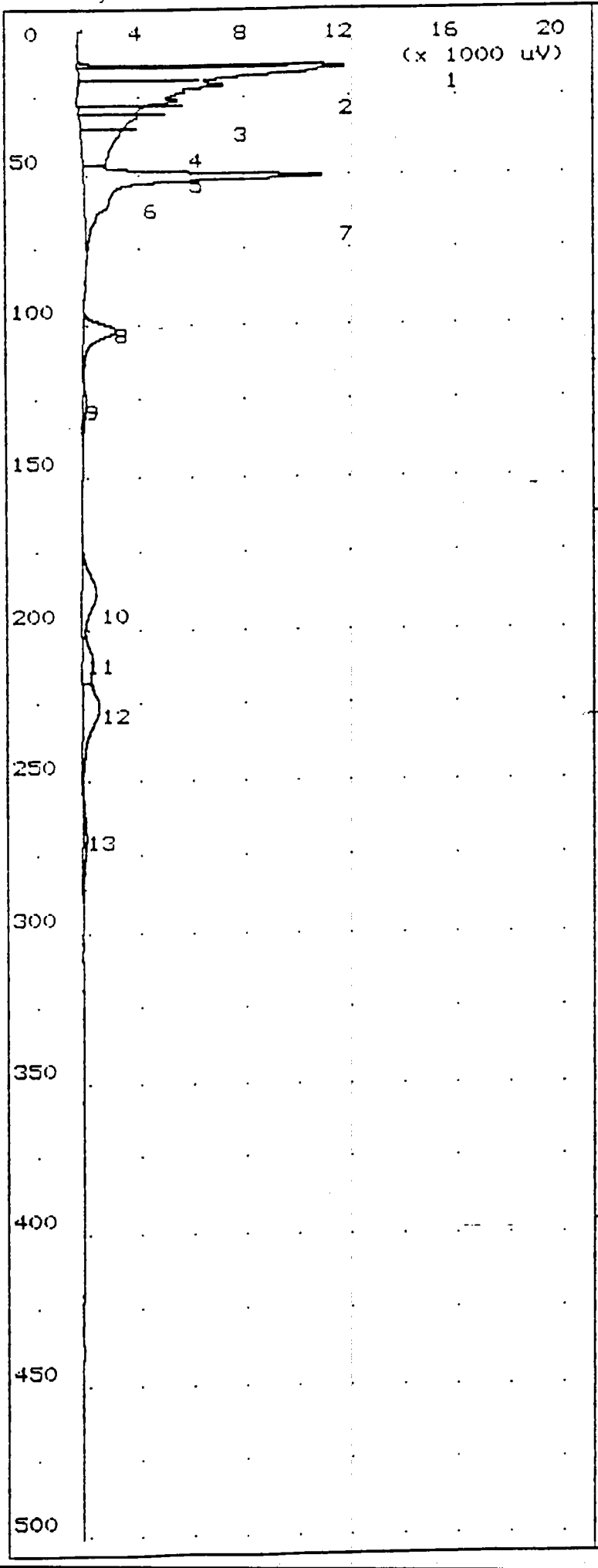
Pk	Compound Name	Area/Conc		R.T.
1	Unknown	0.321	mVS	11.4
2	Unknown	954.7	mVS	14.4
3	benzene	13.59	PPB2	48.5
4	toluene	2.260	PPB2	99.8
5	Unknown	1.163	mVS	126.2
6	Unknown	15.44	mVS	185.2
7	e benzene	5.381	PPB2	209.2
8	m xylene	2.683	PPB2	223.6
9	o xylene	2.012	PPB2	267.2

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse

GB -7

Analysis #4 10S+ GC Function Analysis Report



Time Printed: Sep 9,92 19:06
Sample Time: Sep 9,92 18:54

Integrator Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.050	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method

Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	35	C
Max Gain	100	
Analysis Time	500.0	sec

Peak Report

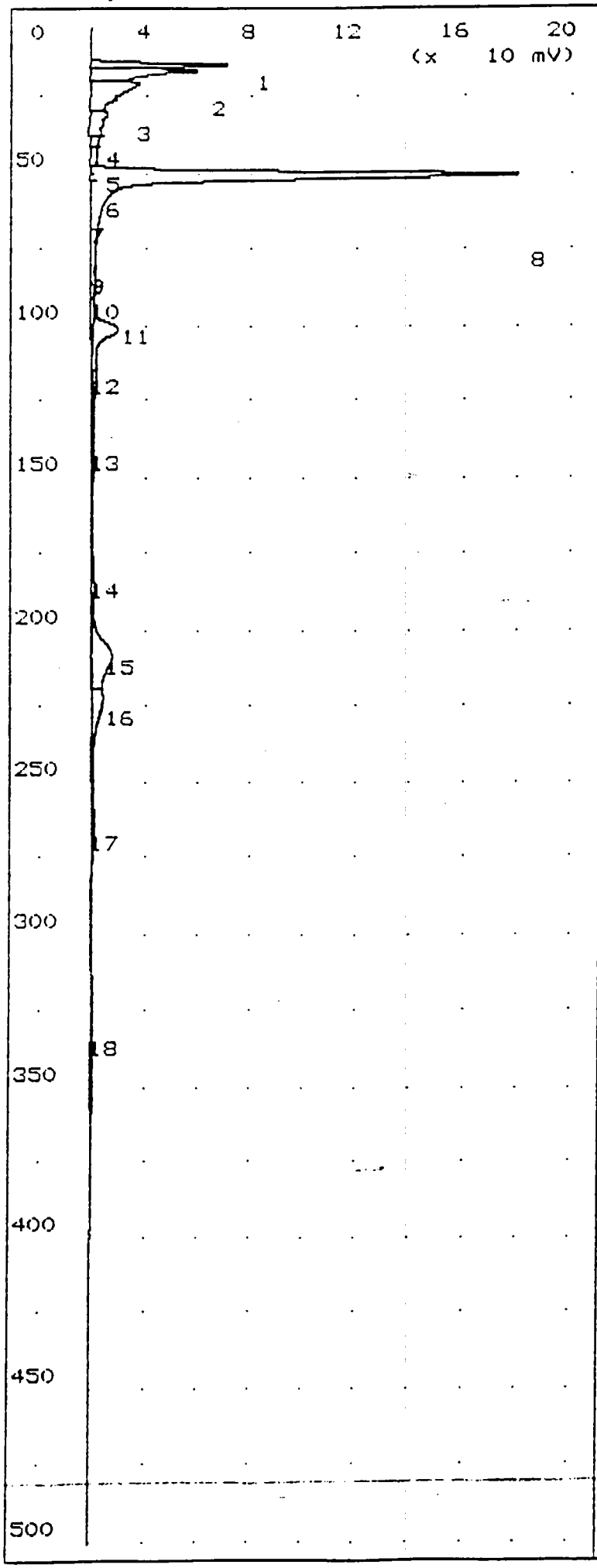
Pk	Compound Name	Area/Conc		R.T
1	Unknown	13.62	mVS	12.
2	Unknown	29.92	mVS	14.
3	Unknown	12.86	mVS	18.
4	Unknown	10.09	mVS	21.
5	Unknown	13.63	mVS	24.
6	Unknown	25.20	mVS	29.
7	benzene	3.269	PPB2	48.
8	toluene	2.169	PPB2	100.
9	Unknown	1.219	mVS	124.
10	Unknown	8.007	mVS	186.
11	e benzene	3.482	PPB2	210.
12	m xylene	1.888	PPB2	224.
13	o xylene	1.552	PPB2	266.

