REQUEST FOR SITE CLOSURE
WITH REGARD TO
CHLORINATED VOCs

45 - 89 REVIEW WAY
HAYWARD, CALIFORNIA

7 May 1997
EKI 970033.00

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CHLORINATED VOCs

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EXECUTIVE SUMMARY

In 1988, during an environmental assessment of the subject property located at 45-89 Review Way in Hayward, California, elevated concentrations of chlorinated volatile organic compounds ("VOCs") were discovered in on-site groundwater. Samples of unsaturated zone soils obtained from areas of potential environmental concern on the subject property did not contain detectable concentrations of chlorinated VOCs. An off-site source for the VOCs in groundwater was suspected.

Three Phase I assessments have been prepared for the subject property: One assessment in 1988, one in 1990, and one in 1996, all by separate environmental consulting firms. All three Phase I assessments conclude that there is no evidence for the past use of chlorinated solvents on the subject property.

In 1992, on behalf of Lincoln Property Company, Erler & Kalinowski, Inc. ("EKI") initiated soil and groundwater investigations on the adjacent Cannery Court site to identify the source for VOCs in groundwater on the Cannery Court site. The Cannery Court site is located hydraulically upgradient (east) of the subject property. The investigations by EKI revealed the following: 1) groundwater on the Cannery Court site is being impacted by VOCs from an off-site source or sources, and 2) the Cannery Court site is not contributing to VOCs in groundwater. The Regional Water Quality Control Board ("RWQCB") concurred with EKI's findings and issued a letter to Lincoln Property Company, dated 16 January 1996, which states that the chlorinated VOCs in groundwater on the Cannery Court site appear to originate from an off-site source or sources.

Based on the distribution of VOCs in groundwater on both the subject property and the Cannery Court site, the absence of VOCs in unsaturated zone soils collected from the subject property, and the Phase I findings which indicate no historical chlorinated solvent use on the subject property, it is apparent that groundwater on the subject property is being impacted by VOCs from an off-site upgradient source or sources (i.e., upgradient of the Cannery Court site) and that the subject property is not contributing to the VOCs in groundwater.

EKI's client, and current owner of the 45-89 Review Way site, is seeking concurrence from the RWQCB that the subject property is being impacted by chlorinated VOCs from an off-site source and that the subject property is not contributing to the VOCs in groundwater.

1. INTRODUCTION

During September 1988, a soil and groundwater investigation was performed on the 45-89 Review Way site in Hayward, California ("subject property"). The subject property is also referred to in prior reports as the "85 West Winton Site" and the "Summerhill Development Company property". The soil and groundwater investigation, which was performed by SCS Engineers, was conducted in connection with a potential property transaction. The analytical results for groundwater samples from wells installed on the subject property revealed the presence of elevated concentrations of chlorinated VOCs in groundwater. Samples of unsaturated zone soils were obtained from borings placed in suspected areas of concern, based on a prior Phase I report conducted by SCS Engineers in June 1988. None of the soils collected and analyzed by SCS Engineers contained detectable concentrations of chlorinated VOCs. SCS Engineers concluded that the chlorinated VOCs in groundwater on the subject property originated from an off-site source or sources.

A second Phase I assessment for the subject property was conducted in May 1990, by Groundwater Technology, Inc. ("GTI") for Summerhill Development Company, a potential purchaser. The 1990 GTI Phase I report ("GTI report") concluded that 1) there is no known use of chlorinated solvents at the site and 2) an off-site source for chlorinated VOCs in groundwater on the subject property is suspected.

A third Phase I assessment for the subject property was conducted in May 1996, by Compliance & Closure, Inc. ("CCI"). The May 1996 CCI Phase I report ("CCI report") concluded that the solvents in groundwater on the subject property are from an off-site source and are not associated with any previous activities at the subject property. Copies of the three Phase I reports are included in Appendices A, B, and C of this report, respectively.

Between 1992 and 1994, on behalf of Lincoln Property Company, EKI conducted soil and groundwater investigations on the adjacent, hydraulically upgradient Cannery Court site to characterize the extent of chlorinated VOCs in groundwater and attempt to identify a source. The investigations by EKI revealed the following: 1) groundwater on the Cannery Court site is being impacted by VOCs from an off-site source or sources, and 2) the Cannery Court site is not contributing to VOCs in groundwater. The RWQCB concurred with EKI's findings and issued a letter to Lincoln Property Company, dated 16 January 1996, which states that the chlorinated VOCs in groundwater on the Cannery Court site appear to originate from off-site.

Based on the distribution of VOCs in groundwater on both the subject property and the Cannery Court site, the absence of VOCs in unsaturated zone soils collected from the subject property, and the Phase I findings that indicate no historical chlorinated solvent use on the subject property, it is apparent that groundwater on the subject property is being impacted by VOCs from an off-site upgradient source or sources (i.e., upgradient of

the Cannery Court site) and that the subject property is not contributing to the VOCs in groundwater.

More detailed discussions of the prior work performed on the subject property, as well as the Lincoln Cannery Court site, are presented in the following sections of this report.

2. SUBJECT PROPERTY SETTING

2.1 Location and Setting of Subject Property

The subject property is located at 45-89 Review Way in Hayward, California (see Figure 1). The subject property comprises approximately 5.5 acres. The northern two acres of the subject property are vacant and grass-covered. The southern portion of the property is occupied by four buildings totaling approximately 40,000 square feet and paved parking areas (see Figure 2).

2.2 Current Uses Of Subject Property

Based on discussions with the representatives of the current owner of the subject property, Narom Development Company, below is a list of the current users, or tenants, of the subject property:

Tenant Name	*Use Activity*
Data Flo	Payroll and other financial services
A & R Painting	Storage of paints and painting supplies
Nigerian Church	Church services
Davidson Plastering	Storage of power tools, scaffolding
Darrell Davidson	General Contractor - storage of power tools, etc.
WF Anderson Electric	Storage of moving equipment, power poles, and trailers
Steve Lui	Assembly of glass aquariums and terrariums
Kelly International	Storage of cable and fiber optic supplies, truck parking and offices.

2.3 Surrounding Land Uses

The subject property is located within a predominantly commercial and mixed industrial area of Hayward. According to the CCI report, this area of Hayward has been a commercial/industrial area since initial development in the 1940s and 1950s.

The subject property is bounded to the south by Review Way and commercial uses beyond Review Way; to the west by a commercial building and Amador Street; to the north by the City of Hayward Centennial Park; and to the east by an abandoned warehouse building (former Iron Oak Supply Company) and the Southern Pacific railroad tracks. The Lincoln Cannery Court site is located beyond the Southern Pacific railroad tracks to the east.

2.4 Site Hydrogeology

Based on the GTI and CCI reports, depth to first encountered groundwater at the subject property ranges from 45 to 50 feet below ground surface. Based on the boring logs for the three on-site wells described in the GTI report, soils on the subject property from the surface to depths of 30 to 35 feet generally consist of fine-grained sediments (i.e., sandy silts and silty clays). Coarse-grained sediments consisting of sands, gravels and cobbles are found below depths of 30 to 35 feet.

Based on groundwater elevation measurements from the three on-site wells, the groundwater gradient direction at the subject property is generally to the south-southwest. The groundwater flow direction at the subject property is generally consistent with the historical groundwater gradient direction observed at the Lincoln Cannery Court site.

3. HISTORICAL USES OF SUBJECT PROPERTY

Historical land uses of the subject property are discussed in the SCS Engineers report, GTI report, and CCI report. In addition, information on historical land use has been provided by Mr. Marshall Moran of Narom Development Company, owner of the subject property for over 30 years. The following is an overview of historical site uses.

Pre-1940

Based on available information, the subject property and surrounding areas were used as orchards prior to 1940.

1940 to 1962

In approximately 1941, the subject property was initially developed by Swift Chemical Company which manufactured agricultural fertilizer at the property. Swift Chemical

occupied the subject property to approximately 1955. No chlorinated solvents reportedly were used at the subject property by Swift Chemical. The subject property reportedly was vacant and idle from 1955 to 1962.

1962 to 1983

In 1962, the subject property was purchased by Narom Development Company. Between 1962 and 1976, the site user was Moran Supply Company. Moran Supply Company used the subject property for distribution of plumbing, heating and air conditioning supplies. According to Mr. Moran, no manufacturing, repair, or assembly was conducted on the subject property. No chlorinated solvents reportedly were used at the subject property.

During the 1960s, a gasoline service station operated from the smaller building in the southeast corner of the subject property (see Figure 2). During this period, the gas station property was not owned by Narom Development Company. The service station ceased operations in approximately 1972, when construction of the Winton Avenue overpass began. The gasoline service station site was acquired by Narom Development Company from the City of Hayward as part of the overpass improvements. According to Mr. Moran, in 1972, two 10,000-gallon underground fuel tanks and one 550-gallon underground waste oil tank were removed from the service station site. According to Mr. Moran, no impacts to soil from the tanks were discovered at the time of their removal. In 1988, SCS Engineers drilled two soil borings on the gas station site and collected soil samples for analysis. No petroleum contamination was reported (see Section 4, below).

In 1976, Moran Supply Company was bought by Amfac, Inc. which conducted similar operations at the subject property to approximately 1983. No manufacturing, repair, or assembly reportedly was conducted on the subject property between 1976 and 1983. No chlorinated solvents reportedly were used at the subject property during this time period.

1983 to 1988

In 1983, Amfac, Inc. was sold to Iron Oak Supply Company which, according to Mr. Moran, used the subject property for distribution of plumbing, heating and air conditioning supplies. Iron Oak Supply Company occupied the subject property until approximately 1988. No chlorinated solvents reportedly were used at the subject property during this time period.

1988 to Present

From 1988 to the present, the subject property has been occupied by various tenants (see below). None of the site users between 1988 to the present is reported to have used or is currently using chlorinated solvents.

Time Period	User Name	Type of Operation
Feb 1986 to Feb 1995	Appraisal Dynamics	Office - home appraisal business
Jun 1986 to May 1988	R.W. Amguard Co.	Office - security services
Mar 1991 to Dec 1991	Richard Caruso Co.	Distributor of distressed merchandise (i.e., bent soup cans).
Mar 1991 to Sept 1992	Hinds & Hinds Co.	Office - clothing business
Sept 1992 to Aug 1995	Birch Development	Assembly and installation of modular building units.
May 1993 to Apr 1995	Moran Supply	Storage of wholesale plumbing supplies
Jul 1993 to Jun 1996	C.C.E.	Back office work for Credit Union
Apr 1993 to present	Data Flo	Payroll and other financial services
Oct 1993 to present	A & R Painting	Storage of paints and painting supplies
Feb 1996 to present	Nigerian Church	Church services
Feb 1996 to present	Davidson Plastering	Storage of power tools, scaffolding
Feb 1996 to present	Darrell Davidson	General Contractor - storage of power tools, etc.
July 1996 to present	WF Anderson Electric	Storage of moving equipment, power poles, and trailers
Oct 1996 to present	Steve Lui	Assembly of glass aquariums and terrariums
Dec 1996 to present	Kelly International	Storage of cable and fiber optic supplies, truck parking and offices.

Based on the reviews of the GTI and CCI reports, and based on discussions with Mr. Moran, no chlorinated solvents are reported to have been used on the subject property.

4. RESULTS OF ON-SITE SOIL AND GROUNDWATER INVESTIGATIONS

In 1988, a soil and groundwater investigation was performed at the subject property by SCS Engineers. According to the GTI report, the SCS Engineers soil and groundwater investigation was based on the results of a preliminary assessment for the subject property conducted by SCS Engineers, dated 10 June 1988. A copy of the SCS Engineers sampling report, entitled *Phase II Site Investigation, Final Report, 85 West Winton Avenue, Hayward, California*, dated 9 September 1988, is included as Appendix D. A summary of the findings of the investigation are discussed below.

In August 1988, three wells were installed on the subject property and five soil borings were drilled (see Figure 3). The wells presumably were installed to establish baseline groundwater conditions at the subject property. The objectives of the sampling or rationale for sampling locations were not indicated in the report. The presumed rationale for the placement of the soil borings and wells is presented in the table below:

Soil Boring No.	Presumed Rationale
B-1 and B-2	To screen for the presence of fertilizer residues and pesticides in soils (the northern portion of the site was thought to be used as a testing area).
B-3	Adjacent to a 1,500-gallon underground gasoline tank to screen for petroleum hydrocarbons in soil.
B-4 and B-5	At the former gasoline service station site to screen for petroleum hydrocarbons in soil.
GW-1, GW-2 and GW-3	Three "corners" of subject property to evaluate groundwater gradient.

4.1 Results of Soil Sampling

Two-point composite soil samples from borings B-1 and B-2 were analyzed for arsenic, copper, lead and mercury to "detect any possible metallic based pesticide contamination." The levels of arsenic, copper, lead and mercury detected in soil samples collected by SCS Engineers were below their respective hazardous waste criteria (see Table 2 in SCS Engineers report in Appendix D and Figure 3 of this report).

Two-point composite soil samples from borings B-3, B-4 and B-5 were analyzed for total purgeable petroleum hydrocarbons ("TPPH") as gasoline (EPA Method 8015) and aromatic VOCs (EPA Method 8020). The soil samples from borings B-3, B-4 and B-5 did not contain TPPH or aromatic VOCs above their respective laboratory detection limits, according to the SCS Engineers report (see Table 3 in SCS Engineers report in Appendix D)

Two-point composite soil samples from borings GW-1, GW-2 and GW-3 were analyzed for halogenated volatile organic compounds ("HVOCs") using EPA Method 8240. According to the SCS Engineers report (see Table 1 of report in Appendix D), one soil sample contained toluene at 0.17 milligrams per kilogram ("mg/kg"), and several soil samples contained ethylbenzene and xylenes at concentrations up to 0.31 mg/kg and 1.36 mg/kg, respectively (see Table 1 in SCS Engineers report in Appendix D).

4.2 Results of Groundwater Sampling

Since installation of the three wells on the subject property in 1988, the wells have been sampled five (5) times (between August 1988 and March 1992). The primary chemicals detected in groundwater samples obtained from the wells include:

- chloroform
- 1,1-dichloroethene (1,1-DCE)
- tetrachloroethene (PCE)
- 1,1,1-trichloroethane (1,1,1-TCA)
- trichloroethene (TCE)
- carbon tetrachloride (CTET)

With the exception of CTET, all of the above chemicals have been detected in well GW-3, which is located on the upgradient side of the subject property with respect to inferred groundwater flow direction (based on 24 Cannery Court groundwater studies) (see Figure 4). 1,1-DCE, 1,1,1-TCA and TCE have been detected in well GW-3 at concentrations up to 5.6 micrograms per liter ("ug/l"), 23 ug/l, and 24 ug/l, respectively (see Figure 4).

Higher concentrations of 1,1-DCE, 1,1,1-TCA, and TCE have been detected in well GW-1, also positioned somewhat on the upgradient side of the subject property, at concentrations up to 140 ug/l, 820 ug/l, and 93 ug/l, respectively (see Figure 4).

Lower concentrations of 1,1,1-TCA, and TCE have been detected in on-site downgradient well GW-2 at maximum concentrations of 0.6 ug/l and 8 ug/l, respectively.

Given the lower concentrations of halogenated VOCs detected in the downgradient on-site well (GW-2) and higher concentrations observed in upgradient on-site wells (GW-1 and GW-3), the subject property does not appear to be a contributing source to the halogenated VOCs in groundwater. Generally higher concentrations of halogenated VOCs have been detected in groundwater on the Lincoln Cannery Court site, which is located upgradient of the subject property. One exception is the elevated concentration of chloroform detected in on-site downgradient well GW-1 (see Figure 4). The presence of elevated concentrations of chloroform in well GW-2 may reflect a municipal water leak on the subject property or the Iron Oak Supply Company site. The results of recent groundwater investigations conducted on the Lincoln Cannery Court site are discussed below.

5. RESULTS OF OFF-SITE SOIL AND GROUNDWATER INVESTIGATIONS

Between 1992 and 1994, groundwater investigations for halogenated VOCs were performed by EKI at the Lincoln Cannery Court site. The Cannery Court site is located immediately upgradient of the subject property with respect to shallow groundwater flow direction (see Figure 4). The groundwater investigations were performed largely as a result of halogenated VOCs detected in groundwater samples obtained as part of an underground fuel tank removal and remediation project. EKI was retained by Lincoln Cannery Court to characterize the extent of VOCs in groundwater on the Cannery Court site and determine whether the VOCs originated from on-site or off-site sources.

Maximum concentrations of 1,1-DCE, 1,1,1-TCA and TCE in groundwater on the Cannery Court site were 66 ug/l, 230 ug/l, and 160 ug/l, respectively. PCE was also detected in groundwater on the Cannery Court site at concentrations up to 59 ug/l. Higher concentrations of VOCs were generally observed in groundwater obtained from wells on the upgradient side of the Cannery Court site (and upgradient of known historical site use areas).

Based on extensive soil sampling in suspected areas of concern and additional sampling of groundwater from the eleven wells on the Cannery Court site, EKI advocated to the RWQCB for site closure with respect to the halogenated VOCs in groundwater. The RWQCB concurred that the Cannery Court site appears to be impacted by VOCs from an off-site source or sources, and that the Cannery Court site is not contributing to the VOCs in groundwater (see RWQCB letter to Lincoln Cannery Court dated 16 January 1996 in Appendix E). Apparently, the off-site upgradient source for the VOCs in groundwater on the Cannery Court site, as well as the subject property, has not yet been identified.

6. CONCLUSIONS

Based on the available information presented above, the following conclusions are made:

- According to information contained in prior Phase I environmental assessments of the subject property (1988 SCS Engineers report, 1990 GTI report, and 1996 CCI report) and based on discussions with the current property owner, Narom Development Company, there is no evidence which suggests past or current use, storage, or disposal of chlorinated solvents on the subject property;

- Based on the results of soil samples collected on the subject property by SCS Engineers in 1988, no chlorinated VOCs were found in unsaturated zone soils (i.e., soils above the highest groundwater table elevation);

- Elevated concentrations of chlorinated VOCs have been detected in groundwater on the Lincoln Cannery Court site, which is located immediately upgradient of the subject property with respect to groundwater flow direction (refer to Figure 4). Similar concentrations of chlorinated VOCs have been found in groundwater on the subject property. The distribution of VOC concentrations in groundwater on both the Cannery Court site and the subject property indicate that these properties are underlain by a regional chlorinated VOC plume in groundwater and that neither property is contributing to the VOCs in groundwater. In January 1996, the RWQCB concurred that the Lincoln Cannery Court site appears not to be contributing to the chlorinated VOCs in groundwater and that the VOCs in groundwater appear to originate from an off-site upgradient source or sources.

7. LIST OF REFERENCES

City of Hayward Fire Department (Danilo M. Galang), *Industrial Facilities in the Vicinity of the Summerhill Development Site*, dated 31 August 1990.

City of Hayward Fire Department (Memorandum from D. Galang to Chief Faelz), *Present-Use Investigation of Facilities Around the Summerhill Development Site*, dated 31 August 1990.

Compliance & Closure, Inc., *Environmental Site Assessment - 81-89 Review Way, Hayward, California*, dated 31 May 1996.

Erler & Kalinowski, Inc., *July 1996 Monitoring Report, Well Abandonment Data, and Proposal for Case Closure, 21 and 24 Cannery Court, Hayward, California*, dated 22 July 1996.

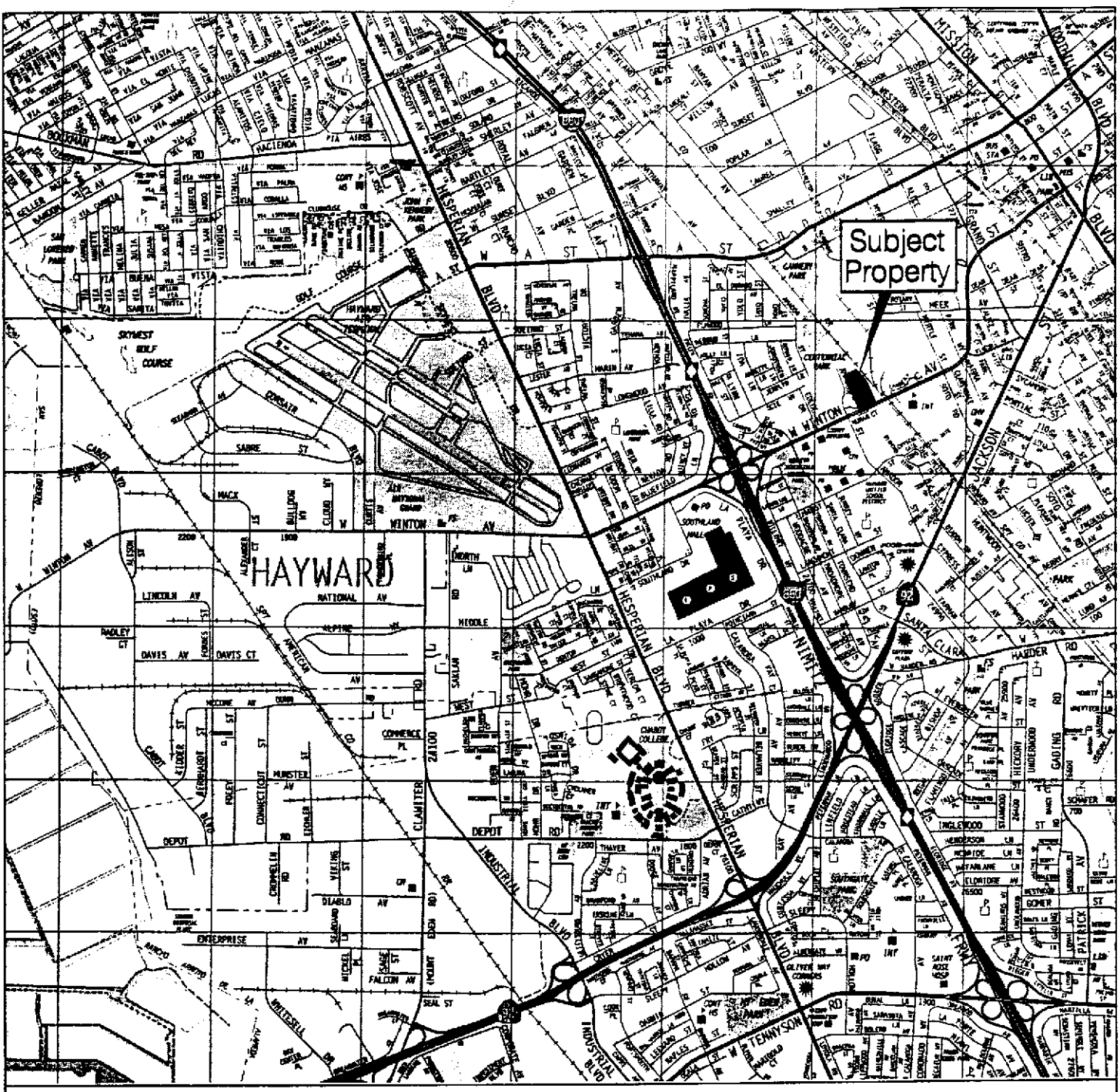
Erler & Kalinowski, Inc., *Phase III Soil and Groundwater Investigation, 21 and 24 Cannery Court, Hayward, California*, dated 30 April 1993.

Groundwater Technology, Inc., *Historical Land-Use Study and Environmental Survey, Summerhill Development Company Property, 85 West Winton Avenue, Hayward, California*, dated 10 May 1990.

SCS Engineers, *Environmental Assessment, 85 West Winton Avenue Parcel, Hayward, California*, dated 10 June 1988.

SCS Engineers, *Phase II Site Investigation Final Report, 85 West Winton Avenue, Hayward, California*, dated 9 September 1988.

The Environmental Construction Company, *Report of Findings, Underground Storage Tank Removals, Iron Oak Supply, 85 West Winton Street, Hayward, California*, dated October 1990.



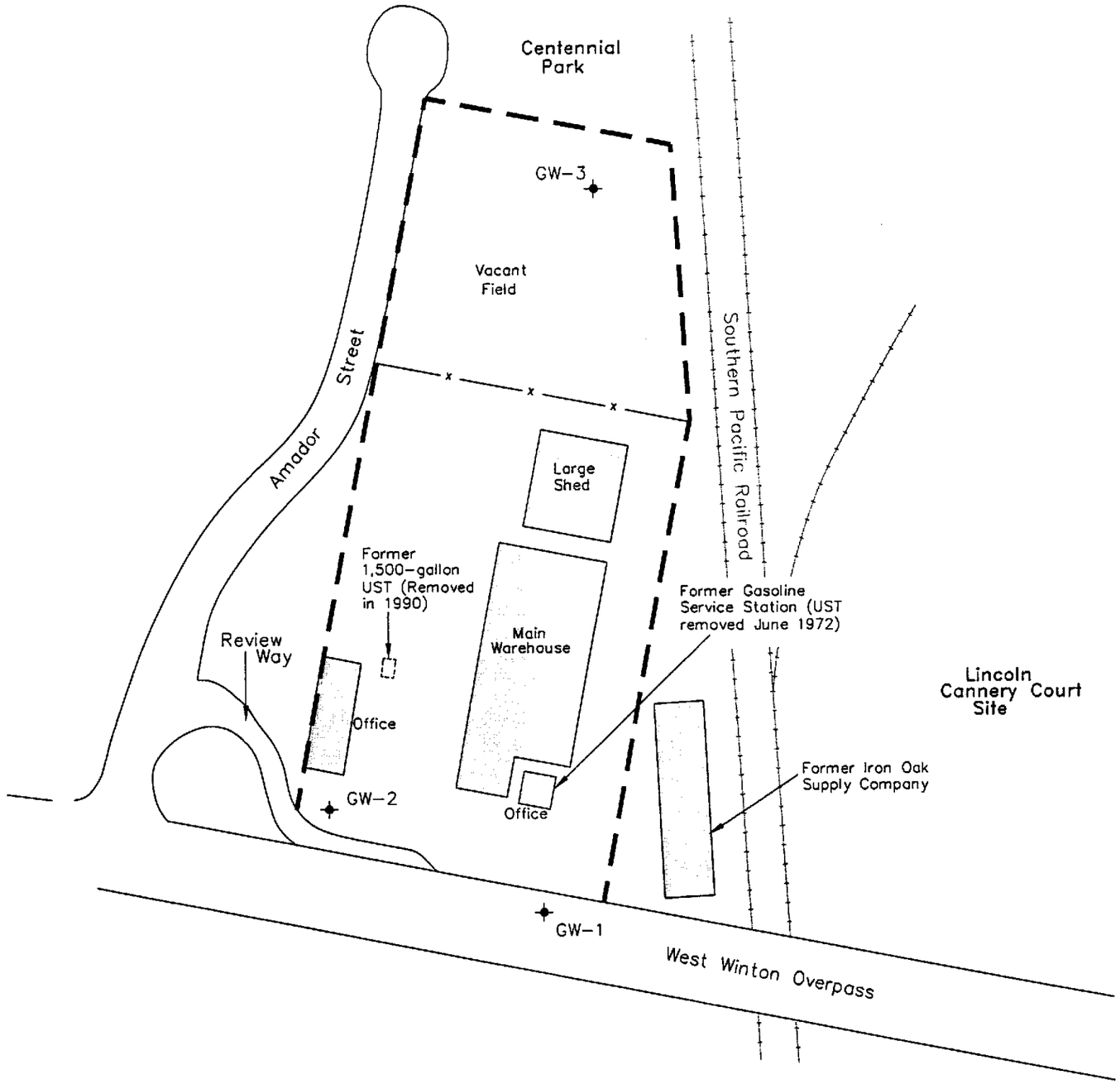
Basemap from Thomas Guide 1997.

Erler & Kalinowski, Inc.

Location of Subject Property

45–49 Review Way
Hayward, CA
May 1997
EKI 970033.00

Figure 1



N

0 150 300

(Approximate Scale in Feet)

LEGEND

Approximate Subject Property Boundary

Groundwater Monitoring Well Location (Installed by SCS Engineers, Sept. 1988)

Notes:

1. All locations are approximate.

Erler & Kalinowski, Inc.

Subject Property Setting

45-89 Review Way
Hayward, CA
May 1997
EKI 970033.00
Figure 2

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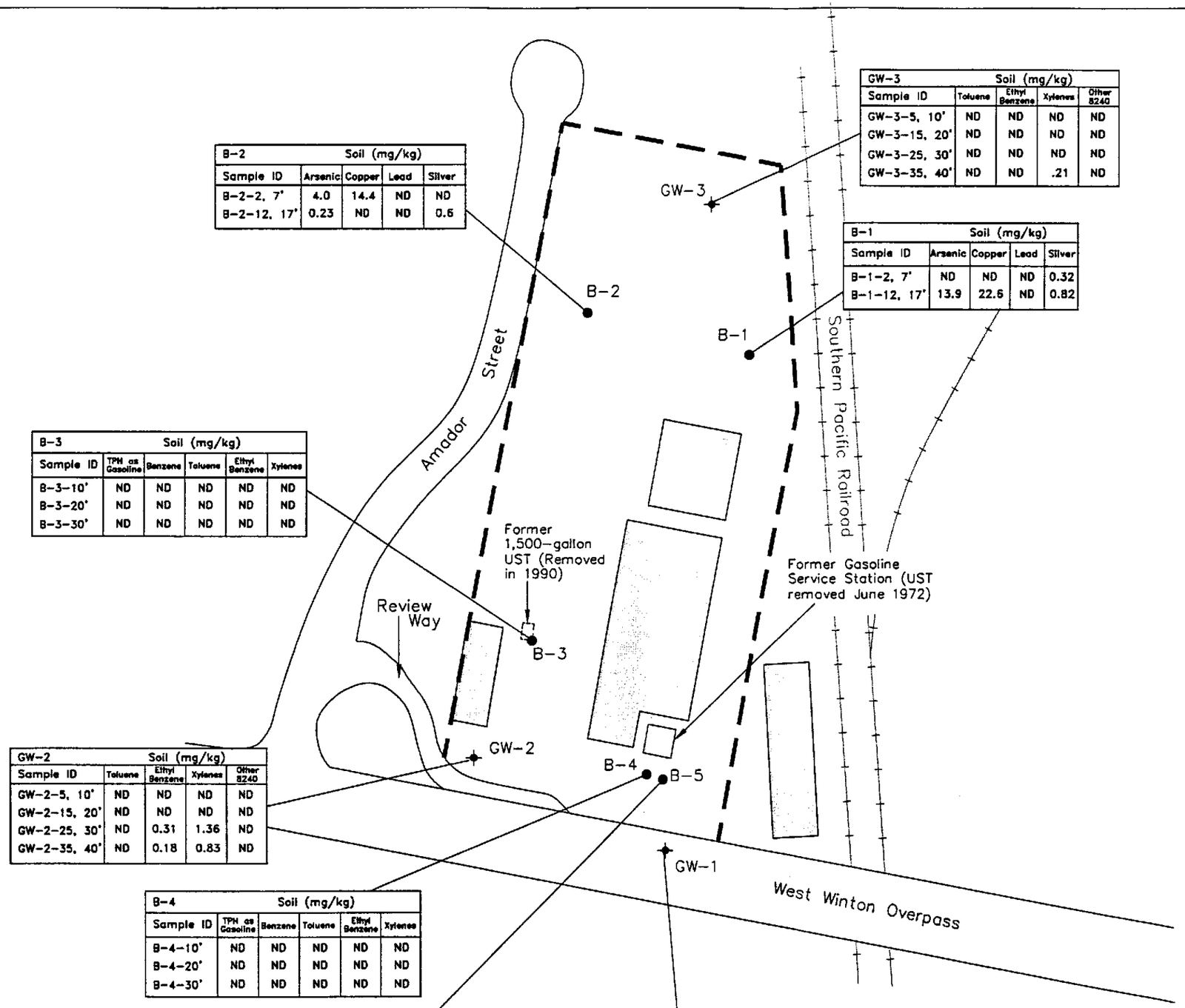

B-2	Soil (mg/kg)			
Sample ID	Arsenic	Copper	Lead	Silver
B-2-2, 7'	4.0	14.4	ND	ND
B-2-12, 17'	0.23	ND	ND	0.6

GW-3	Soil (mg/kg)			
Sample ID	Toluene	Ethyl Benzene	Xylenes	Other 8240
GW-3-5, 10'	ND	ND	ND	ND
GW-3-15, 20'	ND	ND	ND	ND
GW-3-25, 30'	ND	ND	ND	ND
GW-3-35, 40'	ND	ND	.21	ND

B-1	Soil (mg/kg)			
Sample ID	Arsenic	Copper	Lead	Silver
B-1-2, 7'	ND	ND	ND	0.32
B-1-12, 17'	13.9	22.6	ND	0.82

B-3	Soil (mg/kg)				
Sample ID	TPH as Gasoline	Benzene	Toluene	Ethyl Benzene	Xylenes
B-3-10'	ND	ND	ND	ND	ND
B-3-20'	ND	ND	ND	ND	ND
B-3-30'	ND	ND	ND	ND	ND

GW-2	Soil (mg/kg)			
Sample ID	Toluene	Ethyl Benzene	Xylenes	Other 8240
GW-2-5, 10'	ND	ND	ND	ND
GW-2-15, 20'	ND	ND	ND	ND
GW-2-25, 30'	ND	0.31	1.36	ND
GW-2-35, 40'	ND	0.18	0.83	ND

B-4	Soil (mg/kg)				
Sample ID	TPH as Gasoline	Benzene	Toluene	Ethyl Benzene	Xylenes
B-4-10'	ND	ND	ND	ND	ND
B-4-20'	ND	ND	ND	ND	ND
B-4-30'	ND	ND	ND	ND	ND

B-5	Soil (mg/kg)				
Sample ID	TPH as Gasoline	Benzene	Toluene	Ethyl Benzene	Xylenes
B-5-10'	ND	ND	ND	ND	ND
B-5-20'	ND	ND	ND	ND	ND
B-5-30'	ND	ND	ND	ND	ND

GW-1	Soil (mg/kg)								
Sample ID	Toluene	Ethyl Benzene	Xylenes	Other 8240	Xylenes	Arsenic	Copper	Lead	Silver
GW-1-5, 10'	ND	0.122	0.313	ND	ND	0.36	ND	ND	0.6
GW-1-15, 20'	ND	ND	ND	ND	ND	3.1	ND	ND	0.48
GW-1-25'	0.17	0.15	ND	ND	ND	NA	NA	NA	NA
GW-1-35, 40'	ND	ND	ND	ND	ND	NA	NA	NA	NA

N

0 150 300

(Approximate Scale in Feet)

LEGEND

- Approximate Subject Property Boundary
- Groundwater Monitoring Well Location (Installed by SCS Engineers, Sept. 1988)
- Soil Boring Location (Installed by SCS Engineers, Sept. 1988)
- ND — Compound Not Detected
- NA — Not Available
- TPH as Gasoline — EPA Method 8015
- Other 8240 — Other Compounds Using EPA Method 8240

Notes:

1. All locations are approximate.
2. All results in milligrams per kilogram (mg/kg).

Erler & Kalinowski, Inc.

Analytical Results for Soil Samples

45-89 Review Way
Hayward, CA
May 1997
EKI 970033.00
Figure 3

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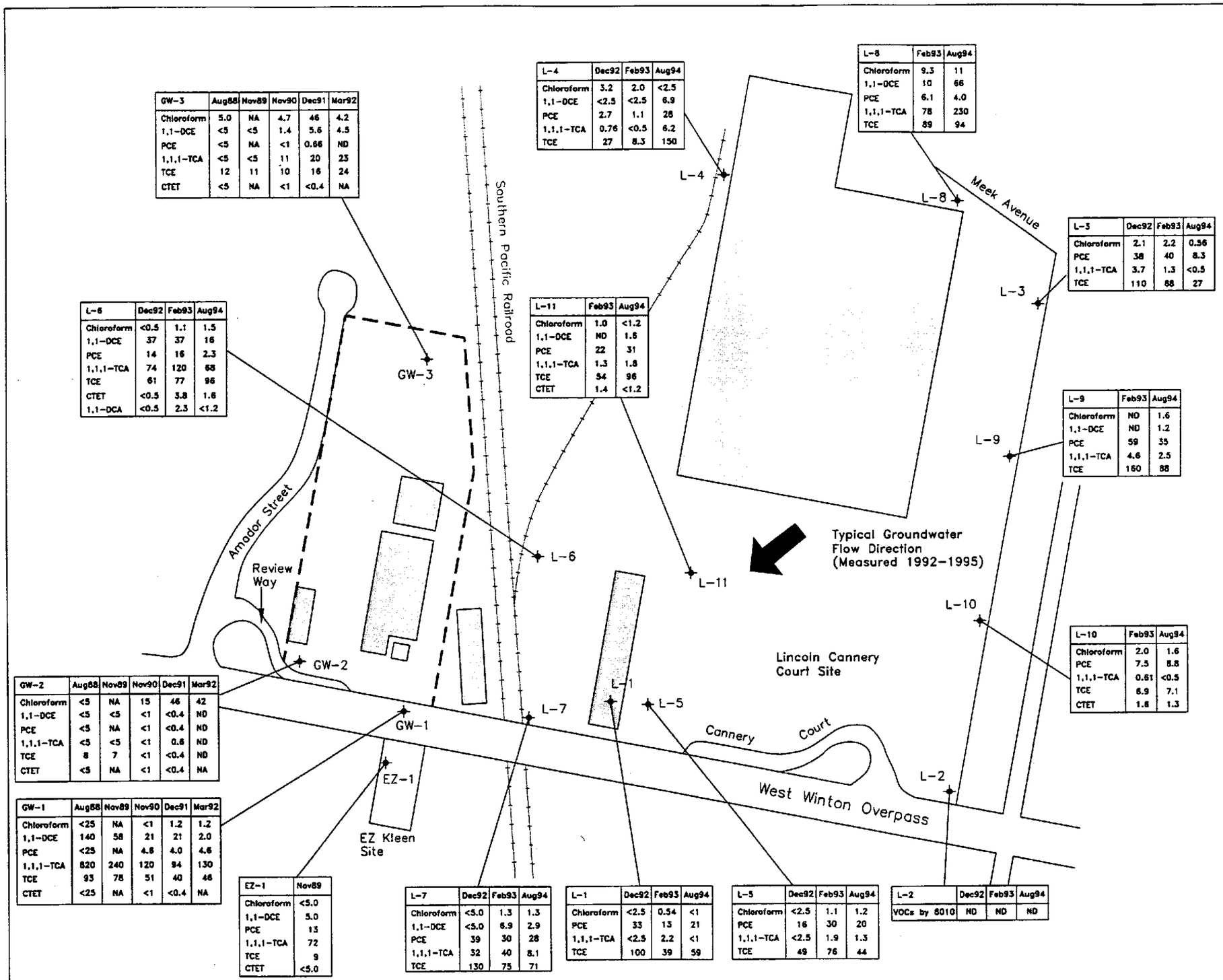


GW-3	Aug88	Nov89	Nov90	Dec91	Mar92
Chloroform	5.0	NA	4.7	46	4.2
1,1-DCE	<5	<5	1.4	5.6	4.5
PCE	<5	NA	<1	0.66	ND
1,1,1-TCA	<5	<5	11	20	23
TCE	12	11	10	16	24
CTET	<5	NA	<1	<0.4	NA

L-6	Dec92	Feb93	Aug94
Chloroform	<0.5	1.1	1.5
1,1-DCE	37	37	16
PCE	14	16	2.3
1,1,1-TCA	74	120	68
TCE	61	77	96
CTET	<0.5	3.8	1.6
1,1-DCA	<0.5	2.3	<1.2

L-4	Dec92	Feb93	Aug94
Chloroform	3.2	2.0	<2.5
1,1-DCE	<2.5	<2.5	6.9
PCE	2.7	1.1	28
1,1,1-TCA	0.76	<0.5	6.2
TCE	27	8.3	150

L-11	Feb93	Aug94
Chloroform	1.0	<1.2
1,1-DCE	ND	1.6
PCE	22	31
1,1,1-TCA	1.3	1.8
TCE	54	96
CTET	1.4	<1.2

L-8	Feb93	Aug94
Chloroform	9.3	11
1,1-DCE	10	66
PCE	6.1	4.0
1,1,1-TCA	78	230
TCE	89	94

L-3	Dec92	Feb93	Aug94
Chloroform	2.1	2.2	0.56
PCE	38	40	8.3
1,1,1-TCA	3.7	1.3	<0.5
TCE	110	88	27

L-9	Feb93	Aug94
Chloroform	ND	1.6
1,1-DCE	ND	1.2
PCE	59	35
1,1,1-TCA	4.6	2.5
TCE	160	88

L-10	Feb93	Aug94
Chloroform	2.0	1.6
PCE	7.5	5.8
1,1,1-TCA	0.61	<0.5
TCE	6.9	7.1
CTET	1.8	1.3

GW-2	Aug88	Nov89	Nov90	Dec91	Mar92
Chloroform	<5	NA	15	46	42
1,1-DCE	<5	<5	<1	<0.4	ND
PCE	<5	NA	<1	<0.4	ND
1,1,1-TCA	<5	<5	<1	0.8	ND
TCE	8	7	<1	<0.4	ND
CTET	<5	NA	<1	<0.4	NA

GW-1	Aug88	Nov89	Nov90	Dec91	Mar92
Chloroform	<25	NA	<1	1.2	1.2
1,1-DCE	140	58	21	21	2.0
PCE	<25	NA	4.8	4.0	4.6
1,1,1-TCA	820	240	120	94	130
TCE	93	78	51	40	46
CTET	<25	NA	<1	<0.4	NA

EZ-1	Nov89
Chloroform	<5.0
1,1-DCE	5.0
PCE	13
1,1,1-TCA	72
TCE	9
CTET	<5.0

L-7	Dec92	Feb93	Aug94
Chloroform	<5.0	1.3	1.3
1,1-DCE	<5.0	6.9	2.9
PCE	39	30	28
1,1,1-TCA	32	40	8.1
TCE	130	75	71

L-1	Dec92	Feb93	Aug94
Chloroform	<2.5	0.54	<1
PCE	33	13	21
1,1,1-TCA	<2.5	2.2	<1
TCE	100	39	59

L-5	Dec92	Feb93	Aug94
Chloroform	<2.5	1.1	1.2
PCE	16	30	20
1,1,1-TCA	<2.5	1.9	1.3
TCE	49	76	44

L-2	Dec92	Feb93	Aug94
VOCs by 8010	ND	ND	ND

N

0 250 500

(Approximate Scale in Feet)

LEGEND

- Approximate Subject Property Boundary
- Monitoring Well Location

GW-1	Monitoring Well ID
Chloroform	Chloroform
1,1-DCE	1,1-Dichloroethene
PCE	Tetrachloroethene
1,1,1-TCA	1,1,1-Trichloroethane
TCE	Trichloroethene
CTET	Carbon Tetrachloride
1,1-DCA	1,1-Dichloroethane
<5	Compound Not Detected At Or Above Indicated Detection Limit
ND	Compound Not Detected
NA	Not Available

Notes:

1. All locations are approximate.
2. All results in micrograms per liter (ug/L).

Erler & Kalinowski, Inc.

