BP OIL

ENVIRONMENTAL PROTECTION

95 MAR 29 PM 1:16

BP Oil Company
Environmental Resources Management
Building 13, Suite N
295 SW 41st Street
Renton, Washington 98055-4931
(206) 251-0667

March 27, 1995

Mr. Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway Room 250
Alameda CA 94502-6577

RE: BP OIL FACILITY #11117
7210 Bancroft Avenue
Oakland, CA 94621

Dear Mr. Chan:

Attached please find our **SITE ASSESSMENT REPORT DATED MARCH 9, 1995** for the above referenced facility.

If you should have any questions regarding this site, I may be reached at (206) 251-0689.

Respectfully,

Scott T. Hooton
Environmental Resources Management
Group Leader

STH:mu msword\sar11117

cc: Mr. Rich Hiett, RWQCB San Francisco Bay Region, 2101 Webster Street, Room 500 Oakland CA 94612

Hydro Environmental Technologies, 2363 Mariner Square Drive, Suite 243, Alameda, CA 94501

Mr. Robert K. Barth, Bancroft Oakland Investment Company, 9454 Wilshire Blvd, Suite 901, Beverly Hills, CA 98212

Mr. Larry Silva, TOSCO Northwest, 601 Union Street, Suite 2500, Seattle WA 98101

Site File

RO 356

PHASE II ENVIRONMENTAL AUDIT

EASTMONT MALL PROPERTY

OAKLAND, ALAMEDA COUNTY, CALIFORNIA

for

Mr. Steve Gardner
Topa Savings Bank
1800 Avenue of the Stars
Los Angeles, CA 90067

by

Hunter Environmental Services, Inc.
597 Center Avenue, Suite 350
Martinez, CA 94553

Project Number 02-401-002

December 20, 1989

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PHASE II ENVIRONMENTAL AUDIT
EASTMONT MALL PROPERTY

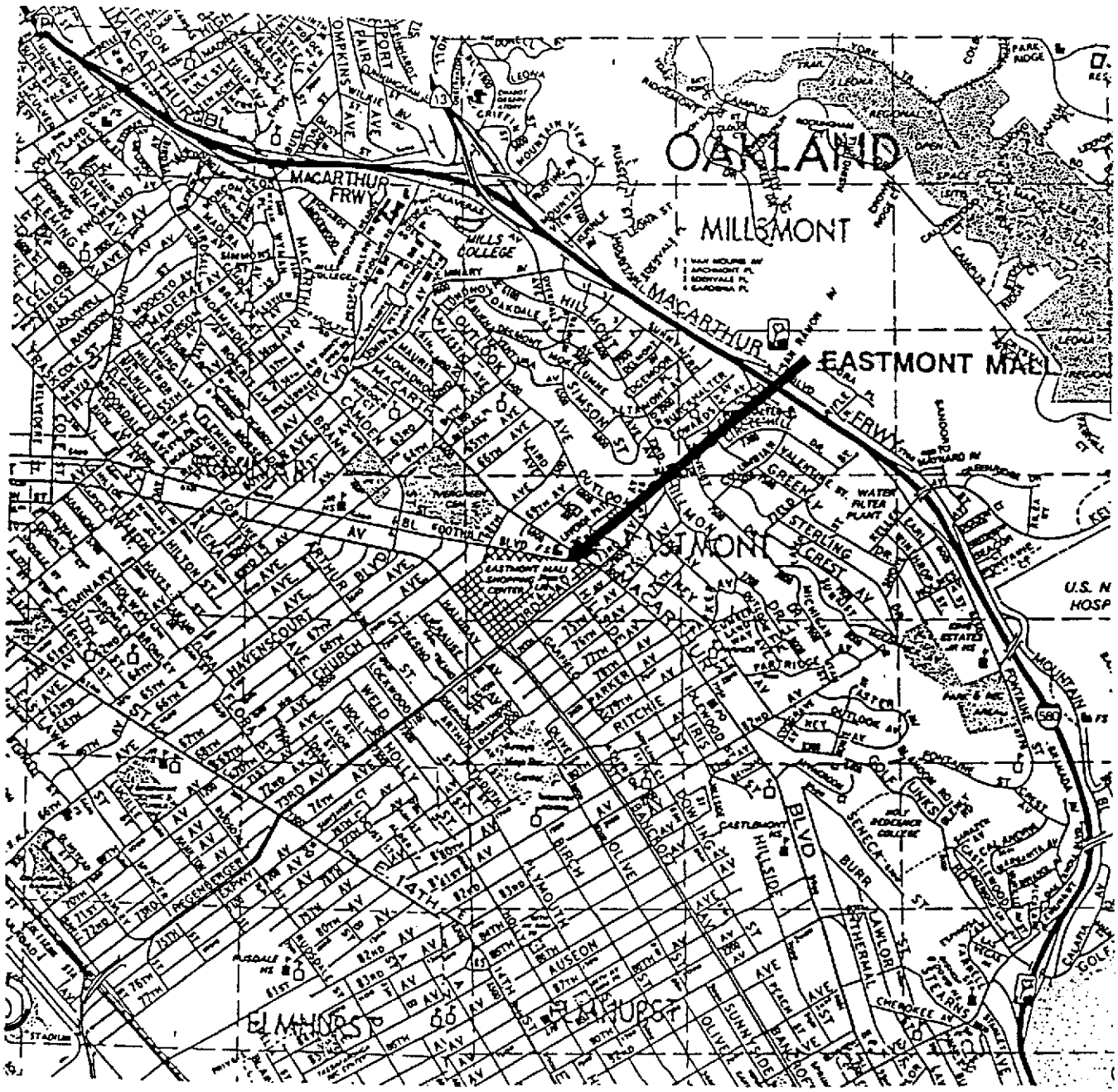
1.0 INTRODUCTION

This report presents the results of a Phase II Environmental Property Audit for the Eastmont Mall property located between Foothill Boulevard, 73rd Street, Bancroft Avenue and Church Street in Oakland, Alameda County, California (see Figure 1 -Site Map). Mr. Steve Gardner, of Topa Savings Bank, retained Hunter Environmental Services, Inc. (Hunter) to conduct a Phase II Environmental Audit. The audit included a site reconnaissance of the property to observe hazardous materials or evidence of hazardous materials, identify from observation suspect asbestos containing material (ACM), and a subsurface investigation to determine the local groundwater conditions. The results of this audit are submitted in this report of the findings. The purpose of the study was to identify hazardous substances in onsite soil, ground water or buildings that may affect the property's acquisition value. The scope of work included interview of onsite personnel, site walk, ACM observation survey, subsurface investigation of ground water conditions and preparation of a written report of the findings.

