

BASELINE

ENVIRONMENTAL CONSULTING

Fowler's
2244 Santa Clara
Alameda

11 December 1990
SA10-111P

Mr. Mark Wilson
Krater and Wilson Mortuaries
24th Street and Barrett Avenue
Richmond, CA 94804

Subject: Phase I Site Assessment for 2244 Santa Clara Avenue, Alameda, California

Dear Mark:

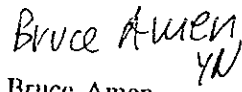
Enclosed please find our Phase I Site Assessment Report for the property located at 2244 Santa Clara Avenue in Alameda, California. Based on data obtained about past land uses on the site and in the surrounding vicinity, BASELINE recommends Phase II soil sampling activities, as described in our enclosed recommendations.

It has been a pleasure working with you on this project. If you wish to proceed with the Phase II recommendations or have any questions regarding this report, please contact us at your convenience.

Sincerely,



Yane Nordhav
Principal
Env. Assessor #722



Bruce Amen
Geologist

YN:BA:cr/S90c
Enclosure

**PHASE I
SITE ASSESSMENT REPORT
2244 SANTA CLARA AVENUE
ALAMEDA, CALIFORNIA**

Prepared for:

**Krater and Wilson Mortuaries
24th Street and Barrett Avenue
Richmond, California**

December 1990

Prepared by:

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SA10-111P

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**PHASE I
SITE ASSESSMENT REPORT
2244 Santa Clara Avenue, Alameda, California**

INTRODUCTION

This report represents the findings and conclusions of a Phase I site assessment conducted by BASELINE for the parcel located at 2244 Santa Clara Avenue in Alameda, California. The purpose of this site assessment was to determine whether past or present uses of the property, or of sites within a one-half mile radius of the property, may have resulted in the potential for hazardous substances being present in the shallow subsurface soils and/or groundwater on the project site. The scope of work included a review of information available from local, state, and federal agencies and a review of any available historical information, including maps and photographs. Persons familiar with the site were interviewed and a site reconnaissance was conducted. An evaluation of the presence or absence of asbestos in the structures on-site was not included in the scope of this assessment.

BACKGROUND

The regional location of the project site, which has been operated as a mortuary since 1905, is shown in Figure 1. Dominant land uses in the vicinity are commercial and residential. The site is located at about 30 feet above sea level in downtown Alameda (Figure 2). The City of Alameda is located on the island of Alameda. The site is bounded to the north by Santa Clara Avenue, to the west by medical and dental offices, to the south by residential buildings, and to the east by a lapidary shop and residences.

