

Ground water contamination in the  
Area around JRS L.

**PRELIMINARY ASSESSMENT REPORT**

**WILLIAMS STREET SITE** 1964 Williams  
(EPA ID NO. CAD983655761) (1946-1976 Williams)

Prepared for:  
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**PRELIMINARY ASSESSMENT REPORT  
WILLIAMS STREET SITE  
(EPA ID NO. CAD983566761)**

## **1.0 INTRODUCTION**

The U.S. Environmental Protection Agency (EPA), Region IX Site Evaluation Section (SES), under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA) has tasked Roy F. Weston, Inc. (WESTON) to conduct a Preliminary Assessment (PA) at the Williams Street Site in San Leandro, Alameda County, California.

The purpose of the PA is to review existing information available on the site and its environs to assess the threat(s), if any, posed to public health or the environment and to determine if further investigation under CERCLA/SARA is warranted. The scope of this PA included review of information available from Federal, State, and local agencies, completion of a comprehensive target survey, and performance of an onsite reconnaissance visit. This report summarizes the findings of these activities.

Using these sources of information, the site is then evaluated using EPA's Hazard Ranking System (HRS) criteria to assess the relative threat associated with actual or potential releases of hazardous substances at the site. The HRS has been adopted by the EPA to help set priorities for further evaluation and eventual remedial action at hazardous waste sites. The HRS is the primary method of determining a site's eligibility for placement on EPA's National Priorities List (NPL). The NPL identifies sites at which EPA may conduct remedial response actions. This report summarizes the findings of these preliminary investigative activities.

### **1.1 Apparent Problem**

The Williams Street Site was entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) in August 1990 upon written notification to EPA from legal counsel for the property owner, W.S. Associates, that a Real Estate Transaction Audit (RETA) conducted at 1964 Williams Street revealed the presence of trichloroethene (TCE) in soil and groundwater in and around a portion of the site. The letter further advised that TCE concentrations ranged from non-detectable to 520,000 parts per billion (ppb).

## **2.0 SITE DESCRIPTION**

This section describes the location, site specifics, and operational history at the Williams Street site based upon available information obtained during the PA.

## 2.1 Location

The Williams Street Site is located at 1964 Williams Street, in San Leandro, Alameda County, California, Township 2N, Range 3W (Latitude: 37° 42' 36.9"; Longitude: 122° 10' 33.3").<sup>1,2</sup> The building is part of an industrial park identified as 1946 - 1976 Williams Street. The site location is indicated in Figure 1.

## 2.2 Site Description

The Williams Street Site is a 25,000 square foot warehouse located at the end of a building that occupies an area of approximately five acres. The building is zoned as industrial and is in an area of commercial and light industrial development. The warehouse is composed of concrete slab, tilt-up style buildings with concrete slab-on-grade floors which are elevated approximately four feet above ground surface for truck loading/unloading. The site is bordered on the north and east by a concrete parking lot and other industrial warehouses; and on the west and south by a Southern Pacific railroad spur immediately adjacent to the building and the Kellogg Company Property.<sup>3</sup>

The warehouse had two submerged concrete pits approximately 12 to 18 feet deep which contained portions of the freeze-drying process. Each area measured approximately 350 square feet.<sup>3</sup> The submerged areas are believed to have been connected to the City of San Leandro sanitary sewer line. No information was available regarding the lining in the base of each pit. Both pits were filled by the last tenant before vacating the premises.<sup>3</sup>

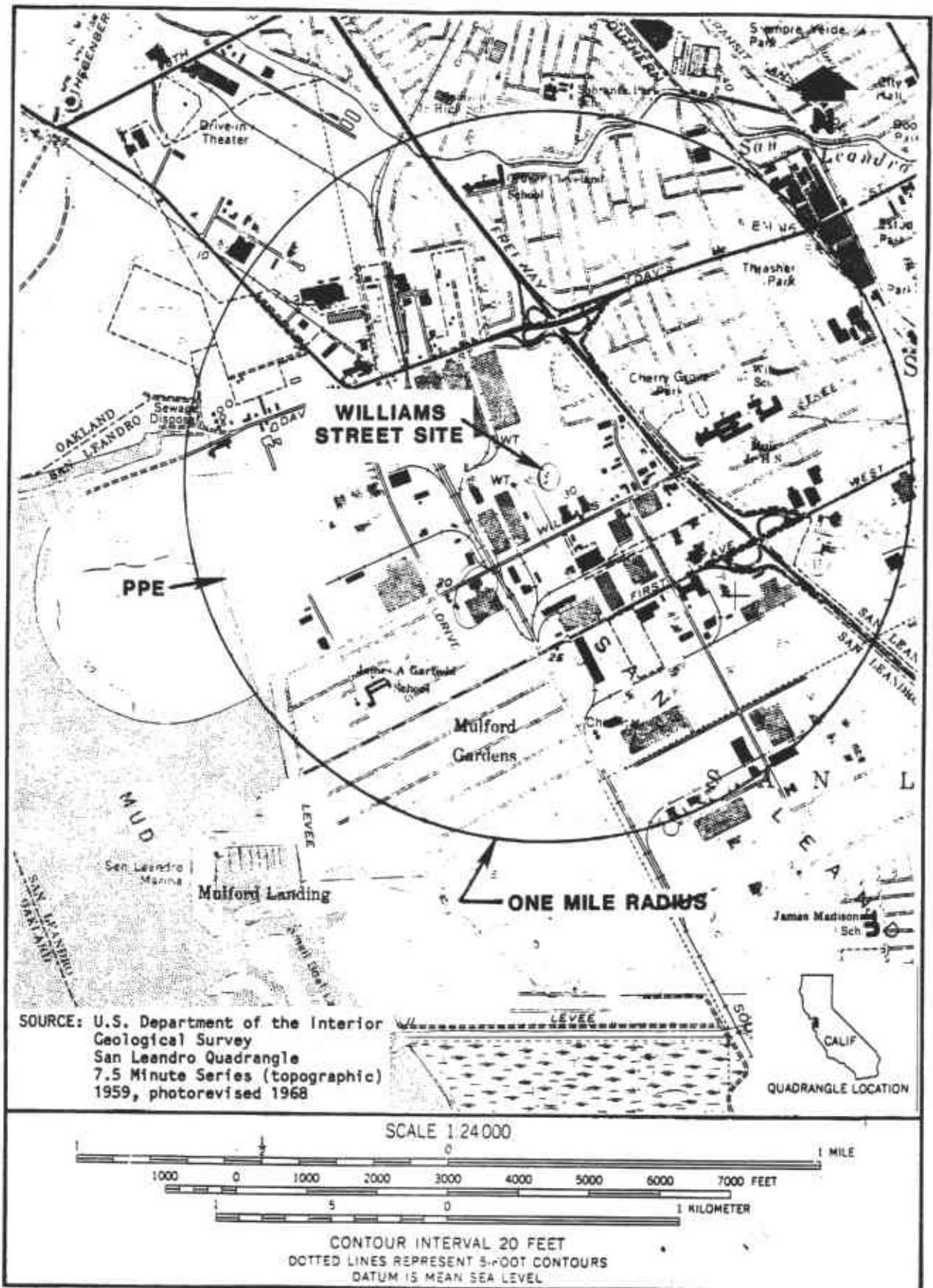
On the southwestern side of the warehouse, there are three roll-up doors along the railroad spur. An area of approximately 200 square feet near the northern door, previously occupied by a refrigerant tank, showed staining on the concrete floor.<sup>3</sup> Staining was also noted on the outside wall of the building below the roll-up door. The soil below the door was also stained with what appeared to be a black oily liquid.<sup>3,4</sup>

## 2.3 Operational History

The Williams Street site is owned by W.S. Associates who acquired the property in October 1984 from David B. Devine. Mr. Devine owned the property from as early as the mid-1960's.<sup>3,5,6</sup>

Historically, the Williams Street site operated as a freeze-drying plant from approximately 1967 through 1988. In the mid-1960's, the 1964-1976 Williams Street property was leased to the D. H. Overmeyer Company. There was no information available on the operations of the Overmeyer Company. In 1967, Overmeyer subleased 25,000 square feet of the property to the Austin Company (Austin), who designed, installed and/or constructed a commercial freeze-drying plant at 1964 Williams Street. Austin was contracted by the Hills Brothers Coffee, Inc. (Hills Brothers) to perform this installation. Subsequently, Hills Brothers occupied and operated the facility from approximately 1969 to 1971.<sup>3,5,6</sup>

In late November 1971, Hills Brothers assigned its interests in the facility to HJT, Inc. and in early September 1972, Cryo-Maid, Inc. assumed the sublease on the facility. The relationship between HJT and Cryo-Maid is not known. Cryo-Maid leased and operated



