ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

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

April 20, 2012

Larry Armstrong
Quality Tune-up
P.286 E. Hamilton Ave., Suite A
Campbell, CA 95800

Kenneth A. Gong
Kenneth A. Gong TR ETAL
42 Linda Vista
Orinda, CA 94563

Subject: Fuel Leak Case No. RO0000135 and GeoTracker Global ID T0600101116, Quality Tune-up, 2780 Castro Valley Boulevard, Castro Valley, CA 94546

Dear Mr. Armstrong and Mr. Gong:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to 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 the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

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

- Residual soil contamination consisting of 430 mg/kg TPH-g and 0.810 mg/kg benzene remains at the site.
- Case closure for this fuel leak site is granted for the current commercial land use only. If a change in land use to any residential or other conservative land use scenario is proposed at this site, Alameda County Environmental Health (AECH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans.
- Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party (or current property owner/developer) prior to and during excavation and construction activities.

If you have any questions, please call Paresh Khatri at (510) 777-2478. Thank you.

Sincerely,

Donna L. Drogos, P.E.
Division Chief

Enclosures: 1. Remedial Action Completion Certificate
2. Case Closure Summary

cc:

Ms. Cherie McCaulou (w/enc)
SF- Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
(Sent via E-mail to:
CMccaulou@waterboards.ca.gov)

Closure Unit (w/enc)
State Water Resources Control Board
UST Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120
(*Sent via E-mail*)

Paresh Khatri (w/orig enc), D. Drogos (w/enc), T. Le-Khan (w/enc)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
OFFICE OF THE DIRECTOR
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 94502
(510) 567-6777
FAX (510) 337-9135

REMEDIAL ACTION COMPLETION CERTIFICATION

April 17, 2012

Larry Armstrong
Quality Tune-up
P.286 E. Hamilton Ave., Suite A
Campbell, CA 95800

Kenneth A. Gong
Kenneth A. Gong TR ETAL
42 Linda Vista
Orinda, CA 94563

Subject: Fuel Leak Case No. RO0000135 and GeoTracker Global ID T0600101116, Quality Tune-up, 2780 Castro Valley Boulevard, Castro Valley, CA 94546

Dear Mr. Armstrong and Mr. Gong:

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 tank(s) 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, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

Claims for reimbursement of corrective action costs submitted to the Underground Storage Tank Cleanup Fund more than 365 days after the date of this letter or issuance or activation of the Fund's Letter of Commitment, whichever occurs later, will not be reimbursed unless one of the following exceptions applies:

- Claims are submitted pursuant to Section 25299.57, subdivision (k) (reopened UST case); or
- Submission within the timeframe was beyond the claimant's reasonable control, ongoing work is required for closure that will result in the submission of claims beyond that time period, or that under the circumstances of the case, it would be unreasonable or inequitable to impose the 365-day time period.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

Ariu Levi
Director

Alameda County Environmental Health

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM

I. AGENCY INFORMATION

Date: April 28, 2010

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 777-2478
Responsible Staff Person: Paresh Khatri	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Quality Tune-up		
Site Facility Address: 2780 Castro Valley Blvd., Castro Valley, California 94546		
RB Case No.: 01-1214	StID No.: 969	LOP Case No.: RO0000135
URF Filing Date: ---	Global ID No.: T0600101116	APN: 84A-131-15-2

Responsible Parties	Addresses	Phone Numbers
Larry Armstrong Quality Tune-up	286 E Hamilton Avenue, Suite A Campbell, CA 95800	
Kenneth A. Gong / Kevin A. Gong TR ETAL	42 Linda Vista Orinda, CA 94563	

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	1 x 7,500-gallon	Gasoline	Removed	02/1987
2	1 x 7,500-gallon	Gasoline	Removed	02/1987
3	1 x Unknown size	Waste Oil	Removed	02/1987
4	1 x 8,000-gallon	Gasoline / Waste Oil	Removed	6/11/1991
Piping			Removed	6/11/1991

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown, USTs appeared intact upon removal.	
Site characterization complete? Yes	Date Approved By Oversight Agency: ---

Monitoring wells installed? Yes	Number: 3	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 9.01 ft bgs	Lowest Depth: 11 ft bgs	Flow Direction: South to Southwest
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity: A 2,000 foot radius well survey was conducted at a nearby Chevron site (RO0000475), located at 2920 Castro Valley Boulevard (approximately 500 feet east of the subject site) identified five water supply wells. Three wells are located at Eden Hospital, located approximately 2,000 feet northwest of the site, and one is located at a private residence approximately 1,500 feet southwest of the site. A fifth well was identified to likely be within the 2,000 foot radius, but the exact location could not be determined. These wells are not considered receptors due to their respective distances from the subject site.

Are drinking water wells affected? No	Aquifer Name: East Bay Plain Groundwater Basin
Is surface water affected? No	Nearest SW Name: small south-flowing tributary to the creek is present approximately 400 feet west of the site
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	Two 7,500-gallon & one unknown size One 8,000-gallon	Disposal, unknown Location Disposal to Erickson, Inc. Richmond, CA	02/1987 6/17/1991
Piping	Unknown	Disposal, unknown location	02/1987 / 06/1991
Free Product	NA	---	---
Soil	Unknown	Vasco Landfill, California	7/19/1991
Groundwater	NA	---	---

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
(Please see Attachments for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	430 (MW-3@10 ft, 5/12/1992)	430 (MW-3@10 ft, 5/12/1992)	26,000 (W-1, 2/24/1993)	760 (MW-3, 9/3/1999)
TPH (Diesel)	<1.0	<1.0	NA	NA
TPH (Motor Oil)	32 (MW-3@10 ft, 5/12/1992)	32 (MW-3@10 ft, 5/12/1992)	NA	NA
Benzene	0.810 (MW-3@10 ft, 5/12/1992)	0.810 (MW-3@10 ft, 5/12/1992)	420 (#5, 2/19/1987)	<0.5 (MW-3, 9/3/1999)
Toluene	0.440 (MW-3@10 ft, 5/12/1992)	0.440 (MW-3@10 ft, 5/12/1992)	200 (#5, 2/19/1987)	1.5 (MW-3, 9/3/1999)
Ethylbenzene	1.7 (MW-3@10 ft, 5/12/1992)	1.7 (MW-3@10 ft, 5/12/1992)	NA	2.9 (MW-3, 9/3/1999)
Xylenes	4.8 (MW-3@10 ft, 5/12/1992)	4.8 (MW-3@10 ft, 5/12/1992)	9,400 (#5, 2/19/1987)	4.1 (MW-3, 9/3/1999)
Heavy Metals (Cd, Cr, Pb, Ni, Zn)	1.86 (SOIL-NO, 6/11/1991)	1.86 (SOIL-NO, 6/11/1991)	<50 (PIT WATER, 6/12/1991)	<50 (05/20/1992)
MTBE	NA[4]	NA[3]	NA[2]	22[1] (MW-3, 9/3/1999)
Other (8240/8270)	<0.005[6] (6/11/1991)	<0.005[6] (6/11/1991)	<0.5[5] (PIT WATER, 6/12/1991)	<0.5[5] (PIT WATER, 6/12/1991)

