



Chevron U.S.A. Products Company

2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

52 OCT 11 1992

Ms. Susan Hugo
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Re: Former Chevron Service Station No. 9-3864
5101 Telegraph Avenue
Oakland, California

Dear Ms. Hugo :

Enclosed is an off-site source investigation report prepared by Pacific Environmental Group, Inc. and dated May 5, 1992.

This report summarizes a potential off-site source of dissolved hydrocarbon in the groundwater that maybe impacting the above referenced former Chevron site. This potential source pertains to the current Auto Pro Mercedes site, formerly a Shell service station.

In December of 1990, five underground storage tanks were removed. Both soil and water samples were taken at the time of the tank-pull. Analytical results from the tank-pull show the following range of contamination in the soil (Chromalab, Inc. File No. 1290085) :

- | | |
|---|----------------------------|
| • Total petroleum hydrocarbon as gasoline (TPH-G) | Nondetect (ND) to 2900 ppm |
| • Total petroleum hydrocarbon as diesel (TPH-D) | ND to 4500 ppm |
| • Benzene | ND to 4500 ppb |
| • Toluene | ND to 2400 ppb |
| • Ethylbenzene | ND to 11000 ppb |
| • Total xylenes | ND to 30000 ppb |
| • Oil & Grease | 240 to 12000 ppm |

Analytical results for the standing water from the tank-pit was not available. However, their consultant mentioned "..... groundwater samples collected from standing water at the base of the gasoline/diesel excavation revealed elevated concentrations of TPH-gasoline and TPH-diesel and detectable concentrations of BTEX and lead." (Streamborn work plan dated 5-17-91)

Since this site was formerly a gasoline service station for a number of years, it is possible that groundwater contamination may exist at this site. One indication is the presence of standing water in the tank pit that maybe contaminated. Depth to groundwater was approximately 12 feet. Another indication is the results of initial soil samples which shows elevated levels of TPH-G and TPH-D. In addition, Chevron most up-gradient monitoring well shows increasing levels of dissolved hydrocarbon. Finally, the type of soil at the site is possibly conducive to groundwater contamination. Soil was describe as "... soils exposed in the excavation sidewalls at the AutoPro facility consist predominately of silty sand containing thin silt strata." (Streamborn work plan dated 5-17-91)

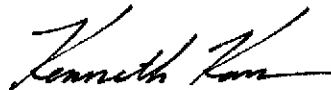
A site visit was conducted on August 19, 1992. During this site visit, there was no apparent indication of any wells at this site.

Until the direction of groundwater is determined, there is a strong indication that this site maybe impacting the former Chevron site unless there is additional information that Chevron is not aware which may indicate otherwise.

If you have any questions or comments, please feel free to contact me at (510) 842-8752.

Sincerely,

Chevron U.S.A. Products Co.

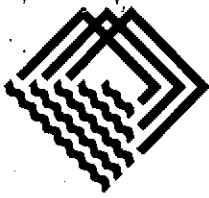


Kenneth Kan
Engineer

LKAN/MacFile 9-3864R5

cc: Mr. Eddie So
RWQCB-San Francisco Bay Area
2101 Webster Street, Suite 500
Oakland, CA 94612

Ms. Bette Owen
Chevron U.S.A. Products Co.



PACIFIC
ENVIRONMENTAL
GROUP, INC.

August 19, 1992
Project 325-17.01

Mr. Kenneth Kan
Chevron USA Products Company
P.O. Box 5004
San Ramon, CA 94583-0804

Re: Former Chevron Service Station #9-3864
5101 Telegraph Avenue
Oakland, California

Dear Mr. Kan:

The attached documents and following summary were performed as a part of a site review of potential off-site sources for dissolved hydrocarbons detected in the groundwater at the former Chevron service station referenced above.

The attached documents were obtained from the Alameda County Health Department files and pertain to the history of activities involving the removal of underground fuel storage tanks from the Auto Pro Mercedes site located at 5200 Telegraph Avenue in Oakland. A brief summary of the chronology of events based on the file review is presented below:

- o In December 1990, five underground storage tanks were removed from the site in three excavations. One excavation contained three tanks including one 5,000-gallon diesel storage tank and two 5,000-gallon gasoline storage tanks. In addition, one 8,000-gallon gasoline storage tank and one 1,000-gallon waste-oil tank were excavated separately. Groundwater was encountered in the excavations at an approximate depth of 12 feet.
- o Ten soil samples from the excavations and three composite stockpile samples were analyzed for total petroleum hydrocarbons calculated as gasoline (TPH-gasoline), total petroleum hydrocarbons calculated as diesel (TPH-diesel), benzene, toluene, ethylbenzene, and xylenes (BTEX compounds), Oil & Grease,

and lead. Also, one sample from the waste oil tank was analyzed for halogenated volatile organic compounds. Gasoline was detected at concentrations ranging from 8.8 to 2,900 parts per million (ppm), with the highest concentrations occurring in the sidewalls of the three-tank excavation (two gasoline and one diesel tank). Benzene concentrations ranged from non-detectable levels to 4.5 ppm (AP-6). The maximum TPH-diesel concentration detected was 4,500 ppm (AP-4). Two groundwater samples were collected from standing water in the excavation and apparently revealed elevated concentrations of BTEX compounds and lead. (Analytical results were unavailable at the time of this review).

