HAGEMAN-AGUIAR, INC.
Underground Contamination Investigations, Groundwater Consultants, Environmental Engineering

November 9, 1993

STIP 608

GROUNDWATER SAMPLING REPORT

FRANK W. DUNNE COMPANY
1007 41st Street
Oakland, CA

Introduction

On September 24, 1993, the two on-site monitoring wells were sampled for the laboratory analysis for dissolved petroleum constituents. The location of the site is shown in Figure 1, and the locations of the monitoring wells are shown in Figure 2 (site map).

Monitoring Well Sampling

On June 10, 1992, groundwater samples were collected from each of the on-site monitoring wells. Prior to groundwater sampling, each well was purged by pumping approximately 4 casing volumes of water with a stainless steel air-lift pump. Field conductivity, temperature, and pH meters were present on-site during the monitoring well sampling. As the purging

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FIGURE 1.
Site Location Map.

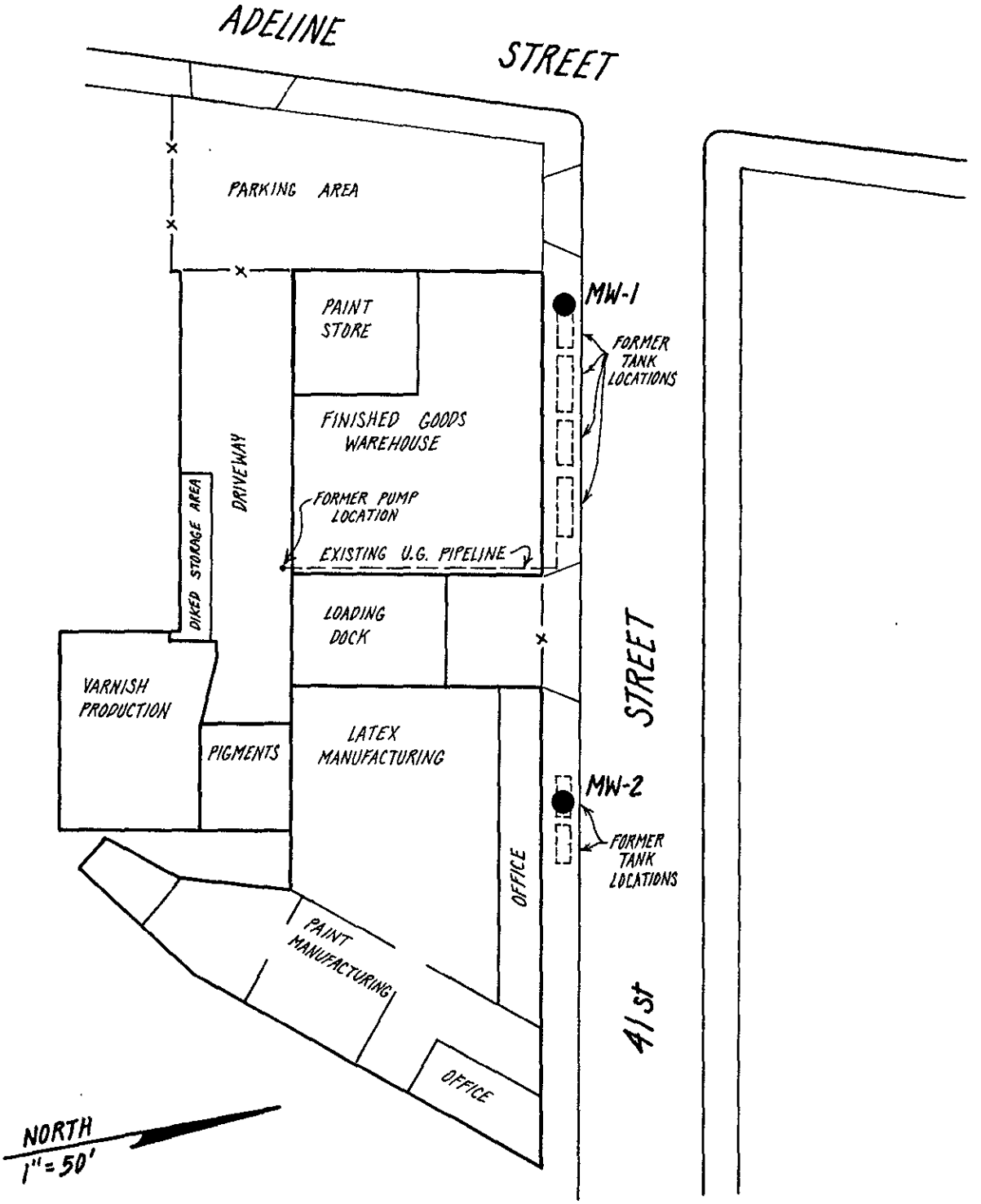

FIGURE 2.
Site Map.