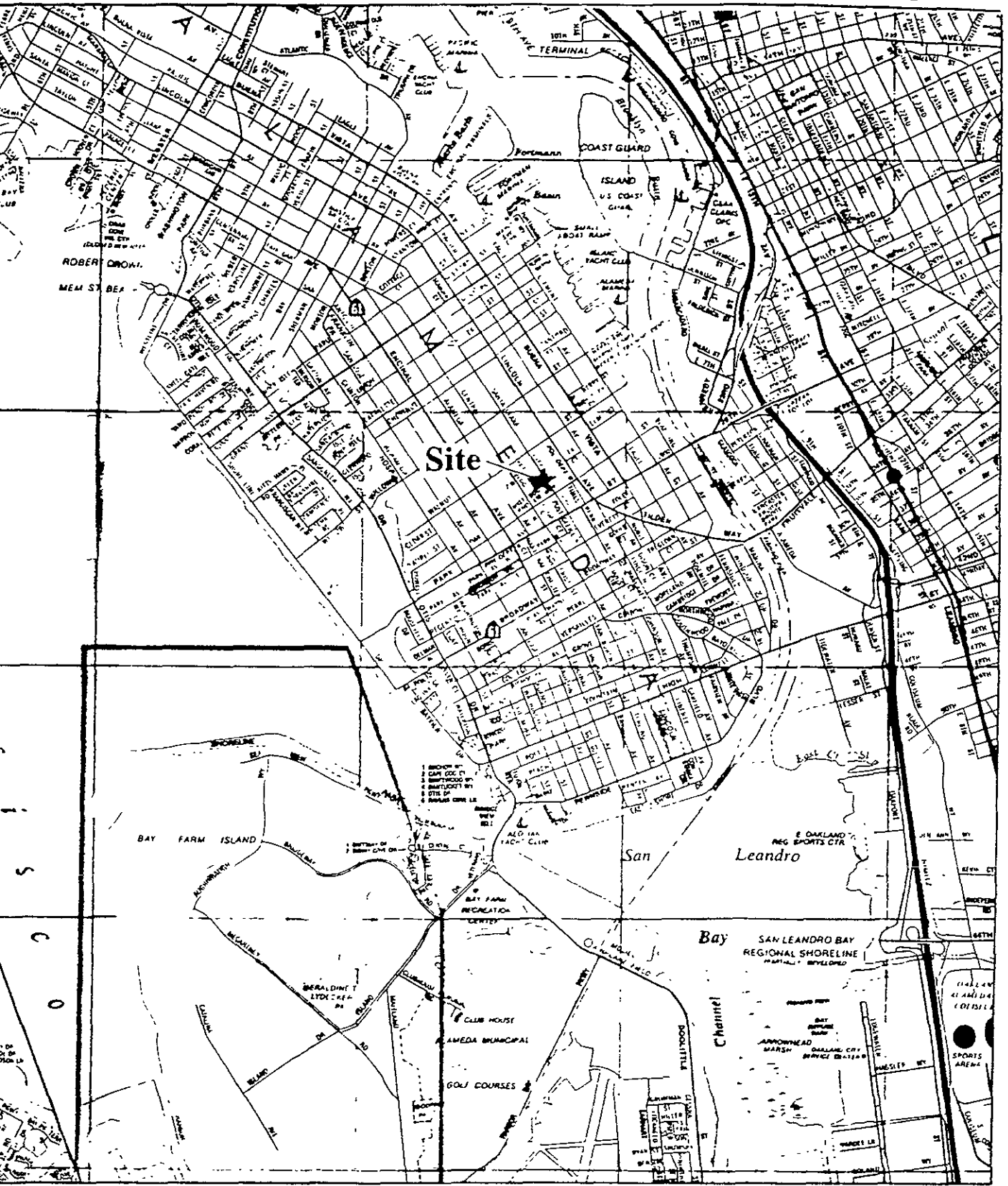
LAND USE HISTORY

Historical on-site and surrounding land uses were determined by interviews with the current site manager, local agencies, and aerial photographs. Sanborn fire insurance maps from 1897 through 1951 and aerial photographs from 1980 and 1985 were consulted to obtain information about past land uses.

In an interview with BASELINE, the current manager of the mortuary stated that the site has been continuously operated as a mortuary since 1905 (Anderson 1990). In 1960, a chapel was added to the northwest corner of the mortuary building. A garage, located in the southern portion of the property, was used as a coal and feed retail yard prior to 1920; from 1920 to 1950, the garage was used as an auto repair shop (called Buck's Buick Home Service). From 1950 to the present, the garage was used for storage (Anderson 1990).

REGIONAL LOCATION

Figure 1

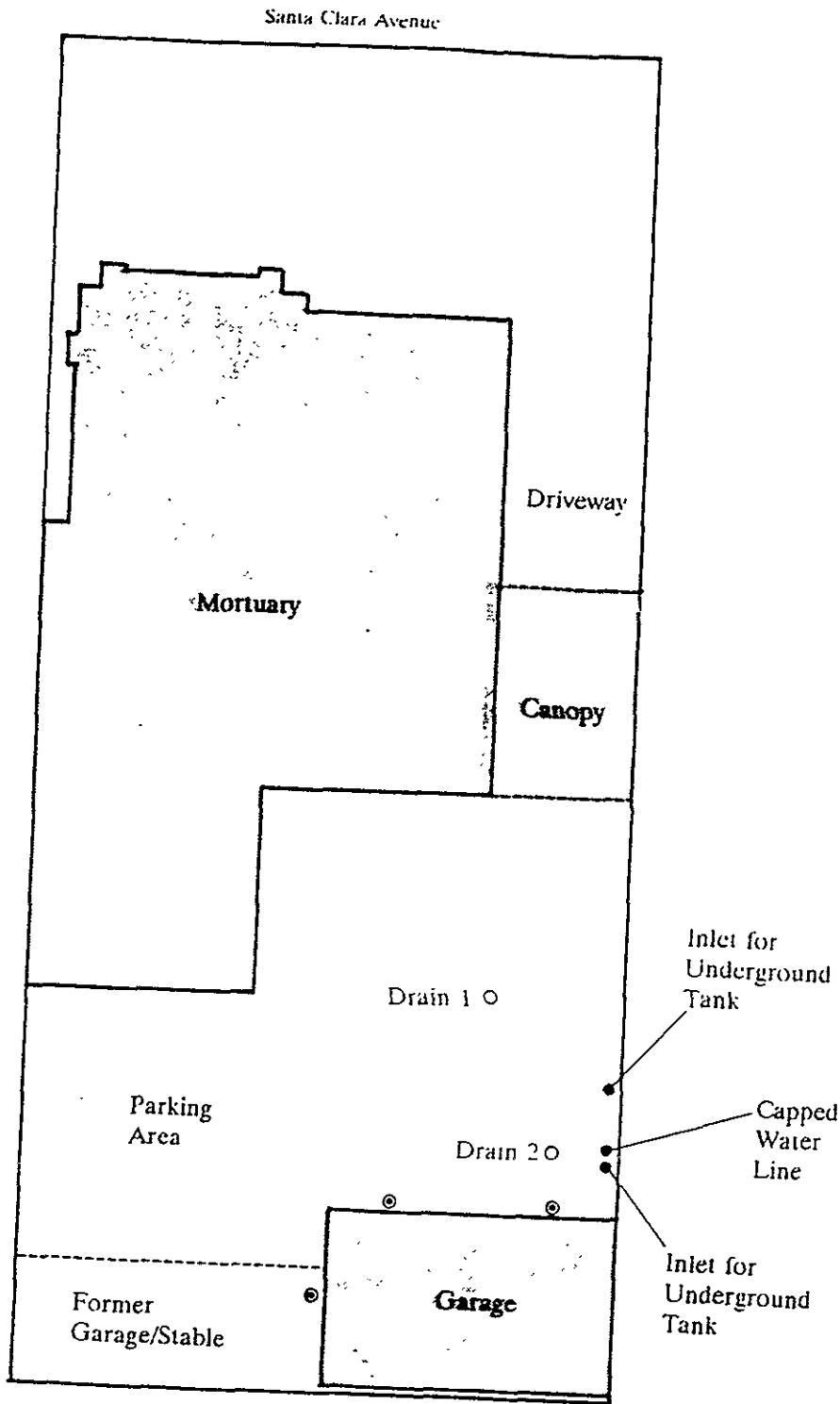


owler Anderson Mortuary
244 Santa Clara Avenue
Alameda, California



SITE PLAN

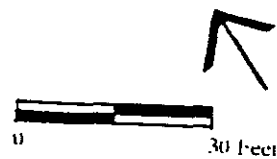
Figure 2



Legend

Proposed Soil Sampling Location

Lawler Anderson Mortuary
44 Santa Clara Avenue
Fremont, California



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Information about the historic land uses on-site was obtained by reviewing Sanborn fire insurance maps from 1897, 1948, and 1951. According to the map dated 1897, the project site was undeveloped at that time (Figure 3). The 1948 and 1951 Sanborn maps (Figures 4 and 5, respectively) show that the mortuary, a residence, and the auto repair building were located on the site. The maps note that the auto repair building had a concrete floor. The building located in the southwest corner of the site (Figures 4 and 5) was used in the early 1900s as a stable and later as a garage. It was removed because of wood decay and termite infestation in about 1970 (Anderson 1990). Aerial photographs of the project site from 1980 and 1985 were reviewed. No evidence regarding storage of hazardous materials was observed on the photographs.

