aqua science engineers inc.

March 18, 1993

3/18/93

FINAL REPORT
UNDERGROUND STORAGE TANKS REMOVAL

at

The Thomas A. Short Company (TASCO)
3430 Wood Street
Oakland, CA 94608

REGISTERED PROFESSIONAL ENGINEER
DAVID M. SCHULTZ
No. 38738
Exp.
CIVIL
STATE OF CALIFORNIA

Submitted by:

Aqua Science Engineers
2411 Old Crow Canyon Road, #4
San Ramon, California 94583
(510) 820-9391

aqua science engineers inc.

March 26, 1993

Alameda County Health Care Services Agency
80 Swan Way, Room 350
Oakland, California 94621

386

ATTENTION: Ms. Jennifer Eberle
Hazardous Materials Specialist

SUBJECT: Final Report - Tank Removal Operations
The Thomas A. Short Company
3430 Wood Street
Oakland, CA 94608

Dear Ms. Eberle:

Please find attached a copy of Aqua Science Engineer's subject report.

If you have any questions or comments, please feel free to give us a call at (510) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

David Allen
Project Manager

cc: Mr. Thomas D. LaFlamme, Property Owner
Mr. Rich Hiett, RWQCB, San Francisco Bay Region

TABLE OF CONTENTS

1.0 INTRODUCTION

This report documents the removal, disposal and related activities of the underground storage tanks closure performed at the Thomas A. Short Company (TASCO), 3430 Wood Street in Oakland, California (see Figure 1, Location Map). The following tanks were removed from the site: one (1) fiberglass, 4000 gallon gasoline tank, and one (1) steel, 1000 gallon diesel underground storage tank (see Figure 2, Site Plan). The scope of services provided by Aqua Science Engineers, Inc. (ASE) was in accordance with ASE proposal No. 2270 and its addendum and included the following tasks:

- o Obtain necessary permits from appropriate agencies.
- o Remove and dispose of liquids from the tanks.
- o Remove and dispose of the underground storage tanks.
- o Sample and analyze the soil beneath the tanks.
- o Sample and analyze the excavation sidewalls.
- o Overexcavate contaminated soil and re-sample.
- o Backfill excavation to grade.
- o Prepare a report of methods and findings.

2.0 PERMITS

The approvals/permits to remove the underground storage tanks were obtained from the City of Oakland Fire Prevention Bureau (COFPB), the Alameda County Health Care Services Agency (ACHCSA), CAL-OSHA, and the Bay Area Air Quality Management District (BAAQMD). Originals of the permits, applications, forms and notification documents are contained in Appendix C.

3.0 LIQUID REMOVAL

The two tanks contained approximately 275 gallons total of residual product along with rinseate water used to clean the tanks' insides. The liquid was pumped out and transported to the Demenno Kerdoon Facility in Compton, California under a hazardous waste manifest by Waste Oil Recovery (WORS), a licensed hazardous waste hauler (D.O.H.S. #843).

Copy of ?

4.0 MOBILIZATION

ASE mobilized for on-site work on January 28, 1993. Project personnel included: Dave Allen - Project Manager, Steve DeHope - Construction Manager, and Field Personnel- Steve LaBar and John Sabia. Field operations were conducted by trained technicians who are certified per the mandatory 40-hour safety program as specified in the OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120).

5.0 EXCAVATION

On January 28, ASE personnel began tank pulling exercises by removing the concrete cover overlying the underground tanks. The material was stockpiled on site, and excavation activities began. After removing the ground cover (approximately 6 inches of rebar-enforced concrete), approximately 12 inches of base rock was encountered. Native material was comprised of a sandy, silty material from the ground surface to approximately 5-6 feet below ground surface. Below that, a firm, dense clay was encountered. As the tank excavation activities continued, [redacted] Air sampling was conducted throughout excavation activities at the edge of the excavation by use of a hand-held organic vapor monitor (OVM 580A); no action levels were encountered, work proceeded. Tank bottoms were measured at approximately 8-9 feet below grade. Excavated soils were stockpiled on site and covered with plastic. Groundwater was encountered at approximately 9.5 feet below ground surface.

6.0 TANKS REMOVAL

Prior to tank removal on January 28, 1993, ASE inerted the tanks by adding dry ice at the rate of at least 1.5 pounds per 100 gallons of tank volume. The tank removal operations were witnessed by Mr. Don Hwang of the Alameda County Health Care Services Agency (ACHCSA) and Ms. Valida Holmes of the City of Oakland Fire Prevention Bureau. After verifying a safe Lower Explosive Limit (LEL) of each of the the tank's atmosphere, by use of a backhoe, the tanks were lifted from the excavation, placed on plastic, hand cleaned, and inspected prior to being loaded onto the transport vehicle. A petroleum odor was detected after the tanks were removed from their resting place; equally, minor soil staining was observed in the soil beneath the tanks. The two tanks were inspected by the regulatory agency representatives and

determined that no holes were present. Upon removal of the tanks, groundwater was exposed in the excavation.

Tanks were transported to the Erickson Facility in Richmond, CA (a licensed recycling facility, No. CAD009466392) by Dexanna, Inc. (a licensed hazardous waste hauler, No. CAD982438566), where they were properly disposed. See Appendix B for copies of the Manifests, and see Appendix D for Tank Recycling Certificates.

1000 gal + 1100 gal } USTs

7.0 OVEREXCAVATION

During tank removal operations, it was apparent that soil petroleum contamination was present in the excavation. In an effort to remediate this petroleum-contaminated soil, overexcavation activities were conducted. The use of a hand-held organic vapor monitor (OVM 580A) was used to monitor each bucket full of overexcavated material to delineate the non-contaminated zones from the contaminated zones. The overexcavated material was stockpiled near the excavation and covered with plastic. Once it appeared that the contaminated soil had been appropriately removed, sampling activities were performed to verify that the overexcavation activities were successful. The following section discusses the sampling activities.

on 1-29

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8.0 SAMPLING AND ANALYSIS

Soil samples were collected from the former tanks excavation and stockpiled soil as follows:

TABLE ONE
SAMPLE LOCATIONS - EXCAVATION PIT and STOCKPILE

Sample Identification	Location	Depth
GSWN	North Sidewall under Gas Tank	9.0'
GSWS	South Sidewall under Gas Tank	9.0'
DSB-1	Soil from beneath Diesel Tank	8.5'
DSB-2	Soil from beneath Diesel Tank	8.5'
E-1	East Sidewall	9.0'
E-2	East Sidewall	9.5'
N	North Sidewall	9.0'
S-1	South Sidewall	9.5'
S-2	South Sidewall	9.5'
W	West Sidewall	9.0'
STKP-E (composited)	Stockpiled Soil, East Side	
STKP-W (composited)	Stockpiled Soil, West Side	

