ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#941

July 7, 1998

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

STID 1745

Mr. Michael Gillen
Peterson Tractor
955 Marina Boulevard
San Leandro, CA 94577

RE: Peterson Tractor, 955 Marina Boulevard, San Leandro

Dear Mr. Gillen:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]) of the California Health and Safety Code. The State Water Resources Control Board (SWRCB) has required since March 1, 1997 that this agency use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at this site.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- We have been advised that the monitoring wells associated with the investigation of the oil tank area (wells MW-1 and MW-2) have been properly destroyed under permit issued by Zone 7 water agency.

If you have any questions, please contact the undersigned at (510) 567-6783.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

Enclosures:
1. Case Closure Letter
2. Case Closure Summary

cc: Dick Pantages, Chief

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

July 7, 1998

STID 1745

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

REMEDIAL ACTION COMPLETION CERTIFICATION

Peterson Tractor
955 Marina Boulevard
San Leandro, CA 94577
Attn: Michael Gillen

RE: Peterson Tractor, 955 Marina Boulevard, San Leandro

Dear Mr. Gillen:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Section 2721(e) of Title 23 of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung
Director, Environmental Health Services

c: Dick Pantages, Chief, Env. Protection Division
Chuck Headlee, RWQCB
Dave Deaner, SWRCB (w/attachment)
Mike Bakaldin, San Leandro Fire Department (w/attachment)
SOS/files

- SIGNED COPY -

RB File #01-1163
SMS# 0150330

CALIFORNIA REGIONAL WATER

JUN 16 1998

QUALITY CONTROL BOARD

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date: May 21, 1996**

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Pkwy**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **D. Klettke** Title: **Haz. Materials Spec.**

II. CASE INFORMATION

Site facility name: **Peterson Tractor**
Site facility address: **955 Marina Blvd., San Leandro, CA 94677**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **1745**
URF filing date: **6/13/85** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Michael Gillen, c/o Peterson Tractor Company	P. O. Box 1998, 955 Marina Boulevard, San Leandro, CA 94577	(510)357-6200

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	4000	30 wt motor oil	removed	11/17/1988
2	4000	10 wt motor oil	removed	11/17/1988
3	1000	stoddard solvent	removed	11/17/1988
4	4000	waste oil	removed	11/17/1988
5	1000	diesel	removed	11/17/1988
6	1000	30 wt motor oil	removed	11/17/1988

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ENVIRONMENTAL PROTECTION

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **unknown**
Site characterization complete? **YES**
Date approved by oversight agency: **April 13, 1990**
Monitoring Wells installed? **YES** Number: **two (2)**
Proper screened interval? **YES, MW-1 screened 17.5-29.5' bgs; MW-2 screened 19.5-29.5' bgs.**
Highest GW depth below ground surface: **undetermined** Lowest depth: **undetermined, initial GW elevation at approximately 23' bg (July, 1989)**
Flow direction: **regional flow direction generally to the southwest**
Most sensitive current use: **commercial/industrial**
Are drinking water wells affected? **NO** Aquifer name: **San Leandro Cone**
Is surface water affected? **NO** Nearest affected SW name: **N/A**
Off-site beneficial use impacts (addresses/locations): **N/A**
Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
1131 Harbor Bay Pkwy
Alameda, CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	3-4000gal and 3-1000gal	disposed/American Metal Recycling Ontario,CA	12/88
Piping	UNK		
Free Product	NA		
Soil	80 cubic yards	disposal/ BFI Vasco Rd. LF Livermore, CA	10/9/96
Groundwater	NA		

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before[1]	After[2]	Before[3]	After
TPH (Gas)	810	<0.5	NA	NA
TPH (Diesel)	8700	<10	<50.0	NA
Benzene	<1	<0.005	<0.3	0.6
Toluene	5.4	<0.005	<0.3	<0.5
Ethyl benzene	1.4	<0.005	<0.3	<0.5
Xylenes	15	<0.005	<0.3	<0.5
Oil & Grease	35,000[4]	<30	8.0	NA
Heavy metals[5]				
HVOCs[6]				

NA=Not Analyzed

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[1]"Before soil results were obtained from samples collected during over-excavation activities conducted on 5/11/90. TPHg, benzene, ethyl benzene and total xylene concentrations were detected in soil sample SW-3. Toluene and TPHd concentrations were detected in soil sample B-1. (See Table 2). The soil sample collected, at a depth seven (7) feet below grade (bg), at the time of initial removal of the virgin 30-weight motor oil (Tank # 6) was analyzed to contain 840 ppm-TPHd. However, it appears that no BTEX or O&G analyses were run on the soil sample collected from beneath Tank # 6.

[2]"After" soil results were obtained from soil samples CS-A-22 and CS-B-22, collected on 10/10/91 at a depth of 21.5 to 22 feet bg.

[3]"Before" water results were obtained from the groundwater sample collected from monitoring well MW-1 on 7/26/89, with the exception of 8.0 ppm-O&G, which was obtained from monitoring well MW-2 on 11/3/89.

[4]"Before" soil O&G results were obtained from the sample collected on 10/17/89 from the south end of the virgin 30-weight engine oil excavation.

[5]Heavy metal soil analyses are summarized in Tables 3. Heavy metal groundwater analyses are summarized in Table 7.

[6]Tetrachloroethene was detected in soil sample SW-2, collected on 5/11/90, at a concentration of 0.6 ppb. Results of HVOC groundwater analyses are summarized in Table 6. The concentrations of HVOCs detected in the groundwater samples collected from monitoring wells MW-1 and MW-2 are consistent with the concentrations documented in the San Leandro Plume Studies (Woodward-Clyde Consultants-December 1993).

Comments (Depth of Remediation, etc.):

On November 17, 1988, six USTs which previously contained petroleum hydrocarbons were excavated by Placer Tractor Service and transported by Rodger Thomas Transport to American Metals Recycling in Ontario, CA. Analyses of soil samples taken from five of the tank excavations revealed no detectable amounts of TPHd, BTEX and O & G; however, TPHd concentrations of 840 ppm were detected in the sixth tank excavation, which previously held a tank containing virgin 30 wt engine oil product. When this tank containing virgin motor oil was removed, the tank did not appear to be leaking, and the source of this contamination was not known. In an investigation of this situation by Peterson Tractor, **it was discovered that in 1968 a waste oil tank was removed from this same location**. At the time of this removal it was noted that the tank, which was only about 2 years old, was leaking from a crack. It appears that it was this leak which is the source of the observed contamination, however, in this site summary, it will be referred to as the virgin 30 weight (wt) motor oil UST (Tank #6).