CURRENT SITE USES

The project site is currently occupied by a mortuary, a separate garage, and a paved parking lot (Figure 2). Activities in the mortuary building include: funeral services, body preparation, and administrative functions. The garage is used to store a vehicle and various household items.

REGULATORY AGENCY RECORD REVIEW

Federal, state, and local regulatory agency records were consulted in the course of researching the past land uses of the project site and the surrounding one-half mile area. The records are identified and described in Appendix A, and the findings of the record search are discussed below.

Project Site

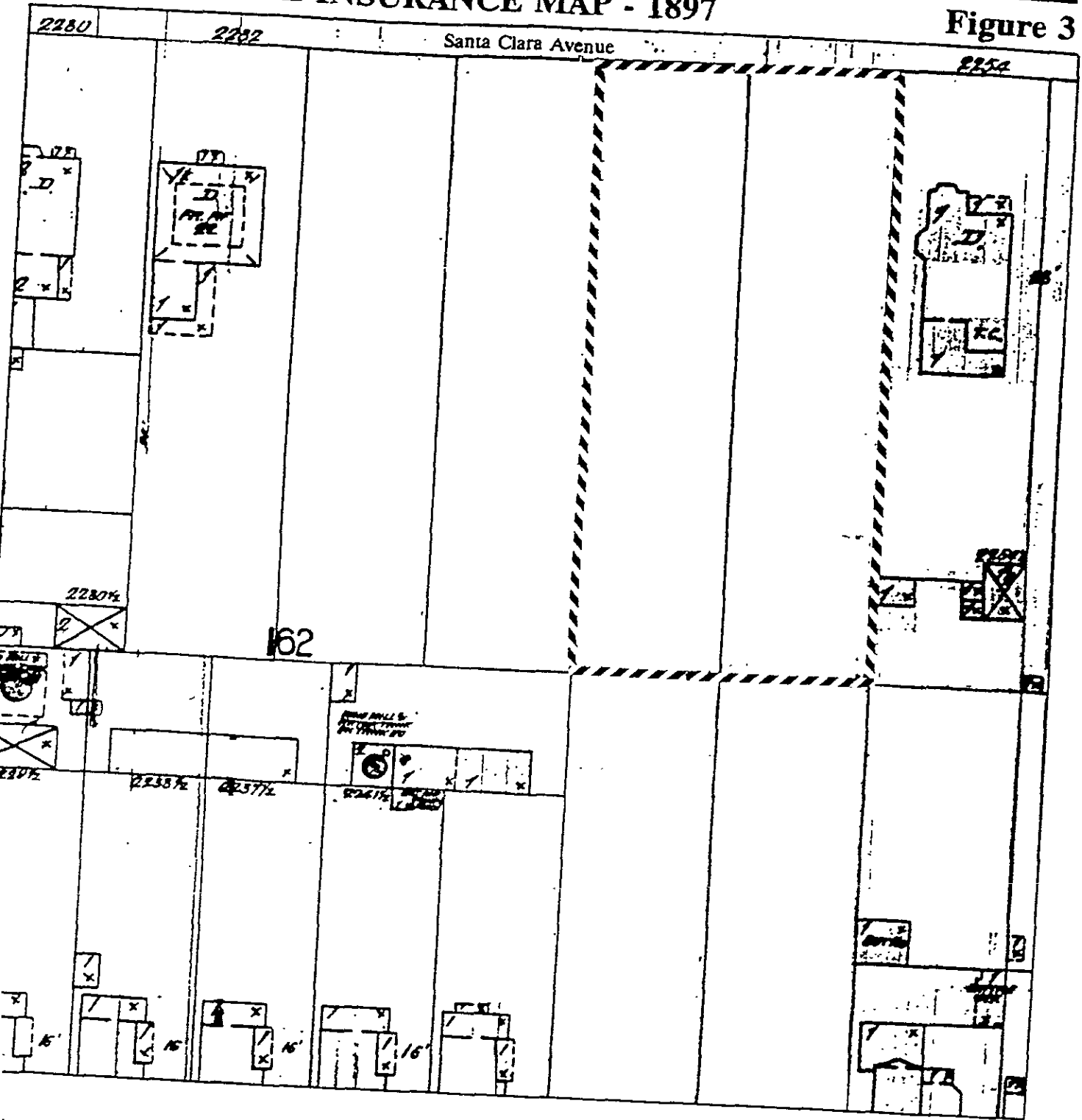
BASELINE contacted the Alameda Fire Department, Alameda County Public Health, the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), the Department of Health Services (DHS), and the Environmental Protection Agency (EPA) regarding the project site. The Alameda Fire Department was the only agency that had records concerning the project site. The Fire Department maintains records of underground storage tank registrations, closures, and removals. Their files indicate that one 120-gallon gasoline tank was installed at the site in 1936. According to the Department files, a permit to operate the tank has not been obtained nor has the tank been removed.