1-28 1-29

orig. tank removal

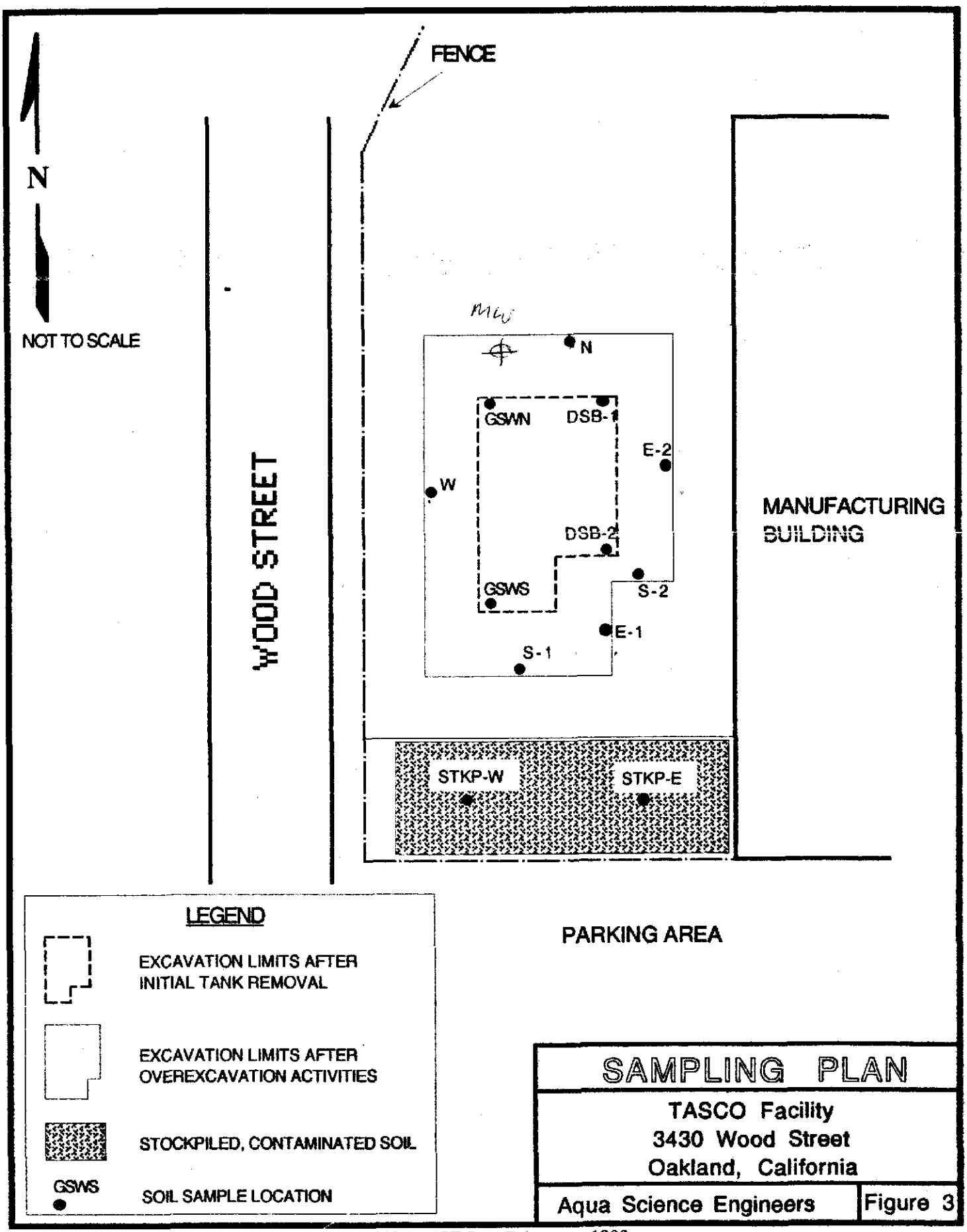
I thought 7.5'

For locations of these sample locations, see Figure 3 - Sampling Plan. The soil samples listed above were collected by use of the backhoe bucket, then a 2" x 6" brass sample tube was inserted to collect a sample. The soil samples were secured using aluminum foil, capped, and sealed with tape and transported directly to the analyzing laboratory under proper chain of custody procedures. The stockpile samples (STKP-E and STKP-W) were composited by the laboratory. The composite sample consisted of four (4) discrete samples which were combined by the lab to form one (1) sample for analysis. Samples were submitted for analysis to the state certified laboratory, Priority Environmental Labs in Milpitas, California (DHS No. 1708). The soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) as Gasoline (EPA 5030/8015), TPH as Diesel (EPA 3550/8015), the fractions BTEX (EPA 8020), and Total Extractable Lead (EPA 7420). Analysis results are shown below (Table Two) and copies can be found in Appendix A.

TABLE TWO
EXCAVATION PIT SOIL SAMPLE RESULTS

Sample ID.	TPH Gasoline (ppm)	TPH Diesel (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Lead (ppm)
GSWN	2.6	N.D.	[illegible]	8.4	10	25	6.3
GSWS	3.5	N.D.	[illegible]	10	14	32	10
DSB-1	49	N.D.	[illegible]	49	65	240	10
DSB-2	17	N.D.	[illegible]	26	37	130	8.9
E-1	19	N.D.	[illegible]	88	160	280	15
E-2	5.4	N.D.	[illegible]	15	21	61	14
N	3.3	N.D.	[illegible]	13	18	48	15
S-1	13	N.D.	[illegible]	22	37	89	10
S-2	10	N.D.	[illegible]	16	17	84	9.8
W	1.8	N.D.	N.D.	6.2	12	24	14
STKP-E*	[illegible]	28	[illegible]	250	480	1900	[illegible]
STKP-W*	[illegible]	N.D.	[illegible]	160	320	990	[illegible]
EPA METHOD	5030/ 8015	3550/ 8015	8020	8020	8020	8020	7420

* - Composited sample (performed at the lab)
ND - Non Detectable at analytical method limits
ppm - parts per million
ppb - parts per billion



SAMPLING PLAN

TASCO Facility
3430 Wood Street
Oakland, California

Aqua Science Engineers | Figure 3

9.0 BACKFILLING AND RESURFACING

The excavation was backfilled and compacted with a clean, imported material once verbal approval from the ACHCSA was received. The approval was granted once soil sample analytical results were available. The excavation was backfilled to grade; however, resurfacing to match existing surroundings was determined not to be necessary.

