Woodward-Clyde
Engineering & sciences applied to the earth & its environment

April 15, 1995
92CB040

Ms. Susan Hugo
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Subject: Continental Baking Company, 1010 46th Street, Oakland, CA
Quarterly Groundwater Monitoring Report

Dear Ms. Hugo:

In response to your letter to Mr. Fred Dannecker, Continental Baking Company (CBC), requesting quarterly groundwater monitoring reporting, this letter report is being submitted. Woodward-Clyde Consultants is providing environmental consulting services to CBC and is submitting this report on their behalf.

GROUNDWATER ELEVATION

Water level measurements were performed on January 31 and March 16, 1995 by WCC personnel. Water levels were measured in monitoring wells MW-1, 2 and 3 with an electronic water level sounder and recorded to the nearest 0.01 foot. Table 1 summarizes the groundwater elevation variation in the three monitoring wells since the first investigation at the CBC Oakland facility in May, 1994. Figure 1 is a location map of the CBC facility. Figures 2 and 3 are groundwater elevation contour maps for the last two months reported in the present quarterly report.

The reported results from the water elevation measurements are the following:

- In the first quarter of 1995, the groundwater elevation has risen to about 52 to 57 feet above mean sea level (MSL).
- The groundwater flow direction was estimated to be towards the southwest.

The reported results during this quarter are generally consistent with previous results. The groundwater elevation rise may be attributed to seasonal variations and heavy precipitation.

Woodward-Clyde Consultants • A subsidiary of Woodward-Clyde Group, Inc.
500 12th Street, Suite 100 • Oakland, California 94607-4014
510-893-3600 Fax 510-874-3268

ANALYTICAL RESULTS

Sampling activities were performed in March, 1995 by WCC personnel. A copy of the field water sample logs are attached.

Prior to well development and sampling, an oil/water interface probe was used to detect the presence of an immiscible layer. No measurable immiscible layer was detected in any of the wells.

The wetted casing volume was calculated for each well and approximately 4 casing volumes were removed from each well prior to sampling. In addition to the groundwater samples collected from the three monitoring wells, one duplicate sample was collected from well MW-2 and labelled MW-4. Samples were submitted for analysis for Total Petroleum Hydrocarbons (TPH) and quantified as Diesel (TPHd, modified EPA Method 8015) and gasoline (TPHg) and benzene, toluene, ethylbenzene, and xylene (BTEX, EPA Method 8020) and Total Recoverable Petroleum Hydrocarbons by Standard Method 5520BF. Sample analyses were performed by Anametrix Laboratories, San Jose, California. Copies of the laboratory data sheets and the chain-of-custody form are attached.

A quality assurance/quality control review of the analytical data was performed by a WCC chemist. The results of the review indicated that the data are of acceptable quality.

The reported results from the March, 1995 sampling and analysis effort are summarized in Table 2, and are the following:

- TPHg was detected at a concentration of 29000 μg/L in MW-1.
- TPHd was detected at a concentration of 1900 μg/L in MW-1.
- Concentrations of BTEX were detected in monitoring well MW-1.
- None of the analytes were detected in MW-2 or MW-3.
- Oil and Grease was not detected in any of the wells.

The reported results from this sampling and analysis effort are generally consistent with results reported for samples from these wells in November, 1994 although MW-3 did not show any of the analytes during this round of sampling.

If you have any questions, please feel free to phone me at (510) 874-3138.

Sincerely,

Jo Beth Folger

Jo Beth Folger

Attachments

c: Fred Dannecker, CBC-SF
Carl Eklund, CBC-SL
Jim Hummert, WCC-SL

TABLE 1

SUMMARY OF GROUNDWATER ELEVATION
CONTINENTAL BAKING COMPANY, OAKLAND, CA

Well Identification	Date	Top of Casing Elevation (feet above MSL)	Depth to water (feet below top of casing)	Water Surface Elevation (feet above MSL)
MW-1	5/26/94	61.84	9.27	52.57
	7/29/94	61.84	9.81	52.03
	8/26/94	61.84	9.87	51.97
	10/4/94	61.84	9.89	51.95
	10/27/94	61.84	9.94	51.90
	11/30/94	61.84	8.92	52.92
	1/3/95	61.84	8.79	53.05
	1/31/95	61.84	8.33	53.51
	3/16/95	61.84	8.07	53.77
MW-2	5/26/94	63.10	9.30	53.80
	7/29/94	63.10	9.70	53.40
	8/26/94	63.10	9.89	53.21
	10/4/94	63.10	9.86	53.24
	10/27/94	63.10	9.96	53.14
	11/30/94	63.10	8.95	54.15
	1/3/95	63.10	8.15	54.95
	1/31/95	63.10	6.96*	56.14
	3/16/95	63.10	6.37*	56.73
MW-3	5/26/94	62.51	12.88	49.63
	7/29/94	62.51	13.61	48.90
	8/26/94	62.51	13.71	48.80
	10/4/94	62.51	13.74	48.77
	10/27/94	62.51	13.77	48.74
	11/30/94	62.51	11.85	50.66
	1/3/95	62.51	12.09	50.42
	1/31/95	62.51	10.64	51.87
	3/16/95	62.51	10.79	51.72

* Noted to be under pressure when opened.