[1] Other VOCs analyzed (groundwater µg/L after cleanup): 22 µg/L MtBE, TBA, DIPE, ETBE, TAME, EDB, 1.2-DCA not analyzed.
[2] Other VOCs not analyzed (groundwater ppb before cleanup): <0.5 µg/L 1.2-DCA, MtBE, TBA, DIPE, ETBE, TAME, EDB, EtOH not analyzed.
[3] Other VOCs (Soil mg/kg after cleanup): MtBE, TBA, DIPE, ETBE, TAME, and EtOH not analyzed; <0.005 mg/kg EDB, <0.005 mg/kg 1.2-DCA.
[4] Other VOCs analyzed (Soil mg/kg before cleanup): MtBE, TBA, DIPE, ETBE, TAME, and EtOH not analyzed; <0.005 mg/kg EDB, <0.005 mg/kg 1.2-DCA.
[5] EPA Method 625 (Semi-volatile Organic Compounds, GC/MS) results <0.5 µg/L.
[6] EPA Method 8010(Halogenated Volatile Organic Compounds, GC) results <0.005 mg/kg.
NA - Not Analyzed

Site History and Description of Corrective Actions:

The Quality Tune-up facility is located on the north side of Castro Valley Boulevard at 2780 Castro Valley Boulevard in Castro Valley, California. A service station that previously operated at the site utilized four underground storage tanks.

In February 1987, two 7,500-gallon gasoline USTs and one unknown quantity waste oil UST were removed by 4M Construction of Madera, California. Soil sample analytical results detected only low concentrations of extractable petroleum hydrocarbons in the vicinity of the waste oil UST. Groundwater sample analytical results detected TPH-g and benzene at concentrations of 26,000 µg/L and 420 µg/L, respectively. Analytical results are summarized on **Table 1** and sample locations are illustrated on **Figure 2.**

On June 11, 1991, the remaining 8,000-gallon UST was removed by Minter & Fahy Construction, Inc. of Pacheco, California. This UST was utilized for gasoline storage until February 1987, at which time it was converted to waste oil storage. Soil sample analytical results did not detect TPH-d, TPH-g, benzene, oil and grease, halogenated volatile organics or semi-volatile organics above the laboratory detection limit. A "grab" groundwater sample collected from the tank pit did not detect TPH-d, TPH-g, benzene, oil and grease, halogenated volatile organics, or extractable organics. Soil and groundwater sample analytical results are summarized on **Table 2** and sample locations are illustrated on **Figure 3.**

On May 12, 1992, three two-inch diameter shallow groundwater monitoring wells (MW-1 through MW-3) were installed at the site. Soil sample analytical results detected TPH-g and benzene at concentrations of 430 mg/kg and 0.810 mg/kg, respectively in soil sample collected at 10 feet bgs from MW-3. Groundwater sample analytical results detected TPH-g and benzene at concentrations of 4,200 µg/L and 4.5 µg/L, respectively, in a groundwater sample collected from MW-3. Analytical results are summarized on **Tables 3 and 4** and sampling locations are illustrated on **Figure 4.**

Periodic groundwater sampling occurred between 1992 through 1995 with an additional sampling event conducted in 1999 for MTBE analysis. Groundwater sample analytical results are summarized on **Table 4** and groundwater elevations are summarized on **Table 5**. It appears that hydrocarbon concentrations in groundwater increase as the groundwater elevation rises and hydrocarbon concentrations decrease as groundwater elevations fall suggesting that residual hydrocarbons may be present within the capillary fringe or "smear zone." However, hydrocarbon contaminant concentrations in groundwater samples appear stable with TPH-g, benzene and MTBE detected at maximum concentrations of 760 µg/L, <0.5 µg/L, and 22 µg/L, respectively.

Geology & Hydrogeology

The site is located within the East Bay Plain in Alameda County, at an elevation of approximately 160 feet on the western side of the gently sloped valley of Castro Valley. The San Leandro Hills are located approximately 1 mile to the north, and a ridge is located 2000 feet west of the site, with an isolated hill approximately 100 feet tall present less than 1000 feet to the south-southwest. Lake Chabot is located approximately 2 miles to the northwest. San Lorenzo Creek is located approximately 1 mile to the southwest, south, and southeast of the site, and a small south-flowing tributary to the creek is present approximately 400 feet west of the site.

Based on review of regional geologic maps from U. S. Geological Survey Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E. J. Helley and K. R. Lajoie, 1979, the subject site is underlain by Late Pleistocene Alluvium (Qpa), which is described as weakly consolidated slightly weathered poorly sorted irregularly interbedded clay, silt, sand, and gravel. These alluvial fan and fluvial deposits overly bedrock consisting of Cretaceous marine sedimentary rocks which make up the San Leandro Hills to the north and east (Geologic Map of California, San Francisco Sheet, State of California Division of Mines and Geology, 1980).

In U. S. Geological Survey Miscellaneous Field Studies MF-2342, "Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California," by R. W. Graymer, 2000, this Cretaceous bedrock is classified mainly as Knoxville Formation of the Great Valley Sequence. The ridge located to the west of the site consists of northwest-trending fault-bounded blocks of this material associated with the Hayward Fault, the main trace of which passes approximately 1 mile west of the site. The eastern edge of this fault zone is located approximately 400 feet to the west of the site along the course of the small tributary creek, and the east side of Castro Valley is bounded by a thrust fault 1.5 miles east of the site (Graymer, 2000).

According to Hageman-Aguiar, Inc. the subsurface materials encountered in the three onsite borings consisted of sandy gravel from the ground surface to two feet bgs underlain by organic silt from 2 to 4 feet bgs. Underlying these units, silty, sandy clay was present in all 3 borings to depths of between 4 and 12 feet. Beneath this clayey sand was encountered to between approximately 12 and 14 feet bgs. At depths greater than 12 to 14 feet bedrock (claystone and siltstone) was encountered.