10.0 STOCKPILED SOIL

The material that was overexcavated remains on site, covered. Based on analytical results, this soil must be handled as hazardous material and disposed of properly. Due to the levels of lead, it appears that this material will require recycling at an appropriately licensed, Class II landfill.

11.0 DISCUSSION AND CONCLUSIONS

Two underground tanks were removed from the site and properly disposed of: 1 - 4,000 gallon fiberglass tank, previously containing gasoline (tank #10537), and 1 - 1,000 gallon steel tank, previously containing diesel fuel (tank #10536). The tanks were transported as hazardous waste to the Erickson Facility in Richmond California, to be cleaned and disposed of as scrap. See Appendix D for copies of the Tank Recycling Certificates.

Overexcavation of petroleum-contaminated soils was conducted to remove and stockpile areas of elevated levels of contamination within the excavation pit. Sampling and subsequent analytical testing verified that overexcavation of contaminated soils was sufficient in removing the appropriate amounts of contaminated soil. Although detectable levels of petroleum and lead contamination still existed in the excavation (based on soil sampling required by the ACHCSA), it was determined by the ACHCSA representative that these levels did not warrant any further soil remediation activities. The excavation was backfilled, and the stockpiled material remains on site.

I did not say that.

[redacted] to investigate the possibility of the presence of petroleum contamination in the groundwater. Results of such sampling and subsequent analysis will be made available to the appropriate agencies in the very near future.

OK

12.0 REPORT LIMITATIONS

The results of this investigation represent conditions at the time and specific location at which soil samples were collected, and for the specific parameters analyzed for by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the former underground storage tanks at the site, or for parameters not analyzed for by the laboratory. All of the laboratory work cited in this report was prepared under the direction of independent CSDHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

ASE appreciates having the opportunity to provide our services to you. If you have any questions or comments, please feel free to give us a call at (510) 820-9391.

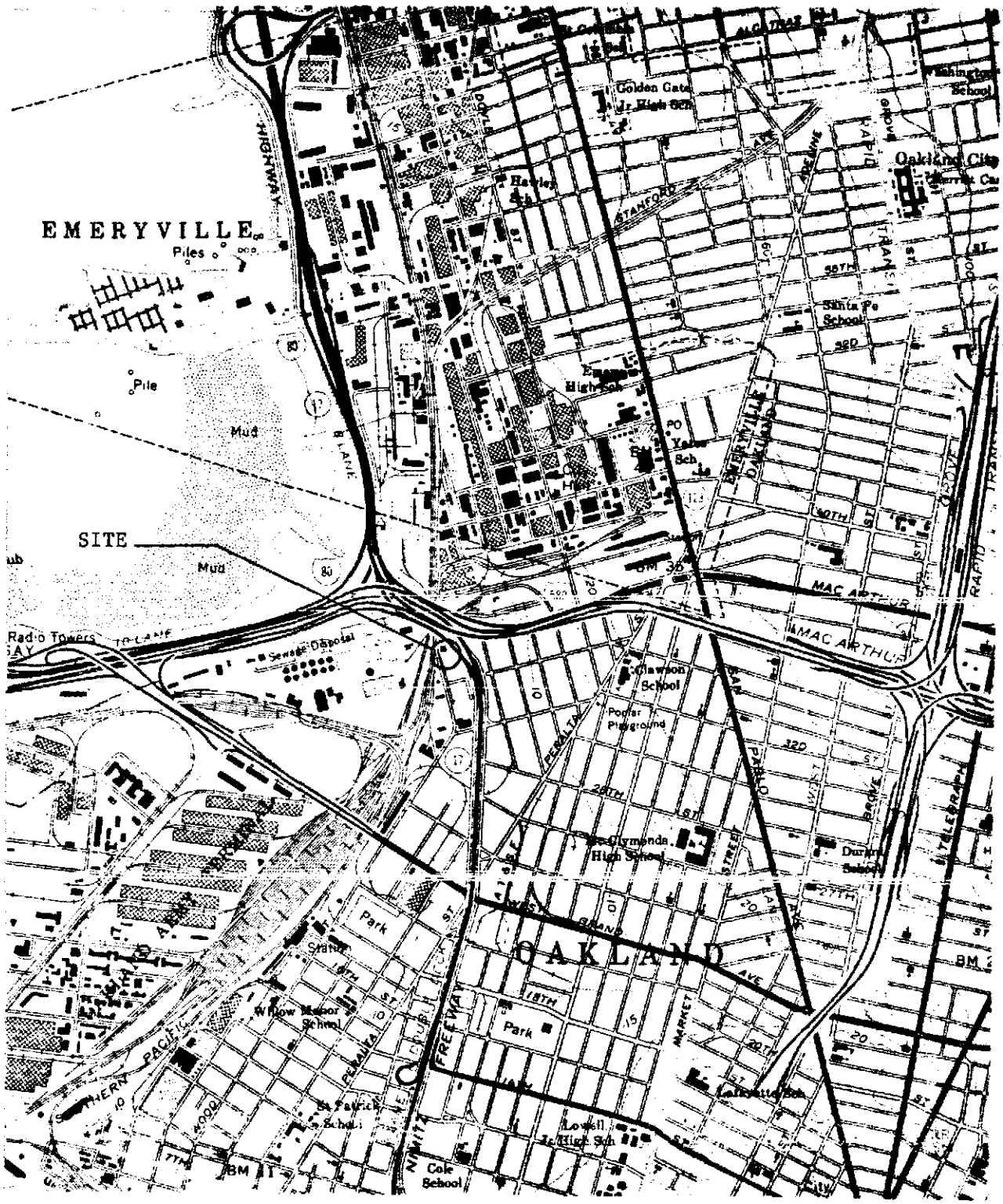
Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

David Allen
Project Manager

Enclosures: Figure 1 - Location Map
Figure 2 - Site Plan
Figure 3 - Sampling Plan
Appendices A - D