**WILLIAMS STREET SITE LOCATION MAP  
FIGURE 1**

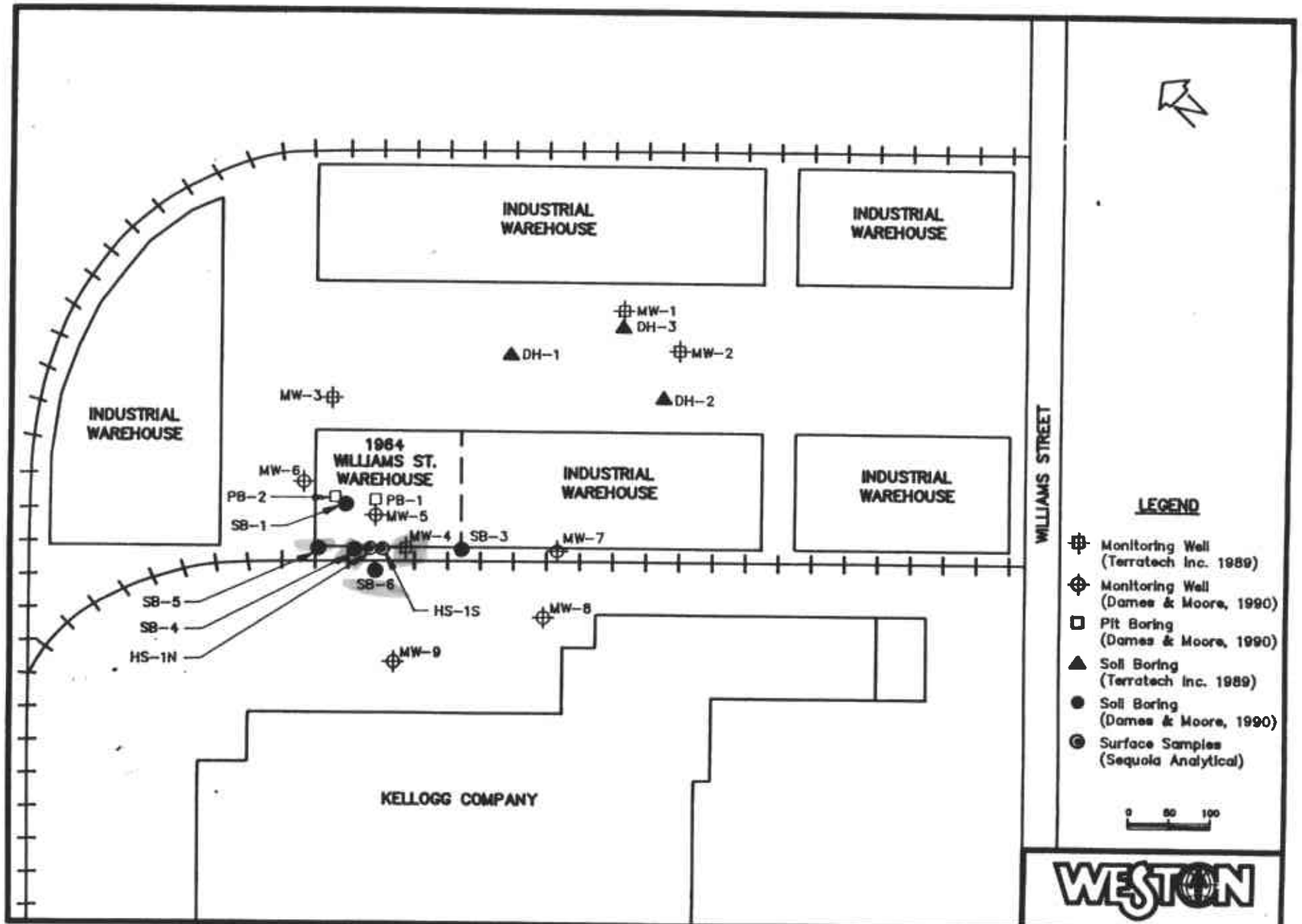


FIGURE 2 WILLIAMS STREET SITE PLAN  
 SAN LEANDRO, ALAMEDA COUNTY, CALIFORNIA

0165/12-5-91/GW/C3

the freeze-drying plant from 1972 through 1988. However, the freeze-drying operation was not active from 1983 to 1988. Cryo-Maid is now named Innovative Foods, Inc., located in South San Francisco, and is owned and operated by Edward Hirschberg.<sup>3,5,6</sup>

The refrigerant used in the freeze-drying process was contained in a tank approximately 600 to 800 gallons in volume and circulated within a closed system throughout the process.<sup>3</sup> Hills Brothers used a refrigerant sold by Dow Chemical under the trade name DOW-THERM,<sup>3</sup> which was manufactured in three forms as outlined in Table 1.

**TABLE 1**  
**THREE FORMS OF DOWTHERM<sup>7,8,9</sup>**

	Constituents	% By Weight
Dowtherm <sup>®</sup>	Diphenyl Oxide (Phenyl Ether)	73
	Diphenyl <sup>*</sup> (Biphenyl)	27
Dowtherm <sup>®</sup> SR-1	Ethylene Glycol <sup>*</sup>	>90
	Diethylene Glycol	<5
	Dipotassium Phosphate	<5
	Water	<5
Dowtherm <sup>®</sup> J	Diethylbenzene	96
	Sec-Butylbenzene	1
	Isopropylbenzene <sup>*</sup>	1
	Triethylbenzene	2

\* Subject to reporting requirements of Section 313 of SARA Title III.

At some point during Cryo-Maid's operation, the refrigerant was changed to trichloroethene.<sup>3</sup> Information regarding the total amount of these solvents onsite and waste handling practices by Austin, Hills Brothers, HJT and Cryo-Maid was not readily available. In July 1988, Cryo-Maid contracted with C.J. Construction & Rigging, owned and operated by John Goldberg, to dismantle the freeze-drying process at the Williams Street site. Dismantling operations began in July.<sup>3,5,6</sup> On August 2, 1988, an occupant at one of the warehouses adjacent to 1964 Williams Street reported that a spill had occurred during tank dismantling operations onsite.<sup>10,11</sup> Investigation of the reported spill by State and local agencies will be discussed below in Section 2.4.



The full extent of the surface soil and groundwater contamination was not discovered until June 1989, when a RETA was conducted at the Williams Street site.<sup>4,5,12</sup> The analytical results for the soil borings and groundwater samples collected during the RETA investigation are summarized in Table 2 and Table 3, respectively. The sampling locations are identified on Figure 2.

**TABLE 2**  
**Summary of 1989 RETA Soil Analytical Results**

Sample Location	Depth (ft)	TCE (ug/Kg)
DH-1	5.5 - 6	5
	10.5 - 11	3.3
	15 - 15.5	8.4
DH-2	5.5 - 6	ND
	10.5 - 11	ND
MW-1	15.5	1.2
MW-3	5.5	6.4
	10.5	26
	15.5	46
	20.5	2.1
MW-4	5.5	68
	10.5	23,000
	15.5	9,600
	20.5	5,900

**TABLE 3**  
**Summary of 1989 RETA Groundwater Analytical Results**

Sample Location	TCE (ug/L)
DH-1	ND
DH-2	34
MW-1	ND
MW-2	ND
MW-3	ND
MW-4	13,000

In late August 1989, supplemental work was completed to analyze stained soil and wall scrapings from the rear loading dock area and to resample MW-4 to confirm the high concentration of TCE.<sup>13</sup> A summary of the analytical results are as follows:

- The analytical results for the soil samples H-1N and H-1S collected at a depth of 15 to 21 inches near the rear roll-up door contained TCE concentrations of 1,400,000 ug/Kg and 5,000,000 ug/Kg, respectively.
- The wall scrapings contained 1,500 ppm TCE, 5,200 ppm trichlorofluoromethane (Freon 11), 140 ppm 1,1-dichloroethene (1,1-DCE), and 640 ppm 1,1,1-trichloroethane (1,1,1-TCA).<sup>13</sup>
- Analysis of a second groundwater sample from MW-4 revealed a TCE concentration of 87,000 ug/L.

In January 1990, Dames & Moore was retained by W.S. Associates and the Lowenberg Corporation to further evaluate the lateral and vertical extent of VOC contamination and obtain additional information regarding sources of this contamination.<sup>14</sup> In April 1990, five additional groundwater monitoring wells were installed (MW-5 through MW-9) as located on Figure 2. In addition, samples were collected from seven soil boring (PB-1, PB-2, SB-1, SB-3 through SB-6) as located on Figure 2. PB-1 and PB-2 were drilled into the closed concrete pits located within the warehouse; SB-1 was drilled within the warehouse adjacent to the pits to evaluate soil contamination below the pits; and SB-3 through SB-6 were drilled along the southwest edge of the warehouse. The analytical results for the samples collected at these locations are summarized in Table 4 and Table 5.

Analyses of groundwater samples from the newly installed wells showed the presence of TCE at concentrations ranging from 22 ug/L to 520,000 ug/L in MW-9, immediately downgradient of spill site. The results for MW-9 also indicated the presence of 1,1-DCE at 560 ug/L, tetrachloroethene at 39 ug/L, 1,1,1-TCA at 5,000 ug/L and trichlorofluoromethane at 620 ug/L.

**TABLE 4**

**Summary of Dames & Moore Soil Analytical Results (ug/Kg)<sup>14</sup>**

Constituent	PB-1	PB-2	SB-1		SB-3		SB-4			SB-5		
	12.0 ft	11.5 ft	16.5 ft	21.5 ft	11.0 ft	16.0 ft	4.5 ft	16.0 ft	20.0 ft	5.0 ft	11.0 ft	16.0 ft
Methylene Chloride <sup>1</sup>	ND-2.5	ND-2.5	ND-2.5	ND-2.5	42.5 <sup>1</sup>	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5
Tetrachloroethene	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	4.0	ND-2.5	ND-2.5	ND-2.5	ND-2.5
1,1,1-Trichloroethane	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	6.1	ND-2.5	54	ND-2.5	49	8.3
1,1,2-Trichloroethane	ND-2.5	ND-2.5	ND-2.5	2.9	ND-2.5	ND-2.5	ND-2.5	11	ND-2.5	ND-2.5	ND-2.5	ND-2.5
Trichloroethene	380	11	1,400	2,600	210	160	3,400	3,000	17,000	350	14,000	9,900
Trichlorofluoromethane	6.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5
1,1-Dichloroethene	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5
Acetone	ND-50	ND-50	ND-50	ND-50	ND-50	ND-50	110	ND-50	ND-50	ND-50	ND-50	ND-50

Constituent	SB-6				MW-5		MW-6		
	6.5 ft	11.5 ft	11.5 ft (Dup)	16.5 ft	16.5 ft	21.5 ft	6.5 ft	11.5 ft	16.2 ft
Methylene Chloride	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5
Tetrachloroethene	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5
1,1,1-Trichloroethane	ND-2.5	ND-2.5	ND-2.5	250	ND-2.5	170	ND-2.5	ND-2.5	ND-2.5
1,1,2-Trichloroethane	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5
Trichloroethene	140	22,000	12,000	41,000	1,600	9,900	140	900	750
Trichlorofluoromethane	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	5.4	ND-2.5	ND-2.5	ND-2.5
1,1-Dichloroethene	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	5.8	ND-2.5	ND-2.5	ND-2.5
Acetone	ND-50	ND-50	ND-50	ND-50	ND-50	ND-50	ND-50	ND-50	ND-50

1. Methylene chloride was detected in the method blank at 9.8 ug/Kg.
2. For all constituents that were not detected, results are reported "ND" followed by the detection limit.



**TABLE 4 (continued)**

**Summary of Dames & Moore Soil Analytical Results (ug/Kg)<sup>14</sup>**

Constituent	MW-7		MW-8		MW-9		
	13.0 ft	18.0 ft	11.5 ft	16.5 ft	11.5 ft	11.5 ft (Dup)	19.5 ft
Methylene Chloride	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	5.1
Tetrachloroethene	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5
1,1,1-Trichloroethane	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	55
1,1,2-Trichloroethane	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5
Trichloroethene	30	28	28	49	750	51	9,000
Trichlorofluoromethane	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5
1,1-Dichloroethene	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5	ND-2.5
Acetone	ND-50	ND-50	ND-50	ND-50	ND-50	ND-50	ND-50

1. Methylene chloride was detected in the method blank at 9.8 ug/Kg.
2. For all constituents that were not detected, results are reported "ND" followed by the detection limit.