- o In a letter dated February 1, 1991, to George Tuma of Auto Pro Mercedes, the Alameda County Health Care Services Agency (ACHCSA) requested a work plan for additional investigation and remediation at the site. On February 11, 1991, an underground storage tank unauthorized release form was filed with the ACHCSA.
- o On May 17, 1991, a work plan was prepared by Streamborn detailing additional excavation and installation of one monitoring well and three piezometers. The work plan was approved by the ACHCSA.
- o On July 23, 1991, overexcavation and additional sampling was performed in the former 8,000-gallon gasoline tank excavation. An inspector from the ACHCSA was present during the excavation and sampling activities. Six samples from the newly excavated sidewalls (at approximately 12.5 feet depth) were analyzed for diesel and BTEX compounds. Although almost every sample recorded detectable concentrations of diesel (ranging from 20 to 730 ppm), the laboratory noted that the diesel hydrocarbons resembled weathered gasoline. No benzene was detected in any of the samples.
- o Overexcavation and additional sampling of the three-tank excavation was performed in September 1991. TPH-gasoline was detected in concentrations ranging from 12 to 160 ppm on the northwest side of the excavation. Diesel was also detected at concentrations of 310, 4.4 and 110 ppm on the northwest and southern sidewalls.

Information regarding groundwater assessment or the schedule for additional investigation was not available at the time of this review.

If you have any questions regarding this letter, please do not hesitate to call.

Sincerely,

Pacific Environmental Group, Inc.



Jerry W. Mitchell
Project Geologist

- Attachments:
- 1) Summarized Notes from File Review at ACHCSA
 - 2) Letter to Shell Oil Co. regarding site background and ownership, 3-5-90
 - 3) Underground Tank Inspection Report (ACHCSA), 12-19-90
 - 4) Analytical Report for Tank Pit Soil Samples (for sample locations see work plan figures), 12-27-90
 - 5) Underground Storage Tank Unauthorized Release Form, 2-11-91
 - 6) Excerpts from Work plan dated 5-17-91 (Includes summary, background, scope, map of previous sample locations and map of proposed wells and piezometers)
 - 7) Analytical Reports (MedTox) and Sample Location Map for Soil Samples from Overexcavated Sidewalls of Former 8,000-gallon Tank Pit, 7-23-91
 - 8) Analytical Reports and Sample Location Map for Soil Samples from Overexcavated Sidewall of Three-tank Pit, 9-23-91

April 27, 1992 File Review at Alameda County
Health Agency, Care Services

Inspector: Susan Hugo, Senior Hazardous Materials
Specialist (510) 271-4530

Site: Auto Pro Mercedes, owned by George Toma
5200 Telegraph Avenue, Oakland

SUMMARY OF FILES (not copied)

12-27-90: Fax Cover Sheet for Certified Analytical Report
dated 12-27-90

- Chromlab ~~Sample~~

- for Pacific Excavators

Joe Madison 370-8783 (contact)

9-11-90: Tank permit application form "B"

- No. 67094

- Tank Capacity - 1,000 gallons (waste oil)

- Suction System type

2-1-91: Letter to George Toma of Auto Pro Mercedes from
AC HSA (Susan Hugo)

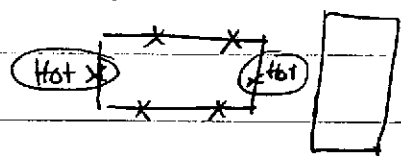
- Re: Site Investigation and Remediation
Requirements Following Underground Storage
Tank Removals

5-17-91: WORKPLAN (Cover Page) Project # P27
 - prepared by Strecumborn
 Douglas Lovell, P.O. Box 9504
 Berkeley, CA 94709 (528-4234)

- prepared for Pacific Excavators
 Martinez, CA

- Approved by ACHSA,
 - Expires 12-31-92

7-23-91: Overexcavation performed
 ACHSA Inspector was present (no name given)
 - 6 samples taken at 12.5' depths



} From inspectors
 notes

Med Tox Analytical Laboratory Results
 (Diesel results see reversed page)

-BTEX:

	B	T	E	X
308	ND	6	ND	6
309	ND	ND	ND	5
310	ND	ND	ND	ND
311	ND	ND	ND	ND
312	9	9	9	9
313	2	2	2	5
314	NP	NP	NP	ND
315	NP	NP	NP	NP
316	↓	1	3	30

TRI-STAR PARTNERSHIP
2 North Second Street
Suite 1400
San Jose, CA 95113
(408) 286-2700
FAX (408) 286-4748

March 5, 1990

Shell Oil Corporation
P.O. Box 4023
Concord, CA 94524

Attn: Mr. Chris Kristensen
Real Estate Department

Re: 5200 Telegraph Avenue, Oakland
Environmental Cleanup

Dear Mr. Kristensen:

This letter is written to you on the recommendation of Ms. Diane Linquist, an environmental engineer in your corporation.

We are a California general partnership and owner of certain real property located at 5200 Telegraph Avenue in Oakland, California. In approximately September, 1989, we received a letter from the Alameda County Health Care Services Agency alerting us to the presence of underground tanks on our property, requesting removal of such tanks, and cleanup of the property from eventual spills. Since we, nor our predecessor, did not build the underground storage tanks, we performed some research based on which we ascertained the following facts:

1. The subject property was owned until approximately May, 1980, by Mr. or Mrs. Ostreder, or the Ostreder family. The last known address is: Nancy Ostreder, 2741 Woolsey, Berkeley, CA 94702.

Shell Oil Corporation
March 5, 1990
Page Two

2. Long before May, 1980, the property was leased by the Ostrenders to Shell Oil Corporation under a long term lease. Based on such lease Shell built certain improvements on the property, including the underground storage tanks, and operated a Shell gas station on the property under the name of Jordan. The gas station was abandoned and/or ceased its operation around 1975.

3. In approximately 1978, Mr. Ray Navarra subleased the property from Shell and began the operation of AutoPro No. 2, a Mercedes auto repair. At such time the gas pumps (except for one) were dismantled. Out of the total number of the underground storage tanks, only one remains in operation for a limited amount of diesel fuel, and another small tank for used oil.