cc: ACHCSA, Ms. Jennifer Eberle
RWQCB, San Francisco Bay Region, Mr. Rich Hiett

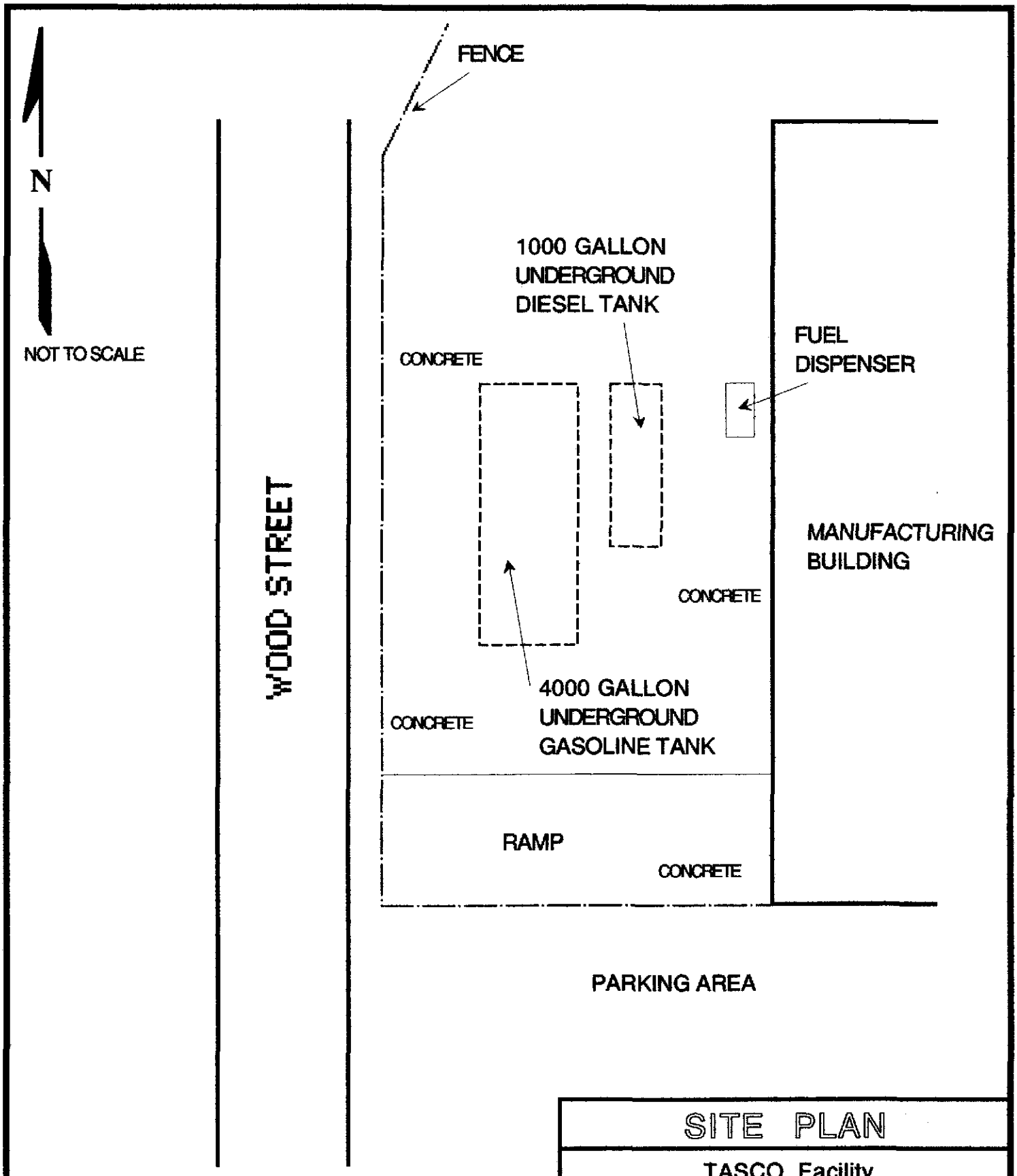


SITE LOCATION MAP

TASCO Facility
3430 Wood Street
Oakland, California

Aqua Science Engineers | Figure 1

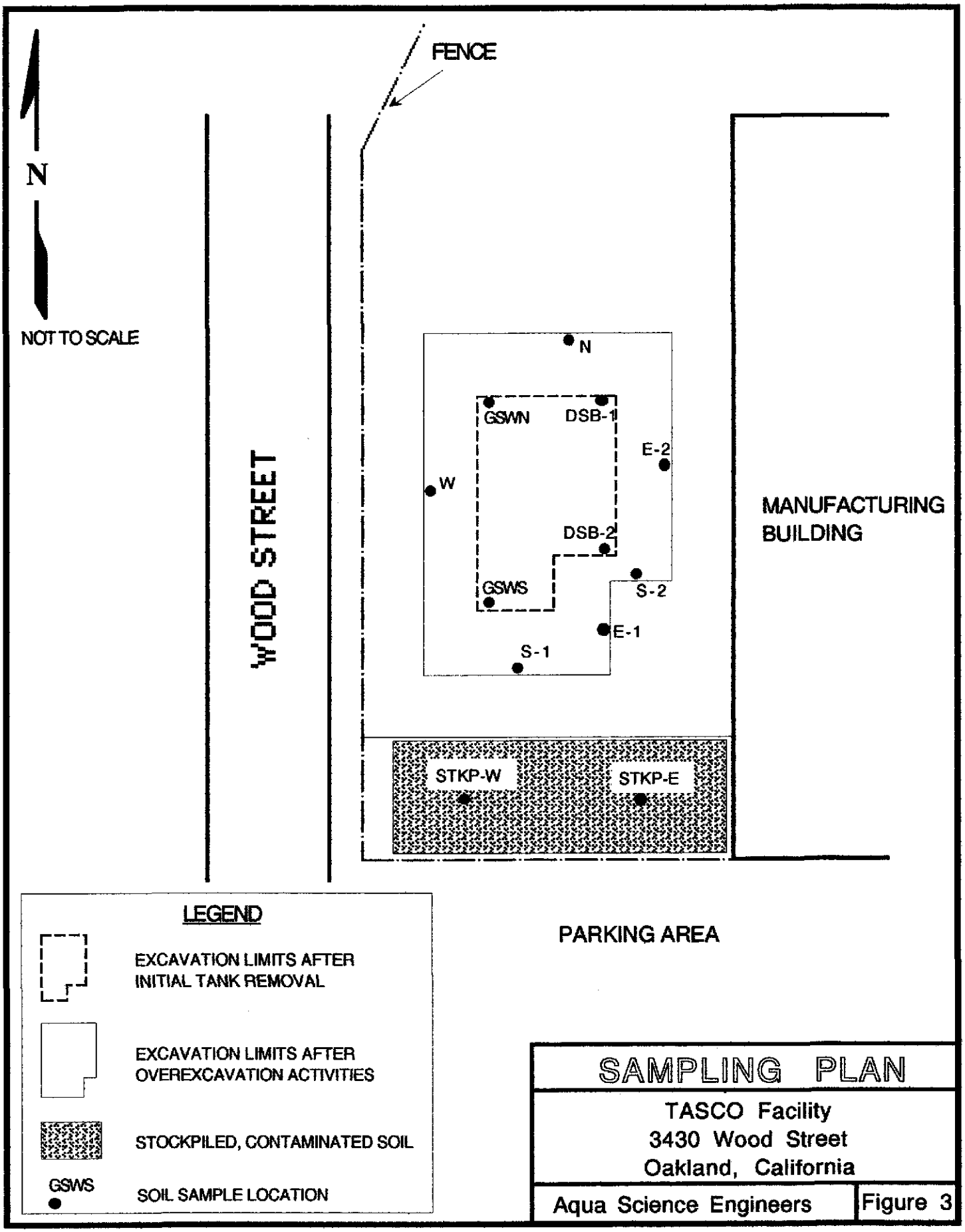
BASE: Oakland West 7.5 minute quadrangle topographic map, dated 1980, scale 1:24,000.



