R. William Rudolph, Jr., PE
Thomas E. Cundey, PE
Jeriann N. Alexander, PE

H107

FEBRUARY 1996
QUARTERLY GROUNDWATER SAMPLING REPORT
AT
FORMER UNDERGROUND STORAGE TANK
KEEP ON TRUCKING FACILITY (H-107)
370 8TH AVENUE
OAKLAND, CALIFORNIA

May 14, 1996
SCI 133.005

Subsurface Consultants, Inc.
171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 510-268-0461 • FAX 510-268-0137

CONTENTS

1.0 INTRODUCTION

Subsurface Consultants, Inc. (SCI) and Clayton Environmental Consultants, Inc. (Clayton) were retained to perform quarterly groundwater sampling and analysis at the Keep on Trucking Facility located at 370 8th Avenue in Oakland, California (Figure 1). On February 20, 1996 Clayton collected first quarter 1996 groundwater samples from monitoring well MW-7 situated near Building H-107. The monitoring well location is shown on Figure 2. SCI prepared this report.

2.0 BACKGROUND

An approximately 1,000-gallon UST was removed in October 1994 by Environmental Investigations and Actions of Hayward, California. ERM-West, Inc. collected soil and groundwater samples from the sidewalls and base of the excavation. Total petroleum hydrocarbons quantitated as diesel (TPH-D) was identified in the soil samples collected from the excavation pit.

In April 1995, Clayton drilled three boreholes at the subject facility. As requested by the Alameda County Health Care Services Agency (ACHCSA) in their letter dated March 9, 1995 two of the boreholes were converted into temporary wells for collection of grab water samples. The third borehole was converted to monitoring well MW-7.

The TPH-D was detected at a concentration of 370 micrograms per liter (ug/l) in the groundwater sample from monitoring well MW-7 and 300,000 ug/l in the groundwater sample from a temporary well. Total petroleum hydrocarbons as gasoline (TPH-G) was also detected in the groundwater sample from a temporary well.

Subsequent groundwater sampling and analysis has identified low level TPH-D in the groundwater from monitoring well MW-7. TPH-G and benzene, toluene, ethylbenzene and xylenes (BTEX) were not detected in subsequent quarterly groundwater samples.

3.0 FIELD ACTIVITIES

Monitoring well MW-7 was purged using a 2-inch submersible pump on February 20, 1996. Approximately four times the well volume was pumped from the well to ensure that water representative of the aquifer was present in the well prior to sampling. The well volume was calculated using depth to groundwater and total well depth measurements which were recorded to the nearest 0.01 foot upon arrival at the site. The purging was continued until a sufficient volume of water had been purged for pH, temperature, and electrical conductivity to stabilize.

The following parameters were noted during the sampling activities:

- Monitoring well identification
- Static water level
- Well depth
- Condition of water before puring (e.g., amount of free product)
- Purge rate and volume
- pH, temperature, and conductivity during purging
- Time purged
- Time of sample collection
- Sampling method
- Name of sampler
- Climatic conditions

The water sample was collected using a new disposable bailer. All other equipment coming into contact with groundwater was thoroughly cleaned and decontaminated before use at the site. Details of the groundwater sampling event is provided in the water sampling field survey form (Appendix A).

Groundwater samples obtained in the bailer were transferred into clean laboratory-supplied containers that were closed, labeled, placed immediately into an ice chest, and transported to Pace Analytical, a state-certified laboratory, for analysis.

Groundwater samples were collected in such a manner as to minimize the volatilization of a sample due to agitation and/or transfer from bailer to sample container. To document and trace samples from time of collection to final analysis, a signed chain-of-custody record was completed by the sampler. The chain-of-custody accompanied the samples to the laboratory. The completed chain-of-custody is included with the analytical report from the laboratory (Appendix B).

4.0 ANALYTICAL RESULTS

The groundwater sample from MW-7 was analyzed using the following United Stated Environmental Protection Agency (US EPA) Methods:

- Method 8015 (modified) for TPH-D
- Method 8015 (modified) for TPH-G
- Method 8020 for BTEX

The analytical results for one hydrogeologic cycle (4 sequential quarterly events) are summarized in the attached Table. The analytical report for the current event is included in Appendix B.