Summary of Groundwater Data for Halogenated VOCs

45-89 Review Way
Hayward, CA
May 1997
EKI 970033.00
Figure 4

97 Apr 29 10:30:18 C:\acadr13\WORKING\970033.00\MAY97\fig-04

APPENDIX A

Copy of SCS Engineers, *Environmental Assessment, 85 West Winton Avenue Parcel, Hayward, California*, dated 10 June 1988

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.

6761 Sierra Court
Suite D
Dublin, CA
94568-2611
(415) 829-0661

June 10, 1988
File No. 38809.00

Mr. Vince Mulroy
Spieker Partners
2180 San Hill Road, Suite 200
Menlo Park, CA 94025

Subject: Environmental Assessment
85 West Winton Avenue Parcel
Hayward, California

Dear Mr. Mulroy:

SCS Engineers is pleased to present a site assessment on 85 West Winton Avenue and the property adjacent to the north in Hayward, California.

The attached Draft Report contains the following element:

Introduction
On-Site Review
Present Use of Site and Surrounding Land
Off-Site Inspection
Past Use of the Site and Surrounding Land
Summary and Recommendations

The general area around the 85 West Winton Avenue parcel has evidence of groundwater contamination. There are no records of sample analyses from the 85 West Winton Avenue site, so it is unknown if contamination is located on or beneath the site itself. Some concerns exists with regard to the building at 85 West Winton Avenue. The building was constructed at a time when asbestos and Polychlorinated Biphenyls (PCBs) were commonly used. Recommendations for further site characterization are contained in this report.

It is a pleasure to provide Spieker Partners with environmental services. If you have any questions, please contact either of the undersigned at (415) 829-0661.

Sincerely,

John P. Cummings
Project Manager
SCS Engineers

Dean A. Richesin, C.E.G. #1055
Office Director
SCS Engineers

JPC/DAR/kma
Enclosure

INTRODUCTION

On May 13, 1988, Mr. Vince Mulroy, Spieker Partners of Menlo Park, California requested SCS Engineers to perform a site assessment of 85 West Winton Avenue, Hayward, California. This site is presently being used as a plumbing supply warehouse and storage area. The nearest cross street is Amador Street. The surrounding area is used for industrial, commercial warehousing and office building as well as the adjacent two acre undeveloped lot behind the building.

An off-site investigation, consisting of a data review from state, local and federal agencies has been conducted in order to establish an environmental baseline of the sites and the surrounding area.

On May 26, 1988, a site reconnaissance was conducted by John P. Cummings of SCS Engineers. Mr. Bob Flory, the AMFAC Manager, accompanied SCS. This reconnaissance consisted of a walk through survey inside and outside the buildings at 85 West Winton Avenue and the vacant property on the rear adjacent to the site. Physical characteristics of the sites and general area were observed and noted. A soil or subsurface investigation specifically for contaminants was not conducted by SCS.

ON-SITE RECONNAISSANCE

An on-site inspection of the 85 West Winton properties was conducted on May 26, 1988 by John P. Cummings of SCS Engineers. Mr. Bob Flory, Manager of the AMFAC Plumbing Supply Warehouse, accompanied SCS personnel. No samples were taken for analysis nor was a soil or subsurface investigation conducted.

Plate 1 presents a diagram of the lot. The site is characterized by a three story warehouse with a supply shed in the right rear or north east corner, an office building in front south, and another office building to the western side of the site with a paved storage area, chain link fence and two gates. The property to the rear is over grown with tall vegetation.

The main three story structure is steel beamed with redwood support, joices and cross structure. The roof is corrugated metal covered with what appears to be an old asbestos coating. The material is friable, i.e., rubs off to the finger touch. The office floor is vinyl asbestos tile (VAT), and with what appears to be acoustical asbestos tile ceiling cover. No samples were taken. Several of the bins are stained with a white residue.

On the west side of the left fenced gate is a gas pump and a drum of motor oil. The area has localized discoloration, probably caused by the spilled motor oil. The gasoline tank (underground) is suspected by site personnel to be leaking. It has not been tested nor is it registered with the Hayward Fire Department.

The north side, to the rear of the main structures north east corner a corrugated metal building for storage is located. To its eastern side and on the north east corner of 85 West Winton motor oil has been stored and spillage has occurred on the rail spur line. There are two 55 gallon drums which are marked as motor oil, two vehicle batteries and a five gallon drum marked heater transfer fluid are siting on pallets. Two receptacles for trash are also located in the same area.

On the east side of the site there is a storage area with a cement truck loading ramp. There is some litter in the area.

Inside the main building, the piping for the thermal systems is covered with some insulating material, suspected to be asbestos.

As mentioned, the rear two acre plot has very high growth of vegetation compared with the surrounding undeveloped property. There is some domestic litter or garbage on this parcel as well. The unusual growth is suspected to be caused by fertilizer residue from the fertilizer-related activity for 50 plus years. It is also possible that pesticides were manufactured or formulated on the site.

The small office building in front of 85 West Winton known as 53 West Winton, has vinyl asbestos tile and ceiling tile which may have asbestos as a component. The entire parking lot is covered with asphalt and there is some oil spotting caused by parked automobiles in front of the 85 West Winton building.

PRESENT USE OF SITE AND SURROUNDING LAND

The building at 85 West Winton is currently used as a plumbing supply warehouse by AMFAC Corp. The west and north sides hardened surface inside the fence has pipe, casing, bath tub and shower stall storage. The site plan is found on Plate 1.

On the southwest side of the property is an office building and on the southeast (front) is another office building. The area outside the fence on the west and south is paved with asphalt. In the rear-northeast part of the site there is a metal warehouse structure which measures 75 feet x 80 feet.

On the east side is an unpaved storage lot with a rail spur which runs to the Southern Pacific right-of-way. In the middle of this storage area is a truck loading cement ramp.

The storage yards at 85 West Winton are fenced with cyclone fence and gates.

The lot behind, to the north, is vacant with scrub or native vegetation.

OFF-SITE REVIEW

A. Remediation Programs

The following firm is within approximately a one-mile radius of 85 West Winton and has already or will be implementing remediation programs:

Jackson Street Lumber Co. 73 West Jackson, Hayward, CA

At the time of this report, there are no known sites within approximately one mile of the 85 West Winton Ave. site that are on the Federal or State Superfund lists.

B. Landfills

To the best of our knowledge, there are no known active or inactive landfill sites within approximately a one mile radius of the 85 West Winton Avenue site..

C. Treatment, Storage and Disposal Facilities

The Alpha Waste Management Transfer Station at 15 Winton Avenue is the only known treatment, storage and disposal facility within approximately one mile radius of the 85 West Winton Avenue site. It is an active but unpermitted transfer station receiving construction, demolition, industrial process and mixed municipal Wastes. No closure date has been set for this facility.

D. Hazardous Substances Site

The following firms are within an approximate one mile radius of the 85 West Winton site and are known to handle or generate hazardous substances:
Beacon Service Station, 100 Orchard Avenue, Hayward, CA
Furnishings 2000, 24 Cannery Court, Hayward, CA
EZ Clean, 54 Moran Court, Hayward, CA
Daily Review, 116 West Winton Avenue, Hayward, CA
Pacific Bell, 221 West Winton Avenue, Hayward, CA
AT & T, 100 Orchard Avenue, Hayward, CA
Hutch's Car Wash, 1367 A Street, Hayward, CA
Shell, 138 Jackson, Hayward, CA
Regal Gas Station #412, 193 Winton Avenue, Hayward, CA
Thrifty Oil Company, 207 A Street, Hayward, CA
Mobil Service Station, 210 W. Jackson St., Hayward, CA
Sunset High School, 22100 Princeton, Hayward, CA
Diamond Bathurst, 22302 Hathway Avenue, Hayward, CA
McCullough Chevrolet, 22645 Watkins Street, Hayward, CA
Herringer Property, 22701 Watkins Avenue, Hayward, CA
Fujiis Plant Outlet, 24949 Soto Road, Hayward, CA
Red Top Electric, 24967 Huntwood, Hayward, CA
Miller's Aluminum, 25362 Cypress Avenue, Hayward, CA
Beacon Station, 329 West Harder Road, Hayward, CA

Mobil, 404 West Harder Road, Hayward, CA
Sears Automotive Center, 660 West Winton, Hayward, CA
Citgo, 660 Winston, Hayward, CA
Holland Oil, 789 Fletcher Lane, Hayward, CA
Stonetree Townhomes, 811 D Street, Hayward, CA

E. Fuel Investigations

The following firms which are located within approximately a one mile radius of the 85 West Winton site have had reported fuel releases:

AT & T, 100 Orchard, Hayward, CA
Beacon, 392 West Harder Road, Hayward, CA
Cassaro Property, 593 West Harder, Hayward, CA
Citgo, 660 Winton, Hayward, CA
Farren Property, 944 West Winton, Hayward, CA
Hayward Unified School, 24400 Amado, Hayward, CA
Mobile, 404 West Harder Road, Hayward, CA
Mobile, 525 West A Street, Hayward, CA
Regal Gas #412, 193 Winton, Hayward, CA
S & J Retail, 352 A Street, Hayward, CA
Sears Automotive Center, 660 West Winton, Hayward, CA
Shell, 138 Jackson, Hayward, CA
Thrifty, 207 A Street, Hayward, CA
Walker's Concrete, 1844 West Winton, Hayward, CA
Wilmac Metals, 529 C Street, Hayward, CA

F. Soil and Groundwater Quality

According to the Alameda County Public Works Department, there is no specific information on possible contamination in the area of 85 West Winton Avenue.

The City of Hayward Fire Department, which generally handles underground tank activities, has four reports on file regarding soil and or groundwater monitoring near the 85 West Winton site.

Furnishings 2000 at 25 Cannery, has under agreement with the Hayward Fire Department one 50 foot groundwater well and three 10 foot Vadose zone wells. Two 10,000 gallon diesel and one 1,000 gallon gasoline tank are on the site. Samples examined had a petroleum odor in the groundwater. Four soil samples were taken with the result being that Total Extractable Hydrocarbons ranged from non-detectable to 1100 ppm and the water sample had 12 ppm Total Volatile Hydrocarbons. Continued monitoring is required.

EZ Clean, directly across from 85 West Winton, at 54 Moran Court is a parts cleaning operation which is surrounded by a cyclone fence and has bilingual (English and Spanish) warning signs that toxic materials are used on-site which are hazardous to humans. There are two petroleum naphtha tanks underground monitored by 4 probes which are read 3 times each day. The alarm operates when

the level comes to 500 ppm. The data collected is stored for reporting at six month intervals.

Also EZ clean has several drums for solvent storage above ground. The remediation plan requires a containment dam around the solvent storage area and a Genelco 17-101A Soil Sentry to detect leaks inside the dam. The preventative remediation work is not complete as of this date.

The Daily Review at 116 West Winton has had leaking diesel and gasoline tanks removed in 1986. The soil was contaminated and removed. There are Azonic monitors in both excavations. These are recorded on a daily basis. The site also has ink and miscellaneous solvents on site. No known spills have been reported, but the soil in the immediate area reportedly has some contamination.

Pacific Bell at 221 West Winton tested the filling openings at the gasoline tank and diesel tank. The gasoline tank has a monitoring well, sheen tests are performed monthly and a laboratory analysis taken every six months. Soil was removed at the fill opening points after testing 500 ppm and 300 ppm. The material was transported to a Class I landfill.

Four old tanks have been removed with samples taken from beneath all four with analysis of 2.7, 410, 1800 and 500 ppm.

Kaiser Engineers completed the Hazardous Waste Management Plan for Pacific Bell and placed a Leak Alert System at the site.

To the best of our knowledge, no soil or groundwater samples have been acquired or analyzed from the 85 West Winton Avenue site.

G. Air Quality

As of the date of this report, no chronic air pollution releases or outstanding complaints have been noted by the Bay Area Air Quality Management District (BAAQMD) in the general vicinity of the 85 West Winton Avenue site.

H. References

Due to the time constraints of this project, limited use of the following sources was made:

1. Records search at the Regional Water Quality Board, Oakland
2. Records search at City of Hayward Fire Department
3. Telecom - Latrice Golden, Hayward Fire Department
4. Telecom - Kevin Hickenbottom, Alameda County Public Works

5. Telecom - Janet Rosati, CA Dept. of Health Services

6. Telecom - Bob Kard, BAAQMD

7. CERCLIS

8. Solid Waste Information System

9. Cortese List

10. AEGIS List

11. National Priorities List

12. California Expenditure Bond Plan Sites

Information was also sought from the Alameda County Department of Health, but could not be retrieved in time for the writing of this report.

PAST USES OF THE SITE AND SURROUNDING LAND

Aerial photographs from Pacific Aerial Services in Oakland were studied to help determine past use of the sites and surrounding land. Photos were available for various years from 1947 through 1988.

In 1947, the site area was a single building with a paved area to the west side of the main building. The entire roof had the same color and grass was on the front side (Winton Avenue). The remaining area was open field.

The 1954 and 1957 photographs show a general increase in industrialization around the site. No major site changes are apparent.

By 1959, a rail line extends from the main building to several sheds in what is now the vacant land to the rear. The fertilizer was made in the shed structure and subsequently stored in the 85 West Winton building.

By 1968, the building (sheds) to the rear, fertilizer mixing and manufacturing were removed. Some pipe is in the main yard. The 6,000 square foot metal building to the north east was completed and two buildings were placed in front. The front was hard topped.

By 1973, the building directly in front was removed, the roof was dark in the front and rear with the middle area being lighter in color. Industrialization in the area has increased.

By 1975, the overpass, West Winton, was complete no noticeable changes on the site.

By 1983, large amounts of pipe and other material are stored outside the main building.

The 1988 photograph shows more inventory in the yard and large over-growth on the field behind the warehouse otherwise.
In conversation with Mr. Bob Flory of AMFAC the site has been a plumbing supply warehouse for about 30 years. First by Moran Plumbing Supply which was bought out about 10 years ago by AMFAC. Prior to about 1958-59 the site with the back lot was a fertilizer manufacturing warehousing operation. Ammonium sulfate and potash were stored in redwood bins. A special rail track runs into the building from the rear.

Contact with the Hayward Fire Department shows no files on 85 West Winton. The Hazardous Materials Section was not yet completely geared up in the mid-80's. The main concern of the Department at that time was fire safety and prevention.

An AMFAC Environmental Attorney made a visual inspection of the working area earlier this year.

SUMMARY AND RECOMMENDATIONS

The records search from local, state and federal agencies indicate at least chlorinated hydrocarbon and petroleum products contamination in the soil and groundwater in the general vicinity. There are no records of soil or water samples from the 85 West Winton Avenue site.

It is not known for sure what chemicals were used at 85 West Winton Avenue. Although there is no record of a chemical release from the facility when occupied by fertilizer manufacturing, the site may be held suspect if chemicals used on-site are the same as the contaminants found in the soil and groundwater of the area.

Because groundwater gradients tend to vary widely in the area, and the source and extent of the contamination is not known, it may be desirable to perform a characterization of the soil and groundwater on these sites in order to establish baseline data.

The building was constructed during a time in which asbestos and polychlorinated biphenyls (PCB's) could have been used.

PCB's were commonly used in the ballast of fluorescent lighting. If the ballast leaked and PCB's were present in sufficient quantity, an environmental incident could have occurred.

The use of asbestos falls under the Clean Air Act and The

National Emissions Standards for Hazardous Air Pollutants (NAESHAP). In 1973, the use of sprayed on asbestos was banned. In 1978, the use of sprayed on asbestos insulation products was banned. In the State of California, the use of floor tile, non friable roofing and "transcite" are excluded from the asbestos ban. In many structures, asbestos has been found in the sheet rock finishing and the texture taping. These materials do fall under the 1978 ban.

The actual presence of asbestos can only be detected by microscope. There is reason to believe that asbestos products were used in the construction of this building, the possibility is present in all structures constructed prior to the mid 1970's.

The following activities are recommended as a result of this survey:

1. Construct an on-site sampling program of suspected asbestos contaminated materials and analyze samples to determine if asbestos was used in the construction of the facility.

2. Conduct a PCB Survey of the ballast in the fluorescent lighting.

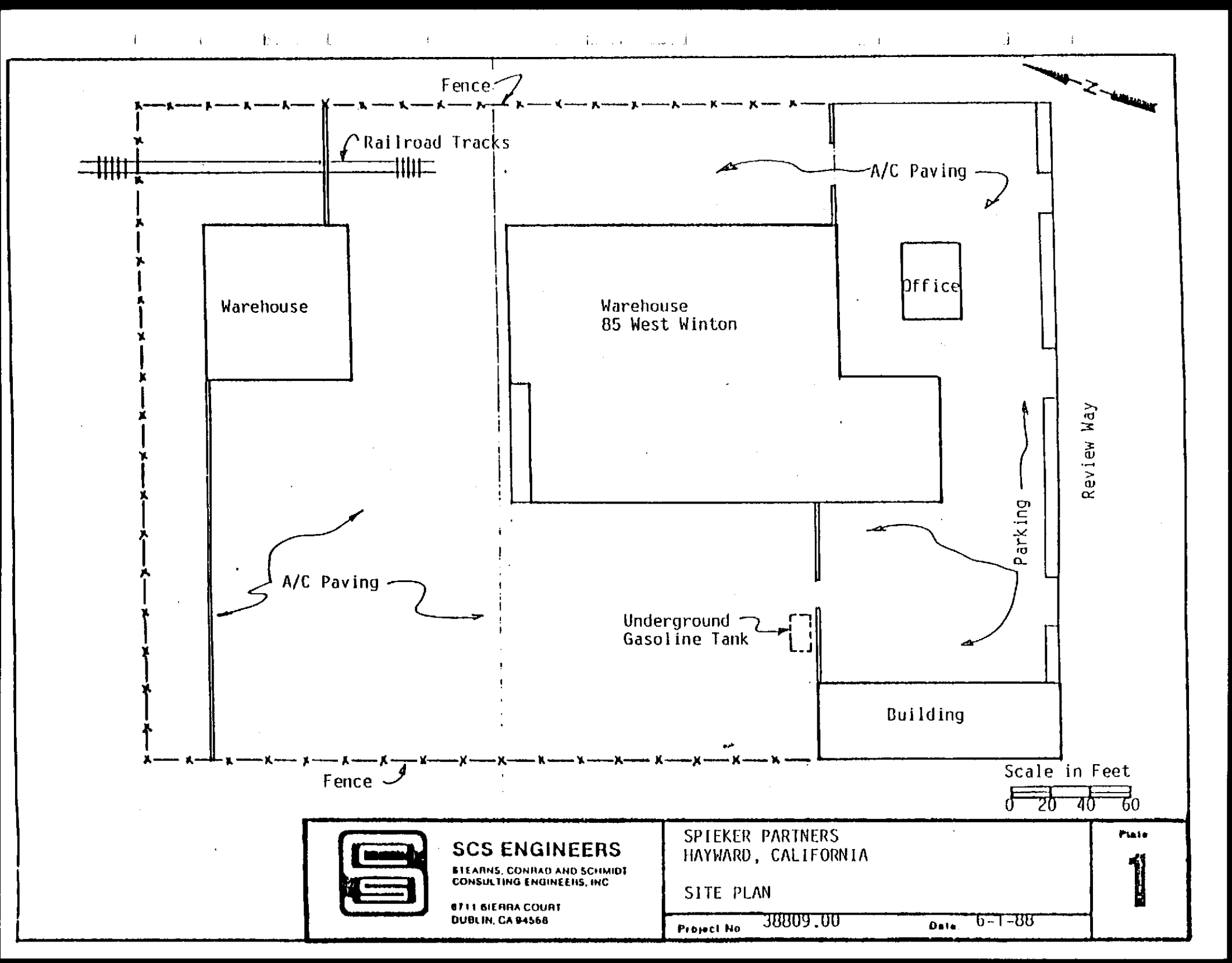
3. Conduct a full system tank test of the gasoline tank on-site.

4. Take soil samples by drilling test-borings to determine the extent of leaking if tank or piping fails the precision test.

5. Suspected subsurface and possible groundwater contamination caused by known contaminated properties across the street can be confirmed by drilling and analyzing soil samples on the south side of the 85 West Winton site.

6. Sample of soils on the back two acres to determine by chemical analysis, if soil was contaminated by pesticides or fertilizer chemicals when manufacturing processes were performed.

Plate 2 presents proposed locations of proposed test borings, sampling locations and testing sites.



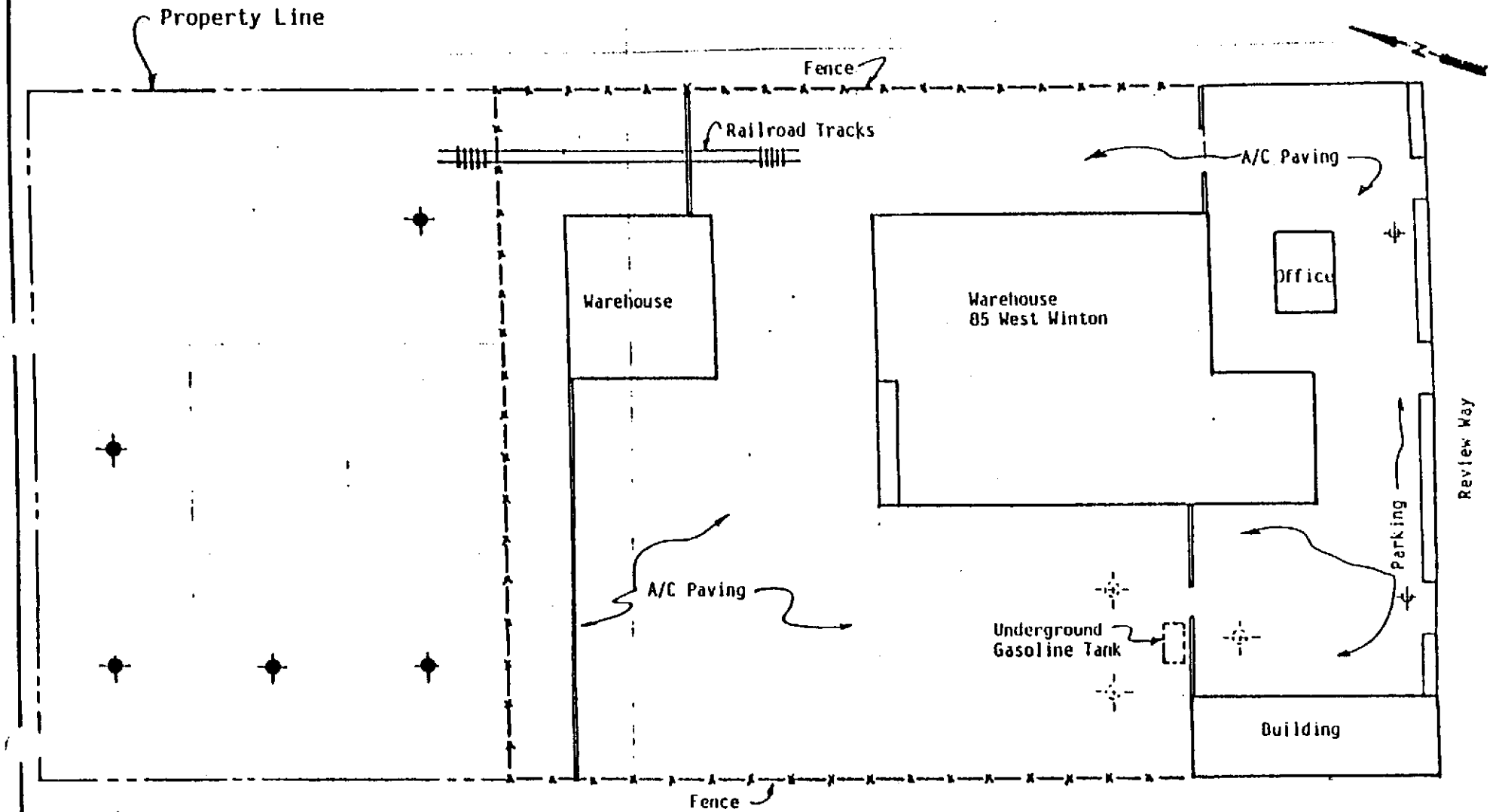
SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC
6711 SIERRA COURT
DUBLIN, CA 94568

SPIEKER PARTNERS
HAYWARD, CALIFORNIA

SITE PLAN

Project No 3880S.00 Date 6-1-88

Plate 1



SCS ENGINEERS
A STEARNS CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC
8711 SIERRA COURT
DUBLIN, CA 94568

SPIEKER PARTNERS
HAYWARD, CALIFORNIA

SITE PLAN - Well Location

Project No 38809.00 Date 6-1-88

Plate 2

APPENDIX B

Copy of Groundwater Technology, Inc., *Historical Land-Use Study and Environmental Survey, Summerhill Development Company Property, 85 West Winton Avenue, Hayward, California*, dated 10 May 1990

HISTORICAL LAND-USE STUDY
AND ENVIRONMENTAL SURVEY
SUMMERHILL DEVELOPMENT COMPANY PROPERTY
85 WEST WINTON AVENUE
HAYWARD, CALIFORNIA
MAY 10, 1990

GROUNDWATER TECHNOLOGY, INC.
CONCORD, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.
4080-D Pike Lane, Concord, CA 94520
(415) 671-2387

HISTORICAL LAND-USE STUDY
AND ENVIRONMENTAL SURVEY
SUMMERHILL DEVELOPMENT COMPANY PROPERTY
85 WEST WINTON AVENUE
HAYWARD, CALIFORNIA
MAY 10, 1990

Prepared for:

Ms. Darcy Boris
Summerhill Development Company
777 California Avenue
Palo Alto, CA 94304

Prepared by:

GROUNDWATER TECHNOLOGY, INC.
4080 Pike Lane, Suite D
Concord, California 94520

Joseph R. Ramage
Project Geologist

Allen B. Storm
Registered Geologist
No. 4394

REGISTERED GEOLOGIST
ALLEN B. STORM
No. 4394
Exp. 1-31-91
STATE OF CALIFORNIA

R1026A2.JR

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APPENDIX

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DISCLAIMER

The author of this report, GROUNDWATER TECHNOLOGY, INC. ("GTI") of Concord, County of Contra Costa, State of California, hereby gives notice that any statement or opinion contained in this Report prepared by GTI shall not be construed to create any warranty or representation that the real property on which the investigation was conducted is free of pollution or complies with any or all applicable regulatory or statutory requirements; or that the property is fit for any particular purpose. Unless otherwise indicated in this report, no attempt was made to check on the compliance of present or past owners of the site with federal, state, or local laws and regulations. The conclusions presented in this Report were based upon the services described, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by client. Any person or entity considering the use, acquisition or other involvement or activity concerning the property shall be solely responsible for determining the adequacy of the property for any and all uses for which that person or entity shall use the property. Any person or entity considering the use, acquisition or other involvement or activity concerning the property which is the subject of this Report should enter into any use, occupation, acquisition or the like on sole reliance of its own judgement and on its own personal investigation of such property, and not in reliance upon any representation by GTI regarding such property, the character, quality or value thereof. GTI has performed this preliminary assessment in a professional manner using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. GTI shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld or not fully disclosed at the time the evaluation was performed.

This report is based upon a review of documented previous site usage, interviews with public officials knowledgeable about the site area, a review of available subsurface information, and supplemented by visual observations regarding the existing surface environmental conditions. The results of this evaluation are summarized in the sections which follow.

HISTORICAL LAND-USE STUDY
AND ENVIRONMENTAL SURVEY
SUMMERHILL DEVELOPMENT COMPANY PROPERTY
85 WEST WINTON AVENUE
HAYWARD, CALIFORNIA
MAY 10, 1990

INTRODUCTION

This report presents the results of the Historical Land-Use Study and Environmental Survey performed by Groundwater Technology, Inc. for the Summerhill Development Company property located at 85 West Winton Avenue in Hayward, California. This work was authorized by Ms. Darcy Boris of the Summerhill Development Company. Previous work has been performed at this site by SCS Engineers. Their findings are presented in an Environmental Assessment Report dated June 10, 1988 and a Phase II Site Investigation Report dated September 9, 1988.

The following work steps were performed to gather data for the historical land-use study portion of this report. A site visit was made to assess the conditions of the site and to identify the existing buildings. The past uses of the site and site vicinity were researched using aerial photographs and personal communications with site employees and regulators. The hydrogeology and aquifer usage section was prepared through personal correspondence with the Alameda County Flood Control and Water Conservation District and the use of their Report 2,05 (J). Information for the environmental survey portion of this report was obtained by monitoring and sampling the available on-site and off-site wells, researching environmental records, making inquiries to regulatory agencies, and by investigating the site vicinity.

HISTORICAL LAND-USE STUDY

SITE INVESTIGATION

The subject site is situated in the central portion of Hayward, on West Winton Avenue, approximately one-half-mile east of the Nimitz Freeway (Figure 1). The Southern Pacific Railroad line borders the site to the east. The area surrounding the site is used for a variety of purposes including industrial, residential, and commercial. Figure 2 presents a map of the site and surrounding properties within a one-quarter-mile radius.

The original structure was built on the site around 1940 to test and manufacture fertilizers. The only other structures existing within a quarter-mile radius at that time were the United Can Facilities on the eastern side of the railroad line. Much of the remaining property in the area was used for cherry orchards. Since 1940, United Can has divested much of their property including the buildings now housing the Furnishings 2000 facility and Nevel's Truck Repair (Figure 2).

Additional structures have been added to the site property since the 1940s. Approximately 25 years ago, the site was converted to a plumbing supply distributor. Recently, the Iron-Oak Plumbing Supply Company has occupied the property. At the present time, the property is used for the distribution of plumbing supplies.

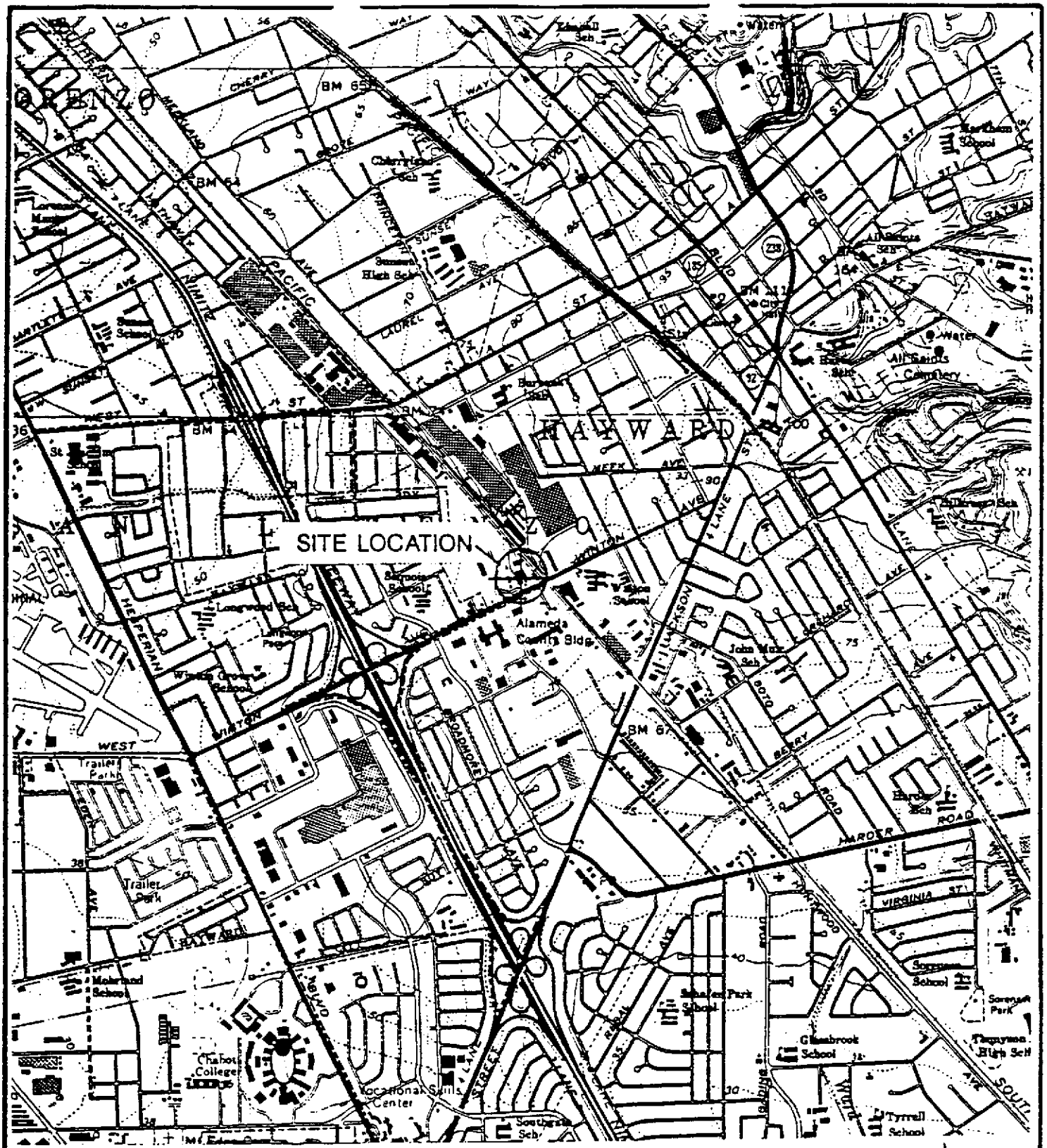


FIGURE 1. SITE LOCATION MAP

SUMMERHILL DEVELOPMENT
HAYWARD, CALIFORNIA

ML 1/90

GROUNDWATER TECHNOLOGY, INC.

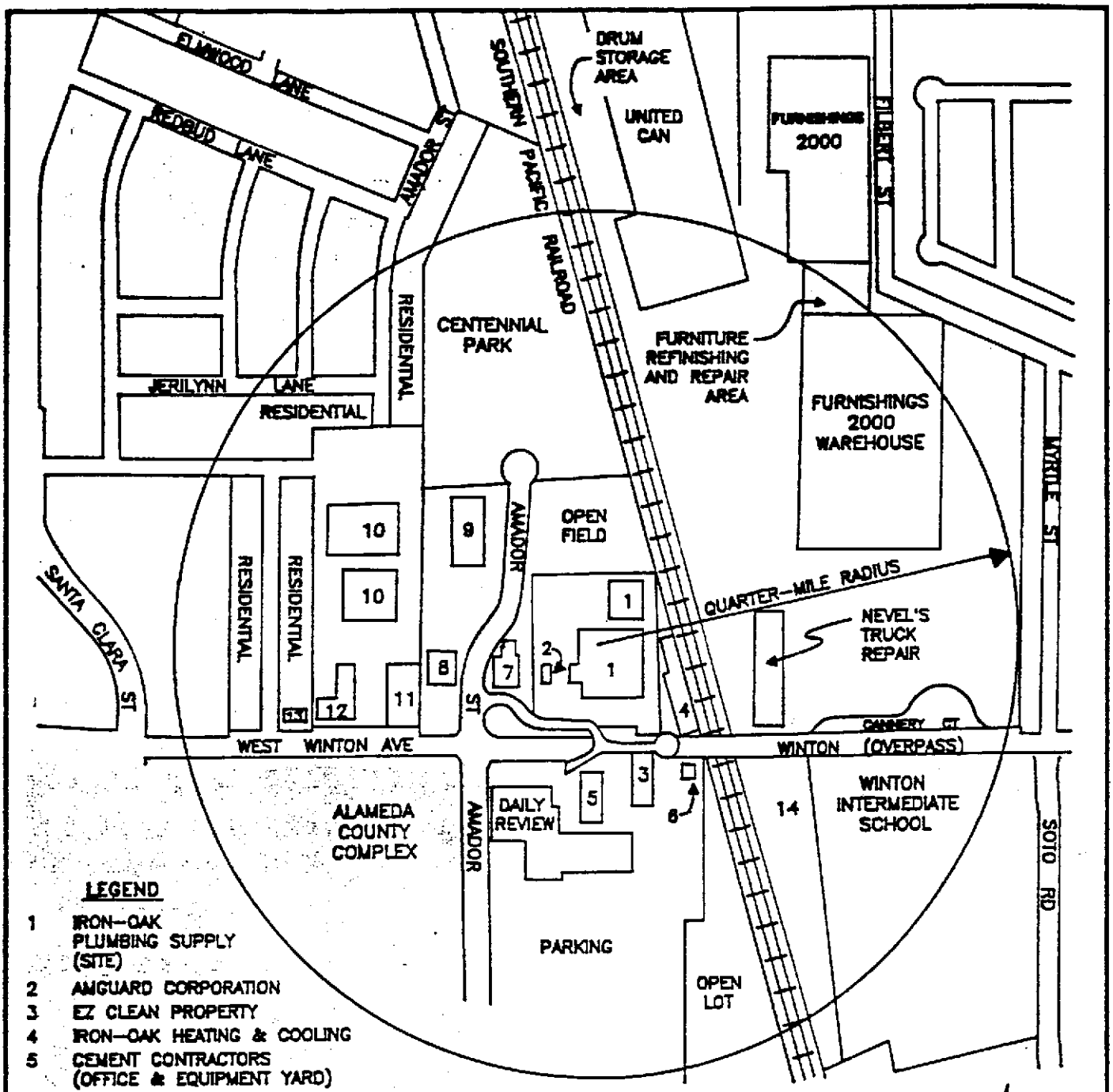


FIGURE 2. SITE VICINITY MAP

SUMMERHILL DEVELOPEMENT
HAYWARD, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

An on-site visual inspection was conducted on January 3, 1990 by Mr. Joseph Ramage of Groundwater Technology. Mr. James Beatty, an employee at the site for the past seventeen years, joined the walk through. The purpose of the walk through was to characterize the structures on site and inspect for hazardous materials which may have impacted the soil and groundwater.

