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

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

RO0000430

May 10, 2001

Jonathan Rivin, Bankers Trust
Eugene R Leroy Trust
351 California, 15th Floor
San Francisco, CA 94104

Greg Tachiera
Broadway Motors Ford
2560 Webster Street
Oakland, CA 94612

Re: Fuel Leak Site Case Closure for 2560 Webster Street, Oakland, CA

Dear Messrs. Rivin and Tachiera:

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 Protection Division 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:

- up to 5,500ppm TPH as gasoline, and 9ppm benzene exists in soil beneath the site;
- up to 14ppb TPHd exists in groundwater beneath the site; and,
- a risk management plan has been prepared to protect construction workers in the event of excavation/trenching in the vicinity of residual soil and groundwater contamination .

If you have any questions, please contact me at (510) 567-6762.

eva chu
Hazardous Materials Specialist

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

c: Leroy Griffin, Oakland Fire Department (w/o)
files (bdwymotors8)

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REMEDIAL ACTION COMPLETION CERTIFICATION

RO-430 - 2560 Webster Street, Oakland, CA
(1-1K gasoline and 1-750 gallon waste oil tanks removed on Dec 6, 1995)

May 10, 2001

Jonathan Rivin, Bankers Trust
Eugene R Leroy Trust
351 California, 15th Floor
San Francisco, CA 94104

Greg Tachiera
Broadway Motors Ford
2560 Webster Street
Oakland, CA 94612

Dear Messrs. Rivin and Tachiera:

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

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank 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.

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,

Mee Ling Tung, Director

cc: Chuck Headlee, RWQCB
Dave Deaner, SWRCB
Leroy Griffin, OFD
files-ec (bdwymotors7)

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: January 10, 2001

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

II. CASE INFORMATION

Site facility name: **Broadway Motors Ford**
Site facility address: **2560 Webster Street, Oakland, CA 94612**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **1101**
URF filing date: **12/29/95** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Eugene R . Leroy Trust **Bankers Trust-Jonathan Rivin** **351 California, 15th Floor** **San Francisco, CA 94104**	**Greg Tachiera** **Broadway Motors Ford** **2560 Webster Street** **Oakland, CA 94612**	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	1,000	Gasoline	Removed	12/6/95
2	750	Waste Oil	"	12/5/95

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown**
Site characterization complete? **YES**
Date approved by oversight agency: **11/2/00**
Monitoring Wells installed? **Yes** Number: **4**
Proper screened interval? **Yes, 4' to 15'bgs in MW-1**
Highest GW depth below ground surface: **2.52'** Lowest depth: **4.04' bgs in MW-1**
Flow direction: **Easterly**
Most sensitive current use: **Residential**
Are drinking water wells affected? **No** Aquifer name: **NA**
Is surface water affected? **No** Nearest affected SW name: **NA**
Off-site beneficial use impacts (addresses/locations): **None**
Report(s) on file? **YES** Where is report(s) filed? **Alameda County** and **Oakland Fire Dept**
1131 Harbor Bay Pkwy **1605 MLK Jr Wy**
Alameda, CA 94502 **Oakland, CA 94612**

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	2 USTs	Disposed by Erickson, in Richmond	12/6/95
Soil	33 tons	Pacific Custom Materials, Port Costa	6/12/97

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before[1]	After[2]	Before[3]	After[4]
TPH (Gas)	5,200		230,000	<50
TPH (Diesel)	6		NA	<50
Benzene	9		320	14
Toluene	2		1,800	0.69
Ethylbenzene	44		1,800	3.6
Xylenes	130		7,000	5.4
MTBE	8		15,000	4.0
Oil & Grease/TRPH	5,200			
Heavy metals	w/in geogenic levels			
Other HVOC	see note 5		see note 6	see note 7

NOTE:
1. soil sample collected from tank pits at time of UST removal, 12/95 (TRPH from boring IB-7)
2. no overexcavation of tank pits
3. grab water sample from exploratory boring IB-7 advanced in 12/96 or from CB-10 advanced in 10/99
4. recent groundwater sampling event in 5/2/00 in well MW-4
5. 0.006ppm PCE and 0.016ppm chlorobenzene in soil from tank pit, 12/95
6. 18ppb chlorobenzene, 4.4ppb 1,2-DCA, 0.6ppb 1,1-DCE, 15ppb cis-1,2-DCE, 3.7ppb PCE, 87ppb TCE, 1.1ppb VC from grab water sample from exploratory boring IB-7, 12/96
7. 0.89ppb PCE, 41ppb TCE and 1.1ppb cis-1,2-DCE in well MW-1 in 2/00

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? _____

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? _____

Does corrective action protect public health for current land use? **YES**

Site management requirements: **A risk management plan has been prepared to protect construction workers in the event of excavation/trenching in the vicinity of residual soil and groundwater contamination.**

Should corrective action be reviewed if land use changes? YES

Monitoring wells Decommissioned: No, pending site closure

Number Decommissioned: 0 Number Retained: 4

List enforcement actions taken: NA List enforcement actions rescinded: NA

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Eva Chu** Title: **Haz Mat Specialist**

Signature: [signature] Date: 1/17/01

Reviewed by

Name: **Barney Chan** Title: **Haz Mat Specialist**

Signature: [signature] Date: 1-10-01

Name: **Thomas Peacock** Title: **Supervisor**

Signature: [signature] Date: 1-16-01

VI. RWQCB NOTIFICATION

Date Submitted to RB: 1/19/01 RB Response: Concur

RWQCB Staff Name: **Chuck Headlee** Title: **EG**

Signature: [signature] Date: 1/25/01

VII. ADDITIONAL COMMENTS, DATA, ETC.

In December 1995 two underground storage tanks (USTs), one1-K gallon gasoline and one 750-gallon waste oil tank, were removed from beneath the sidewalk of the referenced property. Groundwater was not encountered in the excavations. Several through-holes were noted on the waste oil tank. Soil staining and strong hydrocarbon odor were noted in each excavation. A total of three soil samples (GN-5', GN-8.5', and GS-9') were collected from the gasoline pit and analyzed for TPHg, BTEX, and MTBE. One soil sample (WO-8') was collected from the waste oil pit and analyzed for the same above constituents, in addition to TPHd and HVOCs. Soil analytical results identified elevated hydrocarbon constituents and low levels of HVOCs. (See Fig 1 and 2)

In December 1996, to further characterize the extent of soil contamination and its potential impact to groundwater, eight investigative borings (IB-1 through IB-8) were advanced using a direct-push Geoprobe sampling system. Groundwater was encountered at approximately 4- to 6-' below ground surface (bgs). Soil samples were collected at the soil/groundwater interface. Groundwater samples were collected from IB-1, IB-5, IB-6, and IB-7. Based on the soil and groundwater analytical results, contamination appeared to be limited mostly to the immediate vicinity of the former USTs (that is, near IB-5 and IB-7). (See Fig 3, Table 1 and 2)

Backfill trenches for sanitary and storm drain utility lines exist at 3'bgs, extending to an unknown depth along the sidewalk on the west side of Valdez Street. These trenches may influence the lateral migration of hydrocarbons in soil and groundwater in the northerly and southerly direction of the former USTs (see

