



January 31, 1992

Ms. Susan Hugo
Alameda County Dept. of Health Services
80 Swan Way
Oakland, CA 94621

Subject : Underground Storage Tank at 1000 41st Street

Dear Susan :

Enclosed is a copy of the groundwater test performed by Aqua Terra Technologies.
Please call me with any questions.

Sincerely,

Gary Leach
Chief Financial Officer

47-0111-0000026

*Reviewed
9/21/92
skp*



January 8, 1992

Mr. Randolph L. Harris
McInerney & Dillon Law Offices
One Kaiser Plaza, 18th Floor
Oakland, CA 94612-3610

**Subject: Groundwater Analytical Data for the Property at
41st Street Tank, Oakland National Engravers
1001 42nd Street, Oakland, CA
(Project No. 919297)**

Dear Mr. Harris:

Aqua Terra Technologies
Consulting Engineers
& Scientists

Aqua Terra Technologies, Inc. (ATT) is pleased to present this status report for groundwater analytical data from samples collected from groundwater monitoring wells identified as "41st" and "LD4" at the Oakland National Engraving facility, 1001 42nd Street, Oakland California.

2950 Buskirk Avenue
Suite 120
Walnut Creek, CA
94596-2079
FAX 934-0418
510 934-4884

SITE CHARACTERISTICS

Site Setting

The subject property is located on 42nd Street, between Linden Street to the east and Adeline Street to the west in Oakland, California (Plate 1, Attachment A). A 6,000-gallon underground storage tank (UST) and associated groundwater monitoring well (identified as groundwater monitoring well "41st") constructed with two-inch diameter well casing are located on 41st Street in Emeryville, California. A second groundwater monitoring well (identified as "LD4", constructed with four-inch diameter well casing) is located on the loading dock adjacent to 41st Street in Oakland, California (Plate 2, Attachment A). The subject property elevation is approximately 55 feet above mean sea level (AMSL), according to the U.S. Geological Survey 7.5-minute Quadrangle map for Oakland West, California (1959, photo-revised 1980); the subject property is essentially level.

Previous Investigation

On February 9, 1988, O.H. Materials Corporation (OHM) of West Sacramento, California installed one temporary groundwater monitoring well (TW-1) at the downgradient end of the UST (to the west). Available data indicates that OHM destroyed the temporary well on February 9, 1988, after collecting a groundwater sample. The sample was analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPH-G) using Environmental

Mr. Randolph L. Harris
McInerney & Dillon Law Offices
January 8, 1992
Page 2

Protection Agency (EPA) Method 5030 and 8015, and volatile organic compounds (VOCs) using EPA Method 624. The summary of sample analyses in (Table 1, Attachment B) indicates that TPH-G was detected at 610 mg/L and methylene chloride was detected at 0.72 mg/L in groundwater sample GWS-1 (collected from well "41st").

MONITORING WELL SAMPLING

On September 30, 1991, ATT field personnel collected groundwater samples from an existing groundwater monitoring well in the vicinity of the previously destroyed temporary well (the existing monitoring well identified as "41st" by ATT), and from the monitoring well in the loading dock area (the monitoring well identified as "LD4" by ATT) located in Emeryville and Oakland, respectively. These samples were submitted, with a field/travel blank (FB) to assure laboratory analytical precision and accuracy, to a California Department of Health Services (DHS) accredited laboratory.

Groundwater samples were collected in accordance with regulatory agency guidelines and requirements using the protocol in Attachment C. Samples were immediately placed in a cooler containing bagged ice and delivered, under chain-of-custody documentation, to Chromalab Inc. of San Ramon, California. The groundwater samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPH-G) using U.S. Environmental Protection Agency (EPA) Method 5030, total petroleum hydrocarbons as diesel (TPH-D) using EPA Method 3510, benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 602, total extractable petroleum hydrocarbons (TEPH) using EPA Method 3510, purgeable hydrocarbons (CLHC) using EPA Method 601, and total dissolved solids (TDS) using EPA Method 160.1. Copies of the sample collection records, chain-of-custody documentation, and signed laboratory reports are provided in Attachment C.