TABLE - 2

SUMMARY OF ANALYTICAL RESULTS
CONTINENTAL BAKING COMPANY, OAKLAND, CALIFORNIA

Parameters		TPH diesel	TPH gasoline	TPH BTEX				
				benzene	toluene	ethyl-benzene	total zylenes	total oil & grease
EPA Method		8015		8020				5520 BF
Units		(μg/L)		(μg/L)				(mg/L)
Well Number	Date							
MW-1	5/26/94	1300	12000	57	340	370	3100	<5.0
	8/26/94	510[1]/650[1]	6700/8400	22/35	71/97	310/410	1000/1400	<5.0/<5.0
	11/30/94	1300	29000	480	1100	1200	5300	<5.0
	3/16/95	1900	29000	140	1400	1800	9700	<5.0
MW-2	5/26/94	<50/<50	<50/<50	0.50/<0.50	0.50/<0.50	0.50/<0.50	0.50/<0.50	<5.0
	8/26/94	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	11/30/94	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	3/16/95	<50/<50	<50/<50	<0.50/<0.50	<0.50/<0.50	<0.50/<0.50	<0.50/<0.50	<5.0
MW-3	5/26/94	99	<50	<0.50	<0.50	<0.50	1.7	<5.0
	8/26/94	66[2]	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	11/30/94	78/85	100/100	<0.50/1.9	<0.50/0.50	<0.50/1.0	2.1/4.3	<5.0
	3/16/95	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0

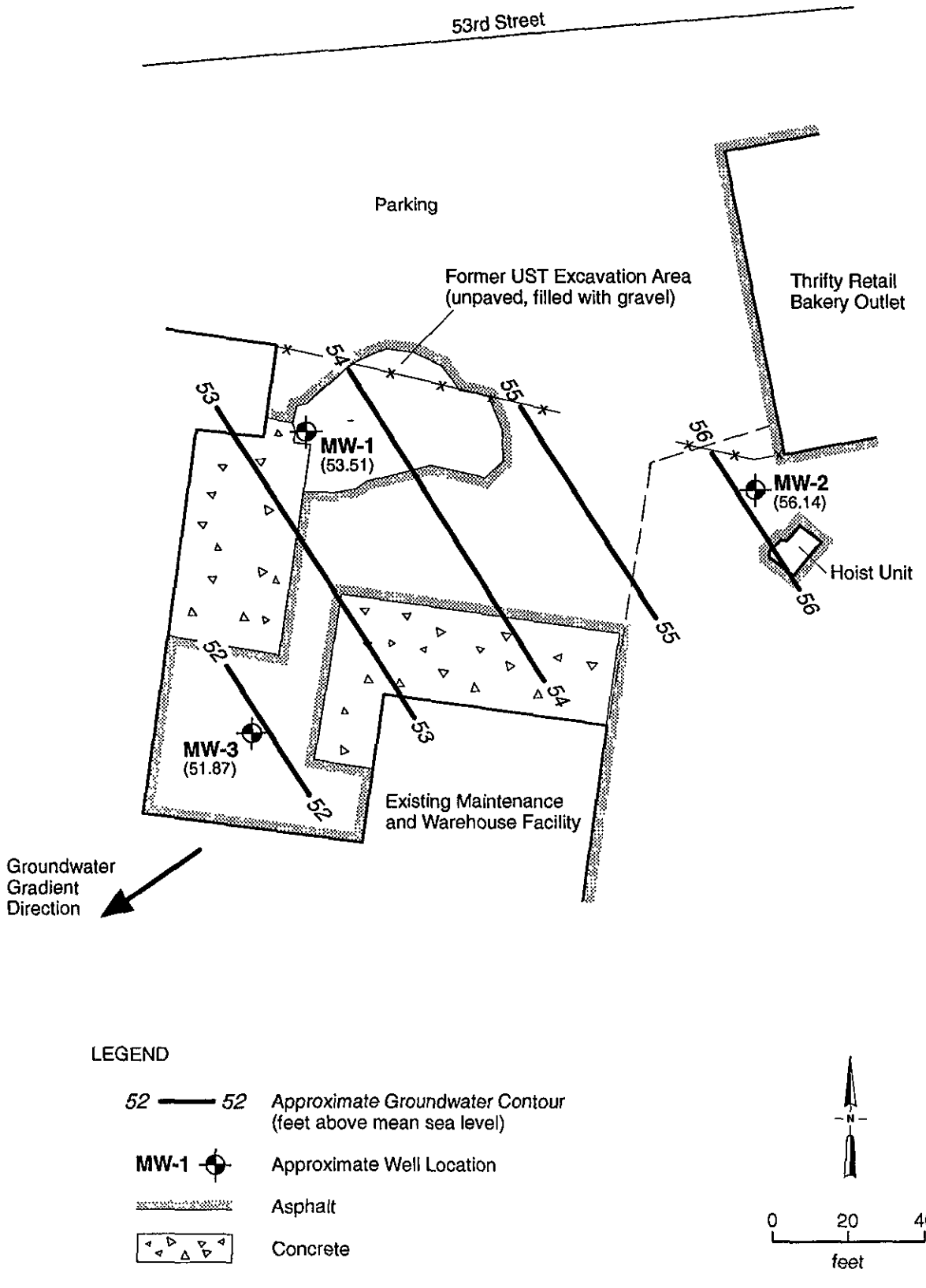
Results of duplicate sample analyses are shown by a dash ("/")