In December 1988, Peterson Tractor removed an additional two (2) feet from the bottom of the virgin 30 wt motor oil UST excavation (Tank #6). Two soil samples (# 1 and # 2) collected from the sidewall and bottom of the virgin 30 wt motor oil UST excavation were analyzed and found to contain total petroleum hydrocarbons as diesel (TPHd) at concentrations of 450 ppm and 710 ppm, respectively. No BTEX was found in soil samples # 1 or # 2 at their detection limits of 2 ppm, 2 ppm, 3 ppm and 2 ppm, respectively. However, the laboratory (Trace Analysis Laboratory, Inc.) reports that the chromatograms for these soil samples showed high levels of other aromatic hydrocarbons which resulted in these high detection limits.

Ensco Environmental Services (EES) drilled three exploratory borings (B-1, B-2 and B-3) at the site on July 18 and 19, 1989 and the fourth exploratory boring (B-4) on October 17, 1989. EES installed groundwater monitoring wells MW-1 and MW-2 in exploratory borings B-3 and B-4, respectively, at the locations shown in Figure 2. Borings were advanced to a depth of approximately 20' below grade (bg) and soil samples were collected at five (5) foot intervals. In addition, EES collected two soil samples at each end of the former virgin 30 wt motor oil UST excavation using a hand auger at a depth of approximately 2 to 3 feet below the bottom of the excavation. The two samples taken from the north and south ends of the former virgin 30 wt motor oil UST excavation contained O & G concentrations of 14,000 ppm and 35,000 ppm respectively. Laboratory analyses of soil and groundwater samples collected from the four borings are summarized in Table 1.

A general overview of the various materials encountered in the exploratory borings include silty clays, silty sands, and sandy silts to depths ranging from 17 to 20 feet bg. Below this, a layer of silty clay approximately 2 to 3 feet thick was observed. Water was first encountered at a depth of approximately 23 feet bg, corresponding with the silty clay layer, and is considered to be the first saturated zone. Results of laboratory analysis from soil and groundwater samples collected during the SWI are summarized in Table 1.

On May 11, 1990, the sidewalls and base of the former virgin 30 wt motor oil UST excavation were extended and four soil samples (SW-1, SW-2, SW-3 and SW-4) were collected from the sidewalls at a depth of 5-6' bg (3-4 feet above the bottom of the excavation). The sidewalls were approximately excavated an additional 2 feet and the bottom excavated down approximately five (5) feet. Two bottom soil samples (B-1 and B-2) were collected at the base of the excavation at a depth of approximately 9-10' bg (See Figure 3). Results of laboratory analyses of the soil samples collected from the sidewalls and bottom of the over-excavated pit are summarized in Tables 2, 3 and 4.

In July 1991 additional soil was over excavated in and around the former virgin 30 wt motor oil UST excavation. The southwestern and southeastern walls of this pit were excavated horizontally an additional 5 to 6 feet, and the bottom of the excavation pit was deepened about one foot. The final dimensions of the pit were approximately 16 feet long by 14.5 feet wide by 15 feet deep. Three soil samples taken from the sidewalls (PW-1 , PW-2 and PW-3) and one soil sample taken from the bottom (PT-P Bottom) of the former virgin 30 wt motor oil UST excavation. The laboratory analyses did not detect any TPHg, TPHd or BTEX in any of the samples collected, however 40 ppm of total O & G (TOG) were detected in sample PT-P Bottom (See Table 5).

In August 1991 additional soil was removed from the over-excavation of the former virgin 30 wt motor oil UST pit, resulting in the deepening of the excavation pit to approximately 17 feet below grade (bg). Four soil samples (TEB-1 through TEB-4) taken from the bottom of the excavation (See Figure 4). Sample TEB-3 was analyzed and found to contain TPHd at a concentration of 6,000 ppm and TOG at a concentration of 4900 ppm. All other samples were nondetectable for all target compounds.

In September 1991 four additional samples (S1, S2, S-3 and S-4) were collected from the bottom of the former virgin 30 wt motor oil UST excavation at a depth of 17 to 18 feet bg (See Figure 4). Sample S-1 was analyzed and found to contain TPHg at a concentration of 1.2 ppm, TPHd at 31 ppm and TOG at 310 ppm.

In October 1991 additional soil was excavated in the southern part of the pit, next to the locations of samples S1, S2, TEB-3 and PT-P Bottom (See Figure 4). The bottom of this part of the former virgin 30 wt motor oil UST excavation was deepened to approximately 22 feet and two soil samples, designated CS-A-22 and CS-B-22 were collected. These samples were analyzed and found to contain nondetectable concentrations of TPHg, TPHd, BTEX and TOG. Results of laboratory analyses conducted from August through October 1991 are summarized in Table 5.

No groundwater was reported as being present in the waste oil tank pit during any of the over-excavation activities.

See Section VII, Additional Comments, etc...

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? **YES**
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? **YES**
Does corrective action protect public health for current land use? **YES**
Site management requirements: **None**
Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: **YES , MW-2 was destroyed on 7/24/91**
Number Decommissioned: **one (1)** Number Retained:
List enforcement actions taken: **None**
List enforcement actions rescinded: **None**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Thomas Peacock Title: Supervising Hazardous Materials Specialist

Signature: Thomas Peacock Date: 6-8-98

Reviewed by

Name: **Scott Seery** Title: **Hazardous Materials Specialist**

Signature: Date: 6/5/98

Name: **Barney Chan** Title: **Hazardous Materials Specialist**

Signature: Barney Chan Date: 6/8/98

VI. RWQCB NOTIFICATION

Date Submitted to RB: 6-10-98 RB Response: approved

RWQCB Staff Name: Chuck Headlee Title: Eng. Geologist

Signature: Chuck Headlee Date: 6/15/98

VII. ADDITIONAL COMMENTS, DATA, ETC.

As previously stated, during July and October 1989, EES performed a soil and water investigation (SWI), borings B-3 and B-4 were subsequently converted to groundwater monitoring wells MW-1 and MW-2, respectively. Depth to groundwater in monitoring wells MW-1 and MW-2 was measured at approximately 23 feet below grade, during initial installation of the wells in July and October 1988. MW-2 was considered to be in the "inferred" down gradient direction from the former virgin 30 wt motor oil UST excavation. EES "verified" the groundwater flow direction by reviewing reports from other investigations performed near the site (within 1/4 mile). These reports, which were obtained through the RWQCB, stated a groundwater flow direction of S45W. Century West Engineering had reportedly performed a previous groundwater investigation for Peterson Tractor. This report stated a similar groundwater flow direction of S46 W.