Sites of Concern Within One-Half Mile of the Project Site

A search of agency files for potential sources of subsurface contamination located within one-half mile of the project site was conducted. The purpose of the survey was to evaluate whether nearby, off-site sources of subsurface contamination could affect the project site, either through lateral migration in the groundwater or as soil gas. The presence of significant contamination in the subsurface at the site could constitute a health hazard to unprotected workers during any excavation or construction activity at the site.

SANBORN FIRE INSURANCE MAP - 1897

Figure 3



Legend

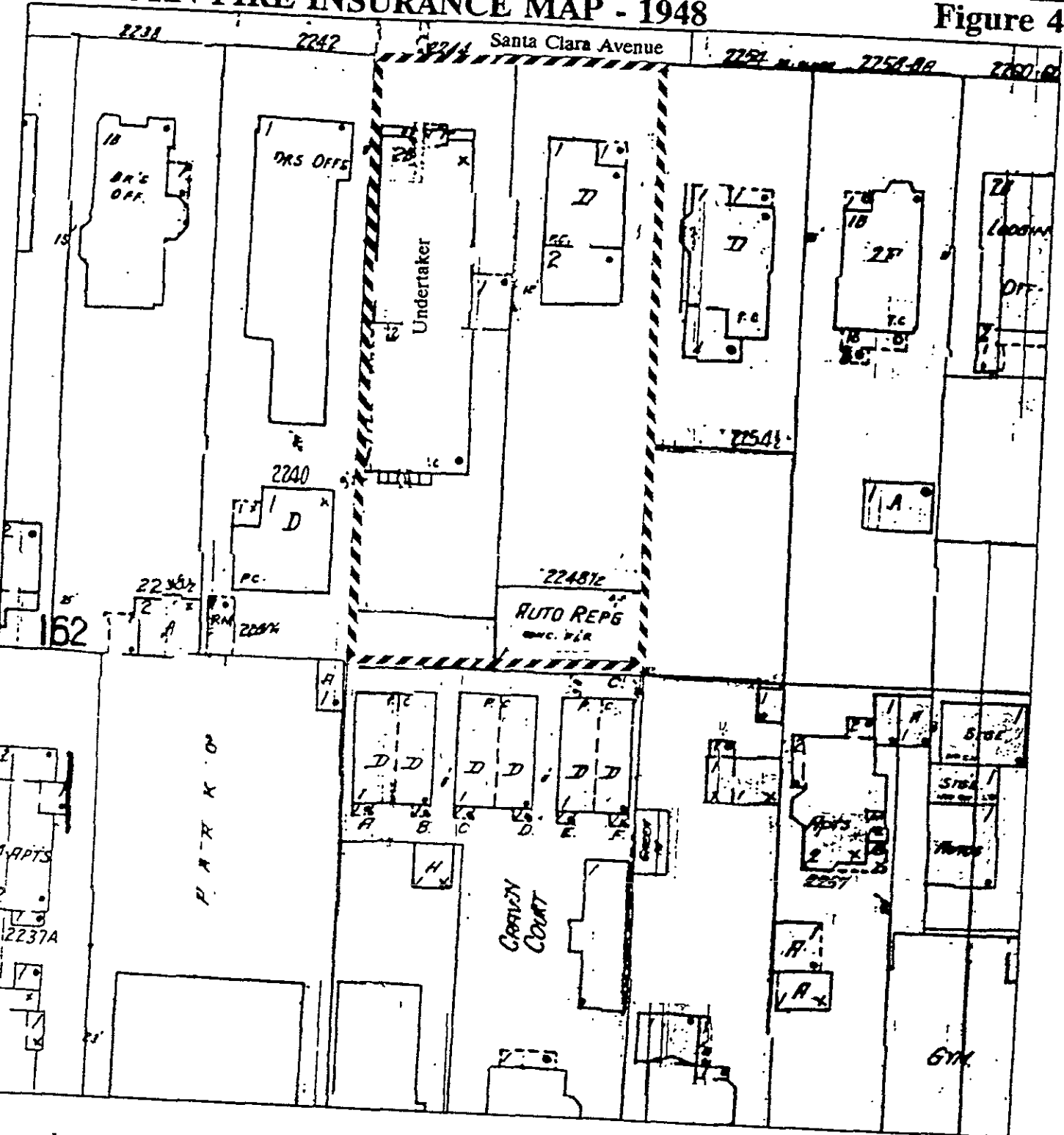
--- Approximate Site Boundary

Dowler Anderson Mortuary
144 Santa Clara Avenue
San Francisco, California

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SANBORN FIRE INSURANCE MAP - 1948

