May 5, 1999

SUBSURFACE INVESTIGATION WORKPLAN

508 East Lewelling Boulevard
San Lorenzo, California

Project No. 3198

Prepared for

Mr. Rick Gold
Engine Research Company
584 East Lewelling Boulevard
San Leandro, CA 94580

and

Mr. Amir Golami
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Prepared by

All Environmental, Inc.
901 Moraga Road, Suite C
Lafayette, CA 94549
(925) 283-6000

AEI

ALL ENVIRONMENTAL, INC.
Environmental Engineering & Construction

May 5, 1999

Mr. Amir Golami
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: 508 East Lewelling Boulevard
San Lorenzo, California
Project No. 3198

Dear Mr. Golami:

The following is a workplan describing the proposed subsurface investigation at the above referenced site. This workplan was prepared in response to your request to conduct a Preliminary Site Assessment (PSA) to determine severity of soil and groundwater contamination, which has resulted from the release at the site. AEI is providing environmental consulting services to Mr. Rick Gold, and is submitting this letter on his behalf.

Site Description and Background

The subject property is located southeast of the intersection of East Lewelling Boulevard and Alisal Court. The property is developed with a single story building occupied by an automotive repair business. Numerous automobiles are parked on the property.

In April, 1994 three underground storage tanks were removed by Pacific Excavators from the northwestern corner of the property. The tanks consisted of two (2) 2,000 gallon and one (1) 4,000 gallon gasoline tanks. Holes were observed in the 4,000 gallon storage tank upon removal. According to an Unauthorized Leak Report dated May 19, 1994, up to 94 mg/kg of TPH as gasoline was present in a northern sidewall soil sample. A final report detailing the underground storage tank removal was not issued by the contractor. Two sets of analytical reports were issued by Trace Analysis Laboratory, Inc. that detail two different sampling episodes. Soil samples were collected on April 14, 1994 from the sidewalls of the excavation and from stockpiled soil. Additional soil samples were collected from the product lines and dispenser areas on September 15, 1994. Refer to the following table for the analytical results. Refer to Figure 2 for soil sample locations. The original analytical results are attached for reference.

Corporate Headquarters:
901 Moraga Road, Suite C
Lafayette, CA 94549-4567
Phone : (925) 283-6000
Fax: (925) 283-6121

(800) 801-3224
www.all-environmental.com

Los Angeles Office:
2309 Pacific Coast Hwy, Suite 206
Hermosa Beach, CA 90254-2753
Phone: (310) 798-4255
Fax: (310) 798-2841

TABLE 1 – UST Excavation and Piping Soil Sample Analyses

ANALYTE	E1	E2	E3	E5	E6	SP1	SP2	SP3	S1	S2	S3	SP1A/SP1B Composite	SP2A
TPH-GASOLINE (mg/kg)	1.8	13	94	0.95	<0.5	<0.5	5.6	0.73	6.6	12	<0.5	180	<0.5
BENZENE (mg/kg)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TOLUENE (mg/kg)	0.0076	<0.005	1.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.44	<0.005	9.3	<0.005
ETHYL BENZENE (mg/kg)	0.023	0.096	0.59	0.0094	<0.005	<0.005	0.025	<0.005	0.19	0.31	<0.005	6.2	<0.005
TOTAL XYLENES (mg/kg)	0.074	0.20	38	0.053	<0.005	0.033	0.024	0.047	2.4	3.4	<0.005	46	<0.005
TOTAL LEAD (TTLC-mg/kg)	12	10	15	6.6	4.1	6.6	12	22	NA	NA	NA	NA	NA

mg/kg = milligrams per kilogram (ppm)
NA = Not Analyzed

According to a note dated November 30, 1994 by Ms. Shin of the Alameda County Health Care Services Agency, no further work was required for the product piping excavations. She stated that the stockpiled soil must be aerated and confirmation soil samples collected prior to backfilling. According to the owner of the property, the soil aerated for approximately one year and was re-sampled under the direction of Ms. Shin. The stockpile was used to backfill the excavation after approval was granted from Ms. Shin. The area of the former excavations is currently unpaved.

On November 14, 1994, Environmental Investigation & Action, Inc. (EIA) installed a single soil boring north of the former tanks in the parking lane of Alisal Court. Soil samples and a grab groundwater sample was collected from the boring. The following tables summarize the results of the soil boring investigation.

TABLE 2 – Soil Boring Sample Analyses

ANALYTE	B-1-13	B-1-20	B-1-25
TPH-GASOLINE (mg/kg)	<1.0	6.9	1.8
BENZENE (mg/kg)	<0.005	0.027	0.076
TOLUENE (mg/kg)	<0.005	0.047	0.12
ETHYL BENZENE (mg/kg)	<0.005	0.042	0.073
TOTAL XYLENES (mg/kg)	<0.005	0.086	0.16

mg/kg = milligrams per kilogram (ppm)

TABLE 3 – Grab Groundwater Sample Analysis

ANALYTE	B-1-H20
TPH-GASOLINE (µg/L)	1,300
BENZENE (µg/L)	3.6
TOLUENE (µg/L)	8.2
ETHYL BENZENE (µg/L)	3.9
TOTAL XYLENES (µg/L)	9.5

µg/L = micrograms per liter (ppb)

Purpose

The following workplan describes work to further define the vertical and lateral extent and severity of soil and groundwater contamination found during previous investigations at the property.

Geologic Setting

According to an EIA boring log, the near surface sediments beneath the site consist of dark brown clayey site to approximately 10 feet bgs. Grey silt with fine sand was located from 10 to 14 feet bgs followed by clay with silt and sand. Groundwater was encountered initially at approximately 26 feet bgs. Static groundwater was reported at 22 feet bgs. The groundwater flow direction is unknown. The topography of the site slopes gently to the northeast. The San Lorenzo Creek is located immediately west of the property across East Lewelling Boulevard. Based on the topography and nearby creek, groundwater is likely to flow in the northern direction with potential variations to the northeast and northwest.

Scope of Work

AEI proposes to advance four soil borings (AEI-1, AEI-2, AEI-3 and AEI-4) to a depth of 30 feet below ground surface with a Geoprobe drilling rig. The borings will be advanced at the locations shown on the attached figure.

The soil borings will be logged on-site by an AEI geologist using the Unified Soil Classification System. Undisturbed soil samples will be collected at five foot intervals beginning at 5 feet bgs. Soil samples were collected within acrylic liners with a four foot drive sampler. A six-inch section of the liners will be selected for analysis. The soil samples will be sealed with teflon tape and caps. Soil samples obtained during drilling will be screened in the field using a portable organic vapor meter. Groundwater is expected at approximately 25 feet bgs during the drilling activities. Groundwater samples will be collected through the direct push rods. If groundwater does not generate using this method then a grab groundwater sample will be collected following removal of the rods. Following sample collection the borings will be filled with cement slurry.