5.0 FINDINGS

Based on the analytical reports and Clayton's field observations, our findings follow:

- TPH-D concentrations have ranged from 260 to 6100 ug/l during the hydrogeologic cycle.
- TPH-G or BTEX have not been detected during any event.

This report prepared by:

Jenann N. Alexander, PE, REA
Project Manager

This report Reviewed by:

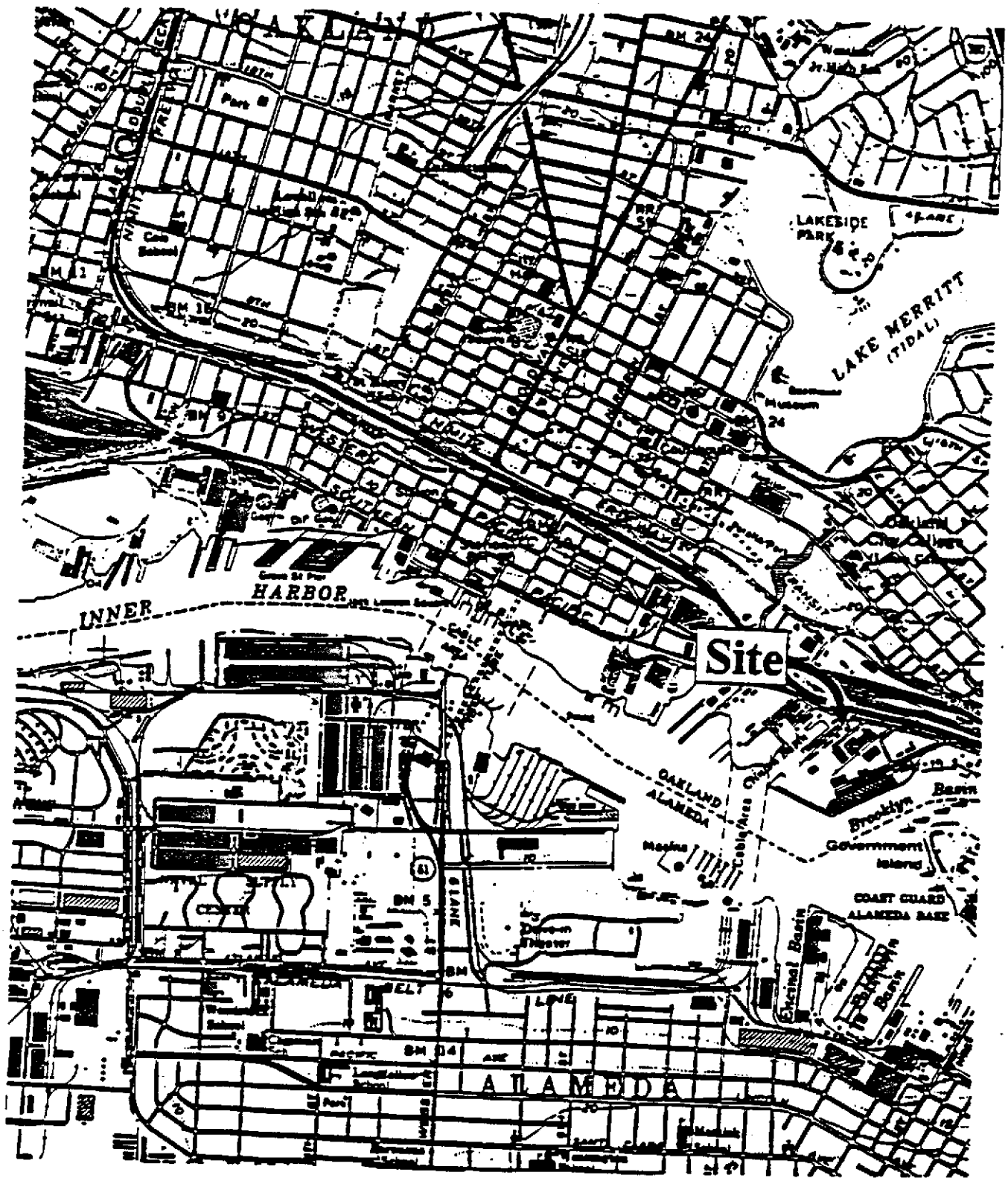
R. William Rudolph, GE, REA
President

May 14, 1996

Table
Summary of Groundwater Analytical Results
All Concentrations in Micrograms per Liter (ug/l)