Four buildings were identified on the property (Figure 3). The Iron-Oak Plumbing Supply facility consists of a large three-story main warehouse in the center of the site, a smaller secondary warehouse in the northeast corner of the site and an office at the south side of the main warehouse. The fourth building on site is the Amguard Corporation office located in the southwest corner of the site. The site also includes a large open field to the north. This area was used in the past for fertilizer mixing and pesticide testing. At the present time, the area is undeveloped and is covered with native vegetation. To the east of the site is the Iron-Oak Heating and Cooling Supply warehouse, separated from the plumbing supply facility by a chain-link fence.

Potential sources of hazardous materials impacting the soil and groundwater exist on site. The on-site investigation identified a 2,000-gallon, underground gasoline-storage tank, a gasoline pump and a 55-gallon, above ground drum of motor oil located at an equipment refueling station west of the main warehouse. The pavement in the vicinity of the refueling station is noticeably discolored from spillage of the motor oil. A white powder was observed throughout the main warehouse structure. This material was sampled by SCS Engineers in August 1988, and

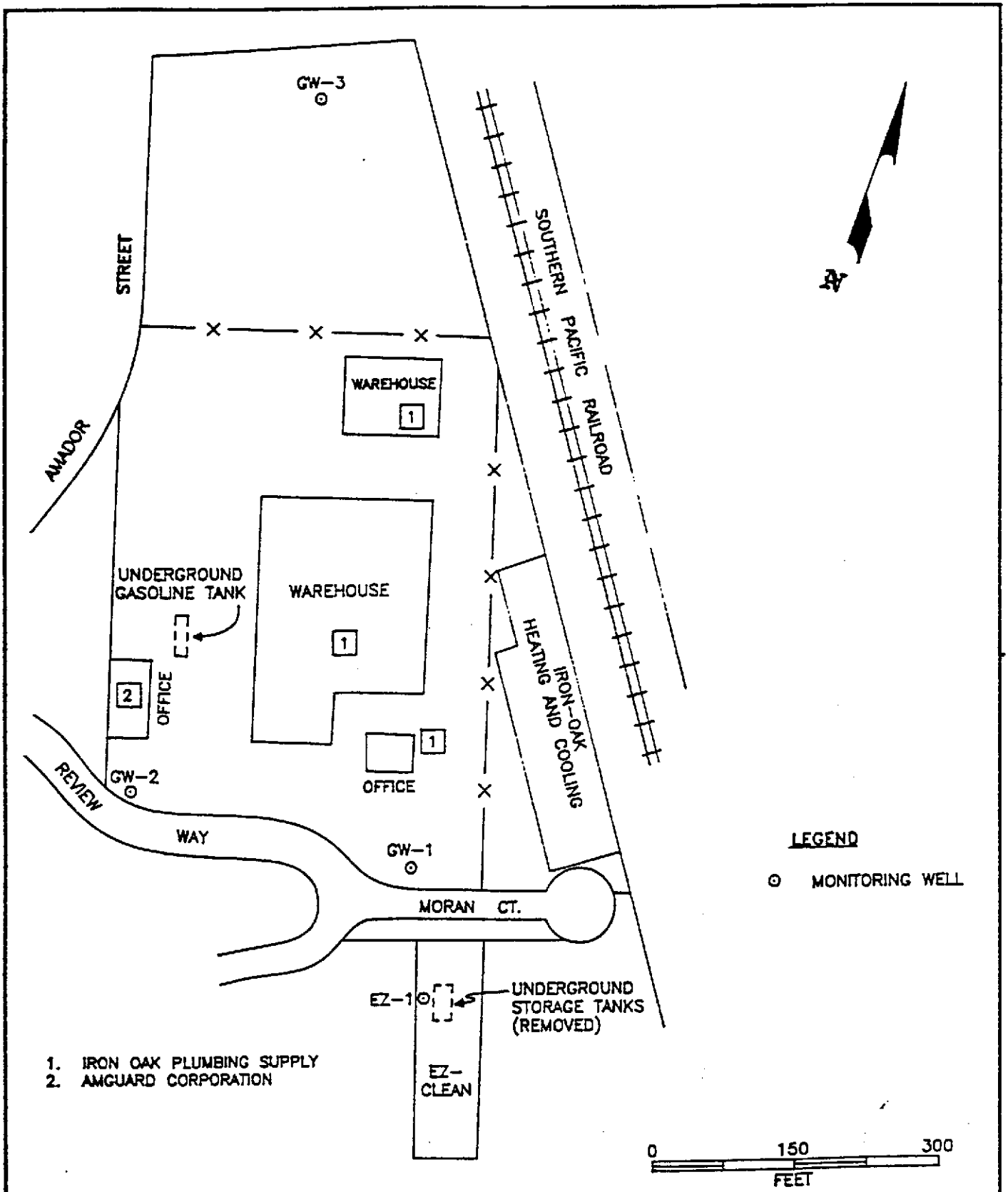


FIGURE 3. SITE PLAN

SUMMERHILL DEVELOPEMENT
HAYWARD, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

The laboratory analyses presented by SCS Engineers in their Phase II Environmental Assessment Report dated September 9, 1988 indicate that the material is Ammonium Sulfate and Potassium Sulfate remaining from the former fertilizer operation.

PAST USES OF SITE AND SITE VICINITY

To research the development and past activities of the site and surrounding properties, aerial photographs were reviewed at Pacific Aerial Surveys in Oakland, California. Photos were available for various years between 1935 and March 1988. The March 1988 photograph is included as Figure 4.

In 1935, the site and surrounding area consisted of cherry orchards, cucumber farms and open space on the flat terrain southwest of Walpert Ridge in the San Leandro Hills. Emanating from the San Leandro Hills to the northeast, San Lorenzo Creek can be seen meandering to within approximately two miles of the site. The only structure in the site vicinity which existed at this time was the United Can building northwest of the site. It was the southernmost building of a large United Can complex which extended along the Southern Pacific Railroad line to the northwest.

In 1947, the site consisted of one building and a railroad spur entering the property from the north. In this photograph, a building was located on the property, southeast of the site, which later burned to the ground in 1988. This building was reportedly used for the pickling of cucumbers and later as a paper recycling center.

FIGURE 4
AERIAL PHOTOGRAPH OF SITE AREA
(TAKEN 3/30/88)

N

NO SCALE

SUMMERHILL DEVELOPMENT
HAYWARD, CALIFORNIA

ML 1 90

GROUNDWATER
TECHNOLOGY, INC.

In the 1954 photograph, the northern half of the Furnishings 2000 building and tank tower were complete. At that time, they were part of the expanding United Can complex. In addition, the Winton School buildings located west of the site were completed. Although an increase in industrialization was evident around the site, no on-site changes were apparent.

The general increase in industrialization continued through 1959. In the 1959 photograph, three sheds were present on the open field at the rear of the on-site structure. According to the SCS Phase I Environmental Assessment Report, fertilizer was mixed in the sheds and subsequently stored in the on-site structure. In addition to the on-site development, new structures were completed at the Alameda County complex and Flores Automotive Repair property.

By 1971, the fertilizer sheds had been removed and the secondary warehouse in the northeast corner of the site was completed. Further new construction included the completion of the Nevel's Truck Repair facility east of the site, the residential neighborhood and Alameda County welfare office to the north, the Daily Review newspaper printing facility to the southwest, and the former Exxon Service Station to the west.

In the 1975 photo, the open field to the rear of the site was white in color in comparison with other fields in the area. Industrialization in the site vicinity had increased including the completion of the Winton Avenue Overpass and additions to the Alameda County complex, southwest of the site. In this photograph, four large above-ground tanks are visible on the United Can property, north of the present-day drum-storage area.

By 1983, the United Can above ground tanks had been removed. No apparent changes had been made to the on-site structures; however, a large inventory of plumbing supplies was apparent in the yard. The increased industrialization in the site vicinity includes the completion of the Pacific Bell facility at 221 Winton Avenue.

By 1988, development in the site vicinity had increased to include the Credit Union and Courthouse Square office building to the west of the site. The site itself does not appear to have changed structurally since the 1983 photograph.

HYDROGEOLOGY AND AQUIFER USAGE

The site is located approximately 77-feet above mean sea level within the western portions of the San Lorenzo alluvial cone. The groundwater quality and hydrogeology of the San Lorenzo cone is documented in the Alameda County Flood Control and Water Conservation District Report 205 (J). The San Lorenzo cone is a groundwater producing area consisting of coalescing alluvial fan deposits derived from the drainage basin of the San Lorenzo Creek. Aquifers within the San Lorenzo cone can be divided into an upper and lower zone. Shallow perched aquifers also exist within the San Lorenzo cone. The upper aquifer zone, to a depth of 400 feet, contains three confined water-bearing intervals. These three aquifers are unnamed but are equivalent to the Newark, Centerville, and Fremont aquifers under the Niles Cone to the south. The lower zone, which occurs below a depth of 400 feet, contains a considerably thicker sequence of water-bearing deposits than the upper zone. Available well logs from the site suggest that the groundwater-bearing interval penetrated beneath the site is within either a Newark aquifer equivalent or a perched water-bearing zone.

The Newark aquifer equivalent within the San Lorenzo cone is generally encountered from approximately 30-feet above mean sea level to 75-feet below sea level. It consists of several interfingering sand and gravel lenses varying in thickness from 2 to 40 feet. These lenses may be hydraulically connected near the eastern reaches of the San Lorenzo cone, but are most likely separate hydraulic units in the western portions of the cone. Groundwater in the Newark aquifer equivalent of the San Lorenzo cone moves under mostly confined conditions toward the San Francisco Bay from the recharge area in the Diablo Highlands to the east. Aquifer recharge is believed to be provided principally by the infiltration of streamflow in the eastern part of the alluvial cone.

The shallow perched aquifers within the San Lorenzo cone overlie the clay layer which confines the Newark aquifer equivalent. The water-bearing material in these minor aquifers is usually silty sand. The water tables of these discontinuous unconfined aquifers fluctuate seasonally and may not yield water to wells during drought periods.

Groundwater in the San Lorenzo alluvial cone is used mainly for industrial water supply and for irrigation purposes. The City of Hayward purchases its drinking water from the San Francisco Water Department's Hetch Hetchy Aqueduct which comes from the Tuolumne River system. Prior to the 1950's, the City used groundwater as its major source of water supply. The City is currently developing an emergency water supply using groundwater. One of the emergency water wells is located within the Alameda County Complex south of the site. This well was completed in the summer of 1989 to a total depth of 560-feet and is screened within the lower water-bearing zone.

ENVIRONMENTAL SURVEY

The following environmental survey includes a presentation of groundwater monitoring and sampling methods and results and findings from records research and site vicinity reconnaissance to identify potential sources of hazardous materials.

GROUNDWATER MONITORING

Monitoring of the groundwater elevation in the three on-site and one off-site monitoring wells was conducted in accordance with Groundwater Technology's Standard Operating Procedure (SOP) 8 (Appendix A) on November 30, 1989. At this time the elevation of the off-site well was surveyed relative to the on-site wells by Groundwater Technology personnel. The results of these monitoring and survey data are presented in Table 1.

TABLE 1

MONITORING AND SURVEY DATA

DATE 11/30/89 WELL ID.	WELLHEAD ELEVATION (feet above sea level)	DEPTH-TO-WATER	HYDROSTATIC ELEVATION
GW-1	77.22	48.10	29.12
GW-2	76.82	47.54	29.28
GW-3	77.44	48.01	29.43
EZ-1	76.04	47.03	29.01

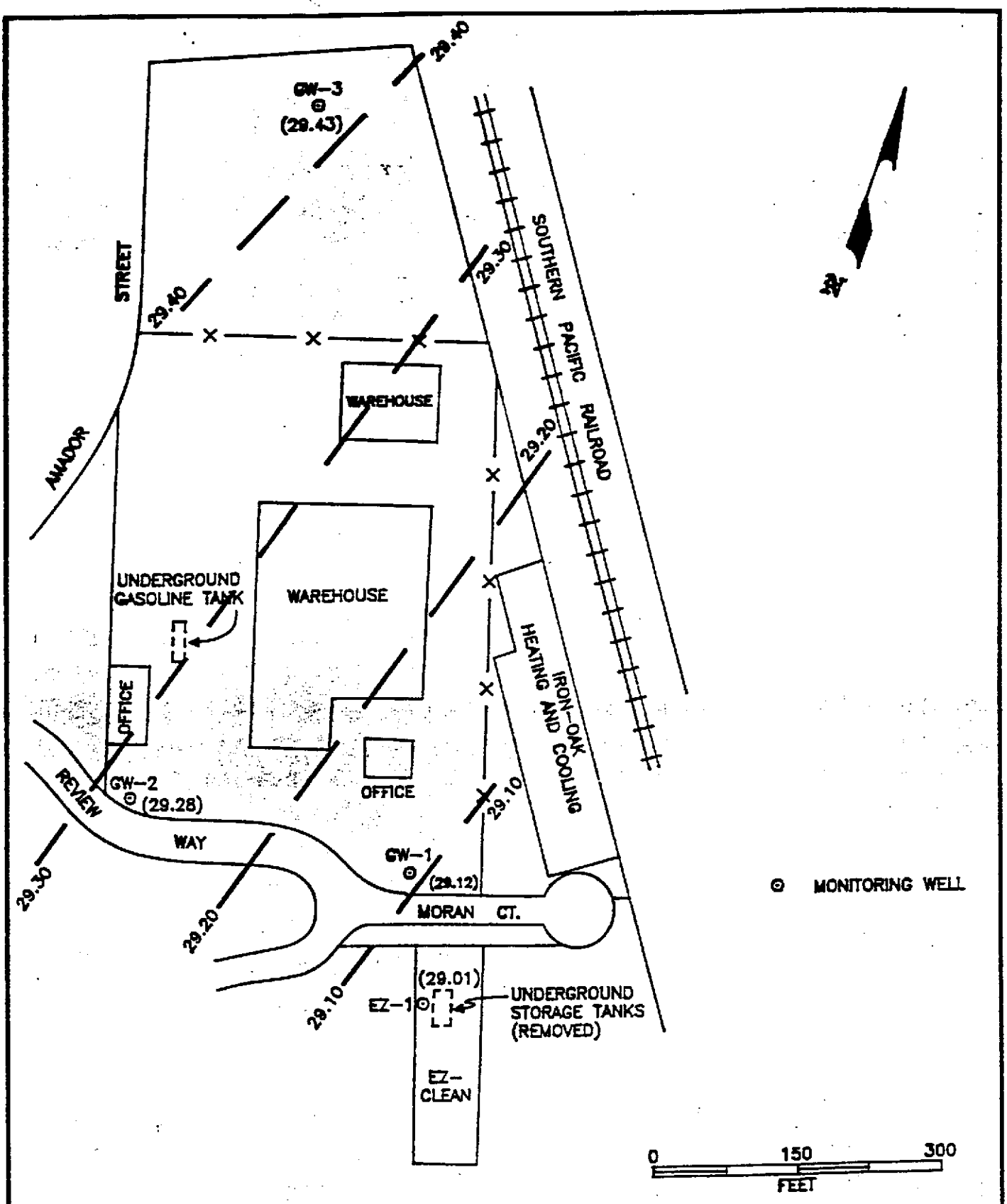


FIGURE 5. GROUNDWATER GRADIENT MAP (11/30/89)

SUMMERHILL DEVELOPMENT
HAYWARD, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

The groundwater monitoring data and gradient map (Figure 5) indicate that the groundwater-flow direction is east-southeast. This is a shift of approximately 70 degrees to the east since August 1988, as reported in the SCS Engineers Phase II Report. The groundwater gradient at the site is approximately 0.0006 ft/ft. This is essentially unchanged since the August 1988 monitoring. Due to the variability in interpreted groundwater-flow direction and the extremely flat groundwater gradient conditions, a definite groundwater-flow direction has not been established at the site.

GROUNDWATER SAMPLING AND ANALYSES

Sampling of the three on-site monitoring wells and one monitoring well on the EZ-Clean property was performed on November 30, 1989. Samples were collected in accordance with Groundwater Technology's SOP's 9, 10, and 11, (Appendix A). Groundwater sampling was conducted by first purging water from each well using a clean polyvinyl chloride (PVC) bailer. Each well was purged of a minimum of four well volumes of water by hand bailing, unless the well could be purged dry. The groundwater was then allowed to recover to at least 80 percent of the original static water-level prior to sampling. The groundwater samples were collected in laboratory-supplied containers, labeled, and stored on ice. Samples were transported under Chain-of-Custody Manifest to a California state-certified laboratory, GTEL Environmental Laboratories, Inc. (GTEL) in Concord, California. Each sample was analyzed for volatile organic compounds by U.S. Environmental Protection Agency (EPA) Method 8240.

The results of the laboratory analyses of the groundwater samples obtained from the site on November 30, 1989 indicated levels of dissolved-chlorinated constituents above laboratory method detection limits (MDL) in all four wells sampled. The chlorinated constituents detected include trichloroethane, trichloroethene, dichloroethene, and tetrachloroethene. The concentrations for all four of these chlorinated constituents exceed the Department of Health Services Drinking Water Action Levels of Maximum Contaminant Levels (Table 2B). Table 2A illustrates the concentrations of chlorinated constituents analyzed by SCS engineers in August 1988.

In both sampling rounds, the highest concentrations of trichloroethane, trichloroethene, and dichloroethene were present in the sample from monitoring well GW-1 located southeast of the on-site main warehouse. In the most recent sampling round, the sample from off-site monitoring well EZ-1 contained the highest concentration of tetrachloroethene as well as moderately high levels of trichloroethane and trichloroethene. The two remaining on-site wells (GW-2 and GW-3) contained only minor concentrations of trichloroethene above MDL. The concentrations reported by SCS Engineers in August 1988 were higher than those detected during this sampling. The decline in chlorinated concentrations between the two sampling rounds suggests that the source of these compounds may have been removed and that the concentrations may be declining by natural degradation.

TABLE 2A

LABORATORY ANALYSES 8/8/88

(parts per billion)

EPA 624 SELECTED COMPOUNDS	ACTION LEVEL/ MAXIMUM CONTAMINANT LEVEL	GW-1	GW-2	GW-3
1,1-Dichloroethene	6	140	<5	<5
1,1,1-Trichloroethane	200	820	<5	<5
Trichloroethene	5	93	8	12
Chloroform	100	<5	<5	5

TABLE 2B

LABORATORY ANALYSES 11/30/89

(parts per billion)

EPA 8240 DETECTED SUBSTANCE	ACTION LEVEL/ MAXIMUM CONTAMINANT LEVEL	GW-1	GW-2	GW-3	EZ-1
1,1-Dichloroethene	6	58	<5	<5	<5
1,1,1-Trichloroethane	200	240	<5	<5	72
Trichloroethene	5	78	7	11	9
Tetrachloroethene	5	<5	<5	<5	13

ENVIRONMENTAL RECORD SEARCH

Information for the environmental record search was obtained from the Hayward Fire Department (HFD), Regional Water Quality Control Board (RWQCB), and the following published state and federal hazardous substance lists: Hazardous Waste and/or Substance Sites (current to 9/1/89), CERCLIS, RCRA, State Water Resources Control Board Leaking Underground Storage Tanks, RWQCB Leaking Underground Storage Tanks, and Expenditure Plan for the Hazardous Substance Cleanup Bond Act of 1984.

The Hazardous Waste and/or Substance Sites and RWQCB Leaking Underground Storage Tanks Lists identified six sites located within a 1/4-mile radius of the site. These sites include the following:

Daily Review, 116 West Winton Ave., Hayward, CA
EZ Clean, 54 Moran Ct., Hayward, CA
Furnishings 2000, 24 Cannery Ct., Hayward, CA
Noreen Mendonca Property, 213 West Winton Ave., Hayward, CA
Pacific Bell, 221 West Winton Ave., Hayward, CA
United Can Company, 199 "C" Street, Hayward, CA

Files for each of these sites were reviewed at the City of Hayward Fire Department Hazardous Materials office and RWQCB office in Oakland, California.

The Daily Review, located at 116 West Winton, has three underground fuel-storage tanks and a series of aboveground ink-storage tanks on site. Two 10,000-gallon tanks containing gasoline and a methanol-fuel mixture and one 3,000-gallon tank containing diesel were removed in 1986. The tank pull report and laboratory results were not available, however, it is noted that

the soil was contaminated and that "Azonic' monitors were installed in the excavations. The site also uses propane to operate its forklifts, acetylene for welding and printing ink for its newsprint. There are no reports of leakage of these materials. There is no record of chlorinated solvents used or stored at this location. Although no use of chlorinated solvents is documented, the use of 1,1,1-Trichloroethane is common at newspaper printing facilities as a degreasing agent. Therefore, the Daily Review is a possible user of chlorinated solvents.

The EZ-Clean property located at 54 Moran Court contained two 8,000-gallon underground solvent-storage tanks which were removed in July 1988. Inspection of soil by Aqua Science Engineers, Inc. from the base of the tank excavation indicated that the tanks had leaked. Laboratory analyses of soil samples performed by Trace Analytical Labs confirmed that the soil had been impacted by paraffins and olefins, such as kerosene. The samples did not contain measurable concentrations of chlorinated compounds. One groundwater monitoring well exists on site. This well was sampled by Groundwater Technology on November 30, 1989. As discussed earlier in this report, laboratory analyses indicate that the groundwater has been impacted by levels of dissolved chlorinated solvents above MDL.

The Furnishings 2000 facility located at 24 Cannery Court has two 10,000-gallon underground diesel-storage tanks and one 1,000-gallon underground gasoline-storage tank on site. The tanks are located to the east of Nevel's Truck Repair which is within the Furnishings 2000 property (Figure 2). Geotechnical Consultants, Inc. drilled four soil borings in June 1986 and completed one groundwater monitoring well and three vadose-zone wells as part of a monitoring facility installation. Soil sample

analyses results ranged from <5 to 1,100 parts per million (ppm) total extractable hydrocarbons (TEH). Groundwater sample analyses reported TEH levels of 90 ppm. A hazardous materials inspection conducted by the Hayward Fire Department in January 1990 noted a 500-gallon aboveground waste-oil tank, and a 55-gallon barrel of antifreeze, in addition to the underground tanks. During this inspection, the facility was ordered to sample its monitoring well and precision test its tanks. The inspection did not identify chlorinated solvents in storage or use at this facility; however, as a common degreaser, 1,1,1-Trichloroethane is often used at mechanic shops. Therefore, the Nevel's Truck Repair may be a possible user of chlorinated solvents.

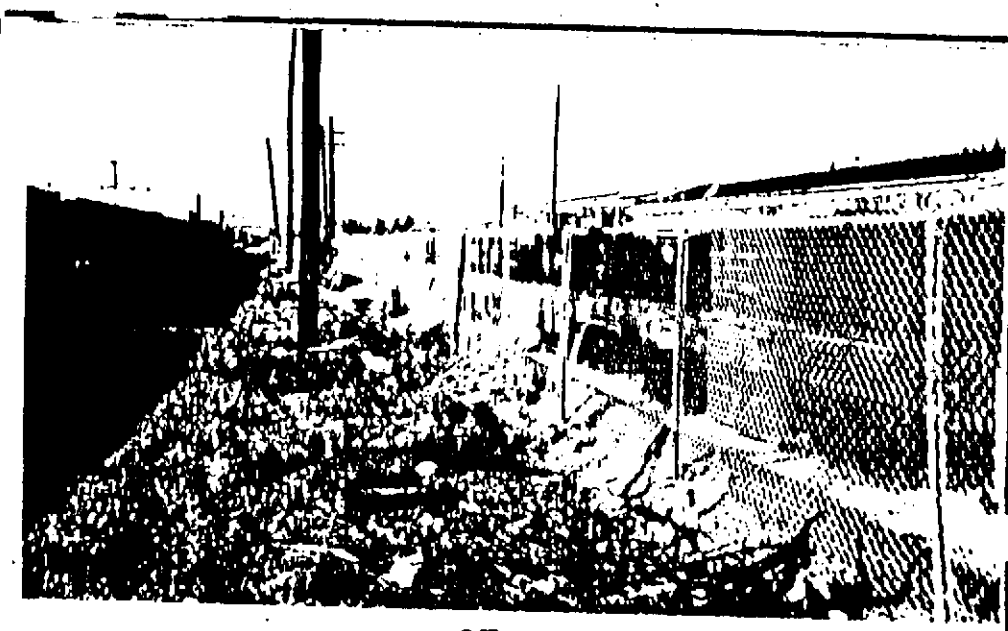
Within the Furnishings 2000 building itself, a furniture refinishing and repair area exists under the name of the Brick Warehouse. This facility uses various lacquers, solvents, and mineral spirits in the repair and refinishing of furniture. The annual inspection on January 24, 1990, conducted by the Hayward Hazardous Materials Department, noted the presence of eight, 55-gallon drums of 1,1,1-Trichloroethane and approximately 60 empty drums stored on site. The facility has been ordered to provide double containment for the 1,1,1-Trichloroethane and remove the empty drums. It is possible that chlorinated solvents have been released at this facility. However, based on the local aquifer soil types and measured groundwater gradient, it is unlikely that the contaminants have had enough time to migrate from the Furnishings 2000 facility to the site.

The Noreen Mendonca property at 213 West Winton Avenue is the site of a former gasoline service station. Environmental assessment performed by BSK and Associates included a series of soil borings in the vicinity of the former underground tank complex. Laboratory analyses indicated that the soil had been impacted by gasoline hydrocarbons with concentrations up to 4,700 ppm TPH-as-gasoline. In June 1989, Remediation Service, Inc. excavated contaminated soils and stockpiled the soils on site (Figure 6A). At that time, soil samples from a depth of 10 feet were analyzed for chlorinated compounds. Laboratory results indicate that the soils were not impacted by chlorinated constituents.

The Pacific Bell property at 221 West Winton Avenue is used as a main computer record facility. It had four 25,000-gallon underground diesel-storage tanks which were removed in October 1985. Obvious contamination was reported by the Fire Department Inspector during the tank removal. Soil sample analyses results ranged from 2.7 to 1,800 ppm total petroleum hydrocarbons (TPH)-as-diesel. The tanks were replaced with two 25,000-gallon underground diesel-storage tanks with a leak-alert system as outlined in the site's Hazardous Materials Management Plan (HMMP). The diesel is stored to power generators utilized in the event of power failure. According to Fire Department records and Mr. Darryl Santos of Pacific Bell, no chlorinated compounds are used or stored at this facility. However, the use of machinery at this facility suggests the possible use of a common degreaser such as 1,1,1-Trichloroethane.

The United Can Company facility at 199 "C" Street is owned by Beatrice/Hunt-Wesson and used for the manufacturing and coating of cans and can ends. Kleinfelder and Associates completed an environmental assessment in December 1989. The

6A



6B

6C

FIGURE 6
PHOTOGRAPHS OF SITE VICINITY
(taken 12/89)

SUMMERHILL DEVELOPMENT
HAYWARD, CALIFORNIA

ML 1/90

GROUNDWATER TECHNOLOGY, INC.

scope of work included the drilling of three soil borings to investigate a former underground diesel-fuel tank. Concentrations of TPH-as-diesel ranged from 260- to 2300-ppm. The HMMP filed with the Hayward Hazardous Materials Department on December 31, 1988 lists the hazardous materials stored on site. These materials include lacquers, varnish, alcohol-based compounds, diesel fuel, and propane. The only listing of a chlorinated constituent is 1,1,1-Trichloethane which is part of a "nozzle mist" mixture. A quantity of 100-gallons of this mixture is reported to be stored at the facility. A visual inspection of the site vicinity conducted by Mr. Joseph Ramage of Groundwater Technology on December 13, 1989 identified a hazardous materials storage area at this site. This area contained approximately five hundred, 55-gallon drums of hazardous materials listed on the HMMP (Figure 6B). According to Mr. Hugh Murphy of the Hayward Hazardous Materials Department, the Southern Pacific Railroad has requested that these drums be removed. In order to obtain closure of this drum storage area, an environmental assessment would be performed in conjunction with the removal operation.

Reconnaissance of the site vicinity identified a recently demolished structure located approximately 200-feet southeast of the site (Figure 6C). Mr. James Beatty of Iron-Oak Plumbing Supply indicated that a large fire burned the existing structures to the ground, between March 1988 and the present. He also indicated that the structures had been used as a pickle factory and a paper recycling plant. Further inquiry identified a file on this site at the Hayward Hazardous Materials office. The site, located at 15 Cannery Court, is owned by the Haar Pickle Factory. The file indicates that a 5000-gallon gasoline tank and a 550-gallon diesel fuel tank were removed by Blymyer Engineers

in June 1989. Soil was observed to be impacted by diesel. Although no use or storage of chlorinated solvents is recorded, the pickle factory and paper recycling facilities could have been users of common degreasing agents such as 1,1,1-Trichloroethane.

The United Can Company facility is also listed in the State Water Resources Control Board, Report on Releases of Hazardous Substance from Underground Storage Tanks. This listing indicated that the release was a gasoline tank leak. No other facilities within the site vicinity were named in this January 1988 report. In addition, no properties within the site vicinity were listed in the RCRA database of April 7, 1989, or in the Expenditure Plan for the Hazardous Substance Cleanup Bond Act of 1984, revised in January 1989.

SUMMARY

The site is currently being used to warehouse and distribute plumbing supplies and heating and cooling equipment. This type of activity has been performed at the site for the past twenty-five years.

On-site visual inspection detected an underground gasoline-storage tank on site. No use or storage of chlorinated solvents was observed on site.

The aerial photo review indicated that the main warehouse on site was completed by 1947. Prior to this time, the property was part of a large cherry orchard. Since 1947, structures have been added to the site and industrialization in the site vicinity has increased.

Groundwater monitoring and sampling of the three on-site wells and one off-site well indicated that the highest concentrations of dissolved chlorinated solvents exist in the on-site well GW-1. The off-site monitoring well located on the EZ-Clean property also contained concentrations of dissolved chlorinated solvents. Despite the lower concentrations and downgradient location of the EZ-Clean well it must be considered a potential source of chlorinated constituents in the groundwater. Since the previous groundwater sampling conducted in September 1988, concentrations of dissolved chlorinated constituents have declined in all on-site wells. This decline suggests that the source of these chlorinated compounds may have been eliminated and that natural degradation may have occurred or that the dissolved plume has migrated.

The records search from local, state and federal agencies indicate that six incidents of soil and/or groundwater contamination from underground fuel-storage tank releases have been documented on properties within a one-quarter mile radius of the site. Available records suggest that the only known leak involving chlorinated solvents was from the EZ-Clean property.

Results of groundwater monitoring and sampling data and information from available environmental records are not sufficient to identify the source of the chlorinated constituents in the groundwater at the 85 West Winton site. These groundwater monitoring data do indicate that the EZ-Clean property is downgradient of the site; however, the calculated gradient is extremely flat and the groundwater-flow direction could easily change in response to rainfall or other sources of localized groundwater recharge. In addition, a professional wellhead elevation survey is needed to confirm the groundwater table elevation.

Based on all available environment records, the only documented users of chlorinated compounds include the Furnishings 2000 furniture repair facility and the United Can Hazardous Materials storage area. These facilities use 1,1,1-Trichloroethane and are located in an upgradient direction from the 85 West Winton site. The Furnishings 2000 furniture repair facility uses a substantial volume which is not double-contained. In addition, its empty drum storage practices do not preclude inadvertent discharge. However, the distance from the drum storage area to the site and the extremely flat groundwater gradient suggest that contaminant transport would require a duration beyond the beginning of industrialization in this area.

Other facilities located within the site vicinity are possible users of chlorinated solvents, although no chlorinated solvent storage or use is documented. Because it is a common degreaser, 1,1,1-Trichloroethane could possibly be used at the Daily Review Newspaper publishing facility, Nevel's Truck Repair, Pacific Bell, and Haar's Pickle Factory. Therefore, these sites could be considered possible sources of the chlorinated solvents within the groundwater.

In conclusion, the groundwater beneath the 85 West Winton site has been impacted by dissolved chlorinated compounds. Since no known use of chlorinated solvents is documented at the site, an off-site source is suspected. The existing environmental records on sites within the site vicinity suggest that possible off-site sources exist. However, the actual source can not be determined definitely from the existing data.

CLOSURE

Groundwater Technology, Inc. is pleased to have been of service on this project. Should you have any questions or require additional information, please contact our Concord office at (415) 671-2387.

APPENDIX A
STANDARD OPERATING PROCEDURES

GROUNDWATER TECHNOLOGY
STANDARD OPERATING PROCEDURE
CONCERNING GROUNDWATER MONITORING
SOP 8

Groundwater monitoring of wells at the site shall be conducted using an ORS Interface Probe and Surface Sampler. The Interface Probe is a hand held, battery operated device for measuring depth to petroleum product and depth to water as measured from an established datum (i.e., top of the well casing which has been surveyed). Product thickness is then calculated by subtracting the depth to product from the depth to water. In addition, water elevations are adjusted for the presence of fuel with the following calculation:

(Product Thickness)(.8)+(Water Elevation)
= Corrected Water Elevation

Note: The factor of 0.8 accounts for the density difference between water and petroleum hydrocarbons.

The Interface Probe consists of a dual sensing probe utilizing an optical liquid sensor and electrical conductivity to distinguish between water and petroleum products. A coated steel measuring tape transmits the sensor's signals to the reel assembly, where an audible alarm sounds a continuous tone when the sensor is immersed in petroleum product and an oscillating tone when immersed in water. The Interface Probe is accurate to 1/16-inch.

A Surface Sampler shall be used for visual inspection of the groundwater to note sheens (difficult to detect with the Interface Probe), odors, microbial action, etc.

The Surface Sampler used consists of a 12-inch long cast acrylic tube with a Delrin ball which closes onto a conical surface creating a seal as the sampler is pulled up. The sampler is calibrated in inches and centimeters for visual inspection of product thickness.

To reduce the potential for cross contamination between wells the monitorings shall take place in order from the least to most contaminated wells. Wells containing free product should be monitored last. Between each monitoring the equipment shall be washed with laboratory grade detergent and double rinsed with distilled water.

GROUNDWATER TECHNOLOGY
STANDARD OPERATING PROCEDURE
CONCERNING WATER SAMPLING METHODOLOGY
SOP 9

Prior to water sampling, each well shall be purged by pumping a minimum of four well volumes or until the discharge water indicates stabilization of temperature, conductivity,and pH. If the well is evacuated before four well volumes are removed or stabilization is achieved, the sample should be taken when the water level in the well recovers to 80% of its initial level.

Retrieval of the water sample, sample handling and sample preservation shall be conducted in accordance with Groundwater Technology Laboratory Standard Operating Procedure (GT SOP 10) concerning Sampling For Volatiles in Water". The sampling equipment used shall consist of a teflon and/or stainless steel samplers, which meets EPA regulations. Glass vials with teflon lids should be used to store the collected samples.

To insure sample integrity, each vial shall be filled with the sampled water such that the water stands above the lip of the vial. The cap should then be quickly placed on the vial and tightened securely. The vial should then be checked to ensure that air bubbles are not present prior to labeling of the sample. Label information should include a sample identification number, job identification, date, time, type of analysis requested and the sampler's name. Chain-of-Custody forms shall be completed as per Groundwater Technology Laboratory Standard Operating Procedure (SOP 11) concerning Chain of Custody.

The vials should be immediately placed in high quality coolers for shipment to the laboratory. The coolers should be packed with sufficient ice or freezer packs to ensure that the samples are kept below 4C. Samples which are received at the Groundwater Technology Laboratory above 10 C. will be considered substandard. To minimize sample degradation the prescribed analysis shall take place within seven days of sample collection unless specially prepared acidified vials are used.

To minimize the potential for cross contamination between wells, all the well development and water sampling equipment which contacts the groundwater shall be cleaned between each well sampling. As a second precautionary measure, the wells shall be sampled in order of increasing contaminant concentrations as established by previous analysis.

GT ENVIRONMENTAL LABORATORY (GTEL)
STANDARD OPERATING PROCEDURE
CONCERNING SAMPLING FOR VOLATILES IN WATER (DISSOLVED GASOLINE, SOLVENTS, ETC.).
SOP 10

1. Use only vials properly washed and baked, available from GTEL or I-Chem.

2. Use clean sampling equipment. Scrub with Alconox or equivalent laboratory detergent and water followed by a thorough water rinse. Complete with a distilled water rinse.

   Sampling equipment which has come into contact with liquid hydrocarbons (free product) should be regarded with suspicion. Such equipment should have tubing and cables replaced and all resilient parts washed with laboratory detergent solution, as above. Visible deposits may have to be removed with hexane. Solvent washing should be followed be detergent washing as above.

   This procedure is valid for volatile organics analysis only. For extractable organics (for example, pesticides, or base neutrals for EPA method 625) a final rinse with pesticide grade isopropyl alcohol, followed by overnight or oven drying, will be necessary.

3. Take duplicate samples for GTEL. Mark on forms as a single sample with two containers to avoid duplication of analysis.

4. Take a site blank using distilled water or known uncontaminated source. This sample will be run at the discretion of the project manager.

5. Fill out labels and forms as much as possible ahead of time. Use an indelible marker.

6. Preservatives are required for some types of samples. Use specially prepared vials from GTEL, marked as indicated below, or use the appropriate field procedure (SOP 12 for acidification). Make note on forms that samples were preserved. Always have extra vials in case of problems. Samples for volatile analysis should be acidified below pH 2 with hydrochloric acid. Use vials with care and keep them upright. Eye protection, foot protection, and disposable vinyl gloves are required for handling.

Samples designated for expedited service and analyzed within seven (7) days of sampling will be acceptable without preservation.

Acid causes burns. Glasses or goggles (not contact lenses) are necessary for protection of the eyes. Flush eyes with water for 15 minutes if contact occurs and seek medical attention. Rinse off hands frequently with water during handling.

For sampling chlorinated drinking water supplies for chlorinated volatiles, samples shall be preserved with sodium thiosulfate. Use vials labeled "CONTAINS THIOSULFATE".
No particular cautions are necessary.

7. Fill vial to overflowing with water, avoiding turbulence and bubbling as much as possible. Water should stand above lip of vial.

8. Carefully but quickly slip cap onto vial. Avoid dropping the teflon septum from cap by not inverting cap until in contact with vial. Disc should have teflon face toward the water. Also avoid touching white teflon face with dirty fingers.

9. Tighten cap securely, invert vial and tap against hand to see that there are no bubbles inside.

10. Label vial using indelible ink as follows:

    a) Sample I.D. No.
    b) Job I.D. No.
    c) Date and Time.
    d) Type of analysis requested.
    e) Your name.

11. Unless the fabric type label is used, place scotch tape over the label to preserve its integrity.

12. For Chain of Custody reasons, sample vial should be wrapped end-for-end with scotch tape or evidence tape and signed with indelible ink where the end of the tape seals on itself. The septum needs to be covered.

13. Chill samples immediately. Samples to be stored should be kept at 4°C (39°F). Samples received at the laboratory above 10°C (as measured at glass surface by a thermocouple probe), after overnight shipping will be considered substandard, so use a high quality cooler with sufficient ice or freezer packs. (Coolers are available from GTEL).