Analytical Results

A summary of the laboratory analytical results for groundwater samples, collected by ATT field personnel from monitoring wells "41st" and LD4, are presented in Table 1, Attachment B). Groundwater sample 41st contained 18 mg/L TPH-G, and 29 mg/L kerosene. TPH-D and motor oil were not detected at or above the method detection limits of 0.05 mg/L and 0.5 mg/L, respectively. Benzene was not detected at or above the method detection limit (0.0005 mg/L); toluene, ethylbenzene, and total xylenes were detected at

Mr. Randolph L. Harris
McInerney & Dillon Law Offices
January 8, 1992
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reported concentrations of 0.0056 mg/L, 0.25 mg/L, and 0.98 mg/L, respectively. Methylene chloride was not detected at or above the method detection limit of 0.0005 mg/L, and TDS was reported at 526 mg/L.

Groundwater sample LD4 was analyzed for BTEX and TDS. Benzene, toluene, ethylbenzene, and total xylenes were reported at 0.002 mg/L, 0.0031 mg/L, 0.009 mg/L, and 0.024 mg/L, respectively. TDS was reported at 695 mg/L.

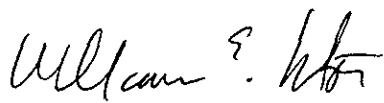
CONCLUSIONS

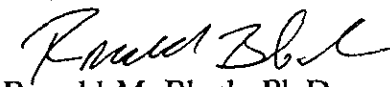
Groundwater sample analyses, from samples collected from downgradient monitoring well "41st" and upgradient monitoring well LD4, indicated that methylene chloride was not detected in the vicinity of the UST. However, the benzene concentration in groundwater sample LD4 currently exceeds the maximum contaminant level (MCL) for organic compounds (benzene) in drinking water (0.001 mg/L) which were recently adopted and incorporated in Title 22 of the California Code of Regulations (CCR), Section 6444.5, Article 5.5, Division 4. Also, the secondary MCL in California for TDS is 500 mg/L (Marshack, 1990). References cited in this report are in Attachment D, Limitations and Uncertainties are in Attachment E.

Please contact us if you have any questions regarding the matter discussed herein.

Sincerely,

AQUA TERRA TECHNOLOGIES, INC.


Michael L. Deschenes
Project Geologist


Ronald M. Block, Ph.D.
President/Project Manager

MLD/RMB:pd
Attachments

ATTACHMENT A

Plates

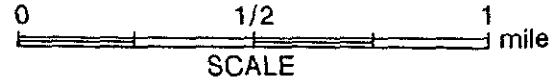
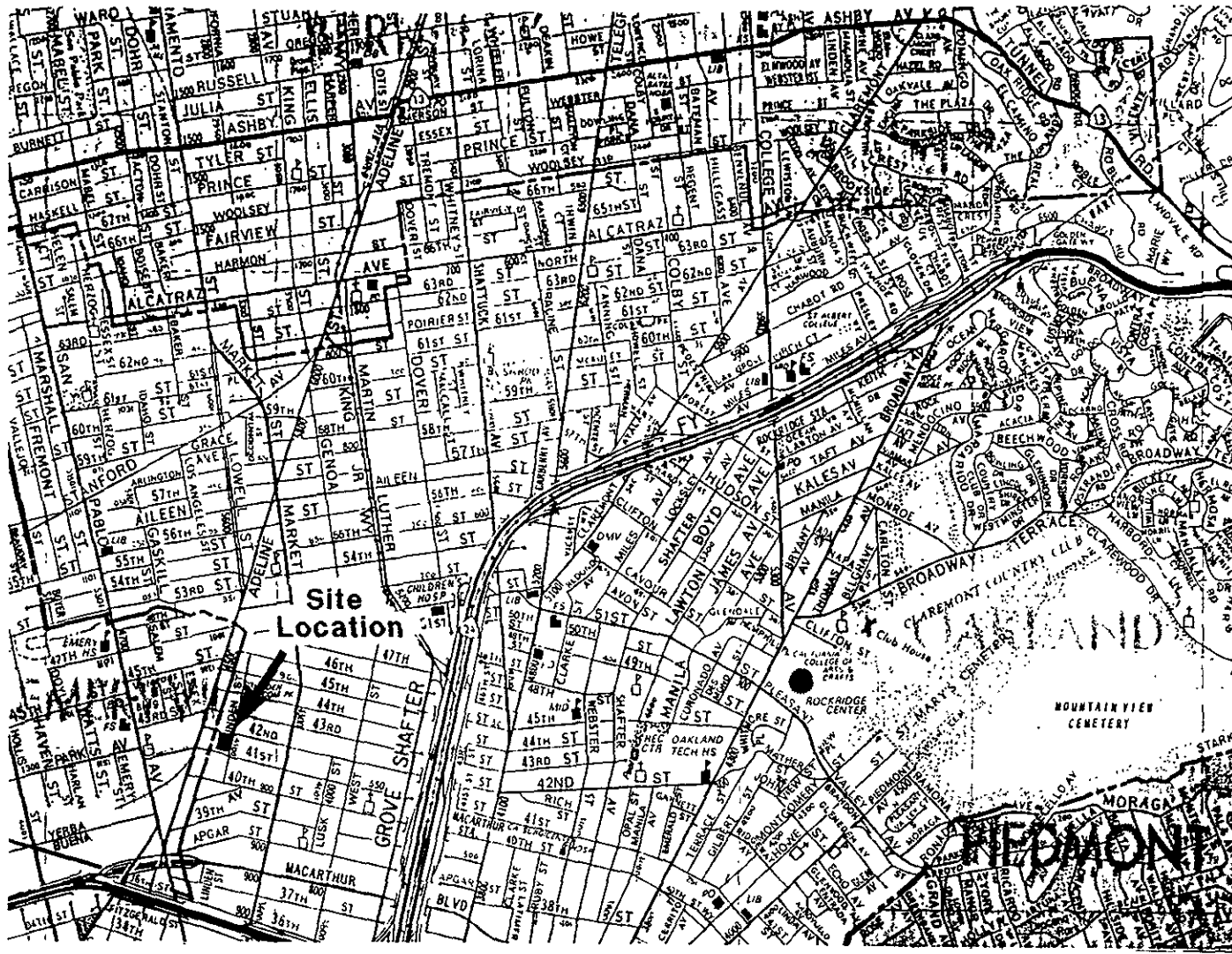