Monitoring Well	Sample Date	TPH-D (ug/l)	BTEX (ug/l)	TPH-G (ug/l)	Depth to Water	Casing Elevation	Groundwater Elevation
MW-7	4/10/95	370	ND	ND	4.41	10.67	6.26
	7/24/95	260	ND	ND	3.72	10.67	6.95
	11/10/95	270	ND	ND	4.78	10.67	5.89
	2/20/96	6100	ND	ND	4.13	10.67	6.54

TPH-D = Total petroleum hydrocarbons as diesel
BTEX = Benzene, toluene, ethylbenzene, and xylenes
TPH-G = Total petroleum hydrocarbons as gasoline
ug/l = Micrograms per liter



N

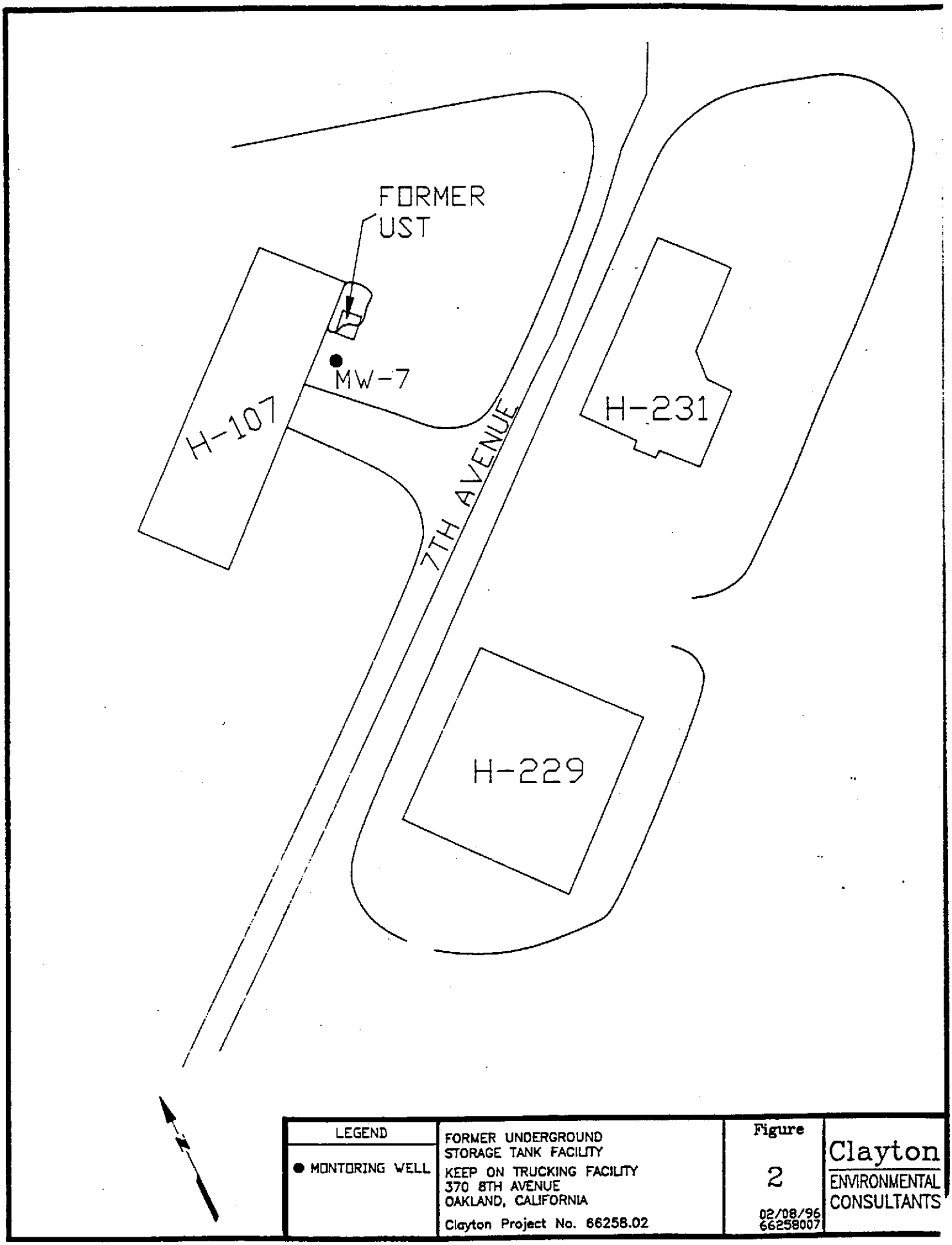
Site Location and Topographic Map
KEEP ON TRUCKING FACILITY
370 8th Street
Oakland, California