(1) Primarily due to lighter petroleum product of hydrocarbon range C6-C12, possibly gasoline.

(2) Primarily due to heavier petroleum product of hydrocarbon range C18-C36.

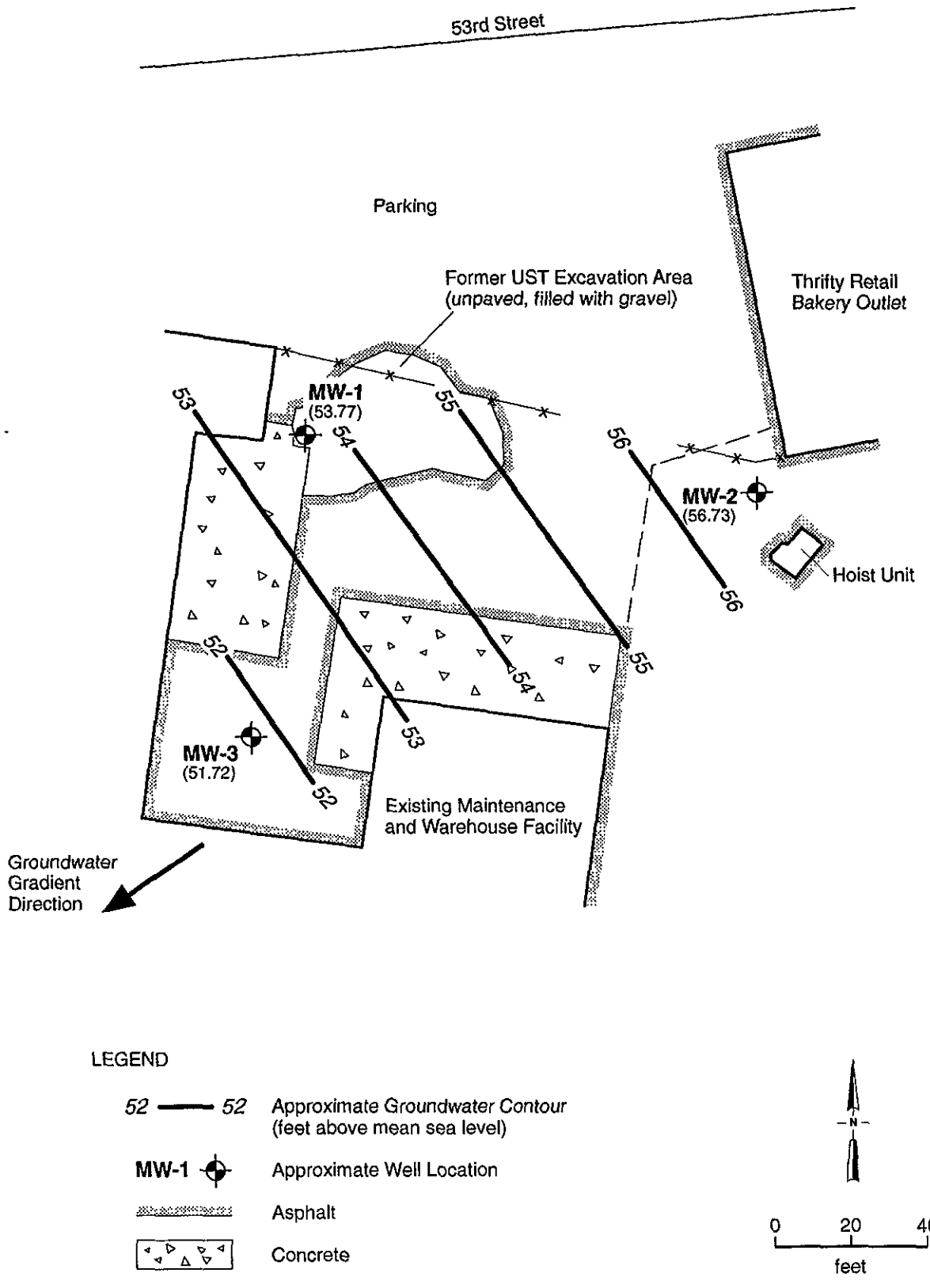
Project No. 92CB040	Continental Baking Company 1010 46th Street Oakland, California	SITE LOCATION	Figure 1
Woodward-Clyde Consultants			