**TABLE 5**

**Summary of Dames & Moore Groundwater Analytical Results (ug/L)<sup>14</sup>**

Constituent	MW-1	MW-2	MW-3	MW-4	MW-5
Chloroform	ND - 0.5	ND-0.5	ND-0.5	58	ND-0.5
1,1-Dichloroethane	ND - 0.5	ND-0.5	ND-0.5	32	8.0
1,1-Dichloroethene	ND - 0.2	ND-0.2	ND-0.2	1,000	97
Trans-1,2-Dichloroethene	ND - 0.5	ND-0.5	ND-0.5	ND-0.5	3.5
Methylene Chloride	ND - 0.5	ND-0.5	ND-0.5	470	18
Tetrachloroethene	ND - 0.5	ND-0.5	ND-0.5	92	18
Toluene	ND - 0.5	ND-0.5	ND-0.5	24	ND-0.5
1,1,1-Trichloroethane	ND - 0.5	ND-0.5	ND-0.5	22,000	980
1,1,2-Trichloroethane	ND - 0.5	ND-0.5	ND-0.5	110	ND-0.5
Trichloroethene	ND - 0.5	1.1	36	330,000	98,000
Trichlorofluoromethane	ND - 0.5	ND-0.5	13	590	120
Bromodichloromethane	ND - 0.5	ND-0.5	ND-0.5	ND-0.5	3.6
1,2-Dichloropropane	ND - 0.5	ND-0.5	ND-0.5	ND-0.5	ND-0.5

Constituent	MW-5 DUP.	MW-6	MW-7	MW-8	MW-9
Chloroform	8.1	ND-0.5	ND-0.5	ND-0.5	ND-0.5
1,1-Dichloroethane	9.3	ND-0.5	ND-0.5	ND-0.5	17
1,1-Dichloroethene	110	1.2	ND-0.5	ND-0.5	560
Trans-1,2-Dichloroethene	4.6	ND-0.5	ND-0.5	ND-0.5	4.1
Methylene Chloride	20	ND-0.5	ND-0.5	ND-0.5	190
Tetrachloroethene	19	ND-0.5	ND-0.5	ND-0.5	39
Toluene	ND-0.5	ND-0.5	ND-0.5	ND-0.5	ND-0.5
1,1,1-Trichloroethane	1,430	6.2	ND-0.5	0.8	5,000
1,1,2-Trichloroethane	ND-0.5	ND-0.5	ND-0.5	ND-0.5	22
Trichloroethene	100,000	1,800	22	120	520,000
Trichlorofluoromethane	ND-0.5	31	12	28	620
Bromodichloromethane	ND-0.5	ND-0.5	ND-0.5	ND-0.5	ND-0.5
1,2-Dichloropropane	ND-0.5	ND-0.5	ND-0.5	ND-0.5	6.5

1. Methylene chloride was detected in the method blank at 0.8 ug/Kg.
2. For all constituents that were not detected, results are reported "ND" followed by the detection limit.

Soil borings collected from the closed concrete pit (PB-1) in the floor of the warehouse indicated the presence of TCE at concentrations of 380 ug/Kg and trichlorofluoromethane at 6.5 ug/Kg. Samples collected from SB-1 at 16.5 feet and 21.5 feet indicated the presence of TCE at 1,400 ug/Kg and 2,600 ug/Kg, respectively. Finally, soil boring along the southwest side of the warehouse (SB-3 through SB-6) revealed TCE concentrations ranging from 140 ug/Kg to 22,000 ug/Kg.

Based upon the findings of Dames & Moore, the Lowenberg Corporation and W.S. Associates, have obtained proposals for additional testing to better characterize the extent of contamination and to determine potential remediation options.<sup>15</sup>

## 2.4 Regulatory Involvement

The spill that occurred during tank dismantling operations at the Williams Street site on July 31, 1988, was reported by an occupant of one of the adjacent warehouses to the California Department of Toxic Substances Control (DTSC) (formerly the Department of Health Services) and the City of San Leandro on August 2, 1988.<sup>7,8</sup> The DTSC Complaint Report Form stated that a black sticky liquid was released over the weekend and that the substance entered the storm sewer.<sup>10</sup> John Goldberg of C.J. Construction was cited in the report identifying the material as coolant and Horris Evans of Innovative Foods was also cited identifying the material as freon. There is no evidence to indicate that the DTSC performed any subsequent investigations.<sup>11</sup>

The DTSC is actively investigating the groundwater contamination in San Leandro and is providing free testing for domestic wells due to TCE, PCE, TCA, toxic metals and nitrate contamination. Further, DTSC has issued an advisory for the potential health risks that may be associated with domestic use of contaminated groundwater.<sup>16</sup>

There are four sites in San Leandro currently under investigation by DTSC which may be contributing to the groundwater problem. DTSC indicated that the Williams Street sites is located downgradient of the Caterpillar site in an area believed to be at the leading edge of the Caterpillar plume.<sup>16</sup> Historical data from the ongoing DTSC investigation has revealed TCE and PCE concentrations less than 100 ug/L and 30 ug/L, respectively, at the leading edge of this plume.<sup>16</sup>

The City of San Leandro, Industrial Waste Section, also investigated the spill due to the reports that hazardous substances may have entered the storm sewer system.<sup>7,8</sup> The City was especially interested in this incident report due to recent problems at the sanitary sewer system Water Pollution Control Plant that began in mid-July. During the graveyard shift on July 17, 1988, operators noticed an intermittent and unusual solvent smell in the plant influent. On July 23, samples were collected for expedited chemical analysis. Operators at the plant continued to report the unusual odors. On July 28, a concentrated dose of the unknown organic solvent entered the treatment plant resulting in the reported illness of a plant worker due to chemical exposure. On August 1, verbal analytical results were received by the City which revealed concentrations of diphenyl greater than 300 ug/L and diphenyl ether (1,1-oxybis-benzene) greater than 600 ug/L.<sup>12</sup> The City reviewed permit files in an attempt to identify the discharger.

On August 2, upon receipt of the spill report, an Industrial Waste Inspector from the City visited the Williams Street site to investigate. The inspection report stated that C.J. Construction and Innovative Foods reported that approximately 50 gallons of Freon 11 (trichlorofluoromethane) had been spilled over the weekend. The City Inspector also noted that the odors present within the warehouse were very similar to the solvent entering the treatment plant. Upon further investigation, the City Inspector observed an area used by C.J. Construction to clean their tools which was adjacent to a drain. Also noted was a sump within the warehouse which contained a large volume of liquid.<sup>8</sup> However, the City Inspector found no direct evidence that the substance was released to the storm sewer. The City collected a sample from the sump which showed the presence of diphenyl and diphenyl ether thus confirming that the Cryo-Maid facility was the source of the solvent that had been entering the Water Pollution Control Plant. On August 5, the City of San Leandro sent a letter to Innovative Foods to advise that discharge of any chemicals to the sanitary or storm sewers is illegal and further requested that a copy of the hazardous waste manifest documenting proper disposal of the waste solvents be provided to the City.<sup>12</sup>

The City of San Leandro Water Pollution Control Plant was cited by the Bay Area Air Quality Management District (BAAQMD), Enforcement Division, due to excess hydrogen sulfide emissions resulting from the chemical imbalances caused by the solvent entering the treatment plant.<sup>14</sup> The solvent odor within the treatment plant began to subside on or about August 15. The City pursued cost recovery actions against Innovative Foods for the analytical expenses incurred.<sup>13,14</sup>

The property owners, W.S. Associates, and their property management company, the Lowenberg Corporation, had no knowledge that hazardous substances had been released until the RETA report was received in mid-August 1989.<sup>3,4,5,9</sup> On September 8, 1989, the Lowenberg Corporation sent a letter to the San Francisco Regional Water Quality Control Board (RWQCB) and DTSC to notify them that TCE had been found in groundwater at concentrations as high as 88,000 ug/L.<sup>9,15</sup> The letter further advised that a consultant had been retained to investigate the source and extent of contamination. The RWQCB has not investigated the Williams Street site due to the limited resources available to the agency.<sup>16</sup>

As described in Section 2.3, the property owners conducted a preliminary soil and groundwater investigation which was completed on June 4, 1990.<sup>17</sup> The results of this initial investigation indicated that the problem was more extensive than initially anticipated and that further remedial investigation would be required.<sup>10,17</sup> Following an effort by W.S. Associates to obtain information and financial support from Hills Brothers, Cryo-Made, and Innovative Foods, the property owners filed a lawsuit in U.S. District Court in September 1990 due to the lack of cooperation from the potential responsible parties.<sup>5,6,9</sup>

### 3.0 HRS FACTORS

In accordance with the mandates outlined in CERCLA and SARA, the Hazard Ranking System (HRS) was developed to accurately assess the relative degree of risk to human health and the environment posed by a potential hazardous waste site in order to determine the site's eligibility for the National Priorities List (NPL). The HRS addresses four exposure



pathways representing means by which hazardous substances may pose a threat to human health and/or the environment. The exposure pathway include three migration pathways (groundwater, surface water, and air) and one exposure pathway (soil). For each pathway, three factors are evaluated: likelihood of release of hazardous substances, targets, and waste characteristics.

This section will present a summary of the potential threats associated with each HRS exposure pathway at the Williams Street site.

### 3.1 Sources of Contamination

Information regarding the types and quantities of hazardous materials onsite during the period of operation was not available because the facility vacated in 1988. Sources of contamination identified during the Preliminary Assessment include the following:

1. The refrigerant used in the freeze-drying operation was contained in a storage tank estimated to be approximately 800 gallons in volume. Refrigerant was circulated through a closed system. Based upon the information presented above, the refrigerant was identified as DOWTHERM during the period that Hills Brothers operated the facility. Cryo-Maid/Innovative Foods reportedly changed the refrigerant from DOWTHERM to TCE some time during their period of operation, although investigation reports of the August 1988 spill cite Innovative Foods as identifying the refrigerant as Freon 11 (Trichlorofluoromethane).

The predominant chemical constituents identified by available analytical data is TCE. Other substances identified include: diphenyl, diphenylether, chloroform, 1,1-dichloroethane, 1,1-dichloroethene, trans-1,2-dichloroethene, methylene chloride, tetrachloroethene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichlorofluoromethane, and bromodichloromethane.

2. Widespread soil contamination is present at the Williams Street. Analysis of soil borings collected at depths ranging from 5.0 to 21.5 feet within the warehouse (PB-1, PB-2, SB-1) and along the southwest side of the warehouse (SB-3, SB-4, SB-5, SB-6) revealed TCE concentrations ranging from 11 ug/Kg to 41,000 ug/Kg. Further, two soil samples collected at a depth of 15 to 21 inches below the roll-up door on the southwest side of the warehouse revealed TCE concentrations of 1,400,000 mg/Kg and 5,000,000 ug/Kg. The surface area covered by these soil borings is approximately 15,000 square feet.

### 3.2 Groundwater Pathway

This section presents information on the hydrogeologic setting, groundwater targets, and conclusions regarding the groundwater pathway.

#### 3.2.1 Hydrogeologic Setting<sup>18</sup>

San Leandro is located in the major groundwater producing area in the east San Francisco Bay region referred to as the Bay Plain. Groundwater in the San Leandro Alluvial Cone



of the Bay Plain occurs in aquifers consisting of discontinuous layers and lenses of sand and gravel ranging from 600 to more than 1,000 feet in depth. While most of the aquifers are confined, both unconfined and perched conditions exist.