Fig 4). Therefore, groundwater monitoring wells were installed north (MW-3) and south (MW-1) of the former USTs. A third well (MW-2) was installed across Valdez Street, in front of a residential building. Groundwater appears to flow easterly (see Fig 3). The boring logs of former exploratory borings IB-2 and IB-3, which were advanced east of the former tanks and the utility trenches, did not suggest there were hydrocarbon odors to a depth of 12'bgs. Soil samples collected from 4- and 6-'bgs from the boreholes did not contain TPHg, or BTEX. Soil from IB-2 at 6'bgs did contain 0.18ppm MTBE. Although water samples were not collected from borings IB-2 and IB-3, the absence of hydrocarbon odor suggests that the utility trenches may act as a conduit for the migration of contaminants. Well MW-1, located southeast of the former USTs, appears to be appropriately located to intercept contaminants from the former USTs. *(See Soil Boring and Monitoring Well Logs)*

In October 1999, two additional hydropunches (CB-9 and CB-10) were advanced east of the former USTs, and west of the utility lines. And a fourth groundwater monitoring well, MW-4, was installed east (downgradient) of the utility lines (see Fig 3). Water from CB-10 contained up to 14,000ppb TPHg, 3,200ppb benzene and 15,000ppb MTBE (by Method 8260). Low concentrations of HVOCs were also detected from the grab water samples. Groundwater from well MW-4 did not contain analytes sought except for 10ppb MTBE. These results would support the belief that the utility lines act as a conduit for the migration of contaminants.

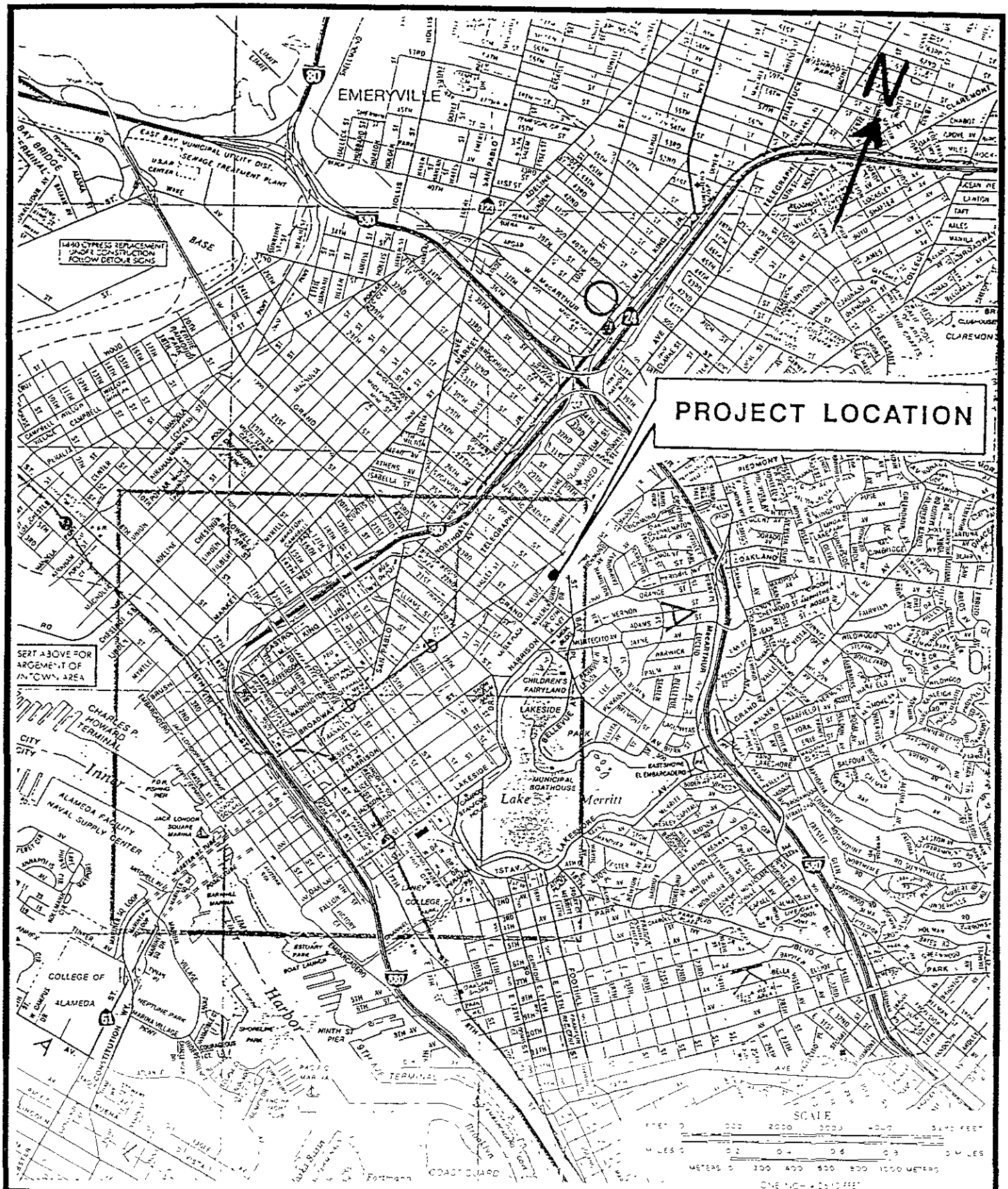
Although grab groundwater from CB-10 contained 15,000ppb MTBE, other grab water samples from adjacent borings, CB-9 and IB-7, contained 520ppb and <50ppb MTBE, respectively. It appears that elevated MTBE concentrations in groundwater are limited to the immediate vicinity of the former gasoline UST, or that the detected result is an anomaly.

Groundwater monitoring has identified up to 25ppb TCE, and 0.55ppb cis-1,2-DCE in well MW-1. Other HVOCs (18ppb chlorobenzene, 4.4ppb 1,2-DCA, 0.6ppb 1,1-DCE, 15ppb cis-1,2-DCE, 3.7ppb PCE, 87ppb TCE and 1.1ppb VC) were also detected in water from boring IB-7, located nearest the former waste oil tank. HVOCs in groundwater is confined to the immediate vicinity of the former waste oil tank. The presence of cis-1,2DCE and vinyl chloride suggests that natural biodegradation is occurring in groundwater (see Table 2). Maximum detected TCE in soil and groundwater was compared with the ASTM Tier 1 Risk Based Screening Levels using a risk level of 10^{-6}. The results indicated there are no significant health risk to nearby residents, onsite and offsite workers, or construction workers (see Table 3). Since the HVOC release to the subsurface was not significant, continued monitoring is not warranted.