All samples will be put on ice and transported, under chain of custody procedures to McCampbell Analytical, Inc. of Pacheco, California. Three soil samples from each boring will be analyzed for TPH as gasoline (EPA 5030/8015), benzene, toluene, ethylbenzene, xylenes (BTEX), and MTBE (EPA method 5030/8020). The soil and groundwater sample with the highest MTBE concentration will be reanalyzed using EPA method 8260 for fuel oxygenates.

Minimal cuttings will be generated from the drilling. Any soil cuttings will be stored on-site in a 55 gallon drums. On-site treatment or off-site disposal of contaminated drill cuttings is not a part of this work scope. It is likely that a licensed hauler will be contracted to transport the soils as non-hazardous waste, under appropriate manifests, to a local landfill facility.

Site Safety

Prior to commencement of field activities, a site safety meeting will be held at a designated command post near the working area. Emergency procedures will be outlined at this meeting. Also, the hazards of the known or suspected chemicals of interest will be explained. Level D personal protection equipment is the anticipated maximum amount of protection needed.

A working area will be established with barricades and warning tape to delineate the zone where hard hats and steel-toed shoes must be worn, and where unauthorized personnel will not be allowed. If, during drilling, fuel product odors are deemed to be substantial, half-face respirators with organic vapor cartridges will be worn.

A nearby hospital will be designated in the site safety plan as the emergency medical facility of first choice. A map with a course plotted to the hospital will be on-site.

Estimated Schedule

The proposed work will commence as soon as written approval from the Alameda County Health Care Services Agency (ACHCSA) is received. The ACHCSA will be given adequate notification of the scheduled day of drilling so they can schedule field inspectors if desired. Laboratory analytical results will be obtained within one week of collection. The final report will be prepared within three weeks of the receipt of the analytical results. Copies of the report will be sent to the client and to the ACHCSA.

AEI requests your approval to proceed with this project. Please let me know if you need additional information and please do not hesitate to call me at (925) 283-6000 if you have any questions.

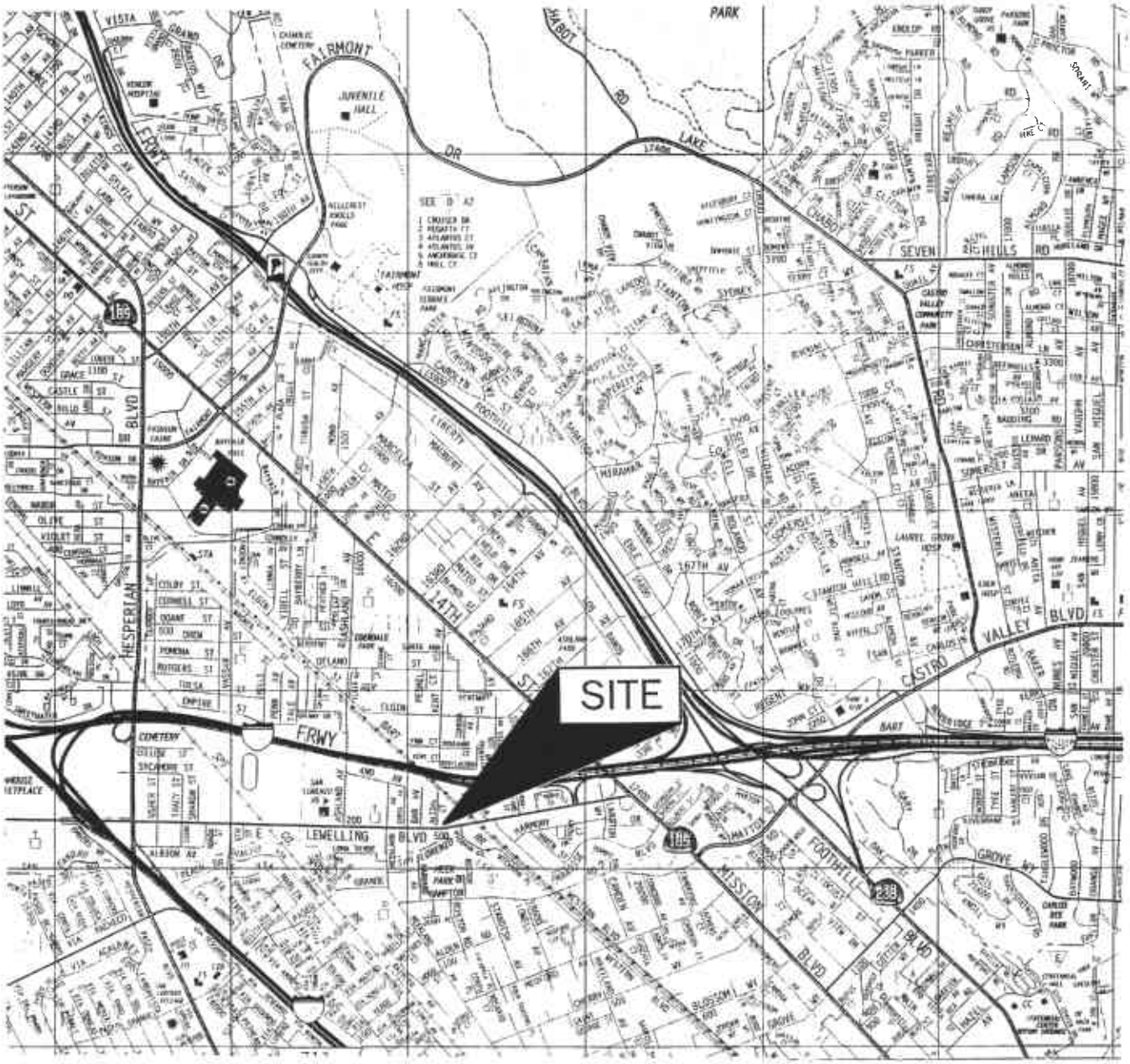
Sincerely,

Jennifer Pucci
Senior Project Manager

Joseph P. Derhake, PE, CAC
Principal

cc: Mr. Rick Gold, Engine Research Company, 584 East Lewelling Boulevard, San Lorenzo, California, 94580.

Attachments.



FROM:
THE THOMAS GUIDE
1997 EDITION

ALL ENVIRONMENTAL, INC.