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? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a significant risk to human health based upon current land use and conditions.		
Site Management Requirements: Case closure for this fuel leak site is granted for the current commercial land use only. If any redevelopment, modifications to existing structures or a change in land use to any other commercial, residential, or any other conservative land use scenario is proposed at this site, Alameda County Environmental Health (AECH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans. Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party (or current property owner/developer) prior to and during excavation and construction activities.		
Should corrective action be reviewed if land use changes? Yes.		
Was a deed restriction or deed notification filed? No		Date Recorded: --
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 3
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: --		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:
None

Conclusion:
Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environmental under the current commercial land use based upon the information available in our files to date. No further investigation or cleanup for the fuel leak case is necessary unless any redevelopment, modifications to existing structures or a change in land use to any other commercial, residential, or other conservative land use scenario occurs at the site. ACEH staff recommend case closure for the site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Paresh Khatri	Title: Hazardous Materials Specialist
Signature:	Date: April 27, 2010
Approved by: Donna L. Drogos, P.E.	Title: Chief
Signature:	Date: 05/05/10

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
Notification Date: MAY 13, 2010	

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: May 13, 2010	Date of Well Decommissioning Report: July 30, 2010	
All Monitoring Wells Decommissioned: Yes	Number Decommissioned: 3	Number Retained: 0
Reason Wells Retained: NA		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: [signature]		Date: April 16, 2012

Attachments:

1. Site Figures 1-4
2. Analytical Tables 1-5
3. Boring Logs (3 pp)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

Khatri, Paresh, Env. Health

From: Cherie MCcaulou [CMccaulou@waterboards.ca.gov]
Sent: Thursday, May 13, 2010 5:12 PM
To: Khatri, Paresh, Env. Health
Subject: Re: RO0000135; Closure Summary for Quality Tune-up (T0600101116)

Paresh - Thanks for the notification. We have no objection to ACEH's recommendation for case closure of RO0000135.

Sincerely,

Cherie McCaulou
Engineering Geologist
San Francisco Bay Regional Water Quality Control Board cmccaulou@waterboards.ca.gov
510-622-2342

>>> "Khatri, Paresh, Env. Health" <paresh.khatri@acgov.org> 5/13/2010
>>> 1:24 PM >>>

Hello Cherie,

Attached is a closure summary for RO0000135; Quality Tune Up located at 2780 Castro Valley Boulevard in Castro Valley to comply with the RWQCB's 30-day review period. If no comments from the RWQCB are received within the 30-day review period, ACEH's will proceed with case closure.

Please contact me should you have any comments or questions regarding the subject site.

Sincerely,

Paresh C. Khatri
Hazardous Materials Specialist
Alameda County Environmental Health
Local Oversight Program
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Phone: (510) 777-2478
Fax: (510) 337-9335

E-mail: Paresh.Khatri@acgov.org

http://www.acgov.org/aceh/lop/lop.htm

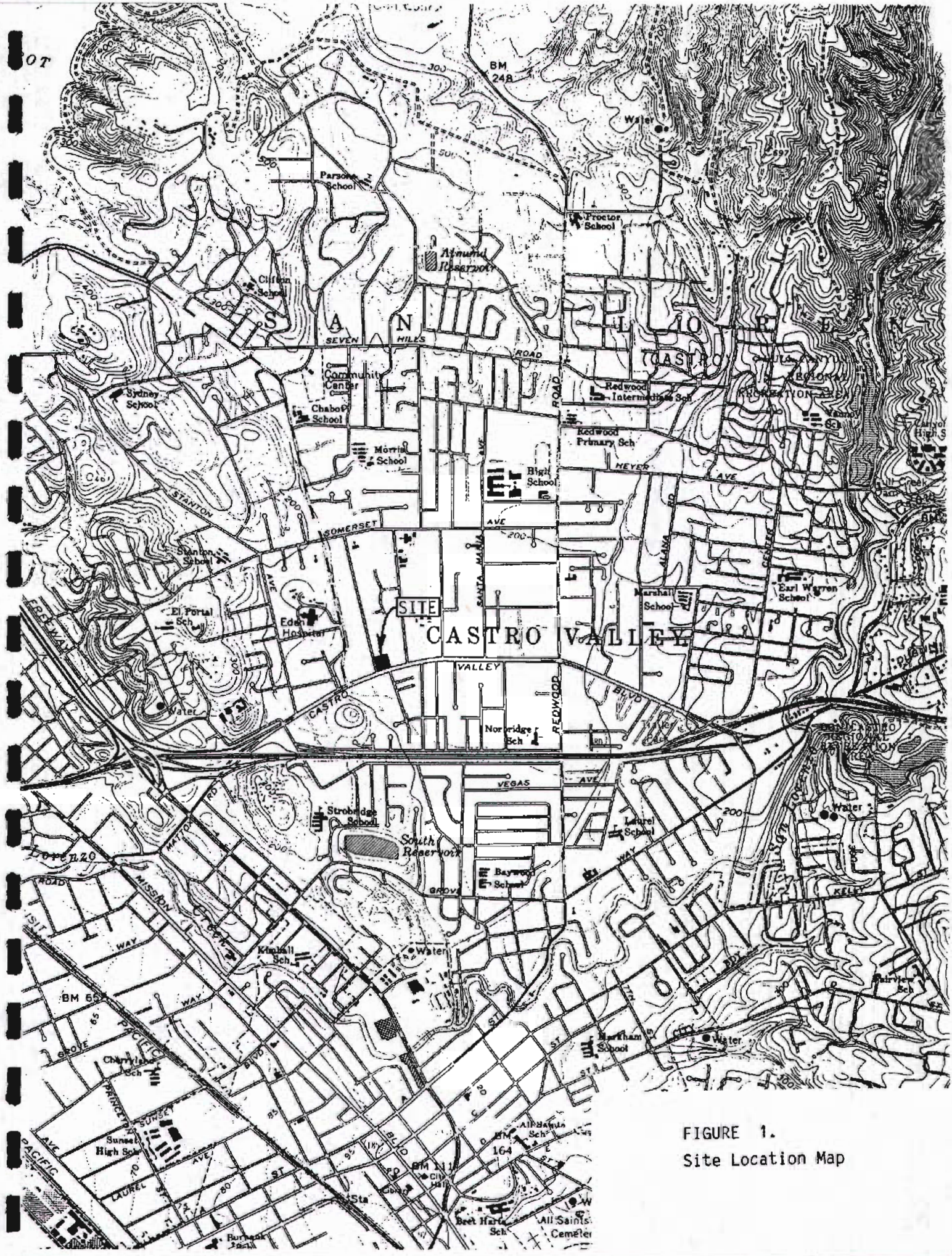


FIGURE 1.
Site Location Map

Quality Tune-Up
2780 Castro Valley Blvd
Castro Valley, Ca.

