HYDRO ANALYSIS, INC.
Environmental & Water Resources Engineering
Groundwater Consultants

August 24, 2000

Larry Seto
Alameda County Environmental Health Services
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Quarterly Groundwater Monitoring Report
Matheson Trucking
2500 Poplar Street, Oakland, California
Fuel Leak Case No. 1306

Dear Mr. Seto:

The enclosed report documents the following activities at the subject property:

- Measurement of water levels in four wells,
- Evaluation of the groundwater flow direction and magnitude, and
- Collection and analysis of groundwater samples from four monitoring wells.

Please note that we have changed our name from Hageman-Aguiar to Hydro Analysis. If you have any questions, please call me at 510/620-0891.

Sincerely,

Hydro Analysis, Inc.

REGISTERED GEOLOGIST
KENNETH B. ALEXANDER
No. HG512
CERTIFIED
HYDROGEOLOGIST
exp. 7/01
STATE OF CALIFORNIA

K. B. Alex

Kenneth B. Alexander, RG, CH
Principal Hydrogeologist

cc: Brett Davis/Matheson Trucking, Elk Grove, California

HYDRO ANALYSIS, INC.

Environmental & Water Resources Engineering
Groundwater Consultants

QUARTERLY GROUNDWATER MONITORING REPORT

(Sampled August 9, 2000)

MATHESON TRUCKING

2500 Poplar Street
Oakland, California

August 24, 2000

Hydro Analysis, Inc. Project No. 0277

11100 SAN PABLO AVE., SUITE 200-A, EL CERRITO, CALIFORNIA 94530 • TEL 510-620-0891 • FAX 510-620-0894
www.HydroAnalysis.com

TABLE OF CONTENTS

I. INTRODUCTION

The site location is the Matheson Trucking facility located at 2500 Poplar Street in Oakland, California (Figure 1). The site is situated on the southern side of 26th Street between Poplar and Union Streets in Oakland. The current layout of the property, along with the location of the previous tank excavations, is shown in Figure 2. The site has been historically operated as a truck maintenance, fueling, and dispatch facility.

This report describes groundwater monitoring activities completed in August 2000 at 2500 Poplar Street, Oakland, CA.

II. FIELD WORK: GROUNDWATER SAMPLING

Monitoring Well Sampling

On August 9, 2000, Hydro Analysis sampled four onsite groundwater monitoring wells (MW-1, MW-2, MW-3, and MW-4). The locations of the wells are shown in Figure 2. Well construction details are provided in Table 1.

Prior to sampling, several casing volumes of water were removed from each well. Field conductivity, temperature, and pH were monitored during purging. Purging continued until these parameters stabilized. Groundwater samples were subsequently collected using new, disposable sampling bailers. The water samples were placed inside appropriate 40-ml VOA vials free of any headspace. The samples were immediately placed on crushed ice, then transported under chain-of-custody to the laboratory at the end of the workday.

At the time each monitoring well was sampled, the following information was recorded in the field: (1) depth-to-water prior to purging, using an electrical well sounding tape, (2) observation of any floating product, sheen, or odor prior to purging, using a clear Teflon bailer, (3) pH, (4) temperature, and (5) specific conductance. Copies of the well sampling logs are included in Attachment A.

Wastewater Generation

All water and other liquid waste removed from the wells during purging was drummed and stored onsite. The water and liquid waste is periodically picked up by a licensed waste hauler and transported under manifest to an appropriate recycling and disposal facility.

III. RESULTS OF WATER LEVEL MEASUREMENTS

Groundwater Flow Direction and Hydraulic Gradient

On August 23, 2000, Hydro Analysis measured water level in the four monitoring wells (Table 2). Figure 2 presents a contour map for the groundwater beneath the site. As shown in Figure 2, the water level data indicate that groundwater flow in August 2000 was toward the west-northwest direction.

The calculated hydraulic gradient for August 2000 was approximately 0.004 feet/feet (about 22 feet per mile).

Floating Product

Measurements of floating product were performed prior to water level measurements on August 23, 2000. No floating product was observed.

IV. ANALYTICAL RESULTS

Laboratory Analysis

All analyses were performed by Entech Analytical Labs, Inc., of Sunnyvale, California, a California State Department of Health Services-certified laboratory. All samples were analyzed in accordance with U.S. EPA recommended procedures.

All soil and groundwater samples were analyzed for:

- Total Petroleum Hydrocarbons as Gasoline (modified EPA Method 8015)
- Benzene, Toluene, Ethylbenzene, and Total Xylenes (EPA Method 8020)
- Methyl Tertiary Buytl Ether (MTBE) (EPA Method 8260B)
- Total Petroleum Hydrocarbons as Diesel (modified EPA Method 8015)

Analytical Results: Groundwater

Table 3 presents the analytical results for the groundwater samples collected on August 9, 2000. Copies of the laboratory reports and chain-of-custody records are provided in Attachment B.

In general, the groundwater analytical results are unremarkable. As shown in Table 3, petroleum constituents were not detected in any of the groundwater samples, except for diesel (at a maximum concentration of 340 µg/L in three samples) and gasoline (at a concentration of 110 µg/L in the sample from well MW-4). Concentrations are similar to the previous quarterly monitoring results.