4. In May, 1980, Mr. Navarra purchased the real property from the Ostrenders, and also purchased the improvements on the property from Shell Oil Corporation. The lease between Shell and the Ostrender family most probably expired, or was surrendered. Immediately upon close of escrow Mr. Navarra sold the real property to Mr. McCormick, or McCormick Investment Company, and sold the auto repair business to Mr. George Tuma, who operates the business up to the present date. Our partnership purchased the underlying real property from Mr. McCormick or his investment company in 1986. In all these years none of the underground tanks, except as indicated above, were used.

Based on the facts outlined above we would appreciate it if you would take responsibility for removal of the tanks and eventual cleanup if necessary. If you have any questions, or you wish to discuss this matter, please contact the undersigned as soon as possible. Thank you for your attention.

Very truly yours,

TRI-STAR PARTNERSHIP

BY: Ondrej Kojnok
ONDREJ KOJNOK
General Partner

OK/js

white -env.health
 yellow -facility
 pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
 Oakland, CA 94621
 (415) 271-4320

Hazardous Materials Inspection Form

II, III

Site ID # _____ Site Name Auto Pro Today's Date 02/19/90

II.A BUSINESS PLANS (Title 19)

- ___ 1. Immediate Reporting 2703
- ___ 2. Bus. Plan Stds. 25503(b)
- ___ 3. RR Cars > 30 days 25503.7
- ___ 4. Inventory Information 25504(a)
- ___ 5. Inventory Complete 2730
- ___ 6. Emergency Response 25504(b)
- ___ 7. Training 25504(c)
- ___ 8. Deficiency 25505(a)
- ___ 9. Modification 25505(b)

Site Address 55200 Telegraph
 City Oakland Zip 94609 Phone _____

___ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

- ___ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks

II.B ACUTELY HAZ MATLS

- ___ 10. Registration Form Filed 25533(a)
- ___ 11. Form Complete 25533(b)
- ___ 12. RMPP Contents 25534(c)
- ___ 13. Implement Sch. Req'd? (Y/N)
- ___ 14. OffSite Conseq. Assess. 25524(c)
- ___ 15. Probable Rlk Assessment 25534(d)
- ___ 16. Persons Responsible 25534(g)
- ___ 17. Certification 25534(i)
- ___ 18. Exemption Request? (Y/N) 25536(b)
- ___ 19. Trade Secret Requested? 25538

___ Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

III. UNDERGROUND TANKS (Title 23)

- General
- ___ 1. Permit Application 25284 (H&S)
 - ___ 2. Pipeline Leak Detection 25292 (H&S)
 - ___ 3. Records Maintenance 2712
 - ___ 4. Release Report 2651
 - ___ 5. Closure Plans 2670

- Monitoring for Existing Tanks
- ___ 6. Method
 - 1) Monthly Test
 - 2) Daily Vadose Semi-annual groundwater One time soils
 - 3) Daily Vadose One time soils Annual tank test
 - 4) Monthly Gndwater One time soils
 - 5) Daily Inventory Annual tank testing Cont pipe leak det Vadose/gndwater mon.
 - 6) Daily Inventory Annual tank testing Cont pipe leak det
 - 7) Weekly Tank Gauge Annual tank testing
 - 8) Annual Tank Testing Daily Inventory
 - 9) Other _____

- ___ 7. Precs Tank Test Date: 2643
- ___ 8. Inventory Rec. 2644
- ___ 9. Soil Testing 2646
- ___ 10. Ground Water 2647

- New Tanks
- ___ 11. Monitor Plan 2637
 - ___ 12. Access, Secure 2634
 - ___ 13. Plans Submit Date: 2711
 - ___ 14. As Built Date: 2635

Comments:

5 - UG Tanks removed
 3 - 5,000 gallons tank - covered (drinking gas)
 1 - 8,000 gallons tank - gasoline
 1 - 1000 gal waste oil tank
 7 - 55 gal drums sludge from the waste oil tank
 sludge being removed from waste oil tank
 drums crushed, labeled hazardous waste.
 Waste oil tank was out on site to removed the sludge.
 Manifest # 90539076 - H&H / # 90539075
 Sample collected
 2 - from ends of waste oil tank, 2 - from waste oil stockpile (to be composted), samples from these tanks have shown petroleum HC smell.
 2 - from ends of diesel tank - strong petroleum HC odor
 2 - samples from stockpile of 2-3-5000 gal. tanks (to be disposed)
 2 - samples from stockpile of 8000 gal tank
 2 - samples from ends of 8,000 gal tank
 Pippings & samples from pipe lines to be removed & collected at a later date due to limited space - so owner can still operate.

General water slowly
 Rev 8/88
 Recharge from 30,000
 Hawaii

Contact: Joe Madison his business
 Title: Contractor Inspector: _____
 Signature: Joe Madison Signature: Susan L. Hugo

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GCMS

- Environmental Analysis
- Hazardous Waste (#E094)
- Drinking Water (#955)
- Waste Water
- Consultation

December 27, 1990

ChromaLab File #1290086B

Client: SAMPLING SPECIALISTS, INC.
Date Sampled: Dec. 19, 1990
Date of Analysis: Dec. 26-27, 1990


Attn: John Pratt
Date Submitted: Dec. 19, 1990

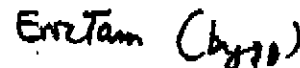
Project Name: AP OAKLAND
Sample I.D.: AP-2
Method of Analysis: EPA 8010

Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery	
CHLOROMETHANE	N.D.	---	---
VINYL CHLORIDE	N.D.	---	---
BROMOMETHANE	N.D.	---	---
CHLOROETHANE	N.D.	---	---
TRICHLOROFLUOROMETHANE	N.D.	---	---
1,1-DICHLOROETHENE	N.D.	90.2%	93.1%
METHYLENE CHLORIDE	N.D.	---	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---	---
1,1-DICHLOROETHANE	N.D.	---	---
CHLOROFORM	N.D.	---	---
1,1,1-TRICHLOROETHANE	N.D.	---	---
CARBON TETRACHLORIDE	N.D.	96.8%	89.7%
1,2-DICHLOROETHANE	N.D.	---	---
TRICHLOROETHENE	N.D.	---	---
1,2-DICHLOROPROPANE	N.D.	---	---
BROMODICHLOROMETHANE	N.D.	---	---
2-CHLOROETHYLVINYLETHER	N.D.	---	---
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1%	92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---	---
1,1,2-TRICHLOROETHANE	N.D.	---	---
TETRACHLOROETHENE	N.D.	---	---
DIBROMOCHLOROMETHANE	N.D.	---	---
CHLOROBENZENE	N.D.	93.1%	92.4%
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.	---	---

ChromaLab, Inc.


David Duong
Senior Chemist


Eric Tam
Lab Director

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E004)
- Drinking Water (#955)
- Waste Water
- Consultation

December 28, 1990

ChromaLab File No.: 1290088

SAMPLING SPECIALISTS, INC.

Attn: John Pratt

RE: Fourteen soil samples for Gasoline/BTEX, Diesel, Oil & Grease and total Lead analyses

Project Name: AP OAKLAND

Date Sampled: Dec. 19, 1990

Date Submitted: Dec. 19, 1990

Date Extracted: Dec. 21-27, 1990

Date Analyzed: Dec. 21-27, 1990

RESULTS:

Sample No.	Gasoline (mg/Kg)	Diesel (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)	Oil & Grease (mg/Kg)	Lead (mg/Kg)
AP-1	36	32	N.D.	34	120	370	5000	----
AP-2	19	47	N.D.	N.D.	66	120	12000	----
AP-3 & 18	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	(540) file	----
AP-4	2300	4500	59	570	2700	30000	----	39.6
AP-5	320	N.D.	N.D.	190	1500	220	----	15.3
AP-6	2900	----	4500	2400	360	2900	----	47.1
AP-7	5/2	----	N.D.	N.D.	3400	13000	----	18.4
AP-8	36	----	N.D.	N.D.	230	110	----	11.6
AP-9	1100	----	73	670	11000	4900	----	23.2
AP-10	340	----	7.8	130	170	190	----	17.1
AP-11	8.8	----	N.D.	N.D.	N.D.	N.D.	----	9.38
AP-12	N.D.	----	N.D.	N.D.	N.D.	N.D.	----	----
AP-14	130	58	N.D.	N.D.	110	1100	----	----
AP-17	N.D.	----	N.D.	N.D.	N.D.	N.D.	----	5.32
BLANK SPIKE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
RECOVERY	93.9%	94.0%	84.8%	95.8%	101.8%	93.2%	----	94.1%
DUP SPIKE								
RECOVERY	87.2%	98.6%	88.6%	95.4%	87.1%	96.0%	----	83.0%
DET. LIMIT	1.0	1.0	6.0	5.0	6.0	5.0	10	0.03
METHOD OF ANALYSIS	5030/ 8015	3550/ 8015	8020	8020	8020	8020	5520 D&F	7420

CHROMALAB, INC

David
DAVID DUONG
Senior Chemist

Eric Tam (by so)
Eric Tam
Laboratory Director

Road, #1 • San Ramon, California 94583

177 • facsimile 415/831-8798

768-0140157

RECEIVED FROM

41

6

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25160.7 OF THE HEALTH AND SAFETY CODE. <i>Joe Madison</i> SIGNED: _____ DATE: 2/26/91	
REPORT DATE 02/01/91		CASE #			
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Pacific Excavators / Joe Madison		PHONE (415) 370-8783	SIGNATURE <i>Joe Madison</i>	
	REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input checked="" type="checkbox"/> OTHER <i>Contractor</i>		COMPANY OR AGENCY NAME Pacific Excavators		
	ADDRESS 435 Eagle Nest Ct. STREET Martinez, CA 94553 CITY STATE ZIP				
RESPONSIBLE PARTY	NAME George Tuma / Autopro <input type="checkbox"/> UNKNOWN		CONTACT PERSON George Tuma	PHONE (415) 653-3646	
	ADDRESS 5200 Telegraph Ave. STREET Oakland, CA 94609 CITY STATE ZIP				
SITE LOCATION	FACILITY NAME (IF APPLICABLE) Autopro		OPERATOR George Tuma	PHONE (415) 653-3646	
	ADDRESS 5200 Telegraph Ave. STREET Oakland, CA 94609 CITY STATE ZIP				
	CROSS STREET Claremont	TYPE OF AREA <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> RURAL <input type="checkbox"/> RESIDENTIAL <input type="checkbox"/> OTHER		TYPE OF BUSINESS <input type="checkbox"/> FARM <input checked="" type="checkbox"/> OTHER <i>Auto repair</i>	
IMPLEMENTING AGENCIES	LOCAL AGENCY AGENCY NAME Dept. of Environmental Health		CONTACT PERSON Susan Hugo	PHONE (415) 271-4320	
	REGIONAL BOARD Regional Water Quality Control Board		PHONE ()		
SUBSTANCES INVOLVED	(1) NAME Gasoline		QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN		
	(2) NAME Diesel & Waste Oil		<input checked="" type="checkbox"/> UNKNOWN		
DISCOVERY/ABATEMENT	DATE DISCOVERED 1/21/90		HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> TANK TEST <input checked="" type="checkbox"/> TANK REMOVAL <input type="checkbox"/> OTHER		
	DATE DISCHARGE BEGAN <input checked="" type="checkbox"/> UNKNOWN		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> REPLACE TANK <input type="checkbox"/> CLOSE TANK <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> CHANGE PROCEDURE <input checked="" type="checkbox"/> OTHER <i>Remove Tank</i>		
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE 1/21/90				
SOURCE/CAUSE	SOURCE OF DISCHARGE <input checked="" type="checkbox"/> TANK LEAK <input type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER		TANKS ONLY: CAPACITY <i>N/A</i> GAL AGE _____ YRS <input checked="" type="checkbox"/> UNKNOWN	MATERIAL <input type="checkbox"/> FIBERGLASS <input checked="" type="checkbox"/> STEEL <input type="checkbox"/> OTHER	CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> CORROSION <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> SPILL <input type="checkbox"/> OTHER
	CHECK ONE ONLY <input checked="" type="checkbox"/> UNDETERMINED <input checked="" type="checkbox"/> SOIL ONLY & <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)				
CURRENT STATUS	CHECK ONE: ONLY <input checked="" type="checkbox"/> SITE INVESTIGATION IN PROGRESS (DEFINING EXTENT OF PROBLEM) <input type="checkbox"/> CLEANUP IN PROGRESS <input type="checkbox"/> SIGNED OFF (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> NO FUNDS AVAILABLE TO PROCEED <input type="checkbox"/> EVALUATING CLEANUP ALTERNATIVES				
	CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS) <input type="checkbox"/> CAP SITE (CD) <input type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input checked="" type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> OTHER (OT)				
COMMENTS	There has been no gasoline, gasoline pumped or used at this site by the existing owner. The current owner has owned this property for approximately the last 12 years. Currently being used as an auto repair shop.				