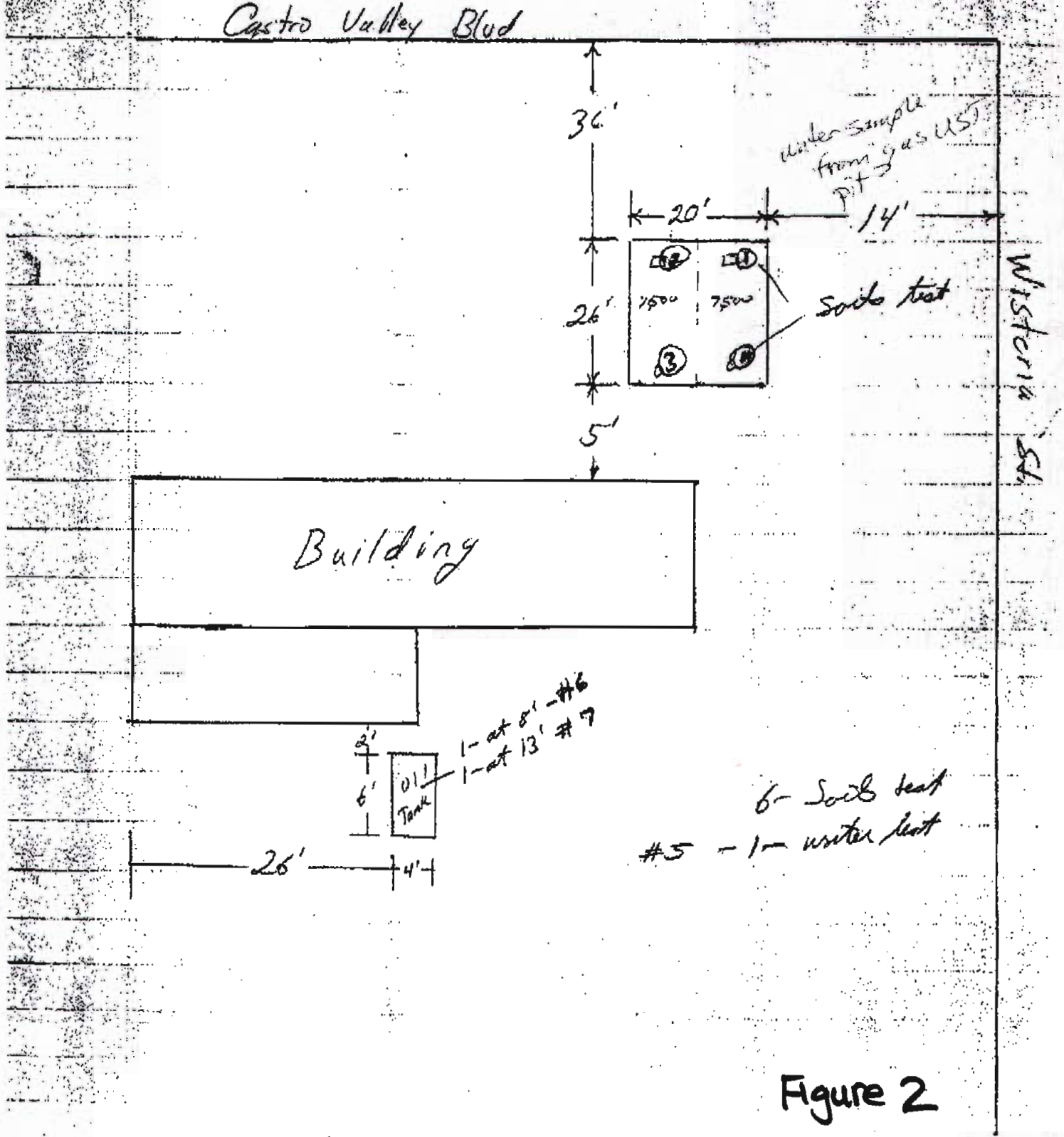


Figure 2

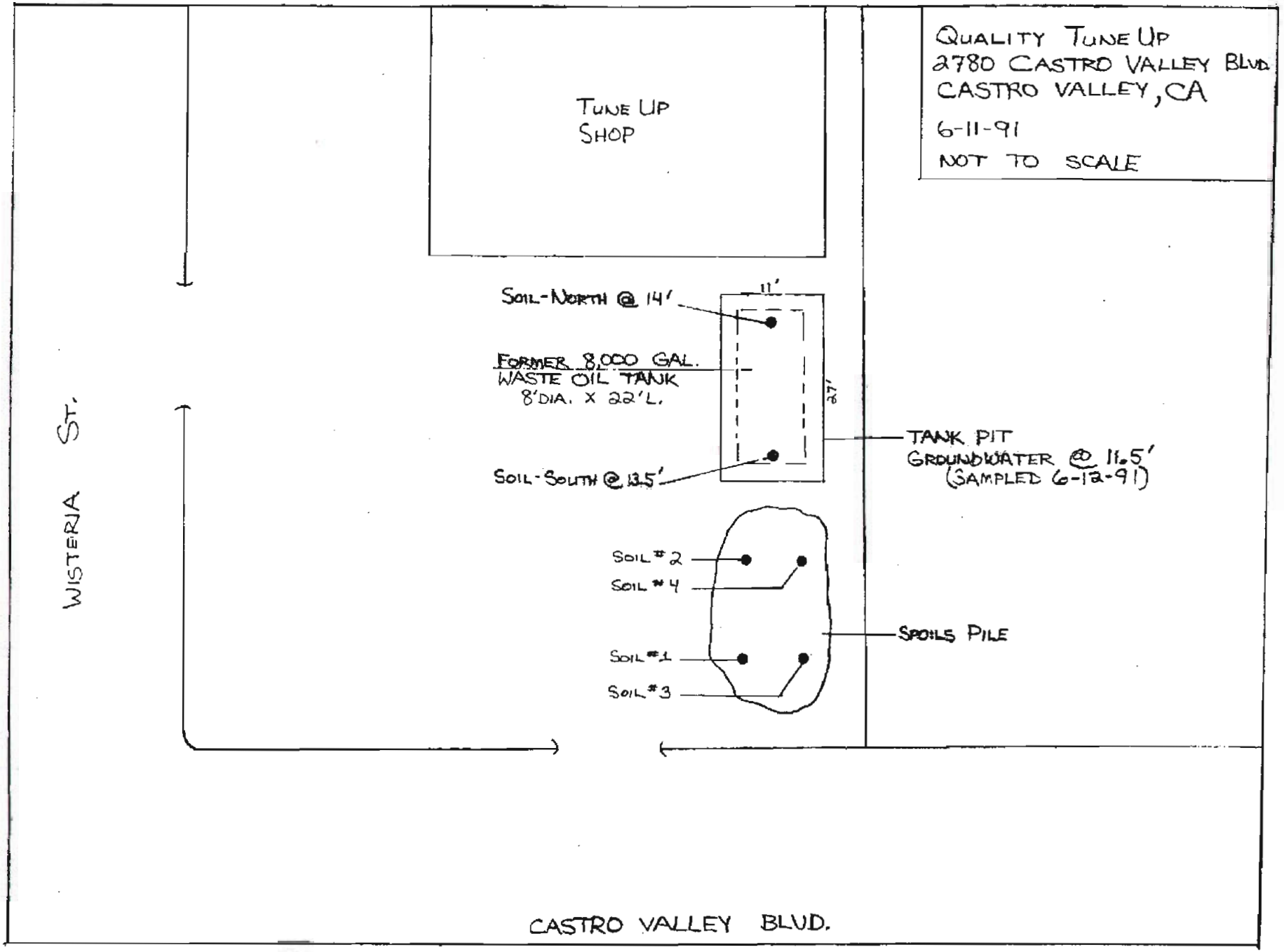

QUALITY TUNE UP
2780 CASTRO VALLEY BLVD.
CASTRO VALLEY, CA
6-11-91
NOT TO SCALE
TUNE UP SHOP
SOIL-NORTH @ 14'
11'
FORMER 8,000 GAL. WASTE OIL TANK 8' DIA. X 22' L.
27'