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse

GB-8

Analysis #13 10S+ GC Function Analysis Report



Time Printed: Sep 10,92 11:00
Sample Time: Sep 10,92 10:47

Integrator Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.250	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method

Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	36	C
Max Gain	10	
Analysis Time	500.0	sec

Peak Report

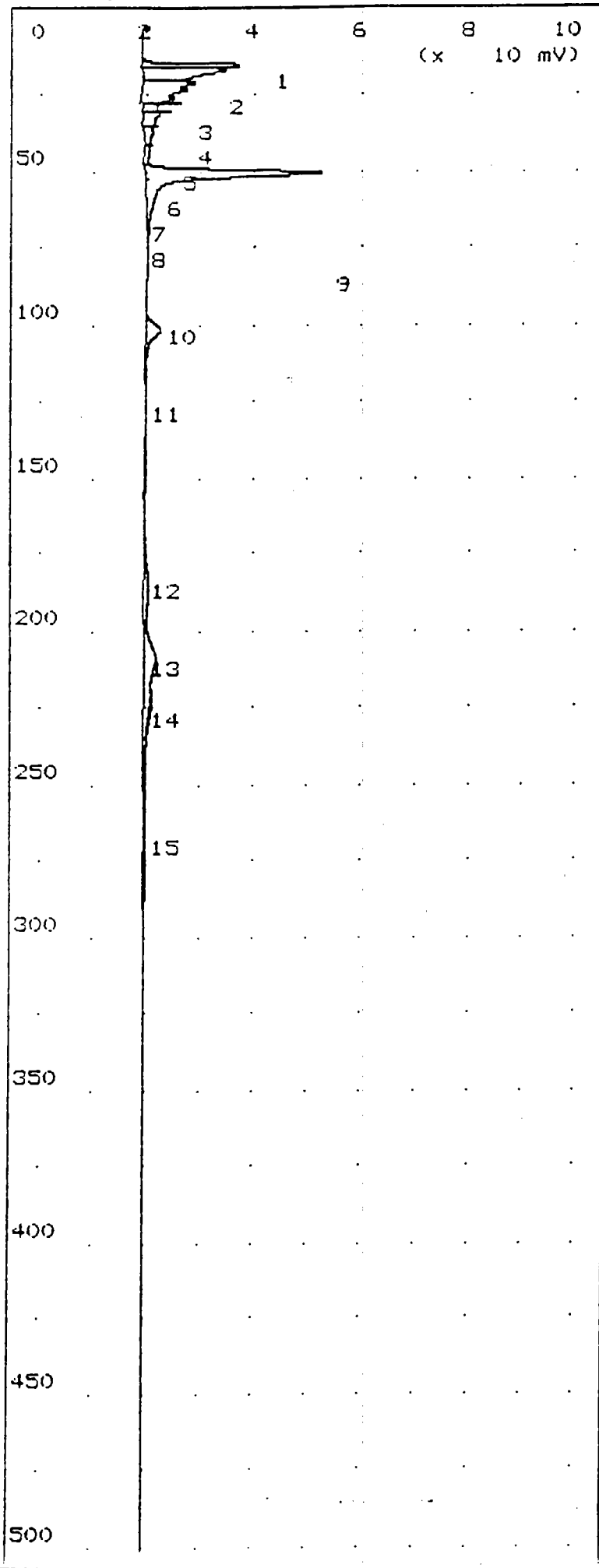
Pk	Compound Name	Area/Conc		R.T.
1	Unknown	84.31	mVS	12.8
2	Unknown	97.23	mVS	14.8
3	Unknown	105.0	mVS	18.9
4	Unknown	18.69	mVS	29.0
5	Unknown	12.91	mVS	31.9
6	Unknown	21.39	mVS	35.0
7	Unknown	10.67	mVS	41.4
8	benzene	1.909	PPB2	48.8
9	Unknown	0.861	mVS	77.0
10	Unknown	1.248	mVS	85.4
11	toluene	0.772	PPB2	99.4
12	Unknown	12.37	mVS	116.0
13	Unknown	5.471	mVS	144.2
14	Unknown	12.71	mVS	182.8
15	e-benzene	0.468	PPB2	206.8
16	Unknown	58.74	mVS	220.0
17	xylene	0.832	PPB2	262.6
18	Unknown	3.367	mVS	327.7