Aquifers within the San Leandro alluvial cone can be segregated into five zones: shallow aquifers within 50 feet of the surface; aquifers between 30 and 100 feet in depth which are referred to as the Newark aquifer; aquifers between 130 and 200 feet in depth which are referred to as the Centerville aquifer; aquifers between 250 and 400 feet in depth which are referred to as the Fremont aquifer; and aquifers greater than 400 feet in depth.

The shallow aquifers are located under portions of San Leandro and overlie the clay layer that confines the Newark aquifer. Most of the shallow aquifers exist under perched conditions, though some may be confined by thin clay beds. The water-bearing material is usually silty sand with recharge to the shallow aquifers occurring by direct infiltration of precipitation, irrigation, and streamflow.

The Newark aquifer is capped by clay layer 25 to 60 feet thick and extends to a maximum depth of 75 feet below sea level in the San Leandro alluvial cone. The aquifer varies in thickness from two to 40 feet. The Newark aquifer does not appear to be a single continuous layer, but rather several interfingering sand and gravel lenses separated by thin clay beds five to ten feet thick that may be hydraulically interconnected near the upper reaches of the San Leandro alluvial cone. On the lower portion of the cones, the lenses are most likely separate hydraulic units. The groundwater in the Newark aquifer is believed to be replenished principally by the infiltration of streamflow in the upper part of the alluvial cone and by leakage through the confining clay bed.

The Centerville and Fremont aquifers are located between 250 and 375 feet below sea level and consists of individual gravel and sand lenses that are separate hydraulic units. These aquifers are confined by layers that extend westward beneath San Francisco Bay and can be delineated by two distinct gravel layers approximately 30 feet thick separated by 25 to 40 feet of clay. Recharge to the Centerville aquifer is most likely through lateral movement, subsurface inflow from adjacent groundwater bodies or through aquitard leakage from the upper aquifers.

The aquifers below 400 feet are relatively continuous consisting of sands, gravels and boulders with localized zones of relatively impermeable cemented gravel or clay and silt. Well casings for these deeper aquifers are often perforated in the Centerville and Fremont aquifers. Recharge to this aquifer is believed most likely through inflow attributable leakage from the Fremont aquifer.

Soils beneath the site and the adjacent Kellogg property consist primarily of fill material made up of clayey sands and sandy gravels within the first seven feet.<sup>14</sup> Soils below the fill material changes from primarily fine-grained silts and clays to coarse-grained sands and gravels in a westward direction. Approximately 13 feet below ground surface, soils are primarily fine-grained silt and clays with a deeper sand unit located between 15 to 20 feet below ground surface at SB-1, SB-3, and SB-4. A gravelly sand unit was also found approximately 30 feet below ground surface at MW-3 and MW-7.<sup>14</sup>

The vadose zone beneath the site extends to approximately 18 feet below the ground surface.<sup>14</sup> Soils in the vadose zone consists primarily of silts, clays, sands and gravels. Vertical permabilities ranged from  $1.4 \times 10^{-5}$  cm/s for a clay sample collected at SB-6 to  $4.0 \times 10^{-5}$  cm/s for a sand sample collected at MW-9.<sup>14</sup>

### 3.2.2 Groundwater Targets

The majority of the population within the four-mile target distance limit receives its drinking water supply from East Bay Municipal Utility District (EBMUD) through surface water intakes in the Pardee Reservoir.<sup>23</sup> There are approximately 1,200 wells permitted by the County of Alameda which include primarily irrigation and monitoring wells, as well as over 40 domestic wells located in San Leandro.<sup>24,25</sup> Based upon information available from EBMUD this number is believed to be inaccurate and the total number of wells, domestic and otherwise, is substantially higher.<sup>26</sup> Domestic well depths range from approximately 15 to 130 feet.<sup>22</sup> The majority of irrigation and industrial wells range in depth from 20 to more than 200 feet with several wells below 400 feet.<sup>25</sup>

The nearest suspected domestic well is located within one-quarter mile upgradient of the site.<sup>25</sup> The nearest industrial well is located at the Kellogg Company which is immediately adjacent and downgradient of the site.<sup>25</sup>

The target population served by domestic wells is approximately 120 based upon an average of 2.54 persons per household in Alameda County.<sup>27</sup>

### 3.2.3 Groundwater Conclusions

There is a suspected release of hazardous substances to groundwater based upon spill reports taken during tank dismantling operations at 1964 Williams Street in August 1988. Analytical data for groundwater samples collected onsite reveal the presence of TCE at concentrations ranging from non-detectable to 330,000 ug/L near the southwestern side of the warehouse in MW-4. As outlined in Table 5 above, other contaminants found in MW-4 include chloroform, 1,1-dichloroethane, 1,1-dichloroethene, trans-1,2-dichloroethene, methylene chloride, tetrachloroethene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichlorofluoromethane, bromodichloromethane, and 1,2-dichloropropane. Further, MW-9 located downgradient on the adjacent Kellogg property revealed TCE at 520,000 ug/L.

Groundwater is used extensively throughout San Leandro for irrigation, industrial purposes, and domestically for drinking water. More than 40 domestic wells serving a population of approximately 120 people have been identified within the four mile target distance limit. The number of wells used domestically may be substantially higher due to the widespread use of groundwater and no accurate record of all wells in San Leandro.

### 3.3 Surface Water Pathway

This section presents information on the hydrologic setting, surface water targets, and conclusions for the surface water pathway.

### 3.3.1 Hydrologic Setting

Surface waters within an overland flow distance of two miles include: San Francisco Bay, San Leandro Bay, San Leandro Creek, and San Lorenzo Creek. Surface water from the Williams Street site would be collected by storm drains located in the center of the sloped parking lot. These storm drains are believed to be connected to a main line located directly north of the site. The storm sewer main flows west across Doolittle Drive, running parallel to Polvorosa Avenue into the slough and San Francisco Bay. See Figure 1.

### 3.3.2 Surface Water Targets

There are no drinking water intakes in San Francisco Bay, San Leandro Bay, San Leandro Creek or San Lorenzo Creek. Drinking water is provided by EBMUD from the Pardee Reservoir. Flow rates for San Leandro and San Lorenzo Creeks were not available from U.S.G.S. or the California Department of Water Resources. All four surface water bodies are fisheries.

Endangered species, located primarily along the San Francisco and San Leandro Bays, include the California Clapper Rail, the California Least Tern, and the Salt Marsh Harvest Mouse.<sup>28</sup> Species of special concern to the California Department of Fish and Game that are not classified as endangered include the Western Snowy Plover and the Burrowing Owl, located on Bay Farm Island.<sup>28</sup> The wetlands identified include Arrowhead Marsh in San Leandro Bay, the wetlands located immediately north of Robert's Landing, and the wetlands beginning at the Hayward city limit and extending south to Johnson Landing identified as the Harvard Regional Shoreline. The total frontage areas for these wetlands is estimated to be approximately eight miles.<sup>1</sup>

### 3.3.3 Surface Water Conclusions

In spite of the conflicting reports that hazardous substances released during the tank dismantling operation entered the storm sewer, and because limited information was available regarding waste characteristics, a release to surface water is suspected. San Francisco Bay is identified as the primary target. Therefore, a threat to the human food chain does exist.

The threat to the sensitive environments identified is minimal due to the fact that San Francisco and San Leandro Bays are classified as coastal tidal waters resulting in high dilution factors.

Finally, with the widespread use of groundwater for irrigation purposes in San Leandro, the potential for release of contaminated groundwater to surface water does exist via surface runoff.

## 3.4 Soil Exposure and Air Pathways

This section presents information on the physical conditions at the site, soil and air targets, and conclusions for the soil exposure and air pathways.

### **3.4.1 Physical Conditions**

The Williams Street site is entirely paved on the northeast side and partially paved on the northwest side with unpaved section covered by vegetation. The soil below the roll-up door on the southwest side of the site is stained along the Southern Pacific Railroad spur. As outlined in Section 2.3 above, two soil samples collected at a depth of 15 to 21 inches near the roll-up door contained TCE concentrations of 1,400,000 ug/Kg and 5,000,000 ug/Kg. Access to this area is unrestricted from the 1964 Williams Street warehouse and the railroad spur is active.

### **3.4.2 Soil and Air Targets**

The nearest residence is located approximately 900 feet northeast of the site and the nearest school is located approximately one mile west of the site.<sup>1</sup> There are no residents onsite. The worker population within the industrial park at 1946 - 1976 Williams Street was estimated to be approximately 50 people.<sup>3</sup> The Kellogg Company is located within 200 feet on the southwest side with a chain-link fence between the Kellogg property and the railroad spur onsite. Kellogg employs approximately 400 people. The total population residing within the four-mile target distance limit is more than 70,000 people.<sup>29</sup> There are no terrestrial sensitive environments within 200 feet.<sup>28</sup>

### **3.4.3 Soil Exposure and Air Pathway Conclusions**

The soil exposure pathway poses a threat at the Williams Street site due to the high solvent concentrations present in the soil.

A release to air is not suspected because during the site reconnaissance visit no odors were detected around the perimeter of the building during the site reconnaissance visit.

## **4.0 EMERGENCY RESPONSE CONSIDERATIONS**

The National Contingency Plan [40 CFR 300.15 (b) (2)] authorizes EPA to consider emergency response actions at those sites which pose an imminent threat to human health and the environment. Emergency response actions are not considered necessary for the Williams Street site at this time.

## **5.0 SUMMARY**

Historically, the Williams Street Site operated as a freeze-drying food plant from 1967 to 1988. In July 1988, hazardous substances were released during process dismantling operations at the facility. TCE is predominant hazardous constituent with soil concentrations as high as 5,000,000 ug/Kg and groundwater concentrations as high as 520,000 ug/L. Other substances identified include: diphenyl, diphenylether, chloroform, 1,1,-dichloroethane, 1,1-dichloroethene, trans-1,2-dichloroethene, methylene chloride, tetrachloroethene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichlorofluoromethane, and bromodichloromethane. Information regarding the total volumes of these solvents onsite and waste handling practices of the former operators Austin, Hills Brothers, HJT and Cryo-Maid was not readily available.

The pertinent HRS factors for the Williams Street Site are as follows:

- Domestic groundwater use in San Leandro for irrigation, industrial and domestic purposes is widespread. More than 40 domestic wells have been identified within the four-mile target distance limit by the County of Alameda.<sup>24,25</sup> This number is believed to be inaccurate and the total number of wells, domestic and otherwise, may be substantially higher.<sup>26</sup>
- Incident reports for the August 1988 release state that hazardous materials were released to the storm sewer system. Information obtained from the City of San Leandro, Water Pollution Control Department, indicates that upon investigation of the incident, there was no evidence of discharge to the storm sewer system. As a result of these conflicting reports, and because limited information was available regarding waste characteristics, a release to surface water is suspected with San Francisco Bay identified as the primary target.