Hunter is pleased to assist Topa Savings Bank in managing the environmental risks involved in the Eastmont Mall property site by conducting a limited investigation of the property. Hunter can offer no assurances and assumes no responsibility for site conditions or activities which were outside the scope of the inquiry requested by Topa Savings Bank as outlined by Hunter Proposal 89-M-200, dated November 29, 1989. In performing its investigations, Hunter has used reasonable care and has performed its work in keeping with industry standards and standard agency procedures as appropriate.

It is understood by Topa Savings Bank that environmental testing generally cannot and does not in this case lead to a full knowledge of site conditions, but indicates conditions only for those exact locations and specific times where samples were collected and analyzed. There can be no assurance and Hunter offers no assurance that site conditions do not exist or could not exist in the future which were undetected and which could lead to liability in connection with the site.

Based on these analyses, Hunter found no reason to suspect that the property contains regulated hazardous substances in onsite soil, ground water or buildings other than those described in this report. There can be no assurance and Hunter offers no assurance that site conditions do not exist or could not exist in the future which were undetected and which could lead to liability in connection with the site. Similarly, past and present activities on the site indicating potential onsite hazardous substance concerns may not have been discovered by Hunter's inquiry. Such activities may include those that would indicate the potential for regulated hazardous substances at the site. Hunter analyzed the information obtained in its limited audit in keeping with existing environmental standards and enforcement practices, but cannot accurately predict what actions any given agency may take presently or what standards and practices may apply to the site in the future.



HUNTER	EASTMONT MALL OAKLAND, CA.

FIGURE 1
LOCATION MAP

12/89 02-401-002

2.0 PROPERTY DESCRIPTION

2.1 SITE FEATURES

2.1.1 Site Location

The Eastmont Mall property is located in the southeast part of the City of Oakland, Alameda County, California, between Foothill Boulevard, 73rd Street, Bancroft Avenue and Church Street, approximately 0.75 mile west of Interstate 580, and approximately two miles east of Interstate 880. Access to the 27.6 acre property is by exiting I-580 on Edwards Ave, proceeding west where Edwards becomes 73rd Street to Eastmont Mall, which is on the right (North). Figure 1 shows the site location.

2.1.2 Soils

The geologic materials in the vicinity are reported by the State Division of Mines and Geology to be predominantly Quaternary alluvial deposits. These consist of unconsolidated clays, silts, sands, and gravels. The source of these alluvial deposits is the Berkeley Hills approximately one-half mile to the east. The site is located within the Hayward Fault Zone.

2.1.3 Topography and Drainage

The original topography of the area is was gently sloping west towards the San Francisco Bay. With the construction of the Mall and its parking lots the property is essentially flat and terraced. Drainage from the property is collected by storm sewers on in the parking lots. The adjacent properties are developed as mixed commercial and residential sites. Therefore, it appears that surface run-on from these properties during a heavy rain will not occur. Elevation of the Eastmont Mall study property is approximately 60 feet above mean sea level, as interpreted from a U. S. Geologic Survey topographic map of the area (Oakland East Quadrangle, 7.5 Minute, 1980).

2.1.4 Hydrogeology

Ground water will be discussed in Section 3.3, Ground Water Investigation.

2.2 CURRENT AND HISTORICAL LAND USES

2.2.1 Current Land Use

The property is currently developed as a regional shopping center. Buildings on the property include the main mall complex, a four story office building, three fast food satellite buildings, a gas station and an auto repair business. There is a two-story parking garage on the north and east side of the main mall building, and additional paved parking areas cover the rest of the property. On the corner of Church St. and Foothill Blvd. is a bare area which is not developed at the time of this report.

2.2.2 Historical Land Uses

The property was formerly used for single family residences prior to the construction of Eastmont Mall property in 1966 and 1967. Portions of some public streets were closed and abandoned to make way for the mall construction. These streets are: 69th, 71st, and 72nd Avenues; Hillside and Beck Streets; and Garfield Avenue.

2.2.3 Adjacent Land Uses

The adjacent land uses are varied around the study property. The properties to the north and east of Eastmont Mall property are part of the commercial business corridors along Foothill Boulevard and 73rd Street, respectively. Properties to the south and west of the Eastmont Mall property are mixed commercial and multi-family residential.