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse

GR -9

Analysis #10 10S+ GC Function Analysis Report



Time Printed: Sep 10,92 10:15
Sample Time: Sep 10,92 09:56

Integrator Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.250	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method

Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	35	C
Max Gain	10	
Analysis Time	500.0	sec

Peak Report

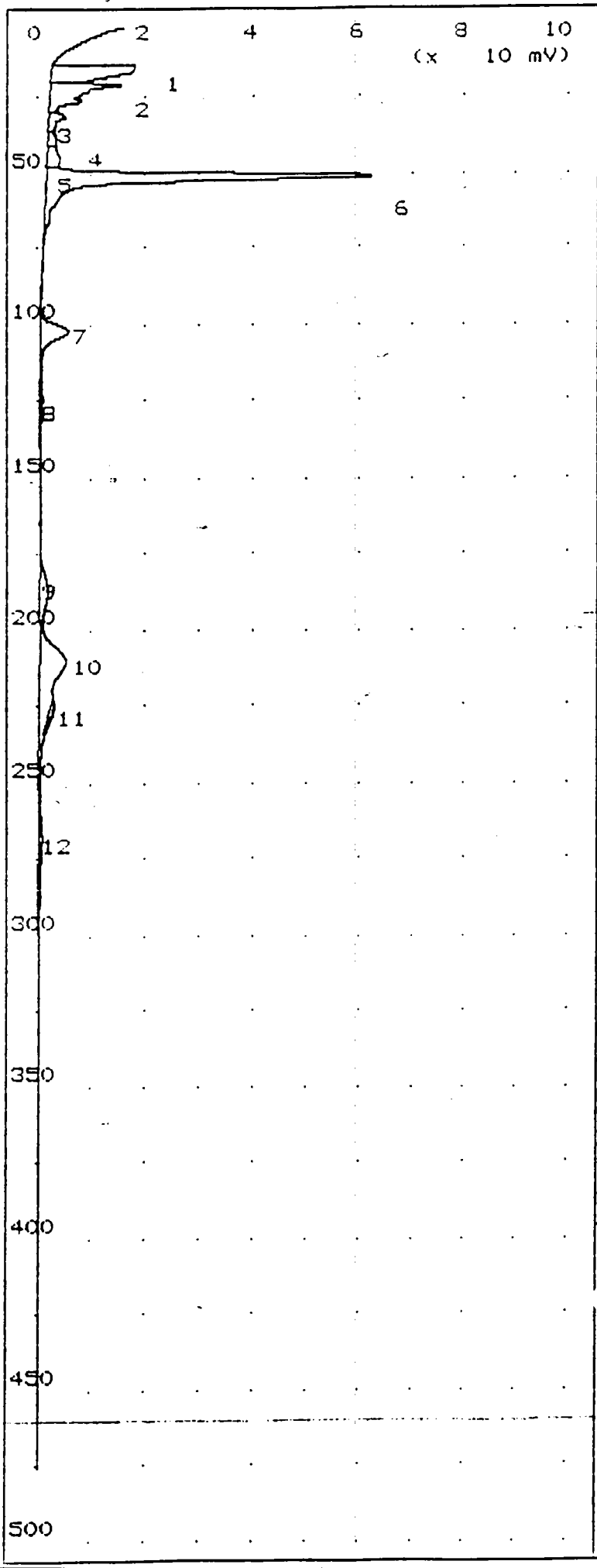
Pk	Compound Name	Area/Conc		R.T
1	Unknown	33.66	mVS	12.
2	Unknown	44.52	mVS	14.
3	Unknown	20.45	mVS	18.
4	Unknown	19.02	mVS	21.
5	Unknown	16.27	mVS	24.
6	Unknown	14.48	mVS	28.
7	Unknown	8.018	mVS	35.
8	Unknown	3.925	mVS	42.
9	benzene	0.615	PPB2	48.
10	toluene	0.595	PPB2	99.
11	Unknown	0.022	mVS	121.
12	Unknown	10.87	mVS	184.
13	e-benzene	0.635	PPB2	206.
14	Unknown	2.863	mVS	220.
15	xylene	0.571	PPB2	262.

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse

GB-10

Analysis #16 10S+ GC Function Analysis Report



Time Printed: Sep 10,92 17:37
Sample Time: Sep 10,92 17:29

Integrator Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.668	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method

Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	39	C
Max Gain	10	
Analysis Time	500.0	sec