V. DATA ANALYSIS AND RECOMMENDATIONS

The results of the groundwater sampling revealed relatively low concentrations of diesel in monitoring wells MW-1, MW-2, and MW-4. Gasoline was detected at a relatively low concentration in monitoring well MW-4. Otherwise, gasoline, BTEX, and MTBE were not detected in any of the groundwater samples. No petroleum constituents were detected in downgradient monitoring well MW-3. Groundwater analytical results are shown graphically on Figure 3.

The detection of diesel and gasoline is not indicative of a significant tank release, nor do the measured groundwater concentrations represent a significant risk to human health or the environment. We believe that contaminant migration is limited due to the very low permeability of the clay and silt encountered beneath the site. The detected diesel and gasoline will attenuate with time, primarily due to intrinsic biodegradation.

On the basis of the foregoing, we do not believe the detected petroleum hydrocarbons represent a significant risk to human health or the environment and we do not believe that further investigation or remediation is warranted. We recommend that groundwater monitoring be performed quarterly over the next six months. If, at that time, the analytical results do not show evidence of petroleum contamination, we will recommend the site for regulatory closure.

TABLE 1.

Monitoring Well Completion Data
Matheson Trucking, 2500 Poplar Street, Oakland, California

Well Number:	MW-1	MW-2	MW-3	MW-4
Date of Installation	January 29, 1996	January 29, 1996	April 18, 2000	April 18, 2000
Installed By	Hageman-Aguiar, Inc.	Hageman-Aguiar, Inc.	Hageman-Aguiar, Inc.	Hageman-Aguiar, Inc.
Installation Method	HSA	HSA	HSA	HSA
Boring Diameter (inches)	8	8	8	8
Measuring Point Description	Top of PVC casing	Top of PVC casing	Top of PVC casing	Top of PVC casing
Measuring Point Elev. (feet)	9.19	8.03	8.82	8.80
Approximate Seal Depth (feet)	2.5	2.5	4	4
Total Depth (feet)	15	15	15	15
Casing Diameter (inches)	2	2	2	2
Screened Interval (ft) - depth	3 to 15	3 to 15	5 to 15	5 to 15
elevation	6.2 to -5.8	5.0 to -7.0	3.8 to -6.2	3.8 to -6.2
Sand Pack Interval (ft) - depth	2.5 to 15	2.5 to 15	4 to 15	4 to 15
elevation	6.7 to -5.8	5.5 to -7.0	4.8 to -6.2	4.8 to -6.2
Screen Specifications	SCH 40 PVC, 0.010-in slots	SCH 40 PVC, 0.010-in slots	SCH 40 PVC, 0.010-in slots	SCH 40 PVC, 0.010-in slots

General Notes

(a) Elevations referenced to Mean Sea Level.

(b) Depths measured relative to ground surface.

(c) HSA = Hollow-stem augers.

TABLE 2.

Groundwater Elevation Measurements
Matheson Trucking, 2500 Poplar Street, Oakland, California

	MW-1		MW-2		MW-3		MW-4	
	MP Elevation = 9.19 feet		MP Elevation = 8.03 feet		MP Elevation = 8.82 feet		MP Elevation = 8.80 feet	
Date	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev
May 1, 2000	6.30	2.89	5.09	2.94	7.25	1.57	7.02	1.78
August 23, 2000	7.59	1.60	6.14	1.89	8.09	0.73	7.28	1.52

General Notes

(a) Depth measurements cited in units of feet below measuring point (MP). MP is top of PVC well casing.

(b) Elevation measurements cited in units of feet above Mean Sea Level and referenced to top of casing elevation of former Findley Adhesives well MW-2 at 2433 Poplar Street. MW-2 TOC elevation is 8.03 feet above Mean Sea Level.

TABLE 3.

Groundwater Analytical Results
Matheson Trucking, 2500 Poplar Street, Oakland, California

Well Number	Date	TPH as Diesel (µg/L)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW-1	May 1, 2000	76	<50	<0.5	<0.5	<0.5	<0.5	<5
	Aug 9, 2000	***340***	<50	<0.5	<0.5	<0.5	<0.5	<5
MW-2	May 1, 2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
	Aug 9, 2000	63	<50	<0.5	<0.5	<0.5	<0.5	<5
MW-3	May 1, 2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
	Aug 9, 2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
MW-4	May 1, 2000	***320***	<50	<0.5	<0.5	<0.5	<0.5	<5
	Aug 9, 2000	***260***	***110***	<0.5	<0.5	<0.5	<0.5	<5