INTRODUCTION AND SUMMARY

This workplan describes groundwater gradient determination, limited additional excavation, soil sampling, in-pit bioremediation, and groundwater monitoring procedures to be conducted at the AutoPro facility, 5200 Telegraph Avenue, Oakland CA (Figure 1). The work will be performed in phases, which will expedite closure of open excavations (Figure 2) and allow determination of the nature and extent of soil and groundwater contamination. The phases include:

- 1 Piezometer Installation and Gradient Measurement
- 2 Soil Excavation and Confirmation Sampling
- 3 In-pit Bioremediation and Excavation Closure
- 4 Groundwater Monitoring

Initially, three 1-inch diameter driven well-point piezometers will be installed, surveyed, and monitored to define the direction of the local groundwater gradient. The direction of the gradient will dictate the order (beginning on the upgradient side of the property) in which the current excavations are enlarged, bioremediated, and closed. The gradient direction will also determine the location of the planned monitoring wells.

Additional excavation will be performed at the former locations of the tanks (3 existing open excavations) to remove contaminated soil. Constraints on available space at the property will limit the possible extent of additional excavation. The limits of excavation will be ascertained in the field by observing staining and odor, and through semiquantitative field screening analyses (polyethylene bag sampling system, Hanby Method, jar headspace test, etc.) of soil samples collected during excavation. Upon reaching the excavation limits (either by reaching the limits of contamination or due to physical constraints), confirmation samples will be collected from the sidewalls and base to either (1) document cleanup of soil contamination, or (2) document levels of residual contamination, as the case may be.

Prior to backfilling the excavations, standing water in the bottom of the open excavations, which may have been impacted by an onsite release (particularly in the diesel/gasoline tanks excavation), will be biotreated with a commercial strain of adapted bacteria. The excavations will then be closed, the area paved, and groundwater monitoring activities conducted.

Two-inch diameter monitoring wells will be installed downgradient and within 10-feet of the suspected release areas. The wells will be developed and sampled one time to assess whether groundwater is impacted.

BACKGROUND

Table 1 contains a chronology of environmental activities at the subject property.

The property has been operated by AutoPro as a Mercedes Benz repair shop since 1979. Prior to purchase by AutoPro, a Shell service station occupied the property. Five underground storage tanks were present on the property during Shell's operation (Figure 2) and consisted of:

- one 8,000-gallon gasoline
- one 1,000-gallon waste oil
- one 5,000-gallon diesel and two 5,000-gallon gasoline, connected to a common pump island

Two groundwater samples collected from standing water at the base of the gasoline/diesel excavation revealed elevated concentrations of TPH-gasoline and TPH-diesel and detectable concentrations of BTEX and lead.

The soils exposed in the excavation sidewalls at the AutoPro facility consist predominantly of silty sand containing thin silt strata. Groundwater is present in the excavations at a depth of approximately 12 feet below ground surface.

To address the residual soil contamination, Pacific Excavators has recommended additional excavation followed by confirmation sampling. Also, according to the regulatory guidance applicable to this project (*Tri-Regional Board Staff Recommendations For Preliminary Evaluation and Investigation of Underground Tank Site, 10 August 1990*), groundwater monitoring will be needed. The Alameda County Department of Environmental Health has indicated a workplan is necessary before additional work is performed on the property.

PURPOSE

The activities described in this workplan will allow expedited closure of the tank excavations and will address selected objectives of the Alameda County Department of Environmental Health, including:

- Better definition of the horizontal and vertical extent of soil contamination
- Better definition of the sources and nature of groundwater contamination
- Determination of the local groundwater gradient direction
- Evaluation of potential remedial alternatives