SITE PLAN

TASCO Facility
3430 Wood Street
Oakland, California

Aqua Science Engineers | Figure 2



SAMPLING PLAN

TASCO Facility
3430 Wood Street
Oakland, California

Aqua Science Engineers | Figure 3

APPENDIX A

LABORATORY ANALYSIS
and
CHAIN OF CUSTODY SHEETS

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

February 01, 1993 PEL # 9301042

AQUA SCIENCE ENGINEERS, INC.

Attn: David Allen
Re: Four soil samples for Gasoline/BTEX and Diesel analyses.

Project name: Tasco
Project location: 3430 Wood St., -Oakland
Project number: 2602

Date sampled: Jan 28, 1993 Date submitted: Jan 29, 1993
Date extracted: Jan 29-31, 1993 Date analyzed: Jan 29-31, 1993

RESULTS:

SAMPLE I.D.	Gasoline (mg/Kg)	Diesel (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)
GSWN	2.6	N.D.	5.0	8.4	10	25
GSWS	3.5	N.D.	7.1	10	14	32
DSB 1	49	N.D.	27	49	65	240
DSB 2	17	N.D.	18	26	37	130
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	101.8%	91.6%	98.3%	103.2%	94.6%	105.7%
Duplicate Spiked Recovery	97.6%	92.2%	90.4%	94.2%	89.5%	97.0%
Detection limit	1.0	1.0	5.0	5.0	5.0	5.0
Method of Analysis	5030 / 8015	3550 / 8015	8020	8020	8020	8020

David Duong
Laboratory Director

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

February 02, 1993 PEL # 9301042

AQUA SCIENCE ENGINEERS,INC.

Attn: David Allen
Re: Four soil samples for total Lead analysis.

Project name: Tasco
Project location: 3430 Wood St.,- Oakland
Project number: 2602

Date sampled: Jan 28, 1993 Date submitted: Jan 29, 1992
Date extracted: Feb 01-02, 1993 Date analyzed: Feb 01-02, 1993

RESULTS:

SAMPLE I.D.	Lead (mg/Kg)
GSWN	6.3
GSWS	10
DSB 1	10
DSB 2	8.9
Blank	N.D.
Detection limit	1.0
Method of Analysis	7420

David Duong
Laboratory Director

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

February 01, 1993

PEL # 9301045

AQUA SCIENCE ENGINEERS, INC.

Attn: Steve DeHope
Re: Eight soil samples for Gasoline/BTEX and Diesel analyses.

Project name: Tasco
Project location: 3430 Wood St., -Oakland
Project number: 2602

Date sampled: Jan 29, 1993
Date extracted: Jan 30-31, 1993

Date submitted: Jan 30, 1993
Date analyzed: Jan 30-31, 1993

RESULTS:

SAMPLE I.D.	Gasoline (mg/Kg)	Diesel (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)
E-1	19	N.D.	31	88	160	280
E-2	5.4	N.D.	5.5	15	21	61
N	3.3	N.D.	5.0	13	18	48
S-1	13	N.D.	9.1	22	37	89
S-2	10	N.D.	6.2	16	17	84
W	1.8	N.D.	N.D.	6.2	12	24
STKP-E*	510	28	180	250	480	1900
STKP-W*	280	N.D	90	160	320	990
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	101.8%	91.6%	98.3%	103.2%	94.6%	105.7%
Duplicate Spiked Recovery	97.6%	92.2%	90.4%	94.2%	89.5%	97.0%
Detection limit	1.0	1.0	5.0	5.0	5.0	5.0
Method of Analysis	5030 / 8015	3550 / 8015	8020	8020	8020	8020

* Composited soil samples.

David Duong
Laboratory Director

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

February 02, 1993 PEL # 9301045

AQUA SCIENCE ENGINEERS,INC.

Attn: Steve DeHope
Re: Eight soil samples for total Lead analysis.

Project name: Tasco
Project location: 3430 Wood St.,- Oakland
Project number: 2602

Date sampled: Jan 29, 1993 Date submitted: Jan 30, 1992
Date extracted: Feb 01-02, 1993 Date analyzed: Feb 01-02, 1993

RESULTS:

SAMPLE I.D.	Lead (mg/Kg)
E-1	15
E-2	14
N	15
S-1	10
S-2	9.8
W	14
STKP-E*	140
STKP-W*	75
Blank	N.D.
Detection limit	1.0
Method of Analysis	7420

* Composited soil samples.

David Duong
Laboratory Director

Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, #4,
San Ramon, CA 94583
(510) 820-9391 - FAX (510) 837-4853

Chain of

PEL # 9301045

INV # 23345

DATE 1-30-93 PAGE 1 OF 1

SAMPLERS (SIGNATURE) (PHONE NO.)

PROJECT NAME TASCo NO. 2602

ADDRESS 2430 Wood ST.

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:
Composite stockpile

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH: GASOLINE (EPA 5030/8015)	TPH: GASOLINE/BTEX (EPA 5030/8015-8020)	TPH: DIESEL (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/8020)	PURGABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NEUTRALS, ACIDS (EPA 625/8270)	OIL & GREASE (EPA 5520 B&F or B&F)	LUFT METALS (5) (EPA 6010+7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC CAM WET (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY	TL
STKP E	1-29		S	4		X	X											X
STKP W	1-29		S	4		X	X											X
S-1	1-29		S	1		X	X											X
S-2	1-29		S	1		X	X											X
E-1	1-29		S	1		X	X											X
E-2	1-29		S	1		X	X											X
N	1-29		S	1		X	X											X
W	1-29		S	1		X	X											X

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
(signature) (time)	(signature) (time)	(signature) (time)	(signature) 9:30 AM (time)	
Steve Deblope			DAVID DUONG 9/30/93	
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	
Company- ASE	Company-	Company-	Company- PEL	

Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, #4,
San Ramon, CA 94583
(510) 820-9391 - FAX (510) 837-4853