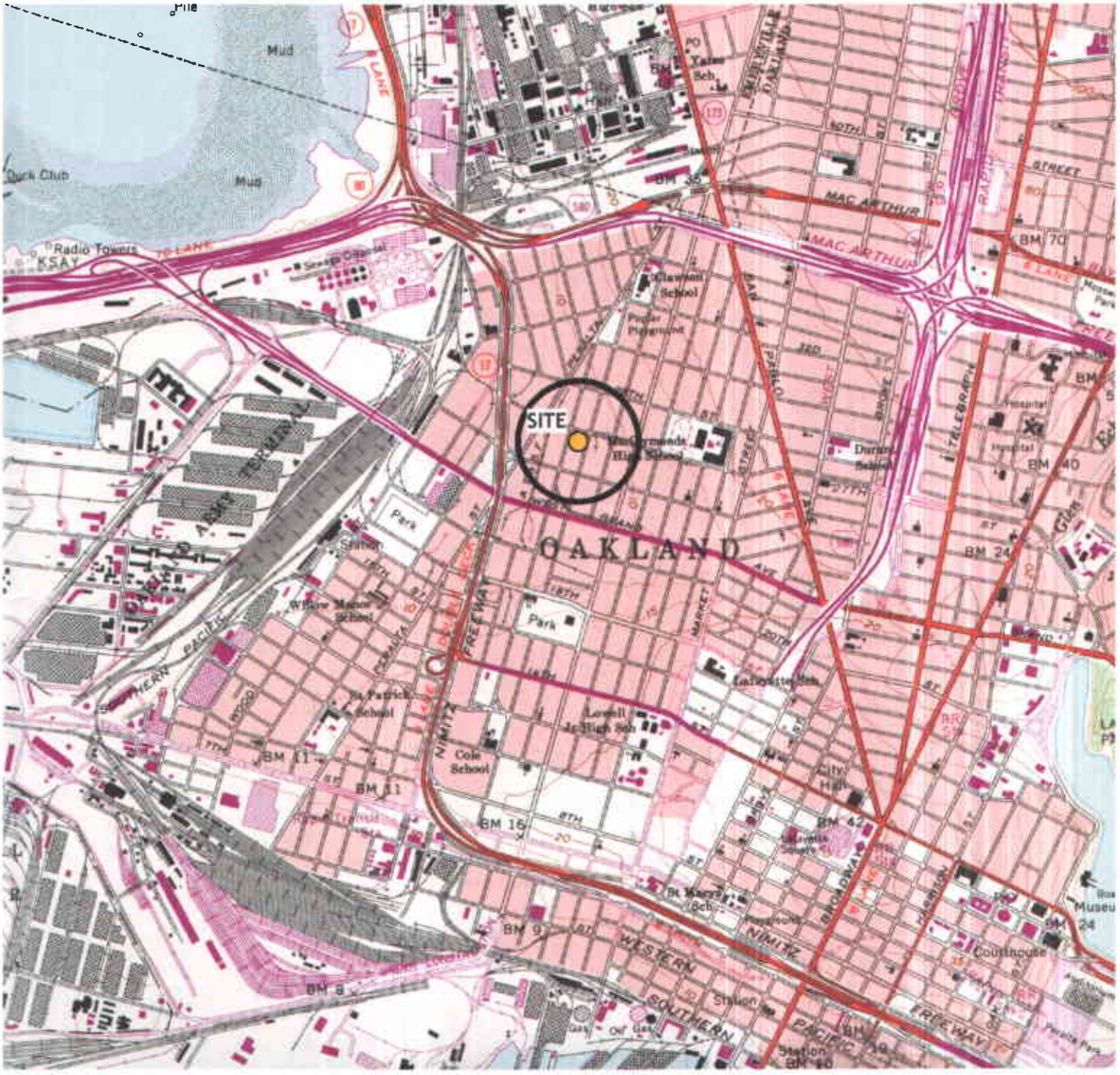
Drinking Water Criteria	100 (T&O)	5 (T&O)	1 (MCL)	150 (MCL)	700 (MCL)	1,750 (MCL)	13 (MCL)
EPA Method No.	Modified 8015	Modified 8015	8020	8020	8020	8020	8260B

General Notes

(a) "<" = parameter below laboratory method reporting limit.

(b) Drinking water criteria is for comparison purposes only. Source: Jon B. Marshack, *A Compilation of Water Quality Goals*, Central Valley Regional Water Quality Control Board, Sacramento, CA, March 1998. T&O = Taste and Odor Threshold. MCL = California Primary Maximum Contaminant Level.

(c) Concentrations exceeding the drinking water criteria in ***bold italic***.



Basemap: USGS 7.5-minute topographic quadrangle, Oakland West, Calif., Photorevised 1980.