process proceeded, the three parameters were monitored. Purging continued until readings appeared to have reasonably stabilized. After the water level in the well had attained 80% or more of the original static water level, a groundwater sample was collected using a clean teflon bailer. The water sample was placed inside appropriate 40 mL VOA vials and 1 liter amber bottles free of any headspace. The samples were immediately placed on ice, then transported under chain-of-custody to the laboratory at the end of the work day.

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) identification of any floating product, sheen, or odor prior to purging, using a clear teflon bailer, 3) sample pH, 4) sample temperature, and 5) specific conductance of the sample. Copies of the well sampling logs are included as Attachment A.

Laboratory Analysis

All analyses were conducted by a California State DOHS certified laboratory in accordance with EPA recommended procedures (Priority Environmental Labs, Milpitas, CA). All Groundwater samples were analyzed for Total Petroleum Hydrocarbons as Gasoline, Benzene, Toluene, Ethylbenzene, and Total Xylenes (EPA methods 8015 and 602) and Total Extractable Petroleum Hydrocarbons (EPA method 8015).

Analytical Results

Table 1 presents the results of the laboratory analysis of the groundwater samples collected from monitoring wells MW-1, and MW-2. In addition, quality data from the previous rounds of groundwater sampling are also shown in this table. A Copy of the laboratory certificate for the water sample analyses is included as Attachment B.

For this most recent round of groundwater sampling, **no detectable concentrations of Total Petroleum Hydrocarbons as Mineral Spirits were found in either of the shallow groundwater samples**. As noted on Table 1, "Mineral Spirits", "Paint Thinner" and "Stoddard Solvent" are synonyms for the same petroleum distillate.

No detectable concentrations of either Gasoline, Kerosene, Diesel, Benzene, Toluene, Ethylbenzene, Total Xylenes or Motor Oil were detected in either of the shallow groundwater samples.

Waste Generation

All water removed from the well during purging was drummed and stored on-site until the results of laboratory analyses were obtained. Based upon the laboratory results presented in this report, it would appear that this wastewater may be suitable for use on-site as wash water, landscape irrigation, etc, or else placed in an on-site sanitary sewer connection in accordance with local sewering agency permit requirements. The disposal of wastewater is the responsibility of the property owner (waste generator), and is beyond the scope of work as described in this report.

TABLE 1.

Shallow Groundwater Sampling Results

Well	Date	TPH as Gasoline (ug/L)	TPH as Kerosene (ug/L)	TPH as Mineral Spirits (ug/L)	TPH as Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	Motor Oil (mg/L)
MW-1	02-21-90	ND	ND	ND	ND	ND	ND	**0.4**	**1.3**	ND
	06-10-92	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09-27-93	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-2	02-21-90	ND	ND	**300**	ND	ND	ND	**0.3**	**1.5**	ND
	06-10-92	ND	ND	**76**	ND	ND	ND	ND	ND	ND
	09-27-93	ND	ND	ND	ND	ND	ND	ND	ND	ND
Detection Limit		50	50	50	50	0.5	0.5	0.5	0.5	0.5

ND = Not Detected

NOTE: Mineral Spirits = Paint Thinner = Stoddard Solvent

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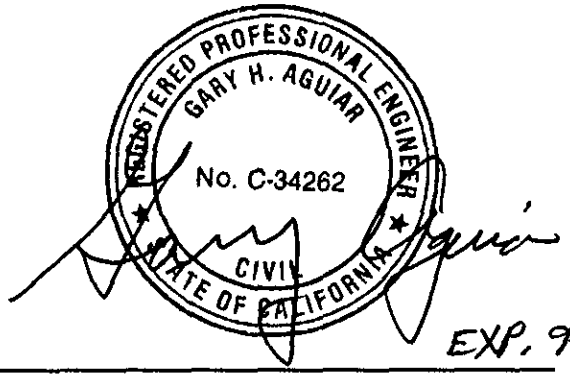