In summary, case closure is recommended because:

- the leak and ongoing sources have been removed;
- groundwater is less than 50 ft deep;
- the site has been adequately characterized;
- the dissolved hydrocarbon plume is not migrating;
- preferential pathways exist at the site (utility lines), but migration of contaminants appears limited in extent since wells located north (MW-3 and south (MW-1), in the direction of utility line orientation, contained low or non-detect levels of contaminants;
- no water wells, surface water, or other sensitive receptors are likely to be impacted; and,
- the site presents no significant risk to human health or the environment.

bdwymotors-clos



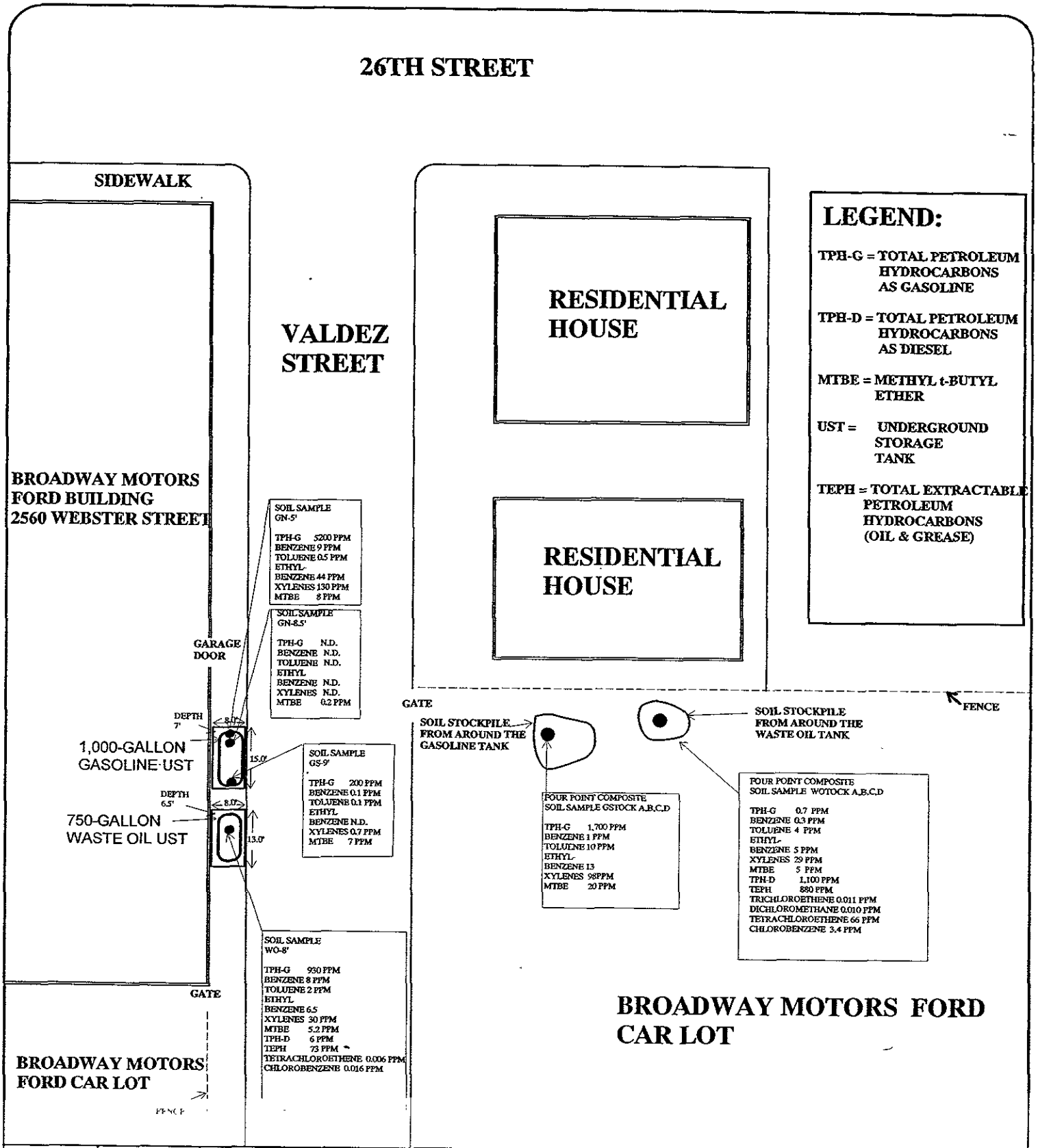
DATE October 18, 1995

centurywest
ENGINEERING CORPORATION

SITE VICINITY

Broadway Motors Ford
2560 Webster Street
Oakland, California
CWEC 20601-001-01

Figure 1



REVISIONS 1	DATE 12/6/95	
N		
APPROXIMATE SCALE: 1 INCH = 30 FEET		

ACCUTITE ENVIRONMENTAL ENGINEERING

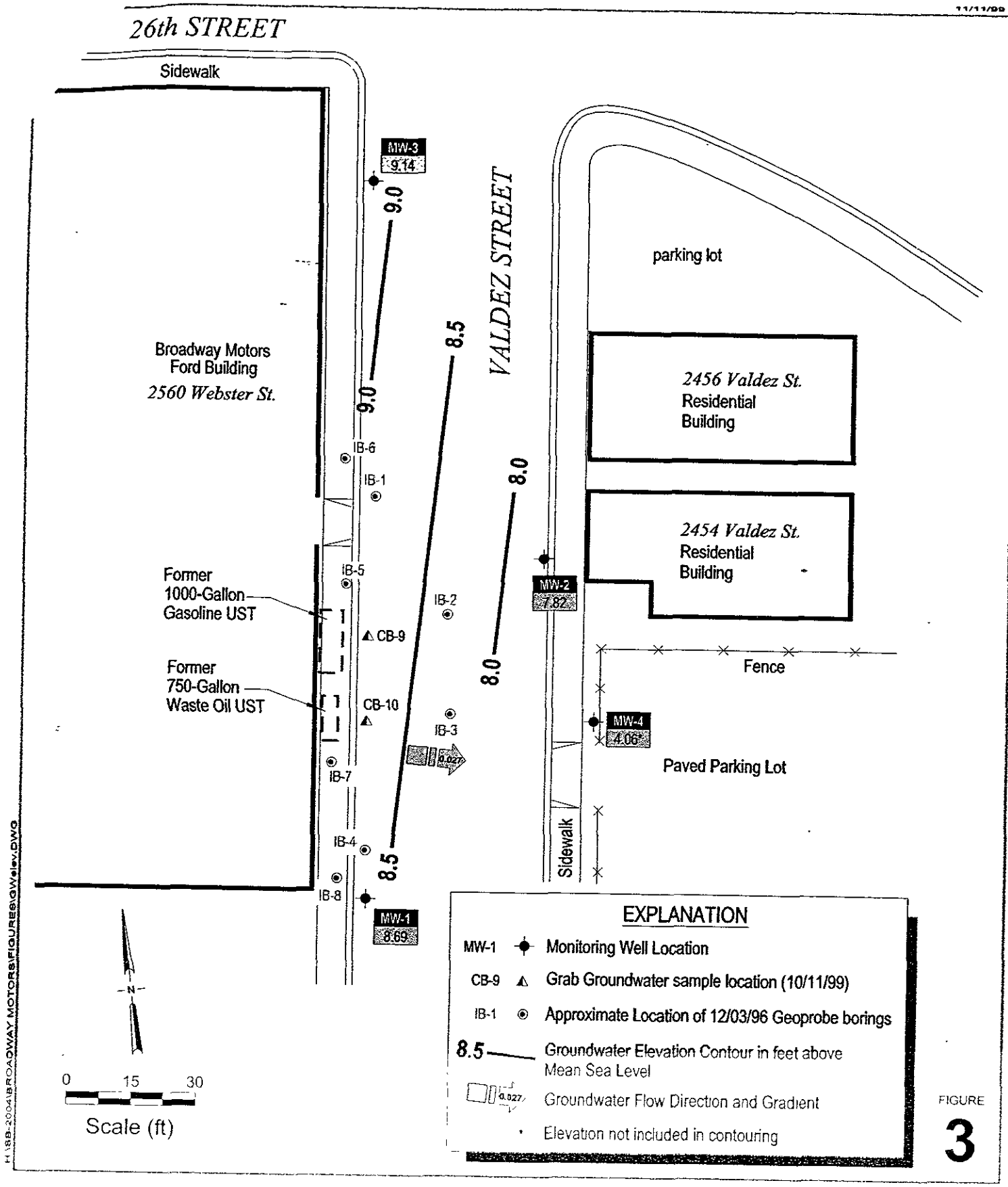
35 SOUTH LINDEN AVENUE

SOUTH SAN FRANCISCO, CA 94080

FIGURE 2

REMOVAL OF TWO UNDERGROUND STORAGE TANKS AT BROADWAY MOTORS FORD, 2560 WEBSTER STREET IN OAKLAND

2560TR



Broadway Motors Ford

2560 Webster Street

Oakland, California

CAMBRIA

Groundwater Elevation Contours

October 22, 1999

CAMBRIA

Table 1a. Soil Analytical Data: Petroleum Hydrocarbons and MTBE

Broadway Motors Ford, 2560 Webster Street, Oakland, California

Sample ID	Sampling Date	Sample Depth (ft)	Depth to water (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
				<---mg/kg--->							
GN-5'	12/6/95	5.0	--	--	5,200	9	0.5	44	130	8	
GN-8 5'	12/6/95	8.5	--	--	ND	ND	ND	ND	ND	0.2	
GS-9	12/6/95	9.0	--	--	200	0.1	0.1	ND	0.7	7	
WO-8'	12/6/95	8.0	--	6	930	8	2	7	30	5	
IB-1-5	12/3/96	5.0	--	--	<1	<0.005	<0.005	<0.005	<0.015	<0.1	
IB-2-6	12/3/96	6.0	--	--	<1	<0.005	<0.005	<0.005	<0.015	0.18	
IB-3-4	12/3/96	4.0	--	--	<1	<0.005	<0.005	<0.005	<0.015	<0.1	
IB-4-4	12/3/96	4.0	--	--	<1	<0.005	<0.005	<0.005	<0.015	<0.1	
IB-5-4	12/3/96	4.0	--	<10	<1	<0.005	<0.005	<0.005	<0.015	<0.1	1