14. Fill out Chain of Custody and Analysis Request form. (See Chain of Custody Procedures SOP 11).

GT ENVIRONMENTAL LABORATORY (GTEL)
STANDARD OPERATING PROCEDURE
CONCERNING CHAIN OF CUSTODY
SOP 11

1. Samples must be maintained under custody until shipped or delivered to the laboratory. The laboratory will then maintain custody. A sample is under custody if:

    a) It is in your possession
    b) It is in your view after being in your possession
    c) You locked it up after being in your possession
    d) It is in a designated secure area

2. Custody of samples may be transferred from one person to the next. Each transferee and recipient must date, sign and note the time on the chain-of-custody form.

3. In shipping, the container must be sealed with tape, bearing the sender's signature across the area of bonding at the ends of the tape in order to prevent undetected tampering. Each sampling jar should be taped and signed as well. Scotch tape works well.

4. Write "sealed by" and sign in the "Remarks" box at the bottom of the form before sealing up the box. Place form in a plastic bag and seal it inside the box.

5. The "REMARKS" section in the upper right part of the form is for documenting details such as:

    a) Correlation of sample numbers if samples are split between labs.
    b) QC numbers when lab is logging in the samples.
    c) Sample temperature and condition when received by lab.
    d) Preservation notation.
    e) pH of samples when opened for analysis (if acidified).
    f) Sampling observation or sampling problem

6. The chain-of-custody form should be included inside the shipping container. A copy should be sent to the project manager.

7. When the samples are received by the lab, the chain-of-custody form will be dated, signed, and a note of the time made by a laboratory representative. The form along with shipping bills and receipts will be retained in the laboratory files.

8. At the time of receipt of samples by the laboratory, the shipping container will be inspected and the sealing signature will be checked, the samples will be inspected for condition and bubbles and the temperature of a representative sample container will be measured externally by a thermocouple probe (held tightly between two samples) and recorded. The laboratory QC numbers will be placed on the labels, in the accession log, and on the chain-of-custody form. If samples are acidified their pH will be measured by narrow range pH paper at the time of opening for analysis. All comments concerning procedures requiring handling of the samples will be dated and initialed on the form by the laboratory person performing the procedure. A copy of the completed chain-of-custody form with the comments on sample integrity will be returned to the sampler.

APPENDIX B
LABORATORY ANALYSES REPORTS

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544 3422 from inside California
(800) 423-7143 from outside California

12/12/89 sp Page 1 of 1

WORK ORD#:C912236
CLIENT: JOE RAMAGE
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 283-899-1018
LOCATION: HAYWARD, CA

SAMPLED: 11/30/89 BY: S. POLSON
RECEIVED: 12/08/89
ANALYZED: 12/11/89 BY: R. MARTINO

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	DL	SAMPLE # I.D.	01 GW-1	02 GW-2	03 GW-3	04 E2-1
Chloromethane	10		<10	<10	<10	<10
Bromomethane	10		<10	<10	<10	<10
Vinyl chloride	10		<10	<10	<10	<10
Chloroethane	10		<10	<10	<10	<10
Methylene chloride	5		<5	<5	<5	<5
Acetone	100		<100	<100	<100	<100
Carbon disulfide	5		<5	<5	<5	<5
1,1-Dichloroethene	5		58	<5	<5	(5)
1,1-Dichloroethane	5		<5	<5	<5	<5
trans-1,2-Dichloroethene	5		<5	<5	<5	<5
Chloroform	5		<5	<5	<5	(5)
1,2-Dichloroethane	5		<5	<5	<5	<5
2-Butanone	100		<100	<100	<100	<100
1,1,1-Trichloroethane	5		240	<5	<5	72
Carbon tetrachloride	5		<5	<5	<5	(5)
Vinyl acetate	50		<50	<50	<50	<50
Bromodichloromethane	5		<5	<5	<5	<5
1,2-Dichloropropane	5		<5	<5	<5	<5
cis-1,3-Dichloropropene	5		<5	<5	<5	<5
Trichloroethene	5		78	7	11	9
Dibromochloromethane	5		<5	<5	<5	<5
1,1,2-Trichloroethane	5		<5	<5	<5	<5
Benzene	5		<5	<5	<5	<5
trans-1,3-Dichloropropene	5		<5	<5	<5	<5
2-Chloroethylvinylether	10		<10	<10	<10	<10
Bromoform	5		<5	<5	<5	<5
4-Methyl-2-pentanone	50		<50	<50	<50	<50
2-Hexanone	50		<50	<50	<50	<50

DL = Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 8240

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord CA 94520
(415) 685-7852
(800) 544 3422 from inside California
(800) 423-7143 from outside California

WORK ORD#: C912236

CLIENT: JOE RAMAGE
PROJECT#: 283-899-1818
LOCATION: HAYWARD, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	DL	SAMPLE # I.D.	01 BW-1	02 BW-2	03 BW-3	04 E2-1
Tetrachloroethene	5		<5	<5	<5	13
1,1,2,2-Tetrachloroethane	5		<5	<5	<5	<5
Toluene	5		<5	<5	<5	<5
Chlorobenzene	5		<5	<5	<5	<5
Ethylbenzene	5		<5	<5	<5	<5
Styrene	5		<5	<5	<5	<5
1,2-Dichlorobenzene	5		<5	<5	<5	<5
1,3-Dichlorobenzene	5		<5	<5	<5	<5
1,4-Dichlorobenzene	5		<5	<5	<5	<5
Xylene (total)	5		<5	<5	<5	<5
Trichlorofluoromethane	5		<5	<5	<5	<5

DL = Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 8240

Emma P. Popek
Director

GTEL ENVIRONMENTAL LABORATORIES INC

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72- 3602

CUSTODY RECORD

Project Manager: Joe Kiernan
Address: GTI Concord
Project Number: 203-899-101B
Phone #: 671-2387
FAX #:
Site location: Hayward, CA
Project Name: Summit Hill
Sampler Name (Print): S. Polston

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME
RBGW-1			1	X								X			11/30	
GW-1			2													
RBGW-2			1													
GW-2			2													
RBGW-3			1													
GW-3			2													
RBE2-1			1													
E2-1			2													

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐
																	X
										X							
																	X
										X							
																	X
										X							
																	X
										X							

Received by: Date ___ Time ___
Received by: Date ___ Time ___
Received by Laboratory: Date 12/1 Time 1:11
Way bill #

SPECIAL HANDLING
24 HOURS ☐
EXPEDITED 48 Hours ☒
SEVEN DAY ☐
OTHER _____(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only
Lot #:
Storage Location
Work Order #:

Relinquished by Sampler:
Relinquished by:
Relinquished by:

APPENDIX C

Copy of Compliance & Closure, Inc., *Environmental Site Assessment - 81-89 Review Way, Hayward, California*, dated 31 May 1996

7020 Koll Center Parkway, Suite 134, Pleasanton, CA 94566 (510) 426-5395 FAX (510) 426-5391

Compliance & Closure, Inc.

May 31, 1996

Mr. Marshal Moran
c/o Narom Development Company
600 Miner Road
Orinda, California 94563

RE: Environmental Site Assessment - 81 - 89 Review Way, Hayward, California

Dear Mr. Moran:

Attached please find attache a copy of a Phase 1 Environmental Site Assessment (ESA) for the above-referenced site, located at 81 - 89 Review Way, Hayward, Alameda County, California. The ESA was completed by Compliance & Closure, Inc. in May, 1996, in accordance with appropriate and applicable standards and guidelines.

Compliance & Closure, Inc. appreciates the opportunity to be of service to Narom Development Company. If you have any questions or we can be of further assistance, please feel free to contact us.

Very truly yours,

Gary R. Mulkey

Gary R. Mulkey, REA, R.G. 5842

PHASE 1

SITE ASSESSMENT REPORT

AT

81 - 89 REVIEW WAY

HAYWARD, CALIFORNIA

FOR

NAROM DEVELOPMENT COMPANY

PREPARED BY:

COMPLIANCE & CLOSURE, INC.

Project No. 12069-1

May, 1996

Compliance & Closure, Inc.

TABLE OF CONTENTS

APPENDICES

1.0 EXECUTIVE SUMMARY

Compliance & Closure, Inc. (CCI) conducted a Phase I Environmental Site Assessment (ESA) of the property located at 81 - 89 Review Way in the City of Hayward, Alameda County, California in May 1996. The subject site (referred to hereafter as the "Property") is owned by Narom Development Company, a partnership, of Orinda, California. The assessment was performed to evaluate the potential environmental liabilities associated with this site. The ESA was conducted in accordance with the American Society for Testing and Materials (ASTM), Practice E 1527, Standards for Property Evaluations. Opinions and conclusions regarding our findings are discussed in Section 7.0 of this report.

The assessment included a physical reconnaissance of the Property on May 3 and 8, 1996, a review of local geology and Hydrogeology, interviews with those familiar with the site, a review of historical aerial photographs and a review of appropriate regulatory agencies' public records. Analyses of and soil and groundwater samples were not within the scope of this ESA.

The Property encompasses approximately 5.5 acres of land and is located just north of Review Way in the City of Hayward, Alameda County, California. The Property is located in an area of Hayward known as the "The Santa Clara Neighborhood", a commercial and mixed industrial section of Hayward. The Property consists of two parcels, 431-0064-002-09 and 431-00644-002-11. The site is bordered by Review Way to the south, a commercial building and Amador Street to the west, City of Hayward Centennial Park to the north, the Southern Pacific railroad tracks and an abandoned warehouse building, formerly occupied by Iron Oaks Supply, to the east. The north portion of the site is currently a grass-covered, vacant lot, which comprises approximately 2 acres. The remaining 3.5 acres is asphalt-paved and contains a 3,400 square foot office building on the west side, a 30,000 square foot warehouse building in the center of the property, a smaller warehouse/shed-type building along the northeast side of the property and a small office building on the southeast side of the property, facing Review Way. The Site Location and Site Map are shown in Figures 1 and 2.

Surface water runoff is discharged to the City of Hayward Water System. The Property is not located in a flood-prone area: An area that "may be inundated by a 100-year flood."

The subject site is underlain predominantly by Quaternary alluvium composed of a mixture of continental (gravel, sand, silt, and clay) sediments deposited by streams from the east.

The site is located within the San Lorenzo cone subarea of the East Bay Plain Area, Alameda County, California. The East Bay Plain Area is bound by the foothills of the Diablo Range on the east and San Francisco Bay on the West. The subsurface soil at the site above 35 feet, generally consists of fine-grained sediments

of silt, sandy-silt and silty clay. Below 35 feet, to approximately 60 feet coarse-grained sediments consisting of slity-sand, gravelly sand and sandy-gravel exist.

There appear to be several underground storage tanks and hazardous waste generators within a one-mile radius of the site. There are records and evidence of an underground storage tank having been formerly used on the Property. Three groundwater monitoring wells currently exist on the Property. Groundwater at the site is known to be contaminated with chlorinated solvents, however, this contamination is documented to have originated from a source located north and east and possibly south of the subject site. There are no reported chemical spills or leaks at the site.

2.0 INTRODUCTION

Compliance & Closure, Inc. (CCI) conducted a Phase I Environmental Site Assessment (ESA) of the Property located at 81-89 Review Way in the City of Hayward, Alameda County, California (Figures 1 and 2) in May 1996.

CCI followed the American Society for Testing and Materials (ASTM), Practice E 1527 Environmental Site Assessment Guidelines in performing the following tasks:

* Reviewed aerial photographs of the Property and surrounding sites to determine prior uses;
* Performed an inspection of the site and surrounding areas to determine the potential for contamination from off-site sources and on-site;
* Reviewed federal, state and local agencies' files and records for sites within a one-mile radius of the Property to identify sites which have reported the use or storage of hazardous materials or wastes or spill incidents;
* Interviewed those familiar with the site;
* Photographed the site;
* Reviewed flood-prone area maps; and
* Prepared this Phase I Environmental Site Assessment report.

References used in preparing this report are documented at the end of the report. Figures, agency lists, and site photographs are attached as Appendices.

3.0 PROPERTY DESCRIPTION

The Property encompasses approximately 5.5 acres of land and is

located just north of Review Way in the City of Hayward, Alameda County, California. The Property is located in an area of Hayward known as the "The Santa Clara Neighborhood", a commercial and mixed industrial section of Hayward. This area of Hayward has been a commercial and mixed industrial area since the early 1950s. Prior to that time, the area was agricultural, consisting mainly of orchards.

The Property consists of two parcels, 431-0064-002-09 and 431-0064-002-11. The site is bound by Review Way to the south, a commercial building and Amador Street to the west, City of Hayward Centennial Park to the north, Southern Pacific railroad tracks and an abandoned warehouse building, formerly occupied by Iron Oaks Supply, to the east. The north portion of the site is currently a grass/weed covered vacant lot, which comprises approximately 2 acres. The remaining 3.5 acres is asphalt-paved and contains a 3,400 square foot office building on the west side, a 30,000 square foot warehouse building in the center of the Property, a smaller warehouse/shed-type building along the northeast side of the Property and a small, approximately 1,200 square foot office building on the southeast side of the Property, which faces Review Way. The Site Location and Site Map are shown in Figures 1 and 2.

3.1 Review of Aerial Photographs

To determine the history and use of the Property, historical aerial photographs were examined. Photographs taken in 1947, 1954, 1968, 1981, 1992 and 1994 were reviewed at Pacific Aerial Surveys in Oakland, California.

The photograph taken in 1994 (AV 4625-17-40) shows the site as it appears today. All existing structures can be seen. Several tractor trailers are parked along the west side of the Property, just north of the office building. The 2 acres of vacant land on the north side of the Property are visible. There appear to be two tractor-trailer rigs parked in this area, along with what appear to be two mounds of debris on the east side of the vacant lot. Near the main warehouse, there are several vans parked in front of the west dock area. There is scattered debris surrounding the smaller warehouse/shed and along the east side of the main warehouse. There are no areas of visible surface staining noted.

The 1992 photograph (AV 4230-18-40) looks similar to the 1994 photo with the exception of the vacant lot, which appears to be free of debris, and there are no truck trailers parked on the west side of the Property. There also appear to be stacked material and debris on the central portion of the lot, just west of the small warehouse/shed.

The photograph taken in 1981 (AV 2040-07-42) shows the site to be an active plumbing supply warehouse. Items appear to be neatly

stacked in the yard surrounding the main warehouse. Cars are visible in the parking lot area, with a few semi-tractor trucks parked in front of the loading dock areas. There appears to be a fuel tank pad and pump located on the westside of the Property, just north of the office building. Some surface staining is visible near the fuel tank pad. There appears to be less regional development in this photograph. The vacant lot on the north side of the site is free of debris. The City park located to the north of the site has not been built, nor has the commercial building located to the west of the site office building.

Photograph AV 858-08-39 taken in 1968, shows the area to the west of the subject site to be occupied by a farm house. The land to the west and north are generally vacant. Review Way does not exist. Winton Avenue is a two way road, and crosses the Southern Pacific railroad track in front of the Property. The now existing over-pass has not been built. The subject site is an active warehouse. Stacked material appears along the north side of the main warehouse and along the west side, just north of the office building.

There appears to be a gas station located on the southeast side of the property, just in front of the main warehouse. The pump islands can be seen under a canopy located just in front (south) of the former service station building. There appears to be dark staining on the rear of the service bay. There is an existing warehouse building located just east of the main warehouse, between the railroad tracks and the subject site. There appears to be a considerable amount of debris at the back of this building.

Photograph AV 119-19-19, taken in 1954 shows the subject site to contain a warehouse and office building. The warehouse building located by the Southern Pacific rail road tracks is visible in this photo. Winton Avenue is a two-way road. The gas station that occupied the southeast side of the site is not visible in this photograph. The subject site appears to have a large lawn bordering Winton Avenue. The surrounding region is occupied by orchards to the south, west, north and east of the property.

Photograph AV 11-05-28, dated 3/24/47, shows the warehouse and office building. No other structures exist at the subject site. The entire region is comprised of agricultural land (orchards). There is a farm house located to the west of the site's office building. The area to the north is covered by orchards. No surface staining is visible in the photograph.

3.2 Geology and Hydrogeology

The site is located within the San Lorenzo cone subarea of the East Bay Plain Area, Alameda County, California. The East Bay Plain

Area is bounded by the foothills of the Diablo Range on the east and the San Fracicsco Bay on the west. As mentioned in several regional studies, the area is mostly comprised of fine-to-coarse grained, unconsolidated deposits that resulted from coalescing alluvial fans originating in the Diablo Range.

The predominant unit and oldest of the unconsolidated deposits of the area is the "older alluvium." The older alluvium has a maximum thickness of about 1,100 feet and consists of poorly consolidated-to-unconsolidated clay, silt, sand and gravel. Overlying the older alluvium in the immediate region of the site is the "younger alluvium." The younger alluvium reaches a maximum thickness of about 50 feet and generally consists of moderately sorted sand and silt, with local lenses of gravel and sandy-gravel.

Groundwater in the San Lorenzo cone occurs in unnamed aquifer units that were determined to be equivalents to the Newark, Centerville, and Fremont aquifers, as defined in the Niles cone subarea to the south. The aquifers within the upper zone occur as a series of permeable sand and gravel beds situated between layers of silt and clay. Groundwater at the subject site is generally found at depths between 45 and 50 feet below the ground surface. The regional groundwater flow direction is toward the southwest.

4.0 PROPERTY OWNERSHIP/OCCUPANCY

CCI has been informed that the Property was developed in 1941 by Swift Meat Packing Company and later changed to Swift Chemical Company which manufactured agricultural fertilizer at the site until the early 1960s. In approximately 1961, the Property was purchased by Narom Development Company. Moran Plumbing operated a plumbing supply operation at the site from 1961 to 1976, when Moran Plumbing was purchased by AMFAC Distribution Group. AMFAC occupied the site from 1976 to 1984. From 1984 to 1988, the site was occupied by Iron Oak Supplies which serviced heating and cooling systems.

Since 1988 and continuing to the present, the subject site has been leased to several different firms. Steve Lui Enterprises, which manufactures glass aquariums/terrariums, leases half of the 30,000 square foot, main warehouse building. This operation apparently uses no hazardous materials, only glass and wood. The other half of the main warehouse is leased by A & R Painting, which is a commercial paint contracting firm. A & R Painting stores some paints and parks its fleet of vehicals at the site. The 1,200 square foot metal building located on the southeast side of the site is leased by Data Flow which provides data processing. City and County Credit Union occupies 2,000 square feet of the office building on the west side of the site. The remaining 1,400 square feet are unoccupied. Two general contractors lease the small warehouse/shed structure on the north side of the property to store their equipment. Anderson Electric leases the west side of the

yard to store several trucks and some equipment.

5.0 RESULTS OF PROPERTY RECONNAISSANCE

Reconnaissance of the site was conducted on May 3 and 8, 1996 at the subject site.

Items of particular interest that were investigated (the presence or absence of such items) included the following:

* Underground storage tanks and supply lines;
* Stained, etched or discolored surface areas;
* Distressed vegetation;
* Sumps, pits, ponds or landfills;
* Improper disposal areas;
* Use and storage of hazardous materials or wastes.

The following items were noted on the site walk:

* The site is currently comprised of a 2-acre vacant lot that is covered by grass and weeds, and 3.5 acres that are asphalt paved , fenced and has four separate structures;
* The Property is leased to several different companies that store equipment, conduct light manufacturing, and provide data processing;
* The main warehouse building and office building on the westside of the property were built in the early 1940s. The office building on the southeast side of the property was formerly a gas station. The station was built in the early 1960s and was closed when the Winton Avenue over-pass was built;
* A 1,500-gallon gasoline tank, formerly located on the west side of the site, was removed in 1990. No soil contamination was found. The tank site is closed;
* The site has three groundwater monitoring wells. The wells were installed in 1988. The groundwater underlying the site is known to be contaminated with chlorinated solvents. The groundwater contamination is documented to emanate from a source to the north and east and possibly south of the site and is not associated with the subject site;

* There are several parked trucks, trailers, construction equipment and cars parked at the site. There were no signs of hazardous waste disposal noted on the Property.

A walk-through of the main warehouse building (81 through 85 Review Way) revealed the interior to be constructed of wood beams, with isolated steel beams, concrete flooring and a corrugated metal roof. There is no insulation in the walls of the warehouse area. The main warehouse is approximately 30,000 square feet in size and was constructed in 1941. There is a small office partition attached to the warehouse that has acoustic ceiling and some linoleum floor tile. The main warehouse is currently partly occupied by Steve Lui Enterprises, which manufactures glass aquariums and terrariums and by A&R painting.

The 3,400 square foot office building (89 Review Way), located on the west side of the site, is constructed of wood. The ceiling is constructed with acoustic panels and there are linoleum floor tiles throughout portions of the office. The City and County Credit Union currently occupies approximately 2/3 of the building. The remaining portion is not occupied.

The small, 1,200 square foot building (51 Review Way), located on the southeast portion of the subject site, is constructed of wood and metal. The building, which was formerly a gas station in the 1960s, has been converted into an office building. Mr. Marshal Moran has informed CCI that the fuel tanks associated with the former station were removed from the site in the early 1970s. According to Mr. Moran, there was no contamination associated with the fuel tanks at the site. The building is currently occupied by Data Flow, which provides data processing.

As mentioned previously, three groundwater monitoring wells were installed at the site in 1988. At that time, Summerhill Development Company was proposing to use the site for residential housing. The City of Hayward required the installation of the monitoring wells as a part of the environmental impact report for the Property. The results of the groundwater analysis indicated that all three monitoring wells (GW-1, GW-2 and GW-3) were contaminated with chlorinated solvents. Monitoring well GW-1, located on the southeast side of the site (Figure 2), was found to have the highest contaminant levels. In 1988 monitoring well GW-1 was reported to contain 1,1-dichlorothene (DCE) at 140 parts-per-billion (ppb), 1,1,1-trichloroethane (TCA) at 820 ppb and trichlorothene (TCE) at 93 ppb. Smaller concentrations of TCE were reported in wells GW-2 and GW-3, at concentrations of 8 and 12 ppb, respectively. No DCE or TCA were reported in these two wells in 1988. The wells were last sampled in 1992 and GW-3 continued to have the highest levels of DCE, TCA and TCE, at concentrations of 20, 130 and 46 ppb, respectively. No chlorinated solvent contamination was reported in GW-2 and GW-3 was reported to have 4.5 ppb DCE, 23 ppb TCA and 24 ppb TCE. It was concluded, based

upon several regional environmental investigations, that the chlorinated solvents originated from sources to the north and southeast of the site. The City of Hayward Fire Department and the Regional Water Quality Control Board are currently not requiring any further environmental investigation at the subject site.

CCI was informed by Mr. Marshall Moran that a 1,500-gallon fuel tank was removed from the site in 1990. The fuel tank was located on the west side of the site, just north of the 3,400 square foot office building. A conversation with Mr. Hugh Murphy of the Hayward Fire Department indicated that two soil samples were collected from each end of the excavation. No contamination was reported in either of the soil samples. Based on this, the excavation was backfilled, recompacted and the Hayward Fire Department did not require any further work.

5.1 Limited Review of Surrounding Area

A limited review of the area surrounding the Property was conducted by CCI on May 13 and 15, 1996. This review included an inspection of public records at certain regulatory agencies.

E-Z Kleen, located at 54 Moran Court, had two 8,000 gallon underground storage tanks that contained solvents. The tanks were removed in 1988. A visual inspection at the time of the tank removal indicated the tanks had leaked. Analytical results of soil samples taken from the excavation indicated the presence of parafins and olefins. The samples did not contain elevated levels of chlorinated compounds above the method detection limits. One groundwater monitoring well was installed. Soil samples collected down to 45 feet below the ground surface were reported to be free of chlorinated solvents. A soil sample from 45 feet was reported to contain 35 parts-per-million (ppm) total petroleum hydrocarbons as gasoline (TPHG). The water sample collected from the well in 1988 was free of contamination. A water sample collected from the well in 1989 was reported to contain 9 ppb trichloroethylene and 13 ppb tetrachloroethylene.

The Daily Review, located at 116 West Winton Avenue, had three underground fuel-storage tanks and a series of above-ground, ink-storage tanks on site. Two 10,000-gallon tanks containing gasoline and a methanol-fuel mixture and one 3,000-gallon tank containing diesel were removed in 1986. No laboratory reports were available. There is no record of chlorinated solvents used or stored at this facility. Although no chlorinated solvent use is documented, solvent use as a degreasing agent was common at newspaper printing facilities.

Lincoln Property manages the property located at 21 and 24 Cannery Court, northeast of the subject site. Erler & Kalinowski, Inc. (EKI) has conducted three soil and groundwater investigations at

the site. The results of those investigations indicate that no chlorinated solvents have been detected in a total of 33 soil samples from the site. A total of 11 groundwater monitoring wells have been installed at the site. The groundwater gradient at the site is toward the south-southwest, at 0.007 to 0.001. Chlorinated solvents have been reported in the groundwater underlying the site. TCE, PCE, 1,1,1-TCA and 1,1-DCE have been reported in the groundwater. EKI's interpretation of the groundwater data is that the source(s) of the solvents are from offsite and up-gradient sources.

Furnishings 2000 formerly occupied the site at 24 Cannery Court. Two 10,000-gallon diesel and one 1,000-gallon gasoline tank were found to be leaking. Soil and groundwater investigations found some soil contamination, up to 1,100 ppm total petroleum hydrocarbons as diesel (TPHD), in the soil. Some groundwater contamination at 220 ppb TPHD was reported in monitoring well L-7. No chlorinated solvents were reported in the water samples. The Regional Water Quality Control Board is currently requiring semi-annual monitoring at this site.

6.0 REGULATORY AGENCY PUBLIC RECORDS REVIEW

To identify potential and actual exposure of the Property to hazardous materials and hazardous waste contamination, available public records were reviewed, including the Regional Water Quality Control Board (RWQCB) in Oakland, California, local agencies and certain published Federal and State lists.

Certain records and lists for sites located within a one-mile radius of the Property, broken down into increments of 1/8 mile, 1/4 mile, ½ mile and 1 mile, were reviewed. The radii (circumferences) for all records and lists provided below are in accordance with the ASTM Practice 1527 standards.

6.1 U.S. Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)

The U.S. EPA has developed and maintains lists of contaminated properties under the federal Superfund program, Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA). There are no properties listed within a 1/4 mile radius of the Sites. The most recent agency release date of CERCLIS was September, 1995.

6.2 National Priority List (NPL)

The U.S. EPA utilizes its Hazard Ranking System (HRS) to evaluate the potential risks to human health and the environment. The CERCLIS sites that pose the greatest risks are designated as NPL sites, which then qualifies the sites to receive CERCLA funding.

The search revealed no NPL sites within 1 mile of the Property.

6.3 Leaking Underground Storage Tanks (LUST)

The California State Water Resources Control Board has compiled a list of reported leaks of hazardous substances from underground storage tanks (USTs) in this state. Although there are no USTs at the Property, there are seventeen sites on the LUST list within a ½ mile radius. The agency release date for the information was February 1996. The list is provided in Appendix C.

6.4 State Underground Storage Tank List (RST)

This report provides a listing of all registered underground storage tanks located within California. Within a 1/4 mile radius, there are three listed sites. Appendix C provides a list of such sites.

6.5 Emergency Response Notification System (ERNS)

This database is a national database that is used to store information on the sudden or accidental release of hazardous substances, including petroleum, into the environment. This report pertains only to releases that occurred between October 1986 and March 1996. There were no such reported releases listed in the vicinity of the site.

6.6 National Compliance Data Base (TSCA/FIFRA

Formerly known as the FIFRA and TSCA Enforcement System (FATES), now information is housed on a regional level as the FIFRA/TSCA Tracking System (FTTS), and Section Seven Tacking System (SSTS). The NCDB tracks facility information, inspections, actions, cases, etc. This information is a compliance tracking database supporting the Toxic Substance Control Act. There was no such site listed within a ½ mile radius of the site.

6.7 RCRIS

The EPA maintains a list of sites that treat, store or dispose (TSD) of hazardous wastes. Within a 1 mile radius of the Property, there was one reported TSD facility. This list was most recently released in October, 1995.

6.8 State Landfills/Solid Waste Disposal Sites (LF)

The California Integrated Waste Management Board generates a list of sites permitted as solid waste landfills, incinerators or transfer stations. As of March, 1995, there were no such facilities listed within a ½ mile radius of the Sites.

6.9 RCRIS LG, SG (Generator)

The EPA's Resource Conservation and Recovery Act (RCRA) identifies and tracks hazardous waste from "cradle to grave" - from point of generation to point of disposal. This list identifies small and large quantity generators of hazardous waste. Within a 1/8 mile radius of the Property, there is one such generator. The list is provided in Appendix C.

7.0 OPINIONS AND CONCLUSIONS

Based on CCI's review of public documents, historical aerial photographs, physical reconnaissance and interviews with individuals familiar with the Property, it is CCI's opinion that there appears to be no major environmental problem related to the activities at the Property, however, CCI recommends that the existing buildings be surveyed for asbestos. During the walk through of the Property, it was noted that the office areas contained linoleum floor tile and acoustic ceiling panels that may contain asbestos material, due to the age of the structures.

The three existing groundwater monitoring wells at the site were last sampled in 1992. The groundwater samples collected from two of the three wells at that time were reported to contain chlorinated solvents. Review of public files and conversations with the City of Hayward Fire Department indicate these solvents are from an off-site source and are not associated with any previous activities at the subject site. If the three existing groundwater monitoring wells are not intended to be used, CCI recommends that these wells be properly destroyed following well destruction protocol. In addition, a 1,500 gallon UST was removed from the west side of the site in 1990. No contamination was associated with this tank and the City of Hayward Fire Department did not require any further investigative work. There is known regional groundwater contamination within a 1 mile radius of the site. Many of those releases appear to be in the process of remediation and/or monitoring. The closest site with solvent contamination is the site located at 54 Moran Court. Some reports suggest that solvents from this site may have impacted groundwater at the subject site, however, no regulatory agency is currently requiring any environmental work at the Property.

Other than the recommendation for an asbestos survey and well destruction, it is CCI's opinion and conclusion that no further environmental investigation is warranted for the site at this time.

8.0 LIMITATIONS

The discussions presented in this report are based on the following:

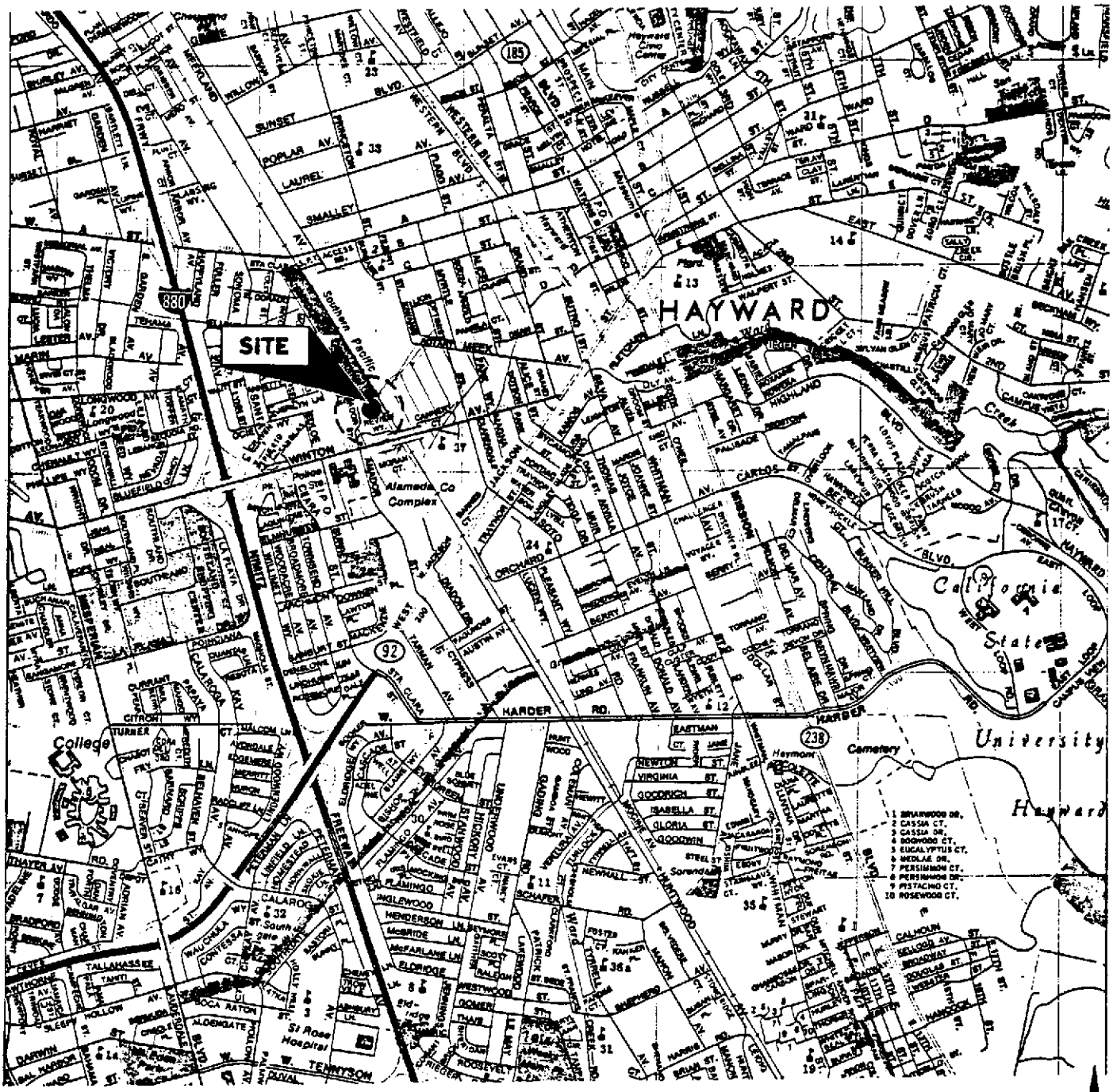
1. Observations of field personnel;
2. Documents referenced herein;
3. Information provided by various individuals and agencies.

It is possible that changes in the soil or groundwater conditions could occur at some time in the future due to variations in rainfall, temperature, regional water usage, or other factors.

The service performed by CCI has been conducted in a manner consistent with the practices and procedures generally accepted in the environmental consulting field. No other warranty, express or implied, is made. This Phase I Environmental Site Assessment of a 5.5 acre parcel of property located at 81 through 89 Review way was performed in conformance with the scope and limitations of ASTM Practice E 1527 standards for property evaluations. Any exceptions to, or deletions from, this practice are described in Sections 5.0 and 5.1. While this assessment has reveled some evidence of recognized environmental conditions at the Property, these conditions appear to be related to a known regional environmental concern.