Peak Report

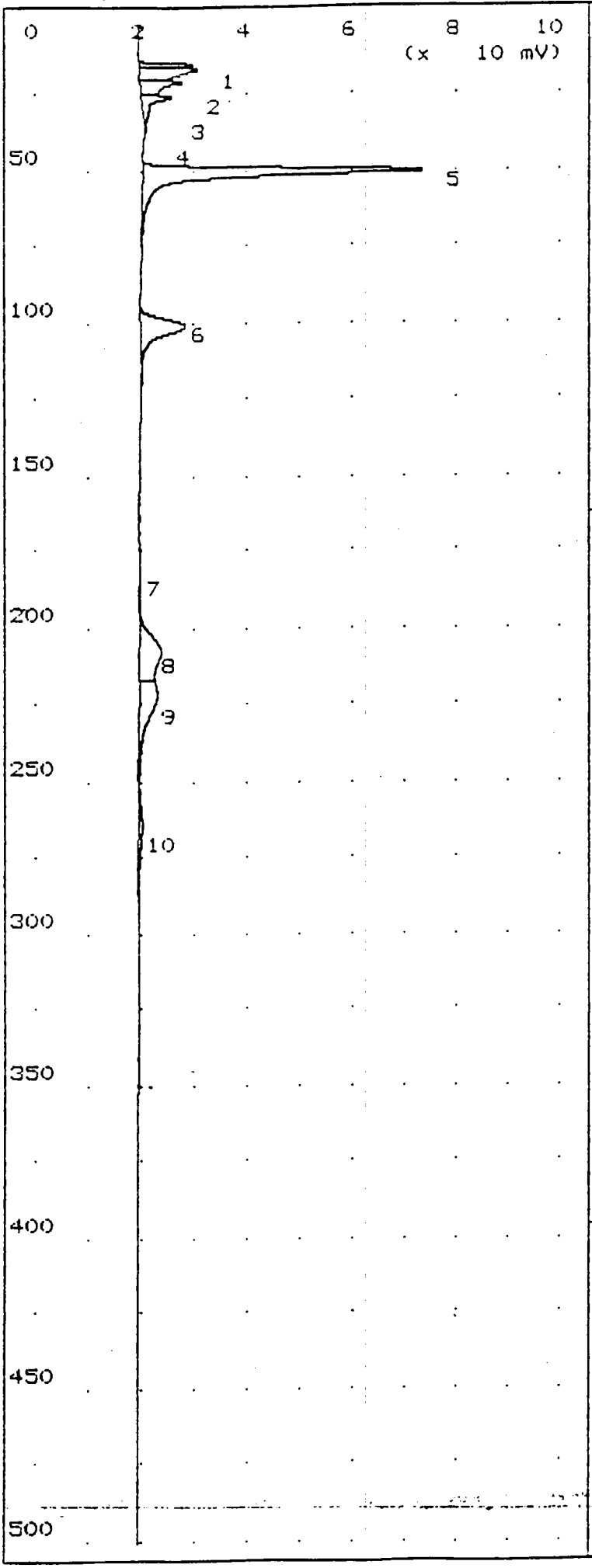
Pk	Compound Name	Area/Conc		R.
1	Unknown	70.96	mVS	12
2	Unknown	53.07	mVS	19
3	Unknown	10.91	mVS	29
4	Unknown	6.570	mVS	36
5	Unknown	14.86	mVS	42
6	benzene	0.547	PPB2	49
7	toluene	0.391	PPB2	100
8	Unknown	2.645	mVS	121
9	Unknown	21.04	mVS	184
10	e-benzene	0.425	PPB2	208
11	Unknown	3.933	mVS	222
12	xylene	0.325	PPB2	265

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse

GB -11

Analysis #4 10S+ GC Function Analysis Report



Time Printed: Sep 11,92 08:38
Sample Time: Sep 11,92 08:21

Integrator Method

Slope Up	1.500	mV/Sec
Slope Down	4.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.250	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method

Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	30	C
Max Gain	10	
Analysis Time	500.0	sec

Peak Report

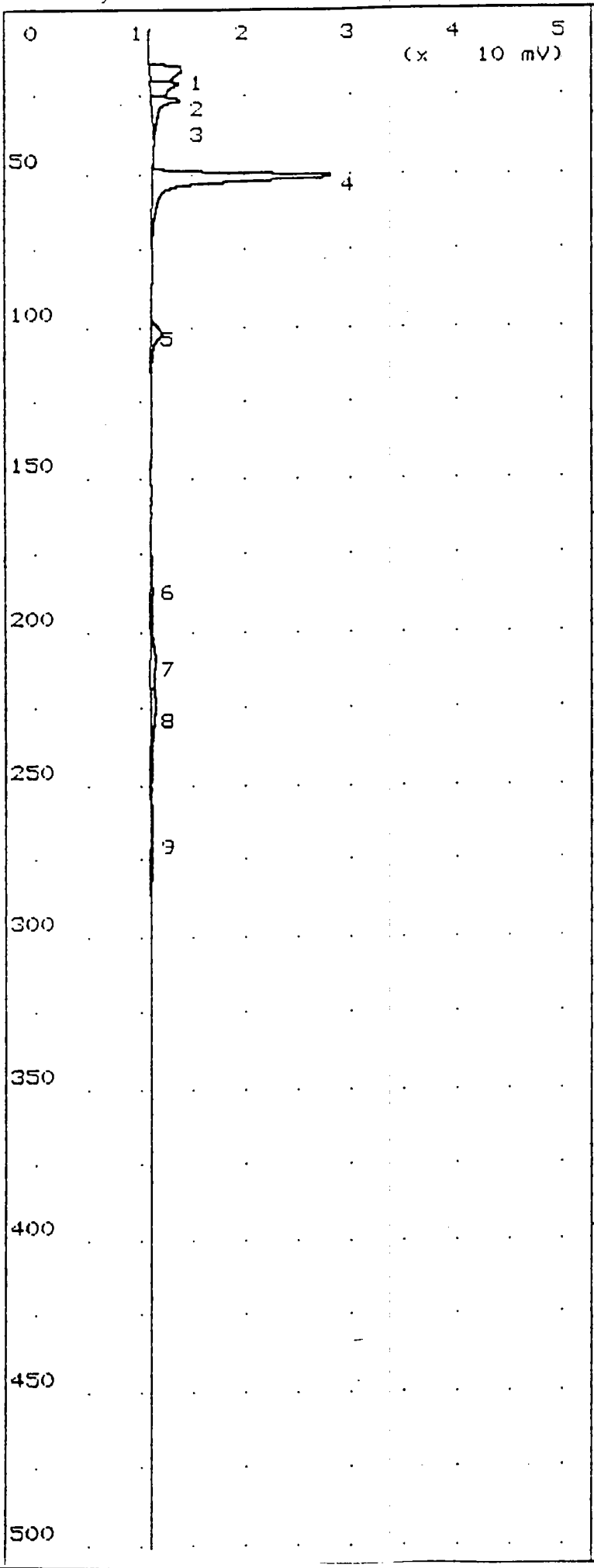
Pk	Compound Name	Area/Conc		R.T.
1	Unknown	16.61	mVS	12.9
2	Unknown	33.07	mVS	14.8
3	Unknown	25.26	mVS	18.8
4	Unknown	17.57	mVS	24.1
5	benzene	0.577	PPB2	48.7
6	toluene	0.542	PPB2	99.3
7	Unknown	1.317	mVS	184.0
8	e-benzene	1.073	PPB2	205.8
9	Unknown	47.25	mVS	220.0
10	xylene	0.668	PPB2	261.3