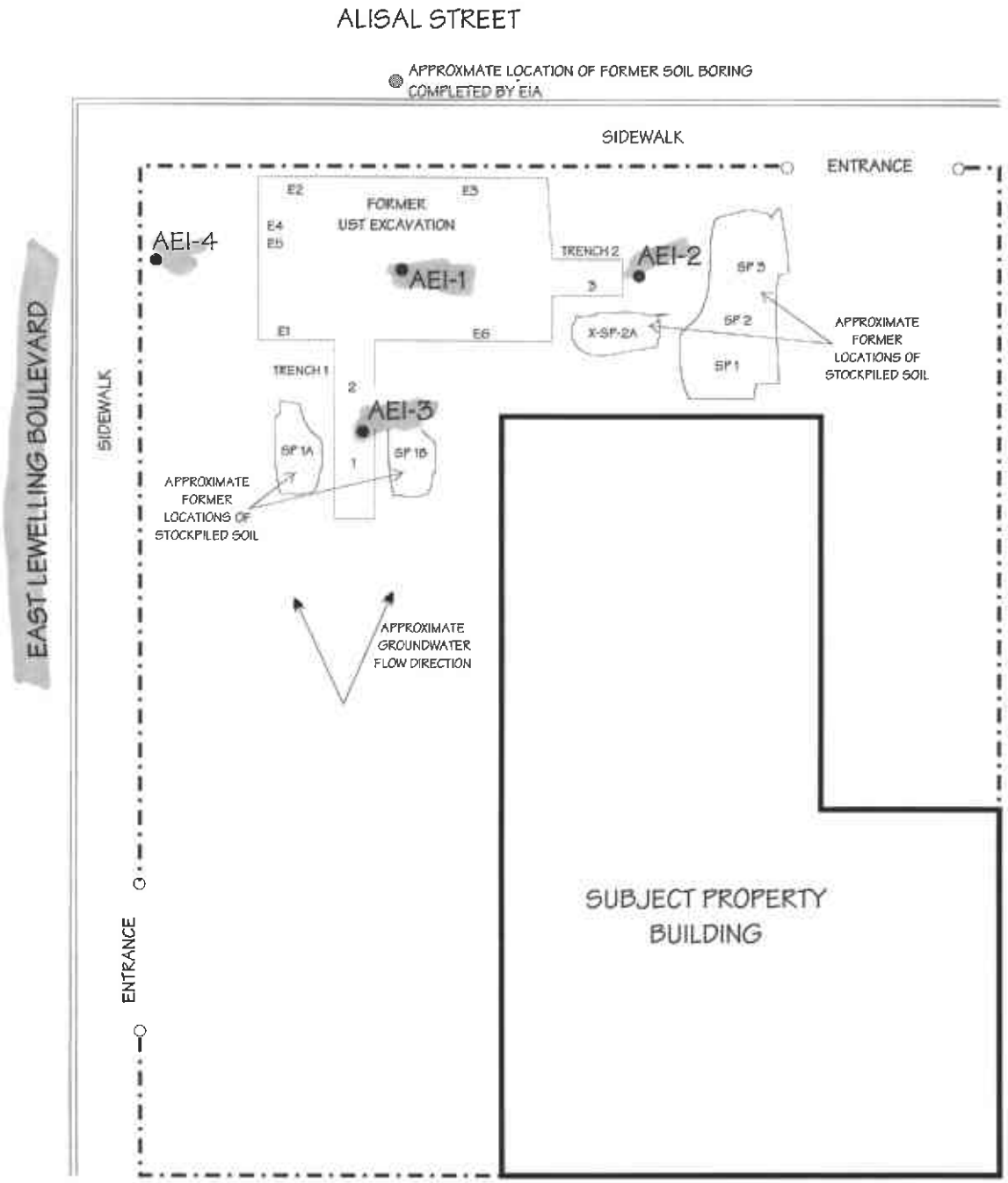
901 MORAGA ROAD, SUITE C, LAFAYETTE, CA

SCALE: 1"=2400' | DATE: 1997

SITE LOCATION MAP

508 EAST LEWELLING BLVD
SAN LORENZO, CALIFORNIA

DRAWING NUMBER:
FIGURE 1



ALL ENVIRONMENTAL, INC.

901 MORAGA ROAD, SUITE C, LAFAYETTE, CA

SCALE: 1" = 30'	DRAWN BY: J. PUCCI	DATE: 5/3/99

SITE MAP

508 EAST LEWELLING BLVD
SAN LORENZO, CALIFORNIA

DRAWING NUMBER:
FIGURE 2

SUMMARY OF FINDINGS
SOIL BORING INVESTIGATION

ENGINE RESEARCH COMPANY/MAX'S AUTO
508 EAST LEWELLING BLVD.
SAN LORENZO, CALIFORNIA 94580

EIA Job 0234005

Prepared For:

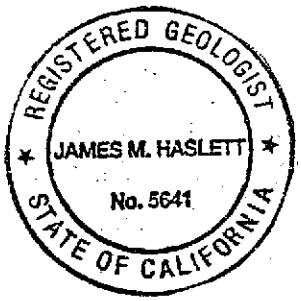
Engine Research Company
584 East Lewelling Blvd.
San Lorenzo, California 94580

Prepared By:

EIA Technologies
22390 Thunderbird Place
Hayward, California 94545

James M. Haslett

James M. Haslett, R.G. 5641
Chief Geologist



December 16, 1994

SUMMARY OF FINDINGS

Engine Research Company/Max's Auto
508 East Lewelling Blvd.
San Lorenzo, California

1.0 INTRODUCTION

Engine Research Company (ERC) contracted with EIA Technologies (EIA) to drill one (1) soil boring near the former underground storage tank (UST) location, at 508 East Lewelling Blvd., San Lorenzo, California. The purpose of the investigation was to evaluate soil and groundwater conditions near the former tank location.

Work conducted by EIA included pulling permits, coordinating drilling, and taking samples. This report describes the work conducted during the investigation, presents the analytical results, and discusses our interpretations and conclusions so as to fulfill the requirements for appropriate local regulatory agencies. Efforts are being coordinated through the Alameda County Environmental Health Service, as well as Zone 7 Flood Control.

2.0 SITE LOCATION AND BACKGROUND

The site is located at 508 East Lewelling Blvd. in San Lorenzo, California. According to information provided by the tank operator, three tanks, two (2) 2,000-gallon, and one (1) 4,000-gallon single-walled steel UST's were used at the site. The tank ages are unknown. The tanks previously contained gasoline. Figure 1 shows the location site of the tank pit and Boring location.

3.0 PERMITTING AND REGULATORY COMPLIANCE

Prior to initiating field activities, EIA obtained a Drilling permit to drill the boring from the Zone 7 Water Agency. EIA, also obtained a permit from Alameda County Public Works for a Street Road Encroachment Permit. A copy of the permits are included in Appendix A.

4.0 FIELD ACTIVITIES

4.1 Soil Boring

On November 14, 1994, EIA personnel and drilling subcontractor BSK and Associates (Lic.# 490942) arrived onsite and prepared the site for drilling. The Drill Rig was mounted on a CME-75 or equivalent truck. A Boring Log was kept on sight for proper documentation. (See Appendix B.) The soil cuttings were placed in (2) 55 gallon DOT approved drums. Drums were labeled Soil Cuttings 1'-20' and 20'-30' and left on site pending disposal. Sampling location shown in figure 1.