3.0 AREAS OF INVESTIGATION

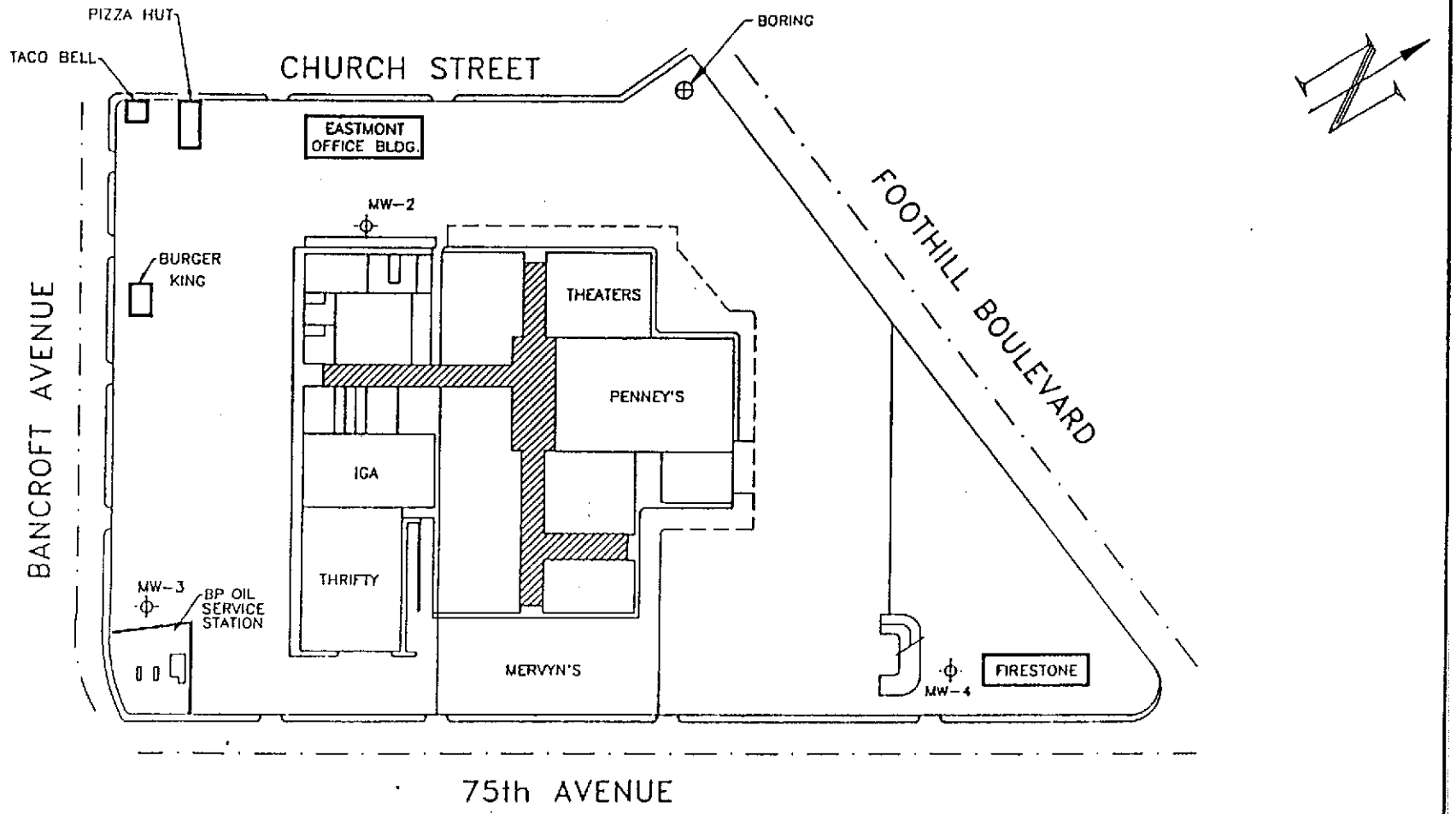
3.1 HAZARDOUS MATERIALS

The site walk for the observation of hazardous materials (HM) on the Eastmont Mall property was performed on December 5, 6, and 10, 1989. Ms. Loida, manager of the mall provided access to construction drawings and other pertinent information necessary to perform the site walk. Figure 2, Site Plan, was developed from plats and maps contained in an Appraisal Report, dated July 7, 1988, by Van Arsdale & Associates, Inc.

Hazardous materials observed during the site walk were usually the typical HM found in retail groceries, drug stores and hobby stores. Some examples of this HM are, oils, solvents, cleaners, aerosol pesticides, pesticides and paints. All containers of these materials observed were in one gallon containers or smaller. Used (spent) fluorescent bulbs were stored in closets in the office building, in mall closets and back rooms, and in the Firestone building. The fluorescent bulbs release mercury when broken. Larger quantities of HM are listed below:

Item or Material	Location
Waste Oil Tank (in use)	Firestone Store
Car Batteries (est 200+)	Firestone Store
Oil Tank (275 gl)	Firestone Store
Waste Oil Tank (not in use)	Eastmont Auto
Used Oil Drums (18)	Eastmont Auto
Car Batteries (est 60+)	Eastmont Auto
Pressurized 20 gl tank (solvent)	Dry Cleaners
Petroleum Tanks, gas & diesel (4)	B.P. Station
Refrigerant Gas, Freon, empty and part full (30 gl)	Various roof locations
Transformer Dielectric Fluid (possible PCBs)	Transformers outside by Fantasy Gifts Store

Evidence of spills such as pavement or floor stains were not observed during the site walk. Electric transformers may contain polychlorinated biphenyls (PCB) in their coolant oils. PCBs are highly toxic and extremely persistent in the environment causing ecological damage via water pollution. Their manufacture was discontinued in the U.S. in 1976. The use of PCBs in transformers, while still allowed in certain situations, is strictly regulated by the EPA. PCBs are a cause for concern because of the potential environmental damage if a transformer leaks or bursts. Pacific Gas and Electric was contacted concerning the condition of the dielectric fluid in the transformers. They stated that all transformers in Oakland are non-PCB, they all have mineral oil as their dielectric cooling fluid. The rest of the HM in Eastmont Mall did not appear to be a cause for concern, but has the potential to degrade the environment if released to the air, soil or ground water.



HUNTER | EASTMONT MALL OAKLAND, CA.

FIGURE 2
SITE MAP

12/80 02-401-002

3.2 ASBESTOS

The observation of suspect asbestos containing material (ACM) was performed by Hunter on December 5,6, and 8, 1989. Asbestos can be in roofing materials, air conditioning ducts, ceiling tiles, acoustic wall tiles, floor tiles and linoleum, elevator and fire doors, wall texturing and joint compound, pipe insulation, spray-on ceiling materials and spray-on fire proofing, among others. Asbestos is only a problem when the material is disturbed to create airborne fibers, from which inhalation occurs. Since the Eastmont Mall was constructed in 1966 and 1967, the probability of ACM used for construction is very high.

Most of the suspect ACM in the Eastmont property was in satisfactory condition, however, the J. C. Penny building has spray-on fire proofing on all observed structural steel. The suspect ACM is also accessible to disturbance in the roof entry to the J. C. Penny roof. On the top floor of the J. C. Penny building, the spray-on material was stained and appeared to have sustained water damage. These conditions may cause the suspect spray-on ACM to de-laminate from the steel and become airborne.

A detailed list of observed suspect asbestos containing materials is included in Appendix A. No samples were taken, and no demolition of wall, ceiling or floor finishes was performed to visually survey hidden building materials.

3.3 SUBSURFACE INVESTIGATION

On December 5 and 6, 1989, one soil boring (B-1, designated as MW-1 for laboratory analyses), and three ground-water monitoring wells, MW-2, MW-3, and MW-4, were completed at the locations shown on Figure 2 - Site Plan. The wells and soil boring were completed using a truck mounted Mobile Drill B-53 hollow-stem auger drill rig. The drilling and sampling procedures are included in Appendix B -Drilling and Sampling Procedures.

Monitoring wells MW-2, MW-3, and MW-4 were drilled to sample the soil beneath the site and to install monitoring wells to sample ground water beneath the site. MW-2 was drilled to a total depth of 35 feet because first ground water was found at approximately 29 feet

below the surface. First ground water was found in MW-3 at approximately 37 feet below the ground surface and well MW-3 was drilled to a total depth of 45 feet. MW-4 was drilled to a total depth of 25 feet as first ground water was found at approximately 17 feet below the surface. Boring B-1 (Figure 2) was intended to be a monitoring well but ground water was not found to a depth of 55 feet so the boring was backfilled with Enviroplug bentonite to the surface.