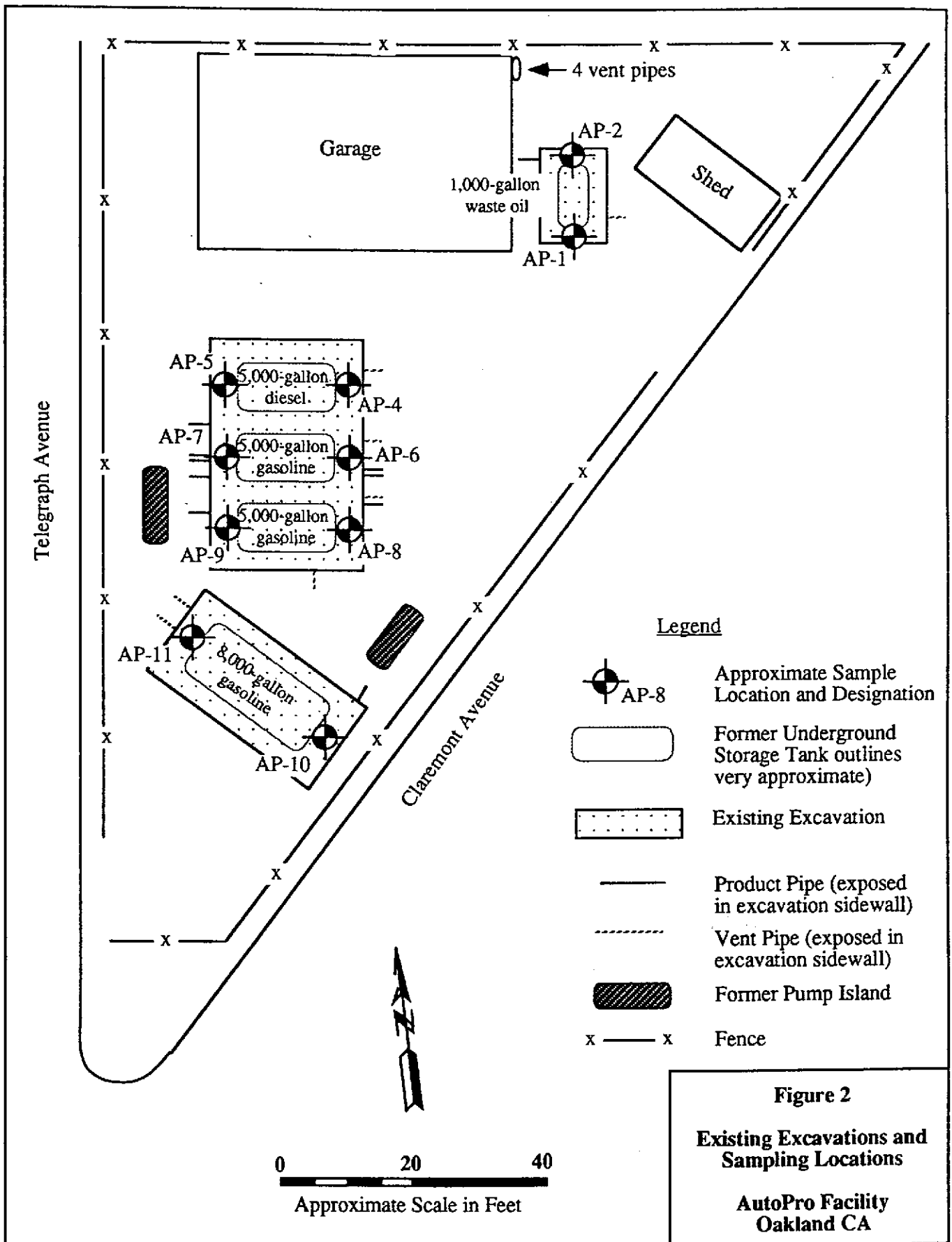
Although tank removal has mitigated most threats to groundwater quality, residual soil contamination still provides a source of degradation. To mitigate this lesser, yet continued source of groundwater contamination, this workplan describes limited additional excavation of contaminated soil, by enlarging the existing excavations. The direction of the groundwater gradient (derived from 3 drive-point piezometers) will dictate the order in which the excavations are enlarged (beginning on the upgradient-side of the property). The limits of the additional excavation will likely be controlled by physical characteristics of the facility, combined with in-field evaluation of the extent of contamination. Upon completion of the additional excavation, confirmation samples will be collected from the sidewalls and base of the enlarged excavations and analyzed to either (1) document the removal of soil contamination, or (2) document the levels of residual contamination.

Before closing the excavations, standing water at the base of the excavations will be biotreated with a commercial strain of adapted bacteria. This activity will help remediate low-level groundwater contamination. This activity will also decrease the potential for cross-contaminating clean backfill material, particularly below the groundwater table.

Groundwater monitoring will consist of 3 drive-point piezometers (installed before limited additional excavation) and two monitoring wells. The piezometers will be installed first to allow measurement of the local groundwater gradient. The wells will be installed downgradient and within 10 feet of the perimeter of the excavations. Anticipated well and drive-point piezometer locations are shown on Figure 3. Additional soil samples may be collected for chemical analysis during monitoring well installation, contingent upon the analytical results of confirmation sampling. Groundwater from the monitoring wells will be sampled once. Contingent upon the first round of groundwater sampling, recommendations may be forwarded to continue or terminate the groundwater monitoring program.

Table 1
Chronology of Environmental Activity

Date of Activity	Work Performed By	Description
Unknown	Unknown	Installation of one 8,000-gallon steel tank for storage of gasoline, two 5,000-gallon steel tanks for storage of gasoline, one 5,000-gallon steel tank for storage of , and one 1,000-gallon steel tank for storage of waste oil. Tanks not necessarily installed at the same time.
Circa 1979	Unknown	Removal of gasoline fuel dispensers
Unknown-1979		Operated as a Shell service station
1979-Present		Purchase of property by AutoPro. AutoPro has operated the property as a Mercedes Benz repair shop since purchase.
July 1990		Request from Alameda County Department of Environmental Health to AutoPro to remove or pay permit fees for underground storage tanks
19 December 1990	Pacific Excavators	Removal of 5 underground storage tanks and the diesel dispenser; limited excavation of tank backfill soil
26 February 1991	Pacific Excavators	Stockpile of soil excavated from the 8,000-gallon gasoline tank was transported and disposed of at the Vasco Road landfill