4.2 Soil Sampling

On November 14, 1994, soil samples were collected from the boring adjacent to the former UST location. Project and Sampling notification was given to Inspector Juliet Shin, a week prior to the project.

Soil samples were collected from Boring 1 with the below surface grade footage representing the number following B-1. The samples labeled B-1-13, B-1-20, and B-1-25 were collected and anaylzed from the Boring using a California Split-Spoon, and placed in 6-inch brass sample tubes. Boring location is shown in Figure 1.

The soil samples were sealed with a teflon liner and plastic cap, labeled, documented on a chain-of-custody form and held in a pre-cooled ice chest pending delivery to the State-Certified laboratory of Priority Environmental Labs in Milpitas, California.

4.3 Water Sampling

On November 14, 1994, a "grab" ground water sample(s) was taken from the Boring at approximately 26 feet. Three (3) 40ml glass Voas were filled, secured to insure no air was admitted into the containers, and placed in a pre-cooled ice chest. One (1) Ground Water sample was analyzed and labeled B-1-H20. The ground water and rinsate from pressure washing the drilling equipment was drummed in 55 gallon DOT approved drum, and labeled Ground Water and Rinsate, which was left on site pending disposal.

4.4 Backfilling

The boring was backfilled with a Cement Bentonite Grout from total depth to near grade, on November 14, 1994.

5.0 ANALYTICAL RESULTS AND DISCUSSION

Three (3) soil samples and one (1) groundwater sample were collected from Boring 1 and were analyzed for total petroleum hydrocarbons as gasoline (TPHg) in accordance with modified Environmental Protection Agency (EPA) Method 8015, and for benzene, toluene, ethylbenzene, and total xylene isomers (TPHg/BTEX) in accordance with EPA Method 8015/8020.

Results of soil analyses are summarized in Table 1. Copies of the analytical results, QA/QC data and chain-of-custody forms are provided in Appendix D. Based on the results of the soil samples and ground water sample collected from near the former UST location, EIA concludes the following:

- TPHg and BTEX concentrations exceed regulatory action levels for Soil samples B-1-20 and B-1-25. TPHg and BTEX concentrations exceed regulatory action levels for Ground Water sample B-1-H2O.

Therefore, we are recommending further investigation to evaluate the extent of hydrocarbon-impacted soil and groundwater.

TABLE 1
RESULTS OF SOIL ANALYSES
Engine Research Company
508 East Lewelling
San Lorenzo, California
(November 14, 1994)

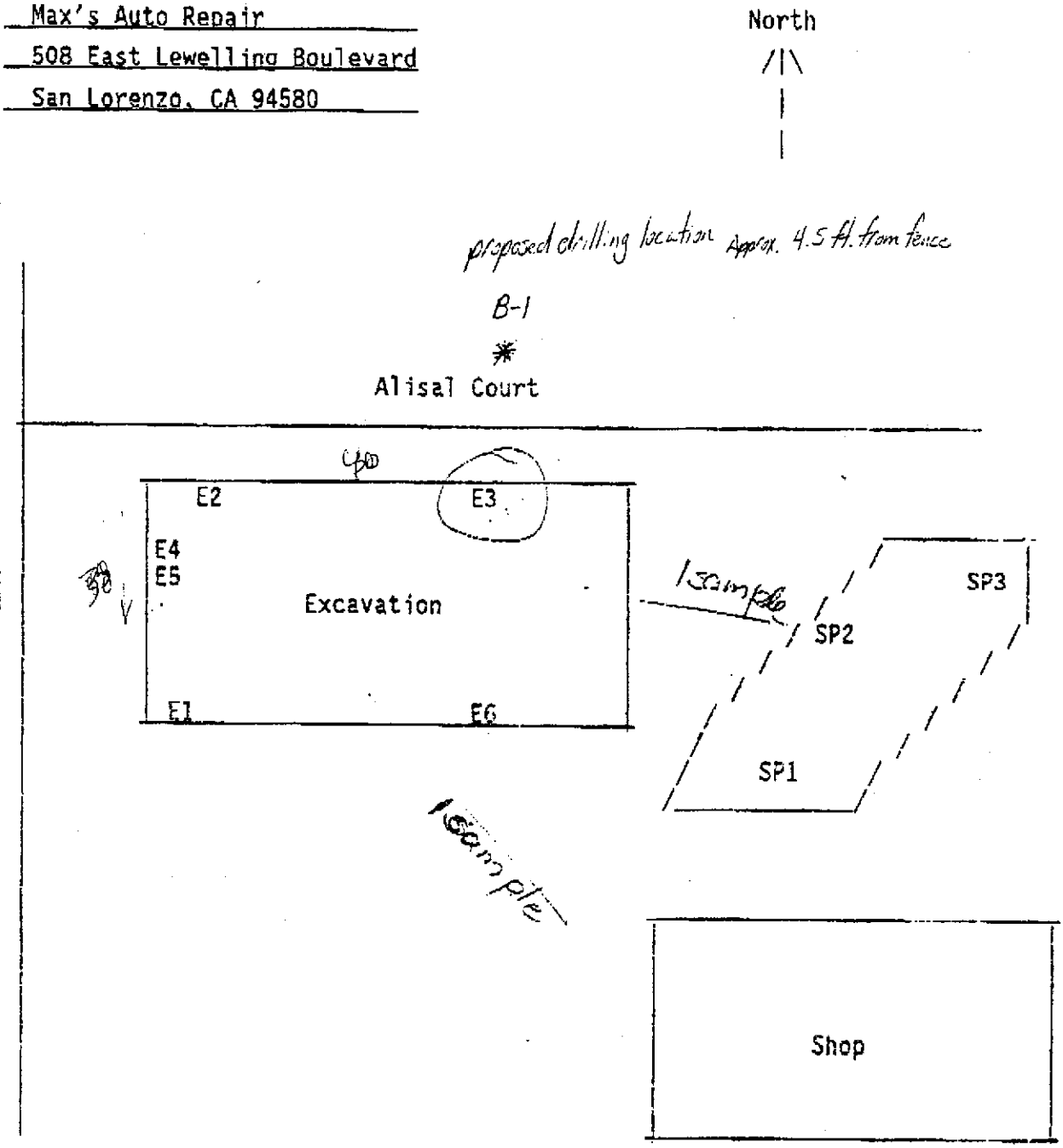
SAMPLE NUMBER	SAMPLE DEPTH*	B	T	E	X	TPHg
B-1-13	13	ND	ND	ND	ND	ND
B-1-20	20	27	47	42	86	6,900
B-1-25	25	76	120	73	160	1,800
B-1-H20	26	3.6	8.2	3.9	9.5	1,300

Soil-TPHg results in micrograms per kilogram = parts per billion
Water-TPHg results in micrograms per kilograms=parts per billion
Soil and Water-BTEX results in micrograms per kilogram = parts per billion
* = depth in feet below grade
B=benzene T=toluene E=ethylbenzene X=total xylene isomers
TPHg = total petroleum hydrocarbons as gasoline
ND = not detected at detection limit indicated on laboratory report

file:...user\eng\eshore\tank_rpt

Trace Analysis Laboratory, Inc.