92CB040-0000/061893



Project No. 92CB040	Continental Baking Company 1010 46th Street Oakland, CA	GROUNDWATER ELEVATION CONTOURS JANUARY 31, 1995	Figure 2
Woodward-Clyde Consultants			

92CB040-0010/041895/gos,mci



Project No. 92CB040	Continental Baking Company 1010 46th Street Oakland, CA	GROUNDWATER ELEVATION CONTOURS MARCH 16, 1995	Figure 3
Woodward-Clyde Consultants			

92CB040-0010/041895/gos, mci

Sample No.

3/16/95

MW-1	8.07	
* MW-2	6.37	*under pressure
MW-3	10.79	

WATER SAMPLE LOG

Sample No. MW-1

Project No.: 92CB040-0010 Date: 3/16/95

Project Name: CBC - Oakland

Sample Location: MW-1

Well Description: 4" PVC w/locking cap

Weather Conditions: Clear

Observations / Comments: 9/16" wrench and Dolphin key to access

Quality Assurance

Sampling Method: Disposable PVC bailer

Method to Measure Water Level: 200' Solinst sounder

Pump Lines: (New) / Cleaned Bailer Lines: (New) / Cleaned

Method of cleaning Pump / Bailer: N/A

pH Meter No.: 0239177 Calibrated 4.00/10.01

Specific Conductance Meter No.: 13749 Calibrated red-lined

Comments: TD = 20.2 - 8.07 = 12.13 x .653 = 7.92 x 4 = 31.7 gallons

Sampling Measurements

Water Level (below MP) at Start: 8.07 End: 8.09

Measuring Point (MP): Notch @ Top of Casing

Time	Discharge (gallons)	pH	Temp. (°C)	Specific Conductance (µmhos / cm)	Turbidity	Color	Odor	Comments
12:45	6	6.92	19.5	310	37	CLR	slight HC	
12:48	12	6.84	18.5	364	29	"	"	
12:55	17	6.77	18.5	360	36	"	"	
12:59	23	6.82	18.3	340	39	"	"	
13:04	28	6.82	18.4	340	35	"	"	
13:08	32	6.81	18.3	351	30	"	"	
15:18	A.S	6.79	18.3	350	14	CLR	slight HC	

Total Discharge: 33 gallons Casing Volumes Removed: 4.18

Method of disposal of discharged water: 55 gallon drum

Number and size of sample containers filled: @15:15; 3 VOA's (TPH g (BTEX), 2 ambers (TPH(d)), and 2 ambers (Total Oil & Grease)

Collected by: J. HAUS

Woodward-Clyde Consultants
500 12th Street, Suite 100, Oakland, CA 94607-4014
(415) 893-3600

Sample No.