Initial laboratory analysis of the groundwater sample taken from MW-1 showed nondetectable concentrations of TPHd and BTEX. The groundwater sample taken on November 3, 1989 from MW-2 was analyzed for oil & grease (O & G) only, and was detected at a concentration of 8.0 ppm (See Table 1).

On July 24, 1991 RESNA destroyed monitoring well MW-2 under Alameda County Flood Control and Water Conservation District's Permit Number 91400. Apparently, this was done to facilitate the removal of additional soils in the vicinity of the former virgin 30 wt motor oil UST excavation.

Confirmation samples collected for laboratory analysis at the final sidewall and bottom limits of the former virgin 30 wt motor oil UST excavation, were reported to contain non-detectable levels of petroleum hydrocarbons. RESNA stated that no further excavation at the site was required because all soil affected by the release of petroleum hydrocarbons form the subject waste oil tank has apparently been removed.

As documented in Exceltech's April 1991 "November 1990 and February 1991 Quarterly Groundwater Monitoring Report" monitoring wells MW-1 and MW-2 have been analyzed as non-detectable for TPHg, TPHd, TOG and BTEX for four consecutive sampling events. Groundwater monitoring wells MW-1 and MW-2 were sampled in May, August and November 1990 and March 1991 (See Table 6).

Groundwater samples collected on May 29, 1990 from monitoring wells MW-1 and MW-2 detected carbon tetrachloride (3.0 ug/l and 1.5 ug/l, respectively) and tetrachloroethene (6.1 ug/l and 3.8 ug/l, respectively). Halogenated volatile organic compounds (HVOC's) have consistently been found in groundwater samples from monitoring wells MW-1 and MW-2. These concentrations are typical for concentrations of HVOC's found in the shallow groundwater aquifer system associated with the San Leandro Cone, and as documented by Woodward-Clyde Consultants (WCC) in the San Leandro Plume Studies (December 1993).

This site qualifies for case closure as a "Low Risk Soils Case" for the following reasons:

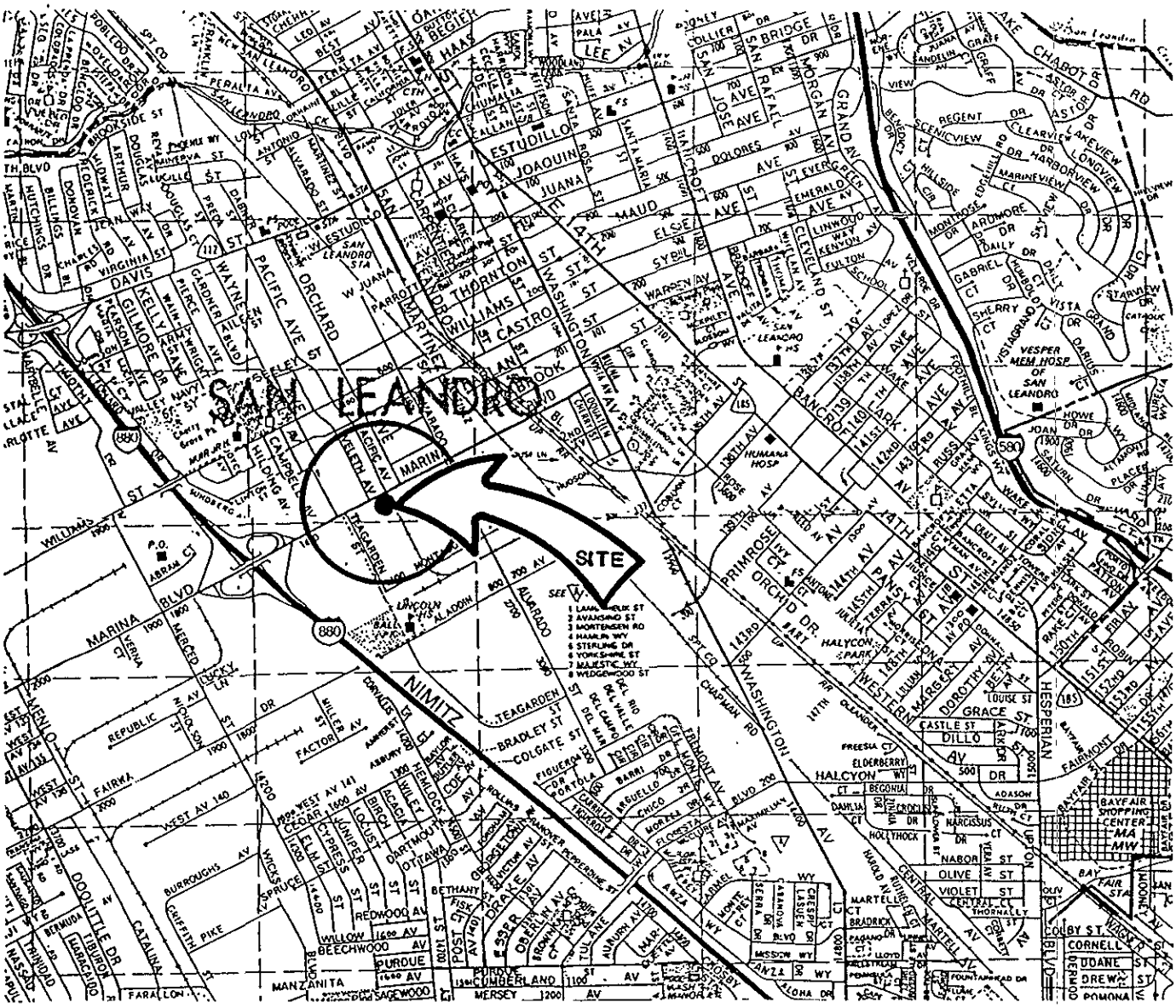
a) The source has been sufficiently removed or has been remediated. *The source has been adequately removed as documented by final over-excavation soil samples CS-A-22 and CS-B-22 (See Table 5).*