PLATE
1

ATT

Aqua Terra Technologies
Consulting Engineers
& Scientists

Site Location Map

Oakland National Engraving

JOB NUMBER
919297

DATE
12/91

RESIDENCE

ANTIQUE
REFINERY BLD.

FURNITURE
STRIPPING
AREA

RAMP

LOADING
DOCK

OAKLAND
NATIONAL
ENGRAVING
BLD.

LD4

41ST

41ST

EMERYVILLE

OAKLAND

KEY

- LUMP - DRAIN
- ⊕ MONITORING WELL
- PG&E ANAEROBIC CHECK BOX
- TANK FILL PIPE
- MANHOLE
- CITY BOUNDARY



PLATE
2

ATT

Aqua Terra Technologies
Consulting Engineers
& Scientists

OAKLAND NATIONAL ENGRAVING
41ST & LINDEN
OAKLAND, CALIF

1" = 20', SCALE

JOB NUMBER

919297

DATE

10-91

ATTACHMENT B

Table

Table 1. Summary of Analyses
Groundwater Samples
Oakland National Engravers
Oakland, California

Sample Identification	Sampling Date	Concentrations ^a (mg/L)										
		TPH-G	TPH-D	Kerosene	Motor Oil	TOG	B	T	E	X	Methylene Chloride	TDS
41St ^b (GWS-1)	01/09/88	610	---	---	---	---	<0.1	<0.1	<0.1	2.4	2.1	---
41St ^c	09/30/91	18	<0.05	29	<0.5	---	<0.005	0.0056	0.25	0.98	<0.0005	526
LD4 ^b <i>↳ 1/8 in FP</i> (Well Water)	06/17/88	--- ^e	---	---	---	2.0	ND ^f	ND	0.0096	---	---	---
LD4 ^d <i>↳ 0.5 in FP</i>	09/30/91	---	---	---	---	---	0.002	0.0031	0.009	0.024	---	695

- a. TPH-G = total petroleum hydrocarbons as gasoline, TPH-D = total petroleum hydrocarbons as diesel, TOG = total oil and grease, B = benzene, T = toluene, E = ethylbenzene, X = total xylenes, TDS = total dissolved solids.
- b. ATT well designation.
- c. 1/8-inch of floating product in first bailer, 1/8-inch of product at completion pre-sample well purging (for monitoring well "41 St").
- d. 1/2-inch of floating product in first bailer, oily substance on bailer during pre-sample well purging (for monitoring well LD4).
- e. --- = Analysis was not performed.
- f. ND = not detected; sample analyses below method detection limit on laboratory report.