WATER SAMPLE LOG

Sample No. MW-2

Project No.: 92CB040-0010 Date: 3/16/95

Project Name: CBC-Oakland

Sample Location: MW-2

Well Description: 4" PVC w/locking cap

Weather Conditions: Clear

Observations / Comments: 9/16" wrench and Dolphin key to access

Quality Assurance

Sampling Method: Disposable PVC bailer

Method to Measure Water Level: 200' Solinst sounder

Pump Lines: (New) / Cleaned Bailer Lines: (New) / Cleaned

Method of cleaning Pump / Bailer: N/A

pH Meter No.: 0239177 Calibrated 4.00 / 10.01

Specific Conductance Meter No.: 13749 Calibrated red-lined

Comments: TD=19.55-6.37=13.18x.653=8.6x4=34.4 gallons

Sampling Measurements

Water Level (below MP) at Start: 6.37 End: 8.33

Measuring Point (MP): Notch @ Top of casing

Time	Discharge (gallons)	pH	Temp. (°C)	Specific Conductance (µmhos / cm)	Turbidity	Color	Odor	Comments
12:15	7	6.68	18.7	485	8	CLR	ND	
12:20	14	6.67	18.8	500	5	"	"	dry @ 17 gal.
13:20	21	6.66	18.9	500	10	"	"	
13:27	28	6.65	18.8	492	13	"	"	dry @ 28 gal.
14:15	35	6.67	18.8	500	12	"	"	
15:37	A.S.	6.67	18.9	498	7	CLR	ND	

Total Discharge: 35.5 Casing Volumes Removed: 4.14

Method of disposal of discharged water: 55 gallon drum

Number and size of sample containers filled: @15:35; 3 VOA's (TPHg/BTEX), 2 ambers (TPH diesel), and (2 ambers (Total Oil & Grease) Duplicate labeled MW-4@

Collected by: J. HAUS

Woodward-Clyde Consultants
500 12th Street, Suite 100, Oakland, CA 94607-4014
(415) 893-3600

Sample No.

WATER SAMPLE LOG

Sample No. MW-3

Project No.: 92CB040-0010 Date: 3/16/95

Project Name: CBC-Oakland

Sample Location: MW-3

Well Description: 4" PVC w/ locking cap

Weather Conditions: Clear

Observations / Comments: 9/16" wrench and Dolphin key to access

Quality Assurance

Sampling Method: Disposable PVC bailer

Method to Measure Water Level: 200' Solinst sounder

Pump Lines: (New) / Cleaned Bailer Lines: (New) / Cleaned

Method of cleaning Pump / Bailer: N/A

pH Meter No.: 023917 Calibrated 4.00 & 10.01

Specific Conductance Meter No.: 13749 Calibrated red-lined

Comments: TD = 19.44 - 10.79 = 8.65 x .653 = 5.7 x 4 = 22.8 gallons

Sampling Measurements

Water Level (below MP) at Start: 10.79 End: 11.26

Measuring Point (MP): Notch @ Top of Casing

Time	Discharge (gallons)	pH	Temp. (°C)	Specific Conductance (µmhos / cm)	Turbidity	Color	Odor	Comments
12:10	5	7.02	18.2	810	26	CLR	H_2S	
12:23	9	7.03	18.0	870	44	CLDY	"	
12:35	13	7.09	18.2	890	>100	TAN	H_2S	
13:35	18	7.07	18.2	860	>100	"	"	
13:55	23	7.06	18.2	890	>100	"	"	
16:00	A.S.	7.06	18.2	870	21	CLR	Slight H_2S	

Total Discharge: 24 gallons Casing Volumes Removed: 4.21

Method of disposal of discharged water: 55 gallon drum

Number and size of sample containers filled: @15:55; 3 VOAs (TPHg/BTEX), 2 ambers (TPH diesel), and 2 ambers (Total O&G & Grease)

Collected by: J. HAUS

Woodward-Clyde Consultants
500 12th Street, Suite 100, Oakland, CA 94607-4014
(415) 893-3600

Oakland

Inchcape Testing Services
Anametrix Laboratories

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

MS. JO BETH FOLGER
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4041

Workorder # : 9503212
Date Received : 03/17/95
Project ID : 92CB040/0010
Purchase Order: N/A

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9503212- 1	T.BLANK
9503212- 2	MW-1
9503212- 3	MW-2
9503212- 4	MW-3
9503212- 5	MW-4

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

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

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

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

Larry Kent for
Susan Kraska Yeager
Laboratory Director

3-29-95
Date

Cristina V Rayburn
Project Manager

This report consists of 16 pages.

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

MS. JO BETH FOLGER
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4041

Workorder # : 9503212
Date Received : 03/17/95
Project ID : 92CB040/0010
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9503212- 2	MW-1	WATER	03/16/95	TPHd
9503212- 3	MW-2	WATER	03/16/95	TPHd
9503212- 4	MW-3	WATER	03/16/95	TPHd
9503212- 5	MW-4	WATER	03/16/95	TPHd
9503212- 1	T.BLANK	WATER	02/23/95	TPHgBTEX
9503212- 2	MW-1	WATER	03/16/95	TPHgBTEX
9503212- 3	MW-2	WATER	03/16/95	TPHgBTEX
9503212- 4	MW-3	WATER	03/16/95	TPHgBTEX
9503212- 5	MW-4	WATER	03/16/95	TPHgBTEX

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

MS. JO BETH FOLGER
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4041

Workorder # : 9503212
Date Received : 03/17/95
Project ID : 92CB040/0010
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- The concentration reported as diesel for sample MW-1 is primarily due to the presence of a lighter petroleum product of hydrocarbon range C6-C12, possibly gasoline.