APPENDIX A

Figures 1, 2 [illegible]



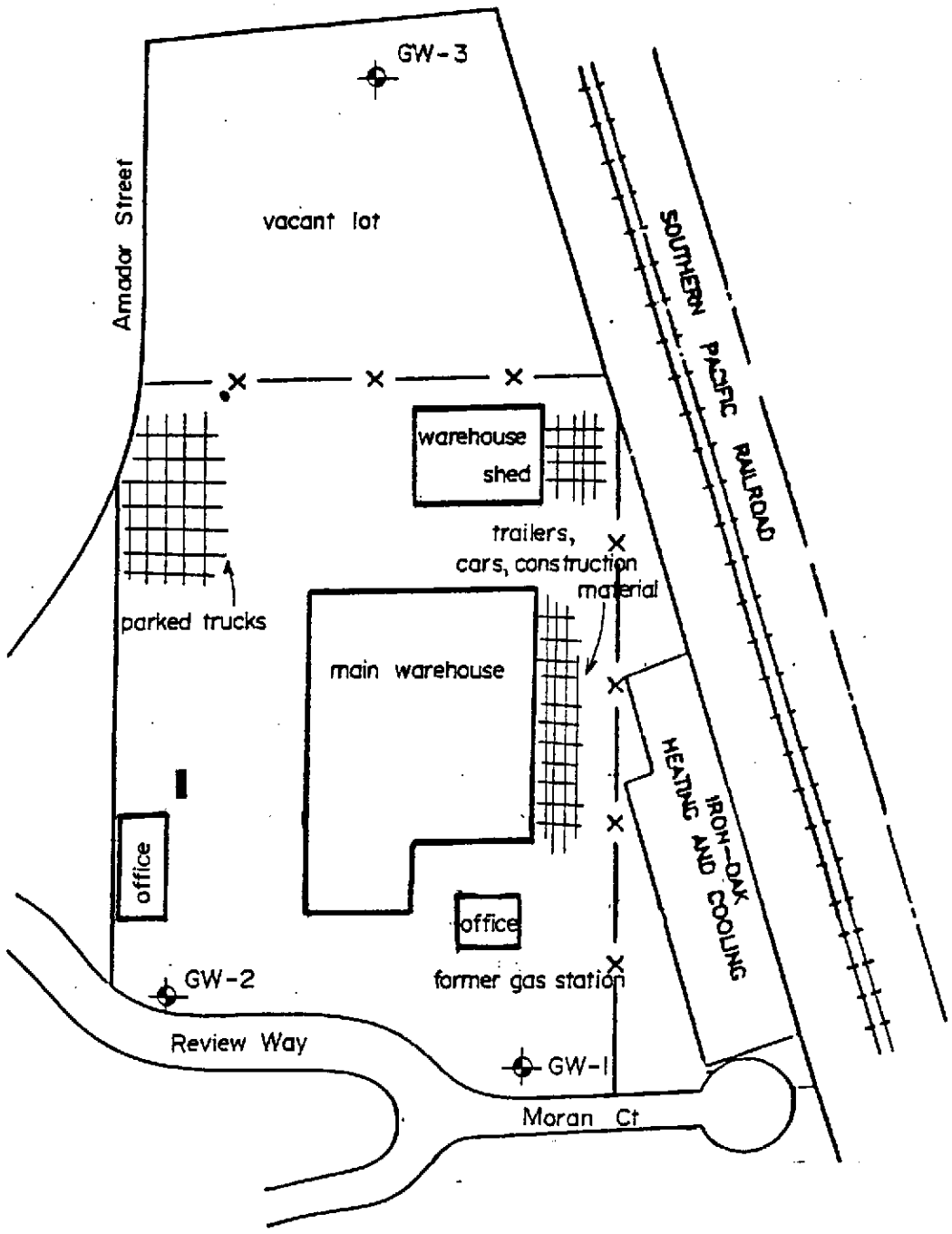
LEGEND

site location

0 1/2 1

approximate scale in miles

reviewed by:	VICINITY MAP	Compliance & Closure, Inc.
approved by:	NAROM DEVELOPMENT COMPANY	
drawn by: GM	81-89 REVIEW WAY	
job no. 12069-1	HAYWARD, CALIFORNIA	date: 5/20/96 drawing no. FIG. 1



LEGEND

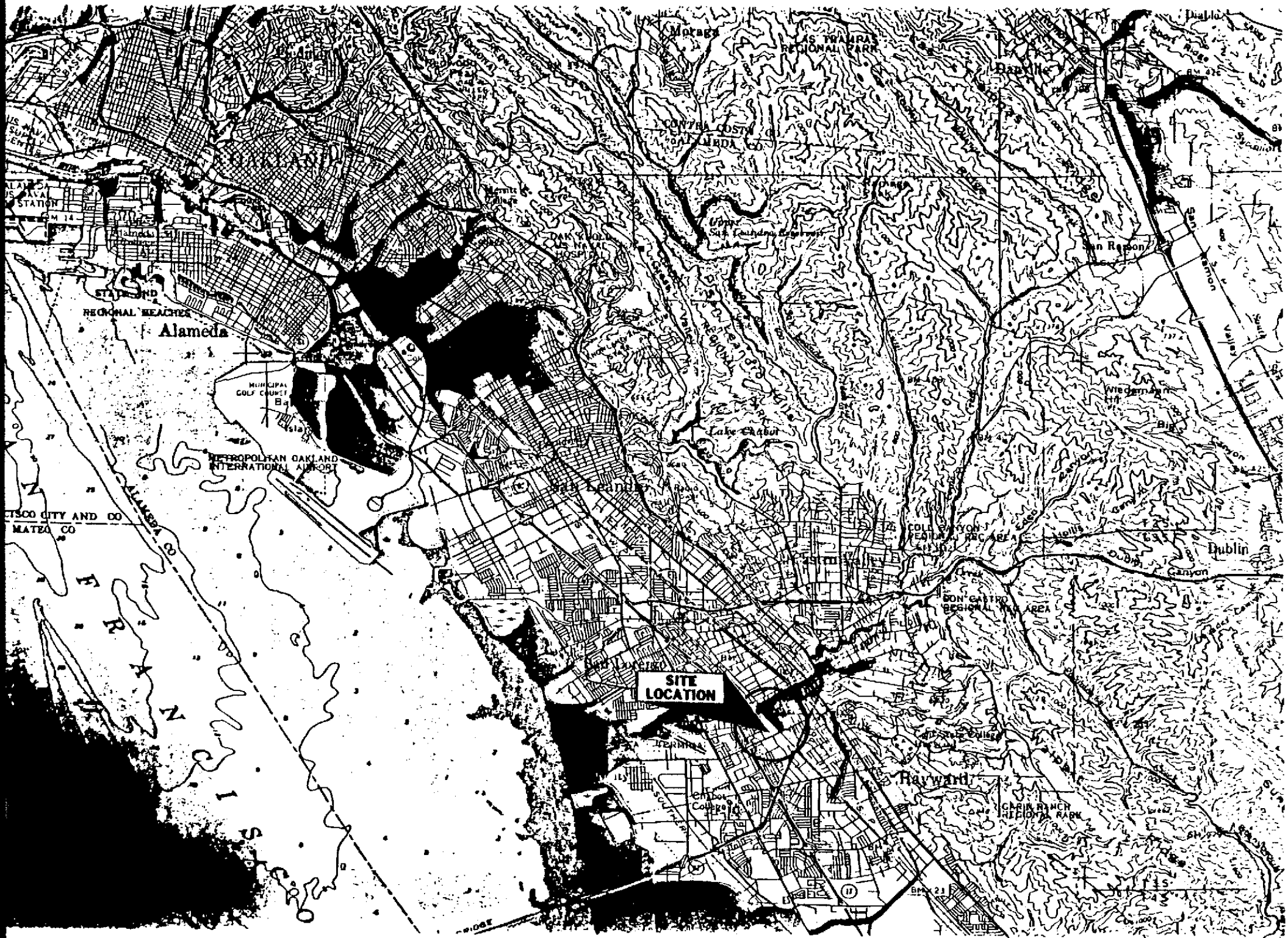
monitoring well

former ust location

0 150 300

approximate scale in feet

reviewed by:	SITE MAP	Compliance & Closure, Inc.
approved by:	NAROM DEVELOPMENT COMPANY	
drawn by: GM	81-89 REVIEW WAY	
job no. 12069-1	HAYWARD, CALIFORNIA	date: 5/20/96 drawing no. FIG. 2

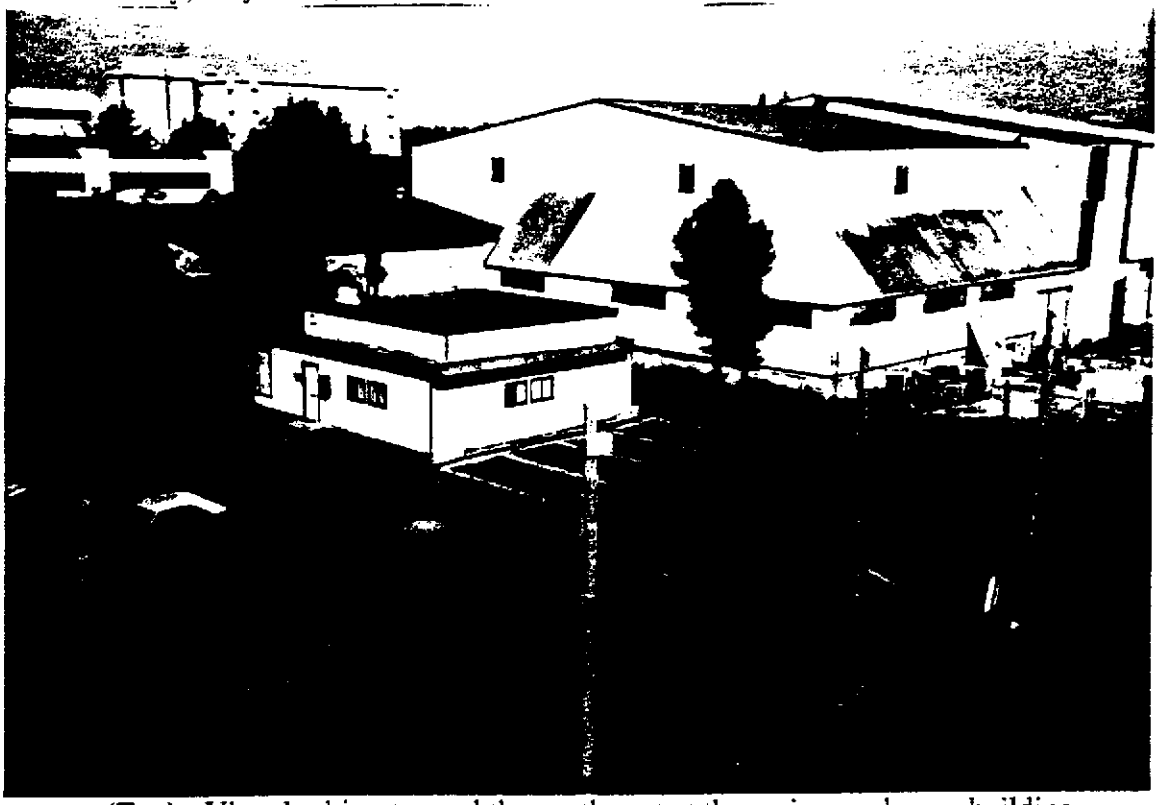


FLOOD PRONE AREA MAP

APPENDIX B

Site Photographs

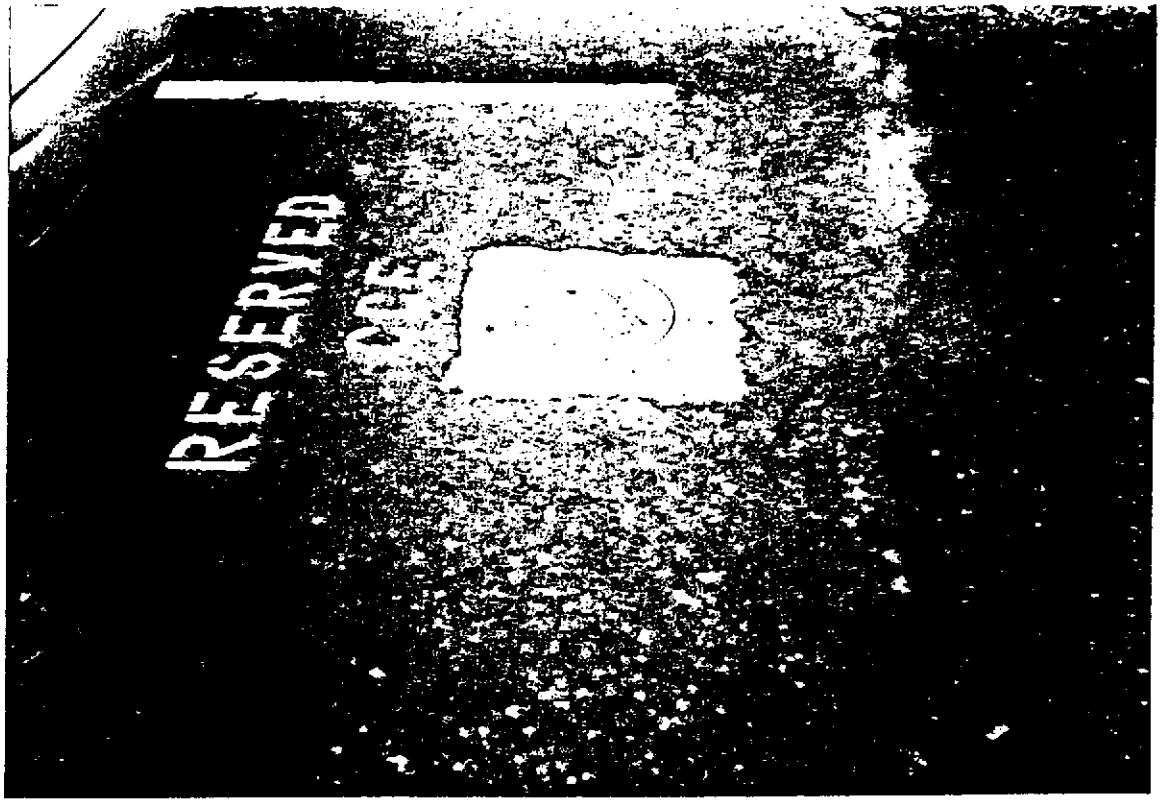
Narom Development Company
81 - 89 Review Way, Hayward, CA



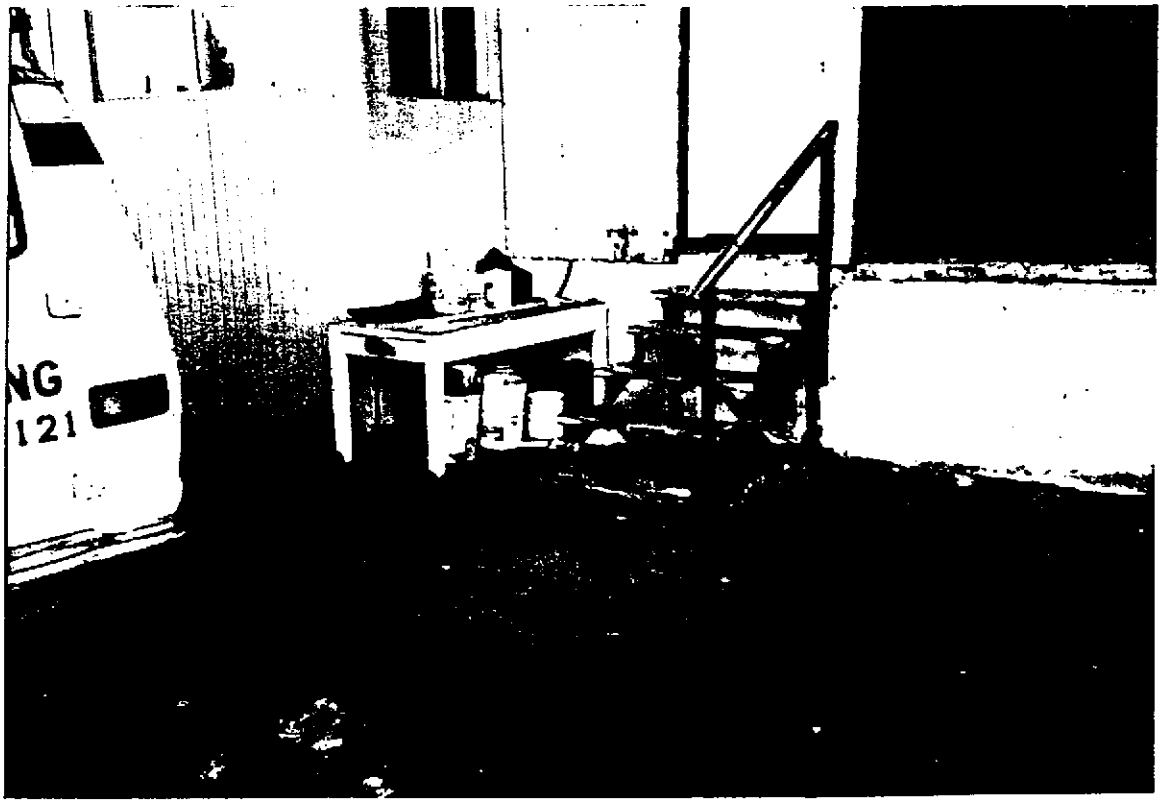
(Top) - View looking toward the northwest at the main warehouse building. The former gas station building now occupied by Data Flow is in the middle center of the photo. (Bottom) - View looking toward the west at 3,400 square foot office building.

Compliance & Closure, Inc.

(Top) - View looking toward the east at the small warehouse/shed structure located behind the main warehouse. (Bottom) - View looking toward the south on the east side of main warehouse. West Winton over pass is in the background.



(Top) - View of one of the three existing groundwater monitoring wells located on the Property. (Bottom) - View of some empty paint cans from A&R painting stored near the main warehouse building.



(Top) - View looking toward the north at the vacant lot area. (Bottom) - View looking toward the northwest at parked trucks and equipment belonging Anderson Electric.

Aerial Photograph

The best source for your information!

Environmental Database, Inc.
1-800-982-4627 (303) 794-8389 1-800-615-0049 Fax

Property Location:

81 Review Way
Hayward, CA 94544
Alameda

Report Prepared for:

Nalini Frush
Compliance & Closure, Inc.
7020 Koll Center Parkway, Ste 134
Pleasanton, CA 94566

ASTM Plus report
Prepared By:

Environmental Database, Inc.
7061 South University Boulevard, Suite 300
Littleton, Colorado 80122
(800) 982-4627

COMMENTS TO CLIENT REGARDING THIS SEARCH:

-- Both the Civil Enforcement Docket and the Site Enforcement Tracking System (PRPs) were searched with no records found.

-- Unlocatables have been included in this report.

ENVIRONMENTAL DATABASE, INC.
DATABASE STATUS

Database Searched	Date of Data	Last Contact	EDI Standard Search Radius	Comments
CERCLIS	09/30/95	02/22/96	1/2 Mile	Quarterly subscription Source: NTIS
DOCKET	09/30/95	02/22/96	Facility & Address	Ordered quarterly Source: NTIS
ERNS	03/31/96	04/15/96	Site	Obtained from Internet Source: EPAHQ
FINDS	09/30/95	02/22/96	Site	Quarterly subscription Source: NTIS
NPL	09/30/95	02/22/96	1 Mile	Quarterly subscription Most current data available as of 1/23/96. Source: NTIS
PADS	10/02/93	01/20/94	Site	Not ASTM requirement Source: EPA8
RCRIS	10/31/95	01/05/96	1 Mile TSD 600' Lg&Sm	Quarterly subscription Source: NTIS
SETS	01/31/96	02/22/96	PRP Name	Ordered quarterly Source: NTIS
SSTS	02/01/93	03/23/94	Site	Not ASTM requirement Source: EPA
TRIS	12/31/93	02/26/96	1/4 Mile	Most current data avail. Source: NTIS
TSCA	05/14/86	03/23/94	Site	Historic (1986) only Will never be updated. Source: NTIS
CA CERCLA		05/03/96	1 Mile	Environmental Protection Agency Region IX 415 744-1500 State Cerclis equivalent does not exist for this state.
CA	03/01/95	05/03/96		CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CAL/EPA) HAZARDOUS MATERIALS DATA MANAGEMENT PROGRAM 916 445-6532 Most current data available as of 3/12/96, per Beckie Mora.
CA LANDFILL	03/01/95	05/03/96	1/2 Mile	CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CAL/EPA) HAZARDOUS MATERIALS DATA MANAGEMENT PROGRAM 916 445-6532 Most current data available as of 3/12/96, per Beckie Mora.
CA LUST	02/20/96	04/08/96	1/2 Mile	CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CAL/EPA) HAZARDOUS MATERIALS DATA MANAGEMENT PROGRAM 916 445-6532
CA RUST	03/01/95	03/12/96	600'	CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CAL/EPA) HAZARDOUS MATERIALS DATA MANAGEMENT PROGRAM NO PHONE AVAIL. Most current data available as of 3/12/96, per Beckie Mora.
CA SF	03/01/95	05/03/96	1 Mile	CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CAL/EPA) HAZARDOUS MATERIALS DATA MANAGEMENT PROGRAM NO PHONE AVAIL. Most current data available as of 3/12/96, per Beckie Mora.

Federal Reporting Data System (FRDS)
This includes information on the Public Water Systems (PWS), including identification information, noncompliance related events, violations of the Safe Drinking Water Act (SDWA), enforcement actions, identification of significant non-compilers, and information on variances, exemptions, and waivers.

ction Seven Tracking System (SSTS)
This database includes information on pesticide producing facilities and their parent companies. Included are types and amounts of pesticides, active ingredients, and devices that are produced, sold, or distributed.

PCB Activity Database Set (PADS)
All facilities generating, storing, transporting or disposing of polychlorinated biphenyl.

Aerometric Information Retrieval System (AIRS)
AIRS is the national repository for information about airborne pollution in the United States. Contained in the database is facility permit information, emissions and compliance data on pollution point sources, measurements of ambient concentrations of air pollutants, and estimates of area-wide emissions from various sources.

Site Enforcement Tracking System (SETS/PRP)
This database tracks individuals, businesses, municipalities, and other entities that have been identified as being potentially liable to fund or repay environmental cleanup costs.

Civil Enforcement Docket (DOCKET)
The Enforcement Docket tracks information on civil judicial enforcement cases for all environmental statutes.

Integrated Risk Information System (IRIS)
Health risk and EPA regulatory information on some 400 chemicals. IRIS contains the EPA consesus opinion on potential chronic human health effects related to chemical hazard identification and dose-response assessment.

State Superfund/Cleanup Sites (SF)
Each State has the right to assemble and maintain a list of State designated - hazardous waste cleanup sites. Some states use the EPA CERCLIS as their reporting system, other states have a unique database independent of the EPA sites.

State CERCLIS Equivalent
These are the state equivalents of the Federal CERCLIS records. They are compenduims of sites which are being investigated as potential uncontrolled hazardous waste sites.

State Landfills/Solid Waste Disposal Sites (LF)
This list tracks the active and closed landfills and waste disposal sites reported by each state agency.

Leaking Underground Storage Tanks (LUST)
This state list tracks all reported Leaks and releases from Underground Storage Tanks. The majority of these incidents involve petroleum dispensing facilities.

Registered Underground Storage Tanks (RUST)
The state information system tracks the known and permitted registered underground storage tanks. The majority of these sites involve petroleum dispensing facilities. Some states are also including aboveground tanks.

ENVIRONMENTAL DATABASE, INC.
FEDERAL & STATE DATABASE REFERENCE SHEET

National Priorities List (NPL)
This is a record of CERCLA sites which are considered to pose an immediate threat to human health and the environment. This conclusion is reached by the EPA based on the Hazards Ranking Scoring System (HRS), which have scored a 28.5 or higher, and for which a remedial investigation and feasibility study will be performed.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
CERCLIS is the Superfund database which contains information on all aspects of hazardous waste sites from initial discovery to listing on the National Priorities List. Information includes an inventory of sites, planned and actual site activities and financial information.

Superfund Amendments and Reauthorization Act (SARA/TRIS)
The Toxic Release Inventory contains information from facilities on the amounts of over 300 listed toxic chemicals that the facilities release directly to air, water or land, or that are transported off-site. Included are facility data, substance identification, environmental chemical release, off-site waste transfer, and waste treatment/minimization information.

Emergency Response Notification System (ERNS)
ERNS tracks the initial notification of reported oil and hazardous waste spills. The database contains many types of information regarding releases of oil and hazardous substances, including the following: discharger information, date of release, material and amount released, incident location, response action taken, etc.

Resource Conservation and Recovery Act (RCRA)
CRIS is the national system for tracking of events and activities related to facilities which generate, transport, and treat, store, or dispose of hazardous waste. This data set includes handler identification, permit application status, compliance monitoring and enforcement sensitive information.

RCRA "Corrective Action" (RACT) - Permitted facilities with corrective action case files
RCRA RAATS - Administrative Action Tracking Systems.

Facility Index System (FINDS)
FINDS is an inventory of information on facilities regulated/tracked by EPA programs. It was developed to support cross-media analyses as well as regulatory and enforcement actions by pointing to other EPA databases that regulate or track a facility. All facilities that have received an EPA ID number should be in the FINDS database.

National Compliance Data Base (TSCA/FIFRA)
Formerly FIFRA and TSCA Enforcement System (FATES), now information is housed on a regional level as the FIFRA TSCA Tracking System (FTTS), and Section Seven Tracking System (SSTS), described below. The NCDB tracks facility information, inspections, actions, cases, etc... This information is a compliance tracking database supporting the Toxic Substances Control Act.

Permit Compliance System (PCS)
PCS supports the National Pollution Discharge Elimination System under the Clean Water Act. Each permit record contains information which identifies and describes the facility, specifies the pollutant discharges limits, records the actual amounts of pollutants measured in wastewater discharges, and tracks compliance schedules and violations.

ENVIRONMENTAL DATABASE, INC.

SUMMARY OF FINDINGS

SUBJECT SITE:

81 REVIEW WAY
HAYWARD CA 94544
ALAMEDA COUNTY

Map #	Facility Name	Fac ID #	Database	Search Radius 600'	¼ Mi	½ Mi	1 Mi	Distance From Site (Miles)
2	AMFAC PLUMBING SUPPLY	00006986	REG UST	X				0.02
	THE DAILY REVIEW NEWSPAPER	00068659	REG UST	X				0.07
	ALAMEDA NEWSPAPERS INC	CAD981420961	RCRA	X				0.07
	EXXON STATION NO 7-0105	00012459	REG UST	X				0.11
5	LINCOLN PROPERTY CO		LEAK UST			X		0.20
	HAYWARD UNIFIED SCHOOL DIST		LEAK UST			X		0.23
7	HAAR PICKLE		LEAK UST			X		0.24
	EXXON STATION NO 7-0105	00012459	LEAK UST			X		0.32
9	US POST OFFICE		LEAK UST			X		0.32
	NOREEN MENDONCA PROPERTY		LEAK UST			X		0.33
11	WINTON AVENUE BUILDING		LEAK UST			X		0.34
	SELECT-SYSCO		LEAK UST			X		0.36
13	EXXON		LEAK UST			X		0.42
	SHELL		LEAK UST			X		0.43
15	CALWEST MOVING INC		LEAK UST			X		0.44
	CHEVRON		LEAK UST			X		0.44
17	CHEVRON		LEAK UST			X		0.44
	BP OIL/MOBIL		LEAK UST			X		0.45
19	UNITED CAN		LEAK UST			X		0.46
	EXXON (FORMER)		LEAK UST			X		0.46
21	JACKSON STREET LUMBER COMPANY	01240033	STATE SF				X	0.47
	JACKSON ST LUMBER CO	CAD028287068	CERCLA			X		0.47
22	B & B		LEAK UST			X		0.49
	ANCHOR GLASS CONTAINER CORP	CAD051903847	STATE SF				X	0.68

Databases not represented in this Summary of findings were either searched with no records found, or the database was not ordered.

ENVIRONMENTAL DATABASE, INC.

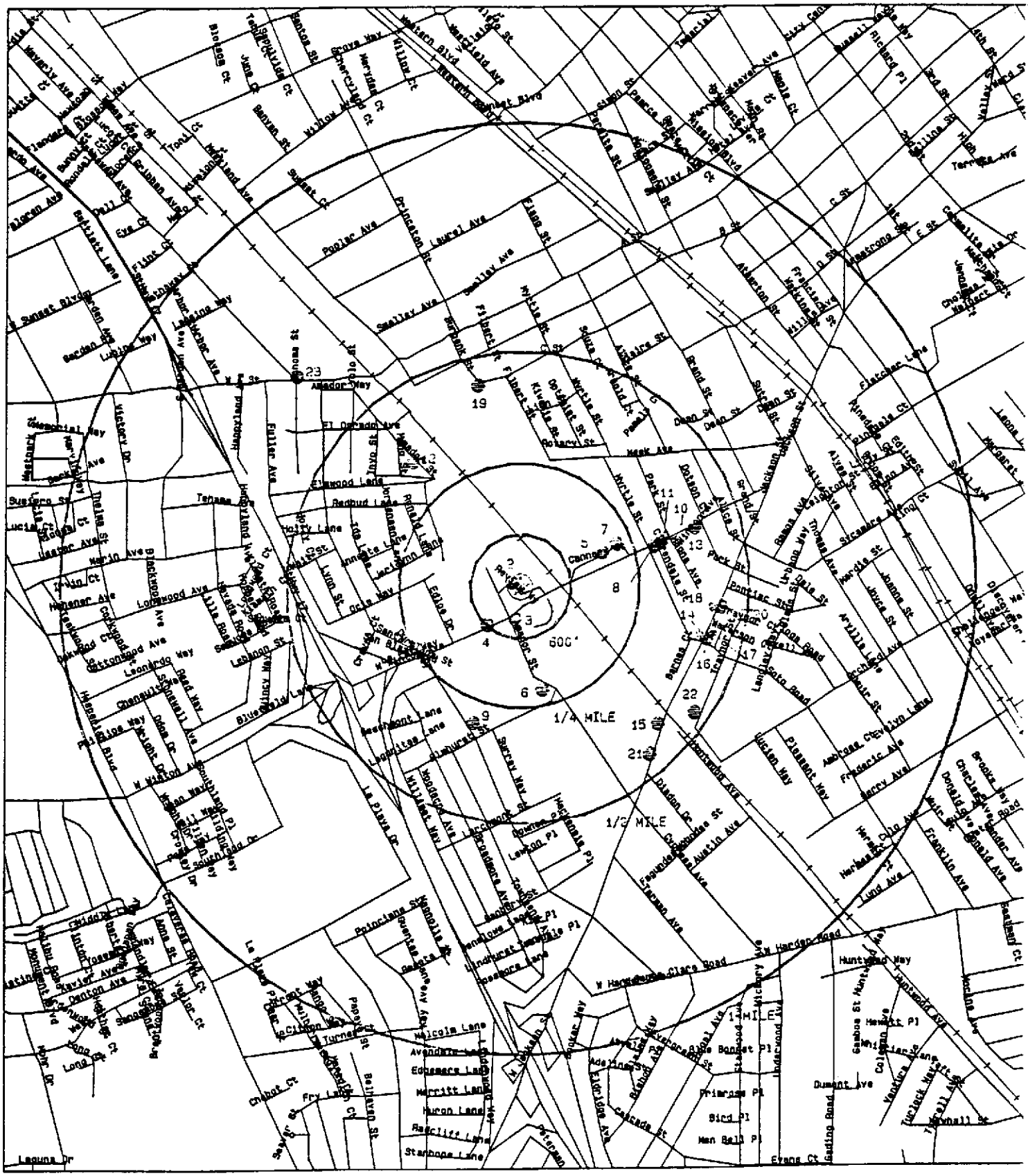
SUMMARY OF FINDINGS

SUBJECT SITE:

Map #	Facility Name	Fac ID #	Database	Search Radius 600'	¼ Mi	½ Mi	1 Mi	Distance From Site (Miles)

Number of occurrences found in search : 24

Databases not represented in this Summary of findings were either searched with no records found, or the database was not ordered.



81 Review Way - Hayward, CA
Scale: 1"=1600' - EDI#11798 - May 8, 1996

CALIFORNIA
FACILITIES INVENTORY DATA BASE (FID)
UNDERGROUND STORAGE TANK REPORT

Map Point: 2

EDI #: 01002310

Facility: AMFAC PLUMBING SUPPLY
85 REVIEW WAY
HAYWARD CA 94540
ALAMEDA County

Facility ID: 00006986
LAT-LONG: 000000-0000000

Contact:
P O BOX
HAYWARD CA 94540

Creation Date: 931022

Last Modified Date: 000000

CAL/EPA SOURCE AND CONTACT INFORMATION

00006986 INACTIVE TANKS WATER RESOURCES CONTROL BOARD 916 227-4400

REGISTERED UNDERGROUND STORAGE TANKS: These are state records tracking known and permitted underground storage tanks. Some states also include above storage tanks.

CALIFORNIA
RCRA NOTIFIER FACILITY REPORT

Map Point: 3

EDI #: 24560R

Facility:	ALAMEDA NEWSPAPERS INC 116 AND 1500 W WINTON AVE HAYWARD CA 94540 ALAMEDA County	EPA ID Number: EPA Region: Longitude: Latitude:	CAD981420961 09 ° ' ° '
Owner: Contact:	GARDEN STATE NEWSPAPERS ENVIRONMENTAL MANAGER (415)783-6111	(415)555-1212	

RCRA Facility Designations

Generator Type:	CONDITIONALLY EXEMPT
Transporter Type:	UNVERIFIED

The Resource Conservation and Recovery Inventory System (RCRIS) is the national system for tracking events and activities related to facilities which generate, transport, or treat, store, or dispose of hazardous waste.

CALIFORNIA
FACILITIES INVENTORY DATA BASE (FID)
UNDERGROUND STORAGE TANK REPORT

Map Point: 3

EDI #: 01001977

Facility: THE DAILY REVIEW NEWSPAPER
116 W WINTON AVE
HAYWARD CA 94544
ALAMEDA County

Facility ID: 00068659
LAT-LONG: 000000-0000000

Contact:
116 W WINTON
HAYWARD CA 94544

Creation Date: 931022

Last Modified Date: 000000

CAL/EPA SOURCE AND CONTACT INFORMATION

00068659 ACTIVE TANKS/UTNKA WATER RESOURCES CONTROL BOARD 916 227-4400

REGISTERED UNDERGROUND STORAGE TANKS: These are state records tracking known and permitted underground storage tanks. Some states also include above storage tanks.

CALIFORNIA
FACILITIES INVENTORY DATA BASE (FID)
UNDERGROUND STORAGE TANK REPORT

Map Point: 4

EDI #: 01001351

Facility: EXXON STATION NO 7-0105
193 W WINTON AVE
HAYWARD CA 94544
ALAMEDA County

Facility ID: 00012459
LAT-LONG: 000000-0000000

Contact:
4550 DACOMA
HAYWARD CA 94544

Creation Date: 931022

Last Modified Date: 000000

CAL/EPA SOURCE AND CONTACT INFORMATION

00012459 ACTIVE TANKS/UTNKA WATER RESOURCES CONTROL BOARD 916 227-4400

REGISTERED UNDERGROUND STORAGE TANKS: These are state records tracking known and permitted underground storage tanks. Some states also include above storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 5

EDI #: 01005186

Facility:	LINCOLN PROPERTY CO 21 CANNERY COURT HAYWARD CA 94544 ALAMEDA County	Facility ID: Cross Street:	
Lead Agency:	Local Agency	Report Date:	19920317
Case Type:	Other	Date Confirmed:	000003*
Status:	Preliminary Site Assessment Underway	Start Remediation:	000003*
		Closure Letter:	000003*
Substance:	DIESEL		

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 6

EDI #: 01000874

Facility:	HAYWARD UNIFIED SCHOOL DIST 2440 AMADOR ST HAYWARD CA 94544 ALAMEDA County	Facility ID: Cross Street:	
Lead Agency:	Local Agency	Report Date:	19861210
Case Type:	Soil Only	Date Confirmed:	000003*
Status:	Leak Being Confirmed	Start Remediation:	000003*
		Closure Letter:	000003*
Substance:	UNLEADED GASOLINE		

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 7

EDI #: 01005150

Facility: HAAR PICKLE
15 CANNERY CT
HAYWARD CA 94544
ALAMEDA County

Facility ID:

Cross Street:

Lead Agency: Local Agency
Case Type: Undefined
Status: Leak Being Confirmed

Substance: DIESEL

Report Date: 19940404
Date Confirmed: 000003*
Start Remediation: 000003*
Closure Letter: 000003*

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 8

EDI #: 01001351

Facility: EXXON/REGAL
193 WINTON AVE
HAYWARD CA 94544
ALAMEDA County

Facility ID:

Cross Street:

Lead Agency: Local Agency
Case Type: Other
Status: Pollution Characterization

Substance: GASOLINE

Report Date: 19851209
Date Confirmed: 19851209
Start Remediation: 000003*
Closure Letter: 000003*

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 9

EDI #: 01000872

Facility:	US POST OFFICE 24438 SANTA CLARA ST HAYWARD CA 94544 ALAMEDA County	Facility ID:	
		Cross Street:	
Lead Agency:	Regional Board Inactive	Report Date:	19900129
Case Type:	Undefined	Date Confirmed:	000003*
Status:	No Action	Start Remediation:	000003*
		Closure Letter:	000003*
Substance:	UNLEADED GASOLINE		

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 10

EDI #: 01001169

Facility:	NOREEN MENDONCA PROPERTY 213 WINTON AVE W HAYWARD CA 94544 ALAMEDA County	Facility ID:	
		Cross Street:	
Lead Agency:	Local Agency	Report Date:	19881104
Case Type:	Other	Date Confirmed:	000003*
Status:	Case Closed	Start Remediation:	000003*
		Closure Letter:	19940401
Substance:	GASOLINE		

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 11

EDI #: 01002885

Facility: WINTON AVENUE BUILDING
224 WINTON AVE W
HAYWARD CA 94544
ALAMEDA County

Facility ID:

Cross Street: SANTA CLARA ST

Lead Agency: Local Agency
Case Type: Undefined
Status: Leak Being Confirmed

Substance: GASOLINE

Report Date: 19931206
Date Confirmed: 19931117
Start Remediation: 000003*
Closure Letter: 000003*

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 12

EDI #: 01001428

Facility:	SELECT-SYSCO 22885 AMADOR ST HAYWARD CA 94541 ALAMEDA County	Facility ID:	
		Cross Street:	
Lead Agency:	Local Agency	Report Date:	19900523
Case Type:	Soil Only	Date Confirmed:	000003*
Status:	Leak Being Confirmed	Start Remediation:	000003*
		Closure Letter:	000003*
Substance:	WASTE OIL		

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 13

EDI #: 2016L6

Facility:	EXXON 293 WINTON AVE HAYWARD CA ALAMEDA County	Facility ID: Cross Street:	
Lead Agency:	Local Agency	Report Date:	
Case Type:	Other	Date Confirmed:	
Status:	Preliminary Site Assessment Workplan Submitted	Start Remediation: Closure Letter:	
Substance:	GASOLINE		

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 14

EDI #: 01001442

Facility:	SHELL 138 JACKSON ST HAYWARD CA 94544 ALAMEDA County	Facility ID:	
		Cross Street:	
Lead Agency:	Local Agency	Report Date:	19870409
Case Type:	Other	Date Confirmed:	000003*
Status:	Remediation Plan	Start Remediation:	000003*
		Closure Letter:	000003*
Substance:	GASOLINE		

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 15

EDI #: 01000408

Facility:	CALWEST MOVING INC 31 JACKSON ST W HAYWARD CA 94544 ALAMEDA County	Facility ID:	
		Cross Street:	
Lead Agency:	Local Agency	Report Date:	19900813
Case Type:	Undefined	Date Confirmed:	000003*
Status:	No Action	Start Remediation:	000003*
		Closure Letter:	000003*
Substance:	DIESEL		

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 16

EDI #: 01000452

Facility:	CHEVRON 133 JACKSON ST HAYWARD CA 94544 ALAMEDA County	Facility ID:	
		Cross Street:	
Lead Agency:	Local Agency	Report Date:	19910123
Case Type:	Other	Date Confirmed:	000003*
Status:	Case Closed	Start Remediation:	000003*
		Closure Letter:	19941101
Substance:	8008819		

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 17

EDI #: 01000459

Facility: CHEVRON
153 JACKSON ST W
HAYWARD CA 94544
ALAMEDA County

Facility ID:

Cross Street:

Lead Agency: Local Agency
Case Type: Other
Status: Pollution Characterization

Substance: WASTE OIL

Report Date: 19890915
Date Confirmed: 000003*
Start Remediation: 000003*
Closure Letter: 000003*

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 18

EDI #: 01000358

Facility:	BP OIL/MOBIL 210 JACKSON ST W HAYWARD CA 94544 ALAMEDA County	Facility ID:	
		Cross Street:	
Lead Agency:	Local Agency	Report Date:	19851015
Case Type:	Other	Date Confirmed:	000003*
Status:	Remediation Plan	Start Remediation:	000003*
		Closure Letter:	000003*
Substance:	UNLEADED GASOLINE		

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 19

EDI #: 01000295

Facility:	UNITED CAN 199 C ST HAYWARD CA 94541 ALAMEDA County	Facility ID:	
		Cross Street:	
Lead Agency:	Local Agency	Report Date:	19900716
Case Type:	Well Affected	Date Confirmed:	000003*
Status:	Remediation Plan	Start Remediation:	000003*
		Closure Letter:	000003*
Substance:	DIESEL		

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 20

EDI #: 01000707

Facility:	EXXON (FORMER) 215 JACKSON ST W HAYWARD CA 94544 ALAMEDA County	Facility ID:	
		Cross Street:	
Lead Agency:	Local Agency	Report Date:	19900502
Case Type:	Other	Date Confirmed:	000003*
Status:	Remedial Action	Start Remediation:	19940101
		Closure Letter:	000003*
Substance:	MISC MOTOR VEHICLE FUELS		

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
CERCLIS SITE REPORT

Map Point: 21

EDI #: 747C

Facility:	JACKSON ST LUMBER CO 73 W JACKSON ST HAYWARD CA 94544 ALAMEDA County	EPA ID Number: EPA Region: Longitude: Latitude: Last Update:	CAD028287068 09 122°05' 20 37°39' 20 060294

Federal Docket:	SITE IS NOT ON THE DOCKET
USGS Hydrological Unit:	18050004
Federal Facility Flag:	IS NOT A FEDERAL FACILITY
Ownership Indicator:	UNKNOWN
Facility Incident Category:	UNKNOWN - NOT GIVEN
Facility Classification:	UNDETERMINED
CERCLIS Status:	REMOVED BY EPA ON 2/95 NFRAP SITE
RCRA Flag:	UNKNOWN - NOT GIVEN

Facility Description:

EDI STATUS: REMOVED BY EPA ON 2/95 NFRAP SITE
NPL Status: THE SITE IS NOT AND NEVER HAS BEEN ON THE PROPOSED AND/OR FINAL NPL

EPA Events That Have Taken Place At The Facility

EVENT	LEAD	DATE	FURTHER ACTION
DISCOVERY	EPA FUND-FINANCED	090179	
PRELIMINARY ASSESSMENT	EPA FUND-FINANCED	010186	
SCREENING SITE INSPECTION	EPA FUND-FINANCED	030186	NO FURTHER REMEDIAL ACTION PLANNED

CERCLIS is the Federal database which contains information on all aspects of hazardous waste sites from initial discovery to listing on the National Priorities List. Information includes an inventory of sites, planned and actual site activities and financial information.

CALIFORNIA
FACILITIES INVENTORY DATA BASE (FID)
STATE SUPERFUND CALSITE-ASPIS REPORT

Map Point: 21

EDI #: 01003329

Facility: JACKSON STREET LUMBER COMPANY
73 WEST JACKSON STREET
HAYWARD CA 94544
ALAMEDA County

Facility ID: 01240033
LAT-LONG: 000000-0000000

SIC CODE: 24

Contact:

HAYWARD CA 94544
Creation Date: 940922 Last Modified Date: 000000

CAL/EPA SOURCE AND CONTACT INFORMATION

01240033 CALSITES-ASPIS/CALSI CAL/EPA DEP TOXIC SUBSTANCES CONTROL BOARD
916 255-2086

STATE SUPERFUND: This lists state designated hazardous waste cleanup sites.

CALIFORNIA
LEAKING UNDERGROUND STORAGE TANK REPORT

Map Point: 22

EDI #: 01005159

Facility: B & B
18 TRAYNOR ST
HAYWARD CA 94544
ALAMEDA County

Facility ID:

Cross Street:

Lead Agency: Local Agency
Case Type: Undefined
Status: Leak Being Confirmed

Substance: MINERAL SPIRITS

Report Date: 19940405
Date Confirmed: 000003*
Start Remediation: 000003*
Closure Letter: 000003*

LEAKING UNDERGROUND STORAGE TANKS: This state list tracks all known or rreported leaks and releases from underground storage tanks.

CALIFORNIA
FACILITIES INVENTORY DATA BASE (FID)
STATE SUPERFUND CALSITE-ASPIS REPORT

Map Point: 23

EDI #: 59008884

Facility: ANCHOR GLASS CONTAINER CORP
HAYWARD CA 945410000
59 County

Facility ID: CAD051903847
LAT-LONG: 000000-0000000

Contact:

Creation Date: CA 931027

Last Modified Date: 000000

CAL/EPA SOURCE AND CONTACT INFORMATION

CAD051903847 ENFORCEMENT DOCKET/DTSCD DEP TOXIC SUBSTANCES CONTROL BOARD 916 234-2437

STATE SUPERFUND: This lists state designated hazardous waste cleanup sites.