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse

GB -12

Analysis #5 10S+ GC Function Analysis Report



Time Printed: Sep 11,92 10:36
Sample Time: Sep 11,92 10:18

Integrator Method

Slope Up	0.500	mV/Sec
Slope Down	1.500	mV/Sec
Min Area	0.000	mVSec
Min Height	0.250	mV
Analysis Delay	0.0	sec
Window Percent	20.0	%

GC Method

Det Flow	10	ml/min
B/F Flow	10	ml/min
Aux Flow	0	ml/min
Oven Temp	40	C
Amb Temp	32	C
Max Gain	10	
Analysis Time	500.0	sec

Peak Report

Pk	Compound Name	Area/Conc	R.T.
1	Unknown	15.15 mVS	14.2
2	Unknown	10.06 mVS	19.0
3	Unknown	10.75 mVS	24.2
4	benzene	0.193 PPB2	49.1
5	toluene	0.063 PPB2	100.1
6	Unknown	2.092 mVS	184.8
7	e-benzene	0.106 PPB2	207.2
8	Unknown	6.209 mVS	223.0
9	xylene	0.097 PPB2	263.7

PPM1 = Alarm 1 PPM2 = Alarm2

Red Horse

GB-13

APPENDIX C:
LABORATORY ANALYSIS RESULTS

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Southeast Region
10500 University Center Drive, Suite 160
Tampa, FL 33612
(813) 979-9092 800-933-GTEL (4835)
FAX: 813-979-6914

Project Number: ESC01UNC07
Project ID: UNOCAL TRUCK STOP-MELBOURNE
Work Order Number: F209132
M2-09-0346

October 6, 1992

Mr. Ted Whitney
Ecological Services, Inc.
920 Blairhill Rd., Suite #106
Charlotte, NC 28217

Dear Mr. Whitney,

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on September 16, 1992 under chain of custody record 22046.

GTEL is certified (approved) by the State of Florida under Certificate Number HRS#E84196 and by the State of South Carolina under Certificate Number #96025. GTEL Milford performed the attached under State of Florida Certificate Number E87103.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Harold Vernon
Laboratory Director

Client Number: ESC01UNC07
Project ID: Unocal/Mebane
Login Number: M2-09-0346

CAS NUMBERS AND DETECTION LIMITS

Base/Neutrals in Water
Modified EPA Method 625

Analyte	CAS #	Method Detection Limit (MDL) ug/L
N-Nitroso-dimethylamine	62-75-9	10
bis(2-Chloroethyl) Ether	11-44-4	5.7
1,3-Dichlorobenzene	541-73-1	1.9
1,4-Dichlorobenzene	106-46-7	4.4
1,2-Dichlorobenzene	95-50-1	1.9
bis(2-Chloroisopropyl) Ether	39638-32-9	5.7
N-Nitroso-di-n-propylamine	621-64-7	5.0
Hexachloroethane	67-72-1	1.6
Nitrobenzene	98-95-3	1.9
Isophorone	78-59-1	2.2
bis(2-Chloroethoxy)methane	111-91-1	5.3
1,2,4-Trichlorobenzene	120-82-1	5.0
Naphthalene	91-20-3	1.6
Hexachlorobutadiene	87-68-3	0.9
2-Methylnaphthalene	91-57-6	5.0
Hexachlorocyclopentadiene	77-47-4	5.0
2-Chloronaphthalene	91-58-7	1.9
Dimethylphthalate	131-11-3	1.6
Acenaphthylene	208-96-8	3.5
2,6-Dinitrotoluene	606-20-2	5.0
Acenaphthene	83-32-9	1.9

Client Number: ESC01UNC07
Project ID: Unocal/Mebane
Login Number: M2-09-0346

CAS NUMBERS AND DETECTION LIMITS

Base/Neutrals in Water
Modified EPA Method 625

Analyte	CAS #	Method Detection Limit (MDL) ug/L
2,4-Dinitrotoluene	121-14-2	5.7
Diethylphthalate	84-66-2	1.9
4-Chlorophenyl Phenyl Ether	7005-72-3	4.2
Fluorene	86-73-7	1.9
N-Nitrosodiphenylamine	86-30-6	1.9
4-Bromophenyl Phenyl Ether	101-55-3	1.9
Hexachlorobenzene	118-74-1	1.9
Phenanthrene	85-01-8	5.4
Anthracene	120-12-7	1.9
Di-n-butylphthalate	84-74-2	2.5
Fluoranthene	206-44-0	2.2
Benzidine	92-87-5	44
Pyrene	129-00-0	1.9
Butylbenzylphthalate	85-68-7	2.5
3,3'-Dichlorobenzidine	91-94-1	17
Benz[*a*]anthracene	56-55-3	7.8
Chrysene	218-01-9	2.5
bis(2-Ethylhexyl)phthalate	117-81-7	2.5
Di-n-octylphthalate	117-84-0	2.5
Benzo[*b*]fluoranthene	205-99-2	4.8
Benzo[*k*]fluoranthene	207-08-9	2.5

GTEL ENVIRONMENTAL LABORATORIES, INC.