1,000 0 1,000 2,000 3,000 4,000 feet

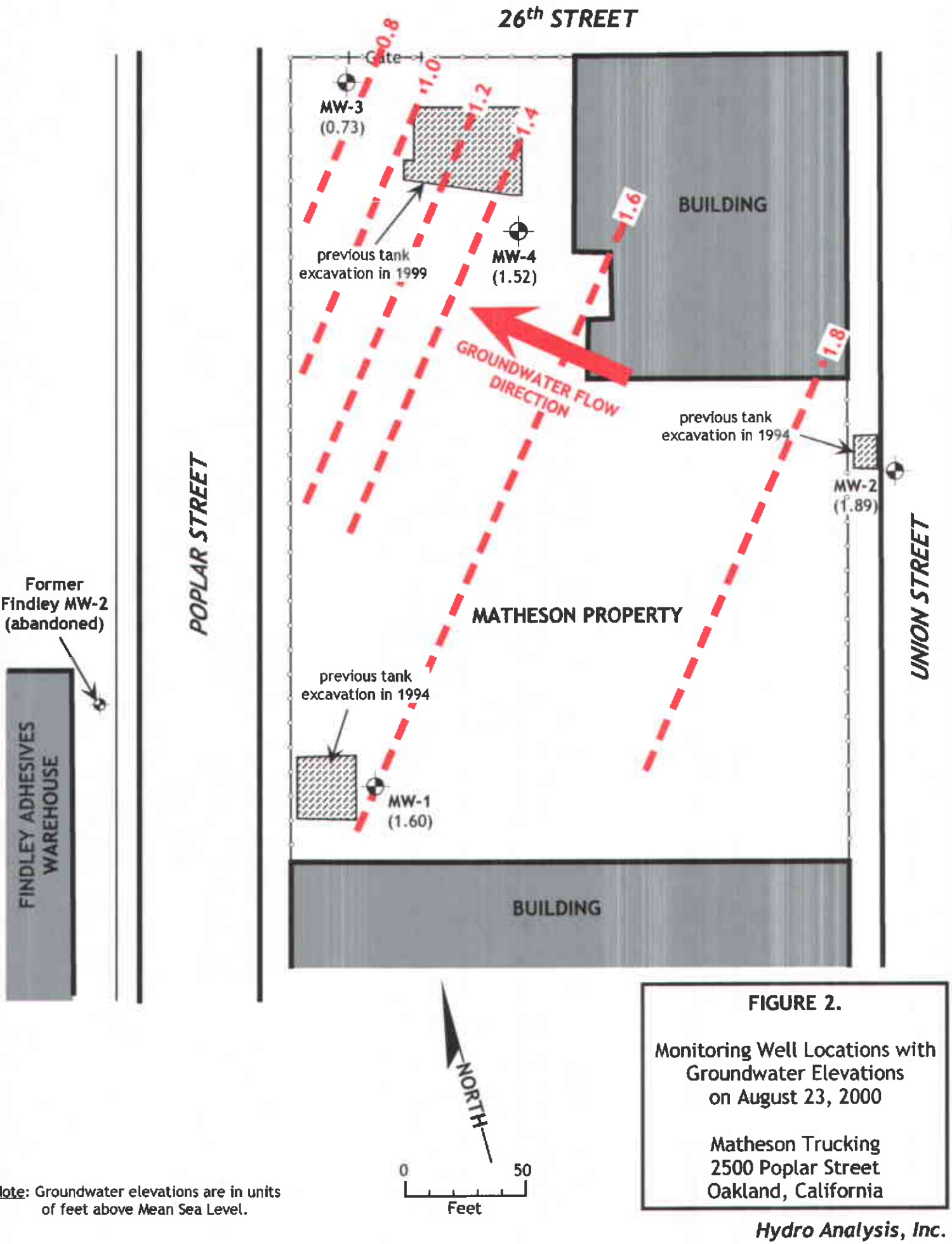
NORTH

FIGURE 1.

Location Map

Matheson Trucking
2500 Poplar Street
Oakland, California

Hydro Analysis, Inc.



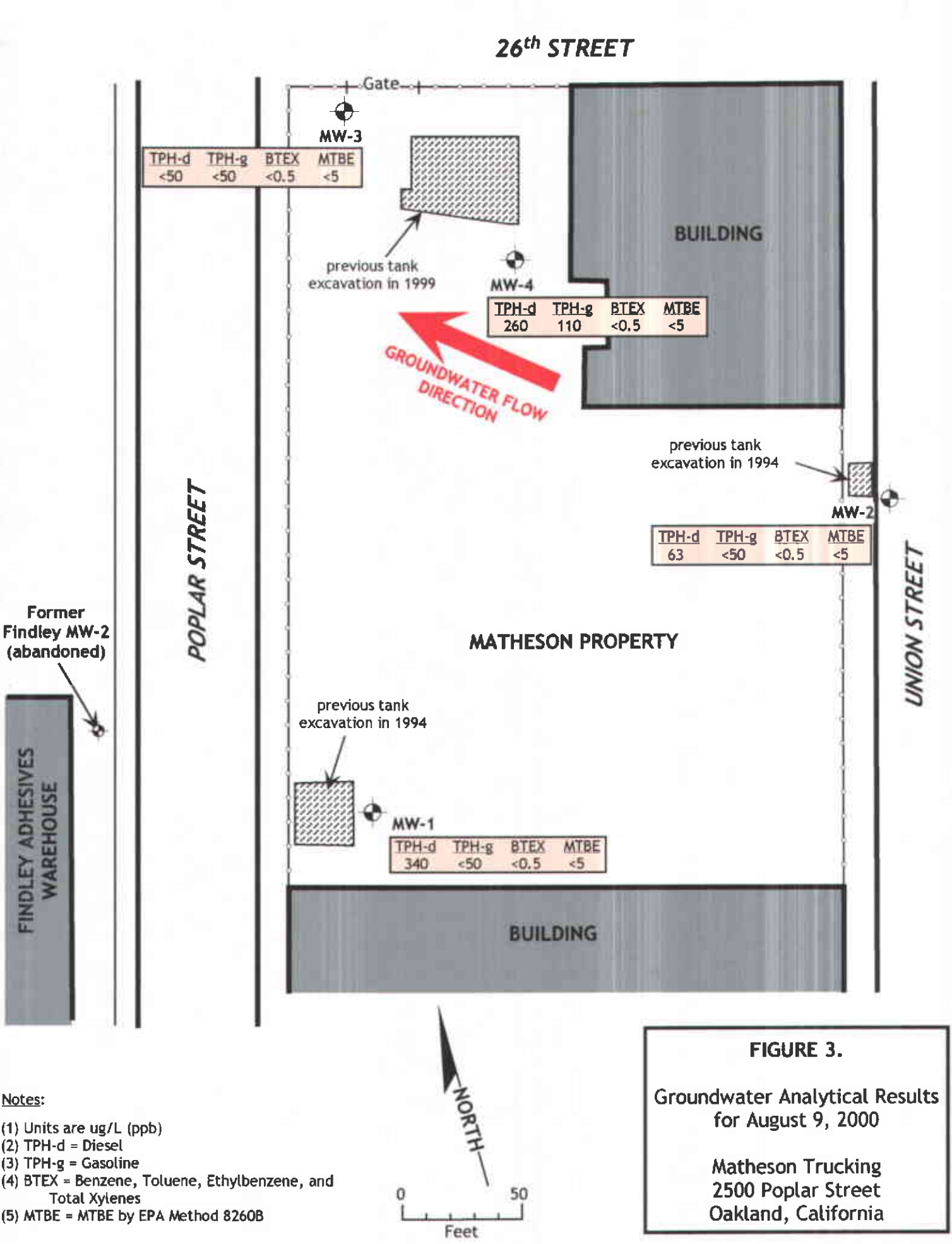
Note: Groundwater elevations are in units of feet above Mean Sea Level.