Chain of Cust

PEL # 930142V

INV # 23342

DATE 1/29/93 PAGE 1

SAMPLERS (SIGNATURE) D. Allen (PHONE NO.) 820-9391

PROJECT NAME TASCO NO. 26

ADDRESS 3430 WOOD ST. OAKLAND

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH- GASOLINE (EPA 5030/8015)	TPH- GASOLINE/BTEX (EPA 5030/8015-8020)	TPH- DIESEL (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/8020)	PURGABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NUETRALS/ ACIDS (EPA 625/8270)	OIL & GREASE (EPA 5520 E&F or B/F)	LUFT METALS (5) (EPA 6010+7000)	TITLE 22 (CAM 17)- (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CN; WET (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY	TOTAL LEAD	
GSB1WN	1/28	4pm	S	1		X	X											X	
GSB2WC	↓	↓	↓	↓		X	X											X	
DSB1						X	X											X	
DSB2						X	X											X	

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
D. Allen 3:15 am			3:15 am	
(signature) (time)	(signature) (time)	(signature) (time)	(signature) (time)	
DAVID ALLEN 1/29			DAVID DUONG 1/29	
(printed name) (date)	(printed name) (date)	(printed name) (date)	(printed name) (date)	
Company- ASE	Company-	Company-	Company- PEL	

P.04

FAX NO. 4089469663

PRIORITY LABS

MAR-23-93 TUE 16:41

APPENDIX B

HAZARDOUS WASTE MANIFESTS

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *Form designed for use on elite (12-pitch typewriter).*

See instructions on back of page 6. 80130

Department of Health Services
Toxic Substances Control Program
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
CAC000816008	68227		

GENERATOR

3. Generator's Name and Mailing Address: Thomas A. Short Co. 3430 Wood St Oakland CA 94608

4. Generator's Phone (510) 655-0376

A. State Manifest Document Number: 91688756

B. State Generator's ID:

5. Transporter 1 Company Name: Dexanna, Ltd.

6. US EPA ID Number: CAD982438566

C. State Transporter's ID: 308783

D. Transporter's Phone: (510) 687-1292

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address: Erickson, Inc. 255 Parr Blvd. Richmond, CA 94801

10. US EPA ID Number: CAD009466392

G. State Facility's ID: CAD009466392

H. Facility's Phone: (510) 235-1393

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Waste Empty Storage Tank NON-RCRA Hazardous Waste Solid	001	TP	01000	P	State 512 EPA/Other None
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above: One (1) Empty storage tank # 10536 has been inerted with 15 lbs. of dry ice per 1000 gallons of capacity.

K. Handling Codes for Wastes Listed Above: a. 01 b. c. d.

15. Special Handling Instructions and Additional Information: Keep away from sources of ignition. Always wear hardhats when working with UST's.

24 Hr. Contact: Steve Dettope

Telephone #: (510) 830-7126

16. GENERATOR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
STEVE Dettope (Agent for Generator)		01	12	93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
L.F. DeKalb	L.F. DeKalb	01	12	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
DAVID SATO	DAVID SATO	01	28	93

DO NOT WRITE BELOW THIS LINE.

DHS 8022A (12/90)

Write: DSDF SENDS THIS COPY TO DHS-AW within 30 DAYS

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

91688756

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *Form designed for use on elite (12-pitch typewriter).*

See Instructions on back of page 6. 8062561

Department of Health Services
Toxic Substances Control Program
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
C A C 0 0 0 8 6 0 0 0 8	6 8 2 3 7		

GENERATOR

3. Generator's Name and Mailing Address: Thomas A. Short Co.
3430 Wood St. - Oakland, California 94608
4. Generator's Phone (510) 655-9375

A. State Manifest Document Number: 91688766
B. State Generator's ID:

5. Transporter 1 Company Name: Dexanna, Ltd.
6. US EPA ID Number: C A D 9 8 2 4 3 8 5 6 6
C. State Transporter's ID: 308784
D. Transporter's Phone: (510) 687-1292

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address: Erickson Inc. 255 Parr Blvd. Richmond, California 94801
10. US EPA ID Number: C A D 0 0 9 4 6 6 3 9 2
G. State Facility's ID: 9466392
H. Facility's Phone: (510) 235-1393

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Waste Empty Storage Tank NON-RCRA Hazardous Waste Solid.	0 0 1	T P	0 1 / 0 0	P	State: 512 EPA/Other: None
b.					State: EPA/Other:
c.					State: EPA/Other:
d.					State: EPA/Other:

J. Additional Descriptions for Materials Listed Above: Qty. 1 Empty Storage Tank #10537. Tank has been inerted with 15 lbs. Dry Ice per 1000 gals. capacity.

K. Handling Codes for Wastes Listed Above: a. O b. c. d.

15. Special Handling Instructions and Additional Information
Keep away from sources of ignition. Always wear hardhats when working around U.S.T.'s. SITE LOCATION: 3430 Wood Street - Oakland, California
24 Hr. Contact Name: Steve DeHope & Phone # (510) 830-7126

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Agent For Generator STEVE DeHope		0 1	1 2	8 9 3

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
James R. Cox		0 1	1 2	8 9 3

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
DAVID SATO	DAVE SATO	0 1	1 2	8 9 3

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550

DHS 8022A (12/90)
EPA 8700—22

White: TSDF SENDS THIS COPY TO DHS WITHIN 30 DAYS
To: P.O. Box 3000, Sacramento, CA 95812

APPENDIX C

PERMITS

HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 510/271-4320

ACCEPTED

Underground Storage Tank Closure Permit Application
Alameda County Division of Hazardous Materials
80 Swan Way, Suite 200,
Oakland, CA 94621
Telephone: (510) 271-4320

These closure/removal plans have been received and found to be acceptable and essentially meet the requirements of State and Local Health Laws. Changes to your closure plans indicated by this Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for construction/destruction.

One copy of the accepted plans must be on the job and available to all contractors and craftsmen involved with the removal.

Any changes or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspections Department to determine if such changes meet the requirements of State and local laws.

Notify this Department at least 72 hours prior to the following required inspections: *

____ Removal of Tank(s) and Piping
____ Sampling
____ Final Inspection

Issuance of a) permit to operate, b) permanent site closure, is dependant on compliance with accepted plans and all applicable laws and regulations.

***THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS**

Contact Specialist:

1) SAMPLE REQUIRED UNDER DISPENSER.
2) STOCKPILE IF CONTAMINATED WILL BE HAULED OFF SITE.

Approved [illegible]

UNDERGROUND TANK CLOSURE PLAN

*** * * Complete according to attached instructions * * ***

1. Business Name Thomas A. Short Company (TASCO)

   Business Owner Thomas Le Flemme

2. Site Address 3430 Wood Street

   City Oakland Zip 94607 Phone (510) 655-9375

3. Mailing Address 3430 Wood Street

   City Oakland Zip 94607 Phone (510) 655-9375

4. Land Owner Thomas Le Flemme

   Address 3430 Wood Street City, State Oakland, CA Zip 94607

5. Generator name under which tank will be manifested Thomas Le Flemme, The Thomas A. Short Co.

   EPA I.D. No. under which tank will be manifested CAC000860008

rev 3/92

RECEIVED

JAN 2[illegible] 93

AQUA SCIENCE ENG.