Clayton Project No. 58560.15

Figure 1

58560-15-16

Clayton ENVIRONMENTAL CONSULTANTS



LEGEND	FORMER UNDERGROUND STORAGE TANK FACILITY KEEP ON TRUCKING FACILITY 370 8TH AVENUE OAKLAND, CALIFORNIA Clayton Project No. 66258.02	Figure 2 02/08/96 66258007	Clayton ENVIRONMENTAL CONSULTANTS
● MONTORING WELL			

APPENDIX A

WATER SAMPLING FIELD SURVEY FORM

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job # 6625R.02 Site: P.O.O. - KEEFE OIL TRUCKING Date: FEB. 20, 1996

Well # MW-7 Sampling Team: R. SILVA

Sampling Method: DISPOSABLE BAILER

Field Conditions: PARTLY CLOUDY, COOL, WINDY

Describe Equipment D-Con Before Sampling This Well: _____

Total Depth of Well: 20.29 feet Time: 1045 Depth to Water Before Pumping: 4.13 feet

Volume Height of Water Column:		Diameter 2-inch	4-inch	Volume		Purge Factor		To Purge
16.16	feet *	(.16)	.65	= 2.59	gal *	4	=	10.36

Depth Purging From: 20 feet Time Surging Begins: 1117

Notes on Initial Discharge: BROWNISH, SILTY

Time	Volume Purged	pH	Conductivity	T	Notes
1120	2-GAL	6.0	2000+	17.8	SLIGHTLY TURBID
1124	4-GAL	5.9	2000+	17.8	CLEAR
1128	6-GAL	5.9	2000+	18.0	CLEAR
1132	8-GAL	6.0	2000+	18.0	CLEAR
1136	10-GAL	6.0	2000+	18.0	CLEAR

APPENDIX B

GROUNDWATER SAMPLING ANALYTICAL REPORT FOR SAMPLES COLLECTED IN FEBRUARY 1996

Pace Analytical Services, Inc.
1455 McDowell Blvd. North, Suite D
Petaluma, CA 94954
Tel: 707-792-1865
Fax: 707-792-0342

Pace Analytical

March 04, 1996

Mr. Geroge Mead
Clayton Env. Consultants
P.O. Box 9019
Pleasanton, CA 94566

RE: PACE Project Number: 705097
Client Project ID: Port of Oakland

Dear Mr. Mead:

Enclosed are the results of analyses for sample(s) received on February 21, 1996. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

David A. Pichette
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1455 McDowell Blvd. North, Suite D
Petaluma, CA 94954
Tel: 707-792-1865
Fax: 707-792-0342

Pace Analytical

DATE: 03/04/96
PAGE: 1

Clayton Env. Consultants
P.O. Box 9019
Pleasanton, CA 94566

PACE Project Number: 705097
Client Project ID: Port of Oakland

Attn: Mr. Geroge Mead
Phone: (510)426-2657

PACE Sample No: 70520929
Client Sample ID: MW-1

Date Collected: 02/20/96
Date Received: 02/21/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	ND	ug/L	50	02/29/96	CA LUFT	AMH		
Benzene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	71-43-2	
Toluene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	108-88-3	
Ethylbenzene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	100-41-4	
Xylene (Total)	ND	ug/L	1	02/29/96	CA LUFT	AMH	1330 20 7	
a,a,a-Trifluorotoluene (S)	89	%		02/29/96	CA LUFT	AMH	2164-17-2	
4-Bromofluorobenzene (S)	89	%		02/29/96	CA LUFT	AMH	460-00-4	
GC								
TPH in Water by 8015 Modified								
Diesel Fuel	0.59	mg/L	0.05	02/26/96	TPH by EPA 8015M	DLL		1,2
n-Pentacosane (S)	73	%		02/26/96	TPH by EPA 8015M	DLL	629-99-2	
Date Extracted				02/23/96				