FIGURE 2.

Monitoring Well Locations with Groundwater Elevations on August 23, 2000

Matheson Trucking
2500 Poplar Street
Oakland, California

Hydro Analysis, Inc.



Notes:

(1) Units are ug/L (ppb)
(2) TPH-d = Diesel
(3) TPH-g = Gasoline
(4) BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes
(5) MTBE = MTBE by EPA Method 8260B

FIGURE 3.

Groundwater Analytical Results for August 9, 2000

Matheson Trucking
2500 Poplar Street
Oakland, California

Hydro Analysis, Inc.

ATTACHMENT A

Well Sampling Logs

Hageman-Aguiar, Inc.
11100 San Pablo Ave. Suite 200A
El Cerrito, CA 94530
(510) 620-0891 Fax (510) 620-0894

Project: Matheson - Oakland

Date: 08/23/2000

WELL #	DEPTH TO WATER	PRODUCT	WELL DEPTH	PRODUCT REMOVED	WATER REMOVED	COMMENTS
MW-1	7.59'					
MW-2	6.14'					
MW-3	8.09'					
MW-4	7.28'					

WELL SAMPLING LOG

Site Location: Matheson - Oakland
Well Number: MW-2
Weather: Overcast, 55°-65°
Sampling Personnel: R Wilson

Page: 1 of 4
Date: 08/09/2000
Time Began: 09:27
Completed: 09:35

EVACUATION DATA

Description of Measuring Point (MP): T.O.C.

Total Sounded Depth of Well Below MP: 13.92' + 0.27'
- Depth to Water Below MP: 6.00'
= Water Column in Well: 8.19'
x Casing Diameter Multiplier: 0.169 (2")
= Gallons in Casing: 1.38
Gallons Pumped Prior to Sampling: 6

Sample Collected
- Volatile Organics (VOA's): 6
- 1 Liter Amber Glass: 2
- Polyethylene (plastic):
- Other:
- Samples Filtered: no

Evacuation Method:
- PVC Bailer: X
- Acrillyc Bailer:
- Pump:
- Other:

Sample Method:
- Evacuation Bailer: X
- Disposable Bailer:
- Pump:
- Direct:

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: None, clear
(thickness to 0.01 foot, if any)

Time	09:29	09:31	09:33	09:35	
Gals Removed	1.5	3	4.5	6	
Temperature	21.8	21.6	21.7	21.7	
Conductivity	941	988	997	980	
pH	7.20	6.99	6.92	6.93	
Color / Odor	med	high	high	high	
Turbidity					
Other					

Comments:

WELL SAMPLING LOG

Site Location: Matheson - Oakland
Page: 2 of 4
Well Number: MW-3
Date: 08/09/2000
Weather: Overcast, 55°-65°
Time Began: 10:04
Sampling Personnel: R Wilson
Completed: 10:19

EVACUATION DATA

Description of Measuring Point (MP): T.O.C.

Total Sounded Depth of Well Below MP: 14.81' + 0.27'

- Depth to Water Below MP: 7.99'
= Water Column in Well: 7.09'
x Casing Diameter Multiplier: 0.169 (2")
= Gallons in Casing: 1.20
Gallons Pumped Prior to Sampling: 2

Sample Collected

Volatile Organics (VOA's)	6
1 Liter Amber Glass	2
Polyethylene (plastic)	
Other	
Samples Filtered	no

Evacuation Method:

PVC Bailer	X
Acrillyc Bailer	
Pump	
Other	

Sample Method:

Evacuation Bailer	X
Disposable Bailer	
Pump	
Direct	

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: None, clear
(thickness to 0.01 foot, if any)

Time	10:06	10:08	sample 10:19		
Gals Removed	1	2	2		
Temperature	21.1	21.2	21.1		
Conductivity	1091	1094	1112		
pH	7.01	7.08	7.13		
Color / Odor	Tan	Tan	Tan		
Turbidity	high	high	med		
Other		dewatered			

Comments:

WELL SAMPLING LOG

Site Location: Matheson - Oakland
Page: 3 of 4
Well Number: MW-4
Date: 08/09/2000
Weather: Sunny, 60°-70°
Time Began: 10:49
Sampling Personnel: R Wilson
Completed: 11:04

EVACUATION DATA

Description of Measuring Point (MP): T.O.C.