IB-5-6	12/3/96	6.0	--	<10	1,600	1.2	1.3	10	6.8	4.6	2
IB-5-7	12/3/96	7.0	--	--	--	--	--	--	--	--	
IB-6-5	12/3/96	5.0	--	--	<1	<0.005	<0.005	<0.005	<0.015	<0.1	
IB-7-4	12/3/96	4.0	--	<10	89	0.019	0.025	0.41	1.6	<0.1	3
IB-7-5	12/3/96	5.0	--	--	--	--	--	--	--	--	
IB-8-4	12/3/96	4.0	--	<10	1.3	<0.005	<0.005	<0.005	<0.015	<0.1	4
MW-1-5	5/8/97	5.0	3.80	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	--	
MW-2-5	5/8/97	5.0	3.50	1.0	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	--	
MW-3-5	5/8/97	5.0	2.75	1.0	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	--	

Abbreviations and Notes:

TPHd = Total petroleum hydrocarbons as diesel by EPA Method 8015

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015

Benzene, toluene, ethylbenzene, and xylenes by modified EPA Method 8020

MTBE = Methyl tert-butyl ether by EPA Method 8020

-- = Not analyzed/not available

mg/kg = Milligrams per kilogram (equivalent to ppm)

< n = Not detected above n mg/kg

ND = Not detected above laboratory reporting limit

1 - TRPH: <10 mg/kg

2 - TRPH: 1,600 mg/kg

3 - TRPH: 5,200 mg/kg

4 - TRPH: <10 mg/kg

TRPH = Total recoverable petroleum hydrocarbons by EPA Method 418.1

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Table 1b. Soil Analytical Data: HVOCs

Broadway Motors Ford, 2560 Webster Street, Oakland, California

Sample ID	Sampling Date	Sample Depth (ft)	Depth to water (ft)	EPA Method	MCB	1,2-DCA	1,1-DCE	cis-1,2-DCE	PCE	TCE	VC	Notes
					<----------mg/kg---------->							
WO-8'	12/6/95	8.0	--	8010	0.016	ND	ND	ND	0.006	ND	ND	1
IB-5-7	12/3/96	7.0	--	8010	ND	ND	ND	ND	ND	ND	ND	1
IB-7-5	12/3/96	5.0	--	8010	6.3	ND	ND	ND	ND	ND	ND	1

Abbreviations and Notes:

HVOCs = Halogenated volatile organic compounds

MCB = Chlorobenzene

PCE = Tetrachloroethene

TCE = Trichloroethene

ND = Not detected above laboratory reporting limit

-- = Not analyzed/not available

1 - No other EPA List 8010 HVOCs were detected above the laboratory reporting limit.

Table 2. Groundwater Elevation and Analytical Data: Petroleum Hydrocarbons and MTBE