3.3.1 Soil

The soil materials observed during drilling indicate that the site is underlain by a brown to black silty clay to depths ranging from approximately 5 to 13 feet below the surface. The materials below the clay varied from silty clay to well graded sand. A thin, two foot thick, section of cobbles were found from 12 to 14 feet in B-1, see Appendix C - Boring Logs.

The soil samples retrieved during drilling were screened on site using a Thermo Environmental Instruments Model 580A organic vapor meter (OVM). All soil samples registered non-detectable results on the OVM except for the 15 foot soil sample from Well MW-4 which indicated a level of 230 parts per million (ppm) or milligrams per kilogram (mg/kg). This soil sample, MW-4 at 15 feet, also had dark gray staining with an oily sheen and a strong gasoline odor at the bottom of the sample, which was near the elevation that ground water was found in that boring.

3.3.2 Ground Water

Ground water in the vicinity was found during drilling at depths ranging from 17 to 37 feet below the ground surface. After the well installation was completed the ground-water levels ranged from 15 to 35 feet below the ground surface. The water levels in wells MW-2, MW-3, and MW-4 were measured by a geologist from Hunter/Gregg on December 11, 1989 and the relative elevations of the three wells were surveyed by Hunter/Gregg personnel on December 14, 1989. The well elevations and depth to water is shown on Figure 2. Based on the relative well elevations and depth to water in the three monitoring

wells it appears that the ground water beneath the site is in two or three zones which are most likely affected by faulting and changes in lithology. The ground-water gradient appears to be to the south.

3.3.3 Laboratory Analysis

Laboratory analyses of the soil and water samples were performed by Superior Analytical Laboratories, Inc., a State-Certified, independent testing laboratory, located in Martinez, California. Selected soil samples from the three monitoring wells and one soil boring, MW-2, MW-3, MW-4, and B-1 respectively, were analyzed for Total Petroleum Hydrocarbons (TPH) using EPA Method 8015; Benzene, Toluene, Ethyl Benzene, and Total Xylenes (BTEX) using EPA Method 8020; and Oil and Grease (O&G) using State Method 503-E. Ground-water samples from the three wells, MW-2, MW-3, and MW-4, were analyzed for TPH, BTEX, and for Total Volatile Organics (TVO) using EPA Method 8240. One water sample, MW-2, was analyzed for Stoddard Solvent (Stoddard) using EPA Method 8015. The results of the laboratory analyses are presented in Tables 1 through 6.

3.3.3.1 Soil Analysis Results

All laboratory analyses for the soil samples from the monitoring wells (MW-2, MW-3, and MW-4) and one soil boring (B-1) were non-detectable for all compounds analyzed except the 15 foot sample from MW-4. The 15 foot sample from MW-4 had a TPH level of 2000 ppm; BTEX levels ranging from 1,400 to 150,000 ppb; and was non-detectable for Stoddard Solvent (Stoddard) and Oil and Grease (O&G). The results of the laboratory analyses on soil samples are summarized in Tables 1 and 2.

TABLE 1. RESULTS OF TPH, BTEX, AND STODDARD ANALYSES ON SOIL SAMPLES TAKEN DECEMBER 5 AND 6, 1989 AT EASTMONT MALL, OAKLAND, CALIFORNIA

SAMPLE ID	DATE SAMPLED	TPH (ppm)	B T E X (ppb)				STODDARD (ppm)
			BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	
MW-1@10'	12/5/89	ND<1	ND<3	ND<3	ND<3	ND<3	-
MW-1@30'		ND<1	ND<3	ND<3	ND<3	ND<3	-
MW-2@10'		ND<1	ND<3	ND<3	ND<3	ND<3	ND<10
MW-2@20'		ND<1	ND<3	ND<3	ND<3	ND<3	ND<10
MW-3@10'	12/6/89	ND<1	ND<3	ND<3	ND<3	ND<3	-
MW-3@20'		ND<1	ND<3	ND<3	ND<3	ND<3	-
MW-4@10'		ND<1	ND<3	ND<3	ND<3	ND<3	-
MW-4@15'		2000	1400	4300	23,000	150,000	-

NOTES: ppm - Parts per million or milligrams per kilogram
ppb - Parts per billion or micrograms per kilogram
ND<1 - Not detected at indicated detection limit

TABLE 2. RESULTS OF OIL AND GREASE (O&G) ANALYSES ON SOIL SAMPLES TAKEN DECEMBER 6, 1989 AT EASTMONT MALL, OAKLAND, CALIFORNIA

SAMPLE ID	DATE SAMPLED	OIL & GREASE (ppm)
MW-3@10'	12/6/89	ND<20
MW-3@20'		ND<20
MW-4@10'		ND<20
MW-4@15'		ND<20

Notes: ppm - Parts per million or milligrams per kilogram (mg/kg)
ND<20 - Not detected at indicated detection limit

3.3.3.2 Ground Water Analysis Results

The water samples from the three ground-water monitoring wells, MW-2, MW-3, and MW-4, showed detectable levels of Total Petroleum Hydrocarbons (TPH). The TPH levels ranged from 0.2 to 2.7 parts per million (ppm) or milligrams per liter (mg/L). The BTEX analyses showed non-detectable levels of BTEX for MW-2 at a detection limit of 0.3 parts per billion (ppb) or micrograms per liter (ug/L), and showed BTEX levels in Wells MW-3 and MW-4 ranging from 16 to 530 ppb. Sample MW-2 showed non-detectable levels of Stoddard at a detection limit of 1 ppm. The results of the TPH, BTEX, and Stoddard analyses are presented in Table 3.

TABLE 3. RESULTS OF TPH, BTEX, AND STODDARD ANALYSES ON WATER SAMPLES TAKEN DECEMBER 11, 1989 AT EASTMONT MALL, OAKLAND, CALIFORNIA

SAMPLE ID	DATE SAMPLED	TPH (ppm)	B T E X (ppb)				STODDARD (ppm)
			BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	
MW-2	12/11/89	0.2	ND<0.3	ND<0.3	ND<0.3	ND<0.3	ND<1
MW-3		2.7	530	16	150	59	-
MW-4		2.2	28	21	50	290	-

Notes: ND<0.3 - Not detected at indicated detection limit
ppm - Parts per million or milligrams per kilogram
ppb - Parts per billion or micrograms per kilogram

The Total Volatile Organic (TVO) (EPA 8240) analysis for water from MW-3 was non-detectable for all 38 compounds analyzed. The TVO analysis for water from MW-4 was non-detectable for all compounds except 1,2-Dichloroethene (total), Benzene, Toluene, Ethyl Benzene, and Total Xylenes. The results of the TVO analyses are presented in Tables 4, 5, and 6.