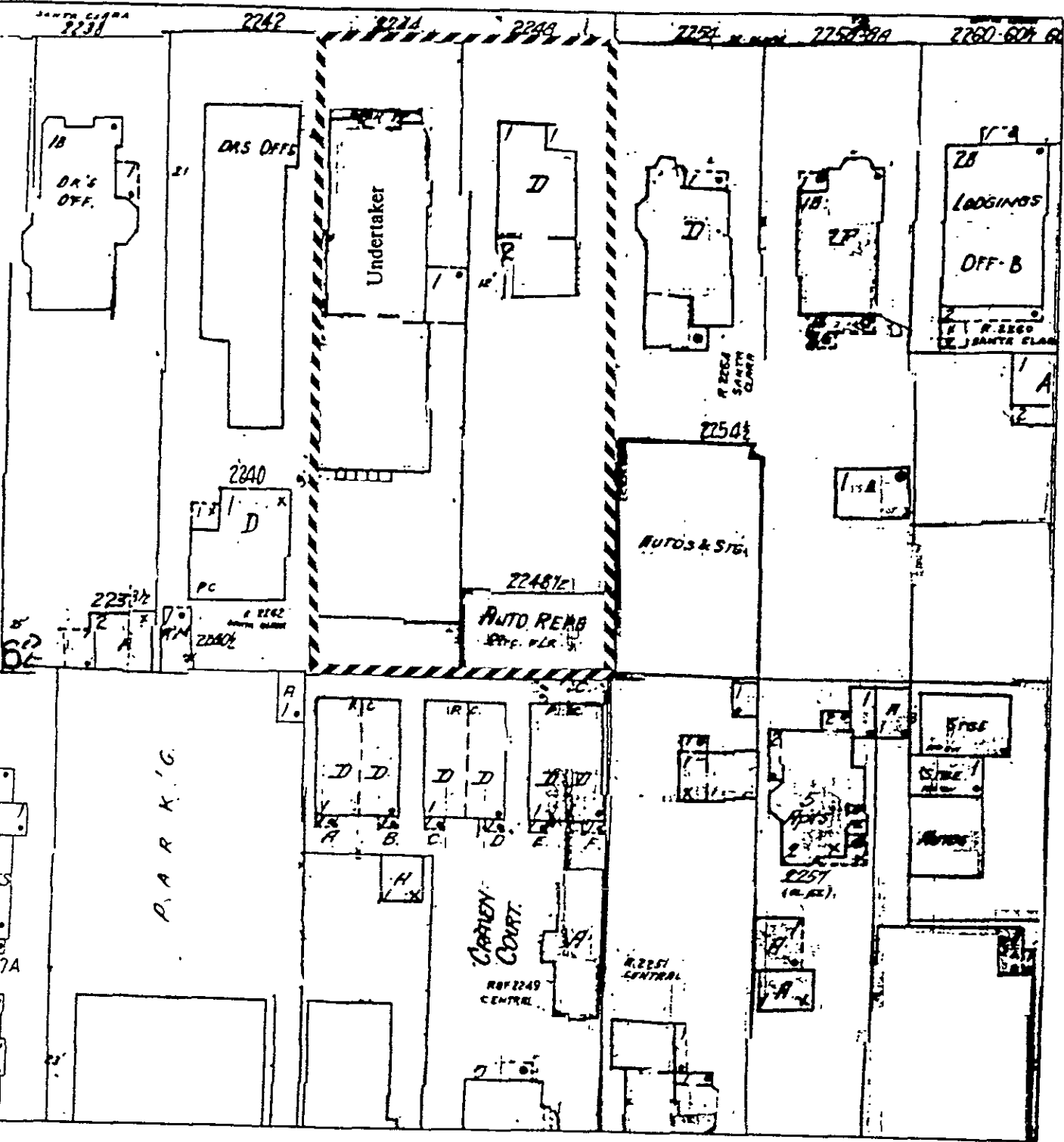
Figure 4



Legend
--- Approximate Site Boundary

Walter Anderson Mortuary
44 Santa Clara Avenue
Sanameda, California

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Legend
 - - - - - Approximate Site Boundary

Lawler Anderson Mortuary
 44 Santa Clara Avenue
 Berkeley, California

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No federal or state superfund clean-up sites were identified within one-half mile of the project site. The EPA CERCLIS and DHS Abandoned Sites List data bases did not contain records on any sites located within one-half mile of the project site.

The RWQCB and the Alameda Fire Department had files on fifteen sites with unauthorized releases from underground storage tanks within one-half mile of the project site. According to groundwater investigations conducted at some sites, the direction of groundwater flow has been determined (Table 1) in the site vicinity. Only those sites generally located in an upgradient location could affect the project site. Three of the fifteen sites (sites 1, 5, and 7 on Figure 6 and Table 1) are located in a general upgradient position from the project site and releases from these sites would move toward the project site. It is unknown whether the shallow groundwater has been affected by the unauthorized releases at the three upgradient sites. The closest of the three sites is more than 1,500 feet from the project site.

SITE RECONNAISSANCE

BASELINE conducted a site reconnaissances on 15 November and 3 December 1990 to identify potential sources of on-site subsurface contamination. Potential sources of on-site contamination could include the presence of stored hazardous materials or waste, including underground storage tanks, and stained soils. The site and buildings were not evaluated for the presence or absence of asbestos.