Broadway Motors Ford, 2560 Webster Street, Oakland, California

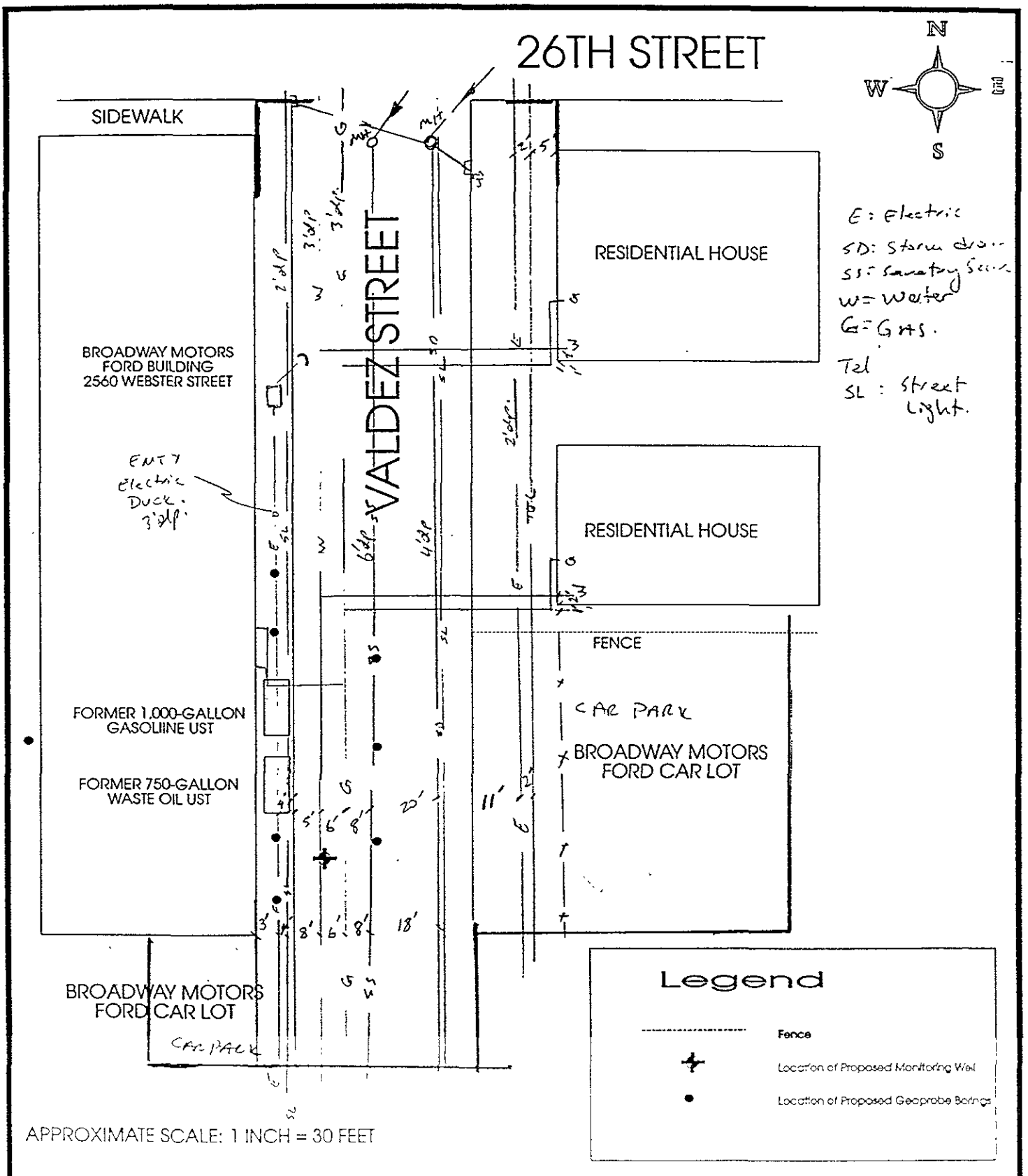
Monitoring Well/Boring *TOC Elevation (ft)*	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
				<----------ug/l---------->						
Grab Groundwater Samples										
IB-1	12/3/96	--	--	--	<50	<0.5	1	<0.5	<1.5	<20
IB-5	12/3/96	--	--	--	10,000	81	58	380	95	51
IB-6	12/3/96	--	--	--	2,000	1.9	0.87	9.1	6.4	<20
IB-7	12/3/96	--	--	--	230,000	320	1,800	1,800	7,000	<50
CB-9-W	10/11/99	15	--	--	1,600	190	100	54	210	280 (520)
CB-10-W	10/11/99	9	--	--	15,000	3,200	1,200	520	1,900	19,000 (15,000)
Monitoring Well Samples										
MW-1	5/22/97	3.80	5.88	<50	<50	<0.5	<0.5	<0.5	<1	17
9.68	12/10/97	3.42	6.26	<50	<50	<0.5	<0.5	<0.5	<0.5	6.4 (<5.0)
	6/10/98	3.18	6.50	--	--	--	--	--	--	--
	1/22/99	3.44	6.24	--	--	--	--	--	--	--
*12.73**	10/22/99	4.04	8.69	--	<50	<0.5	<0.5	<0.5	<0.5	61 (53)
MW-2	5/22/97	3.50	4.88	<50	<50	<0.5	<0.5	<0.5	<1	<0.5
8.38	12/10/97	3.01	5.37	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/10/98	2.94	5.44	--	--	--	--	--	--	--
	1/22/99	3.21	5.17	--	--	--	--	--	--	--
*11.43**	10/22/99	3.61	7.82	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-3	5/22/97	2.75	6.37	<50	<50	<0.5	<0.5	<0.5	<1	<0.5
9.12	12/10/97	3.75	5.37	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/10/98	2.51	6.61	--	--	--	--	--	--	--
	1/22/99	2.64	6.48	--	--	--	--	--	--	--
*12.17**	10/22/99	3.03	9.14	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-4	10/22/99	7.87	4.06	--	<50	<0.5	<0.5	<0.5	<0.5	8.2 (10)
*11.93**										

CAMBRIA

Table 2B. Groundwater Elevation and Analytical Data: HVOCs

Broadway Motors Ford, 2560 Webster Street, Oakland, California

Monitoring Well/Boring *TOC Elevation (ft)*	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	MCB	1,2-DCA	1,1-DCE	cis-1,2-DCE	PCE	TCE	VC	Other HVOCs
				<----------ug/l---------->							
Grab Groundwater Samples											
IB-5	12/3/96	--	--	1.5	4.1	<0.40	<0.50	<0.40	<0.40	<0.40	--
IB-7	12/3/96	--	--	18	4.4	0.6	15	3.7	87	1.1	--
CB-9-W	10/11/99	15	--	1.0	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
CB-10-W	10/11/99	9	--	110	4.3	<2.5	5.9	<5	<2.5	<2.5	1,1-DCA: 5.2 ug/l
Monitoring Well Samples											
MW-1	5/22/97	3.80	5.88	--	--	--	--	--	--	--	--
9.68	12/10/97	3.42	6.26	--	--	--	--	--	--	--	--
	6/10/98	3.18	6.50	<0.5	<0.5	<0.5	<0.5	<0.5	18	<0.5	<0.5
	1/22/99	3.44	6.24	<0.5	<0.5	<0.5	0.55	<0.5	25	<0.5	<0.5
*12.73**	10/22/99	4.04	8.69	<0.5	<0.5	<0.5	0.69	<0.5	22	<0.5	<0.5 (MC <1.5)
MW-2	5/22/97	3.50	4.88	--	--	--	--	--	--	--	--
8.38	12/10/97	3.01	5.37	--	--	--	--	--	--	--	--
	6/10/98	2.94	5.44	<0.5	<0.5	<0.5	<0.5	<0.5	0.86	<0.5	<0.5
	1/22/99	3.21	5.17	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	<0.5
*11.43**	10/22/99	3.61	7.82	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	<0.5	<0.5 (MC <1.5)
MW-3	5/22/97	2.75	6.37	--	--	--	--	--	--	--	--
9.12	12/10/97	3.75	5.37	--	--	--	--	--	--	--	--
	6/10/98	2.51	6.61	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1/22/99	2.64	6.48	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
*12.17**	10/22/99	3.03	9.14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 (MC <1.5)
MW-4	10/22/99	7.87	4.06	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 (MC <1.5)
*11.93**											



SOURCE: ACCUTITE ENVIRONMENTAL ENGINEERING REPORT DATED JANUARY 22, 1996

DATE: October 18, 1996

centurywest
ENGINEERING CORPORATION

SITE PLAN

Broadway Motors Ford
2560 Webster Street
Oakland, California
CWEC 20601-001-01

Figure 4

Table 3 - Results of Tier 1 Analysis for TCE

Exposure Pathway	Receptor Scenario	RBCA Tier 1 RBSL for TCE: Target Risk Level	RBCA Tier 1 RBSL for TCE: Applicable RBSL (USEPA)	Representative Conc. for TCE	Representative Conc. vs RBSL: Exceed	Representative Conc. vs RBSL: Below
Volatilization from ground water to indoor air	Residential	$1x10^{-6}$	46	<2		X
	Commercial	$1x10^{-6}$	140	87		X
Volatilization from ground water to outdoor air	Residential	$1x10^{-6}$	13,000	25		X
	Commercial	$1x10^{-6}$	22,000	25		X
Surface soil ingestion/ inhalation/ dermal contact	Commercial	$1x10^{-6}$	8,800	<25		X
Surface soil construction worker	Commercial	$1x10^{-6}$	250,000	<25		X

TCE = trichloroethene
RBSL = Risk-based screening level.
All concentrations are in ppb, equivalent to micrograms per kilogram for soil and micrograms per liter for ground water.