Cheryl Bateman 3/29/95
Department Supervisor Date

Reggie Dawson 3/29/95
Chemist Date

Organic Analysis Data Sheet
Total Petroleum Hydrocarbons as Gasoline with BTEX
ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9503212 | Client Project ID : 92CB040/0010

Matrix : WATER | Units : ug/L

Compound Name	Method Reporting Limit*	Client ID T.BLANK Lab ID 9503212-01	Client ID MW-1 Lab ID 9503212-02	Client ID MW-2 Lab ID 9503212-03	Client ID MW-3 Lab ID 9503212-04	Client ID MW-4 Lab ID 9503212-05
Benzene	0.50	ND	140	ND	ND	ND
Toluene	0.50	ND	1400	ND	ND	ND
Ethylbenzene	0.50	ND	1800	ND	ND	ND
Total Xylenes	0.50	ND	9700	ND	ND	ND
TPH as Gasoline	50	ND	29000	ND	ND	ND
Surrogate Recovery		112%	107%	113%	111%	109%
Instrument ID		HP21	HP21	HP21	HP21	HP21
Date Sampled		02/23/95	03/16/95	03/16/95	03/16/95	03/16/95
Date Analyzed		03/20/95	03/22/95	03/20/95	03/20/95	03/21/95
RLMF		1	250	1	1	1
Filename Reference		FPM21201.D	FTM21202.D	FPM21203.D	FPM21204.D	FPM21205.D

* The Method Reporting Limit must be multiplied by the Reporting Limit Multiplication Factor (RLMF) to achieve the compound's reporting limit in the analysis.

ND : Not detected at or above the reporting limit for the analysis as performed.
TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.
BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Peggie Dawson 3/27/95
Analyst Date

Cheryl Bueman 3/27/95
Supervisor Date

Issued on 3/27/95 @ 12:33 pm

Organic Analysis Data Sheet

Total Petroleum Hydrocarbons as Gasoline with BTEX

ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9503212 Client Project ID : 92CB040/0010

Matrix : WATER Units : ug/L

Compound Name	Method Reporting Limit*	Client ID	Client ID	Client ID	Client ID	Client ID
		Lab ID	Lab ID	Lab ID	Lab ID	Lab ID
		METHOD BLANK	METHOD BLANK	METHOD BLANK		
Benzene	5.0	ND	ND	ND		
Toluene	5.0	ND	ND	ND		
Ethylbenzene	5.0	ND	ND	ND		
Total Xylenes	5.0	ND	ND	ND		
TPH as Gasoline	500	ND	ND	ND		
Surrogate Recovery		111%	113%	113%		
Instrument ID		HP21	HP21	HP21		
Date Sampled		N/A	N/A	N/A		
Date Analyzed		03/20/95	03/21/95	03/22/95		
RLMF		1	1	1		
Filename Reference		BM2002E1.D	BM2102E1.D	BM2201E1.D		

* The Method Reporting Limit must be multiplied by the *Reporting Limit Multiplication Factor* (RLMF) to achieve the compound's reporting limit in the analysis.

ND : Not detected at or above the reporting limit for the analysis as performed.

TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.

BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Dawson 3/27/95

Analyst Date

Cheryl Buenner 3/27/95

Supervisor Date

Issued on 3/27/95 @ 12:52 pm

Matrix Spike Report

Total Petroleum Hydrocarbons as BTEX

ITS - Anametrix Laboratories - (408)432-8192

Project ID : 92CB040/0010
Sample ID : MW-2
Matrix : WATER
Date Sampled : 03/16/95

Laboratory ID : 9503212-03
Analyst : RD
Supervisor : [illegible]
Instrument ID : HP21
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	SAMPLE RESULTS	MS RECOVERY	MSD RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
Benzene	20	ND	90%	95%	45-139	-5%	30
Toluene	20	ND	105%	110%	51-138	-5%	30
Ethylbenzene	20	ND	105%	110%	48-146	-5%	30
Total Xylenes	20	ND	105%	115%	50-139	-9%	30
Surrogate Recovery		113%	114%	115%			
Date Analyzed		03/20/95	03/20/95	03/20/95			
Multiplier		1	1	1			
Filename Reference		FPM21203.D	FMM21203.D	FDM21203.D			