ATTACHMENT C

**Soil & Groundwater Sample
Collection & Handling Protocol**

ATTACHMENT C

SOIL & GROUNDWATER SAMPLE COLLECTION & HANDLING PROTOCOL

INTRODUCTION & PURPOSE

Because reliable and representative test results must be generated from soil and groundwater samples, it is essential to establish a sampling procedure which assures that all samples are:

- Collected by approved and repeatable methods
- Representative of the materials(s) at the desired location and depth
- Uncontaminated by container and sampling equipment

The following sampling protocol was designed to be a guide to the sampling and handling procedures for soil and groundwater samples. Based on conditions which may be encountered in the field, some modifications to this protocol may be required to fit the needs of an individual site.

SAMPLING PROCEDURES

Groundwater Sampling

Prior to collecting groundwater samples, monitoring wells were purged by bailing until pH, conductivity, and temperature levels stabilize. A minimum of four well casing volumes was purged from each well. Wells were purged and groundwater samples were obtained using a teflon bailer, or disposable polyethelene bailer, and nylon rope. New nylon rope is used for each well.

The appropriate number of sample containers and type were used for each sample collected, in accordance with the analytical laboratory requirements and EPA protocol. The bottles were filled using the bailer. All sample bottles were pre-cleaned by the supplier according to EPA protocols.

To prevent cross contamination of groundwater samples by the sampling equipment, all reusable equipment used in sampling was washed with a trisodium phosphate solution (TSP), triple rinsed with purified water, and

allowed to air dry prior to each use. A sample of the purified water was retained for analysis as part of sample quality assurance.

Soil Sampling

After the soil sampler was driven to the desired depth and the samples were retrieved, each end of the tube containing the soil sample retained for laboratory analysis was sealed with teflon sheeting, covered with plastic end caps, and sealed with PVC tape. All sample containers (tubes) were steamed cleaned (or washed with TSP, as above) and air dried prior to use. The soil sample recovered in the tube just above the sample retained for chemical analysis was examined in the field for visual and olfactory indications of chemical contamination and used for lithologic description.

The Unified Soil Classification System (USCS) was used to log and describe the soil by the onsite geologist. These logs also include details of the sampling process such as depth, apparent odors, discoloration, and any other factors which may be required to evaluate the presence of contamination at the site.

POST SAMPLING PROCEDURES

One field/travel blank consisting of one sample bottle filled with purified water accompanied soil and groundwater sample containers at all times, including during transport to and from the site. Purified water field/travel blanks were analyzed according to the appropriate EPA Methods corresponding to the soil/groundwater sample analyses.

Sample containers were labeled with sample number, project number, date, and the initials of the person collecting the sample. A separate sample collection record was maintained for each groundwater sample collected.

Soil and groundwater samples collected were analyzed by an analytical laboratory certified by the California Department of Health Services (DHS). Quality assurance documentation accompanied all analytical reports generated by the laboratory.

The samples were placed in a cooler with dry ice (for soil samples) or bagged ice (for water samples) immediately following collection, and remained in the cooler until refrigerated at the analytical laboratory. The samples were delivered to the laboratory direct by courier or overnight freight within 48 hours of time of collection. Appropriate chain of custody forms were used for all samples.

ATTACHMENT D

**Sample Collection Record
Chain-of-Custody Documentation
Analytical Laboratory Data Sheets**

CHAIN OF SAMPLE CUSTODY
 (original document, please return)

Sampled By: DAVID BEARDSLEY

Date Sampled: 9-30-91

Signature: [Signature]

ATT Job #: 919297

Lab Name: Chromalab

Results To Be Sent To: Bruce Berman

Contact: Gary Cook

Results Needed By: standard turnaround time

Phone #: 831-1788

Fax Results ASAP

Lab Job #: _____

Sample Collection				Sample Preservation			Sample Containers			Analysis/EPA Method No.						Remarks
Sample I.D.	Time (24 hr)	Matrix (e.g. Water, Soil)	Number of Containers	Ice	HCL	Dry Ice	40ml. VOA's	500ml. Plastic	1 Liter Glass	601	602	Salinity	TPH-Gas*	TPH-Diesel*	BTEX	
41st.	12:15	Water	10	✓			5	1	4	X	X	X	X	X		
LD4	13:00	Water	8				5	1	2		X	X				
LD4		Water									X	X				
FB	11:49	Water	3				3						X	X		

Notes: * need TPH "Fingerprint";
 "Fingerprint" (TPH-Gas: Please comment on any unusual compounds
 } TPH-Diesel: modify method for total extractable
 petroleum hydrocarbons (TEPH)

Relinquished by/ Company Affiliation	Date	Time	Received by: Company Affiliation	Date	Time
<u>[Signature]</u>	9-30-91	16:00	<u>Bruce Berman</u>	9-30-91	16:00
<u>Bruce Berman</u>	10-1-91	13:00	<u>[Signature]</u>	10-1-91	13:00

CHROMALAB, INC.