Site: Max's Auto Repair
Address: 508 East Lewelling Boulevard
San Lorenzo, CA 94580



Requester: Max Gracio
Customer: Max's Auto Repair
508 East Lewelling Boulevard
San Lorenzo, CA 94580

Date Sampled: 04/14/94
Log No.: 4305

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 508 E. Lewelling Blvd.
San Lorenzo, CA 94580

CLIENT
Name Engine Research Company
Address 584 E Lewelling Blvd. Voice (510) 276-9334
San Lorenzo CA 94580 Zip 94580

APPLICANT
Name Environmental Investigation & Action
Fax (510) 264-9085
Address 22590 Thunderbird Place Voice (510) 264-9081
City Hayward Zip 94545

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	1
Water Supply	___	Contamination	___
Monitoring	___	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger 1
Cable ___ Other ___

DRILLER'S LICENSE NO. 490942 (BSK & Associates)

WELL PROJECTS
Drill Hole Diameter ___ in. Maximum
Casing Diameter ___ in. Depth ___ ft.
Surface Seal Depth ___ ft. Number ___

GEOTECHNICAL PROJECTS
Number of Borings 1 Maximum
Hole Diameter ___ in. Depth 25 ft.

ESTIMATED STARTING DATE 11/9/94
ESTIMATED COMPLETION DATE 11/9/94

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] Date 10/27/94

FOR OFFICE USE

PERMIT NUMBER 94692
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL
(1.) A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
(3.) Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 27 Oct 94
Wyman Hong

ALAMEDA COUNTY PUBLIC WORKS
399 ELMHURST STREET, HAYWARD, CALIFORNIA 94544
ROAD ENCROACHMENT PERMIT

(In accordance with Chapter 1 of Title 5, Streets and Highways, Ordinance Code, County of Alameda, an ordinance providing for the protection of Public Highways and rights of way thereof regulating the use thereof; and the manner in which the same may be altered, excavated under, obstructed or encroached upon; and providing penalties for the violation of the provisions thereof)

Issued To: EIA TECHNOLOGIES
22390 THUNDERBIRD PLACE
HAYWARD, CA 94545
Phone: 264-9081

Permit Number: R00-940276
Issue Date: 11/ 7/1994
Expiration Date: 11/ 7/95
Permit Issue Receipt: 005359
Assessor Number: - - -
Work Order Number: 80001

Job Site: ALISAL CT,
Township: SLZ

in compliance with and subject to all the terms, conditions and restrictions contained in Chapter 1 of Title 5 of said Ordinance Code and as stated below or printed as general or special provisions on any part of or attached to and made a part of this encroachment permit.

THE ABOVE APPLICANT HEREBY REQUESTS PERMISSION TO:
PERFORM A SOIL BORING OF THE RIGHT-OF-WAY WITHIN THE INTERSECTION OF E. LEWELLING BOULEVARD AND ALISAL COURT.

Attention is directed to the general provisions printed on the attached sheets of this permit and to the special provisions attached hereto and made a part hereof.

ALL MISCELLANEOUS GENERAL PROVISIONS.

This permit does not authorize, and it shall not be construed to authorize any infringement upon the property rights of owners of the fee title of the highway referred to herein. Notice of start of work and other required notices shall be given to the field office, 951 Turner Ct., Suite 300, Hayward Phone (510) 670-5762.

Other Required Permits: NONE
Bond Information: WAIVED
Permit ~~Deposit~~ Fee: $25 Fee

Charging and Billing Instructions:
Bill the Permittee for the listed fees: (Y/N)

By _____ Applicant Reviewed By: JKR
Work Completed: __/__/__
By _____ ALAMEDA COUNTY Inspector: _____

Where no maps or plats are furnished, a sketch of the proposed work, showing location, name of road and other information must be made on a separate sheet, in triplicate.

LOCATION OF BORING

JOB NO.	CLIENT	LOCATION
0234005	E.R.C.	San Lorenzo

DRILLING METHOD: Hollow stem auger (8")

SAMPLING METHOD: Split spoon (2")

BORING NO. 1

SHEET 1 OF 2

DRILLING

START TIME	FINISH TIME
DATE	DATE

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DRILLING CONTR. BST & Associates

DATUM

ELEVATION

SURFACE CONDITIONS: Asphalt surface ~~open graveling~~

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO. / SAMPLE DEPTH	BLOWS/FT SAMPLER	NUMBER OF RINGS	DEPTH IN FEET	SOIL GRAPH	
						0		0'-8' Silt, dark brown, moist
						1		
						2		
						3		
						4		
				3		5	3	
				2 / 3		6	2, 3	
						7		
						8		8'-10' Dark brown clayey silt, moist. Appears to be staining; no odor
						9		
				4 5 / 8		10	4, 5, 8	10'-14' Grey silt w/fine sand, moist
						11		
						12		Collected sample B-1-13 at 13' bsg Slight Odor
						13		
						14		14'-19' Brown clayey silt, moist
				2 / 3 4		15	2, 3	
						16	4	
						17		
						18		
						19		
						20		

NO.

BY ______ DATE ______ CHK'D BY ______

625 (1-73) REV (8-80)

LOCATION OF BORING

0234005	ERC	San Lorenzo

DRILLING METHOD: Hollow stem auger (8")

BORING NO. 1

SHEET 2 OF 2

SAMPLING METHOD: Split spoon (2")

DRILLING START / FIN

TIME / TI

DATE / DA

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DRILLING CONTR. BSK & Associates

DATUM ELEVATION

SURFACE CONDITIONS:

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	DEPTH OF CASING	SAMPLE NO / SAMPLE DEPTH	BLOWS/FT SAMPLER	NUMBER OF RINGS	DEPTH IN FEET	SOIL GRAPH
				1/2		20	
				5		21	
						22	
						23	
						24	
				7/13		25	
				21		26	
						27	
						28	
						29	
				7/11		30	
				13		1	
						2	
						3	
						4	
						5	
						6	
						7	
						8	
						9	
						10	

19-23' Brown clay w/sand very thin layer of med-sand @ 3' at 19' ft moist

Collected Sample B-1-20 at 20' BSG.

Strong odor in sample.