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP21
Matrix : LIQUID

Analyst : RD
Supervisor : [illegible]
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	82%	56-141
Surrogate Recovery		106%	61-139
Date Analyzed		03/20/95	
Multiplier		1	
Filename Reference		MM2001E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP21
Matrix : LIQUID

Analyst : RD
Supervisor : [illegible]
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	76%	56-141
Surrogate Recovery		101%	61-139
Date Analyzed		03/21/95	
Multiplier		1	
Filename Reference		MM2101E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP21 Analyst : RD
Matrix : LIQUID Supervisor : [illegible]
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	78%	56-141
Surrogate Recovery		103%	61-139
Date Analyzed		03/22/95	
Multiplier		1	
Filename Reference		MM2201E1.D	

^ Limits established by Inchcape Testing Services, Anametrix Laboratories.

TOTAL PETROLEUM HYDROCARBONS AS DIESEL

INCHCAPE TESTING SERVICES - ANAMETRIX

(408) 432-8192

DATA SUMMARY FORM

Anametrix Workorder:	9503212	Client Project ID:	92CB040/0010
Matrix:	WATER	Date Released:	3/27/95
Date Extracted:	3/21/95	Concentration Units:	ug/L
Instrument ID:	HP23		

Anametrix ID	Client ID	Date Sampled	Date Analyzed	Dilution Factor	Reporting Limit	Amount Found	Surrogate Recovery
9503212-02	MW-1	3/16/95	3/22/95	1	50	1900	102%
9503212-03	MW-2	3/16/95	3/22/95	1	50	ND	100%
9503212-04	MW-3	3/16/95	3/22/95	1	50	ND	92%
9503212-05	MW-4	3/16/95	3/22/95	1	50	ND	99%
BM2111F9	Method Blank	----	3/21/95	1	50	ND	95%

ND: Not detected at or above the reporting limit for the method.
TPHd: Total Petroleum Hydrocarbons as C10-C28 is determined by GC/FID (modified EPA Method 8015) following sample extraction by EPA Method 3510.
Surrogate recovery quality control limits for o-terphenyl are 67-103%.
All testing procedures follow California Department of Health Services approved methods.

Doshi 3/28/95
Analyst Date

Cheryl Balmer 3/27/95
Supervisor Date

TOTAL PETROLEUM HYDROCARBONS AS DIESEL

INCHCAPE TESTING SERVICES - ANAMETRIX

(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Client Project ID:	92CB040/0010	Anametrix ID:	MM2111F9
Matrix:	WATER	Date Released:	3/27/95
Date Extracted:	3/21/95	Instrument ID:	HP23
Date Analyzed:	3/21/95	Concentration Units:	ug/L

COMPOUND NAME	SPIKE AMT	LCS CONC	% REC LCS	LCSD CONC	% REC LCSD	RPD
Diesel	1250	1000	80%	990	79%	-1%
o-Terphenyl			99%		99%	

Quality control limits for LCS/LCSD recovery are 38-96%

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

Quality control limits for o-terphenyl recovery are 67-103%.

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

MS. JO BETH FOLGER
WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4041

Workorder # : 9503212
Date Received : 03/17/95
Project ID : 92CB040/0010
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9503212- 2	MW-1	WATER	03/16/95	5520BF
9503212- 3	MW-2	WATER	03/16/95	5520BF
9503212- 4	MW-3	WATER	03/16/95	5520BF
9503212- 5	MW-4	WATER	03/16/95	5520BF

REPORT SUMMARY
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500 12TH STREET, SUITE 100
OAKLAND, CA 94607-4041

Workorder # : 9503212
Date Received : 03/17/95
Project ID : 92CB040/0010
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- Insufficient water sample was received for a Matrix Spike and Matrix Spike Duplicate analysis for Method 5520BF. A Laboratory Control Sample and Laboratory Control Sample Duplicate were extracted and analyzed instead.

Department Supervisor 3/26/95 Date

Chemist 3/26/95 Date

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORY (408) 432-8192

PROJECT I.D. : 92CB040/0010
MATRIX : WATER
DATE SAMPLED : 03/16/95
DATE EXTRACTED : 03/21/95
DATE ANALYZED : 03/22/95

ANAMETRIX I.D. : 9503212
ANALYST : AK
SUPERVISOR : BJ
DATE RELEASED : 03/26/95

WORKORDER #	SAMPLE I.D.	REPORTING LIMIT (mg/L)	AMOUNT FOUND (mg/L)
9503212-02	MW-1	5.0	ND
9503212-03	MW-2	5.0	ND
9503212-04	MW-3	5.0	ND
9503212-05	MW-4	5.0	ND
BM2111W4	METHOD BLANK	5.0	ND