TANK PIT
GROUNDWATER @ 11.5' (SAMPLED 6-12-91)
SOIL-SOUTH @ 13.5'
SOIL #2
SOIL #4
SPOILS PILE
SOIL #1
SOIL #3
WISTERIA ST.
CASTRO VALLEY BLVD.

Figure 3

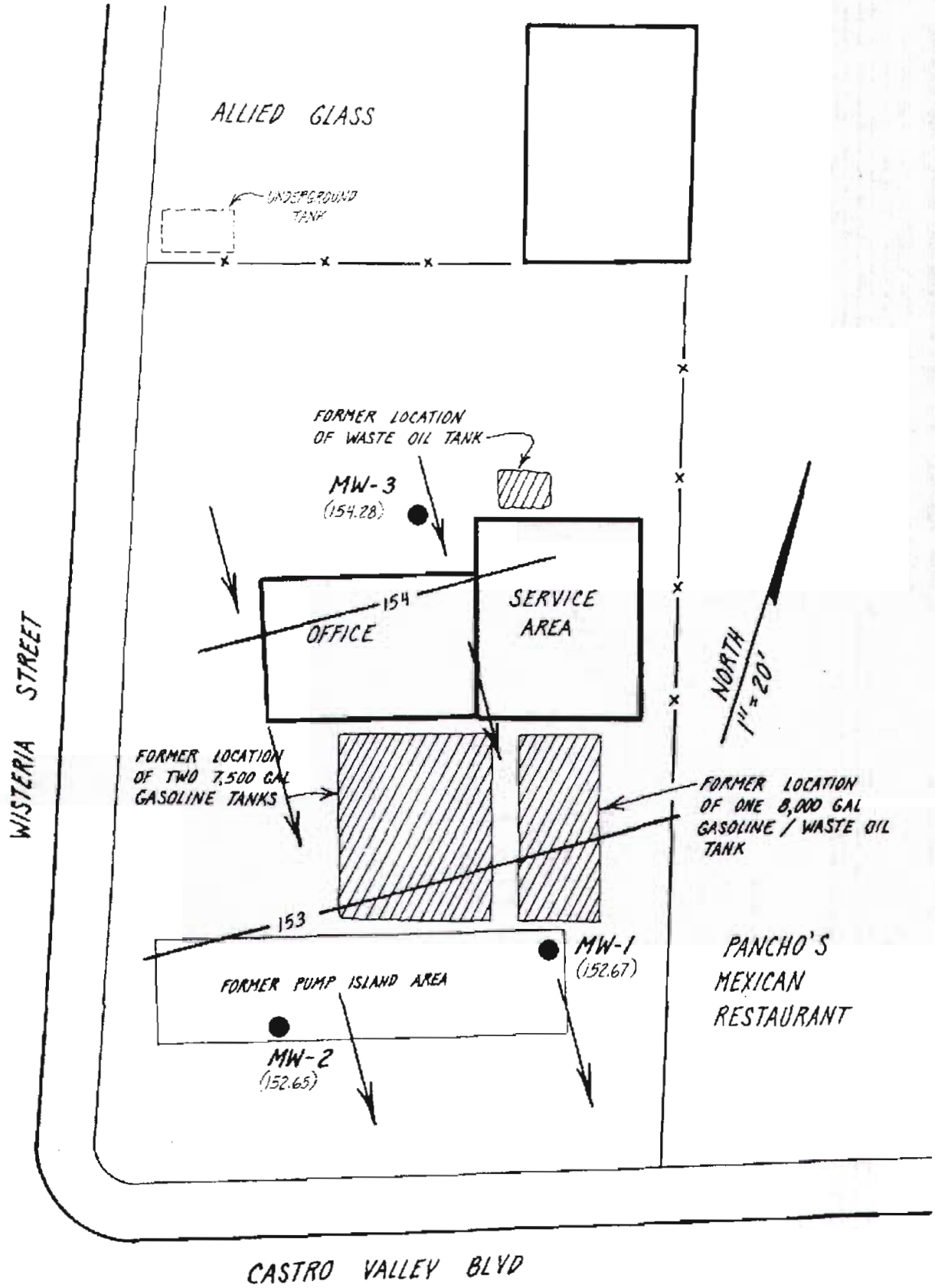


FIGURE 4 Shallow Groundwater Table Contour Map (May 20, 1992).

Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545 (415) 783-6960

TAL

TABLE 1

DATE: 2/24/87

LOG NO.: 4489

DATE SAMPLED: 2/19/87

DATE RECEIVED: 2/19/87

CUSTOMER: 4-M Construction

REQUESTER: Dave Mendrin

PROJECT: Quality Tune-Up, ~~1001~~ 2780 Castro Valley Boulevard, Castro Valley

Sample Type	Sample	Volatile Hydrocarbons	Benzene	Toluene	Xylene	Extractable Hydrocarbons
Soil		mg/kg				mg/kg
	#1	< 2				
	#2	< 2				
	#3	< 2				
	#4	< 2				
	#6, Waste Oil					3.9
	#7, Waste Oil					4.5
Water		mg/l	mg/l	mg/l	mg/l	
	#5	26	0.42	2.0	9.4	

Roland X. Tao

Roland X. Tao
Supervisory Chemist

RXT:mln

TABLE 1.

Table 2: Soil and Groundwater Analytical Results from 8,000-gallon UST Removal

Sample ID	TPH-d	TPH-g	TPH-mo	Benzene	Toluene	Ethylbenzene	Xylenes	Lead
Soil (mg/kg) June 11, 1991								
SOIL-NO.@14 FT	<1.0	<1.0	<10	<0.005	<0.005	<0.005	<0.005	1.86
SOIL-SO.@13.5 FT	<1.0	<1.0	<10	<0.005	<0.005	<0.005	<0.005	1.62
SOIL-1,2,3,4	<1.0	1.4	<1.0	<0.005	0.088	0.010	0.210	1.73
Groundwater (µg/L) June 12, 1991								
PIT WATER	<50	<50	900	<0.5	<0.5	<0.5	<0.5	<50

TABLE 3

Soil Sampling Results

Boring	Depth (feet)	TPH as Gasoline (mg/Kg)	TPH as Kerosene (mg/Kg)	TPH as Diesel (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl-benzene (ug/Kg)	Total Xylenes (ug/Kg)	Motor Oil (mg/Kg)	Oil & Grease (mg/Kg)
MW-1	05	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-2	05	ND	ND	ND	ND	5.4	ND	22	ND	ND
	10	6.6	ND	ND	8.6	12	36	92	ND	ND
	15	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-3	05	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10	430	8.5	ND	810	440	1,700	4,800	ND	32
	13	50	ND	ND	27	17	77	160	ND	16
	15	ND	ND	ND	ND	ND	ND	ND	ND	ND
Detection Limit		1.0	1.0	1.0	5.0	5.0	5.0	5.0	10	10

ND = Not Detected

2780

TABLE 4

Shallow Groundwater Sampling Results

Well	Date	TPH as Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-1	05-20-92	260	ND	ND	4.4	9.0	---
	08-19-92	ND	ND	ND	ND	ND	---
	11-18-92	160	0.9	4.0	2.6	9.4	---
	02-22-93	9,000	15	34	46	91	---
	05-24-93	540	0.5	0.9	2.0	4.5	---
	08-16-93	53	ND	ND	1.0	4.7	---
	11-15-93	780	0.6	0.9	1.1	5.2	---
	02-11-94	3,000	3.9	2.5	12	26	---
	06-28-94	180	ND	ND	4.2	9.0	---
	09-12-94	ND	ND	ND	ND	ND	---
	12-13-94	580	ND	ND	2.6	3.9	---
	03-24-95	1,500	7.3	6.2	12	28	---
	06-27-95	160	ND	ND	4.7	9.2	---
	09-03-99	ND	ND	ND	ND	ND	ND
MW-2	05-20-92	ND	ND	ND	ND	ND	---
	08-19-92	ND	ND	ND	ND	ND	---
	11-18-92	70	ND	ND	0.9	6.7	---
	02-22-93	ND	ND	ND	ND	ND	---
	05-24-93	ND	ND	ND	ND	ND	---
	08-16-93	ND	ND	ND	ND	ND	---
	11-15-93	ND	ND	ND	ND	ND	---
	02-11-94	ND	ND	ND	ND	ND	---
	06-28-94	ND	ND	ND	ND	ND	---
	09-12-94	ND	ND	ND	ND	ND	---
	12-13-94	120	ND	ND	ND	0.8	---
	03-24-95	290	ND	0.5	10	18	---
	06-27-95	63	ND	3.4	1.9	9.1	---
	09-03-99	ND	ND	ND	ND	ND	ND
Detection Limit		50	0.5	0.5	0.5	0.5	0.5

ND = Not Detected

278

TABLE 4 (continued)

Shallow Groundwater Sampling Results

Well	Date	TPH as Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-3	05-20-92	4,200	4.5	1.2	13	43	---
	08-19-92	280	5.3	16	25	61	---
	11-18-92	4,800	26	27	35	98	---
	02-22-93	6,200	9.4	15	30	66	---
	05-24-93	1,100	1.5	3.4	4.1	9.9	---
	08-16-93	420	2.1	3.0	3.8	23	---
	11-15-93	3,000	2.4	3.1	4.4	20	---
	02-11-94	3,700	7.7	6.8	12	29	---
	06-28-94	230	ND	4.0	8.5	19	---
	09-12-94	460	0.7	1.4	3.5	4.7	---
	12-13-94	1,400	1.1	2.1	5.4	9.5	---
	03-24-95	6,000	14	15	10	79	---
	06-27-95	1,100	6.2	39	26	43	---
	09-03-99	760	ND	1.5	2.9	4.1	22
Detection Limit		50	0.5	0.5	0.5	0.5	0.5