Total Sounded Depth of Well Below MP: 14.97' + 0.27'
- Depth to Water Below MP: 7.07'
= Water Column in Well: 8.17'
x Casing Diameter Multiplier: 0.169 (2")
= Gallons in Casing: 1.38
Gallons Pumped Prior to Sampling: 2

Sample Collected
- Volatile Organics (VOA's): 6
- 1 Liter Amber Glass: 2
- Polyethylene (plastic):
- Other:
- Samples Filtered: no

Evacuation Method:
- PVC Bailer: X
- Acrillyc Bailer:
- Pump:
- Other:

Sample Method:
- Evacuation Bailer: X
- Disposable Bailer:
- Pump:
- Direct:

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: None, Clear
(thickness to 0.01 foot, if any)

			sample		
Time	10:51	10:53	11:04		
Gals Removed	1	2	2		
Temperature	20.3	20.3	20.2		
Conductivity	1492	1553	1604		
pH	6.84	6.85	6.82		
Color / Odor	Tan	Tan	Tan		
Turbidity	high	high	high		
Other		dewatered			

Comments:

WELL SAMPLING LOG

Site Location: Matheson - Oakland
Page: 4 of 4
Well Number: MW-1
Date: 08/09/2000
Weather: Sunny, 60°-70°
Time Began: 11:26
Sampling Personnel: R Wilson
Completed: 11:45

EVACUATION DATA

Description of Measuring Point (MP): T.O.C.

Total Sounded Depth of Well Below MP	15.72' + 0.27'		Sample Collected
- Depth to Water Below MP	7.71'		Volatile Organics (VOA's) 6
= Water Column in Well	8.28'		1 Liter Amber Glass 2
x Casing Diameter Multiplier	0.169	2"	Polyethylene (plastic)
= Gallons in Casing	1.40		Other
Gallons Pumped Prior to Sampling	4		Samples Filtered no

Evacuation Method:		Sample Method:	
PVC Bailer	X	Evacuation Bailer	X
Acrillyc Bailer		Disposable Bailer	
Pump		Pump	
Other		Direct	

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: None, clear
(thickness to 0.01 foot, if any)

Time	11:29	11:32	11:34	sample 11:45	
Gals Removed	1.5	3	4	4	
Temperature	19.7	19.6	19.6	19.6	
Conductivity	1505	1547	1575	1598	
pH	6.87	6.83	6.85	6.85	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	med	med	high	med	
Other			dewatered		

Comments:

ATTACHMENT B

Groundwater Analytical Results

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94085 • (408) 735-1550 • Fax (408) 735-1554

August 15, 2000

Randal Wilson
Hageman-Aguiar, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530

Order: 21738
Project Name: Matheson-Oakland
Project Number:
Project Notes:

Date Collected: 8/9/00
Date Received: 8/9/00
P.O. Number:

On August 09, 2000, samples were received under documentented chain of custody. Results for the following analyses are attached:

Matrix	Test	Method
Liquid	Gas/BTEX	EPA 8015 MOD. (Purgeable)
		EPA 8020
	MTBE by EPA 8260B	EPA 8260B
	TPH as Diesel	EPA 8015 MOD. (Extractable)

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,

Michelle L. Anderson
Lab Director

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94085 • (408) 735-1550 • Fax (408) 735-1554

Hageman-Aguiar, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530
Attn: Randal Wilson

Date: 8/15/00
Date Received: 8/9/00
Project Name: Matheson-Oakland
Project Number:
P.O. Number:
Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 21738 **Lab Sample ID:** 21738-001 **Client Sample ID:** MW-1
Sample Time: 11:45 AM **Sample Date:** 8/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	340	x	1	50	50	µg/L	8/11/00	8/14/00	DW000805	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	105	65 - 135

Order ID: 21738 **Lab Sample ID:** 21738-002 **Client Sample ID:** MW-2
Sample Time: 9:35 AM **Sample Date:** 8/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	63	x	1	50	50	µg/L	8/11/00	8/14/00	DW000805	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	90	65 - 135

Order ID: 21738 **Lab Sample ID:** 21738-003 **Client Sample ID:** MW-3
Sample Time: 10:19 AM **Sample Date:** 8/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	ND		1	50	50	µg/L	8/11/00	8/14/00	DW000805	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	101	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94085 • (408) 735-1550 • Fax (408) 735-1554

Hageman-Aguiar, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530
Attn: Randal Wilson

Date: 8/15/00
Date Received: 8/9/00
Project Name: Matheson-Oakland
Project Number:
P.O. Number:
Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 21738 **Lab Sample ID:** 21738-004 **Client Sample ID:** MW-4

Sample Time: 11:04 AM **Sample Date:** 8/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	260		1	50	50	µg/L	8/11/00	8/14/00	DW000805	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	108	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2346