5 DAYS TURNAROUND

Analytical Laboratory (E694)

October 8, 1991

ChromaLab File No.: 1091006

AQUA TERRA TECHNOLOGIES, INC.

Attn: Bruce Berman

RE: Three water samples for Gasoline/BTEX and TEPH analyses

Project Number: 919297

Date Sampled: Sept.30, 1991

Date Submitted: Oct. 1, 1991


Date Extracted: Oct. 4-7, 1991

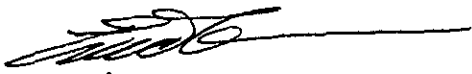
Date Analyzed: Oct. 4-7, 1991

RESULTS:

Sample I.D.	Gasoline ($\mu\text{g/l}$)	Diesel ($\mu\text{g/l}$)	Benzene ($\mu\text{g/l}$)	Toluene ($\mu\text{g/l}$)	Ethyl Benzene ($\mu\text{g/l}$)	Total Xylenes ($\mu\text{g/l}$)	Kerosene ($\mu\text{g/l}$)	Motor Oil (mg/l)
41st.	18000	N.D.	N.D.	5.6	250	980	29000	N.D.
LD4	----	----	2.0	3.1	9.0	24	----	----
FB	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.
SPIKE REC.	98.0%	93.0%	89.3%	88.3%	89.5%	90.8%	100.9%	----
DET. LIMIT	50	50	0.5	0.5	0.5	0.5	50	0.5
METHOD OF ANALYSIS	5030/ 8015	3510/ 8015	602	602	602	602	3510/ 8015	3510/ 8015

ChromaLab, Inc.


David Duong
Chief Chemist


Eric Tam
Laboratory Director

CHROMALAB, INC.

5 DAYS TURNAROUND

Analytical Laboratory (E694)

October 8, 1991

ChromaLab File # 1091006 A

Client: Aqua Terra Technologies, Inc.

Attn: Bruce Berman

Date Sampled: Sept. 30, 1991

Date Submitted: Oct. 01, 1991

Date Analyzed: Oct. 05, 1991

Project Number: 919297

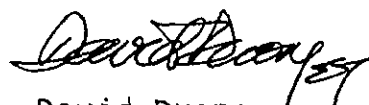
Sample I.D.: 41st.

Method of Analysis: 601

Detection Limit: 0.5 µg/l

COMPOUND NAME	µg/l	Spike Recovery	
CHLOROMETHANE	N.D.	---	---
VINYL CHLORIDE	N.D.	---	---
BROMOMETHANE	N.D.	---	---
CHLOROETHANE	N.D.	---	---
TRICHLOROFLUOROMETHANE	N.D.	91.8%	92.5%
1,1-DICHLOROETHENE	N.D.	---	---
METHYLENE CHLORIDE	N.D.	---	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---	---
1,1-DICHLOROETHANE	N.D.	---	---
CHLOROFORM	N.D.	96.8%	97.2%
1,1,1-TRICHLOROETHANE	N.D.	---	---
CARBON TETRACHLORIDE	N.D.	---	---
1,2-DICHLOROETHANE	N.D.	---	---
TRICHLOROETHENE	N.D.	---	---
1,2-DICHLOROPROPANE	N.D.	---	---
BROMODICHLOROMETHANE	N.D.	---	---
2-CHLOROETHYL VINYLETHER	N.D.	---	---
TRANS-1,3-DICHLOROPROPENE	N.D.	---	---
CIS-1,3-DICHLOROPROPENE	N.D.	---	---
1,1,2-TRICHLOROETHANE	N.D.	90.5%	93.7%
TETRACHLOROETHENE	N.D.	---	---
DIBROMOCHLOROMETHANE	N.D.	---	---
CHLOROBENZENE	N.D.	---	---
BROMOFORM	N.D.	---	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---	---
1,3-DICHLOROBENZENE	N.D.	---	---
1,4-DICHLOROBENZENE	N.D.	---	---
1,2-DICHLOROBENZENE	N.D.	96.1%	98.2%

ChromaLab, Inc.