Legend


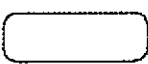
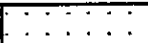




-  AP-8 Approximate Sample Location and Designation
-  Former Underground Storage Tank outlines (very approximate)
-  Existing Excavation
-  Product Pipe (exposed in excavation sidewall)
-  Vent Pipe (exposed in excavation sidewall)
-  Former Pump Island
-  Fence

Figure 2
Existing Excavations and Sampling Locations
AutoPro Facility
Oakland CA

0 20 40
 Approximate Scale in Feet

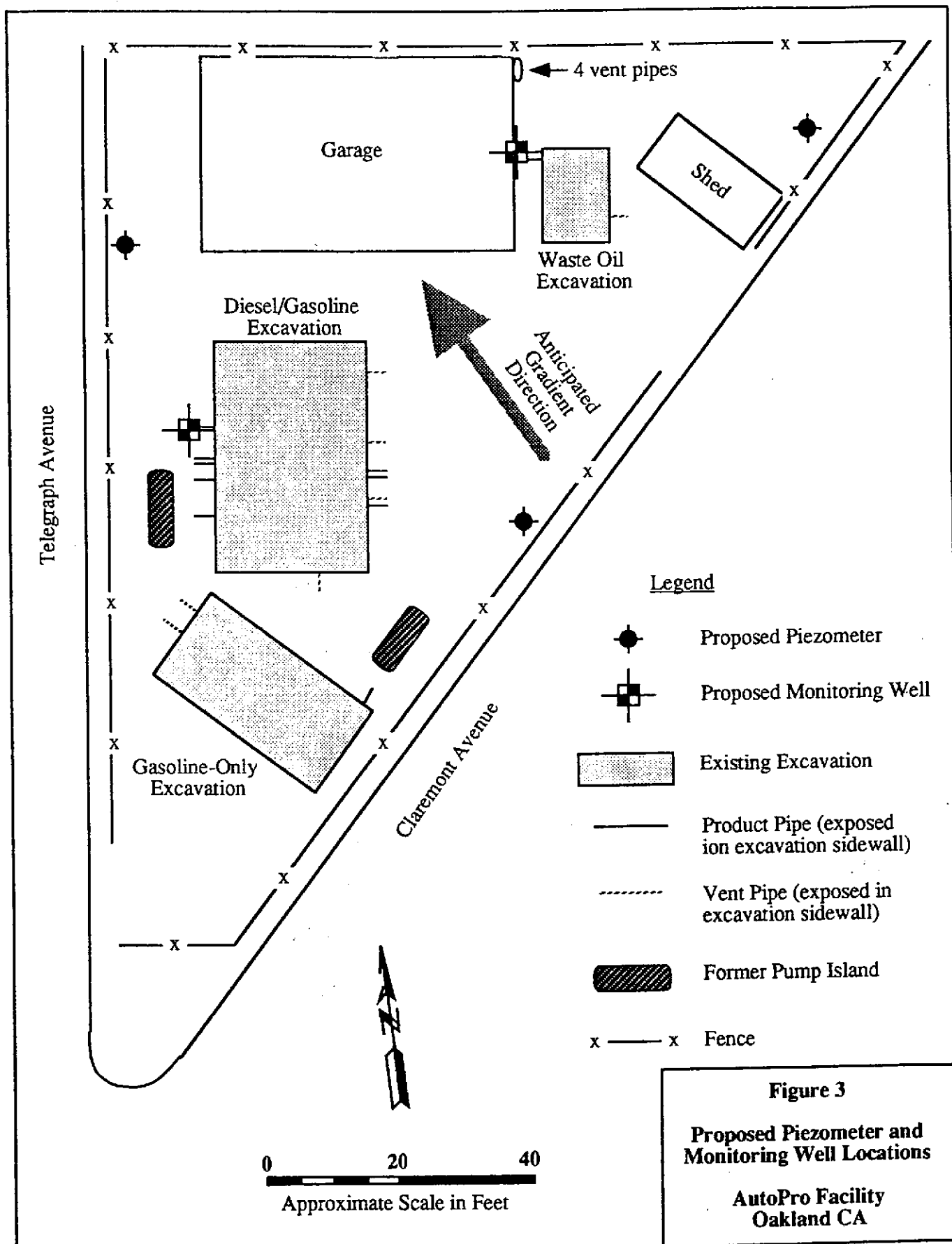


Figure 3
Proposed Piezometer and
Monitoring Well Locations
AutoPro Facility
Oakland CA

PACIFIC EXCAVATORS

DATE SAMPLED: 07/23/91

REPORT DATE: 08/14/91

DATE RECEIVED: 07/24/91

MED-TOX JOB NO: 9107143

Sample Identification Client Id.	Lab No.	Extractable Hydrocarbons as Diesel (mg/kg)
AP-308	01A	30 *
AP-309	02A	20 *
AP-310	03A	50 *
AP-311	04A	ND
AP-312	05A	120 *
AP-313	06A	20 *
AP-314	07A	90 *
AP-315	08A	ND
AP-316	09A	730 **