b) The site has been adequately characterized. *Although only two groundwater monitoring wells are used to characterized this site, regional flow direction has been confirmed by previous studies performed by Century West Engineering which is in concurrence with the regional groundwater flow direction.*

c) Little or no groundwater impact currently exists and no contaminants are found at levels above established MCLs or other applicable water quality objectives. *Except for the concentrations of chromium detected in groundwater monitoring wells MW-1 and MW-2 during the 5/29/90 and 11/6/90 sampling events (See Table 7), no MCLs have been exceeded. It should also be noted that these groundwater samples were not filtered prior to analysis, and may not be representative of true aquifer conditions.*

d) No water walls, deeper drinking water wells, surface water or other sensitive receptors are likely to be impacted. *No detectable concentrations of petroleum hydrocarbons have been detected in groundwater monitoring wells MW-1 and MW-2, with the exception of 8 mg/L-O&G detected in the groundwater sample collected from MW-2 on 11/3/89.*

e) The site presents no significant risk to human health or the environment. *No concentrations of groundwater contaminants exceed Primary Drinking Water MCLs. The shallow aquifer is not a current source of drinking water. The contamination associated with the waste oil UST appears to have been removed and should not pose a risk to human health or the environment.*



LEGEND

SITE LOCATION

N

0 1

SCALE IN MILES

BASE: THOMAS BROS. GUIDE, 1988. ALAMEDA CO.

ensco environmental services, inc.

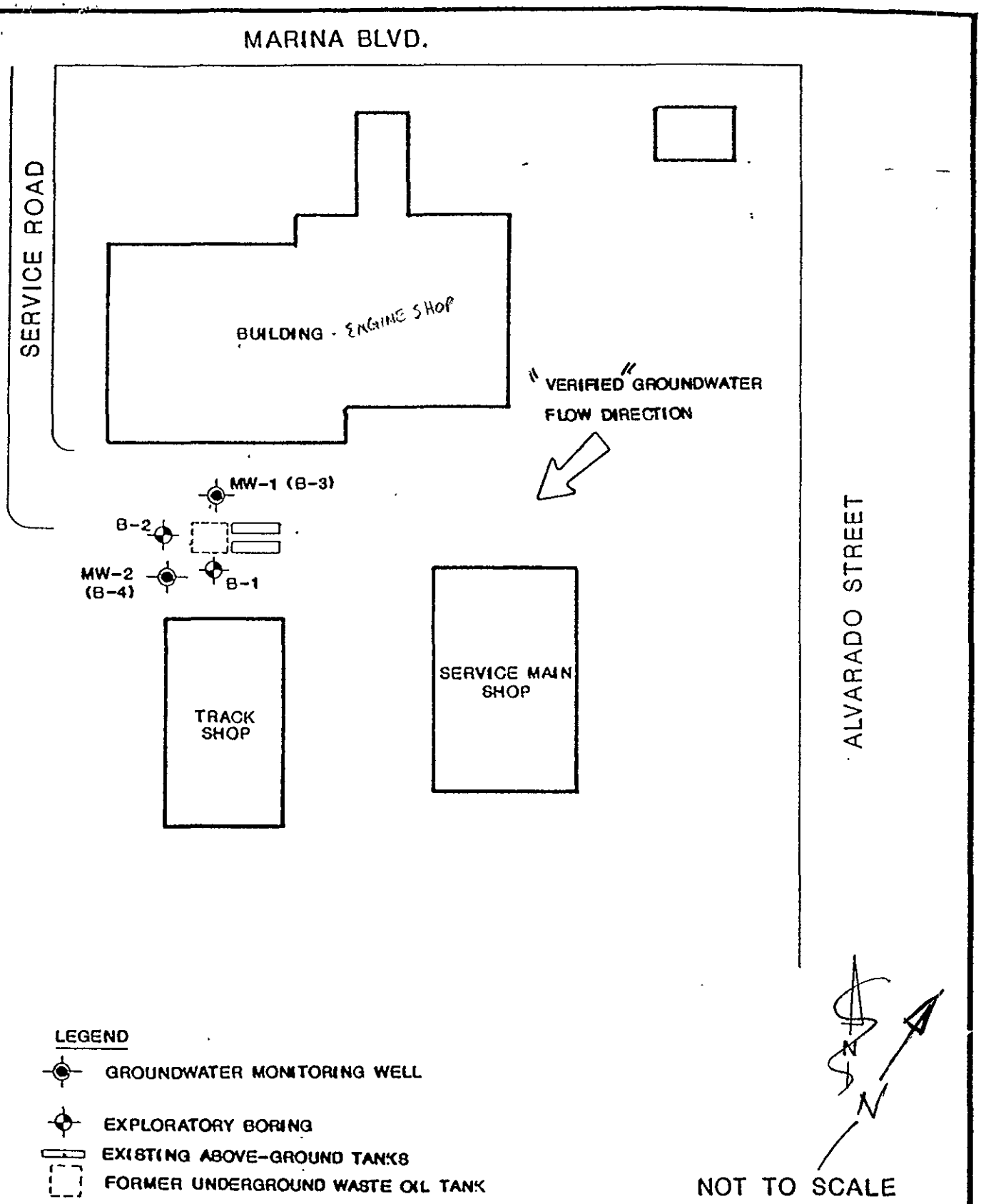
SITE LOCATION MAP

PETERSON TRACTOR

955 MARINA BLVD.

SAN LEANDRO, CALIFORNIA

REVIEWED BY:	APPROVED BY:
CK	MHB
JOB #: 1724G	DRAWN BY: J.C.
DATE: 8-16-89	DRAWING #: FIG. 1



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nvironmental
ervices, Inc.