ND - Not detected above the reporting limit for the method.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520BF.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

LAB CONTROL SAMPLE REPORT - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : WATER
Date Extracted : 03/21/95
Date Analyzed : 03/22/95

Anametrix I.D. : M/NM2111W4
Analyst : AC
Supervisor : BD
Date Released : 03/24/95

COMPOUND	SPIKE AMT. (mg/L)	LCS (mg/L)	%REC LCS	LCSD (mg/L)	%REC LCSD	% RPD	REC LIMITS
MOTOR OIL	50	40	80	44	88	10	44-128

* Quality control limits established by Anametrix Laboratories.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520BF.

Inchcape Testing Services
Anametrix Laboratories

SAMPLE RECEIVING CHECKLIST

WORKORDER NUMBER: 9503 212 CLIENT PROJECT ID: 92CB040/0010

COOLER

Shipping slip (airbill, etc.) present?	YES	NO	(N/A)
If YES, enter carrier name and airbill # : ____			
Custody Seal on the outside of cooler?	YES	NO	(N/A)
Condition: INTACT ____ BROKEN ____			
Temperature of sample (s) within range?	YES	(NO)	N/A
List temperature of cooler (s): 6°C, 9°C			

SAMPLES

Chain of custody seal present for each container?	YES	NO	(N/A)
Condition: INTACT ____ BROKEN ____			
Samples arrived within holding time?	(YES)	NO	N/A
Samples in proper containers for methods requested?	(YES)	NO	
Condition of containers: INTACT ✓ BROKEN ____			
If NO, were samples transferred to proper container? ____			
Were VOA containers received with zero headspace?	YES	(NO)	N/A
If NO, was it noted on the chain of custody? yes			
Were container labels complete? (ID, date, time preservative, etc.)	(YES)	NO	
Were samples preserved with the proper preservative?	(YES)	NO	N/A
If NO, was the proper preservative added at time of receipt? ____			
pH check of samples required at time of receipt?	(YES)	NO	
If YES, pH checked and recorded by: ____			
Sufficient amount of sample received for methods requested?	(YES)	NO	
If NO, has the client or lab project manager been notified? ____			
Field blanks received with sample batch? # of Sets: ____	YES	NO	(N/A)
Trip blanks received with sample batch? # of Sets: 1	(YES)	NO	N/A

CHAIN OF CUSTODY

Chain of custody received with samples?	(YES)	NO
Has it been filled out completely and in ink?	(YES)	NO
Sample ID's on chain of custody agree with container labels?	(YES)	NO
Number of containers indicated on chain of custody agree with number received?	(YES)	NO
Analysis methods clearly specified?	(YES)	NO
Sampling date and time indicated?	(YES)	NO
Proper signatures of sampler, courier, sample custodian in appropriate place? with time and date?	(YES)	NO
Turnaround time? REGULAR ✓ RUSH ____		

Any NO response and/or any "BROKEN" that was checked must be detailed in the Corrective Action Form.

Sample Custodian: MB Date: 3/17/95 Project Manager: AR Date: 3/21/95

9503212 (16/43) (18)

1735 MB

Woodward-Clyde Consultants
500 12th Street, Suite 100, Oakland, CA 94607-4014
(510) 893-3600

Chain of Custody Record

PROJECT NO. 92CB0401/0010

SAMPLERS: (Signature) Tom Hanna

	DATE	TIME	SAMPLE NUMBER	Sample Matrix (S)oil, (W)ater, (A)ir	EPA Method	EPA Method	EPA Method	EPA Method	ANALYSES: TPH(G)/BTEX	TPH(diesel)	O/G Grease 5520				Number of Containers	REMARKS (Sample preservation, handling procedures, etc.)
1	3/23/95	—	Travel blank	W					3	~~X~~	~~X~~				3	→ bubbles - 3 vials
2	3/16/95	1515	MW-1	W					3	2	2				7	
3		1535	MW-2	W					3	2	2				7	
4		1555	MW-3	W					3	2	2				7	
5	3/16/95	1615	MW-4	W					3	2	2				7	

Standard T.A.T.

Results to: Jo Beth Folger

TOTAL NUMBER OF CONTAINERS: 31

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
Dan Capps	3/17/95 12:10	Tommy D. Grayson	Tommy D. Grayson	3/17/95 1340	

METHOD OF SHIPMENT	SHIPPED BY (Signature)	COURIER (Signature)	RECEIVED FOR LAB BY (Signature)	DATE/TIME
				3/17/95 1340