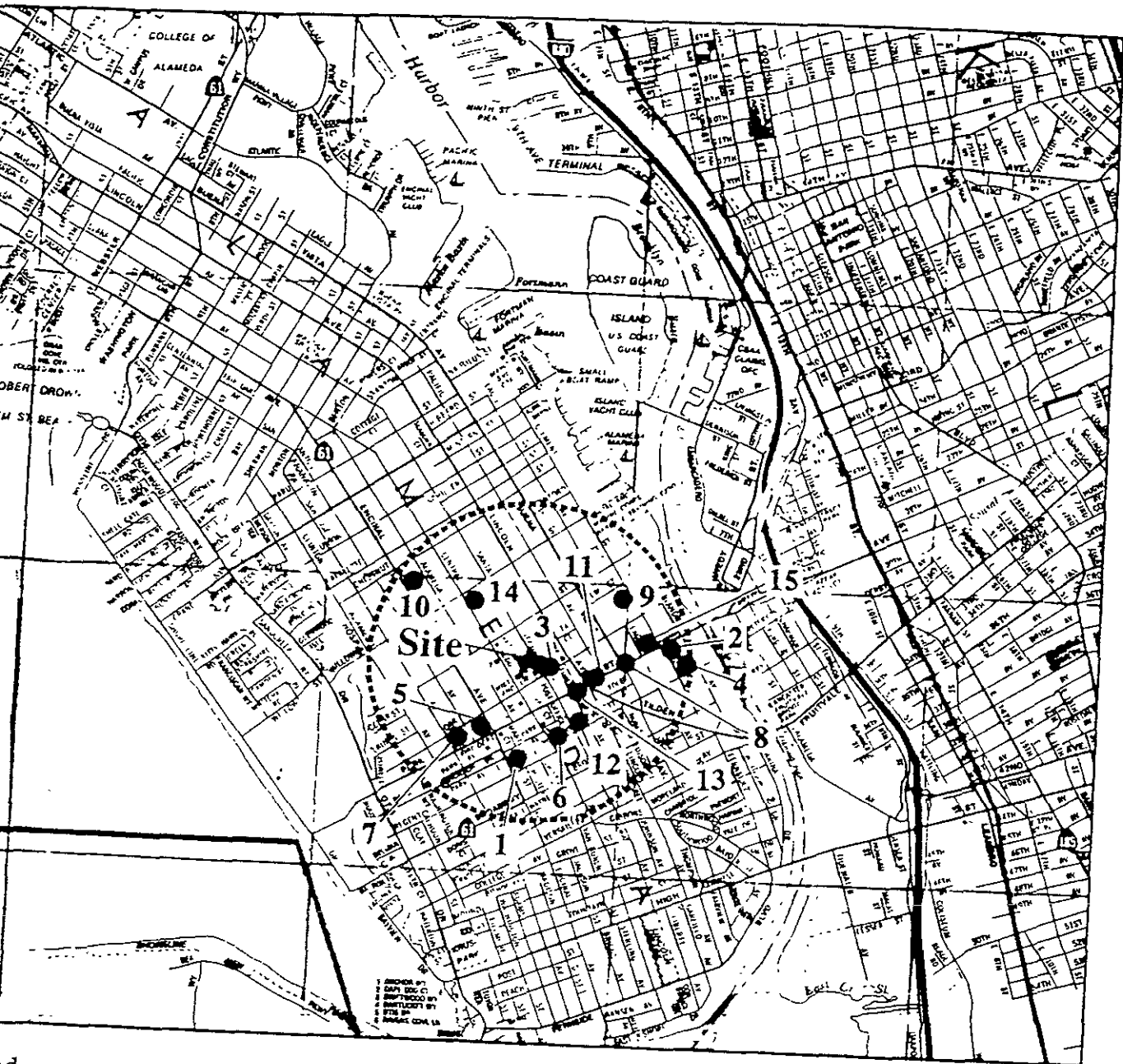
Site structures consist of a wood-framed, two-story main building (Figure 7A), a separate garage, and surrounding paved area. The main building, operated as a mortuary, contains business offices, lounges, an upstairs apartment, a chapel, and a preparation room. Several hazardous materials are used in the preparation room, including: formaldehyde, 1,1,1, trichloroethane, phenols, acetone, and ammonia chloride. The chemicals are injected into or applied to the bodies and therefore leave the site at the time of burial.

Liquids removed from the bodies are discharged directly into the sanitary sewer. Less than 55 gallons of chemicals are stored on-site (Anderson 1990). Therefore, the submittal of a Business Plan to Alameda County, in compliance with Health and Safety Code requirements, is not required. Hazardous materials are not handled in other portions of the main building (Anderson 1990).

The garage, located in the southern portion of the property, is currently used for the storage of one vehicle, office equipment and supplies, furniture, and small quantities of household chemical products, including fertilizer, pesticides, and gasoline. The floor of the garage and the adjacent driveway are paved with concrete. Some oil staining was observed on the concrete floor inside the garage.

SITES ASSOCIATED WITH HAZARDOUS MATERIALS/WASTES WITH 0.5 MILE OF THE PROJECT SITE

Figure 6



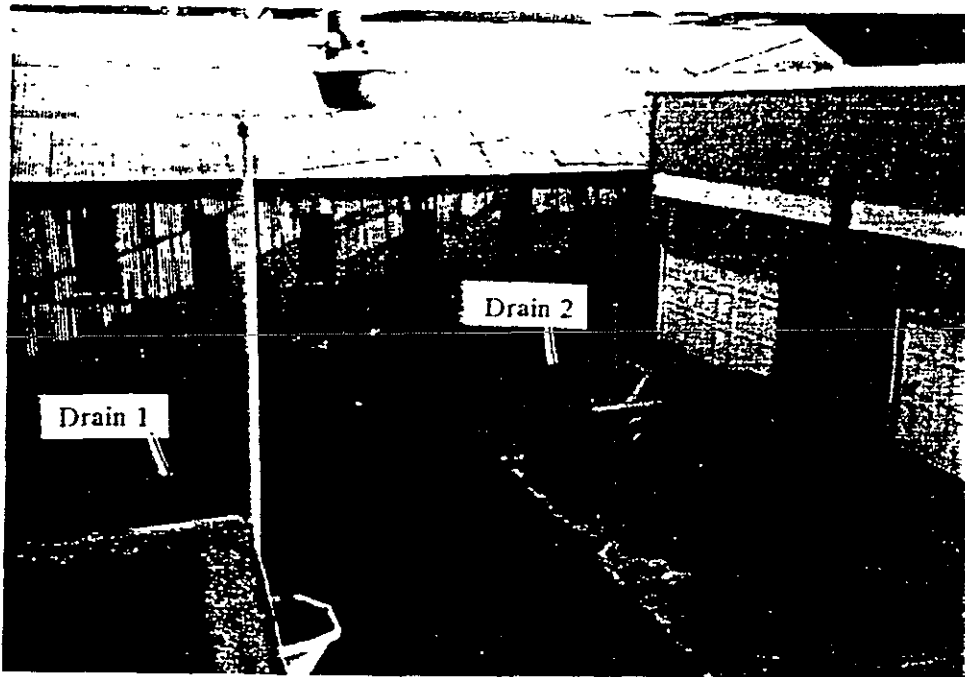
- | | | | |
|----|------------------------|----|-----------------------|
| 6 | Automotive Auto Repair | 12 | Merritt Tire |
| 7 | Big O Tires | 13 | Mobil |
| 8 | Cavanaugh Motors | 14 | Paradiso Construction |
| 9 | Clement Avenue Project | 15 | Regal/Exxon |
| 10 | Crystal Cleaners | | |
| 11 | Good Chevrolet | | |

Anderson Mortuary
 Santa Clara Avenue
 Alameda, California





A. Front of mortuary and adjacent site to the west



B. Tank(s) and drain locations. The tank(s) are located adjacent to the corrugated steel building near the garage. The drains are visible.