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1455 McDowell Blvd. North, Suite D
Petaluma, CA 94954
Tel: 707-792-1865
Fax: 707-792-0342

Pace Analytical

PACE Project Number: 705097
Client Project ID: Port of Oakland

PACE Sample No: 70520937
Client Sample ID: MW-2

Date Collected: 02/20/96
Date Received: 02/21/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	ND	ug/L	50	02/29/96	CA LUFT	AMH		
Benzene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	71-43-2	
Toluene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	108-88-3	
Ethylbenzene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	100-41-4	
Xylene (Total)	ND	ug/L	1	02/29/96	CA LUFT	AMH	1330-20-7	
a,a,a-Trifluorotoluene (S)	90	%		02/29/96	CA LUFT	AMH	2164-17-2	
4-Bromofluorobenzene (S)	09	%		02/29/96	CA LUFT	AMH	460-00-4	
GC								
TPH in Water by 8015 Modified								
Diesel Fuel	1.7	mg/L	0.05	02/26/96	TPH by EPA 8015M	DLL		2
n-Pentacosane (S)	81	%		02/26/96	TPH by EPA 8015M	DLL	629 99 2	
Date Extracted				02/23/96				

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1455 McDowell Blvd. North, Suite D
Petaluma, CA 94954
Tel: 707-792-1865
Fax: 707-792-0342

Pace Analytical

PACE Project Number: 705097
Client Project ID: Port of Oakland

PACE Sample No: 70520945
Client Sample ID: MW-3

Date Collected: 02/20/96
Date Received: 02/21/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC - Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	ND	ug/L	50	02/29/96	CA LUFT	AMH		
Benzene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	71-43-2	
Toluene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	108-88-3	
Ethylbenzene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	100-41-4	
Xylene (Total)	ND	ug/L	1	02/29/96	CA LUFT	AMH	1330-20-7	
a,a,a-Trifluorotoluene (S)	87	%		02/29/96	CA LUFT	AMH	2164-17-2	
4-Bromofluorobenzene (S)	88	%		02/29/96	CA LUFT	AMH	460-00-4	
GC								
TPH in Water by 8015 Modified								
Diesel Fuel	0.62	mg/L	0.056	02/26/96	TPH by EPA 8015M	DLL		2
n-Pentacosane (S)	77	%		02/26/96	TPH by EPA 8015M	DLL	629-99-2	
Date Extracted				02/23/96				

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1455 McDowell Blvd. North, Suite D
Petaluma, CA 94954
Tel: 707-792-1865
Fax: 707-792-0342

Pace Analytical

PACE Project Number: 705097
Client Project ID: Port of Oakland

PACE Sample No: 70520952
Client Sample ID: MW-5

Date Collected: 02/20/96
Date Received: 02/21/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	150	ug/L	50	02/29/96	CA LUFT	AMH		1
Benzene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	71-43-2	
Toluene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	108-88-3	
Ethylbenzene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	100-41-4	
Xylene (Total)	ND	ug/L	1	02/29/96	CA LUFT	AMH	1330-20-7	
a,a,a-Trifluorotoluene (S)	88	%		02/29/96	CA LUFT	AMH	2164-17-2	
4-Bromofluorobenzene (S)	83	%		02/29/96	CA LUFT	AMH	460-00-4	
GC								
TPH in Water by 8015 Modified								
Diesel Fuel	0.44	mg/L	0.056	02/26/96	TPH by EPA 8015M	DLL		2
n-Pentacosane (S)	68	%		02/26/96	TPH by EPA 8015M	DLL	629-99-2	
Date Extracted				02/23/96				