Client Number: ESC01UNC07
Project ID: Unocal/Mebane
Login Number: M2-09-0346

CAS NUMBERS AND DETECTION LIMITS

Base/Neutrals in Water
Modified EPA Method 625

Analyte	CAS #	Method Detection Limit (MDL) ug/L
Benzo[*a*]pyrene	50-32-8	2.5
Indeno[1,2,3-*c,d*]pyrene	193-39-5	3.7
Dibenz[*a,h*]anthracene	53-70-3	2.5
Benzo[*g,h,i*]perylene	191-24-2	4.1

GTEL ENVIRONMENTAL LABORATORIES, INC

Client Number: ESC01UNC07
Project ID: Unocal/Mebane
Login Number: M2-09-0346

ANALYTICAL RESULTS

Base/Neutrals in Water
Modified EPA Method 625[a]

GTEL Sample Number		090346-01	090346-02	090346-05	090346-07
Client Identification		GB-9	GB-10	GB-13	GB-15
Date Sampled		09/11/92	09/10/92	09/14/92	09/14/92
Date Extracted		09/18/92	09/18/92	09/18/92	09/18/92
Date Analyzed		09/28/92	09/28/92	09/28/92	09/28/92
Analyte	PQL ug/L[b]	Concentration, ug/L[c]			
N-Nitroso-dimethylamine	10	14 U	22 U	13 U	25 U
bis(2-Chloroethyl) Ether	10	14 U	22 U	13 U	25 U
1,3-Dichlorobenzene	10	14 U	22 U	13 U	25 U
1,4-Dichlorobenzene	10	14 U	22 U	13 U	25 U
1,2-Dichlorobenzene	10	14 U	22 U	13 U	25 U
bis(2-Chloroisopropyl) Ether	10	14 U	22 U	13 U	25 U
N-Nitroso-di-n-propylamine	10	14 U	22 U	13 U	25 U
Hexachloroethane	10	14 U	22 U	13 U	25 U
Nitrobenzene	10	14 U	22 U	13 U	25 U
Isophorone	10	14 U	22 U	13 U	25 U
bis(2-Chloroethoxy)methane	10	14 U	22 U	13 U	25 U
1,2,4-Trichlorobenzene	10	14 U	22 U	13 U	25 U
Naphthalene	10	14 U	22 U	13 U	25 U
Hexachlorobutadiene	10	14 U	22 U	13 U	25 U
2-Methylnaphthalene	10	14 U	22 U	13 U	25 U
Hexachlorocyclopentadiene	10	14 U	22 U	13 U	25 U
2-Chloronaphthalene	10	14 U	22 U	13 U	25 U
Dimethylphthalate	10	14 U	22 U	13 U	25 U
Acenaphthylene	10	14 U	22 U	13 U	25 U
2,6-Dinitrotoluene	10	14 U	22 U	13 U	25 U
Acenaphthene	10	14 U	22 U	13 U	25 U
Practical Quantitation Limit Multiplier[d]		1.43	2.22	1.29	2.50

GTE ENVIRONMENTAL LABORATORIES

Client Number: ESC01UNC07
Project ID: Unocal/Mebane
Login Number: M2-09-0346

ANALYTICAL RESULTS

Base/Neutrals in Water
Modified EPA Method 625[a]

GTEL Sample Number		090346-01	090346-02	090346-05	090346-07
Client Identification		GB-9	GB-10	GB-13	GB-15
Date Sampled		09/11/92	09/10/92	09/14/92	09/14/92
Date Extracted		09/18/92	09/18/92	09/18/92	09/18/92
Date Analyzed		09/28/92	09/28/92	09/28/92	09/28/92
Analyte	PQL ug/L[b]	Concentration, ug/L[c]			
2,4-Dinitrotoluene	10	14 U	22 U	13 U	25 U
Diethylphthalate	10	14 U	22 U	13 U	25 U
4-Chlorophenyl Phenyl Ether	10	14 U	22 U	13 U	25 U
Fluorene	10	14 U	22 U	13 U	25 U
N-Nitrosodiphenylamine[e]	10	14 U	22 U	13 U	25 U
4-Bromophenyl Phenyl Ether	10	14 U	22 U	13 U	25 U
Hexachlorobenzene	10	14 U	22 U	13 U	25 U
Phenanthrene	10	14 U	22 U	13 U	25 U
Anthracene	10	14 U	22 U	13 U	25 U
Di-n-butylphthalate	10	14 U	22 U	13 U	25 U
Fluoranthene	10	14 U	22 U	13 U	25 U
Benzidine	50	72 U	110 U	64 U	120 U
Pyrene	10	14 U	22 U	13 U	25 U
Butylbenzylphthalate	10	14 U	22 U	13 U	25 U
3,3'-Dichlorobenzidine	20	29 U	44 U	26 U	50 U
Benz[*a*]anthracene	10	14 U	22 U	13 U	25 U
Chrysene	10	14 U	22 U	13 U	25 U
bis(2-Ethylhexyl)phthalate	10	**2.3 J**	22 U	13 U	25 U
Di-n-octylphthalate	10	14 U	22 U	13 U	25 U
Benzo[*b*]fluoranthene	10	14 U	22 U	13 U	25 U
Benzo[*k*]fluoranthene	10	14 U	22 U	13 U	25 U
Practical Quantitation Limit Multiplier[d]		1.43	2.22	1.29	2.50

GTE ENVIRONME LABORATORIE

Client Number: ESC01UNC07
Project ID: Unocal/Mebane
Login Number: M2-09-0346

ANALYTICAL RESULTS

Base/Neutrals in Water
Modified EPA Method 625[a]

GTEL Sample Number		090346-01	090346-02	090346-05	090346-07
Client Identification		GB-9	GB-10	GB-13	GB-15
Date Sampled		09/11/92	09/10/92	09/14/92	09/14/92
Date Extracted		09/18/92	09/18/92	09/18/92	09/18/92
Date Analyzed		09/28/92	09/28/92	09/28/92	09/28/92
Analyte	PQL ug/L[b]	Concentration, ug/L[c]			
Benzo[*a*]pyrene	10	14 U	22 U	13 U	25 U
Indeno[1,2,3-*c,d*]pyrene	10	14 U	22 U	13 U	25 U
Dibenz[*a,h*]anthracene	10	14 U	22 U	13 U	25 U
Benzo[*g,h,i*]perylene	10	14 U	22 U	13 U	25 U
Practical Quantitation Limit Multiplier[d]		1.43	2.22	1.29	2.50

GTEL ENVIRONMENTAL LABORATORIES, INC.