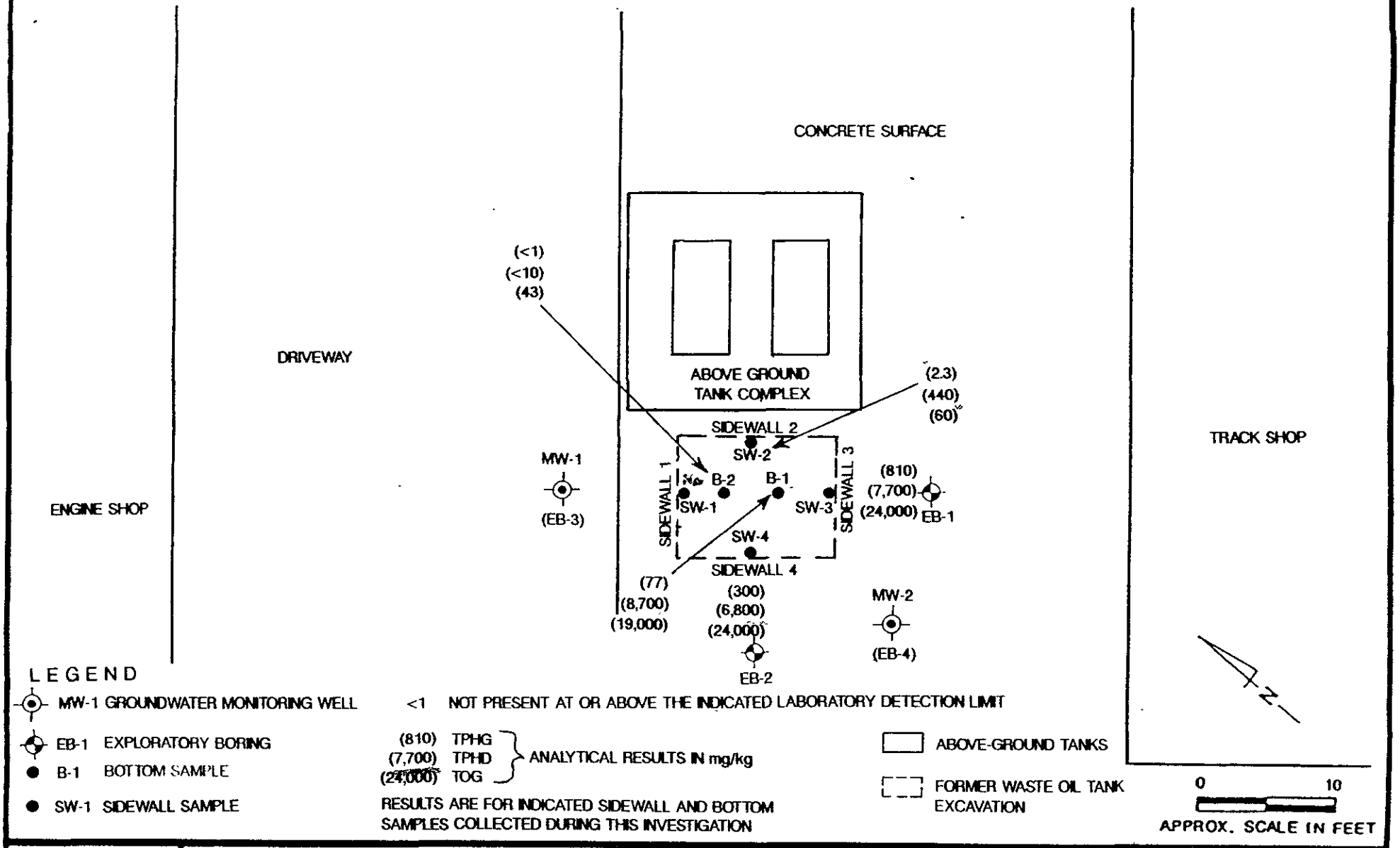
SITE PLAN

PETERSON TRACTOR

955 MARINA BLVD.

SAN LEANDRO, CALIFORNIA

REVIEWED BY:	APPROVED BY:
JOB #: 1724G	DRAWN BY: J.C.
DATE: 8-16-89	DRAWING #: FIG. 2



EXCELTECH

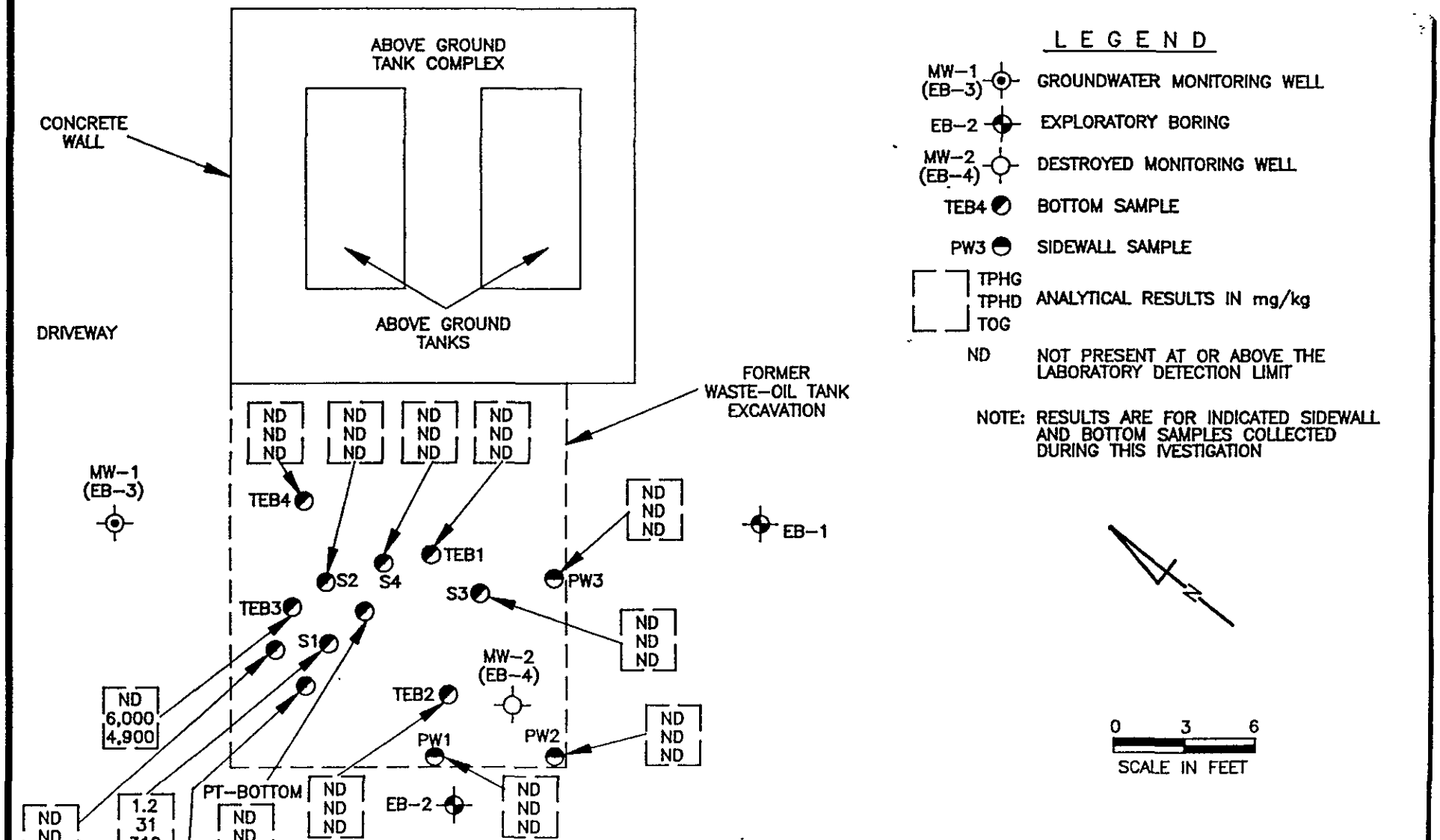
OIL TANK EXCAVATION AREA

PETERSON TRACTOR COMPANY

955 MARINA BLVD.

SAN LEANDRO, CALIFORNIA

REVIEWED BY:	APPROVED BY:
JOB # 330010-31	DRAWN BY: J.D.S.
DATE: 8/13/90	DRAWING #. FIG. 3



REVIEWED BY:

APPROVED BY:

SOIL SAMPLE LOCATIONS IN EXCAVATION AREA

PETERSON TRACTOR COMPANY

955 MARINA BOULEVARD

SAN LEANDRO, CALIFORNIA

RESNA

JOB #: 330010-31

DRAWN BY: E.C.

DATE: 11/11/91

DRAWING #: FIG. 4

Soil Analyses Data

Sample Number	Sample Depth (ft.)	Date Sampled	TPHG (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl Benzene (ppm)	Xylenes (ppm)	TPHD (ppm)	O&G (ppm)
B-1-1	5	7/18/89	1.6	<0.05	<0.1	<0.1	<0.1	8.0	NA
B-1-2	10	7/18/89	<1.0	<0.05	<0.1	<0.1	<0.1	<1.0	NA
B-1-3	15	7/18/89	<1.0	<0.05	<0.1	<0.1	<0.1	<1.0	NA
B-1-4	20	7/18/89	<1.0	<0.05	<0.1	<0.1	<0.1	<1.0	NA
B-2-1	5	7/18/89	<1.0	<0.05	<0.1	<0.1	<0.1	<1.0	NA
B-2-2	10	7/18/89	3.5	<0.05	<0.1	<0.1	<0.1	<1.0	NA
B-2-3	15	7/18/89	<1.0	<0.05	<0.1	<0.1	<0.1	<1.0	NA
B-2-4	20	7/18/89	2.0	<0.05	<0.1	<0.1	<0.1	<1.0	NA
MW-1-1	5	7/18/89	<1.0	<0.05	<0.1	<0.1	<0.1	<1.0	NA
MW-1-2	10	7/18/89	<1.0	<0.05	<0.1	<0.1	<0.1	<1.0	NA