TABLE 4. RESULTS OF TOTAL VOLATILE ORGANIC ANALYSES FOR WATER SAMPLE FROM MW-2 COLLECTED DECEMBER 11, 1989

SAMPLE: MW-2			
Compound	ug/l	Compound	ug/l
Chloromethane	ND<10	Cis-1,3-Dichloropropene	ND<3
Bromoethane	ND<10	Trichloroethene	19
Vinyl Chloride	ND<10	Dibromochloromethane	ND<3
Chloroethane	ND<10	1,1,2-Trichloroethane	ND<3
Methylene Chloride	ND<10	Benzene	ND<2
Acetone	ND<10	Trans-1,3-Dichloropropene	ND<3
Carbon disulfide	ND<3	2-Chloroethyl vinyl ether	ND<3
Trichlorofluoromethane	ND<3	Bromoform	ND<3
1,1-Dichloroethene	ND<3	4-Methyl-2-Pentanone	ND<10
1,1-Dichloroethane	ND<3	2-Hexanone	ND<10
1,2-Dichloroethene (total)	8	Tetrachloroethene	210
Chloroform	ND<3	1,1,2,2-Tetrachloroethane	ND<3
1,2-Dichloroethane	ND<3	Toluene	ND<3
2-Butanone	ND<20	Chlorobenzene	ND<3
1,1,1-Trichloroethane	ND<3	Ethylbenzene	ND<3
Carbon Tetrachloride	ND<3	Styrene	ND<3
Vinyl Acetate	ND<10	Total Xylenes	ND<3
Bromodichloromethane	ND<3	1,3-Dichlorobenzene	ND<3
1,2-Dichloropropane	ND<3	1,2&1,4-Dichlorobenzenes	ND<3

Notes: ug/l - Micrograms per liter or parts per billion (ppb)
ND<10 - Non-detectable at indicated detection limit

TABLE 5. RESULTS OF TOTAL VOLATILE ORGANIC ANALYSES FOR WATER SAMPLE FROM MW-3 COLLECTED DECEMBER 11, 1989

SAMPLE: MW-3

Compound	ug/l	Compound	ug/l
Chloromethane	ND<10	Cis-1,3-Dichloropropene	ND<3
Bromoethane	ND<10	Trichloroethene	ND<3
Vinyl Chloride	ND<10	Dibromochloromethane	ND<3
Chloroethane	ND<10	1,1,2-Trichloroethane	ND<3
Methylene Chloride	ND<10	Benzene	ND<2
Acetone	ND<10	Trans-1,3-Dichloropropene	ND<3
Carbon disulfide	ND<3	2-Chloroethyl vinyl ether	ND<3
Trichlorofluoromethane	ND<3	Bromoform	ND<3
1,1-Dichloroethene	ND<3	4-Methyl-2-Pentanone	ND<10
1,1-Dichloroethane	ND<3	2-Hexanone	ND<10
1,2-Dichloroethene (total)	ND<3	Tetrachloroethene	ND<3
Chloroform	ND<3	1,1,2,2-Tetrachloroethane	ND<3
1,2-Dichloroethane	ND<3	Toluene	ND<3
2-Butanone	ND<20	Chlorobenzene	ND<3
1,1,1-Trichloroethane	ND<3	Ethylbenzene	ND<3
Carbon Tetrachloride	ND<3	Styrene	ND<3
Vinyl Acetate	ND<10	Total Xylenes	ND<3
Bromodichloromethane	ND<3	1,3-Dichlorobenzene	ND<3
1,2-Dichloropropane	ND<3	1,2&1,4-Dichlorobenzenes	ND<3

Notes: ug/l - Micrograms per liter or parts per billion (ppb)
ND<10 - Non-detectable at indicated detection limit

TABLE 6. RESULTS OF TOTAL VOLATILE ORGANIC ANALYSES FOR WATER SAMPLE FROM MW-4 COLLECTED DECEMBER 11, 1989

SAMPLE: MW-4

Compound	ug/l	Compound	ug/l
Chloromethane	ND<10	Cis-1,3-Dichloropropene	ND<3
Bromoethane	ND<10	Trichloroethene	ND<3
Vinyl Chloride	ND<10	Dibromochloromethane	ND<3
Chloroethane	ND<10	1,1,2-Trichloroethane	ND<3
Methylene Chloride	ND<10	Benzene	440
Acetone	ND<10	Trans-1,3-Dichloropropene	ND<3
Carbon disulfide	ND<3	2-Chloroethyl vinyl ether	ND<3
Trichlorofluoromethane	ND<3	Bromoform	ND<3
1,1-Dichloroethene	ND<3	4-Methyl-2-Pentanone	ND<10
1,1-Dichloroethane	ND<3	2-Hexanone	ND<10
1,2-Dichloroethene (total)	4	Tetrachloroethene	ND<3
Chloroform	ND<3	1,1,2,2-Tetrachloroethane	ND<3
1,2-Dichloroethane	ND<3	Toluene	19
2-Butanone	ND<20	Chlorobenzene	ND<3
1,1,1-Trichloroethane	ND<3	Ethylbenzene	130
Carbon Tetrachloride	ND<3	Styrene	ND<3
Vinyl Acetate	ND<10	Total Xylenes	54
Bromodichloromethane	ND<3	1,3-Dichlorobenzene	ND<3
1,2-Dichloropropane	ND<3	1,2&1,4-Dichlorobenzenes	ND<3

Notes: ug/l - Micrograms per liter or parts per billion (ppb)
ND<10 - Non-detectable at indicated detection limit

4.0 SUMMARY AND CONCLUSIONS

This Report is based on our observations made during the weeks of December 4-8 and 11-15, 1989, while performing hazardous material and suspect asbestos containing material surveys. The subsurface information is based on borings, wells, and analysis of soil and ground water samples.

The Eastmont Mall property is currently in use as a regional retail center. Past property use appears to have caused adverse environmental problems with the property. Recent changes in environmental law have also caused some previously existing conditions to become an environmental liability for the property.

> Levels of benzene in two of the three monitoring well samples exceed the Regional Water Quality Control Board's (RWQCB) action levels. The land owner is required to notify the Alameda County Health Department of these results. Asbestos in the Eastmont Mall property may be a problem because of Prop 65 notification requirements, and Cal-OSHA asbestos notification requirements.