Client Number: ESC01UNC07
Project ID: Unocal/Mebane
Login Number: M2-09-0346

ANALYTICAL RESULTS

Base/Neutrals in Water
Modified EPA Method 625[a]

a Federal Register, Volume 49, October 26, 1984. Method modified to include additional compounds. Sample preparation by liquid/liquid extraction.

b Practical quantitation limit. Practical quantitation limits found in EPA Method 8270, Table 2, Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986.

c Data Flag Definitions

U Indicates compound was analyzed for but not detected.

J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

B Indicates that the analyte was found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

d The practical quantitation limit multiplier indicates the adjustments made to the data and PQLs for sample dilutions.

e Cannot be separated from diphenylamine.

GTEL ENVIRONMENTAL LABORATORIES, INC

Client Number: ESC01UNC07
Project ID: Unocal/Mebane
Login Number: M2-09-0346

METHOD BLANK RESULTS

Base/Neutrals in Water
Modified EPA Method 625[a]

	GTEL ID	BW0918-1	
	Date Extracted	09/18/92	
	Date Analyzed	09/25/92	
Analyte	PQL, ug/L[b]	Concentration, ug/L[c]	
N-Nitroso-dimethylamine	10	10	U
bis(2-Chloroethyl) Ether	10	10	U
1,3-Dichlorobenzene	10	10	U
1,4-Dichlorobenzene	10	10	U
1,2-Dichlorobenzene	10	10	U
bis(2-Chloroisopropyl) Ether	10	10	U
N-Nitroso-di-n-propylamine	10	10	U
Hexachloroethane	10	10	U
Nitrobenzene	10	10	U
Isophorone	10	10	U
bis(2-Chloroethoxy)methane	10	10	U
1,2,4-Trichlorobenzene	10	10	U
Naphthalene	10	10	U
Hexachlorobutadiene	10	10	U
2-Methylnaphthalene	10	10	U
Hexachlorocyclopentadiene	10	10	U
2-Chloronaphthalene	10	10	U
Dimethylphthalate	10	10	U
Acenaphthylene	10	10	U
2,6-Dinitrotoluene	10	10	U
Acenaphthene	10	10	U

GTEL ENVIRONMENTA LABORATORIES, IN

Client Number: ESC01UNC07
Project ID: Unocal/Mebane
Login Number: M2-09-0346

METHOD BLANK RESULTS

Base/Neutrals in Water
Modified EPA Method 625[a]

	GTEL ID	BW0918-1	
	Date Extracted	09/18/92	
	Date Analyzed	09/25/92	
Analyte	PQL, ug/L[b]	Concentration, ug/L[c]	
2,4-Dinitrotoluene	10	10	U
Diethylphthalate	10	**1.4**	**J**
4-Chlorophenyl Phenyl Ether	10	10	U
Fluorene	10	10	U
N-Nitrosodiphenylamine[d]	10	10	U
4-Bromophenyl Phenyl Ether	10	10	U
Hexachlorobenzene	10	10	U
Phenanthrene	10	10	U
Anthracene	10	10	U
Di-n-butylphthalate	10	10	U
Fluoranthene	10	10	U
Benzidine	50	50	U
Pyrene	10	10	U
Butylbenzylphthalate	10	10	U
3,3'-Dichlorobenzidine	20	20	U
Benz[*a*]anthracene	10	10	U
Chrysene	10	10	U
bis(2-Ethylhexyl)phthalate	10	10	U
Di-n-octylphthalate	10	10	U
Benzo[*b*]fluoranthene	10	10	U
Benzo[*k*]fluoranthene	10	10	U

GTEL ENVIRONMENTAL LABORATORIES, INC.

Client Number: ESC01UNC07
Project ID: Unocal/Mebane
Login Number: M2-09-0346

METHOD BLANK RESULTS

Base/Neutrals in Water
Modified EPA Method 625[a]

	GTEL ID	BW0918-1	
	Date Extracted	09/18/92	
	Date Analyzed	09/25/92	
Analyte	PQL, ug/L[b]	Concentration, ug/L[c]	
Benzo[*a*]pyrene	10	10	U
Indeno[1,2,3-*c,d*]pyrene	10	10	U
Dibenz[*a,h*]anthracene	10	10	U
Benzo[*g,h,i*]perylene	10	10	U

GTEL ENVIRONMENTAL LABORATORIES, INC

Client Number: ESC01UNC07
Project ID: Unocal/Mebane
Login Number: M2-09-0346

METHOD BLANK RESULTS

Base/Neutrals in Water
Modified EPA Method 625[a]

a Federal Register, Volume 49, October 26, 1984. Method modified to include additional compounds. Sample preparation by liquid/liquid extraction.

b Practical quantitation limit. Practical quantitation limits found in EPA Method 8270, Table 2, Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986.

c Data Flag Definitions

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J Indicates an estimated value. This flag is used when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the quantitation limit, but greater than zero, or when reporting an estimated concentration for a tentatively identified compound.

d Cannot be separated from diphenylamine.

GTEL ENVIRONMENTAL LABORATORIES, INC.