* Static G.W level

23'-26'

Brown clay w/SH slight odor, moist

Sample B-1-25' at BSG

26'-30'

1st Water encountered Sample B-1-H20 at 26' BG

Light Brown clay w/SH sand, moist

Sample B-1-30 collected at 30' BSG

* Soil/Water interface at 26' bgs

* Water was measured to be standing at 22 bgs

CHK'D BY

DATE

BY

NO.

APPENDIX C

ANALYTICAL RESULTS, QA/QC DATA AND CHAIN-OF-CUSTODY FORMS

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

November 18, 1994 PEL # 9411040

ENVIRONMENTAL INVESTIGATION & ACTION

Attn: Kurt Soto-Gambini
Re: One soil sample for Gasoline/BTEX analysis.

Project name: Engine Research Company
Project location: 508 E. Lewelling Blvd., - San Lorenzo
Project number: 0234005

Date sampled: Nov 14, 1994 Date submitted: Nov 14, 1994
Date extracted: Nov 17-18, 1994 Date analyzed: Nov 17-18, 1994

RESULTS:

SAMPLE I.D.	Gasoline (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)
B-1-25	18	76	120	73	160
Blank	N.D.	N.D.	N.D.	N.D.	N.D
Spiked Recovery	90.4%	81.6%	106.0%	101.3%	104.7%
Detection limit	1.0	5.0	5.0	5.0	5.0
Method of Analysis	5030 / 8015	8020	8020	8020	8020

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9639 Fax: 408-946-9663

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

November 18, 1994

PEL # 9411040

ENVIRONMENTAL INVESTIGATION & ACTION

Attn: Kurt Soto-Gambini
Re: One soil sample for Gasoline/BTEX analysis.

Project name: Engine Research Company
Project location: 508 E. Lewelling Blvd., San Lorenzo
Project number: 0234005

Date sampled: Nov 14, 1994
Date extracted: Nov 17-18, 1994

Date submitted: Nov 14, 1994
Date analyzed: Nov 17-18, 1994

RESULTS:

SAMPLE I.D.	Gasoline (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)
B-1-25	18	76	120	73	160
Blank	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	90.4%	83.6%	106.0%	101.3%	104.7%
Detection limit	1.0	5.0	5.0	5.0	5.0
Method of Analysis	5030 / 8015	8020	8020	8020	8020

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9637 Fax: 408-946-9663

Environmental Investigation & Action

22390 Thunderbird Place
Hayward, California 94545 USA

CHAIN OF CUSTODY RECORD AND ANALYSIS

PEL # 9411040

INV # 25432

PROJECT NO.	PROJECT NAME/SITE	# 0234005
0234005	Engine Research Company 508 E. Lewelling Blvd. San Lorenzo CA 94580	

SAMPLERS (SIGN) / (PRINT) Kurt Soto-Gamboa A.M.

SAMPLE IDENTIFICATION	DATE	TIME	COMP	GRAB	PRES. USED	ICED	NO. CONTAINERS	SAMPLE TYPE	BTEX (8020/8021)	TPH-g (8015) / 8020	TPH-d (8015)	TCG 418.1/5520	601/8010	624/8240	625/8270					REMARKS
B-1-13	11/14/94	9:40																		
B-1-20	11/14/94	9:54							✓									2		per KURT
B-1-25	11/14/94	10:14							✓											on 11/15/94 at 8:27 AM
B-1-30	11/14/94	10:39																		
B-1-H_2O	11/14/94	11:25							✓											

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Kurt Soto-Gamboa	11/14/94	3:44pm	
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:	DATE 11/14/94	TIME 3:44pm	RECEIVED BY LABORATORY:

LABORATORY: P.E.L.

REQUESTED TURNAROUND TIME: 3 days

RECEIPT CONDITION:

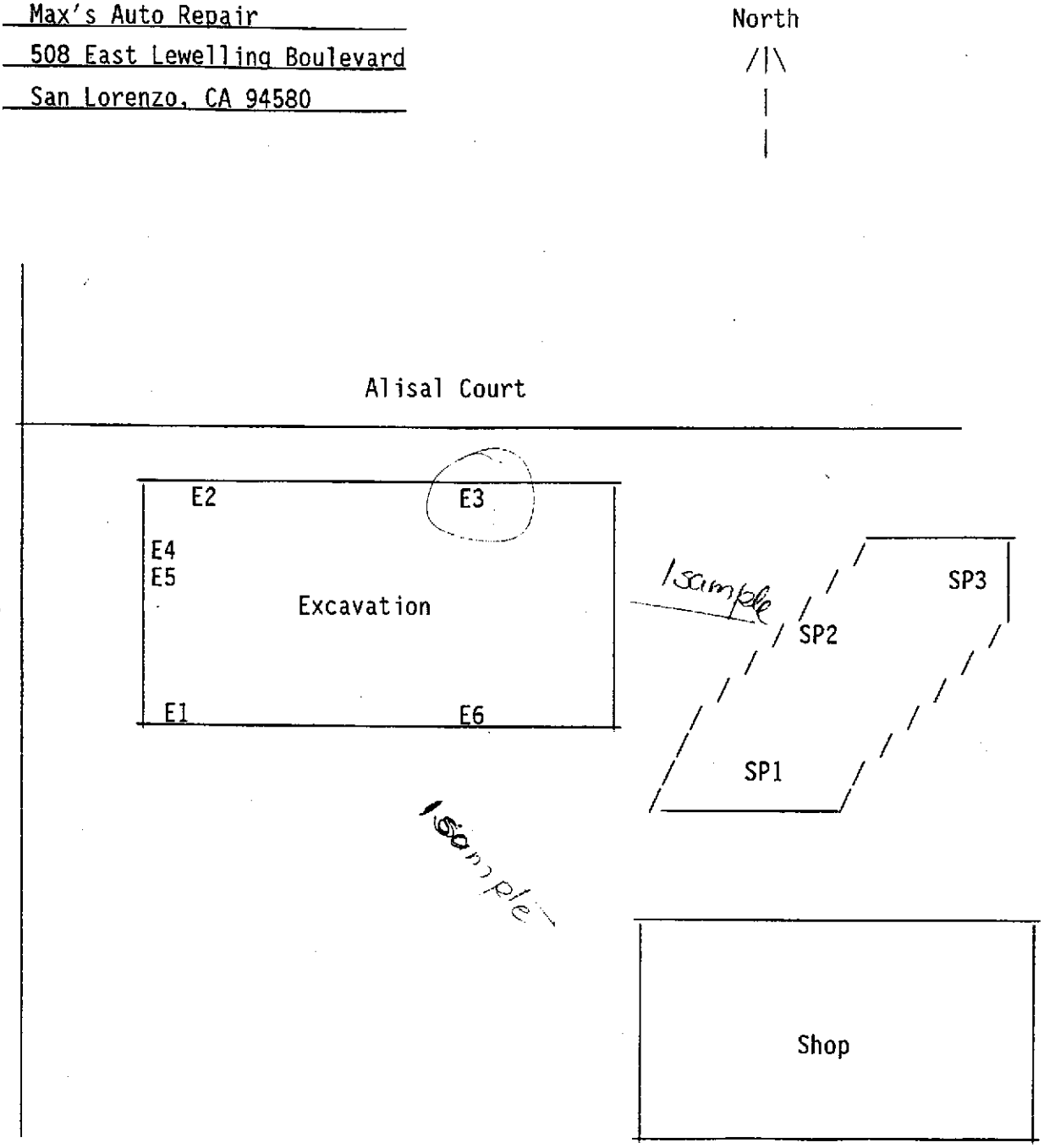
PLEASE SEND RESULTS TO:

Environmental Investigation & Action
Hayward Office:
22390 Thunderbird Place
Hayward, California 94545
Phone: (510) 264-9081
Fax: (510) 264-9083

PROJECT MANAGER:

Trace Analysis Laboratory, Inc.

e: Max's Auto Repair
Address: 508 East Lewelling Boulevard
San Lorenzo, CA 94580



Requester: Max Gracio
Customer: Max's Auto Repair
508 East Lewelling Boulevard
San Lorenzo, CA 94580

Date Sampled: 04/14/94
Log No.: 4305

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

LOG NUMBER: 4305
DATE SAMPLED: 04/14/94
DATE RECEIVED: 04/14/94
DATE EXTRACTED: 04/21/94
DATE ANALYZED: 04/23/94 and 04/29/94
DATE REPORTED: 05/18/94

CUSTOMER: Max's Auto Repair

REQUESTER: Max Gracio

PROJECT: Excavation/Tanks

Sample Type: Soil

Method and Constituent:	Units	E1 Concentration	E1 Reporting Limit	E2 Concentration	E2 Reporting Limit	E3 Concentration	E3 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	1,800	500	13,000	500	94,000	7,500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	140
Toluene	ug/kg	7.6	5.0	ND	5.0	1,200	140
Ethylbenzene	ug/kg	23	5.0	96	5.0	590	140
Xylenes	ug/kg	74	15	200	15	38,000	420

Method and Constituent:	Units	E5 Concentration	E5 Reporting Limit	E6 Concentration	E6 Reporting Limit	SP1 Concentration	SP1 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	950	500	ND	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	9.4	5.0	ND	5.0	ND	5.0
Xylenes	ug/kg	53	15	ND	15	33	15

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

LOG NUMBER: 4305
DATE SAMPLED: 04/14/94
DATE RECEIVED: 04/14/94
DATE EXTRACTED: 04/21/94
DATE ANALYZED: 04/23/94
DATE REPORTED: 05/18/94
PAGE: Two

Sample Type: Soil

Method and Constituent:	Units	SP2 Concentration	SP2 Reporting Limit	SP3 Concentration	SP3 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	5,600	500	730	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	25	5.0	ND	5.0	ND	5.0
ylenes	ug/kg	24	15	47	15	ND	15

QC Summary:

% Recovery: 74 and 79
% RPD: 19 and 40

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

LOG NUMBER: 4305
DATE SAMPLED: 04/14/94
DATE RECEIVED: 04/14/94
DATE EXTRACTED: 04/26/94
DATE ANALYZED: 04/27/94
DATE REPORTED: 05/18/94
PAGE: Three

Sample Type: Soil

Method and Constituent:	Units	E1 Concentration	E1 Reporting Limit	E2 Concentration	E2 Reporting Limit	E3 Concentration	E3 Reporting Limit
EPA Method 7420:							
Lead	ug/kg	12,000	3,600	10,000	3,600	15,000	3,600

Method and Constituent:	Units	E5 Concentration	E5 Reporting Limit	E6 Concentration	E6 Reporting Limit	SP1 Concentration	SP1 Reporting Limit
EPA Method 7420:							
Lead	ug/kg	6,600	3,600	4,100	3,600	6,600	3,600

Method and Constituent:	Units	SP2 Concentration	SP2 Reporting Limit	SP3 Concentration	SP3 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 7420:							
Lead	ug/kg	12,000	3,600	22,000	3,600	ND	3,600

QC Summary:

% Recovery: 136
% RPD: 14

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

Louis W. DuPuis
Quality Assurance/Quality Control Manager

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #6 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

CHAIN OF CUSTODY RECORD

4305

Proj.No.	Project Name: Excavation / Tanks	No. of Containers	Analyses: TPH g/BTEX	Pb	REMARKS
	Company Name and Address: Max's Auto Repair, 508 E. Lewelling Blvd, San Lorenzo, CA 94580				
	Project Manager: Max Gracio				
Sample ID	Date / Time / Site Location				
E1	4/14/94 9:25 AM Southwest corner	1 Brass Tube	X	X	12 ft ↓ (Bottom)
E2	4/14/94 9:43 AM Northwest corner	1 Brass tube	X	X	12 ft ↓ (Bottom)
E3	4/14/94 10:00 AM North East Mid/corner	1-Brass tube	X	X	12 ft ↓ (Bottom)
E4	4/14/94 10:06 AM West side - Mid	1-Brass Tube			9 ft ↓ (Bottom) Hold
E5	4/14/94 10:09 AM west side - Mid	1-Brass Tube	X	X	11 ft ↓ (Bottom)
E6	4/14/94 10:22 AM South-Mid to East wall	1-Brass Tube	X	X	10 ft ↓ (Bottom wall)
SP1	4/14/94 9:47 AM Stock pile	1-Brass	X	X	3 ft below surface
SP2	4/14/94 10:05 AM Stock pile	1-Brass	X	X	3 ft below Surface
SP3	4/14/94 10:12 AM Stock pile	1-Brass	X	X	3 ft below Surface

Sampled by: (signature)	Date/Time	Relinquished by: (signature)	Date/Time
Scott T. Ferrin TAL	4/14/94 10:26 AM		
Received by: (signature)	**Date/Time**	**Relinquished by: (signature)**	**Date/Time**
Received for Laboratory by: (signature)	**Date/Time**	**TURNAROUND TIME**	
Scott T. Ferrin TAL	4/14/94 10:26 AM	Reg	

REMARKS

T/T, Soil, 1-BT each, Y-1, Reg TAT

Juliet Shin, Alameda County Health Dept., Ph# (510) 271-4530
Fax # (510) 569-4757.