Hazardous materials (HM) observed during the site walk were usually the typical HM found in retail groceries, drug stores and hobby stores. Some examples of this HM are, oils, solvents, cleaners, aerosol pesticides, pesticides and paints. All containers of these materials observed were in one gallon containers or smaller. Used (spent) fluorescent bulbs were stored in closets in the office building, in mall closets and back rooms, and in the Firestone building.

Most of the suspect ACM in the Eastmont property was in satisfactory condition, however, the J. C. Penny building has spray-on fire proofing on all observed structural steel. The suspect ACM is also accessible to disturbance in the roof entry to the J. C. Penny roof. On the top floor of the J. C. Penny building, the spray-on material was stained and appeared to have sustained water damage. These conditions in may cause the suspect spray-on ACM to become airborne.

The ground water sampling found elevated levels of total petroleum hydrocarbons, Benzene, Ethyl Benzene, Toluene, Xylenes, 1,2,-Dichloroethene, Trichloroethene, and Tetrachloroethene. Benzene, a known carcinogen, is far above the RWQCB action level of 0.7 parts per billion. The chlorinated hydrocarbons may indicate solvents or pesticides in the subsurface area.

OBSERVED SUSPECT ASBESTOS CONTAINING MATERIAL (ACM) - EASTMONT MALL

TABLE I - FLOOR COVERINGS

(all measurements in sq. ft.)

BUILDING	9"X9" VFT*	12"X12"VFT*	LINOLEUM SHEETS	6"X4" FIRE BRICKS	4"X4" BRICK
Office Bldg.	188	20,788	2,336		
Burger King					
Taco Bell					
Pizza Hut					
Firestone		3,089			
B.P. Station					
Mall Common Areas	251				
J.C. Penny	96	14,075	12,732		
Mervyns	13,000	14,018			
Upper Level Mall Stores	200	22,121	260		
Lower Level Mall Stores	6,290	47,854	1,290	238	333

* VFT = VINYL FLOOR TILE

OBSERVED SUSPECT ASBESTOS CONTAINING MATERIAL (ACM) - EASTMONT MALL

TABLE II - CEILING MATERIALS

(all measurements in sq. ft.)

BUILDING	2'X4' SCT*	2'X2' SCT*	1'X2' SCT*	12"X12" ACOUSTIC	ACOUSTIC SPRAY-ON MATERIAL
Office Bldg.	39,220			3,304	
Burger King	498				
Taco Bell		700			
Pizza Hut				670	
Firestone	2,816			312	
B. P. Station	456				
Mall Common Areas					64,900
J. C. Penny					
Mervyns	62,226				
Upper Level Mall Stores	34,000	1,060			7,190
Lower Level Mall Stores	66,185	2,863	34,410	2,142	2,892

* SCT = Suspended Ceiling Tile

OBSERVED ASBESTOS CONTAINING MATERIAL (ACM) - EASTMONT MALL
TABLE III - MISCELLANEOUS MATERIALS

ITEM NAME	LOCATION	AMOUNT
Structural Fireproofing	J. C. Penny	191,000 sq.ft.
	Office Building, 1st floor beams	Unknown
Transite	Roof of J.C. Penny	640 sq.ft.
	Firestone basement pipes	58 lin.ft.
Air Conditioning Dampers	All roof areas	79 Units
Elevator Doors	Main Mall	(8) 8'X16'
Hard Pipe Elbows	Lower Mall, IGA & Thrifty	(6) elbows

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MARTINEZ, CALIFORNIA

DRILLING AND SAMPLING PROCEDURES

Drilling Procedures - Hollow Stem Auger Rigs

The borings are drilled with a minimum outside diameter 7 1/4 inch Hollow-stem auger. The auger flights are steam cleaned prior to their arrival on site and after each use. During drilling a retractable plug prevents soil from entering the central shaft of the auger flight. Undisturbed soil samples shall be recovered from the borings without introducing liquid into the borings.

Soil Sampling Procedures

Relatively undisturbed soil samples shall be collected from the borings for chemical analysis and visual description. When the target depth is reached a Modified California Sampler, consisting of an outer sampler barrel lined with two 6-inch long rings (OD 2.5 inch) placed end to end, is used to collect the soil samples. The Modified California Sampler and brass rings are cleaned prior to each assembly. The equipment is washed with tri-sodium phosphate solution, rinsed in tap water and allowed to air dry. The sampler is attached to the drive hammer, lowered through the hollow-stem auger, and driven 12 inches into undistrubed soil ahead of the auger. The sampler is then retrieved and the rings removed.

The soil in the lower six-inch ring of the sampler is used for laboratory analysis. Immediately after the rings are retrieved, the lower ring is sealed with a teflon lined end cap and secured with tape. The sample is then labeled and placed in an ice chest for cold transport under proper chain of custody to a state certified chemical laboratory for analyses. The soil in the upper six-inch ring is used for lithologic description

and olfactory examination. Soil is described using the Unified Soil Classification System. A portion of this soil may be temporarily placed in a plastic bag and used for examination with a portable organic vapor analyzer. All field descriptions and measurements are documented on the Borehole Logs, example attached.

Ground-Water Monitoring Well Construction

Ground-water monitoring wells are constructed according to the general specifications shown on the attached Well Construction Diagram. The wells shall extend a minimum of 10 feet into the upper aquifer, unless a clay layer greater than five feet in thickness is found. The wells shall not extend through a laterally extensive clay layer below the upper aquifer unless circumstances warrent the investigation of deeper aquifers. In the event an extensive clay layer must be penetrated care shall be taken to assure that mixing of water or contaminated soil does not occur.

For single-cased wells, the monitoring well casing, with an end cap, shall extend to the base of the borehole or into a bentonite plug. The casings shall be factory perforated to the specifications delineated in the site work plan and compatible with the lithology of the aquifer found in the field. The perforated casing will extend five feet above the top of the aquifer or known high water level. Properly graded, clean filter sand will be used in the annulus of the well and prevent the migration of fine particles into the well. The filter sand will extend at three to five feet above the perforated interval in the well. A seal of at least three to five feet of bentonite shall be placed above the filter. Sack or neat cement will be used to seal the annulus from the bentonite pellets to the ground surface where a well box will be installed. All sand, bentonite, and cement will be placed with a tremie pipe.

Double cased wells may be specified where the wells are screen below an upper aquifer. In this situation, a minimum 10 inch diameter borehole is drilled to the base of the first aquifer and at least two feet into the aquitard. A conductor casing is then grouted in place and allowed to set for at least 72 hours. Drilling shall then continue within the conductor casing, with a drill bit smaller than the inside diameter of the conductor casing to the desired completion depth.