LOG OF BORING

BORING NUMBER : IB-1

PROJECT NAME: Broadway Motors Ford

PROJECT NUMBER: 20601-001-01

DRILLING CONTRACTOR: Kvilhaug

DRILLING METHOD : Geoprobe

START DATE: 12/03/96 8 AM

COMPLETION DATE: 12/03/96 9:05 AM

SHEET _1_ OF _1_

DRILL MANUFACTURER/MODEL:

Geoprobe

TYPE OF BIT: hydraulically driven

BORE HOLE DIAMETER: 2"

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE TYPE	INTERVAL	RECOVERY	PID Reading	USCS	LOG OF MATERIAL	PIEZOMETER\ WELL INSTALLATION
				100%			road base	
						SC	SAND, SC, Olive 5Y 4/2, moist, medium dense, fine grained	
5	IB-1-5 8:30 AM	geoprobe		100%			SAND, SC, Olive 5Y 4/2, wet, medium dense, fine grained	
							Clayey SAND, SC, Red 2.5 YR 4/2, wet, medium dense, fine grained	
				100%			Sandy CLAY, CL, Red 2.5 YR 4/2, wet, medium stiff, coarse grained	
10						CL	CLAY, CL, Brown 7.5 YR 4/4, wet, medium stiff, with large clasts of red chert approximately 1/2" in diameter.	
				100%				
						SC	Clayey SAND, SC, Brown 7.5 YR 4/4, wet, medium dense, fine grained	
15						CL	CLAY, CL, Brown 7.5 YR 4/4, wet, stiff	
							Total Depth = 16'	
20								

LOG OF BORING

BORING NUMBER : IB-2

PROJECT NAME: Broadway Motors Ford

PROJECT NUMBER: 20601-001-01

DRILLING CONTRACTOR: Kvilhaug

DRILLING METHOD : Geoprobe

START DATE: 12/03/96 9:39 AM

COMPLETION DATE: 12/03/96 10:05 AM

SHEET _1_ OF _1_

DRILL MANUFACTURER/MODEL:

Geoprobe

TYPE OF BIT: hydraulically driven

BORE HOLE DIAMETER: 2"

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE TYPE	INTERVAL	RECOVERY	PID Reading	USCS	LOG OF MATERIAL	PIEZOMETER\ WELL INSTALLATION
				100%			road base	
						SC	Clayey SAND, SC, Olive 5Y 5/4, moist, medium dense, medium grained	
5	IB-2-6 9:50 AM	geoprobe		100%			Clayey SAND, SC, Olive 5Y 5/4, wet, medium dense, medium grained	
						CL	Sandy Clay, CL, brown 7.5 YR 4/4, wet, stiff, very fine grained with isolated gravel clasts	
						SC	Clayey SAND, SC, olive 5Y 5/4, wet, medium dense	
10				100%		CL	Sandy CLAY, CL, brown 7.5 YR 4/4, wet, stiff, fine grained	
							Total Depth = 12'	
15								
20								

LOG OF BORING

BORING NUMBER : IB-3

SHEET _1_ OF _1_

PROJECT NAME: Broadway Motors Ford

DRILL MANUFACTURER/MODEL: Geoprobe

PROJECT NUMBER: 20601-001-01

DRILLING CONTRACTOR: Kvilhaug

DRILLING METHOD : Geoprobe

START DATE: 12/03/96 10:10 AM

COMPLETION DATE: 12/03/96 10:25 AM

TYPE OF BIT: hydraulically driven

BORE HOLE DIAMETER: 2"

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE TYPE	INTERVAL	RECOVERY	PID Reading	USCS	LOG OF MATERIAL	PIEZOMETER\ WELL INSTALLATION
				100%			road base	
	IB-3-4 10:15 AM	geoprobe				SC	SAND, SC, Olive 5Y 5/4, wet, medium dense, medium grained, with possibly slight hydrocarbon odor	
5				100%			Clayey SAND, SC, Olive 5Y 5/4, wet, medium dense, medium grained	
							Silty Clay, CL, dark brown 7.5 YR 3/2, moist, stiff	
						CL	Gravelly, sandy, CLAY, CL, brown 7.5 YR 4/4, moist, stiff, with no hydrocarbon odor	
10				0%				
							Total Depth = 12'	
15								
20								

LOG OF BORING

BORING NUMBER : IB-4

PROJECT NAME: Broadway Motors Ford

PROJECT NUMBER: 20601-001-01

DRILLING CONTRACTOR: Kvilhaug

DRILLING METHOD : Geoprobe

START DATE: 12/03/96 10:26 AM

COMPLETION DATE: 12/03/96 10:45 AM

SHEET _1_ OF _1_

DRILL MANUFACTURER/MODEL:

Geoprobe

TYPE OF BIT: hydraulically driven

BORE HOLE DIAMETER: 2"

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE TYPE	INTERVAL	RECOVERY	PID Reading	USCS	LOG OF MATERIAL	PIEZOMETER\ WELL INSTALLATION
5	IB-4-4 10:30 AM	geoprobe		100%			road base	
				100%		SW	SAND, SW, Olive 5Y 5/4, wet, medium dense, medium grained, with slight hydrocarbon odor	
							Sandy, CLAY, CL, brown 7.5 YR 4/4, wet, stiff, fine grained	
						CL	Gravelly, sandy, CLAY, CL, brown 7.5 YR 4/4, wet, stiff, fine grained with large clasts of gravel	
10							Total Depth = 8'	
15								
20								

LOG OF BORING

BORING NUMBER : IB-5

PROJECT NAME: Broadway Motors Ford

PROJECT NUMBER: 20601-001-01

DRILLING CONTRACTOR: Kvilhaug

DRILLING METHOD : Geoprobe

START DATE: 12/03/96 11:30 AM

COMPLETION DATE: 12/03/96 12:06 PM

SHEET _1_ OF _1_

DRILL MANUFACTURER/MODEL:

Geoprobe

TYPE OF BIT: hydraulically driven

BORE HOLE DIAMETER: 2"

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE TYPE	INTERVAL	RECOVERY	PID Reading	USCS	LOG OF MATERIAL	PIEZOMETER\ WELL INSTALLATION
				100%			road base	
						SW	SAND, SW, Olive 5Y 5/4, wet, medium dense, medium grained, with hydrocarbon odor	
5	IB-5-4 11:49 AM	geoprobe		100%		CL	Sandy, CLAY, CL, brown 7.5 YR 4/4, wet, stiff, fine grained with chert clasts and hydrocarbon odor	
	IB-5-7 11:49 AM					SW	SAND, SW, olive 5Y 5/4, wet, medium dense, with hydrocarbon odor	
10				0%		?	pushed through 8 to 12 feet	
				100%		CL	CLAY, CL, brown 7.5 YR 4/4, wet, stiff	
15								
							Total Depth = 16'	
20								

LOG OF BORING

BORING NUMBER : IB-6

PROJECT NAME: Broadway Motors Ford

PROJECT NUMBER: 20601-001-01

DRILLING CONTRACTOR: Kvilhaug

DRILLING METHOD : Geoprobe

START DATE: 12/03/96 12:58 PM

COMPLETION DATE: 12/03/96 1:50 PM

SHEET _1_ OF _1_

DRILL MANUFACTURER/MODEL:

Geoprobe

TYPE OF BIT: hydraulically driven

BORE HOLE DIAMETER: 2"