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Hageman-Aguiar, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530
Attn: Randal Wilson

Date: 8/15/00
Date Received: 8/9/00
Project Name: Matheson-Oakland
Project Number:
P.O. Number:
Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 21738 **Lab Sample ID:** 21738-001 **Client Sample ID:** MW-1

Sample Time: 11:45 AM **Sample Date:** 8/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	105	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	8/10/00	WGC4000809	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	115	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94085 • (408) 735-1550 • Fax (408) 735-1554

Hageman-Aguiar, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530
Attn: Randal Wilson

Date: 8/15/00
Date Received: 8/9/00
Project Name: Matheson-Oakland
Project Number:
P.O. Number:
Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 21738 **Lab Sample ID:** 21738-002 **Client Sample ID:** MW-2

Sample Time: 9:35 AM **Sample Date:** 8/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	103	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	8/10/00	WGC4000809	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	111	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94085 • (408) 735-1550 • Fax (408) 735-1554

Hageman-Aguiar, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530
Attn: Randal Wilson

Date: 8/15/00
Date Received: 8/9/00
Project Name: Matheson-Oakland
Project Number:
P.O. Number:
Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 21738 **Lab Sample ID:** 21738-003 **Client Sample ID:** MW-3

Sample Time: 10:19 AM **Sample Date:** 8/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	103	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	8/10/00	WGC4000809	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	114	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

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El Cerrito, CA 94530
Attn: Randal Wilson

Date: 8/15/00
Date Received: 8/9/00
Project Name: Matheson-Oakland
Project Number:
P.O. Number:
Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 21738 **Lab Sample ID:** 21738-004 **Client Sample ID:** MW-4

Sample Time: 11:04 AM **Sample Date:** 8/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	8/10/00	WGC4000809	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	101	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	110	x	1	50	50	µg/L	N/A	8/10/00	WGC4000809	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	110	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

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11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530
Attn: Randal Wilson

Date: 8/15/00
Date Received: 8/9/00
Project Name: Matheson-Oakland
Project Number:
P.O. Number:
Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 21738 **Lab Sample ID:** 21738-001 **Client Sample ID:** MW-1

Sample Time: 11:45 AM **Sample Date:** 8/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	8/12/00	WMS2000812	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	99	65 - 135
Dibromofluoromethane	105	65 - 135
Toluene-d8	95	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

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11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530
Attn: Randal Wilson

Date: 8/15/00
Date Received: 8/9/00
Project Name: Matheson-Oakland
Project Number:
P.O. Number:
Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 21738 **Lab Sample ID:** 21738-002 **Client Sample ID:** MW-2

Sample Time: 9:35 AM **Sample Date:** 8/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	8/12/00	WMS2000812	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97	65 - 135
Dibromofluoromethane	103	65 - 135
Toluene-d8	99	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

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Hageman-Aguiar, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530
Attn: Randal Wilson

Date: 8/15/00
Date Received: 8/9/00
Project Name: Matheson-Oakland
Project Number:
P.O. Number:
Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 21738 **Lab Sample ID:** 21738-003 **Client Sample ID:** MW-3

Sample Time: 10:19 AM **Sample Date:** 8/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	8/12/00	WMS2000812	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97	65 - 135
Dibromofluoromethane	105	65 - 135
Toluene-d8	99	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

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Hageman-Aguiar, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530
Attn: Randal Wilson

Date: 8/15/00
Date Received: 8/9/00
Project Name: Matheson-Oakland
Project Number:
P.O. Number:
Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 21738 **Lab Sample ID:** 21738-004 **Client Sample ID:** MW-4

Sample Time: 11:04 AM **Sample Date:** 8/9/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	8/12/00	WMS2000812	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97	65 - 135
Dibromofluoromethane	104	65 - 135
Toluene-d8	99	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

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STANDARD LAB QUALIFIERS (FLAGS)

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows:

Qualifier (Flag)	Description
U	Compound was analyzed for but not detected
J	Estimated value for tentatively identified compounds or if result is below PQL but above MDL
N	Presumptive evidence of a compound (for Tentatively Identified Compounds)
B	Analyte is found in the associated Method Blank
E	Compounds whose concentrations exceed the upper level of the calibration range
D	Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
X	Results within quantitation range; chromatographic pattern not typical of fuel

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography
Laboratory Control Spikes

QC Batch #: DW000805
Matrix: Liquid
Units: µg/L

Date analyzed: 08/13/00
Date extracted: 08/11/00
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/L	SA µg/L	SR µg/L	SP µg/L	**SP %R**	SPD µg/L	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Diesel	8015M	<50.0	1000	ND	1145	**115**	1160	**116**	1.2	25	62-120
Hexocosane(S.S.)				114%	109%		110%				65-135

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R) Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R) Spike Duplicate % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