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1455 McDowell Blvd. North, Suite D
Petaluma, CA 94954
Tel: 707-792-1865
Fax: 707-792-0342

Pace Analytical

DATE: 03/04/96
PAGE: 5

PACE Project Number: 705097
Client Project ID: Port of Oakland

PACE Sample No: 70520960
Client Sample ID: MW-7

Date Collected: 02/20/96
Date Received: 02/21/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC - Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	ND	ug/L	50	02/29/96	CA LUFT	AMH		
Benzene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	71-43-2	
Toluene	ND	ug/l	0.5	02/29/96	CA LUFT	AMH	108-88-3	
Ethylbenzene	ND	ug/L	0.5	02/29/96	CA LUFT	AMH	100-41-4	
Xylene (Total)	ND	ug/L	1	02/29/96	CA LUFT	AMH	1330-20-7	
a,a,a-Trifluorotoluene (S)	91	%		02/29/96	CA LUFT	AMH	2164-17-2	
4-Bromofluorobenzene (S)	91	%		02/29/96	CA LUFT	AMH	460-00-4	
GC								
TPH in Water by 8015 Modified								
Diesel Fuel	6.1	mg/L	0.056	02/26/96	TPH by EPA 8015M	DLL		
n-Pentacosane (S)	124	%		02/26/96	TPH by EPA 8015M	DLL	629-99-2	
Date Extracted				02/23/96				

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1455 McDowell Blvd. North, Suite D
Petaluma, CA 94954
Tel: 707-792-1865
Fax: 707-792-0342

Pace Analytical

PACE Project Number: 705097
Client Project ID: Port of Oakland

PARAMETER FOOTNOTES

ND	Not Detected
NC	Not Calculable
PRL	PACE Reporting Limit
(S)	Surrogate
[1]	Hydrocarbons present do not match profile of laboratory standard.
[2]	High boiling point hydrocarbons are present in sample.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1455 McDowell Blvd. North, Suite D
Petaluma, CA 94954
Tel: 707-792-1865
Fax: 707-792-0342

Pace Analytical

QUALITY CONTROL DATA

Clayton Env. Consultants
P.O. Box 9019
Pleasanton, CA 94566

PACE Project Number: 705097
Client Project ID: Port of Oakland

Attn: Mr. George Mead
Phone: (510)426-2657

QC Batch ID: 12573
QC Batch Method: CA LUFT
Date of Batch: 02/22/96
Associated PACE Samples: 70520929 70520937 70520945 70520952 70520960

METHOD BLANK: 70521505
Associated PACE Samples: 70520929 70520937 70520945 70520952 70520960

Parameter	Units	Method Blank Result	PRL	Footnotes
Gasoline	ug/L	ND	50	
Benzene	ug/L	ND	0.5	
Toluene	ug/L	ND	0.5	
Ethylbenzene	ug/L	ND	0.5	
Xylene (Total)	ug/L	ND	1	
a,a,a-Trifluorotoluene (S)	%	96		
4-Bromofluorobenzene (S)	%	94		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 70526702 70526710

Parameter	Units	70522685	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Gasoline	ug/L	580	1000	1600	104	1700	110	6	
a,a,a-Trifluorotoluene (S)					0		0		
4-Bromofluorobenzene (S)					0		0		

LABORATORY CONTROL SAMPLE & LCSD: 70526728 70526736

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	LCSD Result	Spike Dup % Rec	RPD	Footnotes
Gasoline	ug/L	1000	1000	105	1100	108	3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1455 McDowell Blvd. North, Suite D
Petaluma, CA 94954
Tel: 707-792-1865
Fax: 707-792-0342

Pace Analytical

QUALITY CONTROL DATA

DATE: 03/04/96
PAGE: 8

Clayton Env. Consultants
P.O. Box 9019
Pleasanton, CA 94566

PACE Project Number: 705097
Client Project ID: Port of Oakland

Attn: Mr. Geroge Mead
Phone: (510)426-2657

QC Batch ID: 12653
QC Batch Method: EPA 3520
Date of Batch: 02/23/96
Associated PACE Samples: 70520929 70520937 70520945 70520952 70520960