MW-1-3	15	7/18/89	<1.0	<0.05	<0.1	<0.1	<0.1	1.6	NA
MW-1-4	20	7/18/89	<1.0	<0.05	<0.1	<0.1	<0.1	2.4	NA
MW-2-1	5	10/17/89	NA	NA	NA	NA	NA	NA	<30.0
MW-2-2	10	10/17/89	NA	NA	NA	NA	NA	NA	<30.0
MW-2-3	15	10/17/89	NA	NA	NA	NA	NA	NA	<30.0
MW-2-4	20	10/17/89	NA	NA	NA	NA	NA	NA	<30.0
HB-2-1	2	10/17/89	NA	NA	NA	NA	NA	NA	35,000
HB-2-1	3	10/17/89	NA	NA	NA	NA	NA	NA	14,000

Groundwater Analyses Data

Sample Number	Date	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Xylenes (ppb)	TPHD (ppb)	O&G (ppm)*
MW-1	7/26/89	<0.3	<0.3	<0.3	<0.3	<50.0	NA
MW-2	11/3/89	NA	NA	NA	NA	NA	8.0

TPHG = Total petroleum hydrocarbon as gasoline
TPHD = Total petroleum hydrocarbon as diesel
ppb = Parts per billion
O&G = Oil and grease
NA = Not analyzed
<0.3 = Not present above stated detection limit

*Note: O&G reported in parts per million (ppm).

TABLE 1

TABLE 2
SUMMARY OF SOIL ANALYSES DATA

Sample Number	Date Sampled	TPHG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)	TPHD (mg/kg)	TOG (mg/kg)	HVO (ug/kg)
SW-1	5/11/90	<1	<0.005	<0.005	<0.005	<0.005	<10	<30	N D
SW-2	5/11/90	2.3	<0.005	<0.005	<0.005	0.005	440	60	0.6 (a)
SW-3	5/11/90	810	<1	<1	1.4	15	7,700	24,000	N D
SW-4	5/11/90	300	<0.5	<0.5	<0.5	2.8	6,800	24,000	N D
B-1	5/11/90	77	<0.2	5.4	<0.2	0.88	8,700	19,000	N D
B-2	5/11/90	<1	<0.005	<0.005	<0.005	<0.005	<10	43	N D