Excavation Permit Granted _____ No. _____

CITY OF OAKLAND

Tank Permit

Permit to Excavate and Install, Repair, or Remove Inflammable Liquid Tanks. No. 9652

Oakland, California, January 27, 1993

PERMISSION IS HEREBY GRANTED TO ~~XXXX~~ remove ~~XXXX~~ Gasoline tank and excavate commencing _____ feet inside property line on the _____ side of _____ Street Avenue _____ feet _____ of _____ Street Avenue

House No. 3430 Wood Street _____ Street Avenue Present Storage _____

Owner Thomas A. LeFlemme Address 3430 Wood Street Phone 655-9375

Applicant Aqua Science Engineers Address 2411 Old Crow Canyon Rd. #4 San Ramon 94583 Phone 820-9391

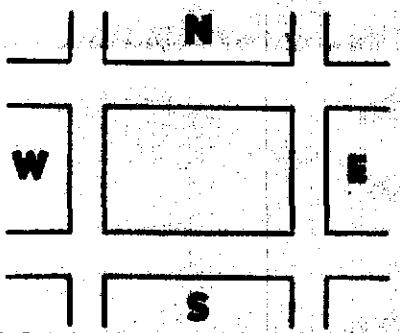
Dimensions of street (sidewalk) surface to be disturbed _____ X _____ Number of Tanks 1 / 1 Capacity 1,000 / 4,000 Gallons, each.

Remarks: _____

This Permit is granted in accordance with existing City Ordinances.
Owner hereby agrees to remove tanks on discontinuance of use or when notified by the City Authorities.
When installing, removing or repairing tanks, no open flame to be on or near premises.

Approved _____ Fire Marshal

Approved _____ Drainage Division Engineering Dept.



EXCAVATING PERMIT

Issued in accordance with Ord. No. 278 CMS, Sec. 6-2.04

_____ square feet of digging or removal granted.

The receipt of $_____ special deposit is hereby acknowledged.

GENERAL DEPOSIT.

BUREAU OF PERMITS AND LICENSES.

CERTIFICATE OF TANK AND EQUIPMENT INSPECTION

Inspected and passed on _____ 19____

By _____ Fire Marshal

Inspection Fee Paid . . . . . $ 120.00 ck#015334 rec#678310

Received by G. M. Johnson FIRE PREVENTION BUREAU

NOTICE

Before Covering Tanks, Above Certificate Must Be Signed.

When ready for Inspection notify Fire Prevention Bureau, 273-3851

THIS PERMIT MUST BE LEFT ON THE WORK AS AUTHORITY THEREFOR.

538.68 (6.67)

Permit Application and Job Notification Form

Construction Demolition Trenches Excavation Buildings Structures Falsework Scaffolding

State of California
Department of Industrial Relations
Division of Occupational Safety & Health

Concord District Office
Date: ____/____/____
PERMIT No. _____

Sections 6500, 6501 and 6502 of the California Labor Code require that certain activities which by their nature involve substantial risk of injury may not be performed without a permit issued by DOSH. The Labor Code requires that the applicant supply, and that the Division review, information necessary to evaluate the safety of the worksite subject to permit requirements. A permit will not be issued until evidence has been demonstrated that the place of employment will be safe and healthful.

"Applicant" refers to the employer applying for the Permit

Employer: Aqua Science Engineers, Inc.
Address: 2411 Old Crow Canyon Rd. #G
San Ramon, CA 94583
Phone: 510-820-9391

Project Safety Contact: DAVE ALLEN
Employer's Representative: STEVE DEHOPE
Title & Phone No: SUPERVISOR 510-820-9391
Employer's State Contractor's License No. 487000

Check Applicable Items:

"Applicant" refers to a knowledgeable person in a position of authority and responsibility for the activity to be covered by this permit.

Applicant is:
___ General Building Contractor
✓ General Engineering Contractor
___ Specialty Contractor
Specialty Contractor Type: HAZ
___ Other: _____

___ General Contractor Option
Initial this blank if applicant elects to assume responsibility for obtaining a single permit to cover one multi-employer project, e.g., a high-rise construction project. The duties of employers at the site to obey safety and health laws are not changed by this section. A list of employers on site will be attached by the Division to this application and the list will be updated as necessary.

Type of Permit Sought:

___ **Annual**
___ **Single Project**
✓ **Job Start Notification Only**
___ **Provisional Permit [PLAN CHECK ONLY]**

___ **Multiple Project.** (If Projects to be covered are similar in all important aspects; work is performed by the same employer; and information concerning each project covered is provided.)

For:
___ Construction of: ___ Building ___ Structure
___ Demolition of: ___ Building ___ Structure
___ Scaffolding and/or Falsework and/or Vertical Shoring
___ Tower Crane Erection
✓ Trench and/or Excavation

Underground Services Alert # _____

(DIGALERT 1-800-642-2444) Northern CA
(DIGALERT 1-800-422-4133) Southern CA

Any permit based on this application is issued with the understanding that the applicant has knowledge of occupational safety and health orders applicable to the projects(s) described in this application and attachments, and that the applicant and supervising personnel will take special care to insure compliance with safety orders reviewed with the applicant by the Division in the application process.

Issuance of the permit is also conditional upon the following:

1) Upon initiation of any new project not described in this application, the holder of an annual permit will provide the Division with a completed Project Description Form describing the new project prior to the start of work, preferably at least one week in advance of start-up date. A phone call may be used to meet the deadline but will not be considered valid notice unless followed in writing by mailing a completed Project Description Form.

2) The applicant has implemented a written accident prevention program and Code of Safe Practices which meet the requirements of 8 California Administrative Code, 1509.

3) The Division will be notified of significant changes in information provided with this application if such changes might affect the safety of the activity.

4) The applicant understands that under the permit program, DOSH schedules routine inspections by authorized personnel for the purpose of verifying that holders of permits are meeting their obligation to provide a safe work place for their employees. The Division reserves the right to revoke a permit if it is unable to promptly verify compliance with the terms and conditions of the permit and its issuance.

5) The applicant understands that failure to comply with any of the above listed conditions for obtaining a permit could result in denial, suspension or revocation of the permit. Employers may appeal these actions to the Director of the Department of Industrial Relations (California Labor Code, Section 6500 et. seq., and 8 California Administrative Code, Section 341).