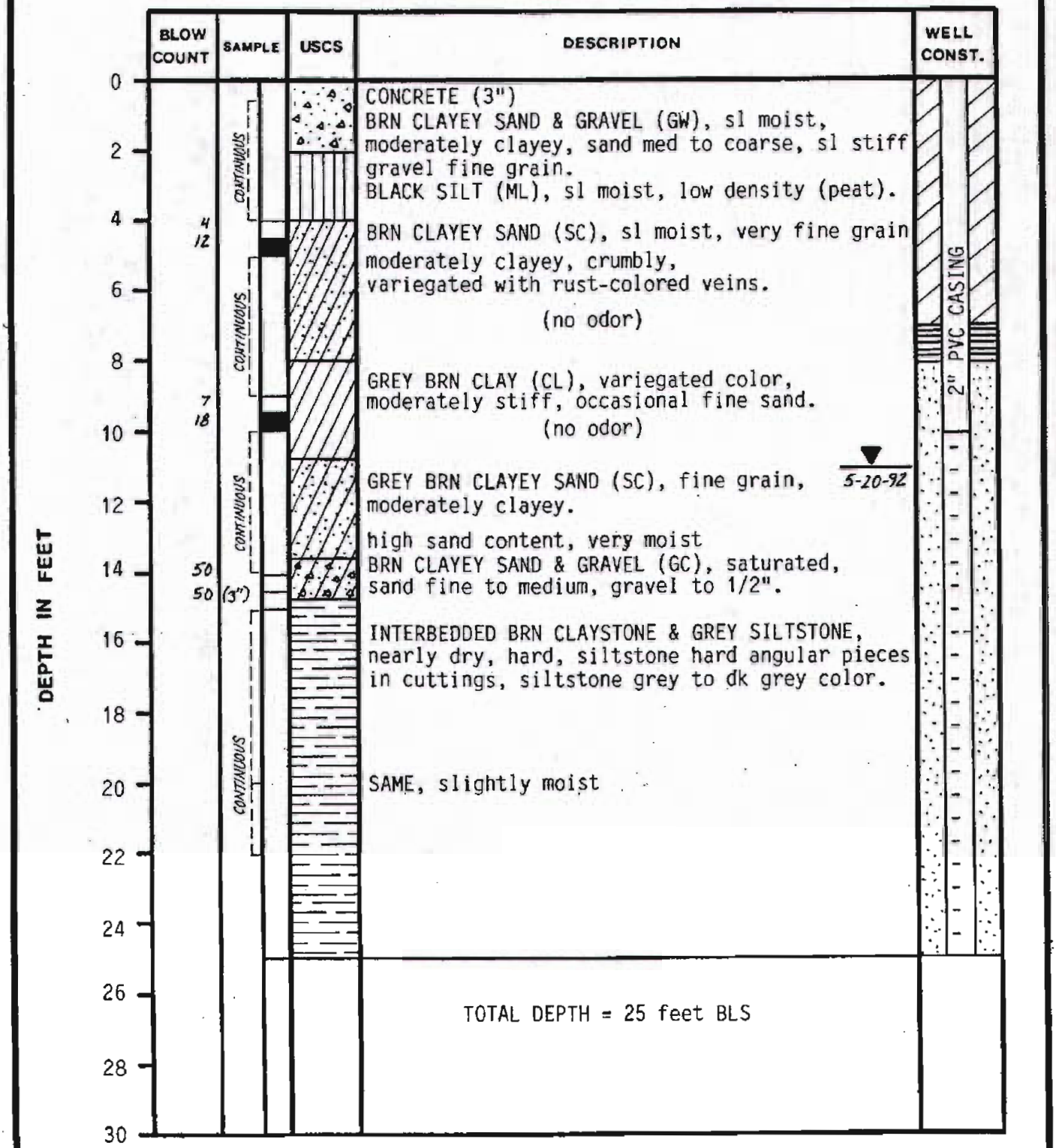
ND = Not Detected

TABLE 5

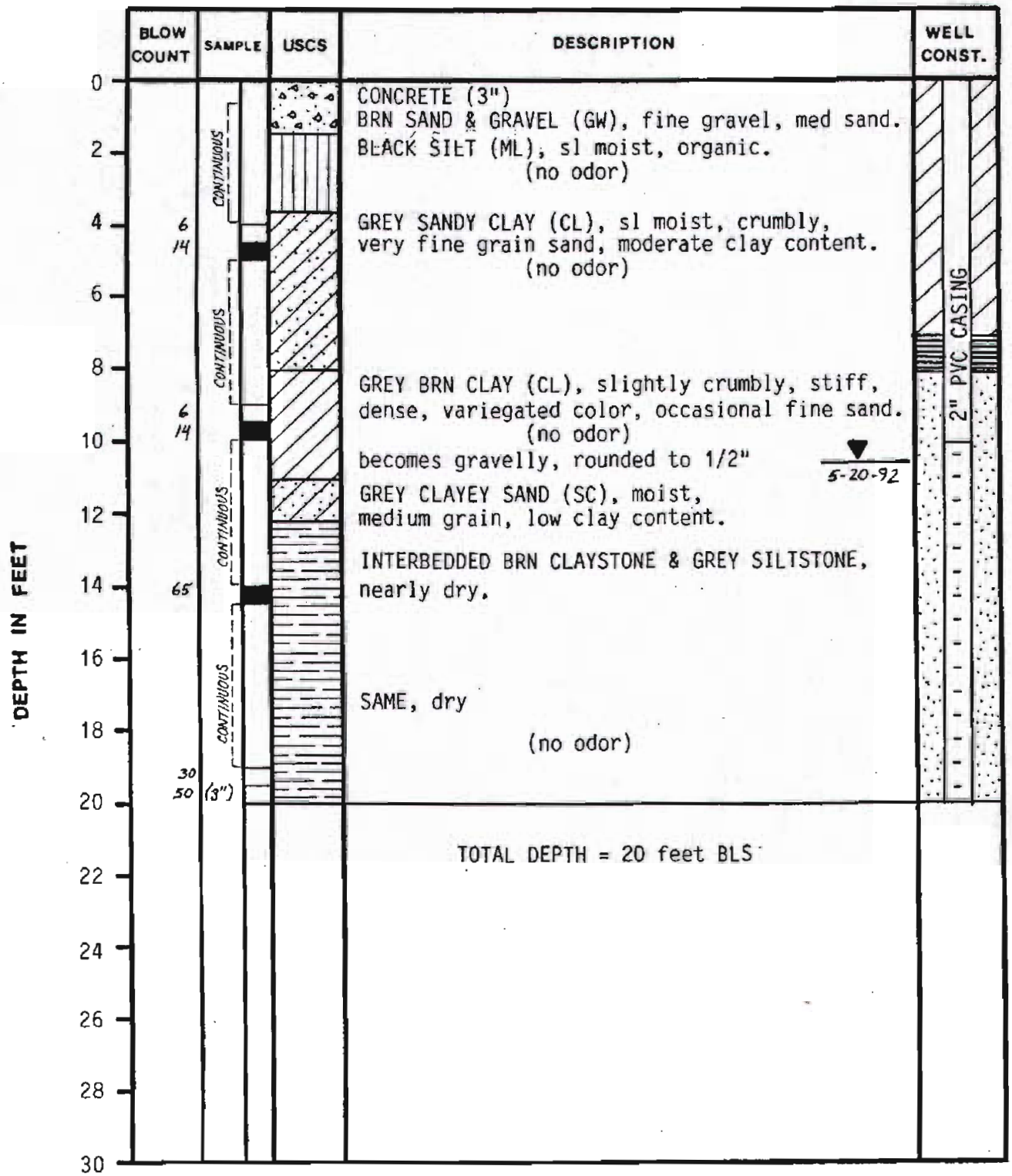
Historical Water Table Elevations
(feet)