David Duong
Senior Chemist


Eric Tam
Lab Director

REPORT NUMBER

A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736



W281-12

DATE SAMPLED 10-08-91
DATE RECEIVED 10-09-91
DATE COMPLETED 10-11-91
SUBMITTED BY

DAVID DUONG

SEND TO: CHROMALAB, INC.
2239 Omega Road #1
San Ramon, CA 94583

CUSTOMER

DATE OF REPORT 10-17-91

PAGE 1

WATER ANALYSIS REPORT

SAMPLE IDENT.	LAB NO.	Sodium ppm Na	Calcium ppm Ca	Magnesium ppm Mg	Total Hardness ppm CaCO ₃	Total Solids ppm	Total Dissolved Solids ppm	Total Suspended Solids ppm	Total Volatile Solids ppm	Total Fixed Solids ppm	Total Solids ppm
41st	63257										
ID4	63258										

SAMPLE IDENT.	Phosphorus ppm P	Potassium ppm K	Nitrate ppm NO ₃	Nitrite ppm NO ₂	Ammonia ppm NH ₃	Total Nitrogen ppm N	Total Phosphorus ppm P	Comments
41st							526	Solids (TDS) in parts per million (ppm) as per Gary Cook of Chromalab, 10-28-91. BB.
ID4							695	

This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.

A & L AGRICULTURAL LABORATORIES, INC.

By Robert Butterfield

SAMPLE COLLECTION RECORD - MONITOR WELL

ATT

Date: 9-30-91 Sample I.D.: LD4 Job No.: 919297

Site Location: OAKLAND NATIONAL ENGRAVING

No. of Containers : 8 / (check one): Well Samples;

Duplicates from well _____; Travel Blanks;

Field Blanks; Other (explain)/ _____

W.L. (1/100'): 7.72 Time : 12:40 B.O.W. (1/2'): 10.5'

Method: Electric Well Sounder; Other/ _____

Con./pH meter calibrated: / N Well Loc. Map: / N

Calculated Purge Volume (4 casing volumes): 11 gallons

Purging Method: Disposable Bailer; Teflon Bailer;

Other/ _____

Time Start Purging (24 hr): 12:46, Product: / N
 Sheen: / N, Odor: / N, Vapor: _____ ppm / %LEL

Turbidity: N, Color: Only Brown

Time Stop Purging (24 hr): 12:56, Product: / N
 Sheen: / N, Odor: / N, Vapor: _____ ppm / %LEL

Turbidity: N, Color: Only Brown

	Temp.	pH	Cond.	Purge Vol.	Time
First :	<u>22°C</u>	<u>6.39</u>	<u>0910 µs</u>	<u>4</u>	<u>12:49</u>
Second:	<u>21°C</u>	<u>6.50</u>	<u>0960 µs</u>	<u>8</u>	<u>12:52</u>
Final :	<u>20°C</u>	<u>6.57</u>	<u>0970 µs</u>	<u>11</u>	<u>12:56</u>

Sample Collection Time (24 hr): 13:00

Notes: 1/2" PRODUCT FIRST BAILER, BAILERS VERY OILY
AFTER BAILING COMPLETED

Collected By (signature): *M. G. ...*

SAMPLE COLLECTION RECORD - MONITOR WELL

ATT

Date: 9-30-91 Sample I.D.: 41ST Job No.: 919297

Site Location: OAKLAND NATIONAL ENGRAVING

No. of Containers : 10 / (check one): Well Samples;
 Duplicates from well _____; Travel Blanks;
 Field Blanks; Other (explain)/ _____

W.L. (1/100'): 7.48 Time : 11:41 B.O.W. (1/2'): 19.5'

Method: Electric Well Sounder; Other/ _____

Con./pH meter calibrated: / N Well Loc. Map: / N

Calculated Purge Volume (4 casing volumes): 7 gallons

Purging Method: Disposable Bailer; Teflon Bailer;
 Other/ _____

Time Start Purging (24 hr): 11:51, Product: / N
 Sheen: / N, Odor: / N, Vapor: _____ ppm / %LEL

Turbidity: N, Color: CLEAR, ONLY BROWN

Time Stop Purging (24 hr): 12:08, Product: / N
 Sheen: / N, Odor: / N, Vapor: _____ ppm / %LEL