APPENDIX D

Copy of SCS Engineers, *Phase II Site Investigation Final Report, 85 West Winton Avenue, Hayward, California*, dated 9 September 1988

PHASE II SITE INVESTIGATION
FINAL REPORT
85 WEST WINTON AVENUE
HAYWARD, CALIFORNIA

SCS Engineers
6761 Sierra Court, Suite D
Dublin, CA 94566

September 9, 1988

SCS ENGINEERS

September 9, 1988
File No. 38809.01

Subject: Phase II Site Investigation - Final Report
85 West Winton Avenue
Hayward, California

Dear Mr.

This letter report contains the results of our recent environmental assessment work at the 85 West Winton Avenue property in Hayward, California. Three groundwater monitoring wells were installed and five soil borings were drilled to delineate any potential soil or groundwater contamination from an unknown source or sources. A limited survey of the building was also conducted to identify any possible hazardous materials. The work performed at the site was as follows:

1. Drill and install three groundwater monitoring wells.
2. Drill and sample five test borings.
3. Evaluate general subsurface conditions.
4. Perform wellhead elevation survey.
5. Perform unknown substance investigation.
6. Laboratory analysis of soil and groundwater.

I. DRILLING & INSTALLATION OF THREE GROUNDWATER MONITORING WELLS

On August 3, 1988 a well construction permit was obtained from the Alameda County Flood Control and Water Conservation District to drill and install three groundwater monitoring wells (Appendix II). Drilling and associated sampling began on August 4, 1988 and was completed on August 6, 1988. The locations of the wells GW-1, GW-2 and GW-3 are shown on Plate 1, Appendix I.

The boreholes were advanced by Bay Area Exploration of Suisun City, California using a CME-55 drilling rig with 8 inch O.D. hollow stem augers to a total depths of 55, 60 and 55 feet respectively. Prior to drilling each well, the augers were hot water pressure-cleaned to avoid any possible cross-contamination. Auger cuttings were placed on 6-mil poly cover pending laboratory analysis.

Soil samples were obtained from native soil at five foot intervals from ground surface to the water table (45 feet), using a 2-inch I.D. split spoon California sampler with brass sleeves. The soil samples retained in the brass sleeves were examined, sealed with aluminum foil, capped with plastic end caps, tightly wrapped with tape, labeled, and kept in cold storage for transport to the chemical laboratory.

A boring log for each well was recorded in the field during the drilling operation and includes sample intervals, subsoil conditions penetrated, and well construction details (see Appendix III). The monitoring wells were completed using 2-inch PVC flush-jointed, Schedule 40, blank and screened sections (0.020-inch slot size). The casing was hot water pressure-cleaned prior to placement into the drill pipe. The bottom of the casing was capped with a 2-inch PVC threaded end cap. The well was completed through the augers (which were pulled up in 5 foot sections) to ensure an even distribution of the gravel pack. The annular space of the well was backfilled with Lonestar #3 sand to 2 feet above the top of the screened section. A 3 foot bentonite seal was placed on top of the sand and the remaining annular space was sealed with a cement grout. A watertight locking vault, with a flush cover, was installed at least 1-inch above the surrounding surface. The well casing was terminated in the vault with a waterproof locking cap.

Development of the well was conducted on August 8 & 9, 1988 by SCS Engineers. Prior to purging, static water level measurements were taken and are presented in Appendix IV. The wells were developed by bailing and then pumping with a Tri-Loc pump. Each well was pumped until the discharge water was clear and free of sand and silt, which was approximately 16 well volumes of water (55 gallons) purged from each well. On the same day, water samples were also collected from the wells using an acrylic bailer. At each well, two acidified 40 ml. VOA vials were filled with well water for chemical analysis. All samples were immediately sealed, labeled and put into cold storage for transport to the chemical laboratory. Discharge water was contained in DOT-17E 55 gallon drums and left on-site pending laboratory analysis and disposal.

II. DRILLING AND SAMPLING OF TEST BORINGS

On August 3, 1988 a permit to drill was obtained from the Alameda County Flood Control and Water Conservation District to drill 5 test borings (Appendix II). Drilling and associated sampling began on August 5, 1988. Locations of the five borings, B-1, B-2, B-3, B-4 and B-5 are shown on Plate 1, Appendix I.

The boreholes were advanced by Bay Area Exploration of Suisun City, California using a CME-55 drilling rig with 6 inch O.D. hollow stem augers to a total depths of 12 feet in B-1 and B-2, and 30 feet in B-3, B-4 and B-5. Prior to drilling each boring, the augers were hot water pressure-cleaned to avoid cross contamination. Auger cuttings were placed on 6 mil poly-cover pending laboratory analysis.

Soil samples were obtained from native soil at five intervals in B-1 and B-2 and ten foot intervals in B-3, B-4 and B-5 from ground surface to total depth, using a 2-inch I.D. split spoon California sampler with brass sleeves. The soil samples retained in the brass sleeves were examined, sealed with aluminum foil, capped with plastic end caps, tightly wrapped with tape, labeled, and kept in cold storage for transport to the chemical laboratory.

A boring log for each location was recorded in the field during the drilling operation and includes sample intervals, sub soil conditions penetrated and backfill details (see Appendix III).

Each of the five borings were abandoned using a bentonite material known as volplug chips (information on volplug chips is included in Appendix III). The borings were backfilled from total depth to 3 feet with volplug chips, and from the ground surface to 3 feet with compacted soil.

III. GENERAL SUBSURFACE CONDITIONS

General subsoil conditions encountered in the wells and borings were similar: from ground surface to 1 foot, asphalt and roadbase; from 1 foot to 10 feet, a dark brown, moist, slightly silty clay; from 10 feet to about 30 feet, a brown, moist, silt; from 30 to 60 feet either a brown, moist, well graded, cobble sized gravel, or a brown, moist, silt.

Groundwater was first encountered in the gravel or silt layer in the 3 wells at approximately 45 feet in depth. Later, when static water level measurements were taken, it was found that the static groundwater level is about 46 feet below the ground surface. During drilling it was noted that neither soil nor groundwater exhibited an odor, and during water sampling, groundwater exhibited no sheen.

IV. WELL HEAD ELEVATION SURVEY

Wellhead elevations were surveyed on August 9, 1988 in order to determine groundwater flow direction. The survey was conducted by Kavanagh Engineering, a licensed land surveyor, and results

can be found in Appendix IV. The water table in this area is fairly flat lying, dipping only 0.02 degrees to the south. This can be seen in the water table contour map (Plate 2) in Appendix IV.

V. UNKNOWN SUBSTANCE INVESTIGATION

On August 5, 1988 three random samples of an unknown substance were collected at the site. All three samples, a white chrystalline material, were taken from the interior of several wooden bins within the main warehouse. Samples were placed in plastic bags, numbered and sent to the chemical laboratory for analysis. The bins containing the unknown substance were labeled on the third level of the warehouse as Ammonium Sulfate and Potash.

VI. CHEMICAL ANALYSIS

SCS Analytical Laboratory of Long Beach, California tested a total of 40 soil samples for some or all of the following parameters:

- Volatile Organics - EPA 8240
- Total Hydrocarbons as Gasoline - EPA 8015
- Aromatic Volatile Organics - EPA 8020
- Arsenic
- Copper
- Lead
- Mercury

The 23 soil samples from GW-1, GW-2 and GW-3 were composited on ten foot intervals and analyzed for Volatile Organic - EPA 8240. Results of these analyses are summarized in Table 1.

The 12 soil samples from GW-1, B-1, and B-2 were composited on ten foot intervals and analyzed for Arsenic, Copper, Lead and Mercury to detect any possible metallic based pesticide contamination. Results of these analyses are summarized in Table 2. From laboratory analysis, it was found that none of the above compounds were present in the samples above California standards.

The 9 soil samples from B-3, B-4, and B-5 were analyzed for Total Hydrocarbons as Gasoline - EPA 8015 and Aromatic Volatile Organics - EPA 8020 to detect any possible gasoline contamination on the site. These samples had laboratory analyses below detection limits, and results are summarized in Table 3.

Anametrix, Inc. of San Jose, California tested a total of 3 water samples for the following parameter:

- Volatile Organics - EPA 624

Results of all ground water analyses are summarized in Table 4.

Maximum contaminant levels based on California drinking water standards are as follows:

- 1,1-Dichloroethene 6 ppb
- Chloroform 100 ppb
- 1,1,1-Trichloroethane 200 ppb
- Trichloroethene 5 ppb

A comparison between the laboratory results and the State standards reveals that there is small amount of groundwater contamination.

The chain of custody records and laboratory data reports for all samples are presented in Appendix V.

The white chrystalline substance which had adhered to the wooden bins was analyzed as Ammonium Sulfate and Potassium Sulfate with some traces of Chloride. These were fertilizer used in the period prior to World War II. The analytical results are summarized in Table 5. This material is fertilizer and non-hazardous. Its presence resulted from storage of these materials when the facility was a fertilizer manufacturing plant.

VIII. CONCLUSIONS

Based on analytical data and results of soil and groundwater analyses, it appears that the subject property is slightly contaminated with several solvents that were detected in the EPA 624 analysis. However, this contamination can be attributed to E-Z Clean, a known toxic site located immediately across West Winton. With a nearly flat groundwater gradient in the immediate area and an aquifer with a relatively high permeability, it appears that E-Z Clean is the suspected source of this contamination.

The contaminants found in the soil samples from GW-1, GW-2 and GW-3 were toluene, xylene and ethylbenzene all are indicative of gasoline. The levels of contamination are well below State action levels.

Based on analytical results from B-3, B-4 and B-5 it appears the property is free of any gasoline contamination in the areas where the borings were drilled.

In borings GW-3, B-1 and B-2 metal analysis detected some low level readings, but none were above California standards.

The white stain samples taken from the bin walls inside the warehouse was a crystalline solid. Analysis showed the material to be Ammonium Sulfate and Potassium Sulfate. These are fertilizer components and are not considered hazardous.

Any fluorescent light ballasts with manufacturers date prior to February 1979 should be considered to contain PCBs and should be disposed of properly.

IX. RECOMMENDATIONS

Now that a baseline level has been established for the subject property, SCS highly recommends that semi-annual (August and February) groundwater monitoring should be performed to determine if any more movement of off-site contamination is migrating onto the property. SCS Engineers would be pleased to provide this service at a cost of $1,620.00 each six months.

Coordination, Sampling, Report	$ 750.00
Sample Analysis (3 water)	$ 870.00
TOTAL:	$ 1,620.00

If you have any questions regarding this report or wish to request the semi-annual monitoring services, please call either of the undersigned at (415) 829-0661.

Sincerely,

Brian M. McGinnis
Project Engineer
SCS Engineers

John P. Cummings
Project Manager
SCS Engineers

BMM/JPC/kma

Enclosure

cc: Wyman Hong - Alameda County Flood Control and Water Conservation District

TABLE 1

Chemical Analysis of Soil
Volatile Organics, EPA 8240
(ppm)

Composite Samples (Well No. & Depth)	EPA 8240 Selected Compounds		
	Toluene	Ethylbenzene	Xylene
GW-1 - 5 + GW-1 - 10	BRL	0.122	0.313
GW-1 - 15 + GW-1 - 20	BRL	BRL	BRL
GW-1 - 25	0.170	0.150	BRL
GW-1 - 35 + GW-1 - 40	BRL	BRL	BRL
GW-2 - 5 + GW-2 - 10	BRL	BRL	BRL
GW-2 - 15 + GW-2 - 20	BRL	BRL	BRL
GW-2 - 25 + GW-2 - 30	BRL	0.310	1.360
GW-2 - 35 + GW-2 - 40	BRL	0.180	0.830
GW-3 - 5 + GW-3 - 10	BRL	BRL	BRL
GW-3 - 15 + GW-3 - 20	BRL	BRL	BRL
GW-3 - 25 + GW-3 - 30	BRL	BRL	BRL
GW-3 - 35 + GW-3 - 40	BRL	BRL	0.210

BRL - Below Reporting Limits

File No. 38809.01

TABLE 2

Chemical Analysis of Soil
Arsenic, Copper, Lead and Mercury
(ppm)

Composite Sample (Well # & Depth)	Arsenic	Copper	Lead	Mercury
GW-1 - 5 + GW-1 - 10	0.36	BRL	BRL	0.60
GW-1 - 15 + GW-1 - 20	3.1	BRL	BRL	0.48
B-1 - 2 + B-1 - 7	BRL	BRL	BRL	0.32
B-1 - 12 + B-1 - 17	13.9	22.6	BRL	0.82
B-2 - 2 + B-2 - 7	4.0	14.4	BRL	BRL
B-2 - 12 + B-2 - 17	0.23	BRL	BRL	0.60

BRL - Below Report Limits

File No. 38809.01

TABLE 3

Chemical Analysis of Soil
Total Hydrocarbons as Gasoline, EPA 8015
Aromatic Volatile Organics, EPA 8020
(ppb)

Sample (Boring # & Depth)	Total Hydrocarbons As Gasoline	Benzene	Toluene	Ethylbenzene	Xylene
B-3 - 10	BRL	BRL	BRL	BRL	BRL
B-3 - 20	BRL	BRL	BRL	BRL	BRL
B-3 - 30	BRL	BRL	BRL	BRL	BRL
B-4 - 10	BRL	BRL	BRL	BRL	BRL
B-4 - 20	BRL	BRL	BRL	BRL	BRL
B-4 - 30	BRL	BRL	BRL	BRL	BRL
B-5 - 10	BRL	BRL	BRL	BRL	BRL
B-5 - 20	BRL	BRL	BRL	BRL	BRL
B-5 - 30	BRL	BRL	BRL	BRL	BRL

BRL - Below Reporting Limits

File No. 38809.01

TABLE 4

Chemical Analysis of Water
Volatile Organics, EPA 624
(ppb)

EPA 624 Selected Compounds	Well Number GW-1	GW-2	GW-3
1,1-Dichloroethene	140	BRL	BRL
Chloroform	BRL	BRL	5
1,1,1-Trichroloethane	820	BRL	BRL
Trichroloethene	93	8	12

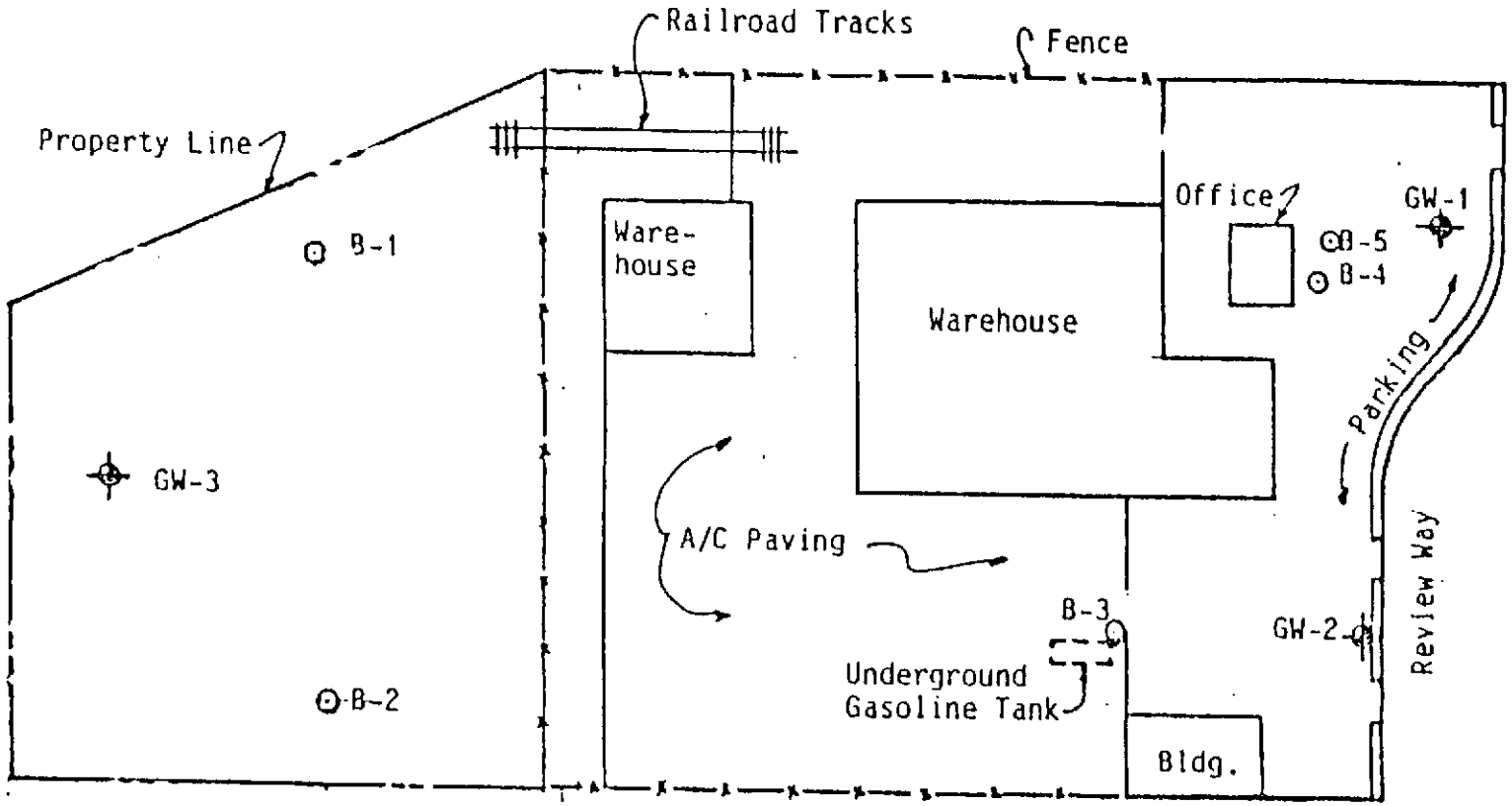
BRL - Below Reporting Limits

File No. 38809.01

TABLE 5

Chemical Analysis of White Crystalline Substances Found on Wooden Bins (ppm)

Sample ID	Ammonium NH_4+	Sulfate $SO_4 2-$	Potassium $K+$	Chloride $Cl-$
#1	465000	5200	32000	493
#2	128000	424000	6900	463
#3	40000	1600	38000	493



Groundwater Monitoring Well

Borings

Scale in Feet

50 100 150

SCS ENGINEERS
A TEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.
8761-D SIERRA COURT
DUBLIN, CA 94568

85 WEST WINTON - HAYWARD, CALIFORNIA

SITE PLAN - WELL LOCATION

Project No 38809.01 Date 8-10-88

Plate 1

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94566 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT
85 West Winton Avenue
Hayward CA

LIENT
ame
ddress Phone
ity Zip

PPLICANT
ame Brian McGinnis
SCS Engineers
ddress 2701-D Sierra Ct Phone 934-0661
ity Dublin CA Zip 94568

ESCRIPTION OF PROJECT
ater Well Construction X Geotechnical X
athodic Protection ___ Well Destruction ___

RC D WATER WELL USE
omestic ___ Industrial ___ Irrigation ___
unicipal ___ Monitoring X Other ___

ROPOSED CONSTRUCTION
rilling Method:
d Rotary ___ Air Rotary ___ Auger X
able ___ Other ___

ELL PROJECTS
Drill Hole Diameter 8 in. Depth 40 ft.
Casing Diameter 2 in. Number 5
Surface Seal Depth 15 ft.
Driller's License No. ___
Roy Hicks Equipment 209-464-3131

OTECHNICAL PROJECTS
Number 5
Diameter 4 in. Maximum Depth 30 ft.

TIMATED STARTING DATE 8-4-88
TIMATED COMPLETION DATE 8-5-88

hereby agree to comply with all requirements of
l rmit and Alameda County Ordinance No. 73-68.

PLICANT'S
GNATURE Date 8-3-88

FOR OFFICE USE

PERMIT NUMBER 88375
LOCATION NUMBER ___

Approved Wyman Hong Date 3 Aug 88
Wyman Hong

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Notify this office (484-2600) at least one day prior to starting work on permitted work and before placing well seals.
3. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or bore hole logs and location sketch for geotechnical projects. Permitted work is completed when the last surface seal is placed or the last boring is completed.
4. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie, or equivalent.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic, irrigation, and monitoring wells unless a lesser depth is specially approved.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie, or equivalent.

E. WELL DESTRUCTION. See attached.

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

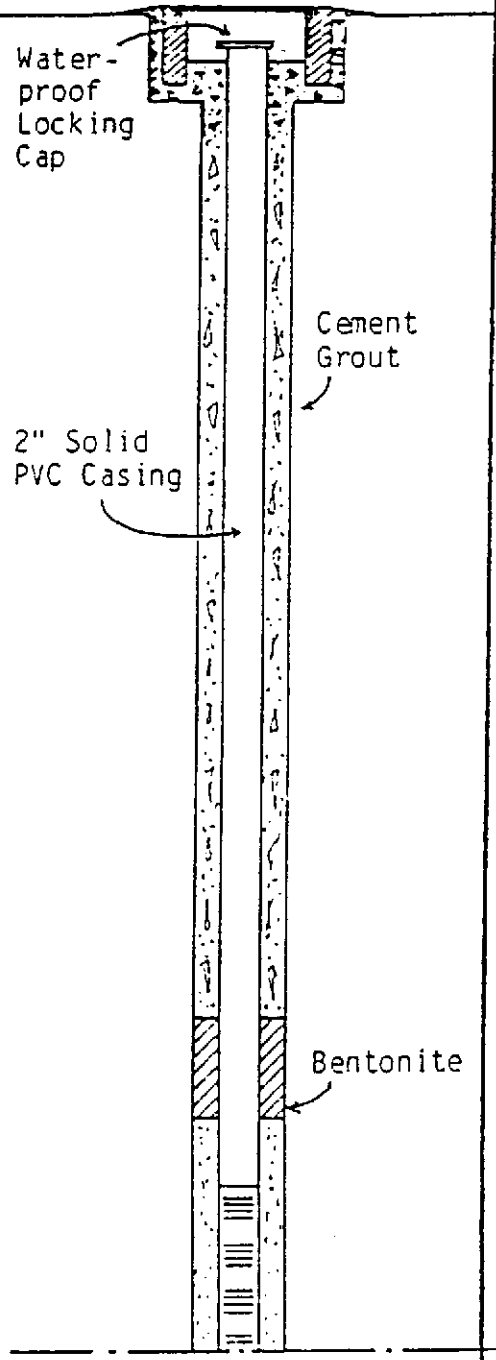
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

BORING LOG

Project
Location 85 West Winton - Hayward, CA
Job # 38809.01
Geologist/Engineer Brian McGinnis
Drill Agency Bay Area Exploration

Hole/Well # GW-1
Diameter of Drill Hole 8"
Total Depth of Hole 55'
Date Started 8-4-88
Date Completed 8-5-88



DEPTH IN FEET	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
0 - 2				0 - 1' Asphalt and roadbase.
2 - 6			CL	1 - 7' Brown, moist, clay, sl. silty, plastic, no odor.
6 - 10			GW	7 - 11' Brown, moist, gravel, coarse sand-cobbles, subangular, well graded, loose, no odor.
10 - 32			ML	11 - 33' Brown, moist, silt, plastic, no odor.
32 - 34			SP	33 - 36' Brown, moist, sand, fine-coarse grained, rounded, sl. silty, poorly graded, loose, no odor.
34 - 38			GW	36 - 45' Brown, moist, gravel, coarse sand-cobbles, sub-angular, well graded, loose, no odor.

BCS ENGINEERS

BORING LOG

Project _____

Location 85 West Winton

Job # 38809.01

Geologist/Engineer Brian McGinnis

Drill Agency Bay Area Exploration

Hole/Well # GW-1 (Continued)

Diameter of Drill Hole 8"

Total Depth of Hole 55'

Date Started 8-4-88

Date Completed 8-5-88

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
40					
42	Lonestar #3 Sand			GW	
44					
46	2" Slotted PVC Casing (.020)			GC	45 - 48' Brown, moist, clayey gravel, clay-pebbles, subangular well graded, stiff, no odor.
48					48 - 55' Brown, saturated, gravel, coarse sand-pebbles, sub-angular, poorly graded, loose, no odor.
50				GP	
52					
54	End Cap				Total Depth: 55 Feet Static Water Level: 45.99 Feet

BCS ENGINEERS

Project

Location 85 West Winton, Hayward, CA

Job # 38809.01

Geologist/Engineer Brian McGinnis

Drill Agency Bay Area Exploration

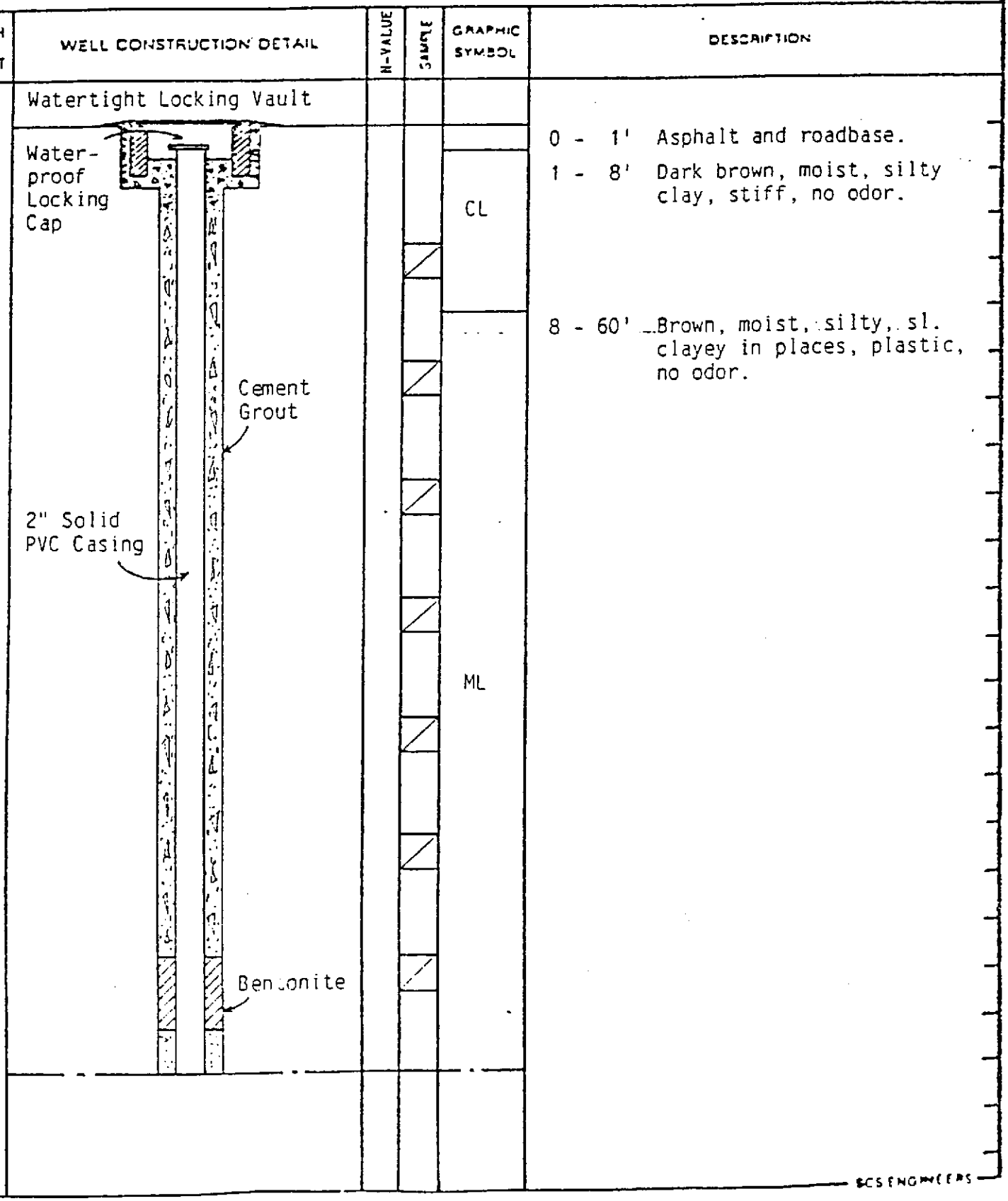
Hole/Well # GW-2

Diameter of Drill Hole 8"

Total Depth of Hole 60'

Date Started 8-5-88

Date Completed 8-5-88



BCS ENGINEERS

BORING LOG

Project _____

Location 85 West Winton, Hayward, CA

Job # 38809.01

Geologist/Engineer Brian McGinnis

Drill Agency Bay Area Exploration

Hole/Well # GW-2 (Continued)

Diameter of Drill Hole 8"

Total Depth of Hole 60'

Date Started 8-5-88

Date Completed 8-5-88

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
40					
42	2" Slotted PVC Casing (.020)				
44					
46					
48	Lonestar #3 Sand				
50				ML	8 - 60' Brown, moist, silty, sl. clayey in places, plastic, no odor.
52					
54					
56					
58					
60	End Cap				Total Depth: 60 Feet Static Water Level: 45.59 Feet

BCS ENGINEERS

BORING LOG

Project ____

Location 85 West Winton, Hayward, CA

Job # 38809.01

Geologist/Engineer Brian McGinnis

Drill Agency Bay Area Exploration

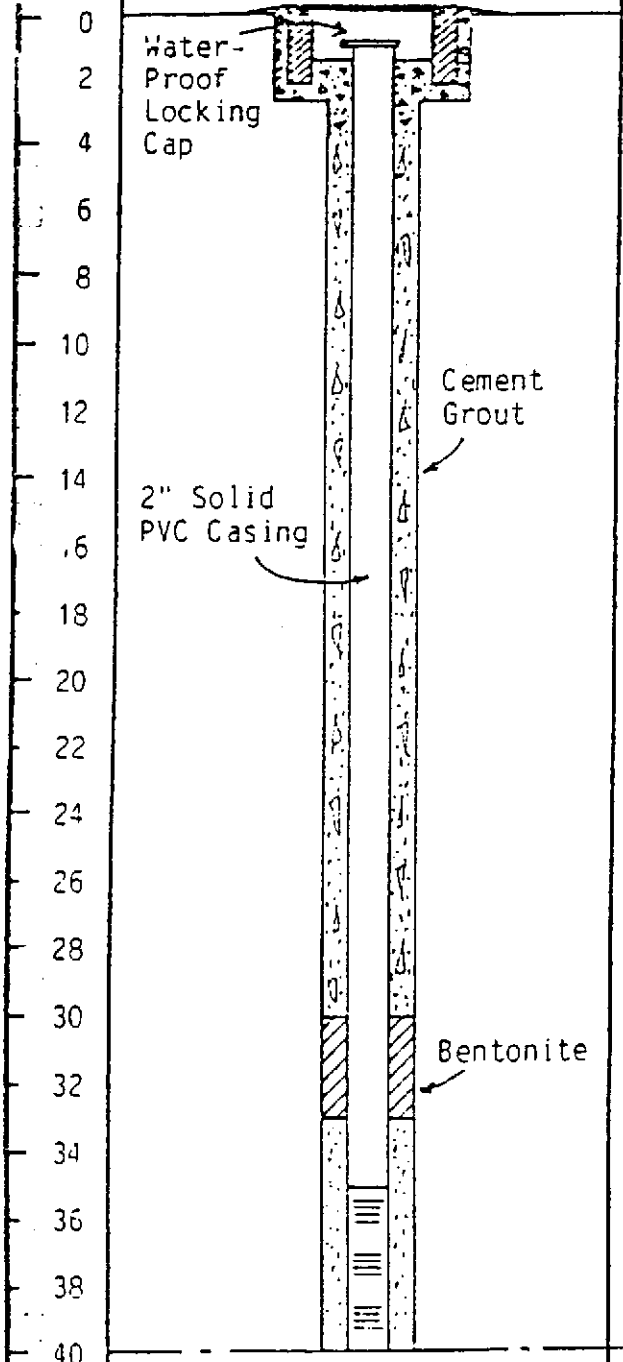
Hole/Well # GW-3

Diameter of Drill Hole 8"

Total Depth of Hole 55'

Date Started 8-6-88

Date Completed 8-6-88



DEPTH IN FEET	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
0 - 11'			ML	Dark brown, day, silt, dense, no odor.
11 - 13'			SM	Brown, moist, silty sand, very fine grained, rounded, poorly graded, loose, no odor.
13 - 23'			CL	Brown, moist, silty clay, stiff, no odor.
23 - 40'			ML	Brown, mosit, silt, sl. clayey, stiff, no odor.

BCSENGINEERS

BORING LOG

Project ___ ___ _ ___

Location 85 West Winton, Hayward, CA

Job # 38809.01

Geologist/Engineer Brian McGinnis

Drill Agency Bay Area Exploration

Hole/Well # GW-3 (Continued)

Diameter of Drill Hole 8"

Total Depth of Hole 55'

Date Started 8-6-88

Date Completed 8-6-88

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
40					40 - 55' Brown, moist, silty sand, sl. clayey in places, fine grained, rounded, poorly graded, loose, no odor.
42					
44	2" Slotted PVC Casing (.020)				
46				SM	
48	Lonestar #3 Sand				
50					
52					
54					
56	End Cap				Total Depth: 55 Feet Static Water Level: 45.91 Feet

SCS ENGINEERS

BORING LOG

Project ___

Location 85 West Winton, Hayward, CA

Job # 38809.01

Geologist/Engineer Brian McGinnis

Drill Agency Bay Area Exploration

Hole/Well # 8-1

Diameter of Drill Hole 6"

Total Depth of Hole 17'

Date Started 8-6-88

Date Completed 8-6-88

DEPTH IN FEET	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
0 - 2			ML	0 - 3' Black, dry, silt, dense, no odor.
2 - 4				
4 - 6				3 - 8' Brown, moist, silt, stiff, no odor.
6 - 8			ML	
8 - 10			SP	8 - 10' Brown, moist, sand, silt - fine grained, poorly graded, loose, no odor.
10 - 12				10 - 17' Brown, moist, silt, stiff, no odor.
12 - 14			ML	
14 - 16				
16 - 18				

Total Depth: 17 Feet

BCS ENGINEERS

BORING LOG

Project _ _ _

Location 85 West Winton, Hayward, CA

Job # 38809.01

Geologist/Engineer Brian McGinnis

Drill Agency Bay Area Exploration

Hole/Well # B-2

Diameter of Drill Hole 6"

Total Depth of Hole 17'

Date Started 8-6-88

Date Completed 8-6-88

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
0					
2	Soil			ML	0 - 2' Brown, dry, silt, dense, no odor.
4					2 - 17' Brown, moist, clayey silt, stiff, no odor.
6					
8	Volplug Chips				
10				ML	
12					
14					
16					
18					Total Depth: 17 Feet

BCS ENGINEERS

BORING LOG

Project ____

Location 85 West Winton, Hayward, CA

Job # 38809.01

Geologist/Engineer Brian McGinnis

Drill Agency Bay Area Exploration

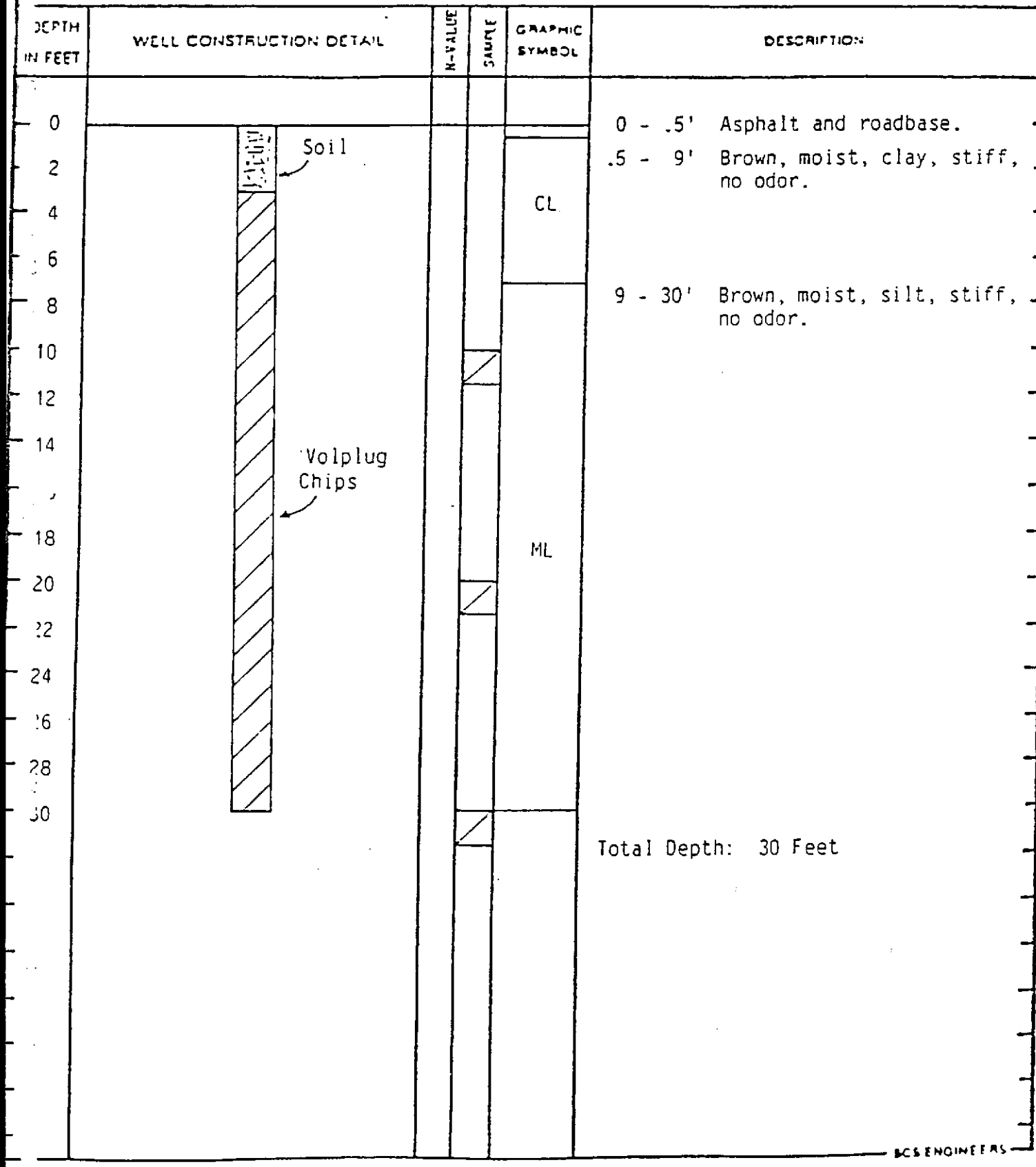
Hole/Well # B-3

Diameter of Drill Hole 6"

Total Depth of Hole 30'