Is the applicant conducting any activities to be covered by this permit application in partnership or joint venture with any other persons or corporations conducting activities requiring permits? Yes ___ No ___
If "yes" give details: _____

Have any permits for any project to be covered by the permit application previously been applied for or obtained? Yes ___ No ___ If "yes," when _____ from what district office _____

In whose name _____

Form Cal/OSHA S-691(Rev 4/92)

Permit Application and Job Notification Form (Continued)

JOB NOTIFICATION

Specific jobsite location 3430 WOOD STREET
OAKLAND CA 94607
Nearest major cross street 28th
City OAKLAND
County ALAMEDA
Name and title of jobsite supervisor STEVE DE HOPE
CONSTRUCTION SUPERVISOR

Field phone 510 - 409 - 3536
Office phone 510 - 820 - 9391
No. of employees 3
Starting date 1-26-93
Anticipated completion date 2-5-93
High Voltage Lines in Proximity: No ✓ Yes ___

TYPE OF JOB

INSTRUCTIONS: THE APPROPRIATE ITEM(S) must be completed and signed by a person knowledgeable about the project and/or jobsite to be covered by a permit. Please fill in or check off blanks where appropriate.

Construction of: Building___ Structure___ Height _____ Basement _____ No. Stories _____
Type: Steel Frame__ Tiered__ Concrete__ Tilt-up __ Wood Frame __ Liftslab __ Precast __ Slip Form __
Job Description:_____
[See 8CCR1709-30,38;Appendix, A Plate A-2-a&b]

Demolition of: Building ___ Structure ___ Height ___ No. of Stories ___
Steel Frame ___ Wood Frame ___ Concrete ___ Asbestos Involved: Yes ___ No ___
Method Used: Demolition Ball ___ Clam ___ Explosives ___ Loader/Tractors ___ Other_____
[See 8CCR1734-37]

Scaffolding-Falsework-Vertical Shoring: Maximum Height ___ Maximum Span ___ Material ___
Job Description:_____
(Metal > 125' or Wood > 60' requires design by California Civil Engineer, plans at site.) [See 8CCR1644(c)(7)]
Job Description:_____

Tower Crane Erection/Dismantling: Make and model_____
Capacity _____ Height _____ Date of Erection __/__/__ OverHead High Voltage? [Y/N]
Foundation and/or Support(s) for Crane Designed/Constructed by _____
Will crane be stepped or jumped? Yes ___ No ___ Estimated Date__/__/__ [See 8CCR4966]
Name of crane certifier_____
Other _____

Trench/Excavation: Dimensions: Depth 8' Width 12' Length 20' Utilities? [Y/N]
Soil Analysis will be done Y ✓ N ___ Slope Excavation 1 1/2 to 1 Y ___ N ✓
Name of Competent Person(s): _____
Protective System: Shoring ___ Sloping ✓ Trench Shield ___ Alternate _____
Job Description: UNDERGROUND STORAGE TANK REMOVAL

[Alternate Plan or excavation greater than 20 feet deep must be designed by Reg. Professional Engineer] [See 8CCR1540-47]

Fee_____
Paid_____
Approved_____
Conference_____
Other_____

I hereby certify that, to the best of my knowledge, the above information and assertions are true and correct and that I/the applicant have knowledge of and will comply with the foregoing.

Signature: David Allen
Title: Project Manager
Date: 1/18/93

Bryan

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET
SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

1/18/93

REGULATION 8, RULE 40
Aeration of Contaminated Soil and Removal of Underground Storage Tanks

NOTIFICATION FORM
✓ Removal or Replacement of Tanks
✓ Excavation of Contaminated Soil

SITE INFORMATION

SITE ADDRESS 3430 WOOD STREET
CITY, STATE OAKLAND CA ZIP 94607
OWNER NAME Thomas D. LaFlamme
SPECIFIC LOCATION OF PROJECT 3430 WOOD STREET

TANK REMOVAL
SCHEDULED STARTUP DATE 1-27-93
VAPORS REMOVED BY:
[✓] WATER WASH
[✓] VAPOR FREEING (CO^2)
[ ] VENTILATION

CONTAMINATED SOIL EXCAVATION
SCHEDULED STARTUP DATE 1-28-93
STOCKPILES WILL BE COVERED? YES X NO ___
ALTERNATIVE METHOD OF AERATION (DESCRIBE) NONE
(MAY REQUIRE PERMIT)

RECEIVED
JAN 27 '93
AQUA SCIENCE ENG.

CONTRACTOR INFORMATION

NAME Aqua Science Engineers, Inc. CONTACT Steve De Hope
ADDRESS 2411 Old Crow Canyon Road, #4 PHONE (510) 820-9391
CITY, STATE, ZIP San Ramon, CA 94583

CONSULTANT INFORMATION
(IF APPLICABLE)

NAME ___ CONTACT ___
ADDRESS ___ PHONE ( ) ___
CITY, STATE, ZIP ___

FOR OFFICE USE ONLY

DATE RECEIVED FAX 1/18/93 BY BLG (init.)
DATE POSTMARKED ___ BY ___ (init.)
CC: INSPECTOR NO. 504 DATE 1/22/93 BY BLG (init.)
UPDATE: CONTACT NAME ___ DATE ___ BY ___ (init.)
BAAQMD N # ___ DATA ENTRY 1/22/93

* See reverse for instructions

APPENDIX D

TANK RECYCLING CERTIFICATES

DAY OR NIGHT TELEPHONE (510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 15402

CUSTOMER DEXANNA

JOB NO. 80630

FOR: Erickson, Inc. TANK NO. 10536

LOCATION: Richmond DATE: 01/29/93 TIME: 11:02:04

TEST METHOD Visual Gastech/1314 SMPN LAST PRODUCT D

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 1000 Gallon Tank CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9%

LOWER EXPLOSIVE LIMIT LESS THAN 0.1%

"ERICKSON INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY."

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

REPRESENTATIVE K Aita TITLE INSPECTOR DS

DAY OR NIGHT TELEPHONE (510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 15403

CUSTOMER DEXANNA

JOB NO. 80630

FOR: Erickson, Inc. **TANK NO.** 10537 ✓

LOCATION: Richmond **DATE:** 01/29/93 **TIME:** 11:02:04

TEST METHOD Visual Gastech/1314 SMPN **LAST PRODUCT** LG

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 4000 Gallon Tank **CONDITION** SAFE FOR FIRE

REMARKS: OXYGEN 20.9%

LOWER EXPLOSIVE LIMIT LESS THAN 0.1%

"ERICKSON INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY."

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

REPRESENTATIVE _____ TITLE _____ INSPECTOR _____