TAMPA, FL 33612
(813) 979-9092

Company Name: GTEL - Tampa

Company Address: see above

Project Manager: Jennifer Kennedy

I attest that the proper field sampling procedures were used during the collection of these samples.

Phone #:

FAX #: 979-0914

Site location: TRUCKSTOP - MEBANE

Client Project ID: (#) E SCH UNOCAL

(NAME) UNOCAL / Mebane

Sampler Name (Print): Thomas Windebeard

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME	BTEX/602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash Point ☐ Reactivity ☐	[illegible]
GB-9		1	✓									✓			9/11																					
GB-10		1	✓									✓			9/11																					
GB-13		1	✓									✓			9/11																					
GB-15		1	✓									✓			9/11																					

TAT

- Priority (24 hr) ☐
- Expedited (48 hr) ☐
- 7 Business Days ☐
- Other _____
- Business Days ☐

Special Handling

- GTEL Contact _____
- Quote/Contract # _____
- Confirmation # _____
- PO # _____

QA / QC LEVEL

BLUE ☐ CLP ☐ OTHER _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

Please send report to GTEL Tampa

FAX ☑ Due 9/28/92

REMARKS

To replace [illegible]

Lab Use Only Lot #

Storage Location:

Work Order # [illegible]

CUSTODY RECORD

		Date	Time	
Relinquished by Sampler:				Received by:
Relinquished by:	Jennifer Kennedy	11/10/92		Received by:
Relinquished by:				Received by Laboratory:

Waybill #

Rev. 7/91

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Southeast Region
10500 University Center Drive, Suite 160
Tampa, FL 33612
(813) 979-9092 800-933-GTEL (4835)
FAX: 813-979-6914

Project Number: ESC01UNC07
Project ID: UNOCAL-TRUCK STOP
Work Order Number: F209131

September 23, 1992

Mr. Ted Whitney
Ecological Services, Inc.
920 Blairhill Rd., Suite 106
Charlotte, NC 28217

Dear Mr. Whitney,

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on September 16, 1992 under chain of custody record 22046.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes.

GTEL is certified (approved) by the State of Florida under Certificate Number HRS#E84196 and by the State of South Carolina under Certificate Number #96025.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Harold Vernon
Laboratory Director

Project Number: ESC01UNC07
Project ID: UNOCAL-TRUCK STOP
Work Order Number: F209131

ANALYTICAL RESULTS

Purgeable Aromatics in Water
EPA Method 602 (modified)[a]

GTEL Sample Number		0913101	0913102	0913103	0913104
Client Identification		GB-9	GB-10	GB-11	GB-12
Date Sampled		09-11-92	09-10-92	09-10-92	09-10-92
Date Analyzed		09-18-92	09-18-92	09-18-92	09-18-92
Analyte	QL, ug/L[b]	Concentration, ug/L			
Benzene	0.5	<QL	<QL	3.4	<QL
Toluene	1.0	<QL	<QL	2.5	<QL
Ethyl Benzene	1.0	<QL	<QL	<QL	<QL
Xylenes (total)[a]	5.0	<QL	<QL	<QL	<QL
BTEX (total)	--	--	--	5.9	--
Quantitation Limit Multiplier[c]		1	1	1	1

GTEL Sample Number		0913105	0913106	09131070	0913108
Client Identification		GB-13	GB-14	GB-15	TRIP BLANK
Date Sampled		09-11-92	09-14-92	09-14-92	09-10-92
Date Analyzed		09-18-92	09-18-92	09-18-92	09-18-92
Analyte	QL, ug/L[b]	Concentration, ug/L			
Benzene	0.5	<QL	<QL	<QL	<QL
Toluene	1.0	<QL	<QL	<QL	<QL
Ethyl Benzene	1.0	<QL	<QL	<QL	<QL
Xylenes (total)[a]	5.0	<QL	<QL	<QL	<QL
BTEX (total)	--	--	--	--	--
Quantitation Limit Multiplier[c]		1	1	1	1

a Federal Register, Vol. 49, October 26, 1984. Method modified to include additional compounds as per FAC 17.770.
b QL = Quantitation Limit.
c The Quantitation Limit Multiplier indicates the factor necessary for the adjustment of the quantitation limits due to sample dilutions.

(813) 979-5092

20150

Company Name: GILL - TAMPA

Phone #: See above

FAX #: 813-979-6914

Company Address: See above

Site location: Unocal Truck Stop

Project Manager: Jennifer Emmerly

Client Project ID: (#) [illegible]

(NAME) Unocal / Mebane

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): Thomas Whitehead

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME	BTEX/602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash Point ☐ Reactivity ☐
GB-		1	X												9/11																					
GB-10		1	X												9/10																					
GB-11		1	X												9/10																					
GB-1		1	X												9/10																					
GB-1		1	X												9/10																					
GB-11		1	X												9/11																					
GB-1		1	X												9/11																					
		1	X												9/11																					

TAT

- Priority (24 hr) ☐
- Expedited (48 hr) ☐
- 7 Business Days ☐
- Other _____
- Business Days ☐

Special Handling

GTEL Contact _____

Quote/Contract # _____

Confirmation # _____

PO # _____

SPECIAL DETECTION LIMITS

REMARKS

SPECIAL REPORTING REQUIREMENTS

[illegible] - [illegible] to GILL TAMPA

FAX ☐ due 9/30/98

QA / QC LEVEL

BLUE ☐ CLP ☐

OTHER _____

Lab Use Only Lot #

Storage Location:

Work Order # [illegible]

CUSTODY RECORD

	Date	Time
Relinquished by Sampler:		
Relinquished by: Kellie Voight	9/8/98	
Relinquished by:	9-17-98	10:00

Received by:

Received by:

Received by Laboratory: [illegible]

Waybill # [illegible]

v. 7/91