LEGEND

B-1:	Bottom sample
HVO:	Halogenated volitile organics
mg/kg:	Milligrams per kilogram
SW-1:	Sidewall sample
TOG:	Total oil and grease
TPHD:	Total petroeum hydrocarbons as diesel
TPHG:	Total petroeum hydrocarbons as gasoline
ug/kg:	Micrograms per kilogram
(a):	Tetrachloroethene
ND or <0.005:	Not present at or above the indicated laboratory detection limit(s)

TABLE 3
SUMMARY OF SOIL ANALYSES DATA
METALS

METAL	DATE SAMPLED	TTLC (mg/kg)	SW-1 (mg/kg)	SW-2 (mg/kg)	SW-3 (mg/kg)	SW-4 (mg/kg)	B-1 (mg/kg)	B-2 (mg/kg)
Cd	5/11/90	100 mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cr	5/11/90	500 mg/kg	27.0	26.0	37.2	34.8	34.8	36.5
Pb	5/11/90	1000 mg/kg (a)	4.1	3.8	22.2	12.9	36.2	5.2
Zn	5/11/90	5000 mg/kg	27.8	30.4	35.5	31.5	38.9	45.2

LEGEND

B-1:	Bottom sample	SW-1:	Sidewall sample
Cd:	Cadmium	TTLC	Total Threashold Limit Concentration
Cr:	Total chromium	Zn:	Zinc
mg/kg:	Milligrams per kilogram	<0.5:	Not present at or above the indicated laboratory detection limit
Pb:	Lead (inorganic and organic)	(a):	TTLC for inorganic lead

NOTE: Anametrix ran a duplicate sample for metals on SW-3 for quality control purposes. For results of this duplicate run, see the laboratory report for soils, page 7 in Appendix B.

TABLE 4
SUMMARY OF GROUNDWATER ANALYSES DATA
METALS

METAL	DATE SAMPLED	PRIMARY MCL (mg/l)	MW-1 (mg/l)	MW-2 (mg/l)
Cd	5/29/90	0.0100	<0.01	<0.01
Cr	5/29/90	0.0500	0.66	0.40
Pb	5/29/90	0.0500	0.04	0.04
Zn	5/29/90	None Listed	0.89	0.55

LEGEND

Cd:	Cadmium	Pb:	Lead (inorganic and organic)
Cr:	Total Chromium	Zn:	Zinc
MCL:	Maximum Contaminant Level	<0.5:	Not present at or above the indicated laboratory detection limit
mg/l:	Milligrams per liter	(a):	MCL for inorganic lead
MW-1:	Monitoring well sample		

TABLE 5

SUMMARY OF SOIL ANALYSES DATA

Sample Number	Date Sampled	TPHG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)	TPHD (mg/kg)	TOG (mg/kg)	Approximate Depth (ft)
PW-1	7/31/91	ND	ND	ND	ND	ND	ND	ND	8
PW-2	7/31/91	ND	ND	ND	ND	ND	ND	ND	8
PW-3	7/31/91	ND	ND	ND	ND	ND	ND	ND	10
PT-P Bottom	7/31/91	ND	ND	ND	ND	ND	ND	40	13
TEB-1	8/29/91	ND	ND	ND	ND	ND	ND	ND	15 to 17
TEB-2	8/29/91	ND	ND	ND	ND	ND	ND	ND	15 to 17
TEB-3	8/29/91	ND	ND	ND	ND	ND	6,000	4,900	15 to 17
TEB-4	8/29/91	ND	ND	ND	ND	ND	ND	ND	15 to 17
S-1	9/18/91	1.2	ND	ND	ND	ND	31	310	17 to 18
S-2	9/18/91	ND	ND	ND	ND	ND	ND	ND	17 to 18
S-3	9/18/91	ND	ND	ND	ND	ND	ND	ND	17 to 18
S-4	9/18/91	ND	ND	ND	ND	ND	ND	ND	17 to 18
CS-A-22	10/10/91	ND	ND	ND	ND	ND	ND	ND	21.5 to 22
CS-B-22	10/10/91	ND	ND	ND	ND	ND	ND	ND	21.5 to 22

Legend

mg/kg	Milligrams per kilogram
ft	Feet
TOG	Total oil and grease
TPHD	Total petroleum hydrocarbons as diesel
TPHG	Total petroleum hydrocarbons as gasoline
ND	Not present at or above laboratory detection limit

Exceltech, Inc.
Project No. 3-30010-32

Peterson Tractor
April 30 1991

TABLE 6
SUMMARY OF GROUNDWATER ANALYSES DATA

Sample Number	Date Sampled	TPHG (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl Benzene (µg/l)	Total Xylenes (µg/l)	TPHD (µg/l)	TOG (mg/l)	HVO (A) (µg/l)	HVO (B) (µg/l)
MW-1	7/26/89	NA	<0.3	<0.3	<0.3	<0.3	<50	NA	NA	NA
	5/29/90	<50	<0.5	<0.5	<0.5	<0.5	<50	<5	3.0	6.1
	8/29/90	<50	<0.5	<0.5	<0.5	<0.5	<50	<5	3.0	6.5
	11/6/90	<50	<0.5	<0.5	<0.5	<0.5	<50	<5	3.5	8.0
	3/1/91	<50	<0.5	<0.5	<0.5	<0.5	<50	<5	3.3	6.7
MW-2	11/3/89	NA	NA	NA	NA	NA	NA	8	NA	NA
	5/29/90	<50	<0.5	<0.5	<0.5	<0.5	<50	<5	1.5	3.8
	8/29/90	<50	<0.5	<0.5	<0.5	<0.5	<50	<5	1.6	4.1
	11/6/90	<50	<0.5	<0.5	<0.5	<0.5	<50	<5	1.8	4.8
	3/1/91	<50	<0.5	<0.5	<0.5	<0.5	<50	<5	1.7	3.9

LEGEND

(A)	Carbon Tetrachloride
(B)	Tetrachloroethene
HVO	Halogenated volatile organics
(mg/l)	Milligrams per liter (parts per million)
NA	Not analyzed
TOG	Total oil and grease
TPHD	Total petroleum hydrocarbons as diesel
TPHG	Total petroleum hydrocarbons as gasoline
µg/l	Micrograms per liter (parts per billion)
<50	Not detected at or above indicated laboratory detection limit