EXP. 9-30-95

Gary Aguiar **RCE 34262**

ATTACHMENT A

Well Sampling Logs

WELL SAMPLING LOG

Project/No. DUNNE PAINT

Page 1 of 2

Site Location EMERYVILLE, CA

Date 9/24/93

Well No. MW 1

Time Began 1251
Completed 1325

Weather CLEAR / 85°F

EVACUATION DATA

Description of Measuring Point (MP) WELL BOX AT GRADE

Total Sounded Depth of Well Below MP 13.24

- Depth to Water Below MP 6.46

Diameter of Casing 4"

= Water Column in Well 6.78

Gallons in Casing 4.3 + Annular Space (30% porosity) 3.7 = Total Gallons 8.0 (x4 = 32)

Gallons Pumped Prior to Sampling 32

Evacuation Method 1 GAL. PVC BAILER

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: NONE DETECTED
(thickness to 0.1 inch, if any)

Time	1251	1258	1306	1315
Gals Removed	0	10	21	32
Temperature	20.1	19.7	19.5	18.6
Conductivity	300	300	310	320
pH	7.0	7.0	6.9	6.9
Color / Odor	CLR/NO	CLR/NO	CLR/NO	CLR/NO
Turbidity	LOW	LOW	LOW	LOW

Comments: NONE

WELL SAMPLING LOG

Project/No. DUNNE PAINT

Page 2 of 2

Site Location EMERYVILLE, CA

Date 9/24/93

Well No. MW 2

Time Began 1330
Completed 1355

Weather CLEAR / 85°F

EVACUATION DATA

Description of Measuring Point (MP) WELL BOX AT GRADE

Total Sounded Depth of Well Below MP 13.40

Diameter of Casing 4"

- Depth to Water Below MP 7.06

= Water Column in Well 6.34

Gallons in Casing 4.1 + Annular Space (30% porosity) 3.5 = Total Gallons 7.6 (x 4 = 30)

Gallons Pumped Prior to Sampling 30

Evacuation Method 1 GAL. PVC BAILER

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: NONE DETECTED
(thickness to 0.1 inch, if any)

Time	1330	1336	1342	1348
Gals Removed	0	10	20	30
Temperature	20.9	21.1	21.5	21.3
Conductivity	300	300	300	300
pH	7.0	7.0	6.8	6.9
Color / Odor	CLR/NO	GRY/ORG	GRY/FT. HC	GRY/FT. HC
Turbidity	LOW	HIGH	HIGH	HIGH

Comments: NONE

ATTACHMENT B

ANALYTICAL RESULTS: GROUNDWATER

PRIORITY ENVIRONMENTAL LABS
Precision Environmental Analytical Laboratory

September 29, 1993 PEL # 9309083

HAGEMAN - AGUIAR, INC.

Attn: Jeffrey Roth
Re: Two water samples for Gasoline/BTEX and TEPH analyses.

Project name: Dunne Paint
Project location: Emeryville, CA.

Date sampled: Sept 24, 1993 Date submitted: Sept 27, 1993
Date extracted: Sept 27-28, 1993 Date analyzed: Sept 27-28, 1993

RESULTS:

SAMPLE I.D.	Kerosene (ug/L)	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Motor Oil (mg/L)	Stoddard Solvent (ug/L)
MW 1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW 2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	94.2%	83.7%	91.2%	87.8%	81.6%	89.5%	93.0%	---	85.0%
Detection limit	50	50	50	0.5	0.5	0.5	0.5	0.5	50
Method of Analysis	3510 / 8015	5030 / 8015	3510 / 8015	602	602	602	602	3510/ 8015	3510/ 8015

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PEL # 9309083

INV # 24044

CHAIN OF CUSTODY RECORD

PROJECT NAME AND ADDRESS:
DUNNE PAINT
EMERYVILLE, CA

SAMPLER: (Signature)

HAGEMAN - AGUIAR, INC.
3732 Mt. Diablo Blvd., Suite 372
Lafayette, CA 94549
(415)284-1661 (415)284-1664 (FAX)

ANALYSIS REQUESTED: TPH Gas / BTEX; TEPH

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	STATION LOCATION	TPH Gas / BTEX	TEPH	REMARKS
MW 1	9.24.93	1325		X	MONITOR WELL # 1	X	X	NORM TAT
MW 2	9.24.93	1355		X	" " # 2	X	X	" "

RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
	9.27.93 / 1220		
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RELINQUISHED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
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