Well	Date of Measurement								
	5-20-92	6-19-92	11-18-92	3-1-93	5-24-93	8-16-93	11-15-93	2-11-94	6-28-94
MW-1	152.67	152.64	152.40	154.68	153.27	153.00	153.52	154.96	153.09
MW-2	152.65	152.47	151.84	154.23	153.01	152.69	153.01	154.15	153.08
MW-3	154.28	154.48	154.05	156.88	154.89	154.48	154.87	154.82	154.65
Flow Direction	SE	SE	S	S	S	S	S	SW	SE
Hydraulic Gradient	0.025	0.029	0.030	0.035	0.027	0.025	0.024	0.020	0.025

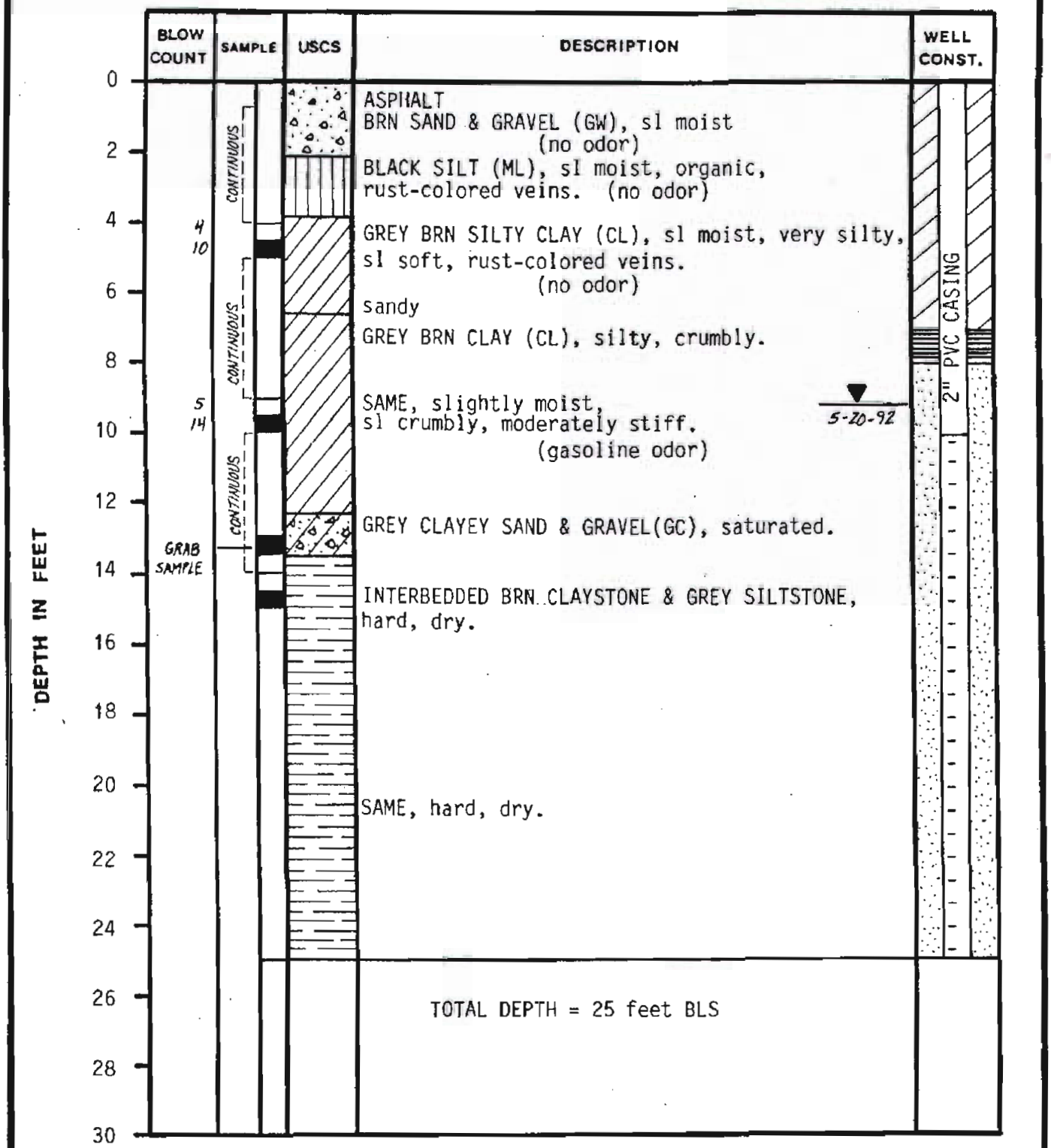
Well	Date of Measurement								
	9-12-94	12-13-94	3-24-95	6-27-95	9-3-99				
MW-1	152.97	154.25	157.15	153.35	152.70				
MW-2	152.76	153.51	156.12	153.20	152.82				
MW-3	154.34	156.03	160.03	155.04	154.34				
Flow Direction	S	S	S	S	SE				
Hydraulic Gradient	0.022	0.034	0.051	0.027	0.026				



HAGEMAN - AGUIAR, INC.	LOG OF MONITORING WELL MW-1 Quality Tune-Up 2780 Castro Valley Blvd, Castro Valley, CA	FIGURE 4
DATE May 12, 1992	PROJECT NO.	
TOC ELEVATION 163.70	EQUIPMENT 8" Hollow Stem Auger	



HAGEMAN - AGUIAR, INC.	LOG OF MONITORING WELL MW-2 Quality Tune-Up 2780 Castro Valley Blvd, Castro Valley, CA	FIGURE 5
DATE May 20, 1992	PROJECT NO.	
TOC ELEVATION 163.33 MSL	EQUIPMENT 8" Hollow Stem Auger	



HAGEMAN - AGUIAR, INC.	LOG OF MONITORING WELL MW-3 Quality Tune-Up 2780 Castro Valley Blvd, Castro Valley, CA	FIGURE 6
DATE May 20, 1992	PROJECT NO.	
TOC ELEVATION 163.35 MSL	EQUIPMENT 8" Hollow Stem Auger	