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE TYPE	INTERVAL	RECOVERY	PID Reading	USCS	LOG OF MATERIAL	PIEZOMETER\ WELL INSTALLATION
							road base	
				100%			Clayey SAND, SC, brown 7.5 YR 4/4, moist, dense, no hydrocarbon odor or discoloration	
5	IB-6-5 1:20 PM	geoprobe		100%		SC	Gravelly, clayey SAND, SC, brown 7.5 YR 4/4, wet, medium dense, with no hydrocarbon odor or discoloration	
10				100%			Gravelly, clayey SAND, SC, brown 7.5 YR 4/4, wet, medium dense, with no hydrocarbon odor or discoloration	
							Total Depth = 12'	
15								
20								

LOG OF BORING

BORING NUMBER : IB-7

SHEET _1_ OF _1_

PROJECT NAME: Broadway Motors Ford

DRILL MANUFACTURER/MODEL: Geoprobe

PROJECT NUMBER: 20601-001-01

DRILLING CONTRACTOR: Kvilhaug

DRILLING METHOD : Geoprobe

START DATE: 12/03/96 2:00 PM

COMPLETION DATE: 12/03/96 3:05 PM

TYPE OF BIT: hydraulically driven

BORE HOLE DIAMETER: 2"

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE TYPE	INTERVAL	RECOVERY	PID Reading	USCS	LOG OF MATERIAL	PIEZOMETER\ WELL INSTALLATION
							road base	
				100%		ML	SILT, ML, brown 7.5 YR 4/4, wet, with no hydrocarbon odor or discoloration	
5	IB-7-4 2:10 PM IB-7-5 2:21 PM	geoprobe		100%		SC	Silty SAND, SC, olive 5 Y 5/4, wet, medium dense, medium grained, with hydrocarbon odor and discoloration	
10				100%		CL	Sandy, gravelly, clay, CL, brown 7.5 YR 4/4, wet, stiff, medium grained with coarse clasts of gravel with no hydrocarbon odor or discoloration	
							Total Depth = 12'	
15								
20								

LOG OF BORING

BORING NUMBER : IB-8

PROJECT NAME: Broadway Motors Ford

PROJECT NUMBER: 20601-001-01

DRILLING CONTRACTOR: Kvilhaug

DRILLING METHOD : Geoprobe

START DATE: 12/03/96 3:13 PM

COMPLETION DATE: 12/03/96 3:30 PM

SHEET _1_ OF _1_

DRILL MANUFACTURER/MODEL: Geoprobe

TYPE OF BIT: hydraulically driven

BORE HOLE DIAMETER: 2"

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE TYPE	INTERVAL	RECOVERY	PID Reading	USCS	LOG OF MATERIAL	PIEZOMETER\ WELL INSTALLATION
							road base	
	IB-8-4 3:20 PM	geoprobe		100%		CL	Sandy CLAY, CL, olive 5Y 5/4, wet, stiff, medium grained, with no hydrocarbon odor or discoloration	
						ML	SILT, ML, gray 2.5 YR N4/ wet, soft	
5				100%		SC	Clayey SAND, SC, olive 5Y 5/4, wet, dense, no hydrocarbon odor	
						CL	CLAY, CL, brown 7.5YR 4/4, wet, stiff, no hydrocarbon odor or discoloration	
							Total Depth = 8'	
10								
15								
20								

LOG OF BORING

BORING NUMBER : MW-1

SHEET _1_ OF _1_

PROJECT NAME: BROADWAY MOTORS

DRILL MANUFACTURER/MODEL:
Mobil B-61

PROJECT NUMBER: 20601-001-01

DRILLING CONTRACTOR: KVILHAUG

DRILLING METHOD : Hollow Stem Auger Rotary

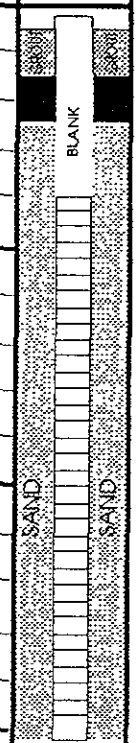
START DATE:5/8/97
COMPLETION DATE:5/8/97

TYPE OF BIT: HSA Cutter

BORE HOLE DIAMETER: 8"

DEPTH SCALE (FEET)	SAMPLE NO.	PID READING	INTERVAL	RECOVERY	Blows Per 6 IN.	USCS	LOG OF MATERIAL
							Backfill/
						CL	sandy silty CLAY, CL olive grey 5 Y 4/2, hard, fine grained, no discoloration
5	MW-1-5 10.44 a m	PID=0 ppm		100%	21,28,50	SW	Gravely SAND, SW, brown 7.5 YR 4/4, dense, wet, fine grained w/ course clasts of chert, no apparent odor or discoloration
10	MW-1-10 10:52 a.m	PID=0 ppm		100%	8,10,17	CL	CLAY, CL light brown 7.5 YR 6/4 wet, very stiff no odor or discoloration
15	MW-1-15 11.00 a.m	PID=0 ppm		100%	15,18,30	CL	CLAY, CL light brown 7.5 YR 6/4 wet, hard, no odor or discoloration
							Total depth 15'
20							

PIEZOMETER\ WELL INSTALLATION



LOG OF BORING

BORING NUMBER : MW-2

PROJECT NAME: BROADWAY MOTORS

PROJECT NUMBER: 20601-001-01

DRILLING CONTRACTOR: KVILHAUG

DRILLING METHOD : Hollow Stem Auger Rotary

START DATE:5/8/97

COMPLETION DATE:5/8/97

SHEET _1_ OF _1_

DRILL MANUFACTURER/MODEL:

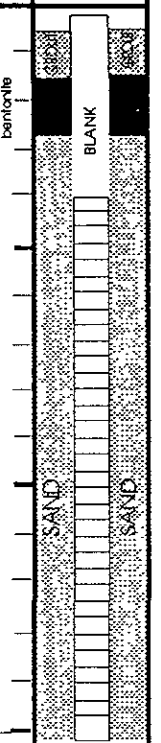
Mobil B-61

TYPE OF BIT: HSA Cutter

BORE HOLE DIAMETER: 8"

DEPTH SCALE (FEET)	SAMPLE NO.	PID READING	INTERVAL	RECOVERY	Blows Per 6 IN.	USCS	LOG OF MATERIAL
							Road base
						ML	Sandy SILT, ML light brown 7 5 YR 6/4, dry, hard, fine grouted, no discoloration
5	MW-2-5 9:00 a.m	PID=0 ppm		85%	10,18,20	SW	SAND, SW, red 2.5 YR 4/6, dense, wet, fine grained w/ course clasts, of chert, no apparent odor or discoloration
10	MW-2-10 9:15 a.m	PID=0 ppm		85%	9,10,23	CL	Silty sandy CLAY, CL red 2.5 YR 4/6 wet, hard, no odor or discoloration
15	MW-2-15 9:25 a.m no sample taken	PID=0 ppm		0%	20,21,34	CL	Silty CLAY, CL red 2.5 YR 4/6 wet, very stiff, no odor or discoloration
							Total depth 15'
20							

PIEZOMETER\ WELL INSTALLATION



LOG OF BORING

BORING NUMBER : MW-3

PROJECT NAME: BROADWAY MOTORS

PROJECT NUMBER: 20601-001-01

DRILLING CONTRACTOR: KVILHAUG

DRILLING METHOD : Hollow Stem Auger Rotary

START DATE:5/8/97

COMPLETION DATE:5/8/97

SHEET _1_ OF _1_

DRILL MANUFACTURER/MODEL:

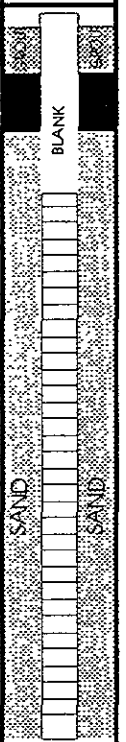
Mobil B-61

TYPE OF BIT: HSA Cutter

BORE HOLE DIAMETER: 8"

DEPTH SCALE (FEET)	SAMPLE NO.	PID READING	INTERVAL	RECOVERY	Blows Per 6 IN.	USCS	LOG OF MATERIAL
							Road base
						SC	*Silty SAND, SC red brown 2.5 YR 4/4, dry, dense, very fine to fine, w/ no odor or discoloration*
5	MW-3-5 12:52 p.m	PID=0 ppm		100%	8,12,41		Silty SAND, SC red brown 2.5 YR 4/4, wet, dense, very fine to fine, w/no odor or discoloration
10	MW-3-10 12:57 p.m	PID=0 ppm		100%	8,10,12	CL	CLAY, CL brown 7.5 YR 4/4 wet, very stiff, has course clasts of red chert up to 1" in diameter, no odor or discoloration
							Silty sandy CLAY, CL brown 7.5 YR 4/4 wet, stiff, w/clasts of chert, no odor or discoloration
15	MW-3-15 1:11 p.m	PID=0 ppm		85%	8,10,12	CL	*CLAY, CL brown 7.5 YR 4/4 wet, very stiff, no odor or discoloration*
							Total depth 15'
20							

PIEZOMETER\ WELL INSTALLATION



Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Broadway Motors Ford	BORING/WELL NAME	MW-4
JOB/SITE NAME	Broadway Motors Ford	DRILLING STARTED	11-Oct-99
LOCATION	2560 Webster Street, Oakland, California	DRILLING COMPLETED	11-Oct-99
PROJECT NUMBER	134-0839	WELL DEVELOPMENT DATE (YIELD)	18-Oct-99
DRILLER	V&W Drilling	GROUND SURFACE ELEVATION	15.00 ft above msl
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	Not Surveyed
BORING DIAMETER	8"	SCREENED INTERVAL	3 to 15.25 ft bgs
LOGGED BY	R. Schultz	DEPTH TO WATER (First Encountered)	5.5 ft (11-Oct-99) ▽
REVIEWED BY	R. Clark-Riddell, PE# 49629	DEPTH TO WATER (Static)	7.87ft (15-Oct-99) ▼
REMARKS	Across Valdez Ave. from former USTs.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
	9 11 15	MW-4 @ 4'					**Sandy SILT**; (ML); brown; stiff; dry; 10% clay, 60% silt, 30% sand; medium plasticity; moderate to low estimated permeability.		Portland Type I/II Bentonite Seal Monterey Sand #2/12
	1 1 2	MW-4 @ 6'		5	ML		@ 5' - dark brown; soft; wet. ▽ ▼		
	11 11 5	MW-4 @ 11'		10	GP		**Sandy Silty GRAVEL**; (GP); brown; medium dense; wet; 10% clay, 20% silt, 30% sand, 40% gravel; moderate to high estimated permeability.	10.0	2"-diam., 0.010" Slotted Schedule 40 PVC
	15 33 35	MW-4 @ 14.5'		15			@14.5' - very dense.	15.3	Bottom of Boring @ 15.25 ft

WELL LOG (TPH-G) H:\SB 2004\BROADWAY\FIGURES\BROADWAY.GPJ DEFAULT.GDT 11/22/99

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
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BORING/WELL LOG

CLIENT NAME	Broadway Motors Ford	BORING/WELL NAME	CB-9
JOB/SITE NAME	Broadway Motors Ford	DRILLING STARTED	11-Oct-99
LOCATION	2560 Webster Street, Oakland, California	DRILLING COMPLETED	11-Oct-99
PROJECT NUMBER	134-0839	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	V&W Drilling	GROUND SURFACE ELEVATION	15 ft above msl
DRILLING METHOD	Hydraulic push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVAL	NA
LOGGED BY	R. Schultz	DEPTH TO WATER (First Encountered)	15.0 ft (11-Oct-99)
REVIEWED BY	R. Clark-Riddell, PE# 49629	DEPTH TO WATER (Static)	NA

REMARKS: In Valdez Ave, 25' W of site bldg svc entry. Over-drilled boring w/ 3" dia. solid stem auger to 15' to get water sample.

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
							ASPHALT	0.3	Portland Type I/II
					GP		**Sandy GRAVEL**; (GP); greyish-green; dense; dry; 10% silt, 30% sand, 60% gravel; high estimated permeability.		
		CB-9 @ 3'						4.0	
		CB-9 @ 4'		5			**Clayey SILT with Sand**; (ML); brown; soft; damp; 20% clay, 68% silt, 12% sand; medium plasticity; low estimated permeability.		
		CB-9 @ 8'			ML				
		CB-9 @ 10'		10			@ 10'- orangish- brown; firm.		
							@ 12.5'- brown; stiff, moist; 10% clay, 55% silt, 35% sand; low plasticity		
		CB-9 @ 12.5'						13.0	
		CB-9 @ 3'			SW		**SAND**; (SW); orangish-tan; very dense; moist; 10% silt, 90% sand; high estimated permeability.		
				15			▽	15.0	Bottom of Boring @ 15 ft

WELL LOG (TPH GI H:\SB-2004\BROADW-1-FIGURES\BROADWAY.GPJ DEFAULT.GDT 10/29/99

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
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BORING/WELL LOG

CLIENT NAME	Broadway Motors Ford	BORING/WELL NAME	CB-10
JOB/SITE NAME	Broadway Motors Ford	DRILLING STARTED	11-Oct-99
LOCATION	2560 Webster Street, Oakland, California	DRILLING COMPLETED	11-Oct-99
PROJECT NUMBER	134-0839	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	V&W Drilling	GROUND SURFACE ELEVATION	15 ft above msl
DRILLING METHOD	Solid-stem auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVAL	NA
LOGGED BY	R. Schultz	DEPTH TO WATER (First Encountered)	9.0 ft (11-Oct-99) ▽
REVIEWED BY	R. Clark-Riddell, PE# 49629	DEPTH TO WATER (Static)	NA ▼
REMARKS	In Valdez Ave, 40' W of site bldg. service entry.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
							ASPHALT	0.3	Portland Type I/II
		CB-10 @ 3.5'			GP		**Sandy GRAVEL**; (GP); greyish-green; dense; dry; 10% silt, 30 % sand, 60% gravel; high estimated permeability.		
	23 28 29	CB-10 @ 6'		5	SM		**Silty SAND**; (SM); grey mottled brown; dense; damp; 5% clay, 20% silt, 70% sand, 5% gravel; moderate to high estimated permeability. ▽	5.0	
	10 15 15	CB-10 @ 11'		10	ML		**Sandy SILT**; (ML); brown; medium dense; wet; 5% clay, 65% silt, 30 % sand; medium plasticity; low estimated permeability.	10.0 11.5	Bottom of Boring @ 11.5 ft