### 6.0 EPA RECOMMENDATION

	INITIAL	DATE
No Further Remedial Action Planned (NFRAP)	_____	_____
High priority SSI	<i>agd</i>	<i>11/7/92</i>
Low priority SSI	_____	_____
Deferred to Other Authority (e.g., RCRA, TSCA, NRC)	_____	_____

## 7.0 REFERENCES

1. U.S. Department of the Interior, Geological Survey. San Leandro Quadrangle. 7.5 Minute Series (Topographical). 1959, photo revised 1968.
2. Latitude/Longitude Worksheet, Roy F. Weston, Inc., November 1, 1991.
3. Roy F. Weston, Inc., Site Reconnaissance Interview and Observation Report, prepared by Joseph M. Demmler and Carol A. Rowell-Hays, September 10, 1991.
4. Terratech, Inc., Phase II Environmental Site Assessment, 1946 - 1976 Williams Street, San Leandro, California, August 16, 1989.
5. W.S. Associates v. Cryo-Maid, Inc., Innovative Foods, Inc., and Edward Hirschberg, Complaint For Damages and Declaratory Relief filed in the U.S. District Court, Northern District of California, on September 26, 1990.
6. Cryo-Maid, Inc., Innovative Foods, Inc., and Edward Hirschberg v. Hills Bros. Coffee, Inc., The Austin Company, David B. Devine, John T. Norton, James L. Mercer, C.J. Construction and Riggings, and John Goldberg, Third Party Complaint filed in the U.S. District Court, Northern District of California, on November 29, 1990.
7. Material Safety Data Sheet for DOWTHERM<sup>®</sup>, a heat transfer fluid, dated June 18, 1990.
8. Material Safety Data Sheet for DOWTHERM<sup>®</sup> SR-1 Heat Transfer Fluid, dated January 18, 1991.
9. Material Safety Data Sheet for DOWTHERM<sup>®</sup> Heat Transfer Fluid, dated June 17, 1991.
10. State of California Health and Welfare Agency, Complaint Report Form, dated August 2, 1988. Alleged Responsible Party was identified as Cryo-Maid. Date of Incident was July 31, 1988.
11. City of San Leandro, Water Pollution Control Plant, Industrial Waste Section, Industry File Inspection Log, dated August 2, 1988.
12. Letter from Susan E. Lowenberg of the Lowenberg Corporation to Steven Ritchie, San Francisco Regional Water Quality Control Board, dated September 8, 1989. Letter was copied to JoAnn Knight, California Department of Toxic Substances Control.
13. Terratech, Inc., Phase II Supplemental Analysis Results 1964 Williams Street, San Leandro, California, September 15, 1989.

14. Dames & Moore, Draft Report, Soil and Groundwater Investigation, 1964 Williams Street, San Leandro, California, for Steefel, Levitt & Weiss, dated June 4, 1990.
15. Letter from Susan E. Lowenberg of the Lowenberg Corporation to Steven Ritchie, San Francisco Regional Water Quality Control Board, dated January 3, 1991.
16. Contact Report of telephone conversation between Eileen Hughes, Waste Management Engineer, California Department of Toxic Substances Control and J.M. Demmler, Roy F. Weston, Inc. on August 26, 1991.
17. Draft Letter from Dan Mizerski, Water Pollution Control Supervisor, City of San Leandro, to Robert H. Gaynor, Supervising Air Quality Inspector, Bay Area Air Quality Management District, dated August 23, 1991.
18. Contact Report of telephone conversations between John Camp, Inspector, City of San Leandro, Water Pollution Control Department, Industrial Waste Section, and J.M. Demmler, Roy F. Weston, Inc., on September 23, 1991 and October 15, 1991.
19. Letter from Paul Zolfarelli, Industrial Waste Inspector, City of San Leandro, to Horce Evans of Innovative Foods, dated August 5, 1991.
20. San Francisco Regional Water Quality Control Board, Notification to Counties of Hazardous Waste Discharge, dated September 12, 1989.
21. Contact Report of telephone conversation between Lester Feldman, RWQCB, and J.M. Demmler, Roy F. Weston, Inc. on September 18, 1991.
22. Alameda County Flood Control and Water Conservation District, Groundwater in the San Leandro and San Lorenzo Alluvial Cones of the East Bay Plain of Alameda County, dated 1984.
23. Contact Report of telephone conversation between Matt Brewster, Assistant Water System Inspector, East Bay Municipal Utility District, and J.M. Demmler, Roy F. Weston, Inc., on August 9, 1991.
24. Contact report of telephone conversation between Andreas Godfrey, Engineer, County of Alameda Public Works Agency, and J.M. Demmler, Roy F. Weston, Inc., on August 20, 1991.
25. Alameda County Flood Control and Water Conservation District, Well Inventory Report, dated August 20, 1991.
26. Contact Report of telephone conversation between Mike Lapont, Meter Mechanic/-Backflow Tester, EBMUD Backflow Prevention Unit, and J.M. Demmler, Roy F. Weston, Inc., on October 21, 1991.
27. U.S. Census, 1990.

28. Natural Diversity Database, California Department of Fish and Game.
29. Graphical Exposure Modeling System (GEMS) 1980 U.S. Census Database.



**WESTON.**

**APPENDIX A**

**Contact Reports**

# SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT

PREPARED BY: Roy F. Weston, Inc.

OBSERVATIONS MADE BY: Joseph M. Demmler      DATE: September 13, 1991  
Carol A. Rowell-Hays

## FACILITY REPRESENTATIVE(S):

1. Leonard R. Stein, Esquire, of Steefel Levitt & Weiss, counsel for the property owners W. S. Associates.
2. Susan E. Lowenberg, of the Lowenberg Corporation, property manager for W. S. Associates.

SITE NAME: Williams Street Site      EPA ID#: CAD983566761

## Information provided during interview:

Mr. Stein Provided copies of the following documents:

1. W.S. Associates v. Cryo-Maid, Inc., Innovative Foods, Inc., and Edward Hirschberg, Complaint For Damages and Declaratory Relief filed in the U.S. District Court, Northern District of California, on September 26, 1990.
2. Cryo-Maid, Inc., Innovative Foods, Inc., and Edward Hirschberg v. Hills Bros. Coffee, Inc., The Austin Company, David B. Devine, John T. Norton, James L. Mercer, C.J. Construction and Riggings, and John Goldberg, Third Party Complaint filed in the U.S. District Court, Northern District of California, on November 29, 1990.

## Owner/Operator History

The Williams Street site is owned by W.S. Associates who acquired the property in October 1984 from David B. Devine. Mr. Devine owned the property from as early as the mid-1960's.

In the mid-1960's, the 1964-1976 Williams Street property was leased to the D. H. Overmeyer Company. In 1967, Overmeyer subleased 25,000 square feet of the property to the Austin Company (Austin), who designed, installed and/or constructed a commercial

freeze-drying plant at 1964 Williams Street. Austin was contracted by the Hills Brothers Coffee, Inc. to perform this installation. Subsequently, Hills Brothers occupied and operated the facility from approximately 1969 to 1971.

In 1971, Hills Brothers assigned its interests in the facility to HJT, Inc. owned and operated by James Horton and James Mercer. Mr. Mercer invented and holds the patent for the freeze-dried operation. Mr. Mercer is a party to the law suit filed by the property owners and has volumes of documentation on the actual process.

In early September 1972, Cryo-Maid, Inc. assumed the sublease on the facility. The relationship between HJT, Inc. and Cryo-Maid was not clear. Cryo-Maid leased and operated the freeze-drying plant from 1972 through 1988. However, the freeze-drying operation was not active from 1983 to 1988.

Cryo-Maid was sold to E. Hirschberg Freeze-Drying, Inc. in 1980 and was later folded into Innovative Foods which is now located in South San Francisco. Innovative Foods is owned and operated by Edward Hirschberg.

The refrigerant used in the freeze-drying process was contained in a tank approximately 600 to 800 gallons in volume and circulated within a closed system throughout the process. Hills Brothers used a refrigerant sold by Dow Chemical under the trade name DOWTHERM, which is reportedly an inert material. MSDS for DOWTHERM will be sent by mail. At some point in time during Cryo-Maid's operation, the refrigerant was changed to trichloroethene. Information regarding the total amount of these solvents onsite and waste handling practices by Austin, Hills Brothers, HJT and Cryo-Maid was not available.

In July 1988, Cryo-Maid contracted with C.J. Construction & Rigging, owned and operated by John Goldberg, to dismantle the freeze-drying process at the Williams Street site. Dismantling operations began in July.

The full extent of the surface soil and groundwater contamination was not discovered until June 1989, when a Real Estate Transaction Audit (RETA) was conducted at the Williams Street site. W.S. Associates also owned the warehouse located on the east side of the parking lot which was sold in 1989.

### Site Operations

Historically, the Williams Street site operated as a freeze-drying plant from approximately 1967 through 1988. No other tenants have been identified as using hazardous materials.

**Observations made during site visit:**

Observations made during the site visit are as follows:

1. The refrigerant tank was located on the southwest side of the warehouse near the roll-up door with the stained soil below it. The area measured approximately 200 square feet with the outline of the tank clearly defined due to staining on the concrete floor. Stained areas were also present in other areas of the warehouse. There was a strong solvent odor present in the warehouse.
2. The warehouse had two submerged concrete pits that were 12 to 18 feet deep which contained portions of the freeze-drying process. Each area measured approximately 350 square feet. The submerged areas are believed to have been connected to the City of San Leandro sanitary sewer line. No information was available regarding the lining in the base of each pit. Both areas were filled by Cryo-Maid prior to vacating the premises.
3. On the southwestern side of the warehouse, there are three roll-up doors along the railroad spur. The floor near the door on the northern end of the warehouse was stained where the refrigerant tank had been located. The area occupied by the tank was approximately 200 square feet immediately adjacent to the roll-up door. The outside wall of the building below this roll-up door was stained with peeling paint and the soil below the door was also stained with what appeared to be a black oily liquid.
4. Strong solvent odors were present within the warehouse.

Photographs taken during the site visit are included in Appendix A. A site sketch of the floor space within the warehouse showing the former location of the tank and pit areas is attached to this Site Reconnaissance Interview and Observations Report.

# TRAINS RR TRACKS



SHEET 1 of 1

CLIENT/SUBJECT Whisper Smart Site - Warehouse From P.W.O. No. 4/80-03-02

TASK DESCRIPTION Site Re-measure

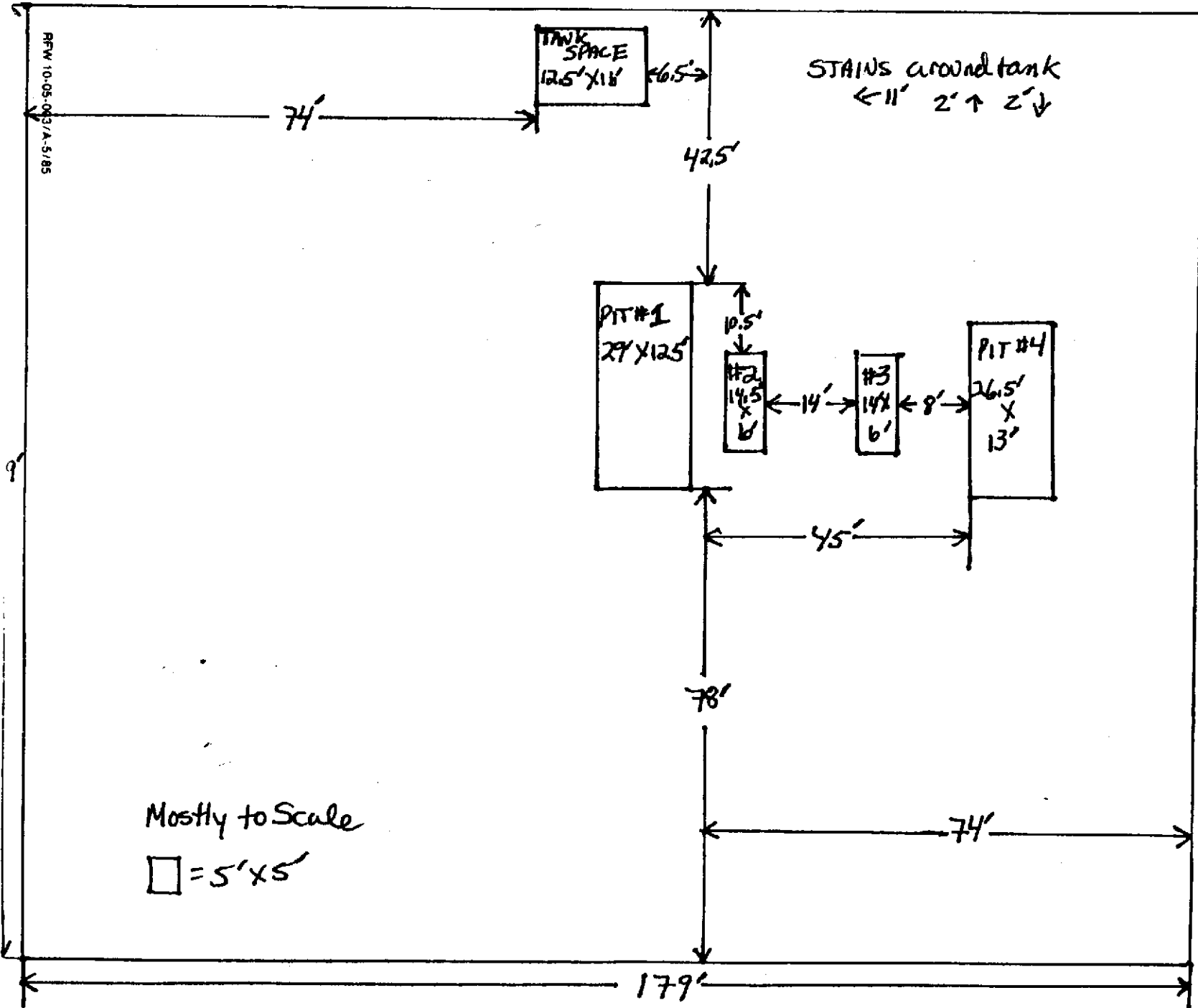
PREPARED BY CAH-H DEPT. \_\_\_\_\_ DATE 7/27/91

MATH CHECK BY \_\_\_\_\_ DEPT. \_\_\_\_\_ DATE \_\_\_\_\_

METHOD REV. BY \_\_\_\_\_ DEPT. \_\_\_\_\_ DATE \_\_\_\_\_

TASK NO. 0004

APPROVED BY \_\_\_\_\_ DEPT. \_\_\_\_\_ DATE \_\_\_\_\_



Mostly to Scale  
 □ = 5' x 5'

RFW 10-05-083/A.5/85

## PA CONTACT LOG

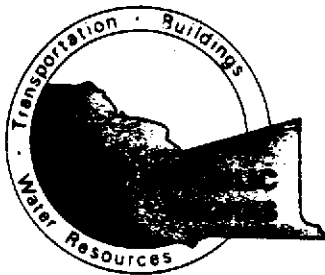
**Facility Name:** Williams Street Site

**Facility ID:** CAD983655761

<b>NAME</b>	<b>AFFILIATION</b>	<b>PHONE #</b>	<b>DATE</b>
Eileen Hughes	California Department of Toxic Substances Control	(510) 540-3848	08/08/91 08/26/91
Matt Brewster	East Bay Municipal Utility District	(415) 287-1155	08/09/91
Andreas Godfrey	County of Alameda	(415) 670-5575	08/20/91
Lester Feldman	San Francisco Regional Water Quality Control Board	(415) 464-1255	09/18/91
John Camp	City of San Leandro	(510) 577-3436	09/23/91 10/15/91
Mike LaPont	East Bay Municipal Utility District	(510) 287-0875	10/21/91

CONTACT REPORT

AGENCY/AFFILIATION: County of Alameda		
DEPARTMENT: Public Works Agency		
ADDRESS/CITY: 399 Elmhurst Street		
COUNTY/STATE/ZIP: Hayward, California 94544-1395		
CONTACT(S)	TITLE	PHONE
Andreas Godfrey	Engineer	(415) 670-5575
RFW PERSON MAKING CONTACT: J.M. Demler		DATE: 08/20/91
SUBJECT: Groundwater Usage in San Leandro		
SITE NAME: Williams Street Site		EPA ID#: CAD983566761
<ol style="list-style-type: none"> <li>1. Woodward-Clyde is assessing the regional groundwater problem in San Leandro.</li> <li>2. County maintains a database of approximately 1,200 permitted wells with usage information.</li> <li>3. Database and U.S.G.S. topographical map will be sent. → Have I sent them or do you still need it?</li> <li>4. Average annual rainfall in San Leandro is 23.67".</li> </ol> <p>↪ 1,200 wells in San Leandro  <u>6,400</u> in the database ✓</p>		
VERIFIED BY CONTACT: <i>Andreas Godfrey</i>		DATE: 12-6-91



COUNTY OF ALAMEDA  
 PUBLIC WORKS AGENCY  
 399 Elmhurst Street • Hayward, CA 94544-1395  
 (415) 670-5480

**LETTER OF TRANSMITTAL**

<b>TO</b>	Weston
	83 West March Lane - Suite 12
	Stockton, CA.
	95207
	<b>ATTENTION:</b> Joseph Demmler

**DATE:** 12-6-91

**JOB NO.** \_\_\_\_\_

**SUBJECT:** Wells

**TRANSMITTING THE FOLLOWING:**  Attached  Under Separate Cover-Via \_\_\_\_\_

- |  |   |
|--|---|
| <input type="checkbox"/> Preliminary Plans     | <input type="checkbox"/> Reports                |
| <input type="checkbox"/> Final Check Plans     | <input type="checkbox"/> Cost Estimates         |
| <input type="checkbox"/> Construction Drawings | <input checked="" type="checkbox"/> Other _____ |
| <input type="checkbox"/> Specifications        |   |

Copies	Sheets	Dated	Title/Description
1			Contact Report

- |   |  |
|---|--|
| <input type="checkbox"/> For Review and Comment | <input checked="" type="checkbox"/> For Your Information |
| <input type="checkbox"/> As Requested           | <input type="checkbox"/> Other _____                     |
| <input type="checkbox"/> For Approval           |  |

**REMARKS:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signed Andreas Grolfey



## CONTACT REPORT

AGENCY/AFFILIATION: City of San Leandro		
DEPARTMENT: Water Pollution Control Department, Industrial Waste Section		
ADDRESS/CITY: 3000 Davis Street		
COUNTY/STATE/ZIP: San Leandro, California 94577		
CONTACT(S)	TITLE	PHONE
John Camp	Inspector	(510) 577-3436
RFW PERSON MAKING CONTACT: J. M. Demmier		DATE: 09/23/91 10/15/91
SUBJECT: Storm and Sewer Lines; Investigation of 8/2/89 Spill		
SITE NAME: Williams Street Site		EPA ID#: CAD983566761
<ol style="list-style-type: none"> <li>1. City of San Leandro investigated a spill that occurred during the tank dismantling operations at the Cryo-Made facility on August 2, 1989. The spill was reported by a neighboring facility representative. Paul Zolfarelli, Senior Industrial Waste Inspector investigated the spill. Initial reports had indicated that a hazardous material had entered the storm sewer. However, upon investigation there was no evidence of discharge to the storm sewer.</li> <li>2. Storm sewer main is located directly north of the site and is believed to be connected to the storm drains in the parking lot at 1964 Williams Street. The sewer line flows west across Doolittle Drive and runs parallel with Polvorosa Avenue into the slough perpendicular to Polvorosa, and San Francisco Bay.  A second storm sewer line is located on Williams Street and begins near the front of the Kellogg Facility, west of the site. This storm sewer line runs along Williams Street, turns north on Doolittle, and intersects with the first sewer line at Polvorosa Avenue.  The storm sewer system is maintained by Alameda County.</li> <li>3. Some portion of the spill entered the sanitary sewer system which is treated prior to discharge. In August 1989, high levels of diphenyl and phenyl ether (1,1-oxybisbenzene) were detected in the treatment plant. Samples collected at 1964 Williams Street by the City confirmed that the elevated levels of these contaminants were attributable to the Cryo-Made tank spill. Cryo-Made was cited by the City. Mr. Camp advised that the analytical data for these analyses was qualitative with diphenyl being identified at concentrations greater than 300 ug/L and diphenyl ether being identified at concentrations of greater than 600 ug/L.</li> <li>4. Mr. Camp will send a copy of the City file which contains details of the tank spill inspection.</li> <li>5. Analytical data was not sent with the file copies and is available through the Water Pollution Control Department. There are no results for TCE because the city suspected that phenols were present and limited the focus of the analytical work performed.</li> <li>6. The City did recover the cost of these analyses from Innovative Foods.</li> </ol>		
VERIFIED BY CONTACT: <i>John A. Camp</i>		DATE: 12/6/91

**CONTACT REPORT**

<b>AGENCY/AFFILIATION:</b> California Department of Toxic Substances Control		
<b>DEPARTMENT:</b>		
<b>ADDRESS/CITY:</b> 700 Heinz Avenue, Suite 200		
<b>COUNTY/STATE/ZIP:</b> Berkeley, CA 94710		
<b>CONTACT(S)</b>	<b>TITLE</b>	<b>PHONE</b>
Eileen Hughes	Waste Mgmt. Engineer	(510) 540-3848
<b>RFV PERSON MAKING CONTACT:</b> J. M. Demmler		<b>DATE:</b> 08/08/91 08/26/91
<b>SUBJECT:</b> Determine DHS Involvement at Williams Street Site		
<b>SITE NAME:</b> Williams Street Site		<b>EPA ID#:</b> CAD983566761
<ol style="list-style-type: none"> <li>1. DHS is not familiar with the Williams Street Site. The State's files may be accessed by site name. Review of files for W.S. Associates, Lowerberg Corporation, Cryo-Made, and Kellogg revealed only a file on Cryo-Made which contained the Complaint Report Form for the spill that occurred on July 31, 1988.</li> <li>2. There is domestic well use in San Leandro and there is currently an advisory from the State that groundwater should not be used domestically due contamination with TCE, PCE, TCA, toxic metals, and nitrates. DHS is offering free well testing at this time due to the health risks.</li> <li>3. DHS is currently evaluating four sites upgradient of the Williams Street site. These include: the Caterpillar site located at Davis and Washington; the Singer Frieden site at 2350 Washington; a site at 750 139<sup>th</sup> Street; and the 1465 Factor Avenue Site. A public depository of documents related to these sites is maintained at the San Leandro Public Library, 300 Estudillo Street.</li> <li>4. Ms. Hughes believed that the Williams Street site may be located at the leading edge of the Caterpillar groundwater plume. Based upon previous work, the concentration of TCE and PCE in groundwater from this plume have been &lt;100 ug/L and &lt;30 ug/L, respectively. Ted Parks is the DHS Project Manager for the Caterpillar Site.</li> <li>5. Domestic well use may function as a water source in emergencies or droughts. There are approximately 40 known well users in San Leandro.</li> </ol>		
<b>VERIFIED BY CONTACT:</b>		<b>DATE:</b>

"NO INITIALED CONCURRENCE RECEIVED AS OF DECEMBER 16, 1991"

**CONTACT REPORT**

<b>AGENCY/AFFILIATION:</b> East Bay Municipal Utility District		
<b>DEPARTMENT:</b>		
<b>ADDRESS/CITY:</b> P.O. Box 24055		
<b>COUNTY/STATE/ZIP:</b> Oakland, California 94623		
<b>CONTACT(S)</b>	<b>TITLE</b>	<b>PHONE</b>
Matt Brewster	Assistant Water System Inspector	(415) 287-1155
<b>RFV PERSON MAKING CONTACT:</b> J.M. Damler		<b>DATE:</b> 08/09/91
<b>SUBJECT:</b> Drinking Water Supply in San Leandro		
<b>SITE NAME:</b> Williams Street Site	<b>EPA ID#:</b> CAD983566761	
<ol style="list-style-type: none"> <li>1. EBMUD serves approximately 1.1 million people in Alameda and Contra Costa counties from surface water intakes in the Pardee Reservoir. Average intake is approximately 150 - 200 million gallons per day. Water is treated in one of six filter plants prior to distribution.</li> <li>2. Backup source of water is the Briones Reservoir. There are no groundwater sources for EBMUD water supply.</li> <li>3. Private wells exist throughout San Leandro that are interconnected to the EBMUD system that have on occasion backflowed. There is currently an active program to install backflow devices on all interconnect wells.</li> <li>4. Additional information is available through EBMUD Public Information at (415) 287-0138.</li> </ol>		
<b>VERIFIED BY CONTACT:</b>		<b>DATE:</b>

"NO INITIALED CONCURRENCE RECEIVED AS OF DECEMBER 16, 1991"

**CONTACT REPORT**

<b>AGENCY/AFFILIATION:</b> San Francisco Regional Water Quality Control Board		
<b>DEPARTMENT:</b> Toxics Cleanup Division		
<b>ADDRESS/CITY:</b> 1800 Harrison Street, Suite 700		
<b>COUNTY/STATE/ZIP:</b> Oakland, California 94612		
<b>CONTACT(S)</b>	<b>TITLE</b>	<b>PHONE</b>
Lester Feldman	Environmental Specialist	(415) 464-1255
<b>RFW PERSON MAKING CONTACT:</b> J.M. Demmler		<b>DATE:</b> 09/18/91
<b>SUBJECT:</b> RWQCB Involvement at Williams Street Site		
<b>SITE NAME:</b> Williams Street Site	<b>EPA ID#:</b> CAD983566761	
<p>RWQCB has had no direct involvement with the Williams Street Site due to the limited resources available to the agency.</p> <p>RWQCB does maintain a file on W.S. Associates.</p>		
<b>VERIFIED BY CONTACT:</b>		<b>DATE:</b>

"NO INITIALED CONCURRENCE RECEIVED AS OF DECEMBER 16, 1991"

**CONTACT REPORT**

<b>AGENCY/AFFILIATION:</b> East Bay Municipal Utility District		
<b>DEPARTMENT:</b> Backflow Prevention Unit		
<b>ADDRESS/CITY:</b> P.O. Box 24055		
<b>COUNTY/STATE/ZIP:</b> Oakland, CA 94623		
<b>CONTACT(S)</b>	<b>TITLE</b>	<b>PHONE</b>
Mike LaPont	Meter Mechanic/Backflow Tester	(510) 287-0875
<b>RFW PERSON MAKING CONTACT:</b> J.M. Demmler		<b>DATE:</b> 10/21/91
<b>SUBJECT:</b> Backflow Prevention Program		
<b>SITE NAME:</b> Williams Street Site	<b>EPA ID#:</b> CAD983566761	
<ol style="list-style-type: none"> <li>1. EBMUD has a backflow prevention program to install backflow devices on all wells within the service area. The total number of wells is estimated to exceed 8,000 wells. Installation costs are free to private residents. Program is required by State law.</li> <li>2. Backflow may be caused by pressure differentials between the private well interconnected with the EBMUD water lines. However, more common is backflow siphonage.</li> <li>3. Discussed the Alameda County Flood Control and Water Conservation District (ACFCWCD) Well Inventory Report and the number of wells. EBMUD believes that the total number of wells estimated by ACFCWCD (approximately 1,200) is inaccurate and that there are substantially more wells than reported. Further, EBMUD believes that the number of domestic wells is substantially greater than the 46 reported by ACFCWCD.</li> <li>4. Mr. LaPont had no knowledge of any backflow incident contaminating the water supply.</li> <li>5. EBMUD would not permit initialed concurrence for this contact report.</li> </ol>		
<b>VERIFIED BY CONTACT:</b>		<b>DATE:</b>

"NO INITIALED CONCURRENCE RECEIVED AS OF DECEMBER 16, 1991"

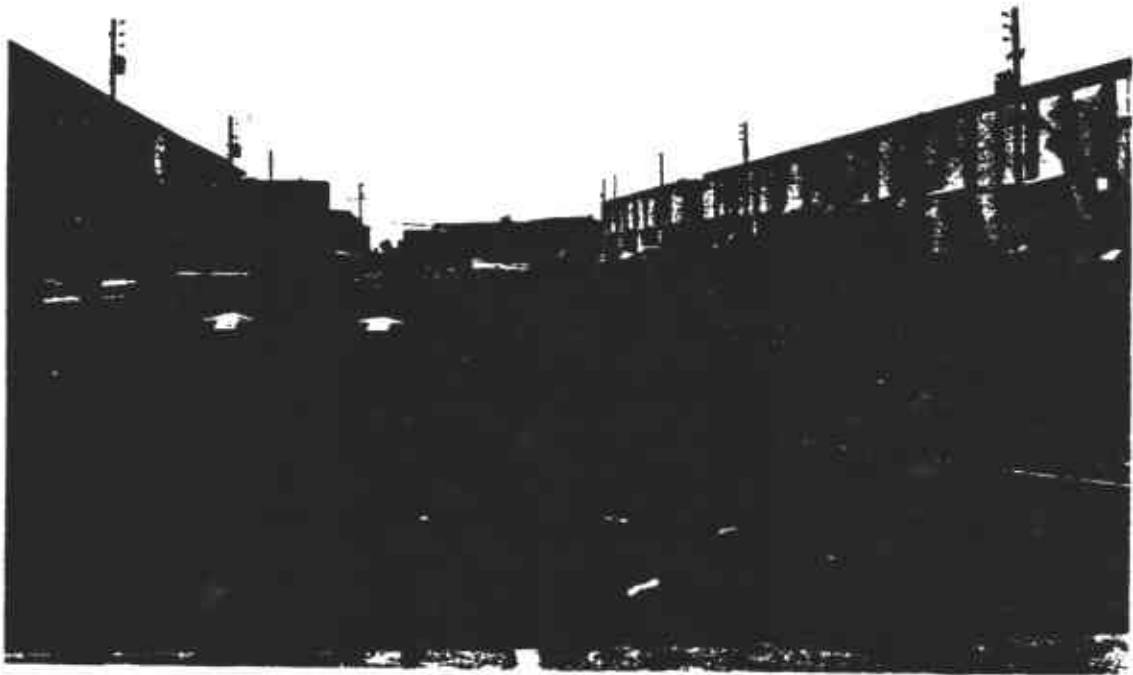
**WESTEN.**

**APPENDIX B**

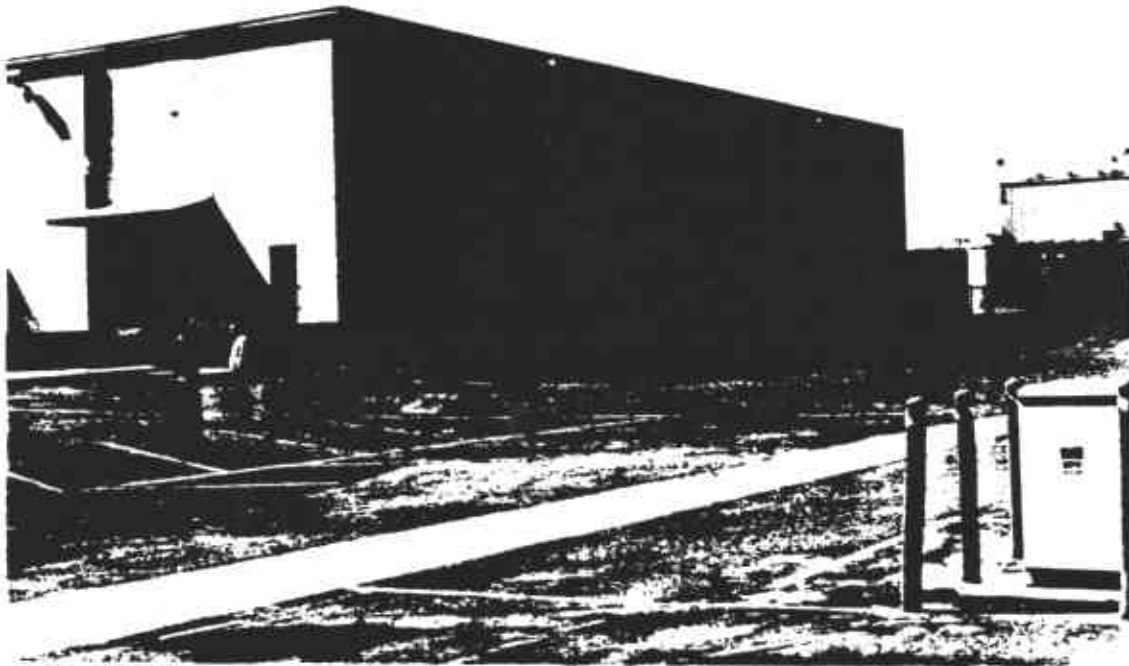
**Photographic Records**



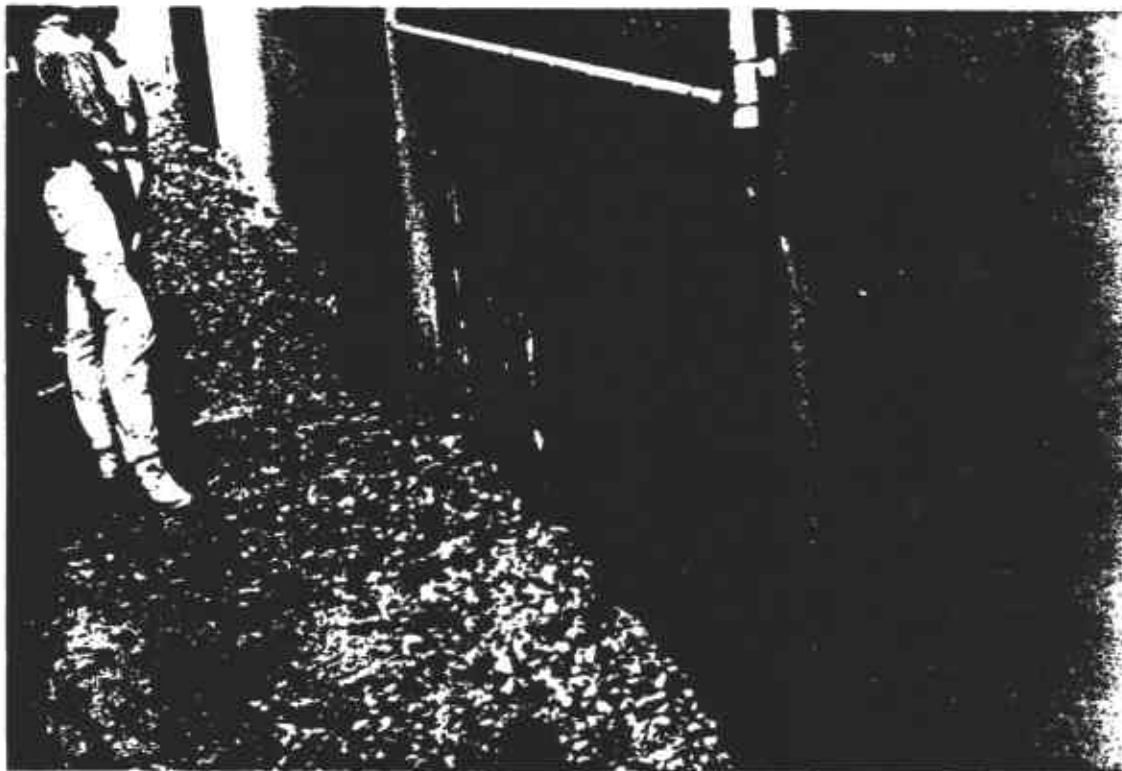
1. NORTHEAST SIDE OF 1964 WILLIAMS STREET WAREHOUSE.



2. PARKING LOT FOR INDUSTRIAL PARK LOOKING SOUTHEAST TOWARD WILLIAMS STREET.



3. NORTHWEST SIDE OF 1964 WILLIAMS STREET WAREHOUSE WITH THE SOUTHERN PACIFIC RAILROAD SPUR AND KELLOGG PLANT IN THE BACKGROUND.



4. STAINED AREA BELOW THE ROLLUP DOOR ON THE SOUTHWEST SIDE OF THE SITE.





5. STAINED SOIL BELOW THE ROLLUP DOOR ON THE SOUTHWEST SIDE OF THE SITE.



## APPENDIX C

### Latitude/Longitude Worksheet

**LATITUDE AND LONGITUDE CALCULATION WORKSHEET #2  
WHEN USING ENGINEERS' SCALE (1:60)**

SITE: WILLIAMS STREET SITE CERCLIS #: CAD983566761

AKA: NONE SSID: \_\_\_\_\_

ADDRESS: 1964 WILLIAMS STREET

CITY: SAN LEANDRO STATE: CA ZIP CODE: 94577

SITE REFERENCE POINT: CENTER OF WAREHOUSE

TOPO MAP: SAN LEANDRO TOWNSHIP: 2 N/S RANGE: 3 E/W

SCALE: 1:24,000 MAP DATE: 1973 SECTION: NA 1/4 NA 1/4 NA 1/4 NA

MAP DATUM: 1927 1983 MERIDIAN: MT. DIABLO

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 7.5' MAP:

LONGITUDE: 122° 07' 30" LATITUDE: 37° 37' 30"

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' SUB-MAP:

LONGITUDE: 122° 10' 0" LATITUDE: 37° 42' 30"

CALCULATIONS: LATITUDE (7.5 MINUTE QUADRANGLE MAP)

- A) NUMBER OF RULER DIVISIONS FROM BOTTOM LATITUDE LINE TO SITE: 51
- B) NUMBER OF RULER DIVISIONS EQUAL TO 2.5 MINUTES OF LATITUDE: 454
- C) DIVIDE DIVISIONS TO SITE (A) BY (B) 454: 0.11
- D) MULTIPLY BY 150 SECONDS AND CONVERT TO MINUTES/SECONDS: 0' 16.9"
- E) ADD TO STARTING LATITUDE: 37° 42' 30" + 0' 16.9" = 37° 42' 36.9"

CALCULATIONS: LONGITUDE (7.5 MINUTE QUADRANGLE MAP)

- A) NUMBER OF RULER DIVISIONS FROM RIGHT LONGITUDE LINE TO SITE: 80
- B) NUMBER OF RULER DIVISIONS EQUAL TO 2.5 MINUTES OF LONGITUDE: 360
- C) DIVIDE DIVISIONS TO SITE (A) BY (B) 360: 0.22
- D) MULTIPLY BY 150 SECONDS AND CONVERT TO MINUTES/SECONDS: 0' 33.3"
- E) ADD TO STARTING LONGITUDE: 122° 10' 0" + 0' 33.3" = 122° 10' 33.3"

<p>LATITUDE: <math>\frac{A}{B} \cdot \frac{51}{454} \times 150 = \frac{8.9}{-60 = 1'}</math></p> <p style="padding-left: 40px;"><math>-120 = 2'</math></p>	<p>LONGITUDE: <math>\frac{A}{B} \cdot \frac{80}{360} \times 150 = \frac{33.3}{-60 = 1'}</math></p> <p style="padding-left: 40px;"><math>-120 = 2'</math></p>
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37° 42' 36.9"

122° 10' 33.3"

INVESTIGATOR: Joseph M. Demmler DATE: November 1, 1991

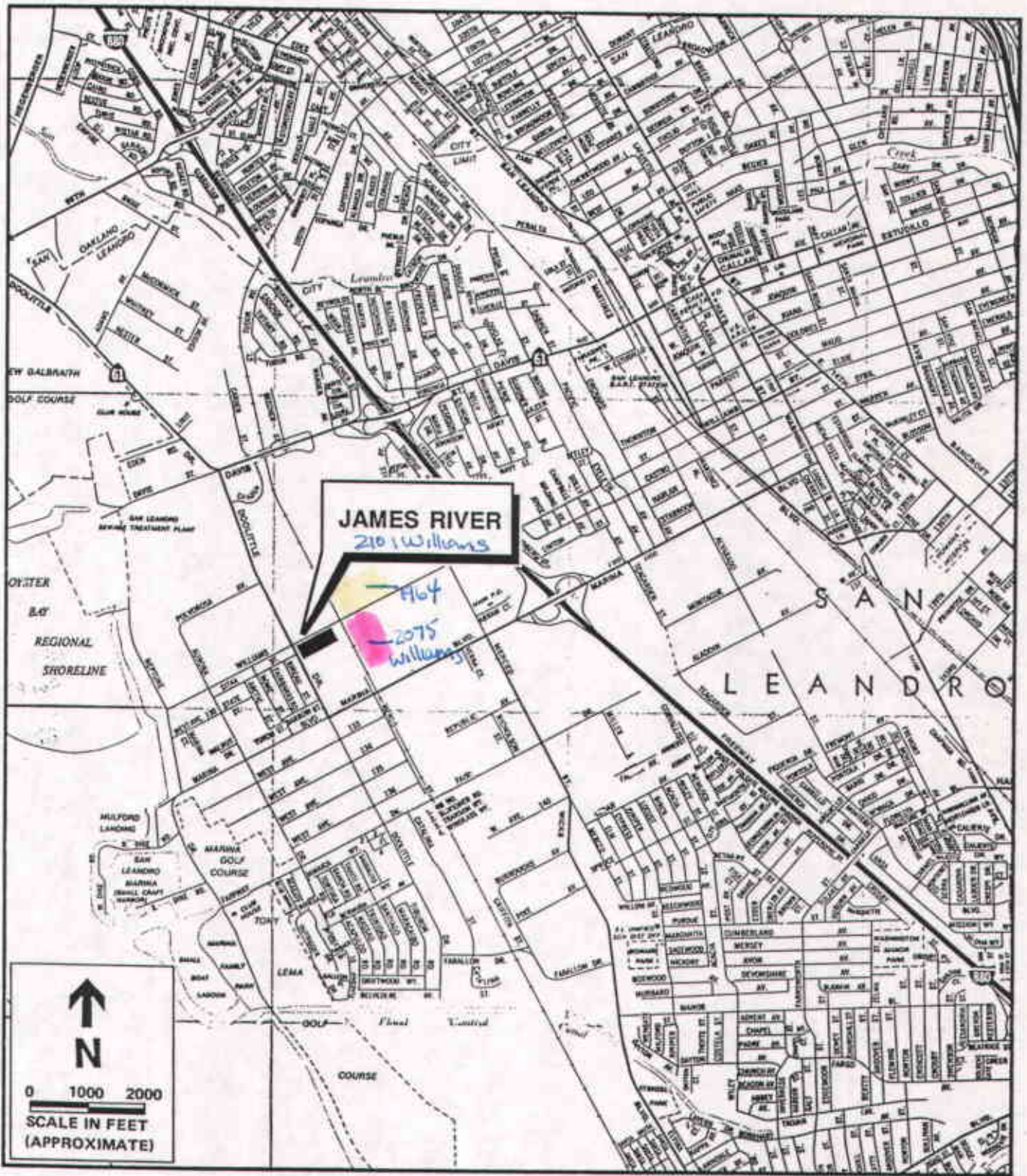


Figure 1-1 Site Location