All wellheads shall be completed with a watertight structure and furnished with a watertight cap which shall be enclosed in a locked well covering device.

Ground-Water Well Development

Well development of a newly installed well shall begin 24 to 48 hours after the well is installed to allow cement to harden sufficiently. The well is cleared of disturbed sediment and water before water samples are collected. All well development tools are thoroughly cleaned prior to use. Well development tools may be either a stainless steel, teflon, or PVC bailer, hand pumps or submersible pumps. Surging may be required to remove loose sediments. For complete development, the wells will be pumped until the discharge is clear or the turbidity has not noticeably changed within one half hour. A pH and conductivity meter may be utilized to determine if the groundwater parameters have stabilized.

Ground-water sampling

Prior to sampling, the wells are sounded to determine product levels, water levels, and total volume of water. Each ground-water monitoring well is purged of at least 3 well volumes of water using a mechanical or hand-operated pump, or bailer. Conductivity, pH, and temperature are generally measured during the purging procedure to verify that these

characteristics are stable prior to sampling. Stable in this situation is three consecutive readings within 15% of each other. If the wells are emptied before three well volumes are removed, the sample shall be taken when the water level in the well recovers to at least 80% of its initial water level.

Samples are then taken immediately after purging using a teflon bailer and transferred into 40 milliliter (ml) glass vials with Teflon septum lids using a collection procedure that precludes air from entering the 40 ml sample vials and prevent the release of volatile organic compounds. To prevent cross-contamination of the ground-water samples, the Teflon bailer is washed with tri-sodium phosphate solution, rinsed with tap water, then distilled water, and allowed to air dry before sampling the next well. The samples are then labeled and placed immediately in a cooler for delivery to a state certified analytical laboratory. A chain of custody shall accompany the samples and contain the information concerning the source of the samples. Field identification of the samples, date and time of sample collection, analyses required, and signatures of the sampler and other handlers. For the purpose of quality assurance, one or more duplicate ground-water samples are taken for each five wells sampled. A sample is taken of distilled water from the final bailer rinse. Trip blanks furnished by the laboratory are also utilized.

Additional Ground-Water Parameters

Dissolved Oxygen Content

The dissolved oxygen content of the ground water is measured with a Yellow Springs Instrument, Model 51B dissolved oxygen meter which is calibrated on site taking into account temperature and salinity. After purging, a ground water sample is taken with a teflon bailer. The sample is immediately transferred into a jar in a manner that precludes air from being introduced into the sample. The dissolved oxygen probe is than placed in the jar, directly measuring the water temperature and the dissolved oxygen content.

Well bore vapor sampling

After the wells have been purged and allowed to equilibrate, vapor samples may be collected with a small vacuum pump from just above ground water in each of the well bores. Teflon tubing is lowered to approximately one foot above the ground-water surface, the well bore is covered, and air is pumped through the tubing into a chemically inert Tedlar bag that has been pre-cleaned and purged. The Tedlar bags are then labeled and transported to a state certified analytical laboratory to be analyzed for carbon dioxide content.

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP SYMBOLS	DESCRIPTION	GRAPHIC LOG
COARSE GRAINED SOILS 50% or more retained on the No. 200 sieve.	GRAVELS More than half of coarse fraction retained on the No. 4 sieve	Clean sands	GW	Well-graded gravels, gravel-sand mixtures, little or no fines.	
			GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines.	
		Gravels with fines	GM	Silty gravels, gravel-sand mixtures.	
			GC	Clayey gravels, gravel-sand-clay mixtures.	
	SANDS More than half of coarse fraction passing the No. 4 sieve.	Clean sands	SW	Well-graded sands, gravelly sands, little or no fines.	
			SP	Poorly-graded sands, gravelly sands, little or no fines.	
		Sands with fines	SM	Silty sands, sand-silt mixtures.	
			SC	Clayey sands, sand clay mixtures.	
FINE GRAINED SANDS More than 50% passing the No. 200 sieve.	SILTS AND CLAYS	Liquid Limit below 50%	ML	Inorganic silts and very fine sands.	
			CL	Inorganic clays, gravelly clays, sandy clays, lean clays.	
			OL	Organic silts and organic clays	
			MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.	
		Liquid Limit 50% and above	CH	Inorganic fat clays.	
			OH	Organic clays or organic silts.	
Highly organic soils			Pt	Peat, organic content greater than 60%.	

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LEGEND TO LOGS

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LOG OF BORING NO. B-1 PAGE 1 of 2

PROJECT NO: 02-401-002 DATE: 12/5/89

CLIENT: TOPA REF. ELEV. -

SITE LOCATION: EASTMONT MALL OAKLAND, CA. METHOD: HOLLOW STEM AUGER

BORING LOCATION: SEE FIG 1 HOLE DIA: 8"

DRILLER: GREGG DRILLING & TESTING

LOGGED BY: J. BRYSON

SUPERVISOR: S. WICKHAM Susan Wickham RG 3951

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
0						GRAVEL & SOIL @ SURFACE	
2					CL	SILTY CLAY, black, gravelly, hard, slightly moist, no odor.	
4			ND	RING @ 5'	ML	CLAYEY SILT, brown with some gravel, stiff, slightly moist, no odor.	
10			ND	RING @ 10'	ML	As above.	
12						Cobbles from 12'-14'.	
14			ND	RING @ 15'	ML	CLAYEY SILT, brown with black mottling, stiff, slightly moist, no odor.	
20			ND	RING @ 20'	ML	As above with some gravel.	
24			ND	RING @ 25'	ML	As above, moist.	
28							

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LOG OF BORING NO. B-1

PAGE 2 of 2

PROJECT NO: 02-401-002
DATE: 12/5/89
CLIENT: TOPA
REF. ELEV. -
SITE LOCATION: EASTMONT MALL OAKLAND, CA.
METHOD: HOLLOW STEM AUGER
BORING LOCATION: SEE FIG 1
HOLE DIA: 8"
DRILLER: GREGG DRILLING & TESTING
LOGGED BY: J. BRYSON
SUPERVISOR: S. WICKHAM Susan Wickham P 63851

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
29							
30			ND	RING @ 30'	ML	As above, no gravel.	
32							
34			ND	RING @ 35'	ML	As above.	
36							
38							
40			ND	RING @ 40'	SW	SAND, dark brown, fine-coarse grained, medium dense, moist, no odor.	
42							
44					SC	CLAYEY SAND, brown with gravel and some cobbles, dense, moist, no odor.	
46							
48					SC	As above.	
50							
52							
54							
						TOTAL DEPTH - 55'	
56						Hole backfilled with 19 bags of holeplug bentonite.	