TABLE 7

SUMMARY OF GROUNDWATER ANALYSES DATA TRACE ELEMENTS

Metal	Date Sampled	MW-1 (mg/l)	MW-2 (mg/l)
Cd	5/29/90	<0.01	<0.01
	11/6/90	<0.005	<0.005
	3/1/91	<0.005*	<0.005*
Cr	5/29/90	0.66	0.40
	11/6/90	0.37	0.014
	3/1/91	0.042*	0.035*
Pb	5/29/90	0.04	0.04
	11/6/90	0.096	0.047
	3/1/91	<0.04*	<0.04*
Zn	5/29/90	0.89	0.55
	11/6/90	0.56	0.043
	3/1/91	0.048*	0.052*

Cd	Cadmium	Pb	Lead
Cr	Chromium	Zn	Zinc
mg/l	Milligrams per liter	<0.5	Not present at or above the MW-1 indicated laboratory detection limit
	Monitoring well sample		

***NOTE: Filtered groundwater samples.**

EXPLORATORY BORING LOG

ensco environmental services, inc.

PROJECT NAME: Peterson Tractor
955 Marina Blvd.
San Leandro, CA

BORING NO. MW-1 (B-3)

DATE DRILLED: 7/18/89

PROJECT NUMBER: 1724G

LOGGED BY: C.V.

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm
				Concrete, 10 inches		
6	B-3-1	10	SM	SILTY SAND, very dark gray (5YR 3/1), mottled with reddish brown (5YR 4/4), 15-20% silt, very fine to medium sand, medium dense, damp		
11	B-3-2	10	ML	SANDY SILT, dark brown (10YR 3/3), 35-40% very fine sand, stiff, moist		
16	B-3-3	13		same as above		
			SW	SAND, brown (10YR 4/3), very fine to coarse, loose, moist to wet		
21	B-3-4	8	CL	SILTY CLAY, brown (10YR 4/3), medium plasticity, firm, moist to wet		

REVIEWED BY R.G./C.E.G.

EXPLORATORY BORING LOG

ensco environmental services, inc.

PROJECT NAME: Peterson Tractor
955 Marina Blvd.
San Leandro, CA

BORING NO. MW-1 (B-3)

DATE DRILLED: 7/18/89

PROJECT NUMBER: 1724G

LOGGED BY: C.V.

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm
22				same as above but wet	▽	
23			CL	SILTY CLAY, dark brown (10YR 3/3), 10-15% silt, very stiff, high plasticity, moist to wet, trace rock fragments, white (10YR 8/1), granules, angular, saturated (flowing) zone ≈ 4 inches thick		
24		20				
25			ML	SANDY SILT, dark brown (10YR 3/3), 25-30% very fine to very coarse sand, 10% fine to coarse gravel, stiff, low to medium plasticity, moist to wet, saturated (flowing) zone ≈ 1 foot thick		
26		11				
27	SP*		SW	GRAVELLY SAND, dark brown (10YR 3/3), 20-25% fine to coarse gravel, subangular, very fine to coarse sand, clay binder, medium dense, moist to wet		
28		28				
29						
30			CL	SILTY CLAY, yellowish brown (10YR 5/4), 20-25% silt, trace very fine sand, stiff, medium to high plasticity, wet on outside of sample, damp on inside of sample		
31	B-3-5	16				
32				Bottom of boring = 30.0 feet		
33	SP*	18				
34						
35						
36						
37						
38						
39						
40						
41						
42				SP* = Standard Penetrometer Sampler		

REVIEWED BY R.G./C.E.G.

EXPLORATORY BORING LOG

ensco environmental services, inc.

PROJECT NAME: Peterson Tractor
955 Marina Blvd
San Leandro, CA

BORING NO. MW-2 (B-4)

DATE DRILLED: 10/17/89

PROJECT NUMBER: 1724G

LOGGED BY: C.V.

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm
				Concrete, 8 inches		
1-4			ML	CLAYEY SILT, black (10YR 2/1), 10-15% clay, trace fine sand, damp		
5-9	MW-2-1	13	SM	SILTY SAND, very dark gray (10YR 3/2) at 5 feet, changes to dark yellowish brown (10YR 4/4) at 5.5 feet, 10-15% silt, fine to medium sand, medium dense, damp		
10			ML	CLAYEY SILT, dark yellowish brown (10YR 4/4), 10-20% clay, stiff, damp		
11-13	MW-2-2	16	CL	SILTY CLAY, dark brown, (10YR 3/3), 10-20% silt, stiff, damp		
14-19	MW-2-3	13	SM	SILTY SAND, dark yellowish brown, (10YR 4/4), 30-40% silt, very fine to fine sand, clay binder, medium dense, damp		
20			ML	CLAYEY SILT, yellowish brown, (10YR 5/4), 40-50% clay, damp to moist		
21	MW-2-4	11	SM CL	SILTY SAND, dark yellowish brown, (10YR 4/4), 30-40% silt, very fine to fine sand, clay binder, medium dense,		

REVIEWED BY R.G./C.E.G.

EXPLORATORY BORING LOG

ensco environmental services, inc.

PROJECT NAME: Peterson Tractor
955 Marina Blvd.
San Leandro, CA

BORING NO. MW-2 (B-4)

DATE DRILLED: 10/17/89

PROJECT NUMBER: 1724G

LOGGED BY: C.V.

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm
22			CL / SM	SILTY CLAY, dark brown (10YR 3/3), 10-20% silt, stiff, high plasticity, moist,		
23	SP*	20	CH	SILTY SAND, dark brown (10YR 3/3), 25-35% silt, medium dense, moist	▽	
24				CLAY, dark brown (10YR 3/3), very stiff, moist, trace rock fragments, white (10YR 8/1), granules, angular		
25						
26	SP*	11	SW	GRAVELLY SAND, brown (10YR 5/3), 10-15% fine to coarse gravel, subangular, very fine to coarse sand, trace silt, clay binder, medium dense, wet		
27						
28						
29	SP*	17	CL	CLAY, brown (10YR 5/3) with yellowish brown (10YR 4/6) mottling, stiff, high plasticity, damp		
30						
31	SP*	18		Bottom of boring = 29.5 feet		
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42				SP* = Standard Penetrometer Sampler		

REVIEWED BY R.G./C.E.G.