Date Started 8-5-88

Date Completed 8-5-88



BCS ENGINEERS

BORING LOG

Project _____

Location 85 West Winton, Hayward, CA

Job # 38809.01

Geologist/Engineer Brian McGinnis

Drill Agency Bay Area Exploration

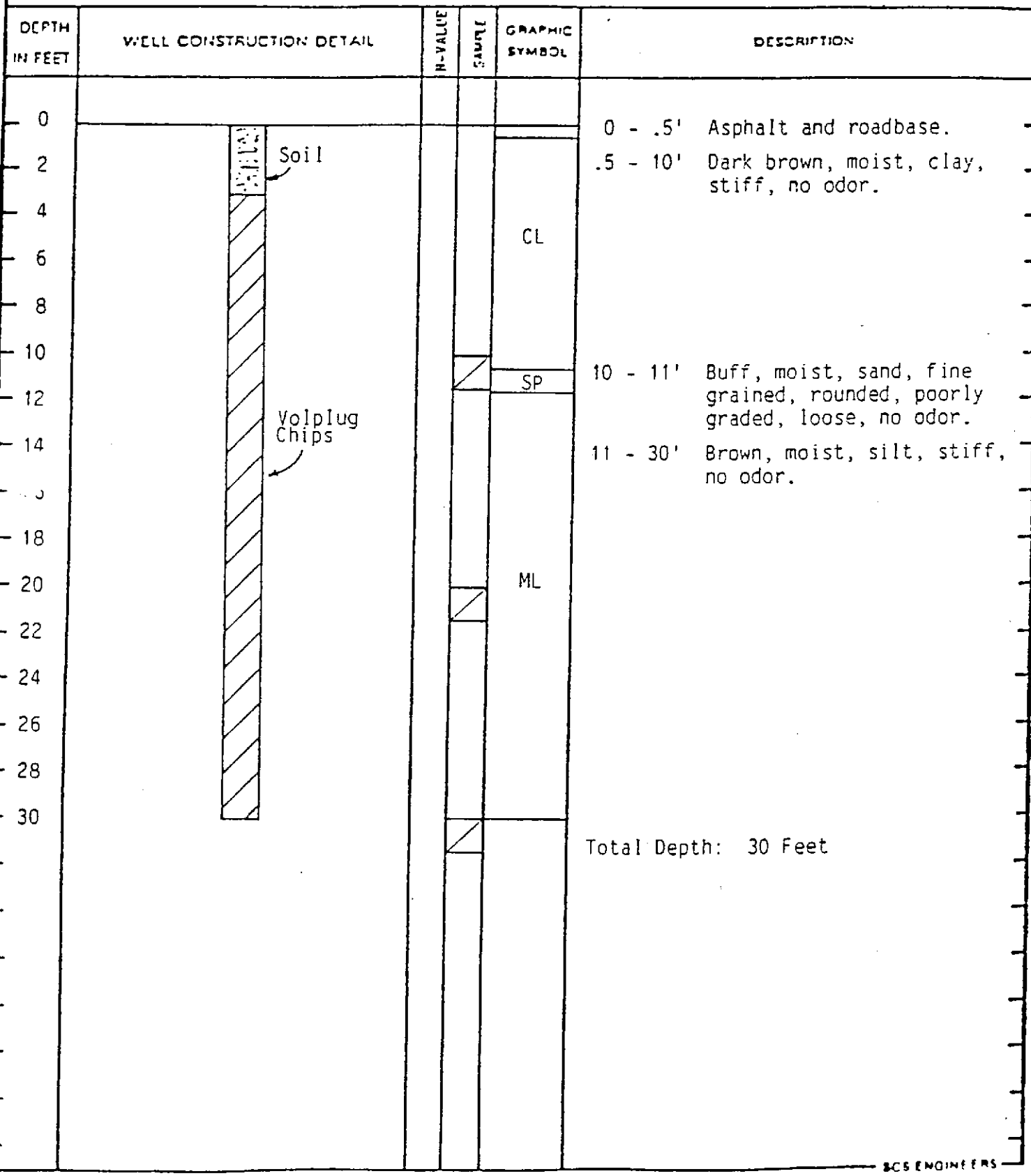
Hole/Well # B-4

Diameter of Drill Hole 6"

Total Depth of Hole 30'

Date Started 8-5-88

Date Completed 8-5-88



SCS ENGINEERS

BORING LOG

Project _____

Location 85 West Winton, Hayward, CA

Job # 38809.01

Geologist/Engineer Brian McGinnis

Drill Agency Bay Area Exploration

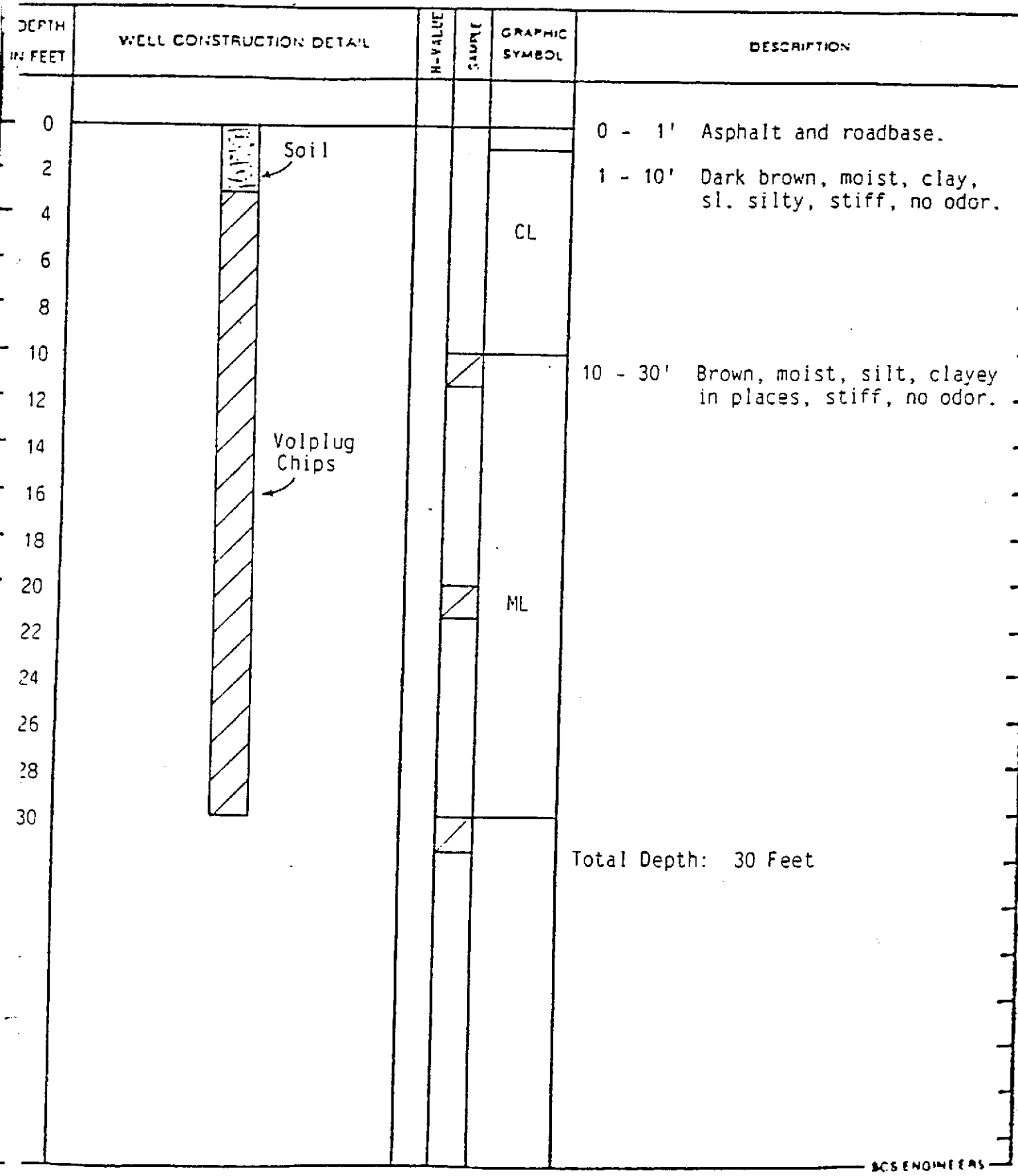
Hole/Well # B-5

Diameter of Drill Hole 6"

Total Depth of Hole 30'

Date Started 8-6-88

Date Completed 8-6-88



BCS ENGINEERS

PRIMARY DIVISIONS			Group Symbol	SECONDARY DIVISIONS
COARSE GRAINED SOILS: MORE THAN HALF OF MATERIAL IS LARGER THAN NO 200 SIEVE SIZE	GRAVELS: MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO 4 SIEVE	CLEAN GRAVELS (LESS THAN 5% FINES)	GW	Well graded gravels, gravel-sand mixtures little or no fines.
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GRAVEL WITH FINES	GM	Silty gravels gravel-sand-silt mixtures plastic fines.
			GC	Clayey gravels, gravel-sand-clay mixtures plastic fines.
	SANDS: MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO 4 SIEVE	CLEAN SANDS (LESS THAN 5% FINES)	SW	Well graded sands, gravelly sands little or no fines.
			SP	Poorly graded sands or gravelly sands little or no fines.
		SANDS WITH FINES	SM	Silty sands, sand-silt mixtures non-plastic fines.
			SC	Clayey sands, sand-clay mixtures plastic fines.
FINE GRAINED SOILS: MORE THAN HALF OF MATERIAL IS SMALLER THAN NO 200 SIEVE SIZE	SILTS AND CLAYS: LIQUID LIMIT IS LESS THAN 50%		ML	Inorganic silts and very fine sands, slight plasticity.
			CL	Inorganic clays of low to medium plasticity.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS: LIQUID LIMIT IS GREATER THAN 50%		MH	Inorganic silts, or silty soils, elastic silts.
			CH	Inorganic clays of high plasticity fat clays.
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils.

GRAIN SIZES

U.S. STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4"	3"	12"	
SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

SCS ENGINEERS
STEARNS CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC

KEY TO BORING LOGS (ASTM D-2487)
Unified Soil Classification System

Project No. Date

AMERICAN COLLOID COMPANY

Volplug Chips

Hole Abandonment Plug

Coarse—3/8" to 3/4"

Medium—1/4" to 3/8"

Product Information

DESCRIPTION

Volplug Chips are a bentonite-based clay designed to seal drill holes by leaving a thick mud which provides hole stability, prevents interaquifer transfer and groundwater contamination from surface water runoff.

PACKAGING

- 50 lb/multi-wall nontear, waterproof bags.
- 50 lb plastic pails

PROPERTIES OF VOLPLUG CHIPS

- Provides solids and increases gel strength.
- Provides a positive fluid loss control.
- Product is non-toxic.

FUNCTIONS OF VOLPLUG CHIPS

- Stabilizes the abandoned drill hole.
- Prevents groundwater contamination.
- Accomplishes the task of drill hole abandonment.
- Sealing off artesian wells.

VOLPLUG CHIPS USAGE GUIDE

- Bagged material may need to be screened of fines before placing in hole.
- Pour chips slowly into hole (2 minutes per bag or pail).
- Not recommended for depths exceeding 100 feet. For greater depths use Volclay tablets.
- Follow all governmental regulatory guidelines.

VOLPLUG CHIPS PHYSICAL PROPERTIES

- Dry Bulk Density:
  71 lb/ft^3 for Coarse;
  74 lb/ft^3 for Medium.

VOLPLUG CHIPS REFERENCE TABLE

Weight of Volplug Chips (in lbs) required for plugging a borehole with a depth of 1 foot and diameter as noted.

	2"	3"	4"	5"	6"	7"	8"	9"	10"	12"	15"
COARSE	1.55	3.5	6.2	9.7	13.9	19.0	24.8	31.3	38.7	55.7	87.1
MEDIUM	1.6	3.6	6.45	10.1	14.5	19.8	25.8	32.7	40.4	58.1	90.8

DIVERSIFIED WELL PRODUCTS, INC.
2359 TRIPALDI WAY
HAYWARD, CA 94545
(415) 887-5511

AMERICAN COLLOID COMPANY
Water Minerals Division • One North Arlington • 1500 West Shure Drive • Arlington Heights, Illinois 60004-1434
[illegible] • Telex [illegible] • Fax [illegible]

WELLHEAD ELEVATION SURVEY

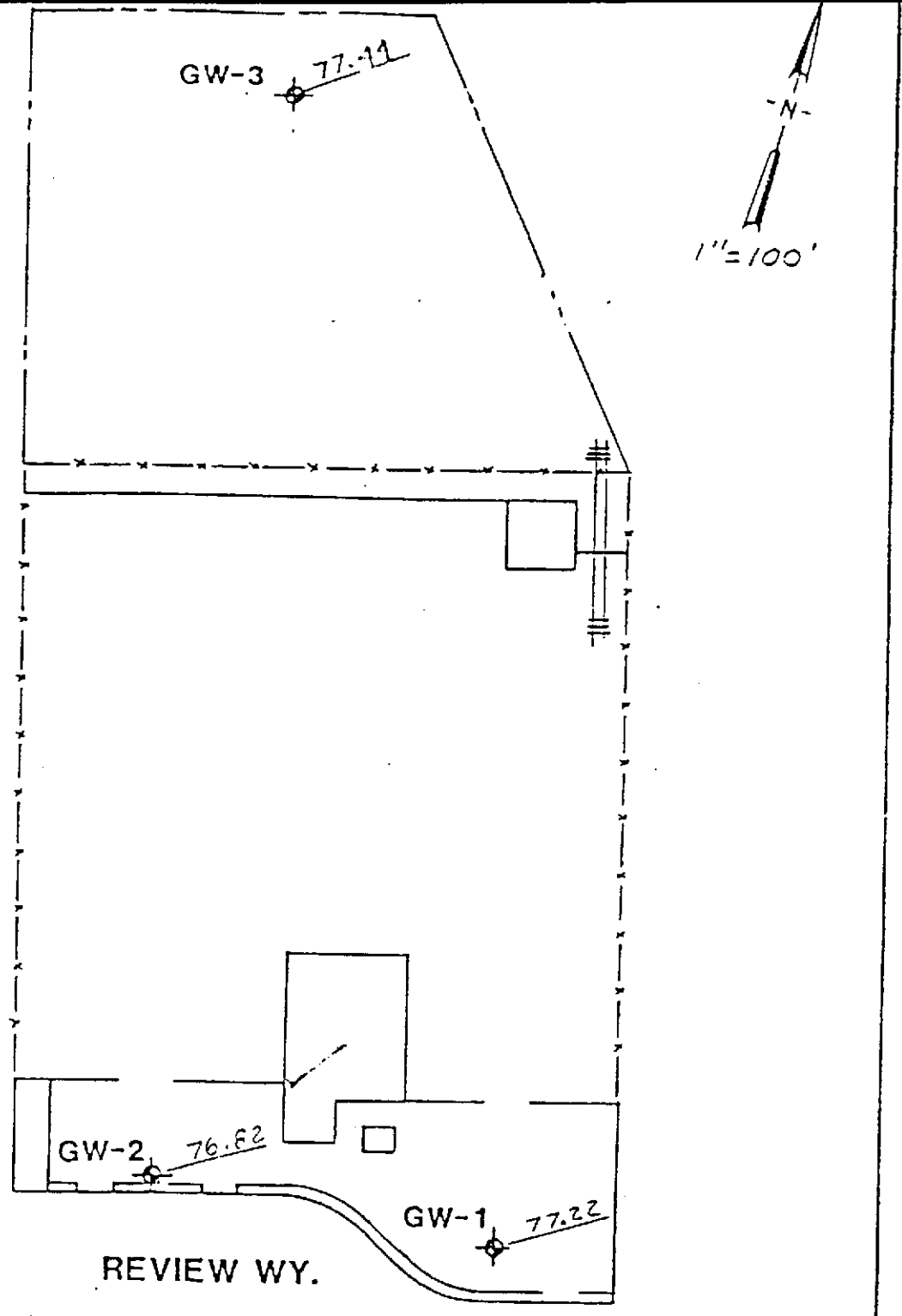
Well No.	Wellhead Elevation (Ft)
GW-1	77.22
GW-2	76.82
GW-3	77.44

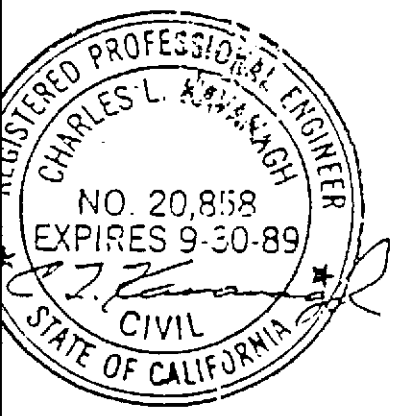
Elevations are above sea level.

File No. 38809.01

NOTES

. Elevations taken on 8-9-88
n the well casing (wellhead).
. REFERENCE ELEVATION. On top
f e in monument El. 75.895
t ersection of Amador St.
nd Review Wy.
. Base map from SCS Engineers,
761-D Sierra Ct., Dublin, CA.
4568-2611, 415/829-0661.
avanagh Engineering did not
urvey for horizontal control.





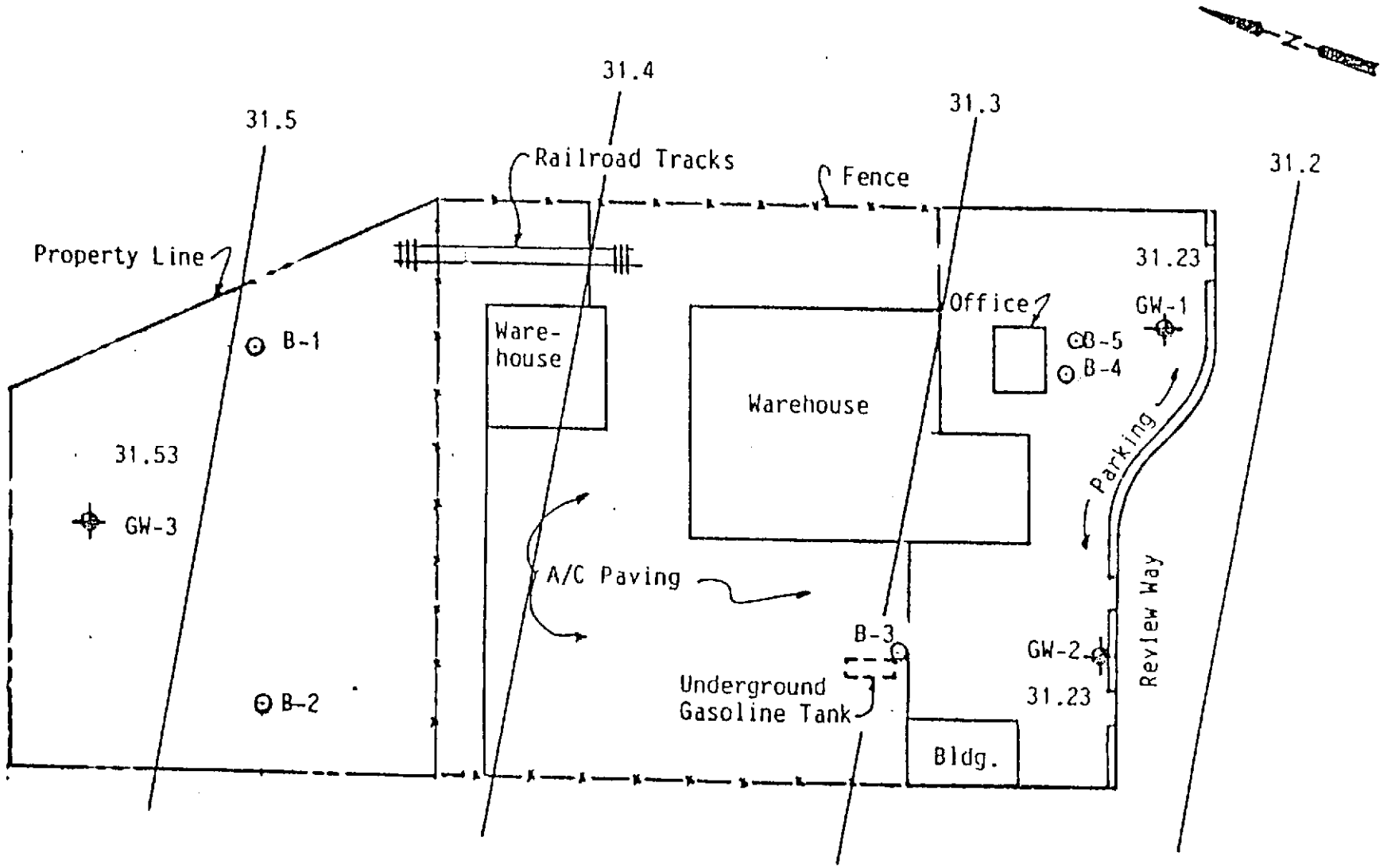
LK	KAVANAGH ENGINEERING 700 CAROLAN AVE. BURLINGAME, CA. 94010 (415) 579-1944	DWG. SK-1
AC..ARK	85 W.WINTON AV. HAYWARD,CA.	
OUB SCS NO.1	MONITORING WELLHEAD ELEVATIONS	SCALE: 1"=100' DATE: 8-15-88

MONITORING WELL WATER LEVELS

Well No.	Date	Wellhead Elevation (Ft)*	Depth To Water (Ft)	Groundwater Surface Elevation (Ft)*
GW-1	8-09-88	77.22	45.99	31.23
GW-2	8-09-88	76.82	45.59	31.23
GW-3	8-09-88	77.44	45.91	31.53

* Elevations are above sea level.

File No. 38809.01



SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
6781-D SIERRA COURT
DUBLIN, CA 94568

85 WEST WINTON - HAYWARD, CALIFORNIA

WATER TABLE CONTOUR MAP

Project No 38809.01

Date 8-10-88

Plate 2

CHAIN-OF-CUSTODY RECORD

000183 Page 1 of 6

Sampler (Signature): Brian M. McGinnis
Phone: 415 829 0661
Date Shipped: 8-6-88
Airbill No.:
Carrier: Fed. Ex
Cooler No.:

SHIP TO: SCS Labs, Long Beach CA
ATTENTION: Curtis Jenkins

SEND RESULTS TO:
Client Name: Brian McGinnis
Company: SCS Engineers
Address: 6761 D Sierra Ct, Dublin CA 94568
Phone: 415 829 0661

PROJECT NAME: W. Winton PROJECT NO. 38809.01 P.O. NO.:

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Brian M. McGinnis		8-6-88	5:00 pm
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received at lab by: (Signature)	Date	Time
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Time

ANALYSIS REQUEST

Sample ID Number	Sample Description	Date/Time Sampled	Analysis Requested	Sample Condition Upon Receipt
			Composite GW1-5 & GW1-10	
W1-5	Soil	8/4/88	8240	
W1-10	Soil	8/4/88	8240	
			Composite GW1-15 & GW1-20	
W1-15	Soil	8/4/88	8240	
W1-20	Soil	8/4/88	8240	
W1-25	Soil	8/4/88	8240	
			Composite GW1-35 & GW1-40	
W1-35	Soil	8/4/88	8240	
W1-40	Soil	8/5/88	8240	

Special Instructions/Comments:

1 week turnaround

SCS ENGINEERS

CHAIN-OF-CUSTODY RECORD

000184

Page 2 of 6

ER: (Signature) Erin M. McInnis
415 829 0661

Date Shipped 8-6-88
Airbill No.

Carrier Fed Ex
Cooler No.

TO:
SCS Labs
Long Beach CA

ATION: Curtis Jenkins

SEND RESULTS TO:
Client Name Erin McInnis
Company SCS Engs
Address 6761 D Sierra Ct
Dublin CA 94568
Phone 415 829 0661

ECT NAME W. Winston PROJECT NO. 38809.01 P.O. NO.

		Date	Time
quished by: (Signature) Erin M. McInnis	Received by: (Signature)	8-6-88	5 pm
nquished by: (Signature)	Received by: (Signature)	Date	Time
uished by: (Signature)	Received at lab by: (Signature)	Date	Time
uished from lab by: (Signature)	Received by: (Signature)	Date	Time

ANALYSIS REQUEST

ple ID Number	Sample Description	Date/Time Sampled	Analysis Requested	Sample Condition Upon Receipt
			Composite GW2-5 & GW2-10	
-5	Soil	8/5/88	8240	
-10	Soil	8/5/88	8240	
			Comp. GW2-15 & GW2-20	
-15	Soil	8/5/88	8240	
20	Soil	8/5/88	8240	
			Comp. GW2-25 & GW2-30	
25	Soil	8/5/88	8240	
30	Soil	8/5/88	8240	

al Instructions/Comments:

1 week turnaround

CHAIN-OF-CUSTODY RECORD

000185

Page 3 of 6

SAMPLER: (Signature) Brian M. McGinnis
Phone 415 829 0221
Date Shipped 8/16/88
Airbill No.
Carrier Fed Ex
Cooler No.

SHIP TO: SCS Labs, Long Beach

ATTENTION:

SEND RESULTS TO:
Client Name Brian McGinnis
Company SCS Engrs.
Address Dublin
Phone 415 829 0221

PROJECT NAME W. Winton PROJECT NO. 38809.01 P.O. NO.

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Brian M. McGinnis		8/16/88	5 pm
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received at lab by: (Signature) X	Date	Time
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Time

ANALYSIS REQUEST

Sample ID Number	Sample Description	Date/Time Sampled	Analysis Requested	Sample Condition Upon Receipt
			Composite GW2-35 + GW2-40	
GW2-35	Soil	8/15/88	8240	
GW2-40	Soil	"	8240	
			Comp. GW3-5 & GW3-10	
GW3-5	Soil	8/16/88	8240, As, Cu, Pb, Hg	
GW3-10	Soil	8/16/88	8240, As, Cu, Pb, Hg	
			Comp GW3-15 & GW3-20	
GW3-15	Soil	8/16/88	8240, As, Cu, Pb, Hg	
GW3-20	Soil	8/16/88	8240, As Cu, Pb, Hg	

Special Instructions/Comments:

1 week turnaround

SCS ENGINEERS

CHAIN-OF-CUSTODY RECORD

000188

…R (Signature) [signature] 415 829 0661

Date Shipped 8/6/88

Airbill No.

Carrier Fed Ex

Cooler No.

…O: SCS Labs, Long Beach, CA

SEND RESULTS TO:

Client Name Brian McGinnis

Company SCS Eng.

Address Dublin

Phone 415 829 0661

…ION:

…CT NAME W. Winton PROJECT NO. 38809.01 P.O. NO.

…quished by: (Signature)	Received by: (Signature)	Date	Time
[signature]		8/6/88	5pm
…quished by: (Signature)	Received by: (Signature)	Date	Time
…ished by: (Signature)	Received at lab by: (Signature)	Date	Time
…ished from lab by: (Signature)	Received by: (Signature)	Date	Time

ANALYSIS REQUEST

…ple ID Number	Sample Description	Date/Time Sampled	Analysis Requested	Sample Condition Upon Receipt
			Composite GW3-25 & GW3-30	
…-25	soil	8/6/88	8240	
…3-30	soil	8/6/88	8240	
			Comp GW3-35 & GW3-40	
…3-35	soil	8/6/88	8240	
…-40	soil	8/6/88	8240	
			Comp B1-2 & B1-7	
…-2	soil	8/6/88	As, Cu, Pb, Hg	
…-7	soil	8/6/88	As, Cu, Pb, Hg	

…al Instructions/Comments:

1 week turnaround

CHAIN-OF-CUSTODY RECORD

000187 Page 5 of 6

SAMPLER: (Signature) Brian M. McGinnis Date Shipped 8/16/88 Carrier Fed Ex
Phone 415 854 0661 Airbill No. Cooler No.

SHIP TO: SCS Labs Long Beach

SEND RESULTS TO:
Client Name Brian McGinnis
Company SCS Engs
Address Dublin
Phone 415 825 0661

ATTENTION:

PROJECT NAME W. Winton PROJECT NO. 3880901 P.O. NO.

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Brian M. McGinnis		8/16/88	5pm
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received at lab by: (Signature)	Date	Time
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Time

ANALYSIS REQUEST

Sample ID Number	Sample Description	Date/Time Sampled	Analysis Requested	Sample Condition Upon Receipt
			Composite B1-12 & B1-17	
B1-12	Soil	8/16/88	As, Cu, Pb, Hg	
B1-17	Soil	8/16/88	As, Cu, Pb, Hg	
			Comp. B2-2 & B2-7	
B2-2	Soil	8/16/88	As, Cu, Pb, Hg	
B2-7	Soil	8/16/88	As, Cu, Pb, Hg	
			Comp. B2-12 & B2-17	
B2-12	Soil	8/16/88	As, Cu, Pb, Hg	
B2-17	Soil	8/16/88	As, Cu, Pb, Hg	

Special Instructions/Comments:

1 week turnaround

SCS ENGINEERS

CHAIN-OF-CUSTODY RECORD

000188

ER: (Signature) [signature] Date Shipped 8/16/88 Carrier Fed EX

ne 415 829 0661 Airbill No. Cooler No.

TO: SCS Labs
Long Beach CA

SEND RESULTS TO:
Client Name Brian McGinnis
Company SCS Engs
Address Dublin
Phone 415 829 0661

TENTION:

OJECT NAME W. Winton PROJECT NO 3809.01 P.O. NO.

	Received by: (Signature)	Date	Time
quished by: (Signature) [signature]		8/16/88	5pm
linquished by: (Signature)	Received by: (Signature)	Date	Time
linquished by: (Signature)	Received at lab by: (Signature)	Date	Time
quished from lab by: (Signature)	Received by: (Signature)	Date	Time

ANALYSIS REQUEST

Sample ID Number	Sample Description	Date/Time Sampled	Analysis Requested	Sample Condition Upon Receipt
-10	Soil	8/15/88	8015/Gas w/ BTEX	
3-20				
-30				
4-10				
4-20				
-30		8/16/88		
5-10				
5-20				
5-30				

cial Instructions/Comments:

1 week turnaround

CHAIN-OF-CUSTODY RECORD

000189

Page 1 of 1

SAMPLER: (Signature) Brian M. McLinn
Phone
Date Shipped 8/6/88
Airbill No.
Carrier Fed Ex
Cooler No.

SHIP TO: SCS Labs
Long Beach, CA

ATTENTION:

SEND RESULTS TO:
Client Name John Cummings
Company SCS Eng.
Address 6761 D Sierra Ct
Dublin CA
Phone 415 829 0661

PROJECT NAME: Mr. Minton PROJECT NO. 3850901 P.O. NO.

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Brian M. McLinn		8/6/88	5 pm
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received at lab by: (Signature) X	Date	Time
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Time

ANALYSIS REQUEST

Sample ID Number	Sample Description	Date/Time Sampled	Analysis Requested	Sample Condition Upon Receipt
1	white paper	8/5/88		
2	" "	8/5/88		
3	" "	8/5/88		

Special Instructions/Comments:

John will call & advice on these 3 samples.

SCS ENGINEERS

CHAIN-OF-CUSTODY RECORD

Anametrix
8809063

000190

Page 1 of 1

A MPLER (Signature) Brian McGinnis
Phone 415 829 0661
Date Shipped 8/9/88
Airbill No.
Carrier Self
Cooler No.

SEND TO: Anametrix
San Jose, CA

ATTENTION:

SEND RESULTS TO:
Client Name Brian McGinnis
Company SCS Engineers
Address 6761 D Sierra Ct
Dublin CA 94568
Phone 415 829 0661

PROJECT NAME W. Winton PROJECT NO. 38809.01 P.O. NO.

	Received by: (Signature)	Date	Time
Acquished by: (Signature) Brian McGinnis		8-9-88	13:00
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received at lab by: (Signature) Dawn Lyle	8-9-88	13:00
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Time

ANALYSIS REQUEST

Sample ID Number	Sample Description	Date/Time Sampled	Analysis Requested	Sample Condition Upon Receipt
W-1	wtr.	8/8/88	624	ok
W-1				
W-2				
W-2				
W-3		8/9/88		
W-3		11		

Special Instructions/Comments:

1 week turnaround, thank you.

SCS ENGINEERS

SCS ANALYTICAL LABORATORY

MEMO

To: Brian McGinnis

From: Curtis B. Jenkins August 16, 1988

Job No.: 38809.01 Page 1 of 34

LABORATORY REPORT

Samples: Twenty eight (28) soil samples from W. Winton, received 8/8/88, analyzed 8/15/88. (RUSH ANALYSIS)

Sample ID	EPA 8015 ---mg/kg---
B3-10	ND
B3-20	ND
B3-30	ND
B4-10	ND
B4-20	ND
B4-30	ND
B5-10	ND
B5-20	ND
B5-30	ND

Sample ID	NH_4^+	SO_4^{2-}	K^+	Cl^-
	-----------	mg/kg	----------	
#1	465000	5200	32000	493
#2	128000	424000	6900	463
#3	40000	1600	38000	493

Samples ID	As	Cu	Pb	Hg
	-------------	mg/kg	-----------	
Comp B1-2 & B1-7	0.36	<2	<7	0.60
Comp B1-12 & B1-17	3.1	<2	<7	0.48
Comp B2-2 & B2-7	<.2	<2	<7	0.32
Comp B2-12 & B2-17	13.9	22.6	<7	0.82
Comp GW3-5 & GW3-10	4.0	14.4	<7	<.009
Comp GW3-15 & GW3-20	0.23	<2	<7	0.60

EPA 8020 & EPA 8240 - see attached sheets
ND - Not Detected (<10)

David Sincerbeaux
Chemist

Curtis B. Jenkins
Laboratory Director

Spreker1.rep

Sample I.D.: B3-10
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: rep

Compound	Result	D.L.
	-------ug/kg-------	
Benzene	ND	10
Chlorobenzene	ND	10
Ethylbenzene	ND	10
Toluene	ND	10
Xylenes	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

SCS
ANALYTICAL
LABORATORY

Addendum Report, EPA 8020

Sample I.D.: B3-20
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

Compound	Result	D.L.
	-------ug/kg-------	
Benzene	ND	10
Chlorobenzene	ND	10
Ethylbenzene	ND	10
Toluene	ND	10
Xylenes	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

SCS
ANALYTICAL
LABORATORY

Sample I.D.: B3-30
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .1.rep

Compound	Result	D.L.
	-------ug/kg-------	
Benzene	ND	10
Chlorobenzene	ND	10
Ethylbenzene	ND	10
Toluene	ND	10
Xylenes	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

SCS
ANALYTICAL
LABORATORY

Sample I.D.: B4-10
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

Compound	Result	D.L.
	-------ug/kg-------	
Benzene	ND	10
Chlorobenzene	ND	10
Ethylbenzene	ND	10
Toluene	ND	10
Xylenes	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

ANALYTICAL LABORATORY
2566 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90810
(213) 595-9121

Sample I.D.: B4-20
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

Compound	Result	D.L.
	ug/kg	
Benzene	ND	10
Chlorobenzene	ND	10
Ethylbenzene	ND	10
Toluene	ND	10
Xylenes	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

SCS
ANALYTICAL
LABORATORY

Sample I.D.: B4-30
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

Compound	Result	D.L.
	ug/kg	
Benzene	ND	10
Chlorobenzene	ND	10
Ethylbenzene	ND	10
Toluene	ND	10
Xylenes	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

Sample I.D.: B5-10
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

Compound	Result	D.L.
	-------ug/kg-------	
Benzene	ND	10
Chlorobenzene	ND	10
Ethylbenzene	ND	10
Toluene	ND	10
Xylenes	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

SCS
ANALYTICAL
LABORATORY

Sample I.D.: B5-20
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: rep

Compound	Result	D.L.
	ug/kg	
Benzene	ND	10
Chlorobenzene	ND	10
Ethylbenzene	ND	10
Toluene	ND	10
Xylenes	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

SCS
ANALYTICAL
LABORATORY
LONG BEACH CALIFORNIA 90806
(213) 599-9124

Sample I.D.: B5-30
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

Compound	Result	D.L.
	-------ug/kg-------	
Benzene	ND	10
Chlorobenzene	ND	10
Ethylbenzene	ND	10
Toluene	ND	10
Xylenes	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

SCS
ANALYTICAL
LABORATORY

Sample I.D.: Comp GW1-5 & GW1-10
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	100
107-02-8	Acrolein	ND	100
107-13-1	Acrylonitrile	ND	100
71-43-2	Benzene	ND	20
75-27-4	Bromodichloromethane	ND	20
75-25-2	Bromoform	ND	20
74-83-9	Bromomethane	ND	60
78-93-3	2-Butanone	ND	100
75-15-0	Carbon Disulfide	ND	20
56-23-5	Carbon Tetrachloride	ND	20
108-90-7	Chlorobenzene	ND	20
124-48-1	Chlorodibromomethane	ND	20
75-00-3	Chloroethane	ND	60
110-75-8	2-Chloroethyl Vinyl Ether	ND	100
67-66-3	Chloroform	ND	20
74-87-3	Chloromethane	ND	60
74-95-3	Dibromomethane	ND	20
110-56-5	1,4-Dichlorobutane	ND	20
75-71-8	Dichlorodifluoromethane	ND	20
75-34-3	1,1-Dichloroethane	ND	20
107-06-2	1,2-Dichloroethane	ND	20
75-35-4	1,1-Dichloroethene	ND	20
156-60-5	trans-1,2-Dichloroethene	ND	20
78-87-5	1,2-Dichloropropane	ND	20
10061-01-5	cis-1,3-Dichloropropene	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	20
64-17-5	Ethanol	ND	20
100-41-4	Ethylbenzene	122	20
97-63-2	Ethyl Methylacrylate	ND	20
591-78-6	2-Hexanone	ND	60
74-88-4	Iodomethane	ND	20
75-09-2	Methylene Chloride	ND	100
108-10-1	4-Methyl-2-Pentanone	ND	60

D.L. = Detection Limit
ND = Not Detected

SCI
ANALYTICAL
LABORATORY

Sample I.D.: Comp GW1-5 & GW1-10
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result ----ug/kg(ppb)----	D.L.
100-42-5	Styrene	ND	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-88-3	Toluene	ND	20
71-55-6	1,1,1-Trichloroethane	ND	20
79-00-5	1,1,2-Trichloroethane	ND	20
79-01-6	Trichloroethene	ND	20
75-69-4	Trichlorofluoromethane	ND	20
96-18-4	1,2,3-Trichloropropane	ND	20
108-05-4	Vinyl Acetate	ND	60
75-01-4	Vinyl Chloride	ND	60
1330-20-7	m- and p-Xylenes	260	20
95-47-6	o-Xylene	53	20
541-73-1	1,3-Dichlorobenzene	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
[illegible]
LONG BEACH, CALIFORNIA [illegible]

Sample I.D.: Comp GW1-15 & GW1-20
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: [illegible] .rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	100
107-02-8	Acrolein	ND	100
107-13-1	Acrylonitrile	ND	100
71-43-2	Benzene	ND	20
75-27-4	Bromodichloromethane	ND	20
75-25-2	Bromoform	ND	20
74-83-9	Bromomethane	ND	60
78-93-3	2-Butanone	ND	100
75-15-0	Carbon Disulfide	ND	20
56-23-5	Carbon Tetrachloride	ND	20
108-90-7	Chlorobenzene	ND	20
124-48-1	Chlorodibromomethane	ND	20
75-00-3	Chloroethane	ND	60
110-75-8	2-Chloroethyl Vinyl Ether	ND	100
67-66-3	Chloroform	ND	20
74-87-3	Chloromethane	ND	60
74-95-3	Dibromomethane	ND	20
110-56-5	1,4-Dichlorobutane	ND	20
75-71-8	Dichlorodifluoromethane	ND	20
75-34-3	1,1-Dichloroethane	ND	20
107-06-2	1,2-Dichloroethane	ND	20
75-35-4	1,1-Dichloroethene	ND	20
156-60-5	trans-1,2-Dichloroethene	ND	20
78-87-5	1,2-Dichloropropane	ND	20
10061-01-5	cis-1,3-Dichloropropene	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	20
64-17-5	Ethanol	ND	20
100-41-4	Ethylbenzene	ND	20
97-63-2	Ethyl Methylacrylate	ND	20
591-78-6	2-Hexanone	ND	60
74-88-4	Iodomethane	ND	20
75-09-2	Methylene Chloride	ND	100
108-10-1	4-Methyl-2-Pentanone	ND	60

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9124

Sample I.D.: Comp GW1-15 & GW1-20
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: [illegible].rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-88-3	Toluene	ND	20
71-55-6	1,1,1-Trichloroethane	ND	20
79-00-5	1,1,2-Trichloroethane	ND	20
79-01-6	Trichloroethene	ND	20
75-69-4	Trichlorofluoromethane	ND	20
96-18-4	1,2,3-Trichloropropane	ND	20
108-05-4	Vinyl Acetate	ND	60
75-01-4	Vinyl Chloride	ND	60
1330-20-7	m- and p-Xylenes	ND	20
95-47-6	o-Xylene	ND	20
541-73-1	1,3-Dichlorobenzene	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