METHOD BLANK: 70523618
Associated PACE Samples: 70520929 70520937 70520945 70520952 70520960

Parameter	Units	Method Blank Result	PRL	Footnotes
Diesel Fuel	mg/L	ND	0.05	
n-Pentacosane (S)	%	100		

LABORATORY CONTROL SAMPLE & LCSD: 70523626 70523634

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	LCSD Result	Spike Dup % Rec	RPD	Footnotes
Diesel Fuel	mg/L	1	0.92	92	0.89	89	3	
n-Pentacosane (S)				95		96		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Petaluma, CA 94954
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Fax: 707-792-0342

Pace Analytical

DATE: 03/04/96
PAGE: 9

PACE Project Number: 705097
Client Project ID: Port of Oakland

QUALITY CONTROL DATA PARAMETER FOOTNOTES

The Quality Control Sample Final Results listed above have been rounded to reflect an appropriate number of significant figures. Consistent with EPA guidelines unrounded concentrations have been used to calculate % Rec and RPD values.

ND	Not Detected
NC	Not Calculable
PRL	PACE Reporting Limit
RPD	Relative Percent Difference
(S)	Surrogate

REPORT OF LABORATORY ANALYSIS

Clayton
ENVIRONMENTAL CONSULTANTS

REQUEST FOR LABORATORY ANALYTICAL SERVICES

IMPORTANT
Date Results Requested: STANDARD TAT
Rush Charges Authorized? ☐ Yes ☒ No
☐ Phone or ☐ Fax Results

For Clayton Use Only
Clayton Lab Project No.

REPORT RESULTS TO
Name: Gerald Mead
Company: Clayton Environ.
Mailing Address: P.O. Box 9019
City, State, Zip: Pleasanton, CA 94566
Telephone No.: (510) 426-2600
FAX No.: (510) 426-0106
Client Job No.: 66258.01
Dept.:

SEND INVOICE TO
Purchase Order No.:
Name: Peter Kirkland
Company: Kelpon Trucking
Dept.:
Address: 370 6th St.
City, State, Zip:

Special instructions and/or specific regulatory requirements: (method, limit of detection, etc.)

* Explanation of Preservative: P = HCl

Samples are: (check if applicable)
☐ Drinking Water
☐ Groundwater
☐ Wastewater

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added.*)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	GAS/BTEX	TPH-Diesel									FOR LAB USE ONLY
MW-1	2-20-96		H_2O	40mls	3	XP										
MW-1	↓		↓	LITER	1		X									
MW-2				40mls	3	XP										
MW-2				LITER	1		X									
MW-3				40mls	3	XP										
MW-3				LITER	1		X									
MW-5				40mls	3	XP										
MW-5				LITER	1		X									
MW-7				40mls	3	XP										
MW-7	↓		↓	LITER	1		X									

CHAIN OF CUSTODY
Collected by: RICHARD SILVA (print)
Collector's Signature: Richard Silva
Relinquished by: Richard Silva — Date/Time: 2-20-96 1540
Received by: — Date/Time:
Relinquished by: — Date/Time:
Received by: — Date/Time:
Method of Shipment:
Received at Lab by: — Date/Time:
Authorized by: ______ Date ______
(Client Signature MUST Accompany Request)
Sample Condition Upon Receipt: ☐ Acceptable ☐ Other (explain)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

Detroit Regional Lab
22345 Roethel Drive
Novi, MI 48375
(800) 806-5887
(810) 344-1770
FAX (810) 344-2655

Atlanta Regional Lab
400 Chastain Center Blvd., N.W., Suite 490
Kennesaw, GA 30144
(800) 252-9919
(770) 499-7500
FAX (770) 423-4990

San Francisco Regional Lab
1252 Quarry Lane
Pleasanton, CA 94566
(800) 294-1755
(510) 426-2657
FAX (510) 426-0106

Seattle Regional Lab
4636 E. Marginal Way S., Suite 215
Seattle, WA 98134
(800) 568-7755
(206) 763-7364
FAX (206) 763-4189

DISTRIBUTION:
White = Clayton Laboratory
Yellow = Clayton Accounting
Pink = Client Copy

11/95 20K