Detection Limit 10

Method: 3550 GCFID

Instrument: C

Date Extracted: 07/25/91

Date Analyzed: 07/25-26/91

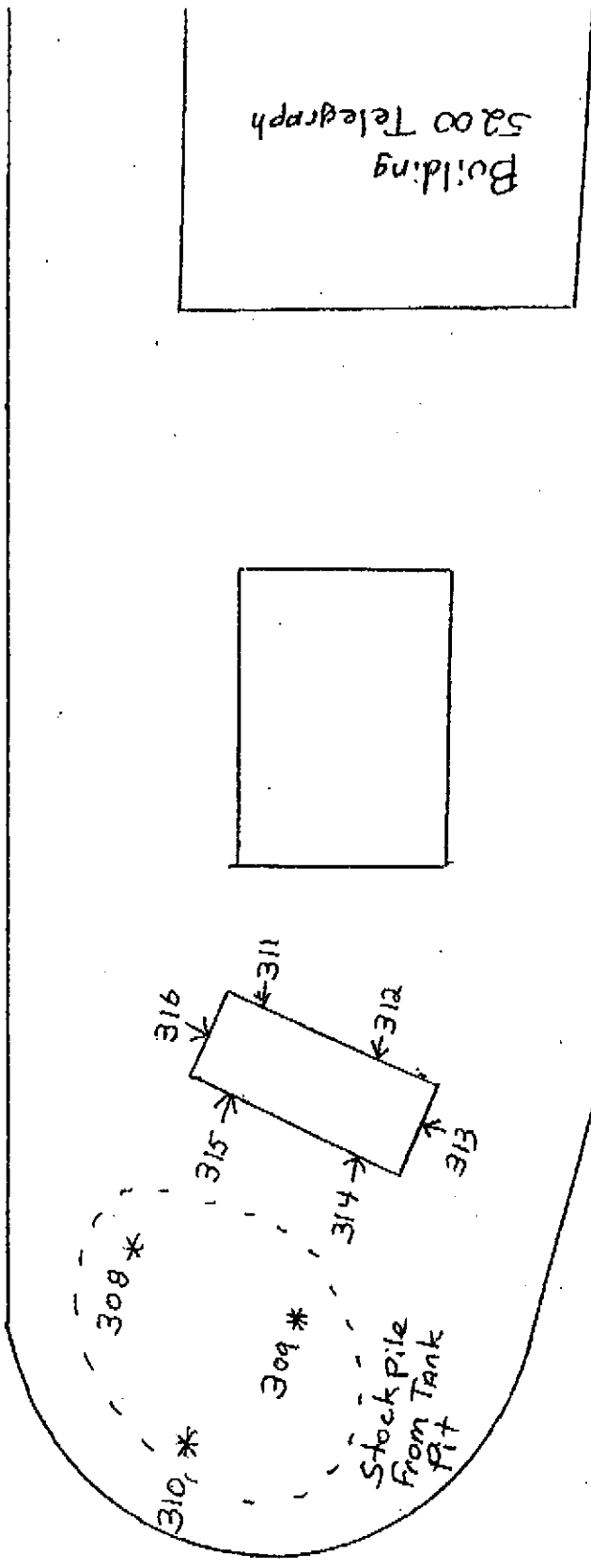
ND = Not Detected

* Resembles weathered gasoline

** Appears to contain diesel as well
as weathered gasoline

N →

Telegraph Ave



Building
5200 Telegraph

Claremont Ave

308 *

310 *

309 *

316

315

314

311

312

313

Stock pile
from Tank
pit

LOG NUMBER: 1839
 DATE SAMPLED: 9/23/91
 DATE RECEIVED: 9/24/91
 DATE EXTRACTED: 9/25/91
 DATE ANALYZED: 9/26/91
 DATE REPORTED:
 PAGE: Three

Sample Type: Spill

Method and
 Constituent:

Units	VN		LS		VNE-1	
	Concen- tration	Reporting Limit	Concen- tration	Reporting Limit	Concen- tration	Reporting Limit
DHS Method:						
Total Petroleum Hydro- carbons as Gasoline	ug/kg	ND 500	79,000 7,900	500	ND	500
EPA Method 8020 for:						
Benzene	ug/kg	ND 5.0	ND	38	ND	5.0
200 P Triylene	ug/kg	2292 5.0	450	36	6868	5.0

FROM

QC Summary:

% Recovery: 114, 120, and 131
 % RPD: 15, 2.5, and 11

Concentrations reported as ND were not detected at or above the reporting limit.

These samples were analyzed 9 days beyond the 14-day holding time for this analysis.

Louis W. DuPuis
 Quality Assurance/Quality Control Manager

RECEIVED FROM

LOG NUMBER: 1839
 DATE SAMPLED: 9/23/91
 DATE RECEIVED: 9/24/91
 DATE EXTRACTED: 8/27/91
 DATE ANALYZED: 10/1/91, 10/2/91
 DATE REPORTED:

CUSTOMER: Tank Protect Engineering
 REQUESTER: Marc Zomorodi
 PROJECT: No. 196C-092391, 5200 Telegraph Avenue, Oakland, CA

Method and Constituent:	Units	VN		VS		VNE-1	
		Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
DHS Method:				310,000	1,100	ND	1,000
Total Petroleum Hydrocarbons as Diesel	ug/kg	ND	1,000	310,000 310	1,000 101	ND	1,000

Method and Constituent:	Units	VNE-2		VNW-1		VNW-2	
		Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
DHS Method:							1,100
Total Petroleum Hydrocarbons as Diesel	ug/kg	ND	1,000	4,400 4.4	1,000	110,000 110	1,100

Concentrations reported as ND were not detected at or above the reporting limit.

Sample(s) SV, VNW-1 ^{VNW-2, ~~SV~~} indicates compounds eluting (earlier / later / does not apply) than diesel.

Method and Constituent:	ug/kg	VNW-2		VNW-1		VNW-2	
		Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	ND	500	12,000 4200	500	160,000 4,000	500
EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	19
Toluene	ug/kg	170	5.0	40 9.3	5.0	7,900	18
Ethylbenzene	ug/kg	ND	5.0	ND	5.0	ND	23
Xylenes	ug/kg	ND	15	ND	15	1000	53

Concentrations reported as ND were not detected at or above the reporting limit.

RECEIVED FROM