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LOG OF BORING NO. MW-2 PAGE 1 of 2

PROJECT NO: 02-401-002 DATE: 12/5/89

CLIENT: TOPA REF. ELEV. —

SITE LOCATION: EASTMONT MALL, OAKLAND, CA. METHOD: HOLLOW STEM AUGER

BORING LOCATION: SEE FIG 1 HOLE DIA: 8"

DRILLER: GREGG DRILLING & TESTING

LOGGED BY: J. BRYSON

SUPERVISOR: S. WICKHAM Susan Wickham RG3851

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
0						3" Asphalt @ Surface	
2					CL	CLAY, brown, stiff, trace of silt, slightly moist, no odor.	
4			ND	RING @ 5'	CL	SILTY CLAY, brown, stiff, silty, slightly moist, no odor.	
6							
8							
10			ND	RING @ 10'	SC	CLAYEY SAND, brown, well graded, medium dense, moist, no odor.	
12							
14			ND	RING @ 15'	CL	SANDY CLAY, brown, very stiff, slightly moist, no odor.	
16							
18							
20			ND	RING @ 20'	SC	CLAYEY SAND, brown, medium dense, very well graded, gravelly, moist, no odor.	
22							
24			ND	RING @ 25'	CL	SILTY-SANDY CLAY, brown, stiff, moist, no odor.	
26							
28							

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LOG OF BORING NO. MW-2 PAGE 2 of 2

PROJECT NO: 02-401-002 DATE: 12/5/89

CLIENT: TOPA REF. ELEV. –

SITE LOCATION: EASTMONT MALL OAKLAND, CA. METHOD: HOLLOW STEM AUGER

BORING LOCATION: SEE FIG 1 HOLE DIA: 8"

DRILLER: GREGG DRILLING & TESTING

LOGGED BY: J. BRYSON

SUPERVISOR: S. WICKHAM Susan Wickham RG 3851

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
29			ND	RING @ 30'	ML	▽ CLAYEY SAND, brown, gravelly, saturated.	
31							
33							
35						TOTAL DEPTH – 35'	
37						Well Construction: 2"(0.02") slotted PVC 35'–20'; 2" blank PVC 20'–0; #3 lonestar sand 35'–15'; enviroplug bentonite 15'–3'; cement 3'–0.	
39							
41							
43							
45							
47							
49							
51							
53							
55							
57							

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LOG OF BORING NO. MW-3 | PAGE 1 of 2

PROJECT NO: 02-401-002 | DATE: 12/6/89

CLIENT: TOPA | REF. ELEV. –

SITE LOCATION: EASTMONT MALL OAKLAND, CA. | METHOD: HOLLOW STEM AUGER

BORING LOCATION: SEE FIG 1 | HOLE DIA: 8"

DRILLER: GREGG DRILLING & TESTING

LOGGED BY: J. BRYSON

SUPERVISOR: S. WICKHAM Susan Wickham RG 3577

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
0						3" Asphalt @ Surface	
2					CL	CLAY, black-gray, stiff, slightly moist, some silt, no odor.	
4			ND	RING @ 5'	CL	SILTY CLAY, brown, stiff, slightly moist, trace of gravel, no odor.	
6							
8							
10			ND	RING @ 10'	CL	As above, some medium sand to coarse gravel.	
12							
14			ND	RING @ 15'	SM	SILTY SAND, brown, some clay & gravel, medium to coarse grained, medium dense, slightly moist, no odor.	
16							
18							
20			ND	RING @ 20'	SM	As above.	
22							
24			ND	RING @ 25'	SW	SAND, brown with silt and small gravel, moist, medium dense, no odor.	
26							
28							

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LOG OF BORING NO. MW-3

PAGE 2 of 2

PROJECT NO: 02-401-002
DATE: 12/6/89
CLIENT: TOPA
REF. ELEV. –
SITE LOCATION: EASTMONT MALL OAKLAND, CA.
METHOD: HOLLOW STEM AUGER
BORING LOCATION: SEE FIG 1
HOLE DIA: 8"
DRILLER: GREGG DRILLING & TESTING
LOGGED BY: J. BRYSON
SUPERVISOR: S. WICKHAM Susan Wickham RG3851

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
29			ND	RING @ 30'	SW	As above.	
31							
33							
35			ND	RING @ 35'	SW	As above, moist.	
37						▽	
39						As above, saturated.	
41							
43						CLAY, silty, light brown, firm, slightly moist, no odor.	
45						TOTAL DEPTH – 45'	
47						Well Construction: 2"(0.02") slotted PVC 45'–30'; blank 2" PVC 30'–0; #3 lonestar sand 45'–25'; bentonite 25'–3'; cement 3'–0.	
49							
51							
53							
55							
57							

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LOG OF BORING NO. MW-4

PAGE 1 of 1

PROJECT NO: 02-401-002
DATE: 12/6/89
CLIENT: TOPA
REF. ELEV. –
SITE LOCATION: EASTMONT MALL, OAKLAND, CA.
METHOD: HOLLOW STEM AUGER
BORING LOCATION: SEE FIG 1
HOLE DIA: 8"
DRILLER: GREGG DRILLING & TESTING
LOGGED BY: J. BRYSON
SUPERVISOR: S. WICKHAM Susan Wickham PG 3851

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
0						3" Asphalt @ Surface	
2					CL	SILTY CLAY, dark brown with black mottling, trace of coarse sand, firm, slightly moist, no odor.	
4		35	ND	RING @ 5'	CL	As above, light brown, some gravel	
6							
8							
10			ND	RING @ 10'	CL	As above.	
12							
14			230	RING @ 15'	ML	CLAYEY SILT, brown, some gravel, firm, moist, very strong odor. (bottom of sample was a sandy clayey silt and had dark gray coloring with oily sheen and very strong gas odor. ▽	
16							
18							
20				NO SAMPLE	ML	CLAYEY SILT, brown, some gravel, firm, saturated, odor.	
22							
24				NO SAMPLE	CL	SILTY CLAY, dark brown, firm, slightly moist, trace of sand, no odor.	
26						TOTAL DEPTH 25'	
28						Well Construction: 2"(0.02") slotted PVC 25'–10'; 2" blank PVC 10'–0; #3 sand 25'–8'; bentonite 8'–3'; cement 3'–0.	