. Pipe Trench + SP Soil

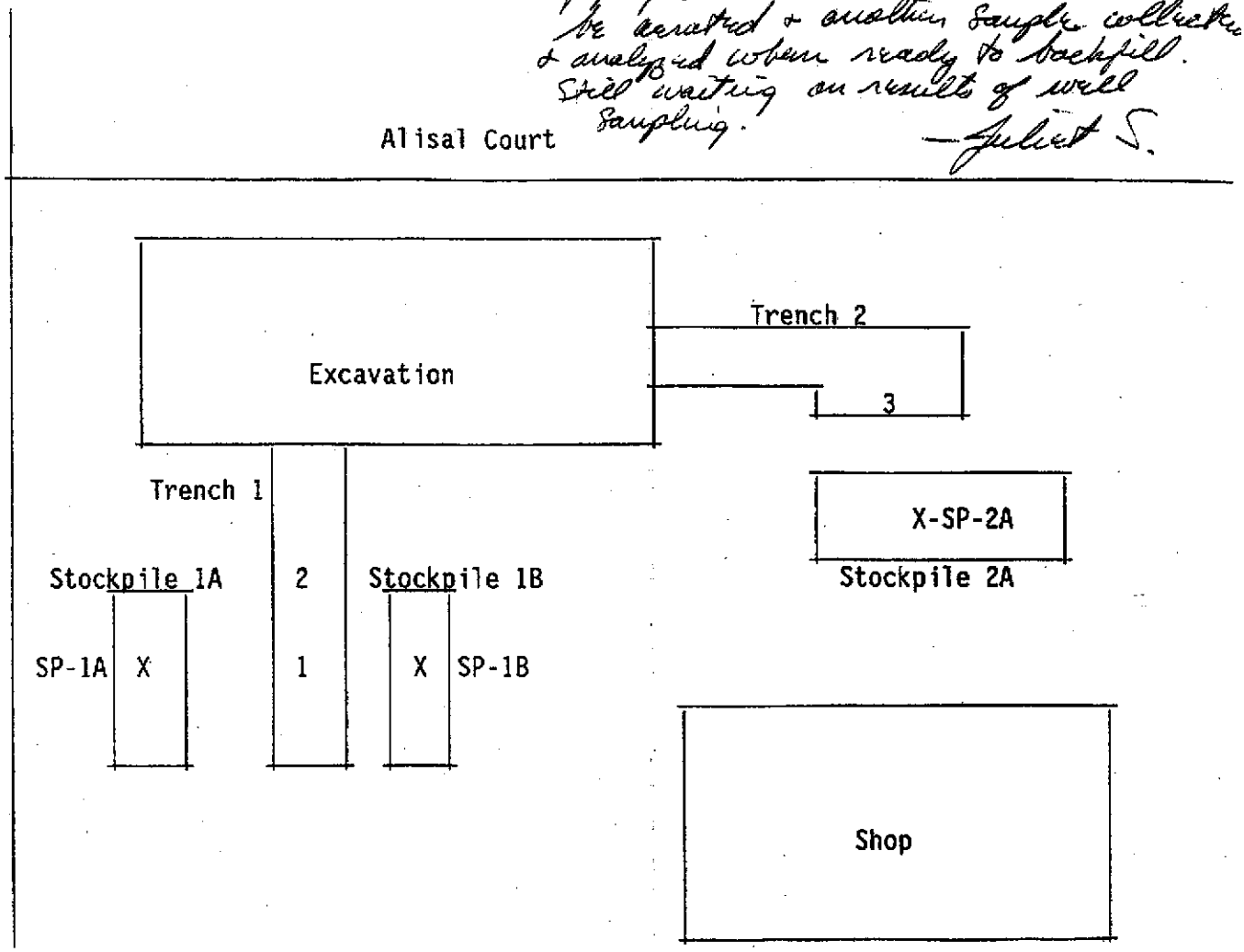
TAL Trace Analysis Laboratory, Inc.

ite: Max's Auto Repair

Address: 508 East Lewelling Boulevard
San Lorenzo, CA 94580

North

11/30/94
Met w/ Mr. Gracio. Told him that no further work required for product piping excavations. Stkpld soil must be aerated + another sample collected & analyzed when ready to backfill. Still waiting on results of well sampling.
—Juliet S.



Requester: Max Gracio

Customer: Max's Auto Repair
508 East Lewelling Boulevard
San Lorenzo, CA 94580

Date Sampled: 09/15/94

Log No.: 4760

Analysis Laboratory, Inc.
Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

September 29, 1994

Mr. Max Gracio
Max's Auto Repair
508 East Lewelling Boulevard
San Lorenzo, CA 94580

Dear Mr. Gracio:

Trace Analysis Laboratory took six soil samples on September 15, 1994 for your project, Excavation/Pipelines (our custody log number 4760).

These samples were analyzed for Total Petroleum Hydrocarbons as Gasoline, Benzene, Toluene, Ethylbenzene, and Xylenes. Our analytical report and a copy of the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

Scott T. Ferriman
Project Specialist

Enclosures

e Analysis Laboratory, Inc.
Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

CHAIN OF CUSTODY RECORD

4760

Proj.No. | Project Name: Excavation / Pipe-Lines

Company Name and Address: Max's Auto Repair, 508 E Lewelling Blvd, San Lorenzo, CA 94580

Project Manager: Max Gracio

Sample ID	Date	Time	Site Location	No. of Containers	Analyses: TPH/BTEX	REMARKS
S-1	9/10/94	9:40	Trench 1 @ 2 ft	1-BT	X	
S-2		9:45	Trench 1 @ 2 Ft		X	
S-3		9:50	Trench 2 @ 2Ft		X	
SP-1A		9:55	Stockpile 1A		X	Composite
SP-1B		10:05	Stockpile 1B		X	
SP-2A		9:57	Stockpile 2		X	

Sampled by: (signature) TAL	Date/Time	Relinquished by: (signature)	Date/Time
Scott T. Furtner	9/15/94 10:10 AM		
Received by: (signature)	**Date/Time**	**Relinquished by: (signature)**	**Date/Time**
Received for Laboratory by: (signature)	**Date/Time**	**TURNAROUND TIME**	
Scott T. Furtner	9/15/94 10:10 AM	Reg TAT	

REMARKS

T/T, Soil, 1-BT each, V-3, Reg TAT

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6960
Facsimile (510) 783-1512

TAL

LOG NUMBER: 4760
DATE SAMPLED: 09/15/94
DATE RECEIVED: 09/15/94
DATE EXTRACTED: 09/20/94
DATE ANALYZED: 09/27/94
DATE REPORTED: 09/29/94

CUSTOMER: Max's Auto Repair

REQUESTER: Max Gracio

PROJECT: Excavation/Pipelines

Sample Type: Soil

Method and Constituent:	Units	S-1 Concentration	S-1 Reporting Limit	S-2 Concentration	S-2 Reporting Limit	S-3 Concentration	S-3 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	6,600	3,600	12,000	3,600	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	73	ND	73	ND	5.0
Toluene	ug/kg	ND	73	440	73	ND	5.0
Ethylbenzene	ug/kg	190	73	310	73	ND	5.0
Xylenes	ug/kg	2,400	220	3,400	220	ND	15

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