TABLE 1

SITES ASSOCIATED WITH HAZARDOUS MATERIALS/WASTES
WITHIN ONE-HALF MILE OF PROJECT SITE

Site Address	Agency Source	Incident	Known Contamination	Groundwater Flow Direction	Current Status
1. Alameda Cellars 2425 Encinal	RWQCB	Two underground gasoline tanks removed in March 1990. Soil samples were collected.	Results of soil sampling indicated up to 1,500 mg/kg total petroleum hydrocarbons as gasoline (TPHg), 15 mg/kg benzene, 24 mg/kg toluene, 37 mg/kg xylenes, and 18 mg/kg ethylbenzene.	Unknown	No further information in file.
2. Alameda Collision 1911 Park Street	RWQCB	Two underground gasoline tanks removed in June 1988. Soil and groundwater samples were collected.	Soil sample results indicated the presence of lead at up to 4.8 mg/kg. Results of groundwater sampling indicated 1.7 mg/L TPHg, 0.0043 mg/L benzene, 0.0033 mg/L toluene, 0.140 mg/L xylenes, 0.0084 ethylbenzene, and 27.4 mg/L lead.	Unknown	No further information in file.
3. Alameda Police Dept. 1555 Oak Street	RWQCB	Groundwater monitoring well installed in July 1986; groundwater sample collected.	Groundwater sampling results indicated 1.6 mg/L total petroleum hydrocarbons as diesel (TPHd).	Unknown	No further information in file.
4. Allied Engineering & Product Corp. 2421 Blanding	RWQCB	DHS conducted site inspection and collected soil samples in February 1985. Based on results of soil sampling, DHS requested site owner to submit a plan of correction.	Soil sample results indicated up to 7,209 mg/kg lead and up to 255,000 mg/kg total oil and grease.	Unknown	DHS approved plan of correction in January 1987. No further information in file.
5. Arco 1260 Park Street	RWQCB	Unauthorized release in June 1987 from underground waste oil tank; soil sample collected. Unauthorized release in December 1989 from underground gasoline tank; soil samples collected.	Results of soil sampling indicated 430 mg/kg TPHd, 2,400 mg/kg total petroleum hydrocarbons as motor oil (TPHm), up to 21,000 mg/kg TPHg, 210 mg/kg benzene, 1,100 mg/kg toluene, 320 mg/kg xylenes, and 2,600 mg/kg ethylbenzene.	Unknown	No further information in file.

Site Address	Agency Source	Incident	Known Contamination	Groundwater Flow Direction	Current Status
6. Automotive Auto Repair 2425 Central Avenue	RWQCB	Two underground gasoline tanks removed in October 1987. Groundwater monitoring well installed; soil and groundwater samples collected.	Soil sampling results indicated up to 410 mg/kg TPHg. Results of groundwater sampling indicated TPHg at 0.35 mg/L.	Unknown	No further information in file.
7. Big O Tires 1200 Park Street	Alameda Fire Dept.	Underground tanks removed before soil sampling requirements.	Unknown	Unknown	Unknown
8. Cavanaugh Motors 1700 Park Street	RWQCB	Underground gasoline tank removed in December 1987. Four groundwater monitoring wells installed as part of preliminary assessment; soil and groundwater samples collected.	Soil sample results indicated up to 7,900 mg/kg TPHg, 65 mg/kg benzene, 350 mg/kg toluene, 870 mg/kg xylenes, and 160 mg/kg ethylbenzene. Results of groundwater sampling indicated up to 28 mg/L TPHg, 6.2 mg/L benzene, 7 mg/L toluene, 6.1 mg/L xylenes, and 0.63 mg/L ethylbenzene.	North	Investigation is in progress. No further information in file.
9. Clement Avenue Project 2235 Clement Avenue	RWQCB	Unauthorized release from underground gasoline tank in May 1989. Soil samples were collected.	Soil sample results indicated up to 6,000 mg/kg TPHg, 8.7 mg/kg benzene, 77 mg/kg toluene, 270 mg/kg xylenes, and 48 mg/kg ethylbenzene.	Unknown	No further information in file.
10. Crystal Cleaners 2006 Encinal	RWQCB	Seven underground tanks containing gasoline, diesel, fuel oil, and solvents were removed in July 1989. Soil samples were collected.	Results of soil sampling indicated up to 9,000 mg/kg TPHg, 4,200 mg/kg TPHd, 1,600 mg/kg, oil and grease, 54 mg/kg benzene, 110 mg/kg toluene, 1,700 mg/kg xylenes, and 220 mg/kg ethylbenzene.	Unknown	No further information in file.
11. Good Chevrolet 1630 Park Street	RWQCB	Subsurface investigation conducted in April 1987 as a result of unauthorized release from two underground tanks containing waste oil and gasoline. Three groundwater monitoring wells were installed.	Results of soil sampling indicated up to 2,509 mg/kg TPHg, 57 mg/kg total petroleum hydrocarbons as waste oil (TPHw), 14 mg/kg benzene, 22 mg/kg toluene, 23 mg/kg xylenes, and 1.3 mg/kg lead. Groundwater sampling results indicated up to 21 mg/L TPHg, 1.4 mg/L benzene, 8.6 mg/L toluene, 6.0 mg/L xylenes, 1.8 mg/L ethylbenzene, and 0.041 mg/L lead.	Northeast	Quarterly monitoring is in progress.