Volatile Organic Compounds
Laboratory Control Sample

QC Batch #: WMS2000812
Matrix: Liquid
Units: µg/L

Date analyzed: 08/12/00
Spiked Sample: Blank Spike

PARAMETER	Method #	SA µg/L	SR µg/L	SP µg/L	SP %R	SPD µg/L	SPD %R	RPD	QC LIMITS RPD	QC LIMITS %R
1,1- Dichloroethene	8240/8260	40	ND	41.6	**104**	41.6	**104**	0.0	25	50-150
Methyl-tert-butyl ether	8240/8260	40	ND	42.1	**105**	44.8	**112**	6.2	25	50-150
Benzene	8240/8260	40	ND	41.7	**104**	47.6	**119**	13.2	25	50-150
Trichloroethene	8240/8260	40	ND	41.4	**104**	42.7	**107**	3.1	25	50-150
Toluene	8240/8260	40	ND	36.8	**92**	45.7	**114**	21.6	25	50-150
Chlorobenzene	8240/8260	40	ND	38.3	**96**	41.8	**105**	8.7	25	50-150
Surrogates										
MTBE-d3	8240/8260		87%	91%		87%				65-135
Dibromofluoromethane	8240/8260		104%	107%		109%				65-135
Toluene-d8	8240/8260		93%	90%		96%				65-135
4-Bromofluorobenzene	8240/8260		99%	102%		100%				65-135

Definition of Terms:

na: Not Analyzed in QC batch
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike Duplicate % Recovery

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography
Laboratory Control Sample

QC Batch #: WGC4000809
Matrix: Liquid
Units: µg/Liter

Date Analyzed: 08/09/00
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB µg/Liter	SA µg/Liter	SR µg/Liter	SP µg/Liter	**SP % R**	SPD µg/Liter	**SPD %R**	% RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	5.2	ND	5.2	**101**	5.3	**102**	1.6	25	70-130
Toluene	8020	<0.50	29	ND	30	**103**	31	**106**	2.5	25	70-130
Ethyl Benzene	8020	<0.50	5.6	ND	5.6	**100**	5.8	**103**	3.2	25	70-130
Xylenes	8020	<0.50	32	ND	30	**93**	31	**94**	1.8	25	70-130
Gasoline	8015	<50.0	469	ND	492	**105**	453	**97**	8.1	25	70-130
aaa-TFT(S.S.)-FID	8020			114%	107%		105%				65-135
aaa-TFT(S.S.)-PID	8015			103%	101%		102%				65-135

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- nc: Not Calculated

HAGEMAN-AGUIAR, INC.
Environmental & Water Resources Engineering
Groundwater Consultants

Fax Cover Sheet

DATE:	08/10/2000	**TIME:**	10:18
TO:	Lori	**PHONE:**	1408 735 1550
	Enreach	**FAX:**	1408 735 1554
FROM:	Randal Wilson Hageman-Aguiar	**PHONE:** **FAX:**	(510) 620-0891 (510) 620-0894
RE:			
CC:			

Number of pages including cover sheet: 2

Message

Revised C.O.C. follow-up to our phone conversation

Randy

11100 SAN PABLO AVE., SUITE 200-A • EL CERRITO, CALIFORNIA 94530 • (510) 620-0891 • FAX (510) 620-0894

CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT NAME AND ADDRESS:

Matheson - Oakland
2500 Poplar Street
Oakland

SAMPLER: (Signature) Randal Wilson

HAGEMAN - AGUIAR, INC.
11100 San Pablo Ave., Suite 200-A
El Cerrito, CA 94530
(510)620-0891 (510)620-0894 (FAX)

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	SAMPLE LOCATION	TPH-Gas, BTEX	TPH-Diesel	MTBE by 8260					REMARKS
MW-1	08/09/00	11:45		X	Monitor Well # MW-1	X	X	X					
MW-2	08/09/00	09:35		X	" " # MW-2	X	X	X					
MW-3	08/09/00	10:19		X	" " # MW-3	X	X	X					
MW-4	08/09/00	11:04		X	" " # MW-4	X	X	X	8260 08/09/00				

ANALYSIS REQUESTED

RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Randal Wilson	08/09/00 14:20	[signature] & Co	8/9/00 1425
RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED FOR LABORATORY BY: (Signature)	DATE / TIME

CHAIN OF CUSTODY RECORD

PROJECT NAME AND ADDRESS:

Matheson - Oakland
2500 Poplar Street
Oakland

SAMPLER: (Signature) Randal Wilson

HAGEMAN - AGUIAR, INC.
11100 San Pablo Ave., Suite 200-A
El Cerrito, CA 94530
(510)620-0891 (510)620-0894 (FAX)

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	SAMPLE LOCATION	TPH-Gas, BTEX	TPH-Diesel	MTBE by 8260					REMARKS
MW-1	08/09/00	11:45		X	Monitor Well # MW-1	X	X	X					21738-001
MW-2	08/09/00	09:35		X	" " # MW-2	X	X	X					-002
MW-3	08/09/00	10:19		X	" " # MW-3	X	X	X					-003
MW-4	08/09/00	11:04		X	" " # MW-4	X	X	X					-004

ANALYSIS REQUESTED

per Randal Wilson @ 8/10/00

RELINQUISHED BY: (Signature) Randal Wilson	DATE 08/09/00 TIME 14:29	RECEIVED BY: (Signature) Matt 804	DATE 8/9/00 TIME 1425
RELINQUISHED BY: (Signature) Matt 804	DATE 8/9/00 TIME 1725	RECEIVED BY: (Signature)	DATE 8/9/00 TIME 1720
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED FOR LABORATORY BY: (Signature)	DATE TIME