Turbidity: LIGHT, Color: MURKY ONLY BROWN

	Temp.	pH	Cond.	Purge Vol.	Time
First :	<u>20°C</u>	<u>6.13</u>	<u>0840 μS</u>	<u>2</u>	<u>11:55</u>
Second:	<u>20°C</u>	<u>6.36</u>	<u>0840 μS</u>	<u>4</u>	<u>11:59</u>
Final :	<u>20°C</u>	<u>6.43</u>	<u>0820 μS</u>	<u>7</u>	<u>12:08</u>

Sample Collection Time (24 hr): 12:15

Notes: FIRST BAILER 1/8" PRODUCT - 12:00 STOPPED PURGE
LET WELL RECHARGE (5 GAL.) 12:04 RESTART PURGE
AFTER 7 GAL. STILL 1/8" PRODUCT FLOATING IN BAILER

Collected By (signature): [Signature]

SAMPLE COLLECTION RECORD - MONITOR WELL

ATT

Date: 9-30-91 Sample I.D.: FB Job No.: 919297

Site Location: OAKLAND NATIONAL ENGRAVING

No. of Containers : 3 / (check one): Well Samples;
 Duplicates from well _____; Travel Blanks;
 Field Blanks; Other (explain)/_____

W.L. (1/100'): _____ Time : _____ B.O.W. (1/2'): _____

Method: Electric Well Sounder; Other/_____

Con./pH meter calibrated: Y / N Well Loc. Map: Y / N

Calculated Purge Volume (4 casing volumes): _____ gallons

Purging Method: Disposable Bailer; Teflon Bailer;

Other/_____

Time Start Purging (24 hr): _____, Product: Y / N
 Sheen: Y / N , Odor: Y / N , Vapor: _____ ppm / %LEL

Turbidity: _____, Color: _____

Time Stop Purging (24 hr): _____, Product: Y / N
 Sheen: Y / N , Odor: Y / N , Vapor: _____ ppm / %LEL

Turbidity: _____, Color: _____

	Temp.	pH	Cond.	Purge Vol.	Time
First :	_____	_____	_____	_____	_____
Second:	_____	_____	_____	_____	_____
Final :	_____	_____	_____	_____	_____

Sample Collection Time (24 hr): 11:49

Notes: TAKEN FROM PRE CLEANED DISPOSABLE BAILER

Collected By (signature): *[Signature]*

ATTACHMENT E

References Cited

REFERENCES CITED

O.H. Materials Corp., 1988, *Field Investigation of an Underground Storage Tank, Former Grow Group Facility in Emeryville, California, March 29, 1988*, 22p. with attachments.

Marshack, J.D., 1990, *A Compilation of Water Quality Goals: California Regional Water Quality Control Board (RWQCB), Central Valley Region*

ATTACHMENT F

Limitations and Uncertainties

LIMITATIONS AND UNCERTAINTY

This report was prepared in general accordance with the accepted standard of practice which exists in northern California at the time the investigation was performed and within the scope of services outlined in our proposal. It should be recognized that the definition and evaluation of surface and subsurface environmental conditions is a difficult and inexact science. Judgements leading to conclusions and recommendations are generally made with an incomplete knowledge of the conditions present. It is possible that variations in the soil and/or groundwater conditions could exist beyond the points explored for this investigation. Also changes in groundwater conditions could occur sometime in the future due to variations in tides, rainfall, temperature, local or regional water use or other factors. If the client wishes to reduce the uncertainty beyond the level associated with this study, ATT should be notified for additional consultation.

The discussion and recommendations presented in this report are based on: 1) monitoring well installed by a third party, 2) the observations of field personnel, 3) the results of laboratory analysis performed by a California Department of Health Services accredited laboratory, and 4) interpretations of current federal, state, and local regulations and/or ordinances.

Chemical analytical data included in this report have been obtained from state certified laboratories. The analytical methods employed by the laboratories were in accordance with procedures suggested by the U.S. Environmental Protection Agency and the State of California. ATT is not responsible for laboratory errors in procedures or reporting.

ATT has conducted this investigation in a manner consistent with the level of care and skill ordinarily exercised by members of the environmental consulting profession currently practicing under similar conditions in northern California. ATT has prepared this report for the client's (and assigned parties) exclusive use for this particular project. No other warranties, expressed or implied, as to the professional advice provided are made.