Table 1 - continued

Site Address	Agency Source	Incident	Known Contamination	Groundwater Flow Direction	Current Status
12. Merritt Tire 2501 Santa Clara	RWQCB	Unauthorized release from underground gasoline tank in May 1988.	Unknown	Unknown	No further information in file.
13. Mobil 1541 Park Street	RWQCB	Unauthorized release from three underground gasoline tanks and one underground waste oil tank in September 1987. Six groundwater monitoring wells installed.	Soil sampling results indicated up to 3,200 mg/kg TPHg, 150 mg/kg oil and grease, 81 mg/kg benzene, 42 mg/kg toluene, and 450 mg/kg xylenes. Results of groundwater sampling indicated up to 95 mg/L TPHg, 2 mg/L benzene, 5.9 mg/L toluene, 10 mg/L xylenes, and 1.1 mg/L ethylbenzene.	East	Investigation is in progress.
14. Paradiso Construction 2100 Central	RWQCB	Two underground diesel tanks removed in July 1986. Soil samples were collected.	Results of soil sampling indicated up to 190 mg/kg TPHd.	Unknown	No further information in file.
15. Regal/Exxon 1725 Park Street	RWQCB	After discovery in October 1988 of floating product in a monitoring pit installed to detect leaks from three underground gasoline tanks, six groundwater monitoring wells were installed.	Soil sampling results indicated up to 1,400 mg/kg TPHg, 0.67 mg/kg benzene, 32 mg/kg toluene, 150 mg/kg xylenes, and 25 mg/kg ethylbenzene. Results of groundwater sampling indicated up to 110 mg/L TPHg, 12 mg/L benzene, 12 mg/L toluene, 12 mg/L xylenes, and 2.1 mg/L ethylbenzene.	East	Investigation is in progress.

Note: Locations of sites are shown in Figure 2.
RWQCB = Regional Water Quality Control Board.

Adjacent to and northeast of the garage, two 2-inch steel pipe caps were observed protruding from the asphalt surface (Figure 2). BASELINE was informed that the caps were associated with an underground fuel tank (Anderson 1990) (Figure 7B). The northernmost cap was carefully removed by BASELINE and a clean wood dowel was lowered into the pipe for the purposes of determining the tank depth and contents, if any. The dowel was inserted to a depth of 50 inches below the ground surface when a solid bottom was encountered. When the dowel was removed, 4 inches of an oily substance with a hydrocarbon odor was observed on the bottom of the dowel. The same procedure was used on the more southern 2-inch steel pipe cap. When the southern cap was removed, a pressure or vacuum release sound was heard. The total depth the dowel could be inserted into the tank was 15.5 inches and, when it was removed, 4 inches of an oily substance was observed on the dowel. A 1-inch cap was located between the two 2-inch caps. The 1-inch cap was loosened and water under pressure was observed to leak out.

Two drains were observed in the parking area in the southern portion of the site. Drain 1 (Figure 2) had a solid bottom, contained no standing water, and appeared to have an outlet; the destination of the outlet is unknown. Drain 2 had a solid bottom at a depth of 2 feet, and was filled with soil and water to a depth of 7 inches below the ground surface. It is unknown whether Drain 2 has an outlet.

During the site reconnaissance, a fuel dispenser was observed on an adjacent property, east of the project site and next to the lapidary shop. It is unknown whether there is an underground tank associated with the dispenser.

CONCLUSIONS

Based on available information, it is unknown whether migration of contamination from off-site sources has reached the project site from the south (Sources 1, 5, and 7 on Figure 6) or east (fuel dispenser and tank on adjacent property). Potential on-site sources of subsurface contamination include underground fuel tanks, the former auto repair shop, and subsurface drains.

- **Underground Fuel Tank(s).** Leaking underground tanks and/or the activities associated with the past operation of the tanks are potential sources of soil and groundwater contamination.
- **Auto Repair Shop.** Common housekeeping practices used at auto repair shops in the early 1900s may have included disposal of waste oil and other potentially hazardous materials which could have affected the subsurface. Activities associated with the operation of Bucks Buick Home Service may have resulted in the introduction of hazardous materials to the subsurface.
- **Drains.** It is unknown whether Drain 2 (Figure 2) is connected to the sewer system. Improperly installed or maintained drains or sumps can act as pathways to the subsurface.

RECOMMENDATIONS

On the basis of data obtained from reviewing agency files, interviews, and a site reconnaissance, BASELINE recommends the following Phase II activities.

- Remove underground storage tanks, associated piping, and Drain 2 located in the southern portion of the property. This work should be performed in accordance with a permit from the City of Alameda by a qualified contractor.

It should be noted that results of soil sampling associated with an underground tank investigation must be submitted to the regulatory agency for review. If laboratory analysis indicates that the soil around the tank(s) is contaminated, additional work, including a groundwater investigation, may be required.

- Collect soil samples from three locations adjacent to the former auto repair building (Figure 7 includes proposed sampling locations). The samples should be analyzed for total petroleum hydrocarbons as gasoline and diesel, oil and grease, volatile organic compounds, and pesticides.

LIMITATIONS

The services BASELINE has performed in connection with this study have been performed in accordance with generally accepted principles and practices applicable to the profession at this time. The data presented were obtained from reviewing public agency files, interviewing private individuals and public agency staff, and performing a site reconnaissance. We make no other warranty or representation, expressed or implied, for the work described in this report.

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