D.L. = Detection Limit
ND = Not Detected

SCS
ANALYTICAL
LABORATORY

Addendum Report, EPA 8240

Sample I.D.: GW1-25
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	100
107-02-8	Acrolein	ND	100
107-13-1	Acrylonitrile	ND	100
71-43-2	Benzene	ND	20
75-27-4	Bromodichloromethane	ND	20
75-25-2	Bromoform	ND	20
74-83-9	Bromomethane	ND	60
78-93-3	2-Butanone	ND	100
75-15-0	Carbon Disulfide	ND	20
56-23-5	Carbon Tetrachloride	ND	20
108-90-7	Chlorobenzene	ND	20
124-48-1	Chlorodibromomethane	ND	20
75-00-3	Chloroethane	ND	60
110-75-8	2-Chloroethyl Vinyl Ether	ND	100
67-66-3	Chloroform	ND	20
74-87-3	Chloromethane	ND	60
74-95-3	Dibromomethane	ND	20
110-56-5	1,4-Dichlorobutane	ND	20
75-71-8	Dichlorodifluoromethane	ND	20
75-34-3	1,1-Dichloroethane	ND	20
107-06-2	1,2-Dichloroethane	ND	20
75-35-4	1,1-Dichloroethene	ND	20
156-60-5	trans-1,2-Dichloroethene	ND	20
78-87-5	1,2-Dichloropropane	ND	20
10061-01-5	cis-1,3-Dichloropropene	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	20
64-17-5	Ethanol	ND	20
100-41-4	Ethylbenzene	150	20
97-63-2	Ethyl Methylacrylate	ND	20
591-78-6	2-Hexanone	ND	60
74-88-4	Iodomethane	ND	20
75-09-2	Methylene Chloride	ND	100
108-10-1	4-Methyl-2-Pentanone	ND	60

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY

Sample I.D.: GW1-25
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-88-3	Toluene	170	20
71-55-6	1,1,1-Trichloroethane	ND	20
79-00-5	1,1,2-Trichloroethane	ND	20
79-01-6	Trichloroethene	ND	20
75-69-4	Trichlorofluoromethane	ND	20
96-18-4	1,2,3-Trichloropropane	ND	20
108-05-4	Vinyl Acetate	ND	60
75-01-4	Vinyl Chloride	ND	60
1330-20-7	m- and p-Xylenes	ND	20
95-47-6	o-Xylene	ND	20
541-73-1	1,3-Dichlorobenzene	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9171

Sample I.D.: Comp GW1-35 & GW1-40
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-88-3	Toluene	ND	20
71-55-6	1,1,1-Trichloroethane	ND	20
79-00-5	1,1,2-Trichloroethane	ND	20
79-01-6	Trichloroethene	ND	20
75-69-4	Trichlorofluoromethane	ND	20
96-18-4	1,2,3-Trichloropropane	ND	20
108-05-4	Vinyl Acetate	ND	60
75-01-4	Vinyl Chloride	ND	60
1330-20-7	m- and p-Xylenes	ND	20
95-47-6	o-Xylene	ND	20
541-73-1	1,3-Dichlorobenzene	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90810
(213) 595-9124

Sample I.D.: Comp GW2-15 & GW2-20
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: ..rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	100
107-02-8	Acrolein	ND	100
107-13-1	Acrylonitrile	ND	100
71-43-2	Benzene	ND	20
75-27-4	Bromodichloromethane	ND	20
75-25-2	Bromoform	ND	20
74-83-9	Bromomethane	ND	60
78-93-3	2-Butanone	ND	100
75-15-0	Carbon Disulfide	ND	20
56-23-5	Carbon Tetrachloride	ND	20
108-90-7	Chlorobenzene	ND	20
124-48-1	Chlorodibromomethane	ND	20
75-00-3	Chloroethane	ND	60
110-75-8	2-Chloroethyl Vinyl Ether	ND	100
67-66-3	Chloroform	ND	20
74-87-3	Chloromethane	ND	20
74-95-3	Dibromomethane	ND	20
110-56-5	1,4-Dichlorobutane	ND	20
75-71-8	Dichlorodifluoromethane	ND	20
75-34-3	1,1-Dichloroethane	ND	20
107-06-2	1,2-Dichloroethane	ND	20
75-35-4	1,1-Dichloroethene	ND	20
156-60-5	trans-1,2-Dichloroethene	ND	20
78-87-5	1,2-Dichloropropane	ND	20
10061-01-5	cis-1,3-Dichloropropene	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	20
64-17-5	Ethanol	ND	20
100-41-4	Ethylbenzene	ND	20
97-63-2	Ethyl Methylacrylate	ND	20
591-78-6	2-Hexanone	ND	60
74-88-4	Iodomethane	ND	20
75-09-2	Methylene Chloride	ND	100
108-10-1	4-Methyl-2-Pentanone	ND	60

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
[illegible] WALNUT AVENUE
LONG BEACH, CALIFORNIA 90[illegible]
(213) 595-91[illegible]

Sample I.D.: Comp GW1-35 & GW1-40
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	100
107-02-8	Acrolein	ND	100
107-13-1	Acrylonitrile	ND	100
71-43-2	Benzene	ND	20
75-27-4	Bromodichloromethane	ND	20
75-25-2	Bromoform	ND	20
74-83-9	Bromomethane	ND	60
78-93-3	2-Butanone	ND	100
75-15-0	Carbon Disulfide	ND	20
56-23-5	Carbon Tetrachloride	ND	20
108-90-7	Chlorobenzene	ND	20
124-48-1	Chlorodibromomethane	ND	20
75-00-3	Chloroethane	ND	60
110-75-8	2-Chloroethyl Vinyl Ether	ND	100
67-66-3	Chloroform	ND	20
74-87-3	Chloromethane	ND	20
74-95-3	Dibromomethane	ND	20
110-56-5	1,4-Dichlorobutane	ND	20
75-71-8	Dichlorodifluoromethane	ND	20
75-34-3	1,1-Dichloroethane	ND	20
107-06-2	1,2-Dichloroethane	ND	20
75-35-4	1,1-Dichloroethene	ND	20
156-60-5	trans-1,2-Dichloroethene	ND	20
78-87-5	1,2-Dichloropropane	ND	20
10061-01-5	cis-1,3-Dichloropropene	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	20
64-17-5	Ethanol	ND	20
100-41-4	Ethylbenzene	ND	20
97-63-2	Ethyl Methylacrylate	ND	20
591-78-6	2-Hexanone	ND	60
74-88-4	Iodomethane	ND	20
75-09-2	Methylene Chloride	ND	100
108-10-1	4-Methyl-2-Pentanone	ND	60

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY

Sample I.D.: Comp GW2-5 & GW2-10
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	100
107-02-8	Acrolein	ND	100
107-13-1	Acrylonitrile	ND	100
71-43-2	Benzene	ND	20
75-27-4	Bromodichloromethane	ND	20
75-25-2	Bromoform	ND	20
74-83-9	Bromomethane	ND	60
78-93-3	2-Butanone	ND	100
75-15-0	Carbon Disulfide	ND	20
56-23-5	Carbon Tetrachloride	ND	20
108-90-7	Chlorobenzene	ND	20
124-48-1	Chlorodibromomethane	ND	20
75-00-3	Chloroethane	ND	60
110-75-8	2-Chloroethyl Vinyl Ether	ND	100
67-66-3	Chloroform	ND	20
74-87-3	Chloromethane	ND	60
74-95-3	Dibromomethane	ND	20
110-56-5	1,4-Dichlorobutane	ND	20
75-71-8	Dichlorodifluoromethane	ND	20
75-34-3	1,1-Dichloroethane	ND	20
107-06-2	1,2-Dichloroethane	ND	20
75-35-4	1,1-Dichloroethene	ND	20
156-60-5	trans-1,2-Dichloroethene	ND	20
78-87-5	1,2-Dichloropropane	ND	20
10061-01-5	cis-1,3-Dichloropropene	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	20
64-17-5	Ethanol	ND	20
100-41-4	Ethylbenzene	ND	20
97-63-2	Ethyl Methylacrylate	ND	20
591-78-6	2-Hexanone	ND	60
74-88-4	Iodomethane	ND	20
75-09-2	Methylene Chloride	ND	100
108-10-1	4-Methyl-2-Pentanone	ND	60

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9326

Sample I.D.: Comp GW2-5 & GW2-10
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-88-3	Toluene	ND	20
71-55-6	1,1,1-Trichloroethane	ND	20
79-00-5	1,1,2-Trichloroethane	ND	20
79-01-6	Trichloroethene	ND	20
75-69-4	Trichlorofluoromethane	ND	20
96-18-4	1,2,3-Trichloropropane	ND	20
108-05-4	Vinyl Acetate	ND	60
75-01-4	Vinyl Chloride	ND	60
1330-20-7	m- and p-Xylenes	ND	20
95-47-6	o-Xylene	ND	20
541-73-1	1,3-Dichlorobenzene	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9324

Sample I.D.: Comp GW2-15 & GW2-20
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result ----ug/kg(ppb)----	D.L.
100-42-5	Styrene	ND	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-88-3	Toluene	ND	20
71-55-6	1,1,1-Trichloroethane	ND	20
79-00-5	1,1,2-Trichloroethane	ND	20
79-01-6	Trichloroethene	ND	20
75-69-4	Trichlorofluoromethane	ND	20
96-18-4	1,2,3-Trichloropropane	ND	20
108-05-4	Vinyl Acetate	ND	60
75-01-4	Vinyl Chloride	ND	60
1330-20-7	m- and p-Xylenes	ND	20
95-47-6	o-Xylene	ND	20
541-73-1	1,3-Dichlorobenzene	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9271

Sample I.D.: Comp GW2-25 & GW2-30
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: ..rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	100
107-02-8	Acrolein	ND	100
107-13-1	Acrylonitrile	ND	100
71-43-2	Benzene	ND	20
75-27-4	Bromodichloromethane	ND	20
75-25-2	Bromoform	ND	20
74-83-9	Bromomethane	ND	60
78-93-3	2-Butanone	ND	100
75-15-0	Carbon Disulfide	ND	20
56-23-5	Carbon Tetrachloride	ND	20
108-90-7	Chlorobenzene	ND	20
124-48-1	Chlorodibromomethane	ND	20
75-00-3	Chloroethane	ND	60
110-75-8	2-Chloroethyl Vinyl Ether	ND	100
67-66-3	Chloroform	ND	20
74-87-3	Chloromethane	ND	60
74-95-3	Dibromomethane	ND	20
110-56-5	1,4-Dichlorobutane	ND	20
75-71-8	Dichlorodifluoromethane	ND	20
75-34-3	1,1-Dichloroethane	ND	20
107-06-2	1,2-Dichloroethane	ND	20
75-35-4	1,1-Dichloroethene	ND	20
156-60-5	trans-1,2-Dichloroethene	ND	20
78-87-5	1,2-Dichloropropane	ND	20
10061-01-5	cis-1,3-Dichloropropene	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	20
64-17-5	Ethanol	ND	20
100-41-4	Ethylbenzene	310	20
97-63-2	Ethyl Methylacrylate	ND	20
591-78-6	2-Hexanone	ND	60
74-88-4	Iodomethane	ND	20
75-09-2	Methylene Chloride	ND	100
108-10-1	4-Methyl-2-Pentanone	ND	60

D.L. = Detection Limit
ND = Not Detected

SCS
ANALYTICAL
LABORATORY

Sample I.D.: Comp GW2-25 & GW2-30
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-88-3	Toluene	ND	20
71-55-6	1,1,1-Trichloroethane	ND	20
79-00-5	1,1,2-Trichloroethane	ND	20
79-01-6	Trichloroethene	ND	20
75-69-4	Trichlorofluoromethane	ND	20
96-18-4	1,2,3-Trichloropropane	ND	20
108-05-4	Vinyl Acetate	ND	60
75-01-4	Vinyl Chloride	ND	60
1330-20-7	m- and p-Xylenes	1000	20
95-47-6	o-Xylene	360	20
541-73-1	1,3-Dichlorobenzene	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 594-9321

Sample I.D.: Comp GW2-35 & GW2-40
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	100
107-02-8	Acrolein	ND	100
107-13-1	Acrylonitrile	ND	100
71-43-2	Benzene	ND	20
75-27-4	Bromodichloromethane	ND	20
75-25-2	Bromoform	ND	20
74-83-9	Bromomethane	ND	60
78-93-3	2-Butanone	ND	100
75-15-0	Carbon Disulfide	ND	20
56-23-5	Carbon Tetrachloride	ND	20
108-90-7	Chlorobenzene	ND	20
124-48-1	Chlorodibromomethane	ND	20
75-00-3	Chloroethane	ND	60
110-75-8	2-Chloroethyl Vinyl Ether	ND	100
67-66-3	Chloroform	ND	20
74-87-3	Chloromethane	ND	20
74-95-3	Dibromomethane	ND	20
110-56-5	1,4-Dichlorobutane	ND	20
75-71-8	Dichlorodifluoromethane	ND	20
75-34-3	1,1-Dichloroethane	ND	20
107-06-2	1,2-Dichloroethane	ND	20
75-35-4	1,1-Dichloroethene	ND	20
156-60-5	trans-1,2-Dichloroethene	ND	20
78-87-5	1,2-Dichloropropane	ND	20
10061-01-5	cis-1,3-Dichloropropene	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	20
64-17-5	Ethanol	ND	20
100-41-4	Ethylbenzene	180	20
97-63-2	Ethyl Methylacrylate	ND	20
591-78-6	2-Hexanone	ND	60
74-88-4	Iodomethane	ND	20
75-09-2	Methylene Chloride	ND	100
108-10-1	4-Methyl-2-Pentanone	ND	60

D.L. = Detection Limit
ND = Not Detected

SCS
ANALYTICAL
LABORATORY

Sample I.D.: Comp GW2-35 & GW2-40
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: [illegible].rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-88-3	Toluene	ND	20
71-55-6	1,1,1-Trichloroethane	ND	20
79-00-5	1,1,2-Trichloroethane	ND	20
79-01-6	Trichloroethene	ND	20
75-69-4	Trichlorofluoromethane	ND	20
96-18-4	1,2,3-Trichloropropane	ND	20
108-05-4	Vinyl Acetate	ND	60
75-01-4	Vinyl Chloride	ND	60
1330-20-7	m- and p-Xylenes	600	20
95-47-6	o-Xylene	230	20
541-73-1	1,3-Dichlorobenzene	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 GRANT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-7364

Sample I.D.: Comp GW3-5 & GW3-10
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	100
107-02-8	Acrolein	ND	100
107-13-1	Acrylonitrile	ND	100
71-43-2	Benzene	ND	20
75-27-4	Bromodichloromethane	ND	20
75-25-2	Bromoform	ND	20
74-83-9	Bromomethane	ND	60
78-93-3	2-Butanone	ND	100
75-15-0	Carbon Disulfide	ND	20
56-23-5	Carbon Tetrachloride	ND	20
108-90-7	Chlorobenzene	ND	20
124-48-1	Chlorodibromomethane	ND	20
75-00-3	Chloroethane	ND	60
110-75-8	2-Chloroethyl Vinyl Ether	ND	100
67-66-3	Chloroform	ND	20
74-87-3	Chloromethane	ND	60
74-95-3	Dibromomethane	ND	20
110-56-5	1,4-Dichlorobutane	ND	20
75-71-8	Dichlorodifluoromethane	ND	20
75-34-3	1,1-Dichloroethane	ND	20
107-06-2	1,2-Dichloroethane	ND	20
75-35-4	1,1-Dichloroethene	ND	20
156-60-5	trans-1,2-Dichloroethene	ND	20
78-87-5	1,2-Dichloropropane	ND	20
10061-01-5	cis-1,3-Dichloropropene	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	20
64-17-5	Ethanol	ND	20
100-41-4	Ethylbenzene	ND	20
97-63-2	Ethyl Methylacrylate	ND	20
591-78-6	2-Hexanone	ND	60
74-88-4	Iodomethane	ND	20
75-09-2	Methylene Chloride	ND	100
108-10-1	4-Methyl-2-Pentanone	ND	60

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2860 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90807
(213) 595-9124

Sample I.D.: Comp GW3-5 & GW3-10
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-88-3	Toluene	ND	20
71-55-6	1,1,1-Trichloroethane	ND	20
79-00-5	1,1,2-Trichloroethane	ND	20
79-01-6	Trichloroethene	ND	20
75-69-4	Trichlorofluoromethane	ND	20
96-18-4	1,2,3-Trichloropropane	ND	20
108-05-4	Vinyl Acetate	ND	60
75-01-4	Vinyl Chloride	ND	60
1330-20-7	m- and p-Xylenes	ND	20
95-47-6	o-Xylene	ND	20
541-73-1	1,3-Dichlorobenzene	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 WARDLOW AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9424

Sample I.D.: Comp GW3-15 & GW3-20
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	100
107-02-8	Acrolein	ND	100
107-13-1	Acrylonitrile	ND	100
71-43-2	Benzene	ND	20
75-27-4	Bromodichloromethane	ND	20
75-25-2	Bromoform	ND	20
74-83-9	Bromomethane	ND	60
78-93-3	2-Butanone	ND	100
75-15-0	Carbon Disulfide	ND	20
56-23-5	Carbon Tetrachloride	ND	20
108-90-7	Chlorobenzene	ND	20
124-48-1	Chlorodibromomethane	ND	20
75-00-3	Chloroethane	ND	20
110-75-8	2-Chloroethyl Vinyl Ether	ND	100
67-66-3	Chloroform	ND	20
74-87-3	Chloromethane	ND	60
74-95-3	Dibromomethane	ND	20
110-56-5	1,4-Dichlorobutane	ND	20
75-71-8	Dichlorodifluoromethane	ND	20
75-34-3	1,1-Dichloroethane	ND	20
107-06-2	1,2-Dichloroethane	ND	20
75-35-4	1,1-Dichloroethene	ND	20
156-60-5	trans-1,2-Dichloroethene	ND	20
78-87-5	1,2-Dichloropropane	ND	20
10061-01-5	cis-1,3-Dichloropropene	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	20
64-17-5	Ethanol	ND	20
100-41-4	Ethylbenzene	ND	20
97-63-2	Ethyl Methylacrylate	ND	20
591-78-6	2-Hexanone	ND	60
74-88-4	Iodomethane	ND	10
75-09-2	Methylene Chloride	ND	100
108-10-1	4-Methyl-2-Pentanone	ND	60

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9324

Sample I.D.: Comp GW3-15 & GW3-20
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result ----ug/kg(ppb)----	D.L.
100-42-5	Styrene	ND	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-88-3	Toluene	ND	20
71-55-6	1,1,1-Trichloroethane	ND	20
79-00-5	1,1,2-Trichloroethane	ND	20
79-01-6	Trichloroethene	ND	20
75-69-4	Trichlorofluoromethane	ND	20
96-18-4	1,2,3-Trichloropropane	ND	20
108-05-4	Vinyl Acetate	ND	60
75-01-4	Vinyl Chloride	ND	60
1330-20-7	m- and p-Xylenes	ND	20
95-47-6	o-Xylene	ND	20
541-73-1	1,3-Dichlorobenzene	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 WHITE AVENUE
LONG BEACH, CALIFORNIA 90813
(213) 597-9334

Sample I.D.: Comp GW3-25 & GW3-30
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	100
107-02-8	Acrolein	ND	100
107-13-1	Acrylonitrile	ND	100
71-43-2	Benzene	ND	20
75-27-4	Bromodichloromethane	ND	20
75-25-2	Bromoform	ND	20
74-83-9	Bromomethane	ND	60
78-93-3	2-Butanone	ND	100
75-15-0	Carbon Disulfide	ND	20
56-23-5	Carbon Tetrachloride	ND	20
108-90-7	Chlorobenzene	ND	20
124-48-1	Chlorodibromomethane	ND	20
75-00-3	Chloroethane	ND	60
110-75-8	2-Chloroethyl Vinyl Ether	ND	100
67-66-3	Chloroform	ND	20
74-87-3	Chloromethane	ND	60
74-95-3	Dibromomethane	ND	20
110-56-5	1,4-Dichlorobutane	ND	20
75-71-8	Dichlorodifluoromethane	ND	20
75-34-3	1,1-Dichloroethane	ND	20
107-06-2	1,2-Dichloroethane	ND	20
75-35-4	1,1-Dichloroethene	ND	20
156-60-5	trans-1,2-Dichloroethene	ND	20
78-87-5	1,2-Dichloropropane	ND	20
10061-01-5	cis-1,3-Dichloropropene	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	20
64-17-5	Ethanol	ND	20
100-41-4	Ethylbenzene	ND	20
97-63-2	Ethyl Methylacrylate	ND	20
591-78-6	2-Hexanone	ND	60
74-88-4	Iodomethane	ND	20
75-09-2	Methylene Chloride	ND	100
108-10-1	4-Methyl-2-Pentanone	ND	60

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 WALNUT AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 599-9129

Sample I.D.: Comp GW3-25 & GW3-30
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-88-3	Toluene	ND	20
71-55-6	1,1,1-Trichloroethane	ND	20
79-00-5	1,1,2-Trichloroethane	ND	20
79-01-6	Trichloroethene	ND	20
75-69-4	Trichlorofluoromethane	ND	20
96-18-4	1,2,3-Trichloropropane	ND	20
108-05-4	Vinyl Acetate	ND	60
75-01-4	Vinyl Chloride	ND	60
1330-20-7	m- and p-Xylenes	ND	20
95-47-6	o-Xylene	ND	20
541-73-1	1,3-Dichlorobenzene	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
LONG BEACH CALIFORNIA

Sample I.D.: Comp GW3-35 & GW3-40
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: .rep

CAS #	Compound	Result ----ug/kg(ppb)----	D.L.
67-64-1	Acetone	ND	100
107-02-8	Acrolein	ND	100
107-13-1	Acrylonitrile	ND	100
71-43-2	Benzene	ND	20
75-27-4	Bromodichloromethane	ND	20
75-25-2	Bromoform	ND	20
74-83-9	Bromomethane	ND	60
78-93-3	2-Butanone	ND	100
75-15-0	Carbon Disulfide	ND	20
56-23-5	Carbon Tetrachloride	ND	20
108-90-7	Chlorobenzene	ND	20
124-48-1	Chlorodibromomethane	ND	20
75-00-3	Chloroethane	ND	60
110-75-8	2-Chloroethyl Vinyl Ether	ND	100
67-66-3	Chloroform	ND	20
74-87-3	Chloromethane	ND	60
74-95-3	Dibromomethane	ND	20
110-56-5	1,4-Dichlorobutane	ND	20
75-71-8	Dichlorodifluoromethane	ND	20
75-34-3	1,1-Dichloroethane	ND	20
107-06-2	1,2-Dichloroethane	ND	20
75-35-4	1,1-Dichloroethene	ND	20
156-60-5	trans-1,2-Dichloroethene	ND	20
78-87-5	1,2-Dichloropropane	ND	20
10061-01-5	cis-1,3-Dichloropropene	ND	20
10061-02-6	trans-1,3-Dichloropropene	ND	20
64-17-5	Ethanol	ND	20
100-41-4	Ethylbenzene	ND	20
97-63-2	Ethyl Methylacrylate	ND	20
591-78-6	2-Hexanone	ND	60
74-88-4	Iodomethane	ND	20
75-09-2	Methylene Chloride	ND	100
108-10-1	4-Methyl-2-Pentanone	ND	60

D.L. = Detection Limit
ND = Not Detected

SCS ANALYTICAL LABORATORY
2960 MAGNOLIA AVENUE
LONG BEACH, CALIFORNIA 90806
(213) 595-9353

Sample I.D.: Comp GW3-35 & GW3-40
Date Received: 8/8/88
Date Analyzed: 8/15/88
Matrix: Soil
Project #: 38809.01
File #: rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	20
127-18-4	Tetrachloroethene	ND	20
108-88-3	Toluene	ND	20
71-55-6	1,1,1-Trichloroethane	ND	20
79-00-5	1,1,2-Trichloroethane	ND	20
79-01-6	Trichloroethene	ND	20
75-69-4	Trichlorofluoromethane	ND	20
96-18-4	1,2,3-Trichloropropane	ND	20
108-05-4	Vinyl Acetate	ND	60
75-01-4	Vinyl Chloride	ND	60
1330-20-7	m- and p-Xylenes	210	20
95-47-6	o-Xylene	ND	20
541-73-1	1,3-Dichlorobenzene	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

D.L. = Detection Limit
ND = Not Detected

ANAMETRIX, INC.
LABORATORY SERVICES
ENVIRONMENTAL • ANALYTICAL CHEMISTRY
1961 CONCOURSE DRIVE, SUITE E • SAN JOSE, CA 95131 • (408) 432-8192

Brian Mcginnis
SCS Enginnering
6761 Sierra Ct., Ste. D
Dublin, CA 94568

August 12, 1988
Work Order Number 8808063
Date Received 08/09/88
Project No. 38809.01

Dear Mr. McGinnis:

Three water samples were received for analysis of volatiles by GC/MS, using the following EPA method(s):

ANAMETRIX I.D.	SAMPLE I.D.	METHOD(S)
8808063-01	38809.01 GW-1	624
-02	" GW-2	"
-03	" GW-3	"

RESULTS

See enclosed data sheets, Pages 2 thru 4.

EXTRA COMPOUNDS

None detected.

QUALITY ASSURANCE REPORTS

See enclosed data sheets, Pages 5.

If there is any more that we can do, please give us a call. Thank you for using ANAMETRIX, INC.

Sincerely,

Corinne Pham

Corinne Pham
GC/MS Chemist

CP/lm

ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: 38809.01 GW-1	Anametrix I.D.	: 8808063-01
Matrix	: WATER	Analyst	: TC
Date sampled	: 08-08-88	Supervisor	: CP
Date analyzed	: 08-12-88	Date released	: 08-12-88
Dilut. factor	: 5	Instrument ID	: F1

CAS #	Compound Name	Reporting Limit (ug/l)	Amount Found (ug/l)
74-87-3	* Chloromethane	50	BRL
75-01-4	* Vinyl Chloride	50	BRL
74-83-9	* Bromomethane	50	BRL
75-00-3	* Chloroethane	50	BRL
75-69-4	* Trichlorofluoromethane	25	BRL
75-35-4	* 1,1-Dichloroethene	25	140
76-13-1	# Trichlorotrifluoroethane	25	BRL
67-64-1	**Acetone	100	BRL
75-15-0	**Carbondisulfide	25	BRL
75-09-2	* Methylene Chloride	25	BRL
156-60-5	* Trans-1,2-Dichloroethene	25	BRL
75-34-3	* 1,1-Dichloroethane	25	BRL
78-93-3	**2-Butanone	100	BRL
156-59-2	* Cis-1,2-Dichloroethene	25	BRL
67-66-3	* Chloroform	25	BRL
71-55-6	* 1,1,1-Trichloroethane	25	820
56-23-5	* Carbon Tetrachloride	25	BRL
71-43-2	* Benzene	25	BRL
107-06-2	* 1,2-Dichloroethane	25	BRL
79-01-6	* Trichloroethene	25	93
78-87-5	* 1,2-Dichloropropane	25	BRL
75-27-4	* Bromodichloromethane	25	BRL
110-75-8	* 2-Chloroethylvinylether	25	BRL
108-05-4	**Vinyl Acetate	50	BRL
10061-02-6	* Trans-1,3-Dichloropropene	25	BRL
108-10-1	**4-Methyl-2-Pentanone	50	BRL
108-88-3	* Toluene	25	BRL
10061-01-5	* cis-1,3-Dichloropropene	25	BRL
79-00-5	* 1,1,2-Trichloroethane	25	BRL
127-18-4	* Tetrachloroethene	25	BRL
591-78-6	**2-Hexanone	50	BRL
124-48-1	* Dibromochloromethane	25	BRL
108-90-7	* Chlorobenzene	25	BRL
100-41-4	* Ethylbenzene	25	BRL
1330-20-7	**Total Xylenes	25	BRL
100-42-5	**Styrene	25	BRL
75-25-2	* Bromoform	25	BRL
79-34-5	* 1,1,2,2-Tetrachloroethane	25	BRL
541-73-1	* 1,3-Dichlorobenzene	25	BRL
106-46-7	* 1,4-Dichlorobenzene	25	BRL
95-50-1	* 1,2-Dichlorobenzene	25	BRL

CAS #	Surrogate Compounds	Limits	% Recovery
17060-07-0	1,2-Dichloroethane-d4	84-132%	110%
2037-26-5	Toluene-d8	85-124%	112%
460-00-4	p-Bromofluorobenzene	74-116%	86%

* A Method 624 priority pollutant compound (Federal Register, 10/26/84)
** A compound on the U.S. EPA CLP Hazardous Substance List (HSL)
# A compound added by Anametrix, Inc. BRL : Below reporting limit.

ORGANIC ANALYSIS DATA SHEET - EPA METHOD 624/8240

ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 38809.01 GW-2
Matrix : WATER
Date sampled : 08-08-88
Date analyzed: 08-12-88
Dilut. factor: NONE

Anametrix I.D. : 8808063-02
Analyst : TS
Supervisor : CP
Date released : 08-12-88
Instrument ID : F1

CAS #	Compound Name	Reporting Limit (ug/l)	Amount Found (ug/l)
74-87-3	* Chloromethane	10	BRL
75-01-4	* Vinyl Chloride	10	BRL
74-83-9	* Bromomethane	10	BRL
75-00-3	* Chloroethane	10	BRL
75-69-4	* Trichlorofluoromethane	5	BRL
75-35-4	* 1,1-Dichloroethene	5	BRL
76-13-1	# Trichlorotrifluoroethane	5	BRL
67-64-1	**Acetone	20	BRL
75-15-0	**Carbondisulfide	5	BRL
75-09-2	* Methylene Chloride	5	BRL
156-60-5	* Trans-1,2-Dichloroethene	5	BRL
75-34-3	* 1,1-Dichloroethane	5	BRL
78-93-3	**2-Butanone	20	BRL
156-59-2	* Cis-1,2-Dichloroethene	5	BRL
67-66-3	* Chloroform	5	BRL
71-55-6	* 1,1,1-Trichloroethane	5	BRL
56-23-5	* Carbon Tetrachloride	5	BRL
71-43-2	* Benzene	5	BRL
107-06-2	* 1,2-Dichloroethane	5	BRL
79-01-6	* Trichloroethene	5	8
78-87-5	* 1,2-Dichloropropane	5	BRL
75-27-4	* Bromodichloromethane	5	BRL
110-75-8	* 2-Chloroethylvinylether	5	BRL
108-05-4	**Vinyl Acetate	10	BRL
10061-02-6	* Trans-1,3-Dichloropropene	5	BRL
108-10-1	**4-Methyl-2-Pentanone	10	BRL
108-88-3	* Toluene	5	BRL
10061-01-5	* cis-1,3-Dichloropropene	5	BRL
79-00-5	* 1,1,2-Trichloroethane	5	BRL
127-18-4	* Tetrachloroethene	5	BRL
591-78-6	**2-Hexanone	10	BRL
124-48-1	* Dibromochloromethane	5	BRL
108-90-7	* Chlorobenzene	5	BRL
100-41-4	* Ethylbenzene	5	BRL
1330-20-7	**Total Xylenes	5	BRL
100-42-5	**Styrene	5	BRL
75-25-2	* Bromoform	5	BRL
79-34-5	* 1,1,2,2-Tetrachloroethane	5	BRL
541-73-1	* 1,3-Dichlorobenzene	5	BRL
106-46-7	* 1,4-Dichlorobenzene	5	BRL
95-50-1	* 1,2-Dichlorobenzene	5	BRL

CAS #	Surrogate Compounds	Limits	% Recovery
17060-07-0	1,2-Dichloroethane-d4	84-132%	102%
2037-26-5	Toluene-d8	85-124%	109%
460-00-4	p-Bromofluorobenzene	74-116%	90%

* A Method 624 priority pollutant compound (Federal Register, 10/26/84)
** A compound on the U.S. EPA CLP Hazardous Substance List (HSL)
= A compound added by Anametrix, Inc. BRL : Below reporting limit.

Sample I.D. : 38809.01 GW-3
Matrix : WATER
Date sampled : 08-09-88
Date analyzed: 08-12-88
Dilut. factor: NONE

Anametrix I.D. : 8808063-03
Analyst : TC
Supervisor : CP
Date released : 08-12-88
Instrument ID : F1

CAS #	Compound Name	Reporting Limit (ug/l)	Amount Found (ug/l)
74-87-3	* Chloromethane	10	BRL
75-01-4	* Vinyl Chloride	10	BRL
74-83-9	* Bromomethane	10	BRL
75-00-3	* Chloroethane	10	BRL
75-69-4	* Trichlorofluoromethane	5	BRL
75-35-4	* 1,1-Dichloroethene	5	BRL
76-13-1	# Trichlorotrifluoroethane	5	BRL
67-64-1	**Acetone	20	BRL
75-15-0	**Carbondisulfide	5	BRL
75-09-2	* Methylene Chloride	5	BRL
156-60-5	* Trans-1,2-Dichloroethene	5	BRL
75-34-3	* 1,1-Dichloroethane	5	BRL
78-93-3	**2-Butanone	20	BRL
156-59-2	* Cis-1,2-Dichloroethene	5	BRL
67-66-3	* Chloroform	5	5
71-55-6	* 1,1,1-Trichloroethane	5	BRL
56-23-5	* Carbon Tetrachloride	5	BRL
71-43-2	* Benzene	5	BRL
107-06-2	* 1,2-Dichloroethane	5	BRL
79-01-6	* Trichloroethene	5	12
78-87-5	* 1,2-Dichloropropane	5	BRL
75-27-4	* Bromodichloromethane	5	BRL
110-75-8	* 2-Chloroethylvinylether	5	BRL
108-05-4	**Vinyl Acetate	10	BRL
10061-02-6	* Trans-1,3-Dichloropropene	5	BRL
108-10-1	**4-Methyl-2-Pentanone	10	BRL
108-88-3	* Toluene	5	BRL
10061-01-5	* cis-1,3-Dichloropropene	5	BRL
79-00-5	* 1,1,2-Trichloroethane	5	BRL
127-18-4	* Tetrachloroethene	5	BRL
591-78-6	**2-Hexanone	10	BRL
124-48-1	* Dibromochloromethane	5	BRL
108-90-7	* Chlorobenzene	5	BRL
100-41-4	* Ethylbenzene	5	BRL
1330-20-7	**Total Xylenes	5	BRL
100-42-5	**Styrene	5	BRL
75-25-2	* Bromoform	5	BRL
79-34-5	* 1,1,2,2-Tetrachloroethane	5	BRL
541-73-1	* 1,3-Dichlorobenzene	5	BRL
106-46-7	* 1,4-Dichlorobenzene	5	BRL
95-50-1	* 1,2-Dichlorobenzene	5	BRL

CAS #	Surrogate Compounds	Limits	% Recovery
17060-07-0	1,2-Dichloroethane-d4	84-132%	104%
2037-26-5	Toluene-d8	85-124%	111%
460-00-4	p-Bromofluorobenzene	74-116%	89%

* A Method 624 priority pollutant compound (Federal Register, 10/26/84)
** A compound on the U.S. EPA CLP Hazardous Substance List (HSL)
\# A compound added by Anametrix, Inc. BRL : Below reporting limit.

ANAMETRIX, INC. (408) 432-8192

Sample I.D. : METHOD BLANK
Matrix : WATER
Date sampled : NA
Date analyzed: 08-12-88
Dilut. factor: NONE

Anametrix I.D. : 1CB0812V000
Analyst : TC
Supervisor : CP
Date released : 08-12-88
Instrument ID : F1

CAS #	Compound Name	Reporting Limit (ug/l)	Amount Found (ug/l)
74-87-3	* Chloromethane	10	BRL
75-01-4	* Vinyl Chloride	10	BRL
74-83-9	* Bromomethane	10	BRL
75-00-3	* Chloroethane	10	BRL
75-69-4	* Trichlorofluoromethane	5	BRL
75-35-4	* 1,1-Dichloroethene	5	BRL
76-13-1	# Trichlorotrifluoroethane	5	BRL
67-64-1	**Acetone	20	BRL
75-15-0	**Carbondisulfide	5	BRL
75-09-2	* Methylene Chloride	5	BRL
156-60-5	* Trans-1,2-Dichloroethene	5	BRL
75-34-3	* 1,1-Dichloroethane	5	BRL
78-93-3	**2-Butanone	20	BRL
156-59-2	* Cis-1,2-Dichloroethene	5	BRL
67-66-3	* Chloroform	5	BRL
71-55-6	* 1,1,1-Trichloroethane	5	BRL
56-23-5	* Carbon Tetrachloride	5	BRL
71-43-2	* Benzene	5	BRL
107-06-2	* 1,2-Dichloroethane	5	BRL
79-01-6	* Trichloroethene	5	BRL
78-87-5	* 1,2-Dichloropropane	5	BRL
75-27-4	* Bromodichloromethane	5	BRL
110-75-8	* 2-Chloroethylvinylether	5	BRL
108-05-4	**Vinyl Acetate	10	BRL
10061-02-6	* Trans-1,3-Dichloropropene	5	BRL
108-10-1	**4-Methyl-2-Pentanone	10	BRL
108-88-3	* Toluene	5	BRL
10061-01-5	* cis-1,3-Dichloropropene	5	BRL
79-00-5	* 1,1,2-Trichloroethane	5	BRL
127-18-4	* Tetrachloroethene	5	BRL
591-78-6	**2-Hexanone	10	BRL
124-48-1	* Dibromochloromethane	5	BRL
108-90-7	* Chlorobenzene	5	BRL
100-41-4	* Ethylbenzene	5	BRL
1330-20-7	**Total Xylenes	5	BRL
100-42-5	**Styrene	5	BRL
75-25-2	* Bromoform	5	BRL
79-34-5	* 1,1,2,2-Tetrachloroethane	5	BRL
541-73-1	* 1,3-Dichlorobenzene	5	BRL
106-46-7	* 1,4-Dichlorobenzene	5	BRL
95-50-1	* 1,2-Dichlorobenzene	5	BRL

CAS #	Surrogate Compounds	Limits	% Recovery
17060-07-0	1,2-Dichloroethane-d4	84-132%	99%
2037-26-5	Toluene-d8	85-124%	119%
460-00-4	p-Bromofluorobenzene	74-116%	96%

* A Method 624 priority pollutant compound (Federal Register, 10/26/84)
** A compound on the U.S. EPA CLP Hazardous Substance List (HSL)
# A compound added by Anametrix, Inc. BRL : Below reporting limit.

APPENDIX E

Copy of Letter from RWQCB to Lincoln Cannery Court Regarding Chlorinated VOCs in Groundwater, dated 16 January 1996

STATE OF CALIFORNIA -- CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, Suite 500
OAKLAND, CA 94612
Tel: (510) 286-1255
FAX: (510) 286-1380
BBS: (510) 286-0404

011896

January 16, 1996
File No. 01-0911 (SIM)

Mr. Cyrus Colburn III
Lincoln Property Company N.C., Inc.
101 Lincoln Centre Drive
Foster City, CA 94404

Subject: Concurrence With Your August 21, 1995, Proposal to Abandon On-Site Monitoring Wells at 21 & 24 Cannery Court, Hayward

Board staff has recently completed the review and evaluation of your proposal dated August 21, 1995, regarding the abandonment of certain monitoring wells on the above property. My apologies for the delay. We concur with your proposal to abandon the monitoring wells since it appears that the sources of pollution originate off-site.

We also concur with your proposal to retain the four specified monitoring wells on-site for future groundwater assessment. You are requested to submit a work plan (attention: Eddy So) detailing the procedures and schedule for the proper abandonment of all the other wells. We request that your workplan also indicate how the remaining wells will be kept in good condition, your security plan to protect the wells from unauthorized access (e.g. padlocks, etc.), and information on how these wells will be protected during possible future site development.

Please contact Eddy So at (510) 286-4866 if you have any questions.

Sincerely,

Loretta K. Barsamian
Executive Officer

Stephen I. Morse, Chief
Toxics Cleanup Division

cc: Hugh Murphy, HFD

Carey Peabody, EKI
So. Amphlett Blvd., Ste